

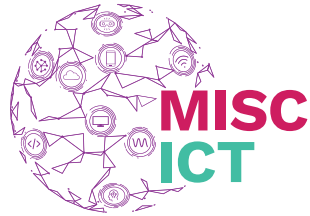


BIICE

**Brunei ICT Industry
Competency Framework**

Second Edition

An initiative by



Supported by

مجلس فرائض تنانك مانسني دان فكرجان
MAJLIS PERANCANGAN TENAGA MANUSIA DAN PEKERJAAN

BIICEF

Brunei ICT Industry Competency Framework

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Message from The Co-Leads of MISC-WG ICT



Haji Jailani bin Haji Buntar
Chief Executive
Authority for
Infocommunications
Technology Industry of Brunei
Darussalam (AITI)
As Co-Lead of MISC-WG ICT



**Pengiran Sarimah binti Pengiran Haji
Abdul Latif**
Infocom Federation Brunei (IFB)
Chairwoman
As Co-Lead of MISC-WG ICT
(May 2022 – Present)

Alhamdulillah, as the Co-Leads of the Manpower Industry Steering Committee Working Group for the ICT Sector (MISC-WG ICT), it is our great privilege to present the updated 2026 edition of the Brunei ICT Industry Competency Framework (BIICF), incorporating the critical advancements of this phase.

When the BIICF was first established in 2022, it served as a vital cornerstone to standardize industry competencies, clarify job expectations, and align our local talent supply with the immediate demands of the digital economy. However, the technology sector is inherently dynamic. In recent years, we have witnessed a profound paradigm shift. Technologies that were once emerging—such as Artificial Intelligence (AI), advanced cloud infrastructure, and proactive cybersecurity—have rapidly matured to become the core engines driving everyday business operations and critical national infrastructure.

To ensure our workforce remains agile and globally competitive, a competency framework cannot remain static; it must be a living document that anticipates the future. This 2026 update represents a strategic evolution of the BIICF. By incorporating 19 additional specialised job roles, the revised framework strengthens its focus on next-generation disciplines. These roles have been meticulously curated to support Brunei Darussalam's

most vital digitalisation efforts, from securing the National Government Cloud to operationalizing AI within our public services and enterprises.

Aligned with international best practices, including the Skills Framework for the Information Age (SFIA) Version 9, this expanded framework serves a deeply practical purpose. For our ICT professionals and students, it provides a clear, actionable blueprint to navigate sustainable, high-value career pathways. For employers, it offers a standardized matrix to identify skills gaps and build resilient, future-proof teams. And for our educational and training institutions, it acts as a compass to design curriculums that directly answer the evolving call of the industry—ensuring our graduates possess the precise, practical skill sets that businesses urgently require.

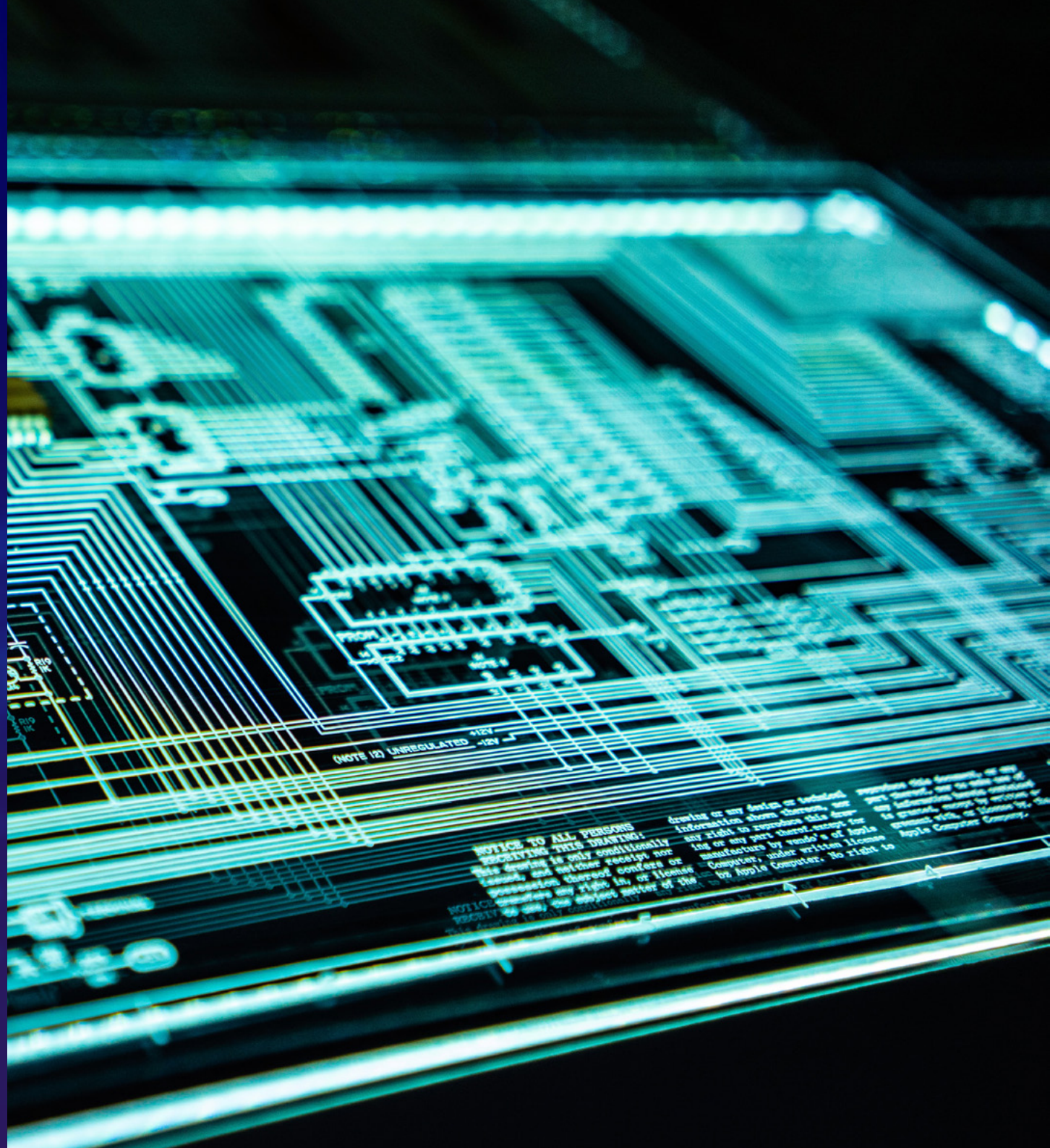
The continued enhancement of the BIICF is a testament to the power of the “Whole-of-Nation” approach. We would like to extend our deepest gratitude to the Manpower Planning and Employment Council (MPEC) and the Manpower Industry Steering Committee (MISC) for their visionary guidance. We also offer our sincere appreciation to the members of the Manpower Industry Steering Committee Working Group for the ICT Sector (MISC-WG ICT), Brunei ICT Industry Competency Framework (BIICF)

Working Group, and all the dedicated industry experts, government representatives, and academic leaders who contributed their time and expertise to this consultation process.

As we advance toward the goals of Wawasan Brunei 2035 and our Digital Brunei 2030, human capital remains our most valuable asset. We strongly encourage all ICT professionals, employers, and training providers to actively adopt the BIICF. Together, we can cultivate a highly skilled, adaptable, and innovative workforce ready to drive Brunei Darussalam's digital transformation agenda.

Introduction

The global economic landscape is undergoing an unprecedented shift, propelled by the relentless evolution of Information and Communications Technologies (ICT). Today, technologies such as Artificial Intelligence (AI), machine learning, and advanced automation are actively redefining the core of business operations and reshaping global consumer behaviours. As a result, the digital economy is now the primary engine driving modern production, consumption, and innovation.



Building upon the robust foundations laid by the Digital Economy Masterplan 2025, Brunei Darussalam has successfully cultivated a vibrant digital ecosystem to advance our Smart Nation agenda. To navigate this dynamic landscape, the Manpower Industry Steering Committee (MISC) was established under the Manpower Planning and Employment Council (MPEC). Functioning as a collaborative platform between industry regulators and representatives, as well as education and training institutions, the MISC ensures that the national manpower supply aligns with the agile demands of the modern economy. Leading this for the ICT Sector in Brunei Darussalam is the MISC Working Group for the ICT sector (MISC-WG ICT).

The Brunei ICT Industry Competency Framework (BIICF) stands as a cornerstone initiative of the MISC-WG ICT. It serves as a comprehensive, national guide articulating the core competencies, professional certifications, and technical pathways required for ICT professionals to thrive. Covering various job levels across both technical and managerial domains, the framework provides a critical reference for employers, training providers, academia, and the professionals themselves.

Designed as a dynamic 'living document,' the BIICF moves beyond the limitations of rigid career mapping. As the ICT sector undergoes continuous and rapid transformation, the framework is intended to undergo periodic updates. This iterative approach ensures that the competency standards reflect the most current industry realities, allowing educational institutions and businesses to seamlessly adapt their curriculum and workforce development strategies to meet evolving demands.

The first version of the BIICF was developed and published in 2022 to address the job and competency requirements for 20 job roles that were identified, based on the insights from the ICT Manpower Survey 2020 conducted across both ICT and non-ICT sectors. In this version, BIICF adds another 19 job roles that have been identified within the same sub-sectors in the context of Brunei ICT Industry. As we move ahead with developments in ICT, the next iteration will strategically incorporate a dedicated focus on "Emerging Job Roles." By proactively capturing next-generation, AI-influenced skills and disciplines, the framework moves beyond traditional, business-as-usual IT functions. This forward-looking pivot ensures that Brunei's ICT workforce remains highly agile, competitive, and future-ready as technology shifts, empowering local talent to lead in the period of emerging technologies such as AI.

ICT and Digital Transformation

Digital transformation has evolved far beyond the mere adoption of new software; it is now the seamless integration of Artificial Intelligence (AI), intelligent automation, and advanced data analytics into the very core of business operations and day-to-day life. This continuous evolution reshapes organisational culture, redefines customer experiences, and establishes entirely new paradigms for value creation in a borderless, digital-first economy.

The proliferation of next-generation ICT as the primary catalyst for this transformation has fundamentally altered structural roles within the industry and the broader end-user environment. As intelligent systems drive unprecedented levels of productivity and innovation, the expectations placed upon ICT professionals have expanded significantly. Today's technologists must possess a sophisticated hybrid skill set—combining deep, specialised technical expertise with agile soft skills such as analytical thinking, intelligent reasoning, stakeholder management, and strategic communication to effectively deliver complex solutions.

In this rapidly shifting landscape, we are actively redefining our perspective on professional trajectories. The traditional view of static career progression is being replaced by an emphasis on continuous growth through diverse experiences, industry exposure, and lifelong learning. As digital transformation continues to dictate how our communities interact and how global businesses operate, our workforce must remain adaptable, innovative, and fully prepared to participate in this intelligent era.

Digital transformation has evolved far beyond the mere adoption of new software; it is now the seamless integration of Artificial Intelligence (AI), intelligent automation, and advanced data analytics into the very core of business operations and day-to-day life.





Digital Skills Landscape

Digital transformation driven by the fast pace of changes in the ICT landscape impacts the work environment. The key changes are as shown.



Nature of work changed by the rapid and widespread digitalisation



The need for soft skills to facilitate employee adaptation to changing work environment



Addressing digital skills gaps comes at a cost



Increasing demand for digital skills by employers but the supply is low

Drivers of Digital Skills Gap

The following are the key drivers of the digital skills gap. Timely intervention in developing the right skills helps organisations to reduce the negative impact of the skills gap.



Digitalisation and the application of emerging technologies accelerate the demand for digital skills



Digital and social inequalities affect opportunities to develop digital skills



Traditional modes of education and training may not be keeping up with industry needs for digital skills



Leveraging digital transformation to enable sustainable business, economic and social development.

Background

The Brunei ICT Industry Competency Framework (BIICF) has been developed in close collaborative partnership with the ICT industry, government agencies, and academia. It serves as a national reference tool, empowering employers, professionals, and academic and training institutions to seamlessly align workforce capabilities with the rapidly evolving demands of the digital economy.



To ensure the framework maintains a robust, highly competitive, and globally relevant benchmark for 2026, the development process underwent a rigorous validation exercise. The competencies and job descriptions have been carefully evaluated and mapped against premier international standards. This includes strategic alignment with the latest Skills Framework for the Information Age (SFIA Version 9), the Singapore Skills Framework for Infocomm Technology, the Malaysian Skills Competency Matrix, and the Japan i-Competency Dictionary. This comprehensive benchmarking guarantees that Brunei's ICT talent standards reflect the absolute best practices of the global technology landscape.

Since its initial publication in 2022, the digital technology sector has rapidly matured; the Artificial Intelligence (AI) and advanced data capabilities identified then have now become the primary engines driving everyday business operations. To address these shifts, this updated 2026 edition expands the framework by strategically adding 19 highly specialised job roles. These essential additions successfully complete the comprehensive career pathways indicated within each of the six core ICT sub-sectors, perfectly bridging foundational IT roles with next-generation, emerging disciplines.

Recognising the unprecedented pace of technological disruption today, the BIICF Working Group actively curates the framework. Even as this current 2026 update is published, the BIICF Working Group committee is already engaged in forecasting and evaluating the next wave of emerging tech roles to be integrated in the near future. This proactive approach ensures that the Bruneian workforce remains perpetually agile, competitive, and future-ready.

Values of BIICF

The Brunei ICT Industry Competency Framework (BIICF) delivers strategic, tangible value across the entire digital ecosystem. By establishing a unified national standard, it empowers various stakeholders to navigate the future of work:

Employers and Businesses

- ▶ **Strategic Workforce Planning:** Provides a standardised, future-ready blueprint for organisational design, talent attraction, and succession planning.
- ▶ **Targeted Talent Development:** Enables precise skills gap analysis , allowing businesses to invest their training budgets into high-impact, emerging technology competencies.
- ▶ **Performance Optimisation:** Offers clear benchmarks to seamlessly incorporate into corporate performance management systems, aligning employee growth with the company's digital transformation goals.



Academia and Training Providers

- ▶ **Industry-Aligned Curriculums:** Acts as a direct pulse on current industry needs, ensuring academic programmes and training modules are teaching the agile skills employers actually require today.
- ▶ **High-Value Certifications:** Provides clarity on the most relevant micro-credentials and professional certifications, bridging the gap between theoretical knowledge and industry readiness.



ICT Professionals

- ▷ Dynamic Career Pathways: Delivers clear visibility into evolving market expectations and diverse career trajectories, including transitioning into highly sought-after AI and data roles.
- ▷ Empowered Professional Growth: Allows individuals to take ownership of their development by highlighting the specific technical and soft skills required to elevate their performance and market value.



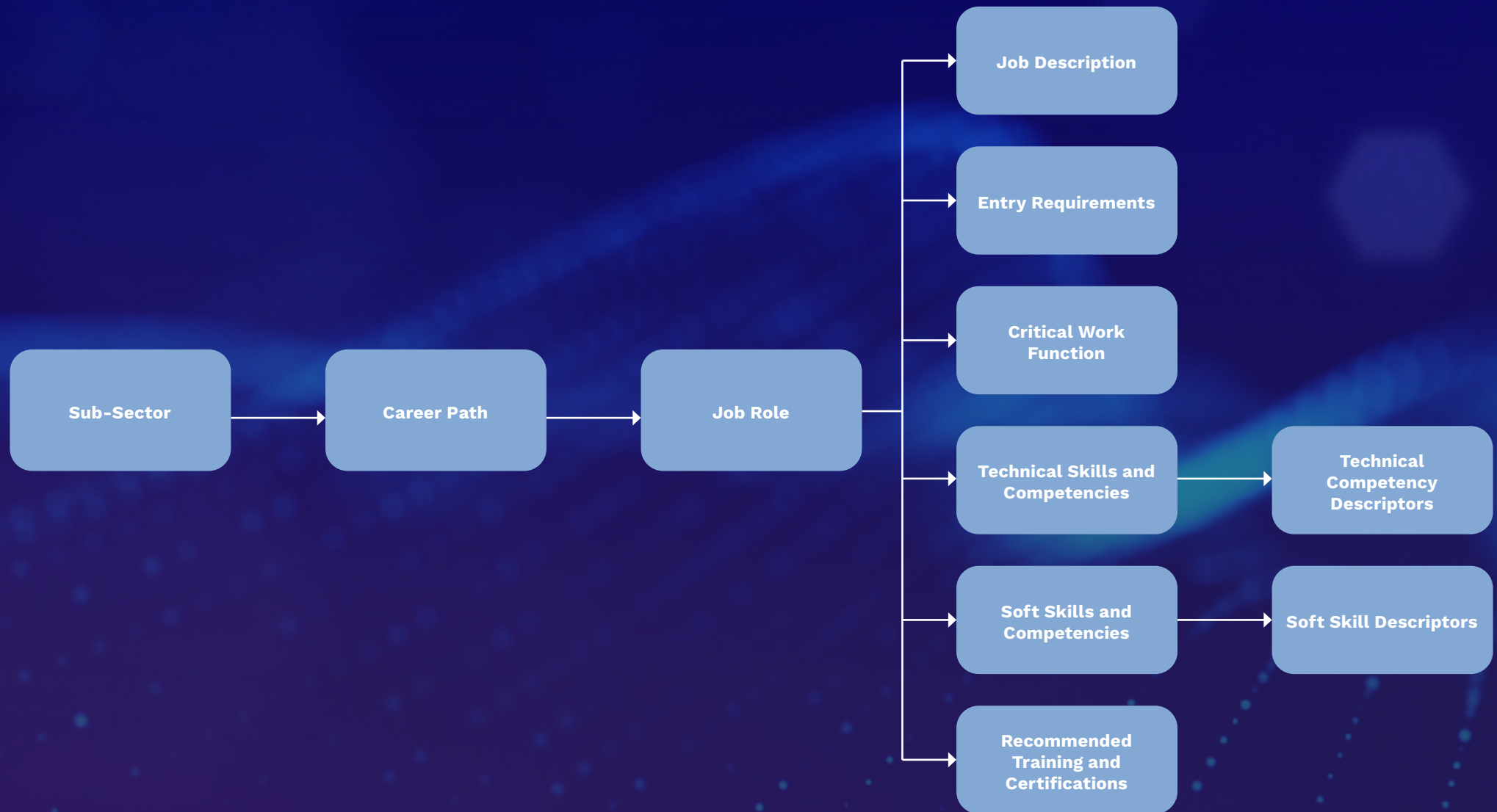
Students and the Next-Generation Workforce

- ▷ Clarity and Direction: Offers direct insight into the realities of modern ICT job prospects, helping students navigate away from obsolete roles and toward future-proof careers.
- ▷ Strategic Course Planning: Serves as a navigational guide for selecting majors, specialisations, and early professional certifications that will maximise their employability in a digital-first economy.



The Framework

The following section comprises the detailed components of the BIICF competency structure. It covers the common industry nomenclature and provides insight on the core technical and soft skill competencies required by the specific job role.



Structure and Components of the BIICF

No	Component of the BIICF	Description
1	Job Title	Name of the job role
2	Alternate Job Title	Alternative or other names for similar job role
3	Sub-Sector	Name of the common sub-sector of the job role
4	Functional Group	Name of the main job areas or functions
5	Job Family	Name of the specific job roles within the function
6	Job Level	Common job level in the company or organisation ie. Entrant, Specialist, Expert/Management, Senior Management
7	Job Description	Common list of key duties and responsibilities for the job role
8	Critical Work Function	Common job activities or task performed by the job holders
9	Entry Requirements	Minimum educational qualification based on the Brunei Darussalam Qualifications Framework (BDQF) ¹ required to hold this position
10	Technical Skills and Competencies	List of required technical skills and competencies and expected proficiency levels
11	Soft Skills and Competencies	List of required soft skills and competencies and expected proficiency levels
12	Trainings / Professional Certifications	List of recommended training and professional certifications for the job role
13	Technical Competency Descriptors	Description of each technical competency and proficiency level
14	Soft Skill Descriptors	Description of each soft skill and proficiency level

¹ Refer to Annex 1: Brunei Darussalam Qualifications Framework (BDQF)

Technical Skills Proficiency Description

Proficiency Level 1

Follow

Demonstrates introductory understanding and ability and, with guidance, applies the competency in a few simple situations.

Proficiency Level 2

Assist

Demonstrates basic knowledge and ability and, with guidance, can apply the competency in common situations that present limited difficulties.

Proficiency Level 3

Apply

Demonstrates solid knowledge and ability and can apply the competency with minimal or no guidance in the full range of typical situations. Would require guidance to handle novel or more complex situations.

Proficiency Level 4

Ensure

Demonstrates advanced knowledge and ability and can apply the competency in new or complex situations. Guides other professionals.

Proficiency Level 5

Strategise

Demonstrates expert knowledge and ability and can apply the competency in the most complex situations. Develops new approaches, methods, or policies in the area. Is recognised as an expert, internally and/or externally. Leads the guidance of other professionals.

Soft Skills Proficiency Description

Proficiency Level 1

Basic

Foundational understanding of the competency, usage in the business context to achieve the right results.

Proficiency Level 2

Intermediate

Moderate understanding on the competency and have the necessary business acumen to use it in a broader context.

Proficiency Level 3

Advanced

Strong understanding on the competency, knows the context on where and how to use it to achieve the expected results.

Proficiency Level 4

Expert

Have the necessary expertise on the competency, able to use in a strategic context and assist others to use it efficiently.

Sub-Sector Coverage

The BIIICF Working Group has identified six sub-sectors to focus on in Brunei Darussalam's ICT industry context.

Based on the Manpower Survey 2020 for the ICT and non-ICT businesses, as well as the engagement sessions held with the industry, a total of 40 job roles are identified in the career path of the 6 sub-sectors; 20 of them completed in 2023 and **another 19 job roles added in 2026**.

IT SERVICES

- ▷ IT Technician
- ▷ IT Administrator/Manager
- ▷ Project Coordinator
- ▷ Systems Engineer
- ▷ Project Manager
- ▷ **IT Operations Manager**
- ▷ **Chief Information Officer**

APPLICATIONS AND SOLUTIONS DEVELOPMENT

- ▷ **Junior Programmer**
- ▷ Applications Developer
- ▷ Solutions Architect
- ▷ **Application System Engineer**
- ▷ **Software Architect**
- ▷ **Software Development Manager**
- ▷ **Chief Technology Officer**

DIGITAL MEDIA

- ▷ Market Analyst
- ▷ Digital Marketing Executive
- ▷ **Business Development Manager**
- ▷ **Customer Experience Manager**
- ▷ **Marketing Manager**
- ▷ **Chief Marketing Officer**

TELECOMMUNICATIONS AND NETWORK

- ▷ Network Technician
- ▷ Network Team Lead
- ▷ Network Engineer
- ▷ **Infrastructure Engineer**
- ▷ **Infrastructure Manager**
- ▷ **Chief Technology Officer**

ICT SECURITY

- ▷ Associate Security Analyst
- ▷ Cyber Risk Analyst
- ▷ Security Engineer
- ▷ **Cyber Risk Manager**
- ▷ **Chief Information Security Officer**

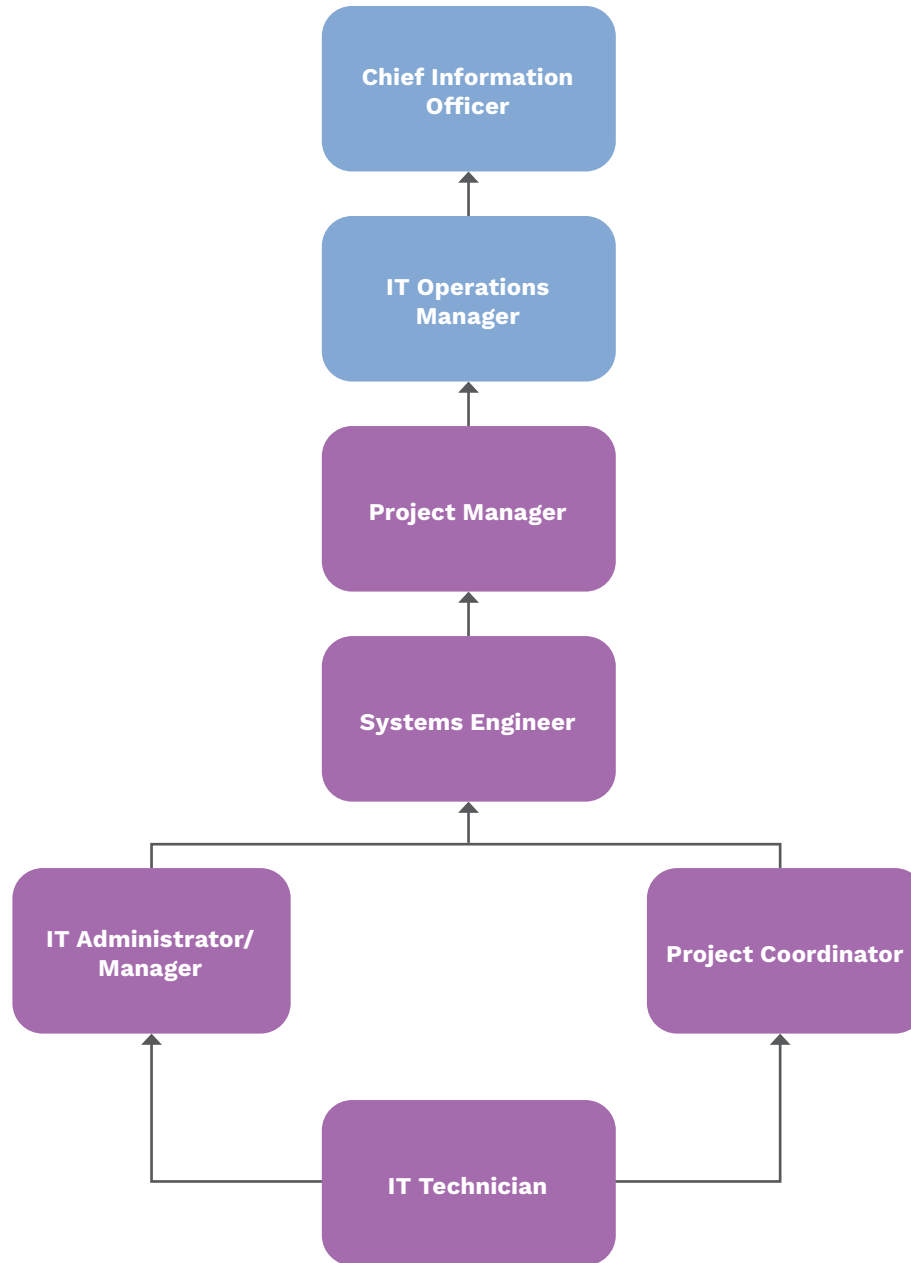
DATA AND ARTIFICIAL INTELLIGENCE

- ▷ Data Entry
- ▷ Data Analyst
- ▷ Data Engineer
- ▷ **Artificial Intelligence Engineer**
- ▷ **Data Architect**
- ▷ Data Manager
- ▷ **Business Intelligence Director**
- ▷ Data Scientist

IT Services Sub-Sector

IT Services Career Path

- Newly developed framework
- Previously developed framework



IT Technician

Alternate Job Titles	Technology Associate, IT Generalist, Network Administrator, Network Support Technician, IT Administrator, Help Desk Specialist, IT Professional, IT Technical Support Professional, IT Support Engineer		
Sub-Sector	IT Services		
Functional Group	Infrastructure	Hardware Support	Software and Systems
Job Family	Server and network support	Desktop and peripherals installations and maintenance	Applications configurations and installations, and IT security
Job Level	Entrant		

Job Description

- ▶ Provide support functions to a variety of functions that range from setting up technology equipment for employees to maintaining internal networks, supporting remote work functions, and providing help desk support.
- ▶ Work with a variety of individuals, including IT colleagues, staff at all levels within an organisation, external clients, and vendors.
- ▶ Maintain functioning information technology equipment and networks.
- ▶ Provide support to technology users, ensures security of information and IT infrastructure, and upholds company policies regarding use, security, redundancy, and confidentiality of data.

Critical Work Functions

Generic Functions

- ▶ Install, maintain, and upgrade desktop hardware (including peripherals) and software.

- ▶ Set up and remove employee's or client's workstations or devices, including setting up access controls.
- ▶ Install, provide user support for, or troubleshoot hardware and commercial software.
- ▶ Install, support, and maintain the network infrastructure as well as monitoring network performance.
- ▶ Perform minor software modifications to improve performance or customise to user needs.
- ▶ Assist in maintaining or updating web content and manages user access profiles and authorities.
- ▶ Monitor and help to maintain network security by adhering to security policies.
- ▶ Record and interpret detailed diagnostic information.
- ▶ Record keeping of incidents and services request.
- ▶ Investigate a request for support, record diagnostic information and either resolve or escalate to the appropriate level.
- ▶ Prioritise resolution and determine whether external support is required.

Specific Functions

Desktop and Application Support

- ▶ Install and test new ICT equipment and peripheral.
- ▶ Perform basic PC hardware repairs and upgrades.
- ▶ Diagnose and resolve basic PC, printer, peripheral and software faults.
- ▶ Install complete applications and set software options.
- ▶ Carry out any required maintenance of applications.
- ▶ Identify and install essential software patches.

Server and Network Support

- ▶ Install and maintain standard network cabling.
- ▶ Perform basic diagnostic and recovery routines on network equipment.
- ▶ Install and set basic configuration options for equipment such as switches and routers.
- ▶ Troubleshoot installation of software and hardware.
- ▶ Maintain hardware and software on the server.

Applications Configurations and Installations, and IT Security

► Configuration and Installation

- Follow an acceptance test procedure on new ICT equipment and report results appropriately.
- Update records of installed hardware and software.
- Maintain a software library and store original copies of installed applications.
- Collate and interpret results of testing and advise if goods are fit for use.
- Retrieve and record information in a configuration management database or log.
- Assist in creating and implementing a structured approach to rolling out new hardware or software, including procurement, testing, and assessing the needs for user training.

► Continuity, Maintenance and Security

- Note risks to ICT systems and suggest precautions maintenance.
- Implement and suggest improvements to backup, virus protection and security policies.
- Assess and differentiate risks to key systems and develop appropriate individual system recovery procedures.
- Develop a maintenance schedule.
- Identify failing systems and suggest solutions.
- Responsible for implementing backup and virus protection policies.

Skills & Competencies

Technical	Proficiency Level		
	Level 1	Level 2	Level 3
Application Development	1	2	2
IT Architecture	1	2	2
Business Analysis	1	2	2
Data Analytics	1	2	2
Database Management	1	2	2
Infrastructure Management	1	2	2
IT Project Management	1	2	2
Telecommunications Network Management	1	2	2
Information Security Management	2	3	3
Software Testing	2	3	3
Service Management	1	2	2

Soft Skills	Proficiency Level		
	Level 1	Level 2	Level 3
Analytical Thinking	Basic	Basic	Intermediate
Decision-Making	Basic	Basic	Intermediate
Communication	Basic	Basic	Intermediate
Work Management	Basic	Basic	Intermediate
Teamwork	Basic	Basic	Intermediate
People Management	Basic	Basic	Intermediate
Creativity and Innovation	Basic	Basic	Intermediate
Results Orientation	Basic	Basic	Intermediate
Service Orientation	Basic	Basic	Intermediate
Negotiation	Basic	Basic	Intermediate
Resilience	Basic	Basic	Intermediate

Entry Requirements

IT Technician Level 1

BDQF Level 2 in IT or related field with relevant industry experience.

IT Technician Level 2

BDQF Level 3 in IT or related field.

IT Technician Level 3

BDQF Level 4 in IT or related field OR
BDQF Level 3 in IT or related field with relevant industry certification.

Recommended Technical Training Courses

- Cisco Certified Technician (CCT)
- Cisco Certified Network Associate (CCNA)
- CompTIA A+
- CompTIA Network+
- CompTIA Security+
- Microsoft 365 Fundamentals
- PMI Certified Associate in Project Management (CAPM)
- Systems Security Certified Practitioner
- IT Specialist Certification

IT Administrator/ Manager

Alternate Job Titles	Systems Administrator, System Admin, Server Administrator, IT Systems Administrator, MIS Manager
Sub-Sector	IT Services
Functional Group	Hardware Support
Job Family	-
Job Level	Entrant or Expert/Management

Job Description

- ▶ Plan, direct, or coordinate activities in fields such as electronic data processing, information systems, systems analysis, and computer programming.
- ▶ Procure and manage IT assets.
- ▶ Perform supervision, implementation, and maintenance of a company's computing needs.
- ▶ Ensure the secure and effective operation of all computer systems, related applications, hardware, and software used within a company.

Critical Work Functions

Overall IT Department Management

- ▶ Manage IT staff by recruiting and training employees, communicating job expectations, and monitoring performance.
- ▶ Manage the annual IT budget and ensuring cost-effectiveness.
- ▶ Monitor daily operations, including server, hardware, software, and operating systems
- ▶ Coordinate technology installations, upgrades, and maintenance.

- ▶ Select and purchase new and replacement hardware and software, when necessary.
- ▶ Test, troubleshoot, and modify information systems so that they operate effectively.
- ▶ Generate performance reports for operating systems.
- ▶ Ensure all IT activities are performed within the parameters of applicable laws, codes, and regulations.
- ▶ Evaluate technology risks in order to develop a network disaster recovery plan and backup procedures.
- ▶ Remain up to date with advances in technology and industry best practices.
- ▶ Coordinate and supervise IT staff members.
- ▶ Manage and coordinate all IT-related matters including data, wireless communications, mobile technology, telephony, security, and computer hardware and software.
- ▶ Troubleshoot and solve problems related to hardware, software, and network problems.
- ▶ Perform research and recommend acquisition of network hardware and software.
- ▶ Monitor network utilisation and performance, implement procedures for network optimisation, reliability, and availability.

- ▶ Identify problematic areas and implement strategic solutions in time.
- ▶ Build long-term relationships with outside vendors for IT related products and services.

People Management

- ▶ Manage the budget expenditure and allocation across teams and projects.
- ▶ Monitor and track the team's achievements and key performance indicators.
- ▶ Propose new operational plans, including targeted budgets, work allocations and staff forecasts.
- ▶ Acquire, allocate and optimise the use of resources.
- ▶ Develop learning roadmaps to support the professional development of the team.
- ▶ Manage the performance and development process, including providing coaching and development opportunities to maximise the potential of each individual.

Skills & Competencies

Technical	Proficiency Level	
	Entrant	Expert/Management
Business Analysis	3	4
Budgeting	2	4
IT Asset Management	3	3
Performance Management	3	4
Problem Management	3	4
Process Improvement	3	4
Procurement	3	4
Service Level Management	3	4
Information Security Management	3	4
IT Project Management	3	4
Service Management	3	3

Soft Skills	Proficiency Level	
	Entrant	Expert/Management
Analytical Thinking	Intermediate	Advanced
Decision-Making	Intermediate	Advanced
Communication	Intermediate	Advanced
Work Management	Intermediate	Advanced
Teamwork	Intermediate	Advanced
People Management	Intermediate	Intermediate
Creativity and Innovation	Intermediate	Advanced
Results Orientation	Intermediate	Advanced
Service Orientation	Intermediate	Advanced
Negotiation	Intermediate	Intermediate
Resilience	Intermediate	Advanced

Entry Requirements

BDQF Level 6 in IT, Information Systems, Computer Science or related field OR
BDQF Level 5 in IT, Information Systems, Computer Science or related field with relevant industry experience or possess relevant portfolio/experience.

Recommended Technical Training Courses

- ▷ AMA Certified Professional in Management
- ▷ Certified Associate in Project Management (CAPM)
- ▷ Certified in Governance of Enterprise IT (CGEIT)
- ▷ Certified in Risk and Information Systems Control (CRISC)
- ▷ Certified Information Security Manager (CISM)
- ▷ Certified Information Systems Security Professional (CISSP)
- ▷ Certified Information Technology Manager (CITM)
- ▷ Certified ScrumMaster (CSM)
- ▷ COBIT 5 Foundation
- ▷ CompTIA Network+
- ▷ CompTIA Project+
- ▷ Information Technology Infrastructure Library (ITIL)
- ▷ Information Technology Management and Leadership Professional (ITMLP)
- ▷ Microsoft Systems Administration/Systems Engineer
- ▷ PMI Agile Certified Practitioner (PMI-ACP)
- ▷ Project Management Professional (PMP)
- ▷ Six Sigma
- ▷ TOGAF 9
- ▷ CompTIA Cloud Essentials
- ▷ Linux/Red Hat System Administrator

Project Coordinator

Alternate Job Titles	Project Assistant, Project Administrator, Project Scheduler, Project Planner
Sub-Sector	IT Services
Functional Group	Programme Management
Job Family	Programme Management
Job Level	Entrant

Job Description

- ▶ Coordinate project implementation and assist the project manager to achieve project objectives.
- ▶ Facilitate project resources, manage project progress, and facilitate interactions and tasks of various parties to reduce the risk of overall failure.
- ▶ Identify advances and opportunities in project management to improve timely delivery of projects and efficient use of resources.
- ▶ Apply knowledge and skills in project management, project planning, budgets and methodologies.
- ▶ Adopt an analytical and strategic approach in developing and communicating solutions that meet project's objectives and stakeholder's needs.

Critical Work Functions

Provide Assistance in Project Plan Development

- ▶ Develop the project plan with detailed activities, resource planning and estimation of costs.
- ▶ Work with stakeholders to develop and achieve consensus on project objectives, goals and results.
- ▶ Review project plan to determine time frame, funding constraints and project fulfilment procedures.
- ▶ Acquire project requirements such as human resources, information required, multiple agreements and necessary material or technology.

Provide Assistance in Projects Implementation

- ▶ Drive project to meet schedules, budget, workforce and technical quality goals.
- ▶ Drive project discipline to document changes in scope, problems and risks affecting implementation.
- ▶ Work to identify and resolve problems related to project implementation with users, technical staff and management.

- ▶ Recommend schedule modifications, cost or resource adjustments, and conduct periodic project reviews.

Team Coordination

- ▶ Supervise team leadership, including budgets, forecasts, job allocations and staffing.
- ▶ Develop employees through continuous coaching, mentoring, and career discussions.
- ▶ Define common objectives, direction and accountability among employees.
- ▶ Drive efficient departmental performance management practices in accordance with organisational policies and procedures.

Skills & Competencies

Technical	Proficiency Level
Business Analysis	3
Business Risk Management	3
Contract Management	3
Vendor Management	3
Procurement	3
IT Project Management	3
Service Management	3
Information Security Management	2

Soft Skills	Proficiency Level
Analytical Thinking	Intermediate
Decision-Making	Intermediate
Work Management	Intermediate
People Management	Intermediate
Creativity and Innovation	Intermediate
Results Orientation	Intermediate
Negotiation	Intermediate
Resilience	Intermediate
Communication	Advanced
Teamwork	Advanced
Service Orientation	Advanced

Entry Requirements

BDQF Level 5 in IT-related field OR
Any relevant Project Management Certification with experience.

Recommended Technical Training Courses

- ▷ Accredited Business Communicator (ABC)
- ▷ Advanced Project Management Certified Professional
- ▷ APM Project Fundamentals Qualification (PFQ)
- ▷ APM Project Management Qualification (PMQ)
- ▷ Certified Associate in Project Management (CAPM)
- ▷ Certified Instrumentation Specialist (CIS)
- ▷ Certified Product Manager (CPM)
- ▷ Certified Supply Chain Professional (CSCP)
- ▷ Change Management Certified Professional
- ▷ CompTIA Project+
- ▷ Managing Programs and Projects with Project Server 2013
- ▷ Managing Projects with Microsoft Project 2013 (MCTS)
- ▷ Master Project Manager (MPM)
- ▷ PMI Risk Management Professional (PMI)
- ▷ Prince2 Foundation
- ▷ Program Management Professional (PgMP)
- ▷ Project Management Professional (PMP)
- ▷ Project Manager E-Business (PME)

Systems Engineer

Alternate Job Titles	Hardware Engineer, Infrastructure Engineer, Technical Engineer, IT Engineer
Sub-Sector	IT Services
Functional Group	Infrastructure Hardware Support
Job Family	Server and network support Applications configurations and installations and IT Security
Job Level	Entrant or Specialist

Job Description

- ▶ Monitor and manage all installed systems and infrastructure.
- ▶ Establish, configure, test and maintain operating systems, application software and system management tools.
- ▶ Set, install, test and maintain operating systems, application software and system management tools.
- ▶ Evaluate the existing systems and provide the technical direction to IT support staff.
- ▶ Oversee the development of customised software and hardware requirement.
- ▶ Plan and implement systems automation as required for better efficiency.
- ▶ Formulate and design the security system in place to maintain data safety.
- ▶ Oversee the constant availability of technical resources.
- ▶ Maintain and supervise the inventory.
- ▶ Timely reporting on the log sheet for the rapid response to any issues and problems.

Critical Work Functions

Systems Deployment

- ▶ Plan, carry out, oversee and apply advanced technical skills and independent analysis to IT system installation projects including complex software and hardware installations and relocations.
- ▶ Analyse specifications and general instructions to develop appropriate systems.
- ▶ Manage project activities and schedules, determine and procure network equipment and supplies.
- ▶ Plan implementation of application software, hardware and monitoring.
- ▶ Research emerging cloud and infrastructure technologies.
- ▶ Assist with piloting of new tools, technologies and processes.
- ▶ Execute infrastructure operations activities and installation of systems according to design specification.

Infrastructure and Services Administration

- ▶ Assist in the configuration of infrastructures such as computer hardware, systems, software and applications software.
- ▶ Assist with infrastructure testing and implementation.
- ▶ Explore opportunities to optimise the delivery of systems services with emphasis on availability, reliability, scalability and security.
- ▶ Conduct systems audit and upgrades.
- ▶ Develop automated processes to define, measure and report on service quality, stability and capacity.
- ▶ Schedule installations and upgrades in accordance with organisational policies, procedures and protocols.
- ▶ Troubleshoot escalated server, storage and maintenance issues.
- ▶ Simulate user problems to resolve operating difficulties.
- ▶ Suggest improvements to infrastructure resolution methods and techniques.

Vendor Management

- ▶ Act as the primary interface with equipment vendors for resolving problems.
- ▶ Liaise with vendor on proposal to ensure that it meets the requirements.
- ▶ Escalation of technical support to resolve issues and incidents.
- ▶ Work closely with vendor during integration and deployment of the system.
- ▶ Monitor and report on the performance of vendors.

Security and Compliance

- ▶ Identify and address security and privacy risk.
- ▶ Adhere to the compliance of access control provided by the stakeholder.
- ▶ Adhere to security requirements and report security issues with infrastructure.
- ▶ Monitor compliance to procedures and policies for infrastructure related incidents.
- ▶ Provide system support, monitor and tune system for optimal performance including performing scheduled preventative maintenance, monitor systems for unauthorised activities and alert management to security issues.

Oversee Service Level Agreements and Service Improvements

- ▶ Manage the development of service-level objectives and targets.
- ▶ Monitor service-level objectives to ensure that requirements are met or exceeded
- ▶ Develop client satisfaction metrics and service procedures.
- ▶ Propose recommendations to improve performance and client satisfaction.

Skills & Competencies

Technical	Proficiency Level
System Integration	4
Vendor Management	4
IT Asset Management	3
Cloud Computing	3
Business Analysis	3
IT Architecture	3
Infrastructure Management	3
Information Security Management	3
IT Project Management	2
Network Security Management	2
Service Management	2

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
People Management	Intermediate
Negotiation	Intermediate

Entry Requirements

BDQF Level 6 in IT, Computer Science, Software Engineering, or related field OR
BDQF Level 5 in IT, Computer Science, Software Engineering or related field with relevant industry certification.

Recommended Technical Training Courses

- ▶ Certified Information Systems Security Professional - Architecture (CISSP)
- ▶ Cisco Certified Entry Networking Technician (CCENT)
- ▶ Cisco Certified Network Associate (CCNA)
- ▶ CompTIA Server+
- ▶ Certified Systems Engineer Professional (CSEP)
- ▶ Information Technology Infrastructure Library (ITIL) 4 Foundation
- ▶ Master Certified Electronics Technician (CETma)
- ▶ Microsoft 365 Certified – Fundamentals
- ▶ Microsoft Certified Systems Engineer (MCSE)
- ▶ VMware Certified Professional (VCP) Data Centre Virtualization
- ▶ ITCA Computing Fundamentals
- ▶ Microsoft Azure Fundamentals
- ▶ Linux/Red Hat System Administrator

Project Manager

Alternate Job Titles	Project Management Specialist
Sub-Sector	IT Services
Functional Group	Programme Management
Job Family	Programme Management
Job Level	Specialist

Job Description

- ▶ Provide project planning and management for established initiatives within a company.
- ▶ Ensure that projects are completed to specification, within an established time frame and budget.
- ▶ Lead subject matter expert within the company regarding technology concerns.
- ▶ Improve all aspects of project planning and resource management.

Critical Work Functions

- ▶ Plan and define project objectives, milestones and deliverables.
- ▶ Identify project approach for successful project completion.
- ▶ Assist in defining objectives for a department related project.
- ▶ Develop estimates for project costs, time, schedules and manpower requirements.
- ▶ Develop project plans and schedules.
- ▶ Work with organisation to identify project participants and team members.
- ▶ Manage project execution through organisation's

project management standards and best practices.

- ▶ Manage the team to ensure complete involvement and cooperation towards successful completion of projects.
- ▶ Control the use of people and resources within a pre-specified budget to expedite project work completion through efficient coordination of activities; allocate resources and initiate action in emergencies and unforeseen events within budgetary constraints.
- ▶ Work with IT Director for decisions impacting budget limits.
- ▶ Develop written request for proposals and manage the vendor selection process according to Request for Purchase (RFP) procedures and policies.
- ▶ Manage external vendors for project execution according to the Request for Proposal.
- ▶ Identify solutions to project-related issues to ensure project continuity and adherence to project schedule and budget.
- ▶ Advise, defend and negotiate with superiors or peers for or against a course of action.
- ▶ Act as liaison to pertinent employees and groups to achieve cooperation on joint projects.

- ▶ Oversee the testing of a system for correct functioning by critically examining information for accuracy, ruling on questions of procedure as applied to projects, and maintaining detailed records of the process.
- ▶ Develop hypothesis to explain work or project-related issues.
- ▶ Keep abreast of developments by learning new systems, methods and processes associated with information technology and project management.
- ▶ Work jointly with the managers and users to define information requirements and operational needs, questions of system intent, output requirements, input data acquisition, internal checks and controls, and conformance with other standards.
- ▶ Develop a technical mastery in technical areas associated with assigned project to the extent of understanding project objectives, technical implications and relationships with other technical projects in order to facilitate project decision-making.

Skills & Competencies

Technical	Proficiency Level
Business Analysis	4
Business Risk Management	4
Contract Management	4
Vendor Management	4
Procurement	4
IT Project Management	4
Information Security Management	4
Service Management	4
Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Business IT, Information Systems or related field OR
BDQF Level 5 in Business IT, Information Systems or related field with Project Management Certification and few years of experience.

Recommended Technical Training Courses

- ▶ Certified Associate in Project Management (CAPM)
- ▶ Prince2 Foundation
- ▶ APM Project Fundamentals Qualification (PFQ)
- ▶ APM Project Management Qualification (PMQ)
- ▶ Project Management Professional (PMP)
- ▶ Master Project Manager (MPM)
- ▶ Certified Associate in Project Management (CAPM) - IT
- ▶ Engineer In Training Certification (EIT)
- ▶ Certified Supply Chain Professional (CSCP)
- ▶ International Accredited Business Analysis (IABA)
- ▶ Managing Programs and Projects with Project Server 2013
- ▶ Project Manager E-Business (PME)
- ▶ Certified Instrumentation Specialist (CIS)
- ▶ Managing Projects with Microsoft Project 2013 (MCTS)
- ▶ Change Management Certified Professional
- ▶ Certified Product Manager (CPM)
- ▶ CompTIA Project+
- ▶ PMI Risk Management Professional (PMI)
- ▶ Certified Personal Trainer
- ▶ Program Management Professional (PgMP)
- ▶ Advanced Project Management Certified Professional
- ▶ Accredited Business Communicator (ABC)
- ▶ Agile Project Management

IT Operations Manager

Alternate Job Titles	Senior IT Operations Manager, Director of IT Operations
Sub-Sector	IT Services
Functional Group	Infrastructure and Operations Management
Job Family	IT Operations and Service Management
Job Level	Specialist

Job Description

- ▶ Oversee strategic and policy development aspects that have medium-term effects on functional operations and impact elements of organisational performance; oversee systems, database administration, and help desk functions.
- ▶ Manage the database and systems administration in addition to the incident resolution and business continuity plans.
- ▶ Establish objectives and priorities; assigns responsibilities among employees; supports career advancement; communicates with managers and staff; advises the organisation on technology matters; and participates in medium-range planning, including the development of IT infrastructure roadmaps, operational capacity planning, and resource allocation strategies to support future business needs.
- ▶ Deploy database management systems, application monitoring tools, and enterprise architecture frameworks to ensure IT operational efficiency.

- ▶ Lead by inspiring key stakeholders to pursue continuous improvement and align teams around strategic business priorities.
- ▶ Manage the organisation's system environment and its critical elements to ensure service levels are consistently met.
- ▶ Oversee Software Development and Operations (DevOps) practices and tools such as GitLab, Jenkins, and Docker.

Critical Work Functions

Upgrade Planning and Service Level Agreement (SLA) Management

- ▶ Create plans to supply IT operations and support, systems, and database administration services.
- ▶ Contribute to the strategy development process for IT operations and support.
- ▶ Create dashboards and key performance indicators (KPIs) for service level agreements (SLA).
- ▶ Determine corrective action to resolve non-

compliance with SLAs and KPIs.

- ▶ Monitor service level dashboards to ensure compliance to KPIs.
- ▶ Establish and ensure adherence to a structured Software Development Life Cycle (SDLC), defining standardized phases such as requirements gathering, design, development, testing, deployment, and maintenance to promote consistency, quality, and compliance in software delivery.

IT Service Delivery and Support Management

- ▶ Manage and optimise IT operations and support performance to meet service-level goals.
- ▶ Drive the continuous improvement of operational process and customer experience.
- ▶ Verify the functionality and performance of deployed components and services to ensure they meet requirements and expectations.
- ▶ Develop and maintain a comprehensive library of system documentation.
- ▶ Manage the deployment of applications and migration of system components into the

production environment.

- ▷ Drive continuous improvements to enhance systems availability and performance.
- ▷ Oversee incident resolution processes and business continuity plans to ensure operational resilience and service availability.

Application Installation and Compliance

- ▷ Manage the end-to-end resolution of operational incidents and support requests, driving the continuous improvement of response strategies to meet service level targets.
- ▷ Develop and oversee disaster recovery and business continuity plans, executing regular drills and tests to ensure service continuity for mission-critical systems.
- ▷ Oversee the lifecycle management of database systems, including the installation and upgrading of database software, resource allocation, and the creation of new data structures.
- ▷ Manage daily database operations to ensure ongoing dependability, and implement security controls to protect data, participating in security investigations as required.
- ▷ Govern all system updates, modifications, and installations in the production environment to ensure compliance with change management policies and technical standards.

Resource Management

- ▷ Create learning roadmaps to support the team's professional development.
- ▷ Manage the performance and development process, including offering coaching and opportunities for growth to maximise each

person's potential.

- ▷ Manage the budget expenditure and allocation across teams and projects.
- ▷ Manage the allocation of resources.
- ▷ Track and monitor the team's accomplishments and key performance indicators.
- ▷ Propose new operational plans, including targeted budgets, work allocations, and staff forecasts.

Skills & Competencies

Technical	Proficiency Level
Application Development	4
Applications Integration	4
Application Support & Enhancement	4
Business Continuity	4
Business Needs Analysis	4
Business Performance Management	4
Configuration Tracking	4
Cyber and Data Breach Incident Management	4
Data Centre Facilities Management	4
Data Engineering	4
Database Administration	4
Disaster Recovery Management	4
Infrastructure Strategy, Deployment and Support	4
Project Management	4
Service Level Management	4
Budgeting	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced

Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification, at least 5 years of relevant working experience. OR BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/experience at least 8 years of relevant working experience.

Recommended Technical Training Courses

- ▷ ITIL® Foundation Certification
- ▷ Certified Information Systems Auditor (CISA)
- ▷ Project Management Professional (PMP)
- ▷ Certified ScrumMaster (CSM)
- ▷ Microsoft Certified: Azure Administrator Associate: Validates Azure cloud management skills.
- ▷ AWS Certified SysOps Administrator – Associate
- ▷ Cisco Certified Network Professional (CCNP) Data Centre: Relevant for data centre networking
- ▷ VMware Certified Professional - Data Centre Virtualization (VCP-DCV)
- ▷ Google Cloud Certified - Professional Cloud Architect
- ▷ Certified Information Systems Security Professional (CISSP)
- ▷ Certified Business Analysis Professional (CBAP)
- ▷ Red Hat Certified System Administrator (RHCSA)
- ▷ Bash programming language
- ▷ Python programming language

Chief Information Officer

Alternate Job Titles	Director of Information Systems, Head of IT, VP of IT, Director of IT
Sub-Sector	IT Services
Functional Group	ICT Governance & Strategic Planning
Job Family	Strategic Leadership
Job Level	C-Suite

Job Description

- ▶ Articulate complex technical strategies, requirements, and implications to executive and non-technical stakeholders to ensure informed decision-making and enterprise-wide alignment.
- ▶ Set and drive the organisation's enterprise-wide IT and digital strategy.
- ▶ Provide executive leadership and direction to the IT function, ensuring effective governance, resource optimisation, and delivery of high-impact technology services.
- ▶ Provide strategic direction, IT policies, and technology solutions that directly support and align with the organisation's business goals.
- ▶ Develop and implement an Information strategy to meet business needs.
- ▶ Lead the development and enforcement of governance standards for project management, information security, risk, and quality to ensure compliance and organisational resilience.
- ▶ Oversee high-impact innovation and digital transformation initiatives, holding full executive

accountability for outcomes.

- ▶ Provide high-level strategic advice and expert guidance to executive leadership, ensuring that IT strategies are aligned with organisational objectives and contribute to sustainable value creation.
- ▶ Ensure business value through effective IT investment and measuring it to gauge IT performance.
- ▶ Encourage senior IT leaders to guide and develop emerging talent across the organisation.
- ▶ Ensure IT governance, risk and compliance practice throughout the organisation.

Critical Work Functions

Strategy Formulation and Implementation

- ▶ Establish the organisational IT vision, strategy and underlying IT initiatives or programmes.
- ▶ Align information management strategy with business strategy.
- ▶ Provide strategic, budgetary and administrative

advice for implementation of information strategy.

- ▶ Drive awareness and education on information security throughout the organisation.
- ▶ Advise senior management and key stakeholders on information management matters.

Governance and Control

- ▶ Establish enterprise-wide IT standards, governance and technology plans.
- ▶ Establish enterprise-wide IT governance frameworks, policies, and technology plans.
- ▶ Create strategies for outsourcing and offshoring the provision of IT services.
- ▶ Establish guidelines for the creation and upkeep of standards, policies, and service level agreements (SLAs).
- ▶ For the IT function, set goals and Key Performance Indicators (KPI).
- ▶ Align IT and business initiatives into a comprehensive roadmap to maintain focus on organisational goals.
- ▶ Align the IT departments' goals with those of the company and overall efficiency.

- ▶ Oversee compliance and assurance of enterprise IT, including information security, IT operations, and service delivery, ensuring adherence to regulatory, audit, and internal control requirements.

IT Resources and Talent Management

- ▶ Establish a strategic alliance and cultivate a great working relationship with all other departments.
- ▶ Lead the planning, development, and optimisation of IT talent and resources to ensure capability readiness and alignment with organisational needs.
- ▶ Examine operational plans, guidelines, and goals for various projects and teams.
- ▶ Create plans for the allocation and use of resources.
- ▶ Examine how the resources are being used.
- ▶ Manage the creation of learning roadmaps for departments and teams.
- ▶ Create performance metrics to compare the efficacy of training and development initiatives to industry best practices.
- ▶ Put succession planning programmes into place for important IT management roles.
- ▶ Advise stakeholders on settling expectations and making concessions.
- ▶ Assemble a diverse range of concepts and creative thinking to advance the group.

Enterprise-wide Digital Transformation Management

- ▶ Construct infrastructure that integrates digital innovations with conventional services and goods to produce value for the entire organisation through digital transformation activities.
- ▶ Plan and implement change management, communication and transition strategy to support

digital transformation.

- ▶ Promote change in a way that uplifts staff morale.

Risk Management

- ▶ Formulate and implement policies, processes, and guidelines to identify, assess, and manage technology-related risks across the organisation.
- ▶ Create organizational-wide frameworks for risk assessment and management.
- ▶ Examine risk assessment findings for ways to reduce them.
- ▶ Direct business continuity, catastrophe recovery, and risk management initiatives.
- ▶ Drive the evolution of IT policies by directing periodic reviews that account for changes in the organization's strategy, regulatory environment, and technology risks.

Project Implementation

- ▶ Provide overall direction in new project initiation and implementation planning.
- ▶ Ensure IT project delivery aligns with business requirements, priorities, and expected outcomes through close collaboration with stakeholders and effective governance.
- ▶ Lead the implementation of digital solutions, systems, and process improvements to enhance operational efficiency and drive enterprise-wide business transformation.
- ▶ Utilise best practice related to project management strategies, methodologies, and tools, to oversee, plan, manage, and implement projects.
- ▶ Ensure that all requirements and commitments are fulfilled on schedule and within budget.
- ▶ Identify and resolve project risks and issues.
- ▶ Evaluate the project's progress and milestone

fulfilment, as well as the effectiveness of the controls.

- ▶ Assess project mechanisms and assist in controlling expectations among stakeholders.

Technology Innovation and Process Improvement

- ▶ Support initiatives to automate and/or streamline IT procedures.
- ▶ Create a high-level plan and guidelines for implementing modifications and/or enhancements to IT processes.
- ▶ Encourage an atmosphere that is favourable to technical advancement and innovation.
- ▶ Encourage IT savviness and knowledge inside the company.
- ▶ Drive organisational frameworks that foster innovation and creativity, such as hackathons, idea pipelines, and design thinking techniques.

Operating Models for IT

- ▶ Set priority for IT investments, maintain accountability, and accomplish business objectives.
- ▶ Establish and evolve the IT operating model encompassing organizational design, resource management, and delivery practices, to enhance business value, agility, and performance.
- ▶ Modify the IT operational model to support various delivery capacities and encourage innovation.

Business and Stakeholder Management

- ▶ Identify and analyse key stakeholders for business success.
- ▶ Translate complex technical concepts into clear business language for communication with the Board, other C-suite, and key stakeholders.

- ▶ Verify that important stakeholders have the same goals.
- ▶ Communicate with important stakeholder groups using clear communication to effectively convey the intended ideas or notions to the intended audience.
- ▶ Ensure IT strategies, solutions, and service delivery are consistently aligned with evolving business requirements, priorities, and stakeholder expectations to maximise organisational value.
- ▶ Oversee the delivery of programmes and projects, ensuring they are executed on time, within budget, and in alignment with agreed business outcomes and quality standards.

Vendor Management

- ▶ Lead vendor evaluation, selection, and onboarding to align with enterprise IT strategy and business needs.
- ▶ Negotiate and manage vendor contracts and SLAs, ensuring performance, compliance, and cost efficiency.
- ▶ Monitor vendor performance and maintain ongoing relationships to support innovation and continuous improvement.

Skills & Competencies

Technical	Proficiency Level
Business Risk Management	5
Cyber and Data Breach Management	5
Cyber Risk Management	5
Cloud Computing	5
Disaster Recovery Management	5
Enterprise Architecture	5
Infrastructure Design	5
Infrastructure Strategy	5
IT Governance	5
IT Strategy	5
Vendor Management	5
Stakeholder Management	5
Networking	4

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making / Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in IT or related field, with related industry certification and minimum of 10 years' experience at senior level, OR

BDQF Level 5 in IT or related field, with related industry certification and minimum of 12 years' experience at senior level

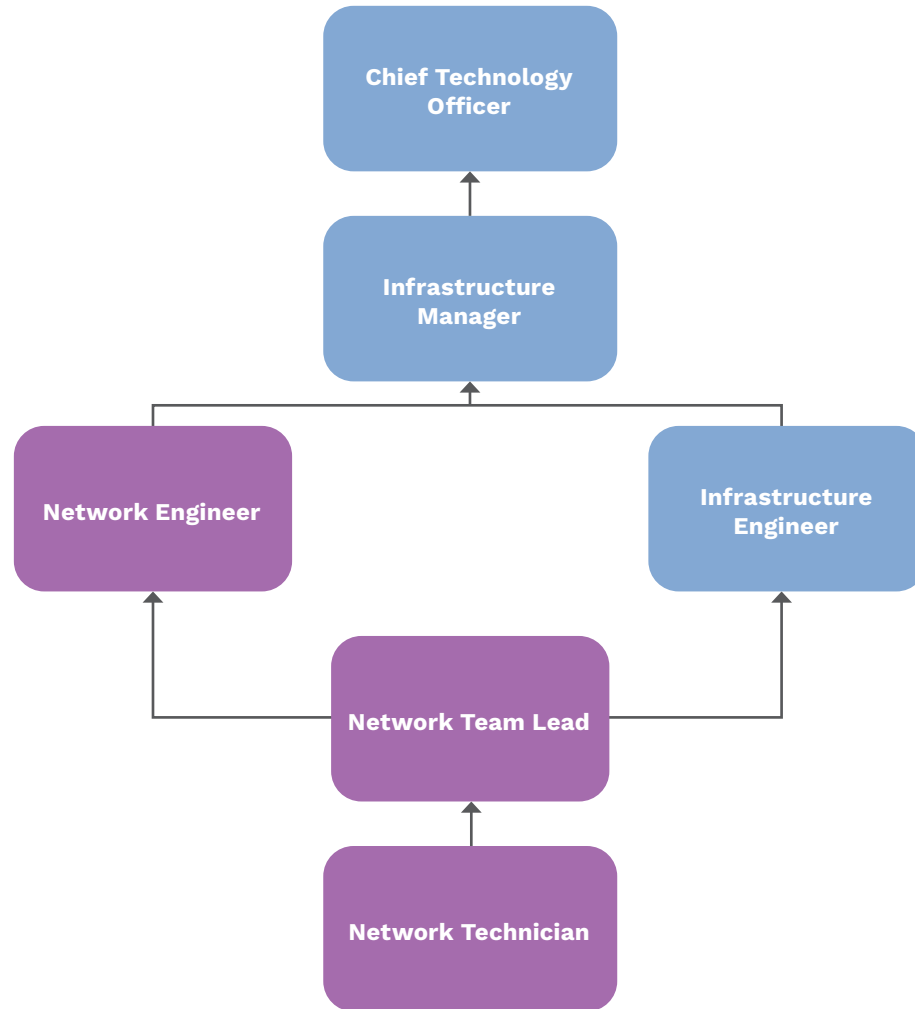
Recommended Technical Training Courses

- ▶ Certified Chief Information Officer (CIO) Program
- ▶ American Management Association (AMA) Certified Professional in Management
- ▶ Certified associate in project management (CAPM)
- ▶ Certified in Governance of Enterprise IT (CGEIT)
- ▶ Certified in Risk and Information Systems Control (CRISC)
- ▶ Certified Information Security Manager (CISM)
- ▶ Certified Information Systems Security Professional (CISSP)
- ▶ Certified Information Technology Manager (CITM)
- ▶ Information Technology Management and Leadership Professional (ITMLP)

Telecommunications and Network Sub-Sector

Telecommunications and Network Career Path

- Newly developed framework
- Previously developed framework



Network Technician

Alternate Job Titles	Telecommunication Technician, Communication Technician, Engineering Technician
Sub-Sector	Telecommunications and Network
Functional Group	Telecommunications
Job Family	Development and Deployment
Job Level	Entrant

Job Description

- ▶ Support the deployment and operations of network infrastructure.
- ▶ Perform installation, monitoring, troubleshooting, maintaining and testing of network systems and solutions.
- ▶ Perform maintenance (fault repair) and configuration tasks at sites, active network equipment and passive cable systems (ducts, cables, manholes, distribution frames, overhead and underground cable installations), and resolves network incidents.
- ▶ Ensure that network activities including the installation, monitoring, troubleshooting, maintaining and testing of network systems and solutions are documented appropriately and in compliance with the required procedures and standards.

Critical Work Functions

- ▶ Establish communications systems by installing, operating, and maintaining voice and data telecommunications network circuits and equipment.
- ▶ Plan network installations by studying customer orders, plans, manuals, and technical specifications; ordering and gathering equipment, supplies, materials, and tools; assessing installation site; and preparing an installation diagram.
- ▶ Establish voice and data networks.
- ▶ Verify service by testing circuits, equipment, and alarms; and identifying, correcting or escalating problems.
- ▶ Document network by labelling and routing equipment and cables, and recording configuration diagrams and specifications.
- ▶ Maintain network by troubleshooting and repairing outages, testing network back-up procedures, and updating documentation.
- ▶ Maintain customer rapport by listening to and resolving concerns and answering questions.
- ▶ Maintain safe work environment by following codes, standards and legal regulations.
- ▶ Keep supplies ready by inventorying stock, placing orders, and verifying receipt.
- ▶ Update job knowledge by participating in educational opportunities and reading technical publications.
- ▶ Run, pull, terminate, and splice cables; installing telecommunications equipment, routers, switches, multiplexors, cable trays, and alarm and fire-suppression systems; building ironwork and ladder racks; establishing connections; programming features; establishing connections and integrations; following industry standards; activating remote access tools; and coordinating with contractors.

Skills & Competencies

Technical	Proficiency Level
Network Administration and Maintenance	3
Network Configuration	3
Infrastructure Support	3
Telecommunication Network Management	3
Test Planning	2
Business Analysis	2
Information Security Management	2
Fault Management	2
IT Project Management	2
Service Management	2

Soft Skills	Proficiency Level
Analytical Thinking	Intermediate
Decision-Making	Intermediate
Communication	Intermediate
Work Management	Intermediate
Teamwork	Intermediate
People Management	Intermediate
Creativity and Innovation	Intermediate
Results Orientation	Intermediate
Service Orientation	Intermediate
Negotiation	Intermediate
Resilience	Intermediate

Entry Requirements

BDQF Level 4 in IT, Telecommunications Network or related field OR
BDQF Level 3 in IT, Telecommunications Network or related field with relevant industry certification.

Recommended Technical Training Courses

- ▶ Master Certified Electronics Technician (CETma)
- ▶ BICSI Technician
- ▶ Telecommunications Master Technician Certification
- ▶ Cisco Certified Network Associate (CCNA)
- ▶ Cisco Certified Network Professional (CCNP)
- ▶ Network 5 Certification
- ▶ Telecommunications Electronics Technician (TCM)
- ▶ Certified Network Computer Technician (CNCT)
- ▶ Computer Service Technician (CST)
- ▶ Data Cabling Installer (DCI)
- ▶ Cisco Certified Entry Networking Technician (CCENT)
- ▶ Cisco Optical Specialist 1
- ▶ Certified Phlebotomy Technician (CPT)
- ▶ Certified Electronics Technician - Journeyman-Level - Computer (CET)

Network Team Lead

Alternate Job Titles	Network Controller, Network Consultant, Network Coordinator, Network Engineer
Sub-Sector	Telecommunications and Networks
Functional Group	Software and Systems – Application Development and Deployment
Job Family	Server and Network Support
Job Level	Specialist

Job Description

- ▶ Lead operations team to restore faults and proactively maintain network infrastructure for both fixed and wireless.
- ▶ Plan operational readiness and acceptance for new projects and configurations.
- ▶ Support 24/7 operation, manage Technician's activity, and resolve escalated issues.
- ▶ Engage with contractor and define objectives on incident management.
- ▶ Schedule routine preventive maintenance to avoid major incident and fault occurrence.
- ▶ Review documentation to ensure compliance with the required procedures and standards on network activities including the installation, monitoring, troubleshooting, maintaining and testing of network systems and solutions.

Critical Work Functions

Network Support

- ▶ Provide fixed and/or wireless network support to users such as installation, configuration, testing and troubleshooting.
- ▶ Apply Standard Operating Procedures (SOP) in providing the network support.
- ▶ Provide information to users on the progress of outstanding support tickets.
- ▶ Maintain documentation related to Service Level Agreements (SLAs).

Network Maintenance

- ▶ Carry out routine maintenance tasks to detect and/or prevent network faults that disrupt user connectivity.
- ▶ Generate fault reports.

Incident Resolution

- ▶ Respond to user complaints.
- ▶ Identify fixed and/or wireless network problems or issues.
- ▶ Troubleshoot, diagnose and resolve network issues.
- ▶ Recommend preventive solutions.
- ▶ Log incidents into problem fault management system.

Skills & Competencies

Technical	Proficiency Level
Infrastructure Management	4
Network Configuration	4
Emerging Technology Synthesis	4
Telecommunications Network Management	4
Network Security Management	4
Fault Management	4
IT Architecture	3
Business Risk Management	3
Network Administration and Maintenance	3
Business Analysis	3
Vendor Management	3
IT Project Management	3
Service Management	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or related field OR
BDQF Level 5 in Information Systems, Computer Science, or related field with relevant industry experience or possess relevant portfolio/experience.

Recommended Technical Training Courses

- ▶ Cisco Certified Internetwork Expert (CCIE)
- ▶ Cisco Certified Network Professional (CCNP)
- ▶ Cisco Certified Network Professional (CCNP)
- ▶ Juniper Networks Certified Internet Expert Enterprise Routing & Switching (JNCIE-ENT)
- ▶ Wireshark Certified Network Analyst (WCNA)
- ▶ CompTIA A+
- ▶ CompTIA Network+
- ▶ Microsoft Certified Solutions Associate (MCSA): Windows Server 2016
- ▶ Microsoft Certified Solutions Expert (MCSE): Core Infrastructure
- ▶ VCP-DCV: VMware Certified Professional 6 – Data Center Virtualization
- ▶ VMware Certified Professional – Network Virtualization
- ▶ Huawei Certified Network Engineer (HCNE)
- ▶ Huawei Certified Network Associate (HCNA)
- ▶ RAN Operation and Maintenance
- ▶ RAN Troubleshooting
- ▶ Certified Fibre Optic Technician
- ▶ General Field Operations
- ▶ Citrix Certified Associate
- ▶ AWS Certified Advanced Networking
- ▶ AWS Certified Solutions Architect - Associate
- ▶ Google Certified Professional Cloud Architect

Network Engineer

Alternate Job Titles	Network Administrator, Network Analyst, Core Network Engineer, Data Network Engineer, Telecommunications Network Engineer, Wireless Communication Network Engineer
Sub-Sector	Telecommunications and Network
Functional Group	Telecommunications
Job Family	Server and Network Support
Job Level	Specialist or Expert/Management

Job Description

- ▶ Plan technical support, do forecasting, designing, project management, installation, monitoring, and support maintenance of the enterprise network wide area, local area, and wireless networks that are converged to data/voice network.
- ▶ Perform network monitoring and analysis, performance tuning, troubleshooting and escalating issues, including proactive problem resolution and complex problem analysis as necessary, to maintain network performance to meet user demand.
- ▶ Reduce operational risk and improve availability of the data and voice network by ensuring network access, monitoring, control, evaluation and documentation practices are maintained and adhered to.
- ▶ Develop, maintain and perform operational procedures and ensure operational tasks are performed reliably and consistently to reduce the risk of unplanned outages.
- ▶ Collect and analyse operational data (especially

incident and change records) to identify emerging trends and log problem records to assist with problem resolution and increased network availability.

- ▶ Troubleshoot and diagnose network problems, and determine the most appropriate technical solutions for resolving problems and issues to improve network performance and satisfy user's needs.
- ▶ Monitor and analyse the overall performance of systems to assess the need for performance tuning, updates, upgrades, enhancements, preventive maintenance and new systems, and recommend options for upgrading and improving the performance of systems.
- ▶ Evaluate new network hardware and software solutions and undertake systematic monitoring and scanning of the enterprise's external environment to identify emerging technologies that have the potential to create value.
- ▶ Reflect organisational values and abide by policies and procedures to ensure a safe, healthy and inclusive work environment.

Critical Work Functions

Network Configuration and Administration

- ▶ Design cost-effective network systems and services that meet product specifications and comply to standards and best practices.
- ▶ Prepare and execute test plans including integration, performance, coverage and capacity verification.
- ▶ Review technical documents for processes, technology and devices.
- ▶ Designate the direction for Local Area Network (LAN) and/or Wide Area Network (WAN), internet, wireless and remote access services.
- ▶ Validate the Software Defined Network (SDN) infrastructure within the IT ecosystem.
- ▶ Oversee the installation, upgrading, operation, control, maintenance and effective use of LAN and/or WAN for the communication of data, voice, text or images.
- ▶ Perform technical evaluation and proof-of-concept of new technologies for network infrastructure.

- ▶ Review releases, upgrades and fixes available from systems software and supplies, and identify those which merit action.

Network Operations and Incidents Management

- ▶ Manage network infrastructure to ensure alignment of technical requirements.
- ▶ Plan, carry out, oversee and apply advanced technical skills and independent analysis to network installation projects including complex software and hardware installations and relocations.
- ▶ Analyse specifications and general instructions to develop appropriate systems.
- ▶ Manage project activities and schedules, as well as determine and procure network equipment and supplies.
- ▶ Provide technical inputs on the procurement of network equipment and ensure compliance with procurement policies.
- ▶ Develop the disaster recovery plan, processes and protocols for disaster recovery of network infrastructure.
- ▶ Ensure disaster recovery plan testing activities are performed and technical criteria are met.
- ▶ Perform network fault troubleshooting and root cause analysis to locate sources of network issues.
- ▶ Develop and verify recovery solutions in test environments and execute in production network.
- ▶ Implement automation workflow for the management of repeated network issues in collaboration with relevant teams.
- ▶ Plan and coordinate network security measures for network infrastructure, software and data.

Network Utilisation and Performance Optimisation

- ▶ Consolidate data from network based on key parameters or metrics.
- ▶ Help in the development of models for capacity planning, load balance and/or redundancy solutions.
- ▶ Administer network tuning for optimisation.
- ▶ Review bandwidth requirements for facilities and inter-dependencies of systems.
- ▶ Review the activities stated in the network documentation in accordance with organisational policies.
- ▶ Track network activity and record technical problems.
- ▶ Maintain knowledge of emerging solutions for software and/or hardware.

Network Operations Support

- ▶ Conduct periodic maintenance, patches, and network upgrades.
- ▶ Procure network equipment, prepare technical specifications and documents.
- ▶ Perform regular backups and administer protocols for disaster recovery .
- ▶ Provide network support, monitor and tune networks for optimal performance including performing scheduled preventative maintenance.
- ▶ Act as the primary interface with equipment vendors for resolving problems.

Network Security Management

- ▶ Review compliance with information security policies and standards.
- ▶ Assess configurations and security procedures for adherence to legal and regulatory requirements.

- ▶ Investigate and assess the risks of network attacks and recommend remedial action.
- ▶ Prioritise and resolve security incidents, and escalate where necessary.
- ▶ Monitor systems for unauthorised activities and alert management to security issues.

Network Strategy

- ▶ Review existing policies and procedures to identify potential gaps, problems or opportunities for improvement and develop recommendations.
- ▶ Recognise and identify new policies and procedures to support changes including future business expansion.
- ▶ Research best practices, develop and draft proposed changes.
- ▶ Analyse, interpret, and present research findings on network management best practices, configurations, equipment, and future trends.

Skills & Competencies

Technical	Proficiency Level	
	Specialist	Expert/Management
Business Analysis	3	5
IT Architecture	3	4
Business Risk Management	2	5
Infrastructure Management	4	5
Network Administration and Maintenance	3	4
Network Configuration	4	4
Emerging Technology Synthesis	2	4
Vendor Management	3	4
IT Project Management	3	4
Telecommunications Network Management	4	5
Network Security Management	4	4
Service Management	3	4

Soft Skills	Proficiency Level	
	Specialist	Expert/Management
Analytical Thinking	Advanced	Expert
Decision-Making	Advanced	Expert
Communication	Advanced	Expert
Work Management	Advanced	Expert
Teamwork	Advanced	Expert
People Management	Intermediate	Expert
Creativity and Innovation	Intermediate	Advanced
Results Orientation	Advanced	Expert
Service Orientation	Advanced	Advanced
Negotiation	Intermediate	Expert
Resilience	Advanced	Expert

Entry Requirements

Specialist

BDQF Level 5 in IT, Telecommunications or related field.

Expert/Management

BDQF Level 5 in IT, Telecommunications or related field and 3 years experience.

Recommended Technical Training Courses

- ▷ AWS Certified Advanced Networking
- ▷ AWS Certified Solutions Architect- Associate
- ▷ Cisco Certified Internetwork Expert (CCIE)
- ▷ Cisco Certified Network Associate (CCNA)
- ▷ Cisco Certified Network Professional (CCNP)
- ▷ Citrix Certified Associate
- ▷ CompTIA A+
- ▷ CompTIA Network+
- ▷ Google Certified Professional Cloud Architect
- ▷ Juniper Networks Certified Internet Expert Enterprise Routing & Switching (JNCIE-ENT)
- ▷ Microsoft Certified Solutions Associate (MCSA): Windows Server 2016
- ▷ Microsoft Certified Solutions Expert (MCSE): Core Infrastructure
- ▷ VCP-DCV: VMware Certified Professional 6 – Data Center Virtualization
- ▷ VMware Certified Professional – Network Virtualization
- ▷ Wireshark Certified Network Analyst (WCNA)
- ▷ Huawei Certified Network Associate (HCNA)
- ▷ Huawei Certified Network Engineer (HCNE)
- ▷ Information Technology Infrastructure Library (ITIL)
- ▷ Risk Management
- ▷ IT Project Management

Infrastructure Engineer

Alternate Job Titles	Infrastructure Technology Engineer, Cloud Infrastructure Engineer, Site Engineer, Network Engineer, Wireless Engineer, Access Networks Engineer
Sub-Sector	Telecommunications and Networks
Functional Group	Infrastructure
Job Family	Infrastructure and Operations
Job Level	Specialist

Job Description

- ▶ Ensure the reliability and effectiveness of the organization's infrastructure.
- ▶ Make critical infrastructure decisions that influence the organisation's operational efficiency, security posture, and system resilience.
- ▶ Deliver technical implementation, maintenance, and daily operation of network and infrastructure systems.
- ▶ Oversee and manages the data centre's and other facilities' efficient operation, including deployment, installation, process modifications, upgrades, updates, repairs, evaluation, testing, supervision, monitoring, maintenance, cooling, power management, and security; all in accordance with the organization's standards, KPIs, or objectives.
- ▶ Adhere to organizational IT governance policies parameters, performance standards and security protocols

- ▶ Oversee the distribution of project resources, develop engineers for infrastructure installation, operations, and maintenance.
- ▶ Define policy parameters and establish performance standards for infrastructure.
- ▶ Identify and resolves infrastructure issues and proposes solutions to key stakeholders to enhance operations and maintenance services.
- ▶ Plan, implement and maintain server, network, cloud, and on-premises infrastructure systems.
- ▶ Manage project resources and effectively conveys the solutions developed to the team and other stakeholders.
- ▶ Ensure that all infrastructure configurations, processes, and procedures are accurately documented.
- ▶ Generate reports on KPIs and infrastructure performance on a regular basis.
- ▶ Support and maintain Operational Technology (OT) systems integrated with IT infrastructure

Critical Work Functions

Infrastructure Planning and Design

- ▶ Develop technical plans to support the organisation's future infrastructure requirements.
- ▶ Provide the organisation with advice on matters pertaining to infrastructure maintenance and operations.
- ▶ Recommend cost-cutting measures, resource optimisation, and enhancements to processes, products, or services.
- ▶ Collaborate with stakeholders to specify the upkeep and operations needs for the infrastructure to deploy new technologies.
- ▶ Prepare for business obstacles both internal and external, as well as regulatory ones.
- ▶ Project financial, material, and personnel requirements to achieve predetermined goals.
- ▶ Assess engineering trends and emerging technologies to improve orchestration and infrastructure.

Infrastructure Installation and Optimisation

- ▷ Integrate solutions with existing systems based on technical specifications.
- ▷ Develop new monitoring methods and warnings in accordance with engineering specifications.
- ▷ Analyse patterns of usage and recognise updates or changes.
- ▷ Analyse platform and infrastructure availability by modelling workload capacity.
- ▷ Recommend modifications and/or improvements to increase the performance, dependability, and availability of the system.
- ▷ Recommend and execute hardware or software modifications to solve issues or take advantage of chances for improvement.
- ▷ Support the development, implementation, and maintenance of infrastructure backup and disaster recovery strategies.

Infrastructure Governance and Compliance

- ▷ Monitor infrastructure performance and availability to ensure alignment with established Service Level Agreements (SLAs).
- ▷ Support the creation of KPIs, metrics, and SLAs other key performance metrics.
- ▷ Establish long-term governance programmes to ensure compliance with security requirements
- ▷ Ensure adherence to laws and regulations when operating and maintaining infrastructure.

Vendor and Partner Management

- ▷ Assess and accredit important vendors, technology suppliers, and infrastructure partners.
- ▷ Oversee agreements with important suppliers and partners.
- ▷ Evaluate important vendors' and partners' performance using predetermined service delivery parameters.

Resource Management

- ▷ Oversee the distribution and use of the funds throughout teams and projects.
- ▷ Monitor and report on team achievements and performance indicators to ensure alignment with objectives.
- ▷ Recommend improvements to operational plans, including workforce planning, task distribution, and budget forecasting.
- ▷ Manage the acquisition and optimisation of available resources to meet technical and operational goals.
- ▷ Develop structured learning roadmaps to support the technical growth of the team.
- ▷ Manage the process of performance and development, offering chances for growth and coaching to help each person reach their full potential.

Skills & Competencies

Technical	Proficiency Level
Business Needs Analysis	4
Cloud Computing	4
Cyber and Data Breach Management	4
Disaster Recovery Management	4
Enterprise Architecture	4
Infrastructure Strategy	4
Infrastructure Support	4
Network Administrative and Maintenance	4
Network Configuration	4
Service Level Management	4
Project Management	3
Process Improvement and Optimisation	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Intermediate
Communication	Intermediate
Work Management	Intermediate
Teamwork	Intermediate
People Management	Intermediate
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Intermediate
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification, and a minimum of 5 years of relevant experience OR

BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/experience and a minimum of 8 years of relevant experience.

Recommended Technical Training Courses

- ▶ Datacom - HCIA-Datacom Huawei Certified ICT Associate-Datacom
- ▶ WLAN - HCIA-WLAN Huawei Certified ICT Associate-WLAN
- ▶ Transmission - HCIA-Transmission Huawei Certified ICT Associate-Transmission
- ▶ Access - HCIA-Access Huawei Certified ICT Associate-Access
- ▶ 5G - HCIA-5G Huawei Certified ICT Associate-5G
- ▶ Project Management Professional (PMP)
- ▶ Telecommunications Management Professional (TMP)
- ▶ Certified Telecommunications Analyst (CTA)
- ▶ Certified Wireless Network Professional (CWNP)
- ▶ Cisco Certified Network Associate
- ▶ AWS Certified Solutions Architect – Professional
- ▶ VMware Certified Professional – Data Center Virtualization (VCP-DCV)
- ▶ Microsoft Azure Administrator Associate Certification
- ▶ Cisco Certified Design Expert (CCDE)
- ▶ Juniper Networks Certified Internet Professional/Expert

Infrastructure Manager

Alternate Job Titles	Information Technology Infrastructure Manager, Information Systems Manager, Field Manager
Sub-Sector	Telecommunications and Network
Functional Group	Development and Deployment
Job Family	IT Infrastructure Management
Job Level	Specialist

Job Description

- ▶ Oversee and manage the operation and upkeep of the telecom infrastructure.
- ▶ Assist engineers and technical specialists in carrying out routine wired or wireless network management tasks in line with corporate objectives and industry best practices.
- ▶ Develop team skills and manage resources strategically.
- ▶ Plan, configure and implement new server system, ensuring proper hardware and software installation according to organisational and industry standard.
- ▶ Perform regular preventive and corrective maintenance of server system to ensure optimal performance, reliability and minimal downtime.
- ▶ Monitor and maintain appropriate environmental conditions in data centre (e.g., temperature and humidity control) to prevent hardware overheating and ensure compliance with equipment specification.
- ▶ Oversee and manage power distribution, UPS systems and backup power solutions to ensure server operation and efficient energy usage.
- ▶ Implement and maintain physical and cybersecurity measures to safeguard servers and sensitive data, including access control, monitoring and compliance with security policies.
- ▶ Provide technical specialists and telecommunication engineers' supervision and on-the-job training.
- ▶ Resolve more intricate and unusual network problems.
- ▶ Lead intricate or significant infrastructure-related engineering, integration, testing, and maintenance projects.
- ▶ Manage projects related to data centres, wired networks, wireless equipment, outside plant installation, and Wide Area Network (WAN).
- ▶ Define the organisation's strategic roadmap for telecommunications infrastructure, including the transition toward its future-state environment.
- ▶ Ensure that infrastructure design, technology solutions, and implementation align with the organisation's vision, goals, and governance.
- ▶ Ensure compliance towards policies, standards, processes, and guidelines to support this alignment.
- ▶ Develop a business continuity and risk management strategy for the infrastructure.
- ▶ Collaborate with the security team to establish and uphold security procedures in accordance with laws and industry standards.
- ▶ Establish effective strategic and operational partnerships with important stakeholders, such as regulators, to ensure alignment with company needs and expectations.
- ▶ Lead the organisation's participation in global technical cooperation efforts with other operators.
- ▶ Supervise a group of experts and inspectors to oversee the work of the telecom O&M contractors.
- ▶ Ensure that all infrastructure configurations, processes, and procedures are accurately documented.
- ▶ Monitor and analyse engineering reports on infrastructure performance in relation to defined KPIs, ensuring alignment with governance policies, operational standards, and stakeholder expectations.
- ▶ Manage relationships and performance with vendors and partners by overseeing selection, contract negotiation, compliance, and service

delivery to ensure alignment with infrastructure goals and SLAs.

Critical Work Functions

Infrastructure Planning and Architecture

- ▶ Create an infrastructure strategy for the organisation that complies with current laws and requirements.
- ▶ Drive the creation of a roadmap to move the organisation towards its infrastructure of the future.
- ▶ Ascertain the infrastructure requirements, both short- and long-term, for the present and foreseeable business needs.
- ▶ Provide design guidance for a secure, scalable, and resilient infrastructure that has automation tools and workflows integrated in.
- ▶ Exercise thought leadership in infrastructure architecture.
- ▶ Outline the infrastructure's ideal performance requirements.

Infrastructure Deployment and Performance Management

- ▶ Secure formal approval from senior management before implementing the infrastructure design and strategy.
- ▶ Provide stakeholders with information about the infrastructure environment's limitations and capabilities.
- ▶ Manage the creation of backup, disaster recovery, and risk management plans.
- ▶ Evaluate the infrastructure's performance in relation to established benchmarks, business needs, and legal requirements.

- ▶ Ensure that the organization's vision and strategy are in line with the infrastructure architecture, solutions, and technology.
- ▶ Recommend new technologies to optimise cost-efficiency, strengthen security and compliance, and improve network performance and service quality, including areas such as RF optimisation, infrastructure resilience, and operational excellence.

Infrastructure Governance and Compliance Management

- ▶ Develop protocols, key performance indicators (KPIs), performance metrics, and service level agreements (SLAs) to measure and guide infrastructure operations.
- ▶ Define and implement governance policies, standards, processes, and guidelines aligned with the organisation's business strategy.
- ▶ Advise on the formulation of operational procedures and infrastructure requirements to ensure standardised practices across the organisation.
- ▶ Ensure that the physical and digital infrastructure designs comply with all applicable laws and regulations.

Vendor and Partner Management

- ▶ Establish strategic connections with vendors, technology suppliers, regulators, and important infrastructure partners.
- ▶ Lead negotiations for contracts and service agreements to ensure alignment with organisational needs and compliance requirements.
- ▶ Monitor important vendors' and partners' performance in providing services.

Resource Management

- ▶ Review operational plans, guidelines, and goals for various projects and teams.
- ▶ Develop resources allocation plans to optimise capacity and capability across departments.
- ▶ Evaluate utilisation of organisational resources to ensure efficiency and alignment with goals.
- ▶ Support the identification of technical skill gaps and contribute to the development of upskilling plans for infrastructure teams.
- ▶ Monitor the effectiveness of on-the-job training and knowledge transfer activities within the infrastructure function.
- ▶ Identify and recommend potential successors within the infrastructure team to support workforce continuity planning.

Skills & Competencies

Technical	Proficiency Level
Business Environment Analysis	5
Business Risk Management	5
Emerging Technology Synthesis	5
Business Innovation	5
Cloud Computing	5
Cyber and Data Breach Management	5
Enterprise Architecture	5
Infrastructure Strategy	5
IT Governance	5
Networking	5
Security Architecture	5
Project Management	5
Stakeholder Management	5
Service Management	5
Disaster Recovery Management	4

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Work Management	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced
Teamwork	Intermediate
People Management	Intermediate
Communication	Intermediate

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Entry Requirements

Brunei Darussalam Qualification Framework (BDQF) Level 6 in Information Systems, Computer Science, or any related field, with related industry certification, and a minimum of 5 years of relevant experience OR

Brunei Darussalam Qualification Framework (BDQF) Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/experience and a minimum of 8 years of relevant experience.

Recommended Technical Training Courses

- ▶ Datacom - HCIA-Datacom Huawei Certified ICT Associate-Datacom
- ▶ WLAN - HCIA-WLAN Huawei Certified ICT Associate-WLAN
- ▶ Transmission - HCIA-Transmission Huawei Certified ICT Associate-Transmission
- ▶ Access - HCIA-Access Huawei Certified ICT Associate-Access
- ▶ 5G - HCIA-5G Huawei Certified ICT Associate-5G
- ▶ Project Management Professional (PMP)
- ▶ Telecommunications Management Professional (TMP)
- ▶ Certified Telecommunications Analyst (CTA)
- ▶ Certified Wireless Network Professional (CWNP)
- ▶ Cisco Certified Network Associate (CCNA)
- ▶ AWS Certified Solutions Architect – Professional
- ▶ Microsoft Certified Azure Administrator
- ▶ VMware Certified Professional 6 – Data Center Virtualization (VCP6-DCV)

Chief Technology Officer

Alternate Job Titles	Director of Technology, VP of Technology, Chief Digital Officer (CDO), Chief Innovation Officer, Chief Technical Officer
Sub-Sector	Telecommunications and Network
Functional Group	Technology Architecture & Innovation
Job Family	Strategic Leadership
Job Level	C-Suite

Job Description

- ▶ Develop and implement strategic plan for the development, implementation, and oversight of the organisation's overall technology vision, ensuring alignment of new IT solutions with business objectives.
- ▶ Oversee the organization's technology and communications strategy, plans, and implementation.
- ▶ Collaborate with cross-functional leaders (e.g. CIO, CEO, product development, marketing) to align technology initiatives with commercial objectives and shape the technological components of the organisational strategy.
- ▶ Identify and recommend emerging technologies and digital innovations to enhance organisational competitiveness, demonstrating proficiency in evaluating technology trends, platforms, and enterprise-level solutions.
- ▶ Develop and executes long-term telecommunication strategies leveraging both emerging and existing technologies, ensuring alignment with organisational objectives and measurable impact through defined operational KPIs.

- ▶ Enhance infrastructure connectivity to drive revenue growth through technological innovation, while ensuring solutions are delivered within allocated budgets.
- ▶ Provide guidance to departments on leveraging technology to improve operational efficiency, optimise processes, and reduce costs.
- ▶ Oversee and optimise the organisation's telecommunications systems and infrastructure, ensuring they operate with maximum efficiency, reliability, and security, while supporting seamless connectivity, business continuity, and scalability for future organisational needs.
- ▶ Establish data security and quality assurance procedures.
- ▶ Evaluate the performance of technology and monitor technological expenditures and Key Performance Indicators (KPIs).
- ▶ Implement technological improvements based on stakeholder feedback and evolving organisational needs.
- ▶ Communicate the organisation's technology and communications strategy to investors and partners.
- ▶ Manage the organization's overall technical infrastructure and collaborates with key business

- stakeholders to identify and leverage new IT opportunities for business growth.
- ▶ Authorise the adoption of new technologies to improve or expand the organisation's products and services.
- ▶ Inspire executive leadership with a forward-thinking mindset and drives innovation across the organisation.
- ▶ Identify interdependencies across domains and influences key stakeholder decisions.

Critical Work Functions

Strategy Formulation and Implementation

- ▶ Establish the technology vision, strategy and underlying technology development initiatives or programmes.
- ▶ Align technology management and development strategy with business strategy.
- ▶ Provide strategic, budgetary and administrative advice for implementation of technology management and development strategy.
- ▶ Drive awareness and education on technology management throughout the organisation.
- ▶ Advise senior management and key stakeholders on technology matters.

Telecommunication Technology Solution Development

- ▶ Create, installs, tests, and commissions a range of telecommunications networks, including regional and national networks as well as local area networks and metro-area networks.
- ▶ Develop technical standards and specification for a range of telecom devices, including phones, switches, routers, hubs, and firewalls.
- ▶ Support the creation of technical specifications for equipment procurement; assesses vendor offers, conducts tests, and makes recommendations regarding the choice of telecommunications equipment; assists in the creation of equipment and service contracts and acts as the contract administrator.
- ▶ Determine the proper specifications to purchase communication equipment as cheaply and quickly as possible.

Telecommunication Performance Management

- ▶ Set performance requirements for telecom services and equipment and suggests remedial actions to raise operational performance and service quality.
- ▶ Offer planning assistance for the quick setup and remote operation of local and wide-area communications infrastructure from “scratch,” including site visits for technical reconnaissance missions.
- ▶ Offer engineering services for the design,

construction, and upkeep of wide- and local-area networks for telecommunications.

- ▶ Encourage field research projects and the development of early warning system standards and specifications.

Stakeholders Management

- ▶ Ensure the organisation’s emergency communications capabilities are in place to support staff safety and operational continuity, including the establishment of crisis communication protocols and coordination with external agencies.
- ▶ Work together with the programme management team to develop training materials and other instructional activities covering every facet of using communications technology.
- ▶ Arrange and delivers presentations to personnel and other UN agencies regarding telecommunications networks and equipment.
- ▶ Directly communicate with and oversee the coordination of standardisation, information and communication technology, development plans, and policies-related activities.
- ▶ Ensure that agencies are effectively coordinated with one another to maximise opportunities for interagency cooperation in the telecom sector.
- ▶ Advocate the organisation’s technological vision and strategic direction by educating management, staff, investors, customers, and partners on opportunities, innovations, and emerging

challenges.

Vendor Management

- ▶ Lead vendor evaluation, selection, and onboarding to align with enterprise IT strategy and business needs.
- ▶ Negotiate and manage vendor contracts and SLAs, ensuring performance, compliance, and cost efficiency.
- ▶ Monitor vendor performance and maintain ongoing relationships to support innovation and continuous improvement.

Skills & Competencies

Technical	Proficiency Level
Business Needs Analysis	5
Business Agility	5
Business Risk Management	5
Emerging Technology Synthesis	5
Enterprise Architecture	5
IT Strategy	5
IT Project Management	5
Service Management	5
Change Management	5
User Interface Design	5
Stakeholder Management	5
Emerging Technology Synthesis	5
Solutions Architecture	5
Systems Integration	5
Quality Standards	5
Vendor Management	5
Networking	4

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced

Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification and minimum of 10 years' experience at managerial level, OR

BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification and minimum of 12 years' experience at senior level

Recommended Technical Training Courses

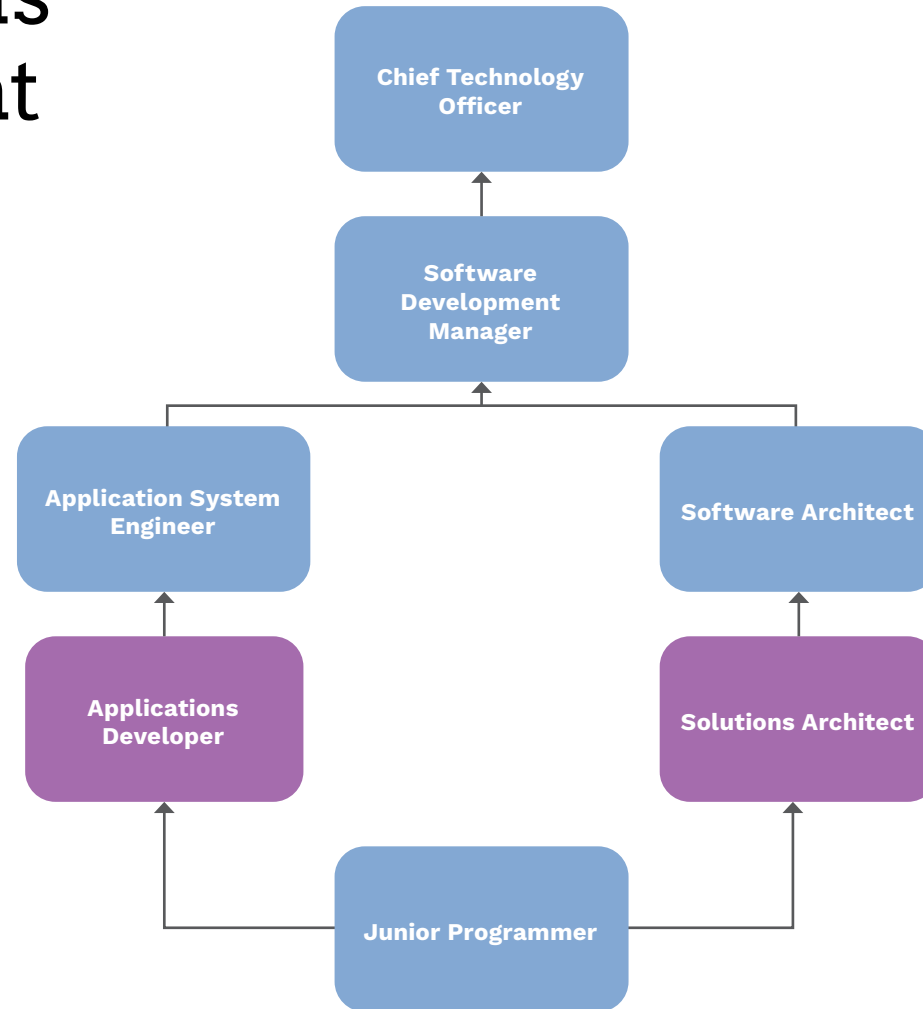
- ▶ Chief Technology Officer Certification Programme (CCTO) (such as Wharton, Berkeley, Cambridge, Oxford, NUS, Yale)
- ▶ Certified Information Technology Professional (CITP)
- ▶ Certified Information Systems Security Professional (CISSP)
- ▶ AWS Certified Solutions Architect –Professional
- ▶ Certified in the Governance of Enterprise IT (CGEIT)
- ▶ Certified ScrumMaster (CSM)
- ▶ ITIL 4 Foundation Certification
- ▶ Project Management Professional (PMP)
- ▶ TOGAF 9 Certification
- ▶ Applied Telecommunication Engineering
- ▶ 5G Infrastructure and Operations
- ▶ Telecommunications Architecture Protocols
- ▶ Certified IP Telecoms Network Specialist (CIPTS)
- ▶ Certified Telecommunications Subject Matter Expert
- ▶ Convergent Networking Technologies (CCNT)
- ▶ ISO 22301 Training



Applications and Solutions Development Sub-Sector

Applications and Solutions Development Career Path

- Newly developed framework
- Previously developed framework



Junior Programmer

Alternate Job Titles	Software Engineer, Software Developer, Application Developer, Application Engineer, Programmer Analyst, Software Development Engineer
Sub-Sector	Applications and Solutions Development
Functional Group	Software and Systems
Job Family	Applications Solutions Development
Job Level	Entrant

Job Description

- ▶ Write code according to specifications.
- ▶ Support senior developers across the software development lifecycle (SDLC).
- ▶ Encourage frequent upgrades and suggests enhancements for already-existing applications.
- ▶ Provide technical support for software applications to ensure smooth operation and user satisfaction.
- ▶ Participate in version control and code reviews.
- ▶ Monitor and enforce adherence to development and coding standards to ensure code quality, consistency, and maintainability.

Critical Work Functions

User Requirement Analysis

- ▶ Examine how the resources are being used.
- ▶ Take part in conversations with stakeholders to comprehend what the needs of users are.
- ▶ Support needs analysis based on demands from users.
- ▶ Help with the creation of interface definitions, requirements documentation, and functional and non-functional requirements.
- ▶ Help with the creation of communication materials and proposals for idea pitching.

Software Design Support

- ▶ Support the installation and operation of tools for the specified design strategy and methodology of a project.
- ▶ Take part in architectural design activities involving the application of models, patterns, diagramming methodologies, and standard notations.
- ▶ Use a chosen software design pattern for creating software modules or components.
- ▶ Take part in reviews of software design.
- ▶ Support the creation and application of prototypes and simulations to assess the calibre of software design.

Software Development Support

- ▶ Compile and report key metrics for code quality.
- ▶ Create code modules according to technical specifications and design models.
- ▶ Develop and execute unit tests to ensure code meets the specified test objectives.
- ▶ Utilise established version control system to manage all code changes and maintain clear, up-to-date code documentation.
- ▶ Design and develop software development tools and scripts that support the software development life cycle. Software development tools are computer programs that aid developers

in creating, managing, and maintaining other software. Broadly categorized into several areas, including code editors, IDEs, version control systems, project management tools, testing frameworks, and build automation tool. Example: Generic tools like Git, GitHub, Jenkins, Asana, Trello, Jira, and some developed by the team internally.

- ▶ Create and manage an appropriate version control system and code documentation.

Software Testing Execution

- ▶ Provide support in the creation of the scripts, cases, and test plans.
- ▶ Execute software testing strategies.
- ▶ Execute the unit, integration, and system test cases as well as the test environment.
- ▶ Document the results of test execution and review the outcome against test plan and expected results.

Software Security Compliance

- ▶ Adhere to secure coding guidelines and recommended code standards.
- ▶ Comply with project guidelines while gathering metrics related to security assessments.
- ▶ Conduct code reviews to find security flaws.

Software Configuration Management (SCM) Setting

- ▶ Assist in assessing how policies, contracts, and the software development life cycle affect supply chain management.
- ▶ Offer measurement information for SCM metrics.
- ▶ Aid in the identification of SCIs, or software configuration objects.
- ▶ Create, organise, and oversee issue reports.

Skills & Competencies

Technical	Proficiency Level
Agile Software Development	3
Application Development	3
Application Integration	3
Business Needs Analysis	3
Configuration Tracking	3
Data Design	3
Software Configuration	3
Software Design	3
Software Testing	3
System Integration	3
User Interface Design	3
Project Management	3
Soft Skills	Proficiency Level
Analytical Thinking	Intermediate
Decision-making/ Judgement	Intermediate
Communication	Intermediate
Work Management	Intermediate
Teamwork	Intermediate
People Management	Intermediate
Creativity & Innovation	Intermediate
Results/Achievement Orientation	Intermediate
Service Orientation	Intermediate
Negotiation	Intermediate
Resilience	Intermediate

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, Software Engineering, or any related field, with related industry certification OR
 BDQF Level 5 in Information Systems, Computer Science, Software Engineering, or any related field, with related industry certification or possesses relevant portfolio/ experience.

Recommended Technical Training Courses

- ▶ Certified Associate in Project Management (CAPM)
- ▶ AWS Certified Developer-Associate
- ▶ AWS Certified Solutions Architect-Associate
- ▶ CompTIA Security+
- ▶ Certified ScrumMaster (CSM)
- ▶ ITIL4 – Foundation Level
- ▶ Junior Full Stack Java Developer
- ▶ HTML, CSS and JavaScript for Web Developer
- ▶ Oracle Certified Associate, Java Programmer
- ▶ Google Cloud Professional Developer
- ▶ Certified Secure Software Lifecycle Professional (CSSLP)

Applications Developer

Alternate Job Titles	Application Engineer, Software Programmer, Programmer, Software Architect
Sub-Sector	Applications and Solutions Development
Functional Group	Software and Systems – Applications Development and Deployment
Job Family	Development and Deployment
Job Level	Entrant or Specialist

Job Description

- ▶ Create and test the software/applications in accordance with the detailed technical design to ensure that the business requirements are met.
- ▶ Work to resolve software/applications issues.
- ▶ Participate and contribute to the review, analysis and verification of business and software requirements.
- ▶ Create and maintain software/applications in accordance with the detailed technical design.
- ▶ Code from component specifications and test scripts.
- ▶ Develop test plan and run unit testing to determine functionality of software/applications.
- ▶ Participate and contribute to the review and verification of test requirements and test cases.
- ▶ Prepare technical documentation and reports on software/applications development.
- ▶ Develop, create and modify general computer applications software or specialised utility programmes.
- ▶ Analyse user needs and develop software solutions.
- ▶ Design software or customise software for client use with the aim of optimising operational efficiency.

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- ▶ Analyse and design databases within an application area.
- ▶ Coordinate database development.
- ▶ Design, develop, test, debug and implement software applications or specialised utility programmes.
- ▶ Work with applications support lead in resolving software/applications issues.

Critical Work Functions

Identification of Requirements

- ▶ Support stakeholder discussions to understand business needs and user requirements.
- ▶ Support proposal writing for development of applications.
- ▶ Support the formulation of specifications and the definition of applications delivery platforms.
- ▶ Support analysis of requirements.
- ▶ Participate in discussions with stakeholders to understand user requirements.
- ▶ Conduct requirements analysis based on user requirements.
- ▶ Prepare requirements documentation, descriptions of interfaces, and functional and non-functional requirements.

Application Development

- ▶ Integrate applications with databases from the back end.
- ▶ Support the creation of programme logic for new applications and functionality.
- ▶ Support the creation of the concept of apps, interface design and architecture.
- ▶ Analyse and resolve issues using prescribed guidelines or policies.
- ▶ Plan and coordinate regular updates and recommend improvements to existing applications.
- ▶ Identify and resolve issues which have organisation-wide and long-term impact.
- ▶ Identify security risks, create requirements to capture security issues, and perform initial threat modelling to ensure coding standards meet security requirements.
- ▶ Develop and maintain the software configuration management plan.

Application Implementation

- ▶ Apply bug-fixes.
- ▶ Deploy applications as per specifications.
- ▶ Create procedures for document implementation.
- ▶ Investigate problems and perform root cause analysis.

- ▶ Support testing of the applications developed.
- ▶ Provide guidance and technical support to the quality testing teams.
- ▶ Evaluate changes and updates to source production systems.
- ▶ Train end-users on new reports and dashboards.
- ▶ Propose new technologies for cutting edge platform development.

Application Optimisation

- ▶ Collect user feedback and generate system reports on the performance of the applications.
- ▶ Propose recommendations to improve the performance of applications.
- ▶ Support initiatives to enhance applications' functionality and process flow.
- ▶ Support the analysis and modification of design logic in existing applications.
- ▶ Encourage the integration of new products with existing applications to enhance features.
- ▶ Assist in the installation and use of tools for a project's designated design strategy and methodology.
- ▶ Assist in architectural design tasks associated with use of standard notations, diagramming techniques, models and patterns.
- ▶ Apply selected software design pattern to the design of software components or modules.
- ▶ Participate in software design reviews.
- ▶ Carry out static analysis tasks to evaluate design quality.
- ▶ Assist in development and use of simulation and prototypes to evaluate software design quality.
- ▶ Perform integration testing as part of the integration process.
- ▶ Adhere to project standards in the collection of

security assessment metrics.

- ▶ Perform code reviews to identify security vulnerabilities.
- ▶ Assist in determining impact of constraints on Software Configuration Management (SCM) imposed by policies, contract and software development life cycle.
- ▶ Provide measurement data for SCM measures.
- ▶ Assist in identifying software configuration items (SCIs).
- ▶ Generate, classify and manage problem reports.

Application Maintenance

- ▶ Analyse usage reports on applications.
- ▶ Document the technical architecture of the application, changes to code, issue resolutions and procedures.
- ▶ Solve routine issues occurring within applications.
- ▶ Promote monitoring of compliance with safety measures.
- ▶ Support the updating and maintenance of existing applications.
- ▶ Collect standard measures of code quality and size.
- ▶ Generate codes and systems from models.
- ▶ Create and execute unit tests for delivered codes.
- ▶ Achieve test coverage goals set by project and organisation standards.
- ▶ Identify unit and integration testing success and failure criteria.
- ▶ Adhere to software test plans.
- ▶ Assist with the development of test plans and test cases.
- ▶ Implement the test environment and unit test

cases, and integration and system test cases.

- ▶ Collect and analyse test execution results.
- ▶ Follow recommended coding standards and secure coding principles to avoid security vulnerabilities.

Skills & Competencies

Technical	Proficiency Level	
	Entrant	Specialist
Business Analysis	2	3
Application Development	3	4
Application Integration	3	3
Application Support and Enhancement	3	3
IT Architecture	2	3
Information Security Management	2	3
Security Architecture	2	3
Software Configuration	3	3
Software Design	3	3
Software Testing	3	3
User Interface Design	3	4
IT Project Management	2	3
Service Management	3	4

Soft Skills	Proficiency Level	
	Entrant	Specialist
Analytical Thinking	Intermediate	Advanced
Decision-Making	Intermediate	Intermediate
Communication	Intermediate	Intermediate
Work Management	Intermediate	Intermediate
Teamwork	Intermediate	Intermediate
People Management	Intermediate	Intermediate
Creativity and Innovation	Intermediate	Advanced
Results Orientation	Intermediate	Advanced
Service Orientation	Intermediate	Advanced
Negotiation	Intermediate	Intermediate
Resilience	Intermediate	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science or related field with 3 years experience in related fields OR

BDQF Level 5 in Information Systems, Computer Science or related field with 5 years of relevant industry experience or possess relevant portfolio/experience.

Recommended Technical Training Courses

- ▷ NET Core Development
- ▷ IBM Certified Mobile Application Developer
- ▷ Associate Android Developer (Google)
- ▷ GIAC Mobile Device Security Analyst
- ▷ Introduction to Development using Flutter
- ▷ Mobile App Development Using Flutter
- ▷ Salesforce Certified Platform App Builder
- ▷ Agile Project Management Foundation Certification
- ▷ Android Application Development Certification
- ▷ ArchiMate 3 Foundation and Practitioner
- ▷ Developing ASP.Net Core MVC Web Applications
- ▷ Developer Training for Spark and Hadoop
- ▷ Microsoft Azure Fundamental
- ▷ Oracle Database Administrator (DBA)
- ▷ SAP Certified Development Associate – ABAP
- ▷ ITIL Foundation
- ▷ Scrum Developer
- ▷ Node.js

Programming Languages

Programming Languages in Demand (JavaScript, Python, HTML, CSS, Java, SQL, NoSQL, C#, C++, Rust, Perl, Go, PHP, R, Ruby, Swift)

Solutions Architect

Alternate Job Titles	Software Architect, Technical Architect, Application Architect, Infrastructure Architect, IT Architect
Sub-Sector	Applications and Solutions Development
Functional Group	Application Development
Job Family	Applications Configurations and Installations, and IT Security
Job Level	Specialist

Job Description

- ▶ Analyse, design and develop roadmaps and implementation plans based on a current versus future state business architecture.
- ▶ Review recommendations to software architectural standards for approval.
- ▶ Lead and facilitate the software architecture governance process based on the enterprise architecture governance structure.
- ▶ Manage exceptions to architectural standards at a software level by assessing near-term needs to establish business priorities and align architectural requirements with IT strategy.
- ▶ Consult with clients and IT teams on software architecture solutions and provide recommendations on emerging technology.
- ▶ Oversee the development of guidelines and standards to be used in software development and integration.
- ▶ Formulate the conceptual and detailed architecture for the development of applications.
- ▶ Research, analyse, design and deliver solutions that are appropriate for business strategy.
- ▶ Interplay across several business area and act as visionary to proactively define the direction for

future projects.

- ▶ Plan, design, and develop integrated information technology architecture solutions for internal and external clients.
- ▶ Serve as a technical expert on solutions designs, development and implementation requirements to address business needs.

Critical Work Functions

Identification of Business Requirements

- ▶ Formulate the organisation's architecture strategy, roadmap, standards, policies and procedures.
- ▶ Liaise with senior stakeholders to determine requirements and define the scope of solution and governance.
- ▶ Evaluate client's system specification, work practices and the nature of business.
- ▶ Evaluate the state of the enterprise architecture of the organisation.

Leading and Coordination of Domain Technical and Business Discussions

- ▶ Participate in ecosystem strategy development,

environment analysis and opportunity identification.

- ▶ Analyse, design and develop roadmaps and implementation plans based on a current versus future state.
- ▶ Design standard configurations and patterns.

Leading and Facilitation of Software Architecture Governance Process Based on the Enterprise Architecture Governance Structure

- ▶ Manage exceptions to architectural standards at a software level.
- ▶ Review and approve recommendations to software architectural standards.

Development of Architecture Requirements and Maintaining Oversight

- ▶ Analyse and develop software architectural requirements.
- ▶ Align architectural requirements with IT strategy.
- ▶ Assess near-term needs to establish business priorities.
- ▶ Ensure compatibility with existing solutions, infrastructure, services and strategic requirements.
- ▶ Coordinate architecture implementation and

modification activities.

- ▷ Assist in post-implementation and continuous improvement efforts to enhance performance and provide increased functionality.
- ▷ Ensure conceptual completeness of the technical solution.

Quality Management and Continuous Improvement of Architecture

- ▷ Analyse the current architecture to identify weaknesses and develop opportunities for improvement.
- ▷ Identify and propose variances to the architecture to accommodate project needs.
- ▷ Perform ongoing architecture quality review activities.
- ▷ Research emerging technologies.

Consultation with Clients and IT Teams on Software Architecture Solutions

- ▷ Analyse cost versus benefits, risks, impact and technology priorities.
- ▷ Provide recommendations on emerging technology to senior management.
- ▷ Develop a communication plan for software architecture.
- ▷ Lead the research and evaluation of emerging technology, industry and market trends to assist in project development.
- ▷ Identify organisational requirements for resources.

Software Architecture Design Management

- ▷ Oversee the development of guidelines and standards to be used in software development and integration.

- ▷ Formulate the conceptual and detailed architecture for the development of applications.
- ▷ Manage the software architecture governance process.
- ▷ Define transition steps and strategy from current to future software architecture.
- ▷ Develop methods to integrate systems that interact and extend across organisational and functional lines.

Skills & Competencies

Technical	Proficiency Level
Software Design	5
Application Development	4
IT Architecture	4
Application Integration	4
Business Analysis	4
Quality Standards	4
Security Architecture	4
Software Configuration	4
User Interface Design	4
Software Testing	4
Service Management	4

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
Negotiation	Intermediate
People Management	Intermediate

Entry Requirements

BDQF Level 6 in Computer Science, IT, Software Engineering or related field OR

BDQF Level 5 in Computer Science, IT, Software Engineering or related field with 6 years relevant industry experience.

Recommended Technical Training Courses

- ▶ Amazon Web Services (AWS)
- ▶ AWS Certified Solutions Architect - Associate
- ▶ AWS Certified Solutions Architect - Professional
- ▶ Azure Solution Architect Certification
- ▶ CCNP Service Provider Operations
- ▶ Certified Information Systems Security Professional - Architecture (CISSP)
- ▶ Certified Scrum Master (CSM)
- ▶ Google Cloud Architect Certification
- ▶ ITIL Certification (all level)
- ▶ The Open Group Architecture Framework (TOGAF)
- ▶ VMware Certified Professional 6 - Cloud (VCP-Cloud)
- ▶ Microsoft Certified Solutions Expert (MCSE)
- ▶ DevOps Engineer Training

Application System Engineer

Alternate Job Titles	IT Engineer, Engineer Systems, IT Systems Engineer, Technology Engineer, Server Engineer, Information Systems Engineer, Systems Eng, Computer Systems Engineer, Enterprise Systems Engineer	
Sub-Sector	Applications and Solutions Development	
Functional Group	Infrastructure/ Hardware Support	
Job Family	Server and Network Support	Applications configurations and installations and IT Security
Job Level	Specialist	

Job Description

- ▶ Plan, install, configure, test, and maintain system hardware and software, including operating systems, management platforms, application software, and system administration tools.
- ▶ Manage and implement system changes by assessing risks, coordinating with teams, executing updates safely, and documenting outcomes to ensure stable and secure infrastructure operations.
- ▶ Assess the current systems and give IT support employees technical guidance.
- ▶ Manage the creation of specialised hardware and software requirements.
- ▶ Plan and implement systems automation to improve operational efficiency and reduce manual processes.
- ▶ Model and create the security mechanism to protect data.
- ▶ Responsible for monitoring on the continuous accessibility of technical resources
- ▶ Monitoring and managing the inventory.
- ▶ Investigate and fix system problems.
- ▶ Ensure timely logging and reporting of incidents to support prompt investigation and resolution.

- ▶ Manage system backups, and design and support switchover, failover, and disaster recovery (DR) processes to ensure data integrity, service continuity, and business resilience.
- ▶ Keep up system documentation for the duration of its life.
- ▶ Maintain comprehensive system documentation throughout the system's lifecycle to ensure accuracy, traceability, and supportability.

Critical Work Functions

System Implementation

- ▶ Arrange, coordinates, supervises, and employs sophisticated technical abilities and autonomous analysis to complete IT system installation tasks, such as intricate software and hardware installations and relocations.
- ▶ Examine general directions and specifications to create systems that are suitable.
- ▶ Oversee the planning, scheduling, selection, and acquisition of network supplies and equipment.
- ▶ Arrange for hardware, monitoring, and application software implementation.
- ▶ Execute system analysis and modelling, system integration and testing, and system design and architecture.

- ▶ Examine new developments in infrastructure and cloud computing.
- ▶ Help with the testing of novel instruments, systems, and/or procedures.
- ▶ Carry out system installations and infrastructure operations in accordance with design specifications.
- ▶ Maintain comprehensive system documentation throughout the system's lifecycle to ensure accuracy, traceability, and supportability.

Administration of Infrastructure and Services

- ▶ Provide support in configuring computer hardware, systems, software, and application software infrastructures.
- ▶ Support the installation and testing of infrastructure.
- ▶ Look for ways to optimise services and systems with a focus on security, scalability, availability, and dependability.
- ▶ Perform upgrades and audits of systems.
- ▶ Create automated procedures for defining, assessing, and reporting on the capacity, stability, and quality of services.
- ▶ Arrange upgrades and installs in line with the policies, practices, and protocols of the organisation.

- ▷ Interact, diagnose, and fix system problems.
- ▷ Make suggestions for enhancing infrastructure resolution strategies and tactics.
- ▷ Keep track of and revise system documentation.
- ▷ Make suggestions to raise client satisfaction and performance.

Vendor Management

- ▷ Communicate with the vendor to confirm that the proposal satisfies the specifications.
- ▷ Provide technical assistance to address problems or incidents.
- ▷ Collaborate closely with the vendor to integrate and implement the system.
- ▷ Monitor vendor performance and report findings.

Safety and Adherence

- ▷ Recognise and resolve privacy and security risks.
- ▷ Respect the stakeholder's provided access control compliance.
- ▷ Comply with security specifications and disclose infrastructure security vulnerabilities.
- ▷ Monitor adherence to policies and procedures for issues pertaining to infrastructure.
- ▷ System validation, verification, and compliance.
- ▷ Offer system support, keep an eye on things, tune them for peak performance, do planned preventative maintenance, keep an eye out for unauthorised activity, and notify management of security concerns.

Service Level Management

- ▷ Oversee the creation of targets and objectives for service levels.
- ▷ Monitor service-level goals to make sure that specifications are fulfilled or even surpassed.
- ▷ Create service protocols and metrics for measuring client satisfaction.

Skills & Competencies

Technical	Proficiency Level
Vendor Management	4
Service Management	4
Systems Integration	4
IT Project Management	4
Business Analysis	3
IT Architecture	3
IT Asset Management	3
Cloud Computing	3
Infrastructure Management	3
Network Management	3
Information Security Management	3
Soft Skills	Proficiency Level
Analytical Thinking	Intermediate
Decision-making/ Judgement	Intermediate
Communication	Intermediate
Work Management	Intermediate
Teamwork	Intermediate
People Management	Intermediate
Creativity & Innovation	Intermediate
Results/Achievement Orientation	Intermediate
Service Orientation	Intermediate
Negotiation	Intermediate
Resilience	Intermediate

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification, and a minimum of 5 years of relevant experience OR

BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/experience and a minimum of 8 years of relevant experience.

Recommended Technical Training Courses

- ▷ ITIL 4 Foundation Level
- ▷ Project Management Professional (PMP)
- ▷ Certified Systems Engineering Professional (CSEP)
- ▷ Certified Information Systems Security Professional - Architecture (CISSP)
- ▷ CompTIA Security+
- ▷ Software Engineering Master Certification (SEMC)
- ▷ Cisco Certified Network Associate (CCNA)

Software Architect

Alternate Job Titles	Solutions Architect, Cloud Architecture Specialist, Software Architect, Technical Architect, Application Architect, IT Architect
Sub-Sector	Applications and Solutions Development
Functional Group	Software and Systems
Job Family	Development and Deployment
Job Level	Specialist

Job Description

- ▶ Establish technical standards, make high-level design decisions, and guarantee the software system's scalability, maintainability, and security.
- ▶ Offer insightful commentary and suggestions to the Software Development Life Cycle (SDLC).
- ▶ Collaborate with a variety of stakeholders, including business analysts, project managers, and software developers, to ensure that the software architecture fits the needs and objectives of the project.
- ▶ Provide technical direction to the development team, mentor junior developers, and instil architectural best practices.
- ▶ Formulate strategic roadmaps by analysing the business architecture and evaluating the gap between the current state and the desired future state.
- ▶ Review and authorize proposed changes to software architecture standards to ensure alignment with the enterprise architecture.
- ▶ Govern the software architecture process by leading its implementation, promoting best practices, and controlling all exceptions to established standards.

- ▶ Evaluate immediate needs to determine business priorities and synchronises architectural specifications with IT strategy.
- ▶ Advise senior management on emerging technologies and consults with clients and IT teams on software architecture solutions.
- ▶ Formulate the conceptual and detailed architecture for the development of applications and supervise the creation of standards and guidelines to be used in software development and integration.

Critical Work Functions

Enterprise Architecture Governance and Standards

- ▶ Establish standards and guidelines for developing and designing software system, structure, components and interactions, quality assurance and scalability requirements.
- ▶ Facilitate key discussions between business and technical stakeholders to drive architectural decisions and ensure alignment within a specific functional area.
- ▶ Contribute to technology planning, environment analysis, opportunity identification, and architectural input.
- ▶ Formulate strategic roadmap and implementation plans by conducting a gap

analysis between the current and desired future-state architectures.

- ▶ Develop guidelines for developing and designing software systems, their structure, components and interactions, and requirements for quality assurance and futureproofing.
- ▶ Lead the software architecture governance process by reviewing and approving standards and controlling all exceptions to ensure alignment with the enterprise governance structure.
- ▶ Create, maintain, and regularly update comprehensive architecture documents, including system diagrams, design decisions, data flows, and technical standards to ensure clarity and consistency across teams.

Architecture Specification and Oversight

- ▶ Oversee the development of architectural requirements by evaluating business priorities, ensuring alignment with the IT strategy, and verifying the solution's compliance with strategic needs and the existing technology environment.
- ▶ Organise the implementation and change of the architecture.
- ▶ Determine and deal with any risks or limitations that might influence the software development

process.

- ▶ Identify, assess, and mitigate architectural risks related to performance bottlenecks, system integration challenges, and security vulnerabilities.
- ▶ Support post-implementation and ongoing efforts for improvement to boost functionality and performance.
- ▶ Verify the technological solution's conceptual completion.
- ▶ Oversee the quality and ongoing enhancement of the architecture.
- ▶ Assess the current architecture to identify areas for improvement and recommend modifications required to meet project needs and enhance performance.
- ▶ Continuously assess the quality of the system architecture to ensure its ongoing scalability, maintainability, and security.

Technology Advisory and Consultancy

- ▶ Offer advice on software architecture solutions to clients and IT teams.
- ▶ Examine risks, impact, cost vs. benefit, and technological priorities.
- ▶ Develop and execute a communication strategy to articulate the software architecture's design, value, and evolution to stakeholders.
- ▶ Assess latest technological trends in the industry and evaluate the suitability of such development to support the client's requirements.
- ▶ Determine the resource requirements of the organisation.

Software Architecture Design

- ▶ Establish and ensure adherence to a structured Software Development Life Cycle (SDLC), defining standardized phases such as requirements gathering, design, development, testing, deployment, and maintenance to promote consistency, quality, and compliance in software delivery.
- ▶ Model the conceptual and technical architecture needed to create applications.
- ▶ Specify the procedures and approach for migrating from the present software architecture to the new one.
- ▶ Design interfaces to ensure seamless and secure integration between internal systems and external third-party platforms.

Skills & Competencies

Technical	Proficiency Level
Application Development	4
Applications Integration	4
Data Design	4
Embedded System Interface	4
Emerging Technology Synthesis	4
Networking	4
Security Architecture	4
Infrastructure Design	4
Solutions Architecture	4
Systems Integration	4
Stakeholder Management	4
Business Environment Analysis	3
Business Innovation	3
Enterprise Architecture	3
Products Management	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Work Management	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
Communication	Intermediate
Teamwork	Intermediate
People Management	Intermediate
Negotiation	Intermediate

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification, and a minimum of 5 years of relevant experience OR

BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/experience and a minimum of 8 years of relevant experience.

Recommended Technical Training Courses

- ▷ The CPSA® Advanced Level – iSAQB® Advanced Training in Software Architecture
- ▷ TOGAF® Enterprise Architecture Training Course (Foundation and Practitioner)
- ▷ Certified Professional for Software Architecture (CPSA)
- ▷ Certified ScrumMaster (CSM)
- ▷ Amazon Web Services (AWS) Solution Architect – Associate/Professional
- ▷ Microsoft Certified: Azure Solutions Architect Expert
- ▷ Certified Kubernetes Application Developer (CKAD)
- ▷ Software Engineering Master Certification (SEMC), IEEE

Software Development Manager

Alternate Job Titles	Application Development Manager, Software Engineering Manager, Programming Manager, Development Technical Manager
Sub-Sector	Applications and Solutions Development
Functional Group	Software and Systems
Job Family	Development and Deployment
Job Level	Specialist

Job Description

- ▶ Responsible for organising, supervising, and guiding a development team across all phases of the Software Development Lifecycle (SDLC) to ensure timely delivery and quality outcomes.
- ▶ Lead a cross-functional team comprising software developers, business analysts, and project managers to implement the organisation's digital transformation initiatives.
- ▶ Oversee the creation of design specifications and translates user needs into technical specifications.
- ▶ Provide technical knowledge on the development of software and platform features and supervise the creation of proof-of-concept for solutions, making sure that the right security and risk aspects are considered.
- ▶ Oversee the use of software and platform solutions, and leads efforts to improve their scalability, reliability, and performance.
- ▶ Oversee the management of a team's projects and resources, provides leadership and technical direction to team members.

Critical Work Functions

Platforms and Software Development

- ▶ Develop the business plan and roadmap for software and platform development, ensuring it aligns with architectural priorities.
- ▶ Create the models and structural modifications required to adapt to changing platform and software strategies.
- ▶ Offer guidance on security specifications from the standpoint of platform and software development.
- ▶ Promote the use of DevOps and Agile techniques.

User Requirement Analysis

- ▶ Develop the approach and course of the requirements process for various projects.
- ▶ Manage the examination of user requirements considering business requirements.
- ▶ Offer advice on creating substitutes and solutions to get around technological obstacles.
- ▶ Develop fresh methods for confirming and validating requirements.

Software's Design Management

- ▶ Assess how well software design enabling strategies are being applied.

- ▶ Choose the approach, plan, and design methodology that will be applied to the software design process.
- ▶ Offer direction and counsel on the application of techniques and strategies for software design.
- ▶ Evaluate how well the chosen software design process is being applied.
- ▶ Assess how well the software architecture works.
- ▶ Evaluate the programme design's quality.
- ▶ Give advice and direction regarding the necessity of changing requirements as a result of the design review.

Software Development Management

- ▶ Choose models and procedures for building software for specific projects.
- ▶ Choose platforms, environments, and frameworks specifically for each project.
- ▶ Create project guidelines for configuration management, version control, and unit test coverage.
- ▶ Arrange and start development procedures that are driven by models.
- ▶ Manage software testing activities.
- ▶ Identify the tools and SCM measures that will be applied.
- ▶ Create systems for producing reporting on SCM

audits.

- ▷ Create plans for software releases.

Software Security Features Management

- ▷ Manage organisation-wide coding guidelines to prevent security flaws.
- ▷ Manage organisational guidelines for the procedures used in security assessments.

Resource and Stakeholder Management

- ▷ Oversee distribution and utilisation of resources across teams and projects.
- ▷ Monitor the team's accomplishments and critical performance metrics.
- ▷ Recommend for new operating plans that include staff projections, work distributions, and targeted budgets.
- ▷ Oversee the team's performance and professional development, using learning roadmaps and coaching to support individual growth and skill enhancement.
- ▷ Develop relationships with stakeholders.
- ▷ Manage vendor and third-party partners.

Skills & Competencies

Technical	Proficiency Level
Applications Development	4
Applications Integration	4
Applications Support and Enhancement	4
Business Needs Analysis	4
Business Requirement Mapping	4
Configuration Tracking	4
Data Design	4
Database Administration	4
Project Management	4
Software Design	4
Software Configuration	4
Solutions Architecture	4
Software Testing	4
System Integration	4
User Interface Design	4

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

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Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification, and a minimum of 5 years of relevant experience OR

BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/experience and a minimum of 8 years of relevant experience.

Recommended Technical Training Courses

- ▷ Certified Scrum Master (CSM)
- ▷ Project Management Professional (PMP)
- ▷ Certified Scrum Product Owner (CSPO)
- ▷ Software Engineering Master Certification (SEMC)
- ▷ Certified Manager Certification (CM)
- ▷ Certified Secure Software Lifecycle Professional
- ▷ MySQL Database Developer Oracle Certified Professional
- ▷ AWS Certified Developer – Professional
- ▷ AWS Certified DevOps Engineer – Professional
- ▷ AWS Certified Solutions Architect - Associate

Chief Technology Officer

Alternate Job Titles	Director of Technology, VP of Technology, Chief Digital Officer (CDO), Chief Innovation Officer, Chief Technical Officer
Sub-Sector	Applications and Solutions Development
Functional Group	Software and Systems – Applications Development & Deployment
Job Family	Development and Deployment
Job Level	C-Suite

Job Description

- ▶ Lead the IT department strategically and oversee developing, implementing, and managing all technology-related parts of a company.
- ▶ Establish and enforce adherence to the Software Development Life Cycle (SDLC), ensuring high-quality and timely delivery of software products.
- ▶ Establish and enforce secure coding standards, integrating security-by-design principles throughout the Software Development Life Cycle (SDLC).
- ▶ Promote DevSecOps practices to ensure vulnerabilities are addressed early and continuously.
- ▶ Oversee the organization's technology strategy, plans, and implementation.
- ▶ Work closely with cross-functional team members to align technological projects with business goals, such as the CEO and CIO, as well as those in product development, marketing, and operations.
- ▶ Create the technical components of the company's plan to make sure it is in line with its objectives.
- ▶ Find and use cutting-edge technologies to gain a competitive edge.
- ▶ Create and executes long-term plans centred on both new and existing technologies that can improve an organization's ability to reach customers and, as a result, boost revenue through technical advancements.
- ▶ Assist departments with profitable technology utilisation.
- ▶ Monitor system infrastructure to guarantee efficiency and functionality.
- ▶ Establish data security and quality assurance procedures.
- ▶ Track KPIs and IT spending to evaluate the effectiveness of technology.
- ▶ Make the required technological modifications and enhancements based on input from stakeholders.
- ▶ Manage relationships with investors, partners, and vendors to align technology plans with strategic, technical, and security requirements.
- ▶ Manage the organization's whole technical infrastructure and collaborates with important business stakeholders to assess fresh IT prospects and leverage them as growth catalysts.
- ▶ Authorize the adoption of new technologies to enhance or expand the organization's products and services.
- ▶ Lead and motivate teams to implement forward-thinking initiatives and drive innovative improvements within the organization.
- ▶ Develop and execute the company's long-term technology roadmap to support innovation, growth, and operational efficiency.
- ▶ Cultivate a culture of continuous learning, experimentation, and innovation across technical teams to build leadership capability and technical excellence.
- ▶ Ensure that all third-party systems, platforms, and integrations align with the organization's internal architecture standards, data protection requirements, and security policies.
- ▶ Recognise links between several domains and have an impact on important stakeholder decisions.

Critical Work Functions

Develop a Technology Strategy Formulation and Implementation

- ▶ Formulate and Implement strategies for outsourcing and offshoring the provision of IT services.
- ▶ Formulate and implement a digital strategy for the entire company.
- ▶ Establish a technological roadmap that is in

line with the organization's expansion goals and overarching strategy.

- ▶ Drive strategic decision on next technology-related business activities.
- ▶ Direct the determination, evaluation, and oversight of the organization's technological needs.
- ▶ Advise senior leadership on business prospects brought about by advancements in technology.

IT Governance, Risk Management, and Compliance (GRC)

- ▶ Establish and oversee IT governance frameworks to ensure alignment between technology initiatives and business strategy.
- ▶ Implement robust risk management practices to identify, assess, and mitigate technology and cybersecurity risks.
- ▶ Ensure ongoing compliance with industry standards and regulatory requirements such as ISO 27001, NIST, GDPR, PDPO, and drives audit readiness across all IT operations.

DevOps and Platform Enablement

- ▶ Promote DevOps culture across development and operations teams, ensuring the adoption of automation, CI/CD pipelines, and infrastructure-as-code practices.
- ▶ Oversee the selection and use of modern development platforms and tools (e.g., GitLab, Jenkins, Docker, Kubernetes) to accelerate delivery and improve operational efficiency.

Cloud Strategy and Management

- ▶ Define and leads the organization's cloud strategy, ensuring secure, scalable, and cost-effective use of cloud infrastructure and services such as AWS,

Azure, Google Cloud.

- ▶ Oversee cloud architecture, migration, and operations, including hybrid or multi-cloud environments, while ensuring compliance with security, performance, and governance standards.

New Technology Management

- ▶ Direct the ultimate judgements about the viability of using a technological solution for business implementation.
- ▶ Showcase leadership in the design and development of significant technical initiatives.
- ▶ Ensure that all third-party systems, integrations, and vendor solutions align with the organization's internal architecture standards, data protection policies, and security frameworks.
- ▶ Oversee technical due diligence, security reviews, and compliance checks prior to adoption.
- ▶ Oversee the integration of all solutions to guarantee the organization's information flows smoothly and effectively.
- ▶ Establish goals for IT projects, services, investments, and activities to satisfy present and future business requirements.
- ▶ Provide mentorship and guidance to technical teams, fostering innovation, skills development, and leadership capabilities.

New Technology Adoption

- ▶ Adopt relevant technology by exploring it and acting as a technology evangelist.
- ▶ Encourage an atmosphere that is favourable to technical advancement and innovation.
- ▶ Establish a framework for evaluating the results of innovation research as well as the direction for future studies.

- ▶ Assess novel strategies for redesigning IT systems or enhancing the speed, quality, and performance of services and/or goods.

Stakeholders Management

- ▶ Create strategic alliances and connections with stakeholders to accomplish shared objectives.
- ▶ Control expectations from internal and external stakeholders.
- ▶ Encourage partners to follow the organization's technological goal.
- ▶ Encourage the firm to connect its technology with its business requirements.

Resource Management

- ▶ Examine operational plans, guidelines, and goals for various projects and teams.
- ▶ Create plans for the allocation and use of resources.
- ▶ Examine how the resources are being used.
- ▶ Manage the creation of learning roadmaps for departments and teams.
- ▶ Create performance metrics to compare the efficacy of training and development initiatives to industry best practices.
- ▶ Put succession planning programmes into place for important managerial roles.
- ▶ Advise stakeholders on setting expectations and making concessions.

Skills & Competencies

Technical	Proficiency Level
Business Needs Analysis	5
Business Risk Management	5
Emerging Technology Synthesis	5
Enterprise Architecture	5
Networking	5
Partnership Management	5
IT Strategy	5
IT Project Management	5
Quality Standards	5
Service Management	5
Systems Integration	5
Solutions Architecture	4
Software Design	4

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification and minimum of 10 years' experience at senior level OR

BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification and minimum of 12 years' experience at senior level

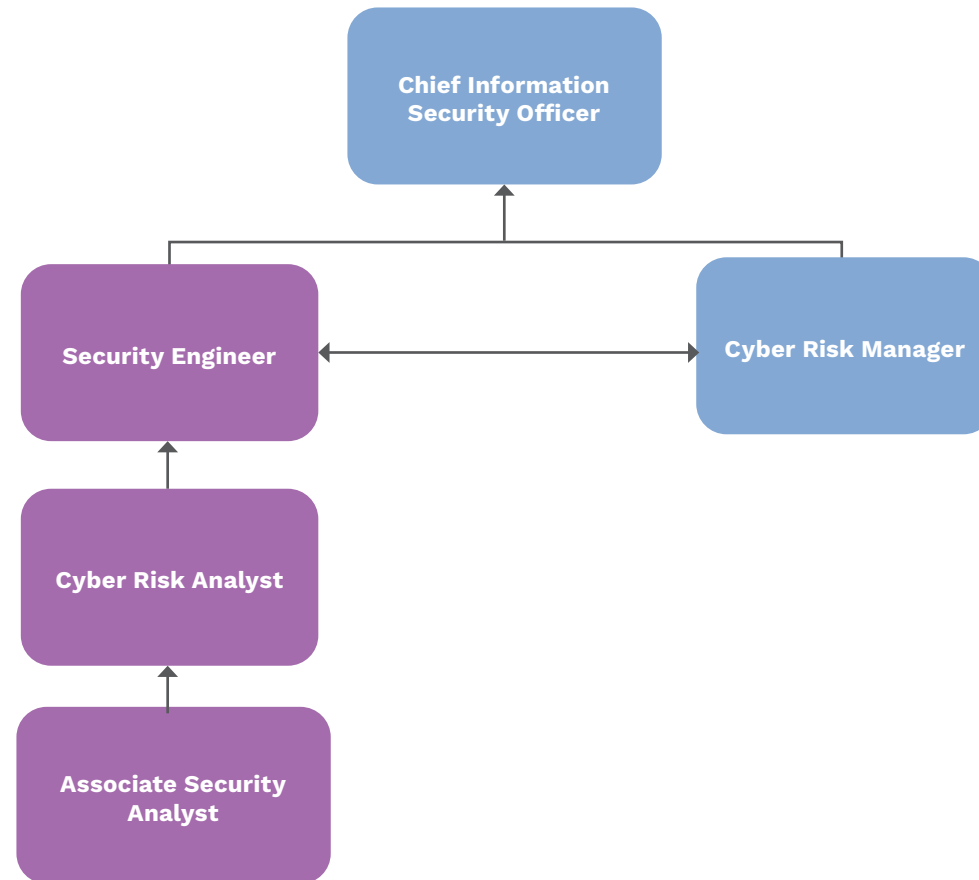
Recommended Technical Training Courses

- ▷ Certified Information Technology Professional (CITP)
- ▷ Project Management Professional (PMP)
- ▷ Certified ScrumMaster (CSM) and Certified Scrum Professional (CSP)
- ▷ ITIL 4 Managing Professional Certification
- ▷ ITIL 4 Strategic Leader Certification
- ▷ ITIL 4 Practice Manager Certification
- ▷ ITIL 4 Extension Module Certification
- ▷ ITIL 4 Master Certification
- ▷ AWS Certified Solutions Architect – Professional
- ▷ Certified Information Systems Auditor (CISA)
- ▷ Certified in the Governance of Enterprise IT (CGEIT)
- ▷ Certified Chief Information Security Officer (CCISO)
- ▷ TOGAF 9 Certification
- ▷ Certified Information Systems Security Professional (CISSP)
- ▷ Certified Chief Technology Officer (CTO) Certification

ICT Security Sub-Sector

ICT Security Career Path

- Newly developed framework
- Previously developed framework



Associate Security Analyst

Alternate Job Titles	Security Consultant, Information Security Analyst, Security Operations Analyst, Information Security Officer
Sub-Sector	ICT Security
Functional Group	IT Security
Job Family	Applications Configurations and Installations, and IT Security
Job Level	Entrant

Job Description

- ▶ Ensure that the company's digital assets are protected from unauthorised access.
- ▶ Secure both online and on-premise infrastructures.
- ▶ Weed through metrics and data to filter out suspicious activity.
- ▶ Find and mitigate risks before breaches occur.
- ▶ Generate reports for IT administrators and business managers to evaluate the efficacy of the security policies in place.
- ▶ Help to make the necessary changes for a more secure network.
- ▶ Create training programmes and modules to educate employees and users on proper security protocols.
- ▶ Keep the company's security systems up to date and create documentation and planning for all security-related information, including incident response and disaster recovery plans.

Other Specific Responsibilities

- ▶ Monitor security access.
- ▶ Conduct security assessments through vulnerability testing and risk analysis.

- ▶ Perform both internal and external security audits.
- ▶ Analyse security breaches to identify the root cause.
- ▶ Continuously update the company's incident response and disaster recovery plans.
- ▶ Verify the security of third-party vendors and collaborating with them to meet security requirements.

Critical Work Functions

Monitoring of Cyber Security Systems

- ▶ Perform cyber security monitoring activities on IT systems and applications.
- ▶ Categorise security incidents and breaches that occur.
- ▶ Track and react to security monitoring alert.
- ▶ Compile reports on the performance of security operations for management reporting.

Cyber Security Operations Maintenance

- ▶ Assist with the implementation of agreed security system changes and maintenance routines.

- ▶ Assist in the implementation of new cyber security programmes.
- ▶ Assist with conducting vulnerability and penetration assessments.
- ▶ Assist in aligning cyber security systems with established service agreement standards.
- ▶ Maintain documentation of all maintenance procedures and tests on cyber security systems.

Cyber Security Queries Response

- ▶ Assist in responding to cyber security issues.
- ▶ Assist in forensic threat investigations.
- ▶ Assist with resolution of security-related issues.
- ▶ Assist with simulation of user problems to identify drawbacks of cyber security systems.
- ▶ Recommend modifications to cyber security systems to address issues.
- ▶ Maintain logs of cyber security incidents.

Cyber Security Compliance Facilitation

- ▶ Assist with the implementation security policies, standards and procedures.
- ▶ Educate users on cyber security policies, standards and practices.
- ▶ Identify improvement areas to existing security policies and procedures.

- ▶ Monitor third party compliance with organisational cyber security policies, standards and procedures.
- ▶ Monitor users' adherence to cyber security policies, standards and procedures.
- ▶ Develop cyber indicators to maintain awareness of the status of the highly dynamic operating environment.
- ▶ Collect, process, analyse, and disseminate cyber threat/warning assessments.

Cyber Security System Performance Optimisation

- ▶ Assist with piloting of new cyber security tools, technologies and processes.
- ▶ Assist with installation of new cyber security related hardware and software.
- ▶ Assist with security system testing and ongoing optimisation or changes such as:
 - scheduling upgrades and updates;
 - maintaining documentation of all optimisation activities;
 - recommending security products, services and/or procedures; and
 - proposing improvements to IT operational processes, procedure manuals, and documentation.

Skills & Competencies

Technical	Level
Business Analysis	3
Cyber and Data Breach Incident Management	3
Cyber Risk Management	3
Emerging Technology Synthesis	3
Infrastructure Design	3
Network Security Management	3
Security Architecture	3
Security Administration	3
Security Governance	3
Security Programme Management	3
Stakeholder Management	3
Security Implementation	3
Security Planning	3
Soft Skills	Level
Communication	Advanced
Teamwork	Advanced
Resilience	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
People Management	Intermediate
Negotiation	Intermediate
Decision-Making	Intermediate
Analytical Thinking	Intermediate
Work Management	Intermediate

Entry Requirements

BDQF Level 5 in Information Systems, Computer Science or related field OR
 BDQF Level 4 in Information Systems, Computer Science or related field with 5 years relevant industry experience or possess relevant portfolio/experience.

Recommended Technical Training Courses

- ▶ CompTIA Infrastructure and Cybersecurity Certification
- ▶ EC-Council Advanced Certification
- ▶ Computational Thinking -Intermediate
- ▶ GIAC Advanced Certification
- ▶ Certified Information Systems Auditor (CISA)
- ▶ Certified Information Security Manager (CISM)
- ▶ Security+
- ▶ Certified Ethical Hacker (CEH)
- ▶ GIAC Security Essentials Certification (GSEC)
- ▶ Systems Security Certified Practitioner (SSCP)
- ▶ CompTIA Advanced Security Practitioner (CASP+)
- ▶ GIAC Certified Incident Handler (GCIH)
- ▶ Offensive Security Certified Professional (OSCP)
- ▶ Council of Registered Ethical Security Testers (CREST) Certification
- ▶ Huawei Certified ICT Associate (HCIA) - Security

Cyber Risk Analyst

Alternate Job Titles	Risk Analyst, IT Risk Analyst, Risk Control Consultant, Risk Assessment Analyst, Information Security Analyst, Threat Analyst
Sub-Sector	ICT Security
Functional Group	Software and Systems
Job Family	IT Security
Job Level	Specialist

Job Description

- ▶ Monitor systems at all times and evaluate threats that could potentially breach the network.
- ▶ Conduct cyber risk assessment in support of technology initiatives.
- ▶ Identify IT-related risks and determine appropriate controls to mitigate risks.
- ▶ Monitor, track and manage risk mitigations and exceptions to ensure cyber security standards and policies are established.
- ▶ Apply a defined set of analytical or scientific methods.
- ▶ Prepare documentation of cyber risk assessment reports.

Critical Work Functions

Establishment of Cyber Security Standards and Policies

- ▶ Conduct review of existing security policies, procedures, standards and exceptions.
- ▶ Assist in the development of policies for conducting cyber security risk assessments and compliance audits.
- ▶ Support implementation of information systems and cyber security policies.
- ▶ Manage cyber risks and assessments.

Performing Cyber Risk Assessment Activities Based on Risk Assessment Plans

- ▶ Assess third party security controls and internal security systems.
- ▶ Establish scope of risk analysis for new technology initiatives.
- ▶ Conduct research on emerging cyber security and risk management trends, issues, and alerts.

Development of Cyber Risk Documentation

- ▶ Monitor risks and incidents in accordance with the risk mitigation policies and guidelines.
- ▶ Document methodologies and tools to mitigate cyber risks.
- ▶ Prepare reports for cyber risk assessment reporting.
- ▶ Conduct research to develop internal threat awareness reports.

Mitigation of Cyber Security Risks

- ▶ Determine cause of security violations.
- ▶ Recommend corrective actions or appropriate controls to mitigate technical risks.
- ▶ Assist in the implementation of preventive measures against intrusion, frauds, attacks or leaks.
- ▶ Track remediation efforts for security and audit deficiencies.

Skills & Competencies

Technical	Proficiency Level
Business Analysis	4
Cyber Risk Management	4
Network Security Management	4
Security Architecture	4
Security Administration	4
Security Governance	4
Security Implementation	4
Security Planning	4
Security Programme Management	3
Emerging Technology Synthesis	3
Cyber and Data Breach Incident Management	3
Infrastructure Design	3
Stakeholder Management	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
Negotiation	Intermediate
People Management	Intermediate

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science or related field OR
BDQF Level 5 in Information Systems, Computer Science or related field with 4 years experience in relevant roles.

Recommended Technical Training Courses

- ▷ CompTIA Network+
- ▷ CompTIA Security+
- ▷ CompTIA Cybersecurity Analyst
- ▷ CompTIA Advanced Security Practitioner
- ▷ CompTIA Security Analytics Expert Certification
- ▷ EC-Council Certified Ethical Hacker Certification
- ▷ Certified Security Analyst Training
- ▷ GIAC Information Security Fundamentals
- ▷ GIAC Security Essentials Certification
- ▷ Certified Information Systems Security Professional
- ▷ Council of Registered Ethical Security Testers (CREST) Certification
- ▷ Certified Information Systems Auditor (CISA)
- ▷ Certified Information Security Manager (CISM)
- ▷ ISO Training (ISO27001)
- ▷ Huawei Certified ICT Expert (HCIE) - Security
- ▷ Cisco Certified Network Professional (CCNP) Security

Security Engineer

Alternate Job Titles	Information Security Engineer, Cyber Security Engineer, Security Systems Engineer, IT Security Engineer, Protection Engineer
Sub-Sector	ICT Security
Functional Group	Software and Systems
Job Family	IT Security
Job Level	Specialist

Job Description

- ▶ Design, develop and implement secure system architectures.
- ▶ Develop system security criteria.
- ▶ Describe the baseline security system design.
- ▶ Conduct security threat and vulnerability studies.
- ▶ Embed security principles into the design of system architectures to mitigate the risks posed by new technologies and business practices.
- ▶ Design artefacts, spanning design, development and implementation, into enterprise systems that describe security principles and how they relate to the overall enterprise system architecture.
- ▶ Perform routine activities related to the periodic review and audit activities of infrastructure security systems and maintain documentation of security standards and procedure.

Critical Work Functions

Development of Architecture Requirements and Oversight Maintenance

- ▶ Design security controls and systems in alignment with security guidelines.

- ▶ Analyse and validate the system security baseline.
- ▶ Assist in the testing and evaluation of new security technologies and controls.
- ▶ Recommend security products, services and procedures to enhance system architecture designs.
- ▶ Document the design, operation, use, and expected outputs of new systems.
- ▶ Conduct research on modern security software architectures and network architecture design best practices.

Implementation of Security Systems

- ▶ Implement the security system design via production and conduct deployment planning.
- ▶ Prepare preliminary performance specifications for security hardware and software.
- ▶ Implement new enterprise security architecture, technologies and enhancements.
- ▶ Identify techniques to scale up and automate security infrastructure and processes.
- ▶ Resolve issues that arise in implementation of new security systems.
- ▶ Monitor security systems for strengths and weaknesses and propose improvements to address weaknesses.

- ▶ Process identified threats and vulnerabilities through system design modifications and risk management techniques.

Management of Security Systems

- ▶ Address operational and support security concerns through continual risk management via the programme protection process.
- ▶ Determine the acceptable risk level for residual security vulnerabilities in the system/operation.
- ▶ Transform security needs into security guidance to be integrated into the activities of other disciplines.
- ▶ Oversee the maintenance of security systems, platforms and associated software.
- ▶ Develop and implement custom disaster recovery drills and simulation tests on existing systems.
- ▶ Assist in the resolution of identified problems and incidents.
- ▶ Integrate the efforts of all engineering disciplines and specialties into a combined understanding of the trustworthiness of a system.

Skills & Competencies

Technical	Proficiency Level
Infrastructure Design	5
Network Security Management	5
Security Architecture	5
Cyber and Data Breach Incident Management	4
Business Analysis	4
Cyber Risk Management	4
Emerging Technology Synthesis	4
Security Administration	4
Security Governance	4
Security Programme Management	4
Stakeholder Management	4
Security Implementation	4
Security Planning	4
Service Management	4
Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
People Management	Intermediate
Negotiation	Intermediate

Entry Requirements

BDQF Level 6 in Cyber Security, IT Security Management, Information Security, Computer/System/Network Information Systems, Computer Science or related field OR

BDQF Level 5 in Cyber Security, IT Security Management, Information Security, Computer/System/Network Information Systems, Computer Science or related field with 4 to 6 years of experience OR

BDQF Level 4 in Cyber Security, IT Security Management, Information Security, Computer/System/Network Information Systems, Computer Science or related field with 6 to 8 years of relevant industry experience as a Security Analyst or similar role, or possess relevant portfolio/experience.

Recommended Technical Training Courses

- ▷ Certified Ethical Hacker (CEH)
- ▷ Certified Information Security Manager (CISM)
- ▷ Certified Information Systems Auditor (CISA)
- ▷ Certified Information Systems Security Professional (CISSP)
- ▷ Cisco Certified Network Professional (CCNP) Security
- ▷ CompTIA Advanced Security Practitioner (CASP+)
- ▷ CompTIA Infrastructure and Cybersecurity Certification
- ▷ EC-Council Advanced Certification
- ▷ GIAC Certified Incident Handler (GCIH)
- ▷ GIAC Security Essentials Certification (GSEC)
- ▷ Offensive Security Certified Professional (OSCP)
- ▷ Security+
- ▷ Systems Security Certified Practitioner (SSCP)
- ▷ Council of Registered Ethical Security Testers (CREST) Certification
- ▷ Red Hat Enterprise Linux (RHEL) Administration
- ▷ Cisco Certified CyberOps
- ▷ Microsoft Certified Solutions Associate (MCSA): Windows Server Administration

Cyber Risk Manager

Alternate Job Titles	IT Security Manager, Technology Risk & Controls Manager, Cyber Risk & Compliance Manager, Cyber Risk Consultant, Cyber Assurance Manager, Information Security Manager, Security Governance, Risk, and Compliance (GRC) Manager
Sub-Sector	ICT Security
Functional Group	ICT Security
Job Family	IT Security
Job Level	Specialist

Job Description

- ▶ Develop and enforce cybersecurity policies and standard operating procedures (SOPs), and monitor compliance to identify, assess, and mitigate risks from internal and external threats—ensuring the security of the organisation’s data and information systems.
- ▶ Recommend on control needs by risk policy and standards and directs the assessment of information and cyber risks related to technological efforts.
- ▶ Oversee the establishment and execution of cybersecurity standards and policies in addition to managing and coordinating responses to regulatory inquiries, inspections, and audits.
- ▶ Manage the creation of reports and puts standards and regulations into practice.
- ▶ Advise stakeholders on security procedures and measures.
- ▶ Manage the implementation of the cybersecurity policies by fostering a culture of security awareness, conducting training initiatives, and ensuring all employees understand and operate within their defined security responsibilities.

Critical Work Functions

Cybersecurity Risk Implementation & Management

- ▶ Oversee the methodical creation and enhancement of risk frameworks, standards, and techniques.
- ▶ Provide advice on how to handle important cybersecurity risk areas and create a workable plan for responding to cybersecurity breaches.
- ▶ Evaluate business demands considering legal and/or regulatory obligations, as well as cybersecurity risks.
- ▶ Anticipate and address legal, regulatory, and organisational challenges from both internal and external sources.
- ▶ Collaborate with stakeholders in the organization-wide adoption and execution of cyber risk initiatives by offering strategic risk advice.

Cybersecurity Governance and Compliance

- ▶ Establish standardised governance protocols for the purpose of recording and revising security policies, standards, guidelines, and practices.
- ▶ Coordinate the implementation of cybersecurity

guidelines and information system controls.

- ▶ Develop a cyber risk maturity model to assess and monitor the organisation’s security posture.
- ▶ Formulate procedures for conducting compliance audits and cybersecurity risk assessments.

Cyber Risk Assessment

- ▶ Provide guidance on the creation of methods and protocols for carrying out cyber risk assessments.
- ▶ Design plans for the organization’s overall cyber risk assessment initiatives.
- ▶ Oversee the organization’s ongoing cyber risk assessment initiatives.
- ▶ Deliver technical and strategic recommendations following the identification of system vulnerabilities.
- ▶ Incorporate emerging risks, issues, and security trends into the organisation’s risk assessment framework.
- ▶ Develop and implement policies and action plans to mitigate identified cyber risks.
- ▶ Develop Cybersecurity risk documentation and conduct awareness.
- ▶ Lead the documentation of tools, techniques,

- and controls used to reduce cybersecurity threats.
- ▶ Develop and maintain response plans for cybersecurity incidents.
- ▶ Establish reporting standards for disclosing cyber risk assessment outcomes.
- ▶ Oversee the development of internal awareness reports on cyber threats.
- ▶ Promote cybersecurity awareness by educating both technical and non-technical staff on threat recognition and risk mitigation.

Cybersecurity Risk Mitigation

- ▶ Create projects and programmes to improve the organization's ability to reduce risks.
- ▶ Manage the organization's cybersecurity drills, including their preparation and execution.
- ▶ Serve as an authority on cybersecurity incidents, breaches, and post-breach remedial tasks.
- ▶ Recommend protocols and preventive measures to strengthen cybersecurity and prevent recurrence of similar incidents.
- ▶ Monitor and control the maintenance of cybersecurity training programmes for all security personnel, ensuring alignment with current threats and operational requirements.
- ▶ Coordinate organisational responses to audits, inspections, and regulatory inquiries.

Cybersecurity Awareness and Culture

- ▶ Organise security awareness campaigns and communications.
- ▶ Delivery of targeted security awareness training to staff to promote proactive risk behaviour and policy compliance.

Skills & Competencies

Technical	Proficiency Level
Business Needs Analysis	4
Audit and Compliance	4
Cyber and Data Breach Incident Management	4
Cyber Forensic	4
Cyber Risk Management	4
IT Governance	4
Security Administration	4
Security Architecture	4
Security Education and Awareness	4
Security Governance	4
Security Programme Management	4
Networking	3
Stakeholder Management	3
Soft Skills	Proficiency Level
Analytical Thinking	Intermediate
Decision-making/ Judgement	Intermediate
Communication	Intermediate
Work Management	Intermediate
Teamwork	Intermediate
People Management	Intermediate
Creativity & Innovation	Intermediate
Results/Achievement Orientation	Intermediate
Service Orientation	Intermediate
Negotiation	Intermediate
Resilience	Intermediate

Entry Requirements

BDQF Level 6 in Cybersecurity, Computer Science, or any related field, with related industry certification, and minimum of 5 years of relevant working experience in cybersecurity or related domains OR BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/experience and a minimum of 8 years in cybersecurity, risk management or compliance.

Recommended Technical Training Courses

- ▶ ICTTF Certified Cyber Risk Specialist (CCRS)
- ▶ Certified Security Risk Manager
- ▶ DCROI Certificate in Cyber Risk Governance
- ▶ ISACA Certified Information Systems Auditor (CISA)
- ▶ ISACA Certified in Risk and Information Systems Control® (CRISC®)
- ▶ ISO 27005 - Risk Manager Certificate
- ▶ ISC2 Governance, Risk and Compliance Certificate (CGRC)
- ▶ CompTIA CySA+
- ▶ GEIT (Certified in the Governance of Enterprise IT)

Chief Information Security Officer

Alternate Job Titles	ICT Security Director, VP of IT Security, Head of IT Security, Chief Security Officer, Head/ Director of Information/ Cybersecurity
Sub-Sector	ICT Security
Functional Group	Cybersecurity & Risk Management
Job Family	Strategic Leadership
Job Level	C-Suite

Job Description

- ▶ Formulate and promote the information security function's vision.
- ▶ Hold primary responsibility for safeguarding company data and serves as the authority in establishing and enforcing the organization's security standards, policies, and strategies.
- ▶ Develop and define guidelines, standards, and best practices to ensure effective information security across the organisation.
- ▶ Oversee operational and capital expenditure budgets and investment.
- ▶ Examine, support and synchronise information security and information risk management plans with corporate objectives.
- ▶ Provide executive support in managing the organization's information security risk management plan and implementing information security strategies.
- ▶ Direct the development of the Cyber Risk Maturity Model and IT security architecture, which balances security risks and business requirements.
- ▶ Provide guidance to the board and senior

management on all security-related issues and establishes procedures for adhering to legal and compliance requirements, regulatory inquiries, inspections, and audits.

- ▶ Lead the organisation's information security strategy while integrating technology foresight to anticipate emerging cyber threats, regulatory changes and disruptive technologies.
- ▶ Ensure that security architecture, policies and processes are future-ready and aligned with long term business objective.
- ▶ Ensure that an organization's handling of personal data complies with relevant data protection laws by implementing robust cybersecurity measures, managing data privacy risks, leading breach response efforts, and working closely with legal and compliance teams.

Critical Work Functions

Information Security Strategy

- ▶ Establish the organisational cybersecurity vision, strategy and underlying cybersecurity initiatives or programmes.
- ▶ Align information security and information risk

management strategy with business strategy.

- ▶ Provide strategic, budgetary and administrative advice for implementation of information security strategy.
- ▶ Drive security awareness and education on information security throughout the organisation.
- ▶ Advise senior management and key stakeholders on information security matters.

Security Architecture Establishment

- ▶ Oversee the development of information security and risk management policies, disaster recovery and business continuity plans.
- ▶ Evaluate current information security practices to ensure compliance with IT standards and industry norms.
- ▶ Oversee the implementation of appropriate plans to ensure compliance with regulatory, industry and regional mandates.
- ▶ Establish and implement cybersecurity legal risk rules and guidelines in line with industry norms and standards.
- ▶ Drive information security and risk management awareness training programmes.
- ▶ Oversee the design of cybersecurity architecture

- and the overall Cyber Risk Maturity Model.
- ▶ Establish Key Performance Indicators (KPIs) to assess the effectiveness of the security architecture.
 - ▶ Facilitate the development of a framework to measure the effectiveness of security programmes.
 - ▶ Review security architecture to ensure that it addresses technology shifts and threats.

Cybersecurity Incidents Management

- ▶ Act as a subject matter expert in cybersecurity investigations and analysis.
- ▶ Drive resolution of large-scale security incidents.
- ▶ Lead the development of plans to address system vulnerabilities.
- ▶ Advise on responses to regulatory inquiries, inspections or audits.

Cybersecurity Risks Management

- ▶ Strategically guides the development of cybersecurity risk assessment frameworks.
- ▶ Advise business stakeholders on the different types of cyber risks and incidents along with the cybersecurity compliance standards.
- ▶ Oversee the development and testing of disaster recovery and business continuity plans.
- ▶ Drive compliance with international and national information security and privacy regulations.
- ▶ Act as the organisation's liaison with external agencies in cybersecurity risk matters.

Skills & Competencies

Technical	Proficiency Level
Audit and Compliance	5
Business Continuity	5
Cyber Forensic	5
Cyber and Data Breach Incident Management	5
Disaster Recovery Management	5
Emerging Technology Synthesis	5
IT Standards	5
Network Security	5
Networking	5
Security Architecture	5
Security Governance	5
Security Strategy	5
Threat Analysis and Defence	5
Threat Intelligence and Detection	5
Business Needs Analysis	4
Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in IT Security, Information Systems, Computer Science or any related field, with related industry certification and minimum of 10 years' experience at senior level OR BDQF Level 5 in Information Systems, Computer Science or any related field, with related industry certification and minimum of 12 years' experience at senior level.

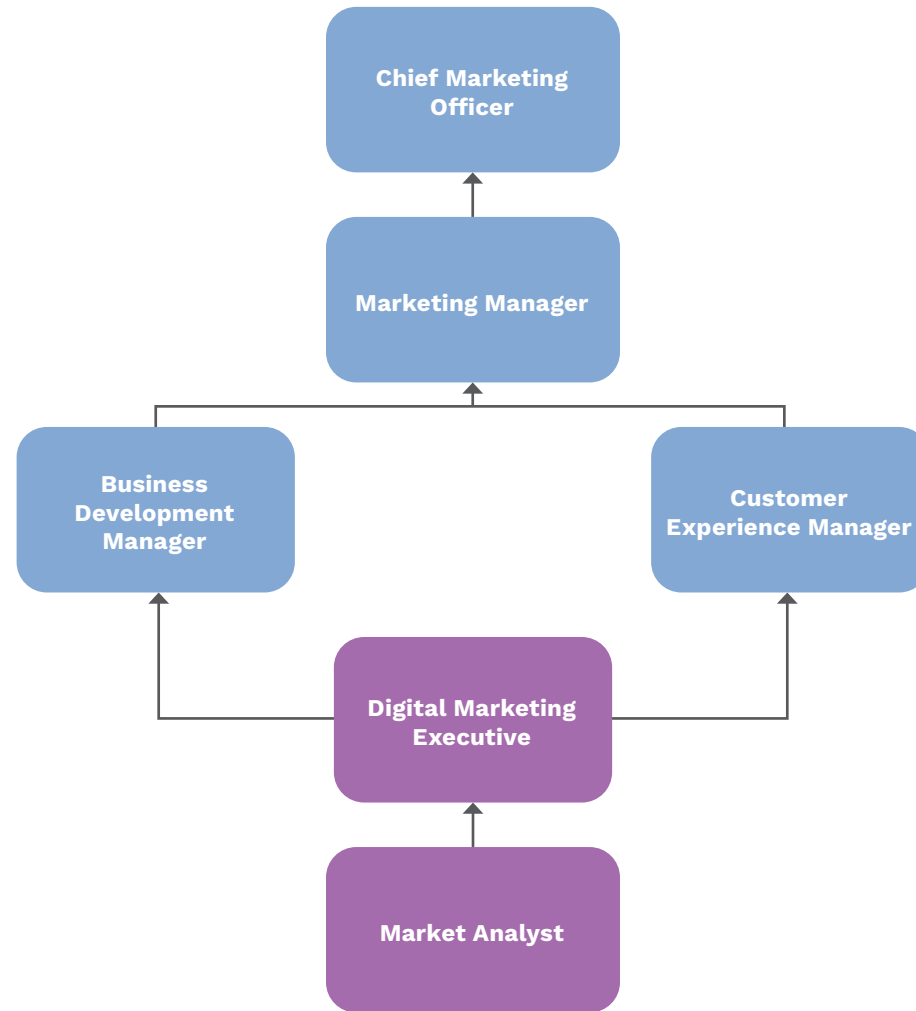
Recommended Technical Training Courses

- ▶ EC Council Certified Chief Information Security Officer (CCISO)
- ▶ ISC2 Certified Information Systems Security Professional (CISSP)
- ▶ ISACA Certified Information Security Manager (CISM)
- ▶ ISACA Certified in Risk and Information Systems Control (CRISC)
- ▶ GIAC Strategic Planning, Policy, and Leadership (GSTRT)
- ▶ GIAC Law of Data Security & Investigations (GLEG)
- ▶ GIAC Security Essentials Certification (GSEC)
- ▶ Certified Ethical Hacker (CEH)
- ▶ Certified Information Systems Auditor (CISA)
- ▶ Qualified Information Security Professional (QISP)
- ▶ ISACA Certified in the Governance of Enterprise (CGEIT)
- ▶ ISC2 Systems Security Certified Practitioner (SSCP)
- ▶ SANS Global Information Assurance Certification (GIAC)
- ▶ NIST CSF 2.0 Lead Implementor Course

Digital Media Sub-Sector

Digital Media Career Path

- Newly developed framework
- Previously developed framework



Market Analyst

Alternate Job Titles	Marketing Assistant, Marketing Associate, Marketing Coordinator
Sub-Sector	Digital Media
Functional Group	Digital Media/Marketing
Job Family	Distribution
Job Level	Specialist

Job Description

- ▶ Assist marketing teams by analysing various marketing initiatives.
- ▶ Help transform how the marketing teams look at data by reinforcing the importance of making strategic, numbers-driven decisions for future campaigns.
- ▶ Liaise between groups fluidly while helping engage the organisation in data literacy.
- ▶ Perform research and provide insights regarding the market, trends, competitors, potential and existing customers, and current campaigns.
- ▶ Research, gather and analyse business data for marketing.
- ▶ Analyse and interpret data through various tools that track traffic, leads, conversions and other vital metrics.

Critical Work Functions

Strategy and Implementation

- ▶ Provide the strategy behind a marketing campaign, analyse the results, and relay results (successes/challenges), and ultimately, recommend viable solutions.

- ▶ Conduct research on digital marketing trends (e.g. pay-per-click advertising, email marketing best practices) and how they can relate to company goals.
- ▶ Develop strategies for growth, and assess new campaign/client targets.
- ▶ Build out demand generation programmes with the goal of generating campaign success, increasing online presence, and driving Return on Investment (ROI).
- ▶ Use a wide variety of programmes and technologies to test/develop/implement new ideas and strategies to generate digital marketing success.
- ▶ Use a variety of programmes to create and/or deliver campaigns.

Communication Skills

- ▶ Analyse campaign data and educate marketers or sales staff on how to use these results to generate leads/sales.
- ▶ Relay technical information/data/results to non-technical team members.
- ▶ Work closely with outside vendors or contractors and must be able to watch product demos and assess which tools/technologies fit best for an organisation.

Creation of Digital Marketing Campaigns

- ▶ Design digital marketing campaigns to effectively promote companies, products, ideas or brands based on the requirements of internal or external clients paying for the advertising.

Analysis of Marketing Data

- ▶ Determine the effectiveness of marketing campaigns by analysing page clicks, keyword hits, search engine traffic and other data.

Advising Marketing Teams

- ▶ Keep marketing and sales teams up-to-date on current campaigns, informing them on which aspects of campaigns are the most effective or otherwise.
- ▶ Advise on how to tweak campaigns to get maximum attention and create more revenue.

Cultivating and Maintaining Client Relationships

- ▶ Provide clients with frequent updates on the status of their advertising campaigns.
- ▶ Advise them on the success of campaigns compared to marketing costs.
- ▶ Make suggestions to increase marketing effectiveness when necessary.

Writing Marketing Reports

- ▶ Create detailed reports showing the amount of traffic online campaigns are creating, how much campaigns cost, and outlining the timetables and schedules for online marketing campaigns.

Management of Pay-per-Click Accounts

- ▶ Look at the budget data for pay-per-click accounts on a daily basis to manage campaign costs and provide expense information to in-house/external clients.

Entry Requirements

BDQF Level 5 in Marketing, Communications, Economics or related field with 5 years of experience in the field OR
BDQF Level 4 in Marketing, Communications, Economics or related field with 3 years of experience.

Skills & Competencies

Technical	Level
Business Analysis	4
Customer Intelligence Analysis	4
Customer Behaviour Analysis	4
Data and Trend Analytics	4
Market Research	4
Media and Platform Management	4
Stakeholder Management	4
Budgeting	4
IT Project Management	3
Service Management	3

Soft Skills	Level
Analytical Thinking	Advanced
Decision-making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
Negotiation	Intermediate
People Management	Intermediate

Recommended Technical Training Courses

- ▶ Digital Marketing Pro – Digital Marketing Institute
- ▶ Google AdWords Certification
- ▶ Google Analytics Certification
- ▶ Fundamentals of Digital marketing (Google)
- ▶ Search Certification (Google)
- ▶ Display Certification (Google)
- ▶ Video Certification (Google)
- ▶ Meta Blueprint Certification
- ▶ Meta Certified Digital Marketing Associate
- ▶ Meta Certified Media Buying Professional
- ▶ Google Analytics IQ Certification
- ▶ Hootsuite Social Marketing Certification
- ▶ HubSpot Content Marketing Certification
- ▶ HubSpot Email Marketing Certification
- ▶ Digital Garage: Fundamentals of Digital Marketing Certification
- ▶ YouTube Certification
- ▶ HubSpot Inbound Marketing Certification
- ▶ Deep Learning Specialization Certification – Coursera
- ▶ American Marketing Association (AMA) Digital Marketing Certification
- ▶ Copyblogger Certified Content Marketer
- ▶ Twitter Flight School Certification
- ▶ Bing Ads Certification
- ▶ BrainStation – Digital Marketing Certificate
- ▶ Semrush SEO Toolkit Course
- ▶ Data Privacy Management
- ▶ Marketing Analytics and Insights
- ▶ LinkedIn Training
- ▶ Implementing Digital Marketing Campaigns
- ▶ Data Science Professional Certification
- ▶ Graduate Certificate in Data Science (Applied)

Digital Marketing Executive

Alternate Job Titles	Digital Marketing Assistant, Digital Marketing Coordinator, Digital Marketing Associate, Digital Marketing Analyst, Internet Marketing Specialist, Web Marketing Specialist, SEO specialist, Paid Search Specialist, Social Media Specialist
Sub-Sector	Digital Media
Functional Group	Digital Media/Marketing
Job Family	Distribution
Job Level	Specialist

Job Description

- ▶ Plan, develop, implement and manage the overall digital marketing strategy.
- ▶ Manage, guide and train digital marketers and other marketing positions in the team.
- ▶ Oversee the digital marketing activities of the organisation.
- ▶ Oversee the online and digital techniques undertaken by the organisation, with all digital analytical plans until completion.
- ▶ Manage lead conversion, brand building, communication, and market lead qualification.
- ▶ Promote the online image of the organisation.
- ▶ Execute campaigns and marketing projects.
- ▶ Conduct impact analysis, measure digital performance, and manage various media campaigns undertaken by the organisation.
- ▶ Oversee the collateral distribution, creation and ideation activities of the organisation.
- ▶ Attend to the search engine optimisation activities of the organisation.
- ▶ Create and implement online marketing campaigns based on email and SMS.

- ▶ Conduct market research, gather client insights, collect, and organise feedback from product testing for new marketing, product and/or service ideas.
- ▶ Work in a fluid and collaborative environment and support the basic intent of increasing brand awareness and improving products and services.

Critical Work Functions

Operationalisation of Marketing Strategy

- ▶ Understand the basic principles of digital marketing, and the range of tools for planning, implementing and monitoring their application on behalf of the organisation.
- ▶ Contribute to web and digital marketing and communication planning and implementation activity.
- ▶ Suggest creative and innovative ideas for campaigns.
- ▶ Monitor results of web marketing and digital communications.
- ▶ Understand the key messages for both internal

- and external audiences.
- ▶ Use customer and employee insight to identify industry trends, needs and sales opportunities.
- ▶ Present and communicate at marketing events.
- ▶ Appraise factors that influence online marketing activity.
- ▶ Make creative use of elements relevant to both digital and traditional environments, and draft appropriate support materials.
- ▶ Analyse the effectiveness of campaigns and services and their impact on audience behaviour and business outcomes.
- ▶ Organise and participate actively in marketing events.
- ▶ Devise and manage market research, marketing planning and campaigns.
- ▶ Advise on brand management and promotion of corporate reputation through digital channels.
- ▶ Engage strategic managers in approval of large-scale web and digital marketing and communications strategies, promoting innovative solutions to marketing challenges.
- ▶ Responsible for the production of marketing materials and staging of events.

- ▶ Review the effectiveness of digital marketing and communication strategies and services and their impact on business outcomes.

Marketing Budget Management

- ▶ Provide data and trends on historical marketing expenses to support budget development.
- ▶ Provide current cost estimates for campaign elements to support budget development.
- ▶ Track marketing expenses against budget for management reporting.
- ▶ Collate customer ratings and advertising sales figures from various sources.
- ▶ Track customer activity for brands or media assets across platforms.
- ▶ Create detailed reports to present customer trends to management.

Research and Insight

- ▶ Carry out market research and identify unique selling points and key messages.
- ▶ Investigate and analyse customer and competitor dynamics.
- ▶ Use appropriate channels and technologies for target marketing and engagement.
- ▶ Recognise and use the similarities and differences between online and traditional marketing concepts and applications.
- ▶ Provide advice on channel methodology, effectiveness and implementation.
- ▶ Collate customer ratings and advertising sales figures from various sources.
- ▶ Track customer activity for brands or media assets across platforms.
- ▶ Create detailed reports to present customer trends to management.

Execution of Marketing Campaigns

- ▶ Internalise the brand portfolio and positioning of media assets.
- ▶ Assist in the creation of marketing collaterals.
- ▶ Prepare press kits for marketing campaigns.
- ▶ Coordinate the logistics involved in organising marketing activities.
- ▶ Maintain databases for campaign life cycle management.
- ▶ Send periodic marketing schedules to creative agencies for further dissemination.
- ▶ Conduct market research and maintain relevant information, including lessons learned from previous projects.
- ▶ Develop creative and innovative ideas for campaigns.
- ▶ Apply appropriate strategies and tools, including web and digital, to inform and produce marketing plans.
- ▶ Develop and deliver targeted digital and multi-channel communication campaigns to get key messages across and reinforce the organisation's unique selling points, key messages, and brand.
- ▶ Apply tools to measure the effectiveness of internal and external web and digital campaigns and recommend appropriate methods to a given situation.

Marketing Communication Management

- ▶ Identify potential partner advertising agencies for marketing communication.
- ▶ Engage advertising agencies on a day-to-day basis to communicate expectations and contingent requirements and take feedback.
- ▶ Track performance of partner agencies for management reporting.

Website Design

- ▶ Coordinate the design and functionality of a company website, working alongside web developers and web designers and coordinating the process.
- ▶ Responsible for all website content and for creating and implementing the content strategy to ensure online objectives are met.
- ▶ Responsible for ensuring that the website is easily found by the target audience.
- ▶ Drive relevant traffic to the website optimising structure and content for search engines (Search Engine Optimisation) and/or the use of paid online advertising (Search Engine Marketing).
- ▶ Responsible for converting website visits into online opportunities/leads by making the online shopping experience as easy as possible and by introducing special deals.
- ▶ Responsible for managing the online presence and brand of a company through social networking tools such as Facebook, Twitter and Google+ that allow businesses to engage with their consumers in real time.

Advising on Product Development and Enhancement

- ▶ Collaborate with technology teams to ideate commercially viable products.
- ▶ Coordinate with industry partners to conduct testing of new or enhanced products to obtain feedback.
- ▶ Collect and organise feedback from product testing for analysis.

Skills & Competencies

Technical	Proficiency Level
Business Analysis	4
Customer Intelligence Analysis	4
Customer Behaviour Analysis	4
Data and Trend Analytics	4
Market Research	4
Media and Platform Management	4
Stakeholder Management	4
Budgeting	4
Service Management	4
IT Project Management	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 5 in Marketing, Communications, Economics or related field with 5 years of experience in the field.

Recommended Technical Training Courses

- ▷ American Marketing Association (AMA) Digital Marketing Certification
- ▷ Digital Marketing Institute Certified Digital Marketing Certifications
- ▷ Bing Ads Certification
- ▷ BrainStation – Digital Marketing Certificate
- ▷ Copyblogger Certified Content Marketer
- ▷ Deep Learning Specialization Certification – Coursera
- ▷ Digital Marketing Pro – Digital Marketing Institute
- ▷ Meta Blueprint Certification
- ▷ Meta Certified Digital Marketing Associate
- ▷ Meta Certified Media Buying Professional
- ▷ Digital Garage: Fundamentals of Digital Marketing Certification
- ▷ Display Certification (Google)
- ▷ Fundamentals of Digital Marketing (Google)
- ▷ Search Certification (Google)
- ▷ Google Ads Certification
- ▷ Google Analytics Certification
- ▷ Google Analytics IQ Certification
- ▷ Hootsuite Social Marketing Certification
- ▷ HubSpot Content Marketing Certification
- ▷ HubSpot Email Marketing Certification
- ▷ HubSpot Inbound Marketing Certification
- ▷ Semrush SEO Toolkit Course
- ▷ Twitter Flight School Certification
- ▷ YouTube Certification

Business Development Manager

Alternate Job Titles	Business Acquisition Manager, Client Acquisition Manager, Sales Manager
Sub-Sector	Digital Media
Functional Group	Digital Media Sales and Business Development
Job Family	Business
Job Level	Manager

Job Description

- ▶ Leverage digital tools, platforms, and analytics to identify business opportunities, track market trends, and engage with prospects.
- ▶ Utilise CRM systems, marketing automation, and social media channels to manage pipelines, build client relationships, and enhance brand visibility.
- ▶ Apply data-driven insights to optimise sales strategies, improve conversion rates, and support decision-making.
- ▶ Stay current with emerging digital technologies and best practices to maintain a competitive edge in business development activities.
- ▶ Execute strategic marketing and business plans to strengthen the company's market position and increase software or IT services revenue.
- ▶ Conduct in-depth market research to identify emerging opportunities in digital transformation, cloud adoption, cybersecurity, and related fields.
- ▶ Build and manage long-term relationships with key decision-makers such as CIOs, CTOs, and IT managers.
- ▶ Negotiate deals, manage the sales cycle, and close contracts for products or services.
- ▶ Stay updated on industry trends, customer needs, and competitor offerings to maintain a competitive edge.

- ▶ Deliver compelling sales presentations, demos, and solution proposals tailored to client needs.
- ▶ Lead or collaborate with pre-sales and technical teams to prepare bids, proposals, and RFP responses.
- ▶ Oversee the sales pipeline and ensure consistent progression toward revenue targets.
- ▶ Support and coordinate the efforts of business development associates and junior team members.

Critical Work Functions

Business Development Strategy Execution

- ▶ Create company growth plans and a sales strategy for the sales team that include goals and essential success elements.
- ▶ Oversee the creation of proposals and bid documents.
- ▶ Collaborate with marketing department to develop case studies, content for seminars, forums, social media, websites, and campaigns that support business development objectives
- ▶ Create an efficient sales funnel for tracking and managing sales prospects.
- ▶ Manage the creation of sales tools to speed up the sales process.
- ▶ Create long-term targets and goals to increase

market share.

- ▶ Examine business growth tactics and techniques to ascertain how best to apply them in the marketplace.
- ▶ Make precise company forecasts for the future and present by utilising sales tools.
- ▶ Revise business development plans to reflect current developments in the market and sector.
- ▶ Utilize digital prospecting techniques such as LinkedIn outreach, CRM automation, and email campaigns to generate qualified leads and engage potential clients across the technology and enterprise sectors.

Business prospecting

- ▶ Investigate possible customers, current and prospective markets, goods, and services to find untapped business prospects.
- ▶ Represent the company at industry gatherings and business networks.
- ▶ Locate fresh company prospects to boost earnings, diversify revenue sources, and improve market share.
- ▶ Learn about changes in product and/or service offerings in respect to market demands from your business network.
- ▶ Assess prospects using risk analysis, market research, and financial viability studies to guide

business development choices.

- ▷ Current business trends and how they affect distribution channels, new products, and/or services.
- ▷ Provide an update on the new sales activity' status.

Customer Relationship Management

- ▷ Create engagement strategies and programmes to fortify and expand customer relationships. Engage clients on a frequent basis to identify requirements and problems related to the business, both current and future.
- ▷ Oversee the handling of consumer complaints and inquiries, raising issues to a higher level as necessary.
- ▷ Analyse customer feedback to pinpoint areas in need of development and suggest adjustments to improve the customer experience.
- ▷ Build meaningful, trust-based relationships with prospects from the first point of contact, ensuring a seamless and personalized experience throughout the entire sales journey—not just post-sale.
- ▷ Act as a consultative partner, understanding customer needs and delivering value at every stage to enhance long-term satisfaction and retention.
- ▷ Share market sentiment and customer feedback with pertinent internal stakeholders so that products and/or services can be improved.

Bid and Client Engagement Management

- ▷ Determine and evaluate the needs and goals of the client.
- ▷ Create a plan for pursuing or bidding.

- ▷ Oversee the creation, submission, and display of business documents and proposals.
- ▷ Oversee the important partners in the bidding process.
- ▷ Oversee the negotiating and service agreement processes.

Skills & Competencies

Technical	Level
Business Development	4
Contract Management	4
Business Negotiation	4
Customer Experience Management	4
Data Analytics	4
Market Research	4
Networking	4
Sales Strategy	4
Stakeholder Management	4
Partnership Management	4
Service Orientation	4
Service Management	4
Business Needs Analysis	3

Soft Skills	Level
Analytical Thinking	Intermediate
Decision-making/ Judgement	Intermediate
Communication	Intermediate
Work Management	Intermediate
Teamwork	Intermediate
People Management	Intermediate
Creativity & Innovation	Intermediate
Results/Achievement Orientation	Intermediate
Service Orientation	Intermediate
Negotiation	Intermediate
Resilience	Intermediate

Entry Requirements

BDQF Level 6 in Marketing, Business Administration, Creative Multimedia, or any related field with a minimum of 5 years of experience OR
 BDQF Level 6 in Information Systems, Computer Science, or any related field, with related Marketing or Creative Multimedia certification or possesses relevant portfolio/experience in Marketing with a minimum of 5 years of experience OR
 BDQF Level 5 in Marketing, Business Administration, Creative Multimedia, or any related field, with related industry certification or possesses relevant portfolio/experience with a minimum of 8 years of experience.

Recommended Technical Training Courses

- ▷ Certified Digital Marketing Professional (CDMP)
- ▷ Certified Business Development Manager (CBDM)
- ▷ Zoho CRM Academy
- ▷ Certified Inside Sales Professional (CISP)
- ▷ Certified Sales Executive (CSE)
- ▷ Certified Business Development Expert (CBDE)
- ▷ Certified Business Relationship Manager (CBRM)
- ▷ Professional Certified Marketer (PCM)
- ▷ Salesforce Certified Sales Cloud Consultant

Customer Experience Manager

Alternate Job Titles	Head of Customer Experience, Head of Customer Success, Customer Experience Lead
Sub-Sector	Digital Media
Functional Group	Digital Media Customer Relationship Management
Job Family	Business
Job Level	Manager

Job Description

- ▶ Drive customer satisfaction, retention, and long-term value through strategic engagement initiatives.
- ▶ Create and deploy maps of the customer journey to find opportunities.
- ▶ Create client onboarding programmes, oversees the entire process, collaborates with customers to identify important benchmarks, and celebrates milestone accomplishments.
- ▶ Create customer experience plans to increase client loyalty and satisfaction.
- ▶ Collaborate with clients to understand their usage and satisfaction levels, develops strategies to address challenges, and helps them maximize the value of the company's products and services.
- ▶ Analyse customer data to find chances for up-selling and cross-selling while also improving the customer experience and happiness.
- ▶ Conduct on-site visits to customer locations as needed to build rapport, strengthen relationships, and better understand client needs.
- ▶ Oversee issue resolution and client service.
- ▶ Collaborate with other functional teams to deliver services and experiences consistently.

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- ▶ Leverage Customer Experience Management (CXM) platforms (e.g., Salesforce Experience Cloud, Qualtrics, Adobe Experience Manager) to monitor customer sentiment, personalize interactions, and drive data-driven improvements.
- ▶ Design and execute loyalty programs and customer retention initiatives that increase repeat engagement, brand advocacy, and customer lifetime value (CLV).

Critical Work Functions

Customer Success Strategy Implementation

- ▶ Create projects and plans that will increase lifetime value, retention, and customer satisfaction.
- ▶ Create service level agreements with several departments to make implementation, feedback, and cooperation easier.
- ▶ To gain insights, analyse the operating environment, technological advancements, and customer feedback.
- ▶ Establish goals and key performance indicators to track development and customer success.
- ▶ Oversee customer service via a variety of channels.
- ▶ Oversee the tracking and settlement of incidents.

Client Onboarding

- ▶ Oversee the customer onboarding procedure and make suggestions to enhance the service delivery and provisioning process.
- ▶ Establish the goals and metrics for the customer onboarding procedure.
- ▶ Create and oversee the execution of customer onboarding initiatives.
- ▶ Involve clients in the onboarding process to recognise and resolve issues, help, gather input, and comprehend their needs.
- ▶ Assess the client onboarding process's effectiveness and acknowledge accomplishments.
- ▶ Lead the design, implementation, and optimization of the entire customer journey — from awareness and acquisition through onboarding, engagement, retention, and advocacy.
- ▶ Ensure every customer interaction is consistent, meaningful, and personalized by leveraging customer data, behavioural insights, and segmentation.
- ▶ Work cross-functionally with marketing, sales, service, and product teams to align messaging, automate relevant touchpoints, and deliver seamless omnichannel experiences tailored to individual needs and preferences.

Customer Value Realisation

- ▶ Assess client satisfaction and go over areas that could use improvement.
- ▶ Create ways to deal with problems and underuse them better to provide clients with more value.
- ▶ Produce instructional materials and case studies of customer success for internal teams and clients.
- ▶ Hold customer sharing sessions on best practices for the industry.
- ▶ Examine client data to enhance consumer pleasure, engagement, and experience with the company’s goods and services.
- ▶ Involve clients in understanding the issues facing their company and the factors that could affect growth and performance in the future.
- ▶ Refer technical concerns about goods and services to the appropriate technical teams so they can be resolved.

Customer Lifetime Value Optimisation

- ▶ Determine prospects for product and service upselling and cross-selling by analysing the demands, business strategy, and technological maturity of the customer.
- ▶ Contribute to the conceptualization of new goods and services and raise the perceived worth of already-available goods and services.
- ▶ Offer suggestions to the sales team for obtaining contract extensions and renewals.
- ▶ Oversee the pipeline and renewal sales cycle.

Skills & Competencies

Technical	Proficiency Level
Accounts Management	4
Budgeting	4
Business Needs Analysis	4
Business Performance Management	4
Customer Experience Management	4
Data Analysis	4
Market Research	4
Networking	4
Product Management	4
IT Project Management	4
Stakeholder Management	4
Strategic Implementation	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Intermediate
Teamwork	Advanced
People Management	Intermediate
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Marketing, Business Administration, Creative Multimedia, or any related field, and minimum experience of 5 years
OR
BDQF Level 6 in Information Systems, Computer Science or any related field, with related Marketing or Creative Multimedia certification or possesses relevant portfolio/experience in Marketing, and minimum experience of 5 years
OR
BDQF Level 5 in Marketing, Business Administration, Creative Multimedia, or any related field, with related industry certification or possesses relevant portfolio/ experience minimum of experience of 8 years

Recommended Technical Training Courses

- ▶ Certified Customer Experience Professional (CCXP)
- ▶ Certified Customer Success Manager (CCSM)
- ▶ Professional Certified Marketer (PCM) – Customer Value Management
- ▶ Customer Success Manager Certification (generic)
- ▶ Salesforce Service Cloud Consultant/ Administrator
- ▶ Adobe Experience Manager certification
- ▶ Qualtrics certification

Marketing Manager

Alternate Job Titles	Marketing Manager, Promotion Manager, Marketing Strategist, Advertising Manager, Strategic Marketing Manager, Digital Marketing Manager, Marketing Director
Sub-Sector	Digital Media
Functional Group	Digital Media Marketing & Deployment
Job Family	Distribution
Job Level	Specialist/Manager

Job Description

- ▶ Oversee the planning, execution, and evaluation of marketing initiatives to strengthen brand presence, promote products or services, and support organisational goals.
- ▶ Develop and implement marketing plans that align with the organisation's existing brand strategy and support its overall objectives.
- ▶ Identify and engage target audiences through tactical outreach methods and digital campaigns.
- ▶ Plan and manage marketing campaigns across multiple media channels to ensure consistent messaging and audience engagement.
- ▶ Implement integrated marketing communications campaigns in coordination with senior leadership.
- ▶ Support go-to-market activities through audience insights and campaign analytics
- ▶ Monitor marketing budget utilisation and reporting
- ▶ Assess performance of partner-led campaigns and provide recommendations for improvement or continuation.
- ▶ Utilise AI-powered tools (E.g. ChatGPT, Jasper, Midjourney, Adobe Firefly etc.) for content creation, campaign personalization, customer segmentation and trend forecasting.

Critical Work Functions

Integrated Marketing Communications (IMC) Plan

- ▶ Develop IMC strategies for products and services, incorporating digital tools to optimise reach and engagement across platforms.
- ▶ Design go-to-market positioning strategies and roadmaps for both new and enhanced offerings.
- ▶ Determine product packaging and pricing frameworks aligned with brand and market expectations.
- ▶ Conduct market segmentation analysis to identify and target potential customer niches.
- ▶ Recommend strategic improvements for marketing initiatives, leveraging both traditional and digital approaches.
- ▶ Define performance metrics to evaluate the effectiveness and ROI of IMC campaigns and activities.
- ▶ Develop and manage budget plans for IMC programmes and communication efforts.

Client and Market Insight Development

- ▶ Define objectives, methodologies, and tools for conducting competitor, customer, and market research.
- ▶ Analyse market dynamics, competition behaviour, and client insights to determine the consequences for business and marketing

initiatives.

- ▶ Provide guidance to teams on research execution and interpretation of insights.
- ▶ Review and interpret digital marketing dashboards to enhance data quality and depth of insights gathered.
- ▶ Integrate data-driven insights into the formulation of marketing strategies and campaigns.
- ▶ Generate actionable recommendations to stimulate product demand and market responsiveness.
- ▶ Evaluate feasibility of proposed changes and innovations based on research findings and insight analysis.

Integrated Marketing Communications (IMC) Programme Management

- ▶ Oversee the creation of IMC programme concepts for the company and/or particular product and service categories.
- ▶ Choose the marketing mix, key messaging, and framing for IMC programmes.
- ▶ Create strategies for an IMC programme for the company and/or certain product and service lines.
- ▶ Create a media plan that outlines the platforms and media needed to implement the IMC

programme.

- ▶ Oversee the creation and selection of collateral materials for IMC programmes, both digital and offline.
- ▶ Ensure that the main messaging, experience, and concept design of the IMC programme are consistent across a range of traditional and digital media channels.
- ▶ Supervise the IMC's operations and programme execution.
- ▶ Manage all aspects of digital marketing, including as social media, SEO, SEM, and website administration.
- ▶ Oversee the correctness and applicability of marketing and communication materials.
- ▶ Determine areas for improvement by assessing the effectiveness of IMC programmes in relation to their objectives.
- ▶ Develop marketing plan by implementing, incorporating and utilising digital marketing, and integrated relevant strategy such as AI powered marketing, marketing automation, analytics, and emerging tools.

Joint Marketing Initiative Management

- ▶ Establish and nurture strategic partnerships to leverage partners' market reach in support of organisational marketing objectives.
- ▶ Assess potential for growth across target markets and the effects on joint ventures.
- ▶ Assess partners' suitability for joint marketing initiatives.
- ▶ Negotiate and formalise partnership agreements, including terms and conditions for joint marketing initiatives.
- ▶ Examine partnership marketing's efficacy and

return on investment to decide whether to continue collaborations.

- ▶ Design and implement joint marketing programmes aimed at enhancing target audience engagement and improving the overall customer experience.

Product Development Support

- ▶ Participate in feasibility assessments to evaluate new product or service concepts from a market perspective.
- ▶ Coordinate product testing activities in collaboration with sales and technical teams to gather user input and feedback.
- ▶ Analyse customer feedback from product trials and communicate insights to product and technical teams to inform refinement and development.

Skills & Competencies

Technical	Level
Brand Management	3
Business Environment Analysis	3
Customer Intelligence Analysis	3
Content Management	3
Content Strategy	3
Contract Management	3
Customer Behaviour Analysis	3
Customer Experience Management	3
Data Analytics	3
Integrated Marketing	3
Market Research	3
Market Trend Analysis	3
Marketing Campaign Management	3
Marketing Communications Plan Development	3
Marketing Strategy	3
Media Strategy	3
Partnership Management	3
Pricing Strategy	3
Digital Advertising Platforms	3
Soft Skills	Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity & Innovation	Advanced

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Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Marketing, Business Administration, Creative Multimedia or any related field, or experience in Digital Marketing, Brand Strategy, Marketing and Development, Customer Experience with a minimum of 5 years of experience. OR BDQF Level 6 in Information Systems, Computer Science or any related field, with related Marketing or Creative Multimedia certification or possesses relevant portfolio/experience in Marketing, with a minimum of 5 years of experience. OR BDQF Level 5 in Marketing, Business Administration, Creative Multimedia or any related field, with related industry certification or possesses relevant portfolio/experience in Digital Marketing, Brand Strategy, Marketing and Development, Customer Experience with a minimum of 8 years of experience.

Recommended Technical Training Courses

- ▶ Professional Certified Marketer (PCM), AMA
- ▶ Certified Marketing Management Professional (CMMP), IIMP
- ▶ HubSpot Academy: Digital Marketing Certification Course
- ▶ Certified Digital Marketing Professional (CDMP), DMI
- ▶ LinkedIn Learning: Become a Digital Marketing Specialist
- ▶ Coursera: Google Digital Marketing and E-commerce Professional Certificate
- ▶ Meta: Certified Digital Marketing Associate
- ▶ Professional Certification in Digital Marketing
- ▶ Google Ads Certification, Google Skillshop
- ▶ TikTok Academy Certification, TikTok for Business
- ▶ Digital Marketing Strategy for Social Media, Domestika
- ▶ Content Marketing Strategy, Domestika
- ▶ Email Marketing & CRM Strategy, Domestika
- ▶ Meta Social Media Marketing Professional Certificate, Coursera

Chief Marketing Officer

Alternate Job Titles	Head of Marketing, Marketing Director
Sub-Sector	Digital Media
Functional Group	Digital Media Marketing & Deployment
Job Family	Strategic Leadership
Job Level	C-Suite

Job Description

- ▶ Lead the development and execution of a comprehensive marketing plan to support the company's brand, growth, and business objectives.
- ▶ Demonstrate strong and dynamic leadership in marketing media assets through strategic monetization of partnerships, events, campaigns, branding, and franchising initiatives.
- ▶ Advocate for the continuous adoption of modern and innovative marketing approaches.
- ▶ Manage and evolve the company's brand strategy to ensure relevance, consistency, and differentiation in the market.
- ▶ Direct the organization's marketing, communications, and public relations initiatives by creating policies, designing marketing strategies, and supervising their implementation.
- ▶ Utilize analytics to identify the most effective channels for target audiences and to evaluate the ROI and overall effectiveness of marketing initiatives.
- ▶ Develop connections with influential members of the industry and important strategic partners; guarantees efficient management of marketing outcomes; and implement remedial measures

to meet marketing goals within allotted expenditures.

- ▶ Invest a substantial amount of time and energy in creating plans and strategies that direct marketing operations.
- ▶ Manage the company's brand architecture, ensuring clarity and consistency in the relationship between the parent brand and its sub-brands or product lines.
- ▶ Persuade important internal and external stakeholders to support his goals.
- ▶ Create a team that is accountable, customer-focused, and incredibly competent.
- ▶ Foster strong business relationships with affiliates and stakeholders to support strategic growth and collaboration.

Critical Work Functions

Marketing Strategy Formulation and Implementation

- ▶ Examine consumer insights and inclinations to determine media asset marketing tactics.
- ▶ Oversee the methodical targeting of platforms and priority categories using intelligence unique to accounts and markets.
- ▶ Implement tactics that encourage the use of

non-traditional marketing channels, such as digital ones.

- ▶ Create fresh strategies for interacting with customers to improve their experience and loyalty.
- ▶ Define important KPIs to monitor the success of marketing campaigns.
- ▶ Establish standards for all marketing materials to ensure that the company's message is accurate and that the desired brand image is upheld.

Marketing Technology and Automation

- ▶ Lead digital transformation initiatives by leveraging automation tools to streamline processes, enhance customer experiences, and drive operational efficiency.
- ▶ Develop and execute a comprehensive digital marketing strategy that aligns with business goals, enhances brand visibility, and drives online growth across platforms.
- ▶ Implement and optimise marketing technology (MarTech) stacks, including CRM, marketing automation tools (e.g., HubSpot, Marketo), and analytics platforms (e.g., GA4, Tableau).
- ▶ Develop and manage multi-channel digital marketing campaigns, leveraging SEO, SEM, content marketing, social media, and analytics

tools to maximize reach and ROI.

- ▶ Use data mining and analysis techniques to produce business intelligence.
- ▶ Examine the results of marketing campaigns to increase ROI and marketing efficacy.
- ▶ Promote the uptake and application of data analytics and digital tools for marketing automation, customer service, service delivery, marketing, customer profiling, and automated benchmarking.

Marketing Budget Management

- ▶ Promote the development of marketing budgets in accordance with marketing priorities and strategy.
- ▶ Review and approve marketing budgets in accordance with marketing priorities and ROI research.
- ▶ Control marketing costs relative to spending plans.
- ▶ Distribute marketing funds to integrated platforms and channels that yield significant returns.

Advertising Campaigns Management

- ▶ Lead in organising the media asset launches for marketing campaigns, including media briefs.
- ▶ Develop pricing for campaigns and media plans in conjunction with the business and sales departments.
- ▶ Establish guidelines for creating campaign strategies and messages for all media platforms and business priorities.
- ▶ Encourage the application of creative strategies to develop cutting-edge advertising that resonate with the target market.

Marketing Partner Management

- ▶ Approve agency collaborations for marketing communications based on both commercial and creative factors.
- ▶ Establish standards and rules for carrying out marketing communications by working with partner agencies.
- ▶ Review performance and decide whether to keep up partnerships with existing partner agencies.

Outreach and Networking

- ▶ Foster goodwill among affiliates and stakeholders to create fruitful marketing alliances.
- ▶ Persuade affiliates and stakeholders to create marketing plans and/or campaigns that benefit both parties.
- ▶ Develop connections with new affiliates and stakeholders to accomplish desired goals.
- ▶ Participate in industry events such as conferences and seminars to advance important agenda items and build connections within the larger sector.

Crisis Management

- ▶ Establish general organisational policies for handling the reputation of the organisation during times of crisis.
- ▶ Assess crisis circumstances to make prompt decisions about the handling of external communications.
- ▶ Ensure that all external communications are coordinated during times of crisis
- ▶ Provide strategic leadership in building, protecting the organisation's brand across all digital channels.
- ▶ Develop and execute strategies for rapid coordinated responses to crises using advanced

digital tools, ensuring consistent transparent and effective communication with stakeholders.

Resource Management

- ▶ Establish clear expectations for staff responsibility, direction, and goals.
- ▶ Establish staff development plans through career talks, coaching, and mentoring.
- ▶ Specify within the department what constitutes good performance management techniques in compliance with organisational policies and procedures.
- ▶ Manage the various departments' staffing, task assignments, projections, and budgets.

Skills & Competencies

Technical	Level
Business Needs Analysis	5
Business Development	5
Contract Management	5
Business Negotiation	5
Customer Experience Management	5
Data Analytics	5
Market Research	5
Marketing Strategy	5
Pricing Strategy	5
Stakeholder Management	5
Partnership Management	5
Service Management	5
Digital Analytics	5
Digital Marketing Tools	5

Soft Skills	Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Business Administration (Marketing), Computer Science, Information Systems, Digital Marketing, Brand Strategy, Marketing and Development, Customer Experience or related field, with related industry certification and minimum of 10 years' experience at senior level OR BDQF Level 5 in Business Administration (Marketing), Computer Science, Information Systems, Digital Marketing, Brand Strategy, Marketing and Development, Customer Experience or related field, with related industry certification and minimum of 12 years' experience at senior level.

Recommended Technical Training Courses

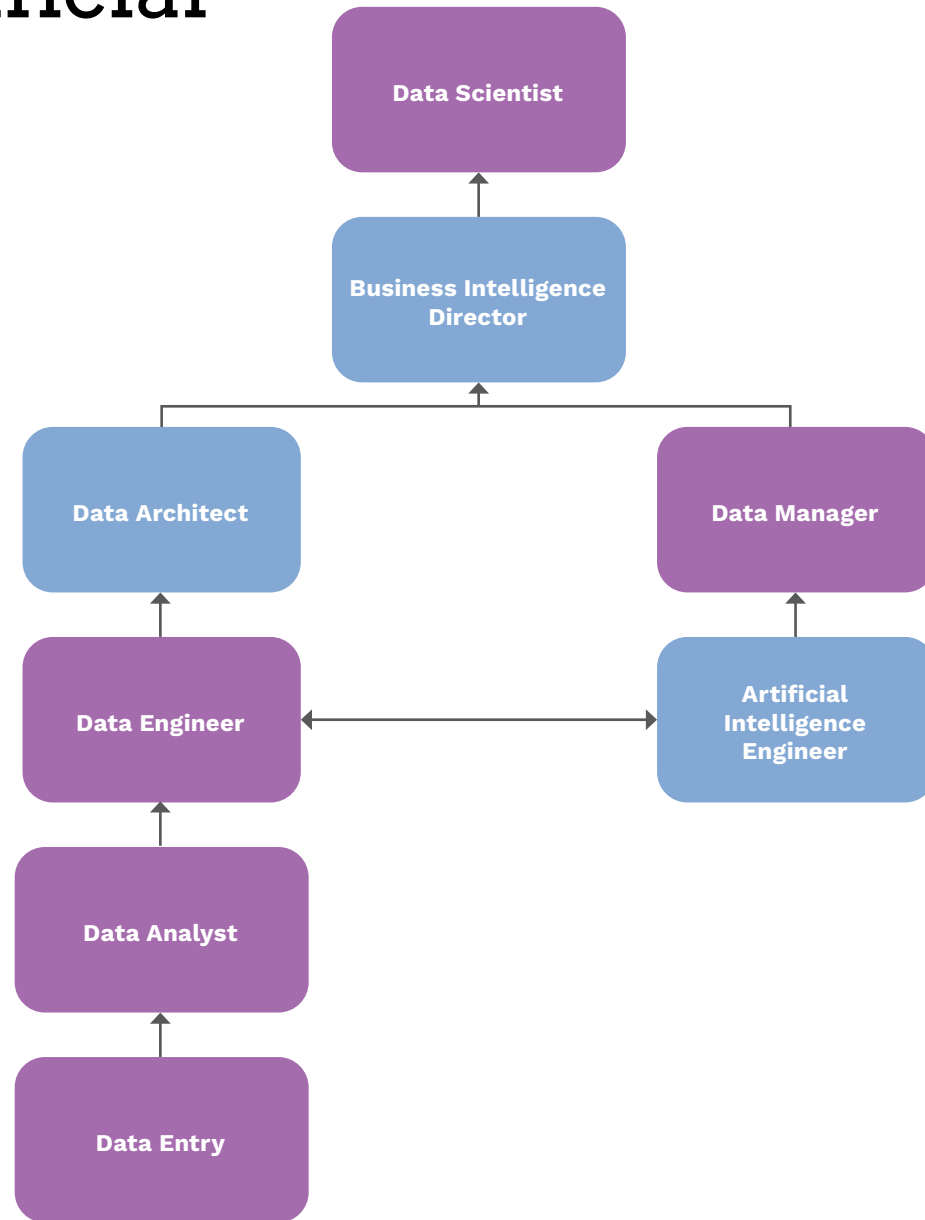
- ▶ Certified Marketing Management Professional (CMMP)
- ▶ Chartered Marketer (CM)
- ▶ Certified Digital Marketing Professional (CDMP)
- ▶ MBA: Marketing Management
- ▶ Certified Product Marketing Manager (CPMM)
- ▶ Professional Certified Marketer (PCM)
- ▶ Certified Chief Marketing Officer (CCMO)
- ▶ Project Management Professional (PMP)
- ▶ Google Analytics Professional Certificate
- ▶ Certified Social Media Strategist (CSMS)
- ▶ Certified Brand Strategist (CBS)
- ▶ Design Thinking Certification from IDEO
- ▶ Scrum Alliance Certified Agile Leader, SAFe Agilist, PMI-ACP
- ▶ Growth Hacking Certificate Program – GrowthHackers.com & CXL Institute
- ▶ Certified Agile Marketing Specialist (CAMS) – ICAgile
- ▶ Digital Crisis Management Certificate – PR Academy (UK)



Data and Artificial Intelligence Sub-Sector

Data and Artificial Intelligence Career Path

- Newly developed framework
- Previously developed framework



Data Entry

Alternate Job Titles	Data Entry Operator, Data Entry Processor, Data Entry Clerk
Sub-Sector	Data and Artificial Intelligence
Functional Group	Software, Systems and Analytics
Job Family	Data
Job Level	Entrant

Job Description

- ▶ Prepare and sort documents for data entry.
- ▶ Check source documents for accuracy through verification of data, as well as obtain further information when current data is incomplete or insufficient.
- ▶ Enter data into database software and checking to ensure the accuracy of the data that has been inputted.
- ▶ Create data backups as part of a contingency plan.
- ▶ Respond to information requests from authorised members.
- ▶ Test new database systems and software updates.

Critical Work Functions

- ▶ Resolve discrepancies in information and obtain further information for incomplete documents.
- ▶ Store completed documents in designated locations and maintain logbooks or records of activities and tasks comply with data integrity and security policies.
- ▶ Insert customer and account data by inputting text based and numerical information from source documents within time limits.
- ▶ Compile, verify accuracy and sort information according to priorities to prepare source data for computer entry.
- ▶ Review data for deficiencies or errors, correct any incompatibilities if possible and check output.
- ▶ Research and obtain further information for incomplete documents.
- ▶ Apply data program techniques and procedures.
- ▶ Generate reports, store completed work in designated locations and perform backup operations.
- ▶ Scan documents and print files, when needed.
- ▶ Keep information confidential.

Skills & Competencies

Technical	Proficiency Level
Data Ethics	3
Data Governance	3
Data Analytics	2
Database Administration	2
Data Migration	2
Information Security Management	2
Service Management	2
Business Analysis	2

Soft Skills	Proficiency Level
Analytical Thinking	Intermediate
Decision-Making	Basic
Communication	Basic
Work Management	Basic
Teamwork	Basic
People Management	Basic
Creativity and Innovation	Basic
Results Orientation	Basic
Service Orientation	Basic
Negotiation	Basic
Resilience	Basic

Entry Requirements

BDQF Level 4 in Data Analytics, IT, Information Systems or related field.

Recommended Technical Training Courses

- ▷ Introduction to Data Entry
- ▷ Become A Data Entry Pro
- ▷ Become A Virtual Assistant
- ▷ Microsoft Excel
- ▷ Google Data Analytics
- ▷ Power BI
- ▷ Power Apps
- ▷ Basic Coding

Data Analyst

Alternate Job Titles	Data Modeler, Business Intelligence Analyst, Data Warehouse Analyst, Systems Analyst, Business Analyst, Computer Analyst
Sub-Sector	Data and Artificial Intelligence
Functional Group	Data Services
Job Family	Data
Job Level	Entrant or Specialist

Job Description

- ▶ Assist in the data collection, processing, and warehousing tasks, which may also include collection, analysing and visualising large sets of data.
- ▶ Perform basic data cleansing and transformation.
- ▶ Generate reports, dashboards, clean and prepare the data and analytical solutions according to business rules and specifications utilising development tools.
- ▶ Perform analysis to support business and product decisions.
- ▶ Work with management team to identify opportunities for improvement.
- ▶ Create reports for internal teams and external clients.
- ▶ Use graphs, infographics and other methods to establish KPIs to measure the effectiveness of business decisions.
- ▶ Structure large data sets to find usable information.
- ▶ Work with a team of analysts and other associates to process information.
- ▶ Create presentations and reports based on recommendations and findings.

- ▶ Coordinate with internal teams to develop projections on outcomes of implementing business strategies that result in actionable insights.

Critical Work Functions

Business Needs Identification

- ▶ Identify the information needs of stakeholders for decision-making.
- ▶ Assist in translating business needs into analytical and reporting requirements.
- ▶ Recommend the types of data and data sources needed to obtain the information and insights required.
- ▶ Assist in identifying potential business intelligence services required by the company.

Data Preparation and Analysis

- ▶ Perform data entry tasks in data collection systems.
- ▶ Gather data from internal systems and external source.
- ▶ Clean and update databases to remove duplicated, outdated or irrelevant information.

- ▶ Perform data validation and quality control checks.
- ▶ Perform basic extract, transform and load related activities to prepare data for analysis or transfer.
- ▶ Analyse data to identify trends, patterns and correlations to support decision-making.
- ▶ Propose solutions and recommendations to address information needed.
- ▶ Manage master data, including creation, updates and deletion.
- ▶ Manage users and users' roles.
- ▶ Provide quality assurance of imported data, working with quality assurance analysts if necessary.
- ▶ Commission and decommission data sets.
- ▶ Process confidential data and information according to guidelines.
- ▶ Conduct new technology research as requested.

Insight Presentation

- ▶ Manage and design the reporting environment, including data sources, security and metadata.
- ▶ Support the data warehouse in identifying and revising reporting requirements.
- ▶ Support initiatives for data integrity and normalisation.

- ▶ Generate reports from single or multiple systems.
- ▶ Troubleshoot the reporting database environment and reports.
- ▶ Evaluate changes and updates to source production systems.
- ▶ Train end-users on new reports and dashboards.
- ▶ Provide technical expertise in data storage structures, data mining and data cleansing.
- ▶ Carry out routine maintenance tasks to detect and/or prevent system malfunctions that disrupt system connectivity.
- ▶ Develop automated and logical data model and data output methods.
- ▶ Translate analyses into a common business language to influence business decisions or actions.
- ▶ Design of data reports and visualisation tools to facilitate understanding of data through storytelling.

Skills & Competencies

Technical	Proficiency Level	
	Entrant	Specialist
Business Analysis	2	3
Data Analytics	3	4
Data Engineering	3	4
Data Ethics	3	4
Data Visualisation	3	4
Database Administration	3	4
Data Cleansing	3	4
Information Security Management	3	4
Networking	2	3
IT Project Management	2	3
Service Management	3	4

Soft Skills	Proficiency Level	
	Entrant	Specialist
Analytical Thinking	Intermediate	Advanced
Decision-Making	Intermediate	Advanced
Communication	Intermediate	Advanced
Work Management	Intermediate	Advanced
Teamwork	Intermediate	Advanced
People Management	Intermediate	Advanced
Creativity and Innovation	Intermediate	Advanced
Results Orientation	Intermediate	Advanced
Service Orientation	Intermediate	Advanced
Negotiation	Intermediate	Advanced
Resilience	Intermediate	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, Statistics, Mathematics, Actuarial Science or related field OR

BDQF Level 5 in Information Systems, Computer Science, Statistics, Mathematics, Actuarial Science or related field with relevant industry experience or possess relevant portfolio/experience.

Recommended Technical Training Courses

- ▶ Associate Certified Analytics Professional (aCAP)
- ▶ Certification of Professional Achievement in Data Sciences
- ▶ Certified Analytics Professional
- ▶ Cloudera Data Platform Generalist
- ▶ EMC Proven Professional Data Scientist Associate (EMCDSA)
- ▶ IBM Data Science Professional Certificate
- ▶ Microsoft Certified Azure Data Scientist Associate
- ▶ Microsoft Certified Data Analyst Associate
- ▶ Microsoft Technology Associate
- ▶ Open Certified Data Scientist
- ▶ SAS Certified Advanced Analytics Professional Using SAS 9
- ▶ SAS Certified Data Scientist
- ▶ Data Visualization with Tableau
- ▶ Power BI
- ▶ Google Certified Professional Data Engineer

Data Engineer

Alternate Job Titles	Big Data Engineer, Business Intelligence Engineer, Computer Vision Engineer, Data Architect, Machine Learning Engineer
Sub-Sector	Data and Artificial Intelligence
Functional Group	Software and Systems
Job Family	Applications Configurations and Installations, and IT Security
Job Level	Entrant or Specialist

Job Description

- ▶ Support the design, implementation and maintenance of data flow channels and data processing system.
- ▶ Assist in developing and implementing data pipelines and data stores.
- ▶ Support the collection, storage, batch and real-time processing, and analysis of information in a scalable, repeatable and secure manner.
- ▶ Perform administrative tasks to provide accessibility, security and protection of data.
- ▶ Design and implement data pipelines and data stores to acquire and prepare data.
- ▶ Apply data engineering standards and tools to create and maintain data pipelines and extract, transform and load data.
- ▶ Design, implement and maintain complex data engineering solutions to acquire and prepare data.
- ▶ Create and maintain data pipelines to connect data within and between data stores, applications and organisations.
- ▶ Carry out routine/complex data quality checking and remediation.

- ▶ Plan and drive the development of data engineering solutions ensuring that solutions balance functional and non-functional requirements.
- ▶ Monitor application of data standards and architectures including security and compliance.
- ▶ Contribute to organisational policies, standards and guidelines for data engineering.

Critical Work Functions

Identification of Business Needs

- ▶ Lead the selection and development of data engineering methods, tools and techniques.
- ▶ Develop organisational policies, standards and guidelines for the development and secure operation of data services and products.
- ▶ Ensure adherence to technical strategies and architectures.
- ▶ Plan and lead data engineering activities for strategic, large and complex programmes.
- ▶ Identify suitable data structures based on business needs to ensure availability and accessibility of data.

- ▶ Determine technical system requirements based on data needs.
- ▶ Keep abreast of latest technologies and products in database and data processing software, and technologies.

Data Pipeline Building and Maintenance

- ▶ Assist in building scalable data pipelines to extract, transform, load and integrate data.
- ▶ Develop codes and scripts to process structured and unstructured data in real-time from a variety of data sources.
- ▶ Test data pipelines for scalability and reliability to process high data volume, variety and velocity.
- ▶ Consolidate and create data storage solutions for storage and retrieval of information.
- ▶ Develop prototypes and proof-of-concepts for data solutions.
- ▶ Monitor data system performance.
- ▶ Support the handling and logging of errors.
- ▶ Develop backup data archiving systems to ensure system continuity.
- ▶ Implement and monitor data security and privacy measures on existing data solutions.

Architecture Design

- ▷ Design the architecture of a data platform.
- ▷ Develop data-related instruments/instances.
- ▷ Develop, customise and manage integration tools, databases, warehouses, and analytical systems.
- ▷ Manage data pipeline maintenance and testing.
- ▷ Test the reliability and performance of each part of a system.

Machine Learning Algorithm Deployment

- ▷ Design machine learning models by data scientists.
- ▷ Responsible for deploying machine learning models into production environment.
- ▷ Provide the model with data stored in a warehouse or coming directly from sources.
- ▷ Configure data attributes.
- ▷ Manage computing resources.
- ▷ Set up monitoring tools.

Management of Data and Meta-Data

- ▷ Manage the data stored and structuring it properly via database management systems.
- ▷ Provide data-access tools.
- ▷ Set up tools to view data, generate reports and create visuals.
- ▷ Track data pipeline stability.
- ▷ Monitor the overall performance and stability of the system.
- ▷ Monitor and modify the automated part as change needed for data/models/requirements.

Data Solution Optimisation

- ▷ Assist in the integration of data systems with existing infrastructure.
- ▷ Develop tools to improve data flows between internal and/or external systems and the data warehouse.
- ▷ Automate the data collection and analysis processes, data releasing and reporting tools.
- ▷ Test data system configurations to increase efficiency.

Skills & Competencies

Technical	Proficiency Level	
	Entrant	Specialist
Business Analysis	2	3
Data Analytics	3	3
Data Engineering	3	3
Computational Modelling	3	3
Data Ethics	3	4
Database Administration	3	3
Data Design	3	4
Data Governance	3	4
Data Migration	3	3
Emerging Technology Synthesis	3	4
IT Project Management	3	4
Information Security Management	3	3
Service Management	3	4

Technical Skills	Proficiency Level	
	Entrant	Specialist
Analytical Thinking	Intermediate	Advanced
Decision-Making	Intermediate	Advanced
Communication	Intermediate	Advanced
Work Management	Intermediate	Advanced
Teamwork	Intermediate	Advanced
People Management	Intermediate	Intermediate
Creativity and Innovation	Intermediate	Advanced
Results Orientation	Intermediate	Advanced
Service Orientation	Intermediate	Advanced
Negotiation	Intermediate	Intermediate
Resilience	Intermediate	Advanced

Entry Requirements

BDQF Level 6 in Computer Science, Information Systems, Software Engineering or related field OR

BDQF Level 5 in Computer Science, Information Systems, Software Engineering or related field with minimum 5 years relevant experience and certification.

Recommended Technical Training Courses

- ▷ Amazon Web Services (AWS) Certified Data Analytics – Specialty
- ▷ Cloudera Certified Associate (CCA) Data Analyst
- ▷ Cloudera Certified Professional (CCP) Data Engineer
- ▷ Cloudera Data Platform Generalist Certification
- ▷ Data Science Council of America (DASCA) Associate Big Data Engineer
- ▷ Data Science Council of America (DASCA) Senior Big Data Engineer
- ▷ Dell EMC Data Science Track (EMCDS)
- ▷ Google Professional Data Engineer
- ▷ IBM Certified Data Engineer
- ▷ IBM Certified Solution Architect – Cloud Pak for Data v4.x
- ▷ IBM Certified Solution Architect – Data Warehouse V1
- ▷ IBM Data Science Professional Certificate
- ▷ Microsoft Certified: Azure AI Fundamental
- ▷ Microsoft Certified: Azure Data Engineer Associate
- ▷ Oracle Business Intelligence Certification
- ▷ SAS Certified Big Data Professional
- ▷ SAS Certified Data Scientist
- ▷ Tensor flow Developer Certificate
- ▷ Agile Methodologies
- ▷ Information Technology Infrastructure Library (ITIL)
- ▷ Power BI
- ▷ Project Management

Artificial Intelligence Engineer

Alternate Job Titles	Intelligence Manager, Business Intelligence Manager, Intelligence Specialist, AI Manager
Sub-Sector	Data and Artificial Intelligence
Functional Group	Software System and Analytics
Job Family	Development and Deployment
Job Level	Specialist

Job Description

- ▶ Design, develop, deploy and maintain artificial intelligence (AI) systems powered by machine learning (ML) to address digital challenges across the organisation.
- ▶ Develop AI systems using techniques such as ML, Natural Language Processing (NLP), rule-based logic, and fuzzy logic.
- ▶ Implement suitable machine learning algorithms, conduct tests, and keep up with industry advancements.
- ▶ Build data models, conduct statistical analysis, and retrain systems to maximise efficiency.
- ▶ Create effective self-learning apps and contribute to advancements in AI technologies.
- ▶ Manage initiatives aimed at producing AI models that are optimised and scalable and makes sure that the right parties are informed and working together.
- ▶ Manage the end-to-end validation of AI models, ensuring the chosen methodologies and algorithms meet functional requirements and performance standards.
- ▶ Lead and develop the AI team's technical capabilities, providing expert guidance and

- coaching to achieve excellence across all project domains.
- ▶ Manage data for collection and processing workflow to ensure high quality inputs for the AI system.
- ▶ Oversee and direct the AI development team, fostering a collaborative environment and leveraging the team's collective expertise in programming and statistical modelling to execute projects that meet business needs.
- ▶ Manage and cultivate relationships with stakeholders (internal and external), translating technical AI concepts into clear business value and influencing decision-making.
- ▶ Ensure the AI systems were developed and implemented in alignment with ethical principles and organizational values.

Critical Work Functions

ML Algorithm and Model Research

- ▶ Research and apply machine learning (ML) tools and algorithms for model development.
- ▶ Identify suitable ML algorithms based on business or user requirements.
- ▶ Select and prepare appropriate datasets and data

- representation techniques for ML analysis.
- ▶ Evaluate and validate ML models to ensure performance and reliability prior to deployment.

AI Model Construction and Evaluation

- ▶ Write code to bundle the ML and AI models for scalability.
- ▶ Develop infrastructure and pipelines to support AI model development.
- ▶ Build scalable data pipelines to load, integrate, extract, and process unstructured data from multiple sources.
- ▶ Optimise AI models for production environments and large-scale implementation.
- ▶ Support ongoing innovation and advancements in artificial intelligence technologies.

Production-Ready AI Model Development

- ▶ Assess packing codes and model scaling for AI refinement.
- ▶ Evaluate the scalability of production-level AI model performance.
- ▶ Oversee the infrastructure and pipeline for AI development.
- ▶ Oversee the loading, integrating, extracting, and transforming of unstructured data in preparation

for modelling.

- ▶ Examine scaled AI models to make sure deployed performance can meet desired levels.
- ▶ Encourage the performance of AI solutions to be optimised.

AI Model Implementation

- ▶ Manage the deployment and integration of AI technologies.
- ▶ Utilise tagged data to train and optimise machine learning models for accurate and reliable performance.
- ▶ Develop a post-deployment test plan.
- ▶ Communicate deployment issues and proposed resolutions to stakeholders.
- ▶ Lead the design and implementation of supervised and/or unsupervised AI problem-solving techniques.

AI Initiative Management

- ▶ Coordinate end-to-end implementation of AI solutions, including initial testing, deployment, and optimisation of runtime and system performance.
- ▶ Oversee code reviews and project estimations.
- ▶ Establish work quality standards and project schedules.
- ▶ Apply project management procedures and tools to ensure the projects run successfully within time, budget and quality expected.
- ▶ Communicate project objectives at critical milestones to secure stakeholder alignment.
- ▶ Create production-ready AI Model with a focus on scalability, performance and maintainability.

Skills & Competencies

Technical	Level
Business Needs Analysis	4
Data Design	4
Data Engineering	4
Data Governance	4
Data Strategy	4
Computational Modelling	4
Computer Vision Technology	4
Configuration Tracking	4
Intelligent Reasoning	4
Pattern Recognition Systems	4
Database Administration	4
Emerging Technology Synthesis	4
Security Architecture	4
Systems Integration	4
Test Analytics and Processing	4
Service Management	4
Test Planning	4
Project Management	4

Soft Skills	Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced

Negotiation	Intermediate
Work Management	Intermediate
Teamwork	Intermediate
People Management	Intermediate

Entry Requirements

BDQF Level 6 in Artificial Intelligence, Computer Science, or any related field, with related industry certification, and a minimum of 5 years related working experience OR

BDQF Level 5 in Artificial Intelligence, Computer Science, Information Systems, or any related field, with relevant industry certification or portfolio, and a minimum of 8 years related working experience.

Recommended Technical Training Courses

- ▶ Amazon Web Services (AWS) Certified Data Analytics – Specialty
- ▶ Cloudera Data Platform Generalist Certification
- ▶ Data Science Council of America (DASCA) Associate Big Data Engineer
- ▶ Data Science Council of America (DASCA) Senior Big Data Engineer
- ▶ Google Professional Data Engineer
- ▶ IBM Certified Solution Architect – Data Warehouse V1
- ▶ IBM Certified Data Architect – Big Data
- ▶ SAS Certified Data Integration Developer
- ▶ Enterprise Big Data Architect
- ▶ Cloud Architect

Data Architect

Alternate Job Titles	Database Architect, Data Warehouse Architect, Enterprise Data Architect, Big Data Architect, Cloud Data Architect, Solution Architect, Data Developer
Sub-Sector	Data and Artificial Intelligence
Functional Group	Data Architecture and Infrastructure Development
Job Family	
Job Level	Specialist

Job Description

- ▶ Develop the organisation's data management strategy and architecture framework aligned with business architecture and enterprise strategy.
- ▶ Lead the design of data platforms and infrastructure, including technology selection, and provides technical guidance and oversight on related projects.
- ▶ Design and oversee the enterprise data architecture to support organisational goals.
- ▶ Design systems and processes to improve the accessibility and discoverability of critical business data.
- ▶ Develop and test scalable information-delivery solutions and data models with a focus on usability and efficiency.
- ▶ Create strategies to enhance the data warehouse, boosting productivity and ensuring reliable access to critical information.
- ▶ Collaborate with end users and stakeholders to define requirements, identify data sources, and develop innovative solutions that meet diverse business objectives.
- ▶ Collaborate effectively in team environments,

working with cross-functional teams to deliver data-driven solutions.

- ▶ Architect, design, and implement scalable data solutions, utilizing deep expertise in database systems, scripting, and programming languages (e.g., SQL, Python, Java)

Critical Work Functions

Business Needs Analysis

- ▶ Establish the organisation's data engineering needs based on business requirements,
- ▶ Identify the organization's data sources and data inventory.
- ▶ Advise the company on data requirement based on critical business insights and decision-making needs.
- ▶ Develop and implement policies and guidelines for data ethics, privacy, and security in compliance with regulatory and national laws.

Data Architecture Design and Development

- ▶ Define the target state of data architecture, including information flow across systems and platforms.
- ▶ Examine current systems to determine their

content, utility, and design.

- ▶ Identify system enhancements to improve data accessibility, integrity, and performance.
- ▶ Provide guidance to ensure alignment between data architecture, information security standards, and governance policies.
- ▶ Develop plans for secure, efficient, and seamless data migration and integration across platforms.
- ▶ Share and communicate data architecture recommendations and design with stakeholders and ensure proper documentation.
- ▶ Monitor data platform performance and ensure the Confidentiality, Integrity, and Availability (CIA) of data.
- ▶ Document data architecture designs, frameworks, and standards for compliance and continuous improvement.

Resource Management

- ▶ Review operational plans, guidelines, and goals for various projects and teams.
- ▶ Develop strategy for the allocation and use of resources.
- ▶ Oversee the development of learning and capability roadmaps aligned with team and organisational needs.

- ▶ Define performance indicators to measure training effectiveness and benchmark against best practices.
- ▶ Implement succession planning programmes into place for important roles.

Skills & Competencies

Technical	Level
Business Needs Analysis	4
Computational Modelling	4
Configuration Tracking	4
Data Design	4
Data Engineering	4
Data Strategy	4
Database Administration	4
Emerging Technology Synthesis	4
Security Architecture	4
Systems Integration	4
Data Governance	3
Project Management	3
Soft Skills	Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
Negotiation	Intermediate
People Management	Intermediate

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, or any related field, with related industry certification, and a minimum of 5 years of relevant experience OR

BDQF Level 5 in Information Systems, Computer Science, or any related field, with related industry certification or possesses relevant portfolio/ experience for at least 8 years.

Recommended Technical Training Courses

- ▶ Amazon Web Services (AWS) Certified Data Analytics – Specialty
- ▶ Cloudera Data Platform Generalist Certification
- ▶ Data Science Council of America (DASCA) Associate Big Data Engineer
- ▶ Data Science Council of America (DASCA) Senior Big Data Engineer
- ▶ Google Professional Data Engineer
- ▶ IBM Certified Solution Architect – Data Warehouse V1
- ▶ IBM Certified Data Architect – Big Data
- ▶ SAS Certified Data Integration Developer
- ▶ Enterprise Big Data Architect
- ▶ Cloud Architect

Data Manager

Alternate Job Titles	Data Management Specialist, Data Management Analyst, Data Management Manager, Data Management Consultant, Data Management Lead
Sub-Sector	Data and Artificial Intelligence
Functional Group	Data Services
Job Family	Data
Job Level	Specialist

Job Description

- ▶ Conduct data collection, surveys and research.
- ▶ Perform research and provide high level insights regarding the market, trends, competitors, potential and existing customers, and current campaigns.
- ▶ Research, gather, and analyse business data for Marketing Managers and Coordinators to review.
- ▶ Use intelligence tools to monitor current customers and to identify new ones.
- ▶ Design and carry out social, economic, and marketing surveys, as well as demographic studies to define target markets and their buying habits and preferences, as well as to determine existing and future trends.
- ▶ Conduct comparative research on marketing strategies.
- ▶ Prepare reports on market trends, consumer habits and outcomes.
- ▶ Perform verification duties of data acquired to ensure data accuracy and legitimacy.
- ▶ Work with a team of analysts and other associates to process information.
- ▶ Create presentations and reports based on recommendations and findings.

- ▶ Coordinate with internal teams to develop projections on outcomes of implementing business strategies that result in actionable insights.

Critical Work Functions

Information Gathering and Examination of Buying Trends for Development of Successful Marketing Plans

- ▶ Monitor the competitors' marketing activities and outcomes.
- ▶ Communicate with customers, competitors, professional organisations and suppliers in order to get information on the industry's trends.
- ▶ Compile customers' references and feedback.
- ▶ Gather data from different sources such as social media channels, web analytics tools and data rankings.
- ▶ Segment the target audience and determine the appropriate markets to be approached.

Preparation of Detailed Reports on Sales Volume, Customer Experience, Market Trends, and Competitors' Outcomes

- ▶ Prepare monthly, quarterly, and annual reports on all the aforementioned activities and their results.
- ▶ Collect business intelligence data from industry reports or purchased sources to delimit trends and to measure the impact of competitors' marketing activities.
- ▶ Compile and analyse information on sales, market trends, forecasts, and account analyses.
- ▶ Assess and report on investment return and key performance metrics.
- ▶ Make recommendations on the most profitable design, promotion, and distribution approach for existing and upcoming products or services.

Skills & Competencies

Technical	Proficiency Level
Customer Intelligence Analysis	4
Customer Behaviour Analysis	4
Data and Trend Analytics	4
Market Evaluation / Market Intelligence	4
Market Research	4
Stakeholder Management	4
Service Management	4
Quality Assurance	4
Business Analysis	3
Data Ethics	3
IT Project Management	3

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Information Systems, Computer Science, Statistics, Mathematics, Actuarial Science or related field with at least 3 years experience as a Data Analyst or similar role OR

BDQF Level 5 in Information Systems, Computer Science, Statistics, Mathematics, Actuarial Science or related field with relevant industry experience or possess relevant portfolio/experience with at least 3 years experience as a Data Analyst or similar role.

Recommended Technical Training Courses

- ▷ Data Privacy Management
- ▷ Marketing Analytics and Insights
- ▷ Implementing Digital Marketing Campaigns
- ▷ Certification: Data Science Professional
- ▷ The Art of Service Master Data Management Certification
- ▷ DAMA Certified Data Management Professional (CDMP)
- ▷ Data Governance and Stewardship Professional (DGSP)
- ▷ Informatica Master Data Management Administrator Certified Professional
- ▷ Power BI
- ▷ Power Apps
- ▷ General Data Protection Regulation (GDPR) Compliance
- ▷ Tableau
- ▷ Fundamentals in Data Analytics
- ▷ Data Privacy and Protection
- ▷ Data Ethics

Business Intelligence Director

Alternate Job Titles	Director Data Warehouse, Director Business Information, Director Business Info, Director Business Analytics, VP of Business intelligence, Chief Business Intelligence Officer
Sub-Sector	Data And Artificial Intelligence
Functional Group	Business Intelligence & Analytics
Job Family	Strategic Leadership
Job Level	C-Suite

Job Description

- ▶ Oversee and direct high-level tactical and strategic choices about the organization's use of business intelligence (BI) technologies and applications.
- ▶ Support the governance, design, execution, integration, and utilisation of organisational data initiatives.
- ▶ Lead the development, implementation, and maintenance of business intelligence (BI) systems and applications.
- ▶ Ensure all technical issues are investigated and resolved.
- ▶ Ensure that corporate decision-making is improved through the usage of business intelligence solutions.
- ▶ Contribute to strategic choices that impact the functional domain of accountability.
- ▶ Oversee the collection, preparation, and storage of historical data, ensuring effective reporting, analytics, data exploration, and dissemination of business insights.
- ▶ Advise top management in identifying and prioritising the needs for data and information for establishing the organization's BI strategy.

- ▶ Establish standards, guidelines, rules, and processes for the structure and characteristics of the business intelligence tools and systems, as well as testing methodology and criteria.
- ▶ Drive the creation and implementation of efficient reporting and data visualisation systems to assist organisational decision-making processes.

Critical Work Functions

Business Intelligence (BI) Strategy Formulation and Implementation

- ▶ Define and communicate the organisation's strategic direction and vision for business intelligence (BI) capabilities.
- ▶ Oversee the continuous development, maintenance, and optimisation of BI architecture and infrastructure.
- ▶ Establish a structured approach to assess business and information needs for improving processes, policies, and decision-making.
- ▶ Develop business cases, justification models, and ROI assessments to secure investment and stakeholder buy-in for BI initiatives.
- ▶ Lead stakeholder engagement to align BI solutions with strategic business goals and

enterprise-wide priorities.

Business Intelligence (BI) Analytical Process

- ▶ Establish policies and standards to govern technology, architecture, and analytics of historical data.
- ▶ Provide strategic direction and guidance on the collection, integration, and structuring of operational data to support retrospective performance analysis and strategic insight generation.
- ▶ Establish standards for suitable data augmentation and organisation.
- ▶ Drive cross-functional collaboration to ensure BI initiatives align with organisational goals, enterprise data strategy, and decision-making frameworks.

Insight and Advisory on Business Intelligence (BI)

- ▶ Give clients and senior management access to BI insight updates and practical, actionable recommendations.
- ▶ Oversee the creation of reports, dashboards, and data visualisations that effectively translate complex findings into clear and impactful narratives.
- ▶ Guide the prioritisation and interpretation of key messages from analytical outputs to support

data-driven storytelling and influence outcomes.

- ▶ Specify the framework and instruments that will be used in the design, development, and construction of visual dashboards and graphs.

Business Intelligence Governance and Standards

- ▶ Develop and implement guidelines, standards, and best practices for the structure, configuration, and operation of BI systems and tools.
- ▶ Develop long-term data governance programmes that gradually enhance the quality of data across all systems.
- ▶ Establish long-term data governance programmes to guarantee adherence to data security and privacy laws.
- ▶ Provide advice on BI data governance best practices.

Organisational Resource Management

- ▶ Review operational plans, policies, and team objectives to ensure alignment with organisational strategy.
- ▶ Develop resource allocation plans and monitor utilisation to maximise efficiency.
- ▶ Lead the development of learning roadmaps to support departmental skill advancement and BI capability growth.
- ▶ Define and evaluate performance metrics to benchmark learning and development initiatives against industry standards.
- ▶ Implement succession planning programmes for key managerial roles.
- ▶ Advocate for business intelligence (BI) and data-driven decision-making across the organisation.

Skills & Competencies

Technical	Level
Business Needs Analysis	5
Business Innovation	5
Data Analytics	5
Data Governance	5
Data Visualisation	5
Design Thinking	5
Networking	5
IT Project Management	5
Stakeholder Management	5
Strategy Implementation	5
Data Warehouse	5
Data Design	5
Data Security	5

Soft Skills	Level
Analytical Thinking	Advanced
Decision-making/ Judgement	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
People Management	Advanced
Creativity & Innovation	Advanced
Results/Achievement Orientation	Advanced
Service Orientation	Advanced
Negotiation	Advanced
Resilience	Advanced

Entry Requirements

BDQF Level 6 in Business information systems, Information Technology, or related fields IT or related field, with related industry certification and minimum of 10 years' experience at senior level OR BDQF Level 5 in Business information systems, Information Technology, or related fields, with related industry certification and minimum of 12 years' experience at senior level

Recommended Technical Training Courses

- ▶ Google Business Intelligence Professional Certificate, Google
- ▶ Certified Business Intelligence Professional (CBIP), TDWI
- ▶ IBM Data Science Professional Certificate, IBM
- ▶ Microsoft Certified: Power BI Data Analyst Associate
- ▶ SAS Visual Business Analytics Specialist
- ▶ AWS Certified Big Data
- ▶ Qlik Sense Business Analyst Certification
- ▶ Tableau Certified Data Analyst
- ▶ Certified Business Intelligence Leaders (CBIL)

Data Scientist

Alternate Job Titles	Data Mining Engineer, Machine Learning Engineer, Data Architect, Hadoop Engineer, Data Warehouse Architect, Commercial Intelligence Manager, Competitive Intelligence Manager, Strategic Business and Technology Consultant, Manager of Market Intelligence, Director of Enterprise Strategy, Director of Global Intelligence
Sub-Sector	Data and Artificial Intelligence
Functional Group	Data Management
Job Family	Data
Job Level	Specialist

Job Description

- ▶ Autonomously identify and pursue research with significant business impact, and make compelling cases for prioritisation, resource allocation and new product strategy.
- ▶ Prioritise and execute in the face of ambiguity, adapt tools to answer complicated questions, and identify the trade-offs between speed and quality of different approaches.
- ▶ Plan and lead the development of new and advanced data analytics techniques, methodologies and analytical solutions from design, prototyping and testing.
- ▶ Collaborate with specialists in data science, analytics, engineering and economics disciplines to efficiently develop reliable and reproducible analyses at scale.
- ▶ Identify and develop core data and Artificial Intelligence (AI) science components for the delivery of projects.
- ▶ Architect specialised database and computing environments.
- ▶ Explore and visualise complex data set to provide

incremental business value.

- ▶ Extract and integrate data from various sources, and create advanced models and algorithms suitable for the business use case.
- ▶ Conduct testing on data and AI models, interpret findings from testing, and evaluate model performance for scaling and deployment.
- ▶ Develop compelling and logically structured communication materials to facilitate stakeholder buy-in.
- ▶ Support the design, implementation and maintenance of data flow channels and data processing systems that support the collection, storage, batch and real time processing, and analysis of information in a scalable, repeatable and secure manner.
- ▶ Focus on defining optimal solutions to data collection, processing and warehousing.
- ▶ Design, code and test data systems, and work on implementing those into the internal infrastructure.
- ▶ Collect, parse, manage and analyse large sets of data to turn information into insights accessible through multiple platforms.

- ▶ Support data processes - provide the team with ad-hoc analysis, automated dashboards and self-service reporting tools so that everyone gets a good sense of the state of the business.
- ▶ Good understanding of creating and maintaining optimal data pipeline architecture.
- ▶ Build and maintain organisation's data infrastructure requirements using wide range of data sources.
- ▶ Good understanding of data governance and adherence to local and global data governance policies.

Critical Work Functions

Evaluation and Understanding of Business Data Needs

- ▶ Build and maintain data pipeline.
- ▶ Perform complex data analysis and report outcome to various stakeholders.
- ▶ Enhance data reliability and data quality.
- ▶ Collaborate with Data Analyst and Data Scientist.

Management of Data Preparation and Modelling

- ▶ Define objectives and hypothesis for research on data and AI models.
- ▶ Analyse the ways in which datasets may be biased and address this in safety measures and deployment strategies.
- ▶ Conduct extraction and integration of data including features from different data sources.
- ▶ Develop multiple models and algorithms suitable for the use case.
- ▶ Perform model comparison to draw inferences on variable importance.
- ▶ Select the best model based on pre-defined evaluation criteria.
- ▶ Account for data ethics and policies in model selection and evaluation process.
- ▶ Interpret and evaluate model performance for scaling and deployment.

Development and Assessment of Models

- ▶ Conduct testing on final model in real-time business conditions prior to deployment.
- ▶ Scale and deploy models in real-time business conditions for end-user consumption.
- ▶ Initiate autonomous monitoring to scale human oversight.
- ▶ Document modelling techniques used and assumptions made against test outcomes.
- ▶ Enable end-user capability to use AI and data science products effectively.

Visualisation of Data-Driven Business Value

- ▶ Create reports and deliverables based on insights derived from the model results.
- ▶ Develop compelling, logically structured presentations including story-telling of research and/or analytics findings to secure stakeholder commitment.
- ▶ Contribute to the creation of leading-edge resources, including playbooks, guides, blog posts, videos, etc.

Skills & Competencies

Technical	Proficiency Level
Business Analysis	5
Business Innovation	5
IT Project Management	5
Emerging Technology Synthesis	5
Service Management	5
Data Analytics	4
Machine Learning	4
Data Modelling and Design	4
Data Ethics and Governance	4
Data Visualisation	4
Database Administration	4
Intelligent Reasoning	4
Pattern Recognition	4
Software Configuration	4
Information Security Management	4

Soft Skills	Proficiency Level
Analytical Thinking	Advanced
Decision-Making	Advanced
Communication	Advanced
Work Management	Advanced
Teamwork	Advanced
Creativity and Innovation	Advanced
Results Orientation	Advanced
Service Orientation	Advanced
Resilience	Advanced
People Management	Intermediate
Negotiation	Intermediate

Entry Requirements

BDQF Level 6 in IT, Computer Science, Mathematics, Statistics, Management Information Systems, Software Engineering or related field with minimum 6 years experience in related field OR

BDQF Level 5 in IT, Computer Science, Mathematics, Statistics, Management Information Systems, Software Engineering or related field with 10 years relevant industry experience in data science field and certification.

Recommended Technical Training Courses

- ▷ Fundamentals of Data Science
- ▷ Statistics
- ▷ Programming knowledge
- ▷ Data Manipulation and Analysis
- ▷ Data Visualization
- ▷ Machine Learning
- ▷ Deep Learning
- ▷ Big Data
- ▷ Software Engineering
- ▷ Model Deployment
- ▷ Diverse Technologies: Hadoop, Java, Python, C++, ECL, NoSQL, HBase, CouchDB, Spark, R
- ▷ Visualization: Flare, HighCharts, AmCharts, D3.js, Processing, Google Visualization API, and Raphael.js
- ▷ SQL for Data Science
- ▷ Data Visualization
- ▷ Agile Data Science
- ▷ General Data Protection Regulation (GDPR)

Technical Competencies

Technical Competencies Glossary

No.	Competency	Definition
1	Accounts Management	Develop and maintain long-term relationships with strategic clients or partners, understanding their needs and ensuring satisfaction while meeting business objectives.
2	Agile Software Development	Apply iterative and incremental development principles and practices (like Scrum, Kanban) to deliver software efficiently and adaptively.
3	Application Development	Knowledge and ability to design, define, construct, enhance, support, and maintain application software on one or more platforms.
4	Application Support and Enhancement	Provide ongoing technical support and improvements to users of applications. This includes technical guidance and assistance related to the installation and maintenance of applications, fixing and resolution of application problems or disruptions, and response to change requests that will enhance the operations and usage of an application.
5	Applications Integration	Integrate data or functions from one application programme with that of another application programme - involves development of an integration plan, programming and the identification and utilisation of appropriate middleware to optimise the connectivity and performance of disparate applications across target environments.
6	Audit and Compliance	Assess and ensure adherence to internal policies, external regulations, standards, and contractual obligations related to ICT systems, processes, and data.
7	Brand Management	Define, position, and maintain the perception and reputation of a product, service, or the organisation itself in the market.
8	Budgeting	Prepare budgets to support short and long-term marketing plans through forecasting, allocation and financial policy setting.
9	Business Analysis	Knowledge and ability to apply the principles of business analysis in the planning, reengineering, requirement gathering for business environments, operations, processes, and practices.

No.	Competency	Definition
10	Business Agility	Respond quickly and effectively to change by sensing shifts in priorities, adapting plans, aligning stakeholders, and delivering value iteratively while managing risk and performance.
11	Business Continuity	Anticipate disruptions, maintain critical operations, and restore services quickly through structured planning, preparedness, response, and continuous improvement (e.g., Business Impact Analysis (BIA), continuity plans, crisis communication, recovery testing).
12	Business Development	Identify and pursue new business opportunities, partnerships, markets, or customer segments to drive growth and revenue.
13	Business Environment Analysis	Systematically assess internal and external factors (e.g., market trends, competition, regulations, economic conditions, organisational capabilities) influencing the business.
14	Business Innovation	Generate, develop, and implement new ideas, products, services, processes, or business models to create value and competitive advantage.
15	Business Needs Analysis	Identify, analyse, and document business problems, opportunities, and stakeholder requirements to define solutions that deliver value.
16	Business Negotiation	Engage in discussions with internal or external parties to reach agreements that are mutually acceptable and achieve business objectives.
17	Business Requirement Mapping	Translate the business needs and requirements into detailed functional and non-functional specifications for technology solutions or process changes.
18	Business Performance Management	Establish metrics, monitoring progress, analysing results, and taking action to improve business performance against objectives.
19	Business Risk Management	Forecast and assess existing and potential IT risks that impact the operation and/or profitability to the business as well as the development and roll out company-wide strategies and processes to mitigate risks, minimise their impact or effectively manage such business risks.
20	Change Management	Plan, implement, and reinforce changes in processes, technology, or organisational structure to minimise resistance and maximise the benefits of change.

No.	Competency	Definition
21	Cloud Computing	Implement cloud solutions to enhance business performance and security of IT systems.
22	Computational Modelling	Develop, select and apply algorithms and advanced computational methods to enable systems or software agents to learn, improve, adapt and produce desired outcomes or tasks. This also involves the interpretation of data, including the application of data modelling techniques to explore and address specific issues or requirements.
23	Computer Vision Technology	Design, build, evaluate, deploy, and govern computer vision solutions that deliver measurable outcomes (accuracy, latency, reliability, compliance).
24	Configuration Tracking	Identify, record, and track the configuration items (CIs) of an IT infrastructure and their relationships, often as part of Configuration Management.
25	Content Management	Plan, create, organise, review, publish, maintain, and retire content (e.g., documents, web pages, knowledge articles, policies, media) so it stays accurate, consistent, easy to find, compliant, and up to date across the organisation's channels and systems (Content Management (CMS), Document Management System (DMS), knowledge bases).
26	Content Strategy	Plan and govern content strategy to determine what content to create, for whom, why, where it will live, and how it will be maintained—so content consistently supports business goals and user needs across channels.
27	Contract Management	Formalise contracts and/or service level agreements with providers of products and services including measure and manage supplier performance and fulfilment of agreed-upon service level agreements. This includes resolution of contractual issues and maintenance of vendor and/or provider relationships.
28	Customer Behaviour Analysis	Devise tools and approaches for customer behaviour analysis and analysing customer behaviour information.
29	Customer Experience Management (CXM)	Design, monitor, and improve customer interactions across all touchpoints to meet or exceed expectations and foster loyalty.
30	Customer Intelligence Analysis	Devise frameworks for consumer intelligence analysis to develop an understanding of customer knowledge from various customer touch points, for example, Customer Relationship Management (CRM), Point of Sale (POS) and e-commerce systems.

No.	Competency	Definition
31	Cyber and Data Breach Incident Management	Detect and report cyber and data-related incidents, identify affected systems and user groups, trigger alerts and announcements to relevant stakeholders and ensure the efficient resolution of the situation.
32	Cyber and Data Breach Management	Plan strategies and ways to prevent, detect, respond to, contain, investigate, and recover from cybersecurity incidents and data breaches—while meeting legal/regulatory obligations, coordinating stakeholders, and strengthening controls to reduce future risk
33	Cyber Forensics	Collect, examine, analyse, and preserve digital evidence from computer systems, networks, and devices in a legally admissible manner to investigate cyber incidents or crimes.
34	Cyber Risk Management	Develop cyber risk assessment and treatment techniques that can effectively pre-empt and identify significant security loopholes and weaknesses, demonstrate the business risks associated with these loopholes, and provide risk treatment and prioritisation strategies to effectively address the cyber-related risks, threats and vulnerabilities identified to ensure appropriate levels of protection, confidentiality, integrity and privacy in alignment with the security framework.
35	Data Analytics	Knowledge and ability to identify patterns in data. Ability to use statistics, operations research, and other mathematical tools to interpret information generated or collected by organisations.
36	Data and Trend Analytics	Implementing data analytics within the organisation using statistical and computational techniques and tools, algorithms, predictive data modelling and data visualisation to generate business insights and intelligence.
37	Data Centre Facilities Management	Managing the physical environment of a data centre, including power, cooling, security, space, and cabling, to ensure availability, efficiency, and safety of IT equipment.
38	Data Cleansing	Knowledge and ability to fix or remove incorrect, corrupted, incorrectly formatted, duplicate or incomplete data within a dataset. It includes fixing structural errors, filtering unwanted outliers, handling missing data and validating data.
39	Data Design	Specify and create a data structure or database model, including the setting of various parameters or fields that can be modified to suit different structured or unstructured data requirements, the design of data flow, as well as the development of mechanisms for maintenance, storage and retrieval of data based on the business requirements.

No.	Competency	Definition
40	Data Engineering	Develop and implement efficient and stable processes to collect, store, extract, transform, load and integrate data at various stages in the data pipeline. This also involves processing varying amounts of data from a variety of sources and preparing data in a structure that is easily accessed and analysed according to business requirements.
41	Data Ethics	Apply legal and ethical principles in the collection, use, storage and disposal of data.
42	Data Governance	Develop and implement guidelines, laws, and regulations across the organisation for the handling of data at various stages in its life cycle as well as the provision of advice on proper data handling and resolution of data breaches in a range of complex, ambiguous or multi-faceted contexts.
43	Data Migration	Plan and perform activities to migrate data between computer storage types or file formats.
44	Data Modelling And Design	Knowledge and ability to apply architectural theories, principles, concepts, practices, methodologies, and frameworks.
45	Data Security	Control and apply good practices to protect data from unauthorised access, alteration, loss, or disclosure throughout its lifecycle (create → store → use → share → archive/dispose), so the organisation maintains confidentiality, integrity, and availability.
46	Data Strategy	Define the vision, goals, principles, and roadmap for how an organisation will acquire, store, manage, share, and use data to achieve its objectives.
47	Data Visualisation	Implement contemporary techniques, dynamic visual displays with illustrative and interactive graphics to present patterns, trends, analytical insights from data or new concepts in a strategic manner for the intended audience.
48	Data Warehouse	Plan, establish and govern a central and structured repository that collects and integrates data from multiple systems (e.g., ERP, CRM, HR, finance, apps) and stores it in a consistent format so it can be queried efficiently for reporting, dashboards, and analytics.
49	Database Administration	Knowledge and ability to apply the methods, practices and policies that are used in the design and the management of databases.

No.	Competency	Definition
50	Database Management	Knowledge and ability to apply the methods, practices and policies that are used in the design and the management of databases.
51	Design Thinking	Apply a human-centered, iterative approach to problem-solving and innovation, involving empathy, ideation, prototyping, and testing.
52	Digital Advertising Platforms	Plan, create, target, deliver, track, and optimise paid advertisements across digital channels (e.g., social media, search engines, display networks, video, and apps). They allow advertisers to reach specific audiences, manage budgets and bids, and measure performance using campaign data and conversion tracking.
53	Digital Analytics	Collect, measure, analyse, and interpret data from digital channels (websites, apps, social media, email, and ads) to understand user behaviour and campaign performance, and to improve outcomes such as engagement, conversion, retention, and service adoption.
54	Digital Marketing Tools	Apply digital marketing tools to plan, create, execute, automate, track, and optimise marketing activities across digital channels (email, social media, websites, ads, and CRM).
55	Disaster Recovery Management (DRM)	Plan, implement, test, and maintain procedures and technologies to recover IT systems and infrastructure following a disaster event.
56	Embedded System Interface	Design, develop, test, and integrate software and hardware components that allow embedded systems to communicate with other systems, sensors, actuators, or users.
57	Emerging Technology Synthesis	Explore the development of ICT technology across multi-sector. Review and conduct research on emerging technologies that correlate to industry technology adoption. Evaluate the usage of the multiple emerging technologies and the benefits to be gained in terms of cost, process and productivity improvement.
58	Enterprise Architecture (EA)	Define the structure and operation of an organisation's processes, information systems, personnel, and technology, and aligning them with strategic goals.
59	Fault Management	The process of finding, isolating and troubleshooting network faults in the fastest way possible. It minimises downtime and prevents device failures by resolving faults rapidly, thereby ensuring optimal network availability and preventing business losses. Monitoring network from a Network Operations Centre (NOC) location and undertaking configuration changes, upgrades and node back-up activities.

No.	Competency	Definition
60	Information Security Management	Knowledge and ability to ensure there are adequate technical and organisational safeguards to protect the continuity of IT infrastructure services by the implementation of IT security principles, methods, practices, policies and tools that are used in securing IT resources including information and operations security, physical security, business continuity/disaster recovery planning and methods to deal with security breaches and security assessment in a technical environment.
61	Infrastructure Design	Establish design policies and principles covering elements of connectivity, capacity, security, access, interfacing as well as the translation of that into the specifications, outline and design of IT infrastructure within the organisation, in order to support the business requirements.
62	Infrastructure Management	Knowledge and ability to support the enterprise computing infrastructure (e.g., enterprise servers, client server, storage devices and systems, hardware, and software) in the provision, management, storage, operation, scheduling, support, and maintenance of the infrastructure.
63	Infrastructure Strategy	Plan the long-term direction and evolution of the organisation's IT infrastructure (hardware, software, networks, facilities) to support current and future business needs.
64	Infrastructure Strategy, Development and Support	Encompass the entire lifecycle of IT infrastructure, from strategic planning and design, through implementation and rollout, to ongoing operational support and maintenance. (Broader scope).
65	Infrastructure Support	Provide services to end-users by systematically identifying, classifying and troubleshooting technical issues and incidents that disrupt and impact the users' day-to-day business activities, within a specified timeframe. This also includes implementing an end-to-end problem management process to analyse underlying problems, advising on infrastructure related upgrades and improvements and developing user guides and training materials.
66	Infrastructure Support	Provide operational support, maintenance, and troubleshooting for IT infrastructure components (hardware, software, networks) to ensure availability and performance.
67	Integrated Marketing	Coordinate various marketing communication channels and tools (e.g., advertising, PR, digital, events) to deliver a consistent, unified message and achieve marketing objectives.
68	Intelligent Reasoning	Design and build intelligent machine reasoning systems that can integrate, make sense of, and act upon heterogeneous sensory information sources, using domain knowledge accumulated in various/specific industries.

No.	Competency	Definition
69	IT Architecture	Knowledge and ability to apply architecture theories, principles, concepts, practices, methodologies, and frameworks.
70	IT Asset Management	Manage, optimise and protect the organisation's IT assets. This includes the timely purchase, deployment, categorisation, maintenance and phase out of IT assets within the organisation in a way that optimises business value. Also includes development and implementation of procedures to guide the proper handling, usage and storage of IT assets to limit potential business or legal risks.
71	IT Governance	Establish and maintain a framework of processes, structures, and relational mechanisms to ensure that IT sustains and extends the organisation's strategies and objectives.
72	IT Project Management	Knowledge and ability to apply formal project management principles and practices during the planning, implementation, monitoring and completion of projects, ensuring effective management of scope, resources, time, cost, quality, risk, and communications.
73	IT Standards	Define, implement, and enforce agreed-upon rules, specifications, or guidelines for IT systems, processes, data, or components to ensure quality, compatibility, and efficiency.
74	IT Strategy	Define the long-term vision, goals, principles, and roadmap for how IT will support and enable the organisation's overall business strategy.
75	Machine Learning	Develop systems that learn through experience and by the use of data.
76	Market Evaluation / Market Intelligence	Research marketplace aimed at determining whether a new product can perform well and succeed in a new business environment. It helps receive insights into competitors, market trends and make strategic business decisions.
77	Market Research	Extract useful business insights, plan, and conduct marketing and digital research and analysis to uncover market, customer and competitor trends. This also includes assessing the effectiveness of marketing activities and developing ways of optimising marketing efforts.
78	Market Trend Analysis	Identify, analyse, and interpret trends in the marketplace, including customer behaviour, competitor actions, technological advancements, and economic factors, to inform business decisions.

No.	Competency	Definition
79	Marketing Campaign Management	Plan, execute, monitor, and measure marketing campaigns designed to achieve specific objectives, such as lead generation, brand awareness, or product adoption.
80	Marketing Communication Plan	Develop a detailed plan outlining the objectives, target audiences, key messages, communication channels, activities, timeline, and budget for marketing communications.
81	Marketing Strategy	Define the long-term approach and plan for achieving marketing objectives, including target market selection, positioning, marketing mix (product, price, place, promotion), and resource allocation.
82	Media & Platform Management	Manage the organisation's presence and activities on various media channels and digital platforms (e.g., social media, websites, content platforms, advertising platforms).
83	Media Strategy	Plan how to effectively use paid, owned, and earned media channels to reach target audiences and achieve marketing or communication objectives.
84	Network Administration and Maintenance	Monitor the network in order to provide for optimum levels of network performance and minimisation of downtime. This includes detection, isolation, recovery and limitation of the impact of failures on the network as well as provision of support to system users through ongoing maintenance information sharing and training.
85	Network Configuration	Configure network hardware and software components according to organisational guidelines and technical requirements. This includes the implementation and configuration of multiple servers, network devices and network management tools as well as the management of user network access to ensure stable and reliable network operations.
86	Network Management	Monitor, manage, and maintain network infrastructure (routers, switches, firewalls, wireless) to ensure connectivity, performance, availability, and reliability.
87	Network Security	Design, implement, monitor, and continuously improve secure networks by controlling access, segmenting traffic, detecting threats, and ensuring availability and integrity of network services.

No.	Competency	Definition
88	Network Security Management	Plan, implement, monitor, and manage security measures specifically designed to protect computer networks and data transmitted across them.
89	Networking	Understand and apply the principles, protocols, technologies, and architectures used to connect computers and devices to enable communication and data sharing. (More fundamental).
90	Partnership Management	Identify, establish, maintain, and grow relationships with external partners (e.g., agencies, vendors, universities, GLCs, associations) to achieve mutual goals and measurable outcomes such as revenue, capability building, market access, or service delivery.
91	Pattern Recognition	Understand and apply methods to identify meaningful patterns, regularities, or structures within data sets. (More theoretical/algorithmic).
92	Pattern Recognition Systems	Design, build, evaluate, and operationalise systems that detect meaningful patterns in data (e.g., anomaly detection, classification, clustering, signal/image/text patterning) to support decisions, automation, risk detection, or performance improvement.
93	Performance Management	Evaluate and optimise network, system and/or software performance against user and business requirements. This involves the introduction and utilisation of new tools and mechanisms to gather, analyse and fully optimise performance data. This also includes the initiation of controls, modifications and new investments to enhance end-to-end performance of ICT components, systems and services.
94	Pricing Strategy	Determine the optimal pricing for products or services based on costs, value perception, market conditions, competition, and business objectives.
95	Problem Management	Manage the life cycle of problems to prevent problems and incidents from occurring, eliminate recurring incidents and minimise impact of unavoidable incidents.
96	Process Improvement	Establish systems to discover critical processes and maximise these processes to achieve maximum efficiency in accordance with organisation procedures.

No.	Competency	Definition
97	Process Improvement and Optimisation	Systematically analysing existing processes to identify inefficiencies or bottlenecks and implementing changes to improve efficiency, quality, speed, or cost-effectiveness.
98	Procurement	Develop and apply procurement processes related to the solicitation of technology services through external providers. This includes the review of proposals, setting of vendor selection guidelines, risk assessment through appropriate audits and tests and selection of external service providers based on stipulated evaluation criteria.
99	Project Management	Plan, execute, monitor, control, and close projects to achieve specific goals within defined scope, time, budget, and quality constraints.
100	Quality Assurance	Part of quality management focused on providing confidence that quality requirements will be fulfilled.
101	Quality Standards	Understand, define, implement, and adhere to agreed-upon standards and benchmarks for quality in products, services, or processes.
102	Sales Strategy	Develop the overall plan and approach for achieving sales targets, including defining target markets, sales channels, sales processes, team structure, and resource allocation.
103	Security Administration	Administer, configure and update of security programmes and mechanisms, including the application of system patches to ensure that enterprise assets are adequately protected against threats. This also includes the authorisation, management and monitoring of access control permissions and/or rights to various IT facilities.
104	Security Architecture	Design security architectures and controls; either by embedding security principles into the design of architectures to mitigate the risks posed by new technologies and business practices, or by the actual design and specification of implementable security components, along with the accompanying control measures, to meet defined business security needs.
105	Security Education and Awareness	Plan, develop, deliver, and measure programs to educate employees and stakeholders about security risks, policies, and best practices to foster a security-conscious culture.

No.	Competency	Definition
106	Security Governance	Develop and disseminate corporate security policies, frameworks and guidelines to ensure that day-to-day business operations guard or are well protected against risks, threats and vulnerabilities.
107	Security Implementation	Execute and implement operational and tactical-level action plans in alignment with the organisation's business strategies.
108	Security Planning	Develop organisational strategies and policies by analysing the impact of internal and external influencing factors and seeking consultation from relevant stakeholders.
109	Security Programme Management	Develop and manage security solutions, products and services through technology innovation, experimentation and collaboration. This includes security programme planning, developing and testing new security capabilities and implementing security technologies and programmes.
110	Security Strategy	Define the organisation's overall approach, priorities, principles, and roadmap for managing information security risks and protecting information assets.
111	Service Level Management	Define, agree upon, monitor, report, and manage the levels of service provided by IT to the business, typically documented in Service Level Agreements (SLAs).
112	Service Management	Knowledge and ability to implement the methods, practices and policies governing the design of the services, development and use of the IT support services designed to keep the IT environment functioning efficiently, effectively and securely.
113	Service Orientation	Plan and deliver quality service towards customer satisfaction by being responsive, helpful, and solutions-focused—while delivering reliable service quality and building trust over time.
114	Software Configuration	Configure software products and apply scripts and automation tools to integrate and deploy software releases to various platforms and operating environments. This includes subsequent modifications to software configuration, based on outcomes of systems and/or configuration tests.

No.	Competency	Definition
115	Software Design	Create and refine the overall plan for the design of software, including the design of functional specifications starting from the defined business requirements as well as the consideration and incorporation of various controls, functionality and interoperability of different elements into a design blueprint or model which describes the overall architecture in hardware, software, databases, and third-party frameworks that the software will use or interact with.
116	Software Testing	Knowledge and ability to perform testing of software and/or hardware using a systematic approach (i.e., the orderly progression of testing in which software elements, hardware elements or both are combined and tested until the entire system has been integrated).
117	Solution Architecture	Design specific IT solutions (applications, systems, integrations) to meet business requirements, ensuring alignment with enterprise architecture standards, and considering technical feasibility, performance, security, and cost.
118	Stakeholder Management	Manage the expectations and needs of stakeholders by aligning them with the organisation's demands and goals. This includes planning actions to communicate with, negotiate with and influence stakeholders effectively.
119	Strategy Implementation	Translate strategic plans into actionable initiatives, projects, and operational changes, and managing their execution to achieve strategic objectives.
120	System Integration	Develop and implement a roadmap and specific integration solutions to facilitate integration of various ICT components and optimise interoperability of systems and their interfaces. This includes the integration of various architectural components such as networks, servers, system platforms and their interfaces.
121	Telecommunications Network Management	Knowledge and ability to implement the methods, practices and policies governing the design, analysis, development, management and use of the IT and telecommunications hardware and software to transfer information such as data, voice, images, video and other telecommunication services over fibre optic, wired or wireless over short or long distances. This involves utilisation of telecommunication network management systems and signalling network protocols. The telecommunications networking system components comprises of software (operating systems and applications) and hardware (computer, routers, radiocommunication equipment, fibre optic, switches, cable and hub) whether underground or above ground.

No.	Competency	Definition
122	Test Analytics and Processing	Collect, analyse, and interpret data generated during the software testing process to provide insights into product quality, test effectiveness, and process improvement opportunities.
123	Test Planning	Develop a test strategy and systematic test procedures to verify and ensure that a product, system or technical solution meets its design specifications as well as the performance, load and volume levels set out. This includes the ability to define when different requirements will be verified across the product life stages, the tools used to perform the test, the data and/or resources needed to conduct the tests and testware in test cases, test scripts, test reports and test plans required.
124	Threat Analysis and Defence	Identify, analyse, and understand potential cyber threats and vulnerabilities, and designing, implementing, and managing defensive measures to mitigate risks.
125	Threat Intelligence and Detection	Gather, process, analyse, and disseminate information about current and emerging cyber threats, threat actors, and attack methods to enable proactive threat detection and response.
126	User Interface Design	Design user interfaces for machines and software, incorporating visual, technical, and functional elements that facilitate ease of access, understanding and usage. This would involve adding, removing, modifying or enhancing elements to make the user's interaction with the product as seamless as possible.
127	Vendor Management	Manage vendor relationships by ensuring performance as per contracts, operations within standards established by the organisation such as adherence to safety, security, and compliance standards.

Technical Competencies Descriptor

Technical Competency	Accounts Management
Competency Description	Develop and maintain long-term relationships with strategic clients or partners, understanding their needs and ensuring satisfaction while meeting business objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Update client contact details and basic information in CRM systems accurately as instructed. ▶ Respond to simple, routine client inquiries using predefined scripts or FAQs. ▶ Escalate complex queries to senior team members following established procedures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Gather and organize information (e.g., usage data, past interactions) for client reports or meeting preparation under guidance. ▶ Help track account activities, updates status logs, and monitors basic client health indicators. ▶ Assist in resolving straightforward customer service issues or requests with supervision.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Independently manage day-to-day operations for assigned smaller accounts, ensuring smooth service delivery. ▶ Build professional relationships with client contacts, understanding their immediate needs and operational requirements. ▶ Identify and flag potential upselling opportunities or risks within assigned accounts.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop and execute strategic account plans for key clients, focusing on long-term value and retention. ▶ Proactively identify and pursue significant upselling and cross-selling opportunities aligned with client needs. ▶ Manage and resolve complex client issues, coordinating internal resources as needed.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define the criteria for segmenting accounts (e.g., strategic, key, standard) and develops tailored management strategies for each segment. ▶ Establish organisational goals for client retention, satisfaction, and growth across the entire account portfolio. ▶ Lead high-level negotiations for major contracts or strategic partnerships and sets the strategic direction for the account management function.

Technical Competency	Agile Software Development
Competency Description	Apply iterative and incremental development principles and practices (like Scrum, Kanban) to deliver software efficiently and adaptively.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow team’s Agile processes, such as attending daily stand-ups and using task boards correctly. ▶ Understand and use basic Agile terminology (e.g., sprint, user story, backlog). ▶ Complete assigned tasks within an iteration/sprint as instructed.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Actively participate in Agile ceremonies (planning, review, retrospective) providing input under guidance. ▶ Assist in breaking down simple user stories into tasks. ▶ Help identify and raise basic impediments encountered during sprints.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Independently manage and complete assigned user stories or tasks within sprints, applying Agile development/testing practices. ▶ Contributes effectively to team estimation, planning, and review sessions. ▶ Proactively communicate progress and impediments within the team.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Facilitate Agile ceremonies effectively (e.g., as Scrum Master) ensuring adherence to principles. ▶ Coache team members on Agile practices and helps remove complex impediments. ▶ Monitor team velocity and other metrics to ensure predictable delivery and identify areas for improvement.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and tailor Agile frameworks and methodologies for adoption across multiple teams or the organisation. ▶ Coach and mentor Agile practitioners (e.g., Scrum Masters, Product Owners) and champions Agile transformation. ▶ Define metrics and strategies for measuring and improving organisational agility.

Technical Competency	Application Development
Competency Description	Knowledge and ability to design, define, construct, enhance, support, and maintain application software on one or more platforms.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Demonstrate a basic level of understanding of software specifications or design techniques. ▷ Demonstrate a basic understanding of programming concepts. ▷ Demonstrate a general familiarity with one or more programming languages and/or methodologies. ▷ Understand the importance of testing, documentation, and production assurance. ▷ Know where to look for standards.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Demonstrate a working knowledge of one or more programming languages. ▷ Write or adapt software modules for testing and integration. ▷ Understand and employ basic development methods and standards. ▷ Test/debug programme modules. ▷ Use a testing tool and prepare basic test cases. ▷ Understand the migration cycle and prepare programme for migration. ▷ Prepare operational documentation.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Demonstrate a detailed knowledge of several programming environments and a good working knowledge of hardware and software interfaces. ▷ Write original multi-module/complex programmes or apply reusable modules. ▷ Design, test and integrate software modules, and resolve programming errors using various debugging tools and techniques. ▷ Provide support, guidance and production assurance for common problems. ▷ Conduct impact analysis for proposed changes to the system. ▷ Prepare technical documentation (e.g., user guides, technical specifications). ▷ Undertake routine analysis and work with designers and analysts to clarify and improve specifications or to identify alternative programming solutions. ▷ Enforce standards (e.g., at walkthroughs).

Level 4 (Ensure)

- ▶ Demonstrate in-depth knowledge and capability in software construction, testing, infrastructure, configuration, a wide range of system development methodologies and operating standards.
- ▶ Demonstrate knowledge in multiple applications, data management systems and technologies or in a single area of expertise.
- ▶ Demonstrate application and corporate knowledge and understand how a change would affect multiple applications.
- ▶ Make recommendations/decisions in application and programme design, standards, and programme enhancements.
- ▶ Debug very complex or urgent problems.
- ▶ Analyse and model business functions, processes, and information flow within or between systems.
- ▶ Provide guidance/mentorship on programming practices and techniques to individuals and cross-functional teams.

Level 5 (Strategise)

- ▶ Demonstrate expert knowledge of software design, construction, programming trends, programming, and scripting languages across organisations/agencies in multiple applications and data management systems or in a single area of expertise.
 - ▶ Provide effective strategic direction to enterprise-wide application design.
 - ▶ Guide and oversee multiple-concurrent software construction projects.
 - ▶ Work with users at all levels to define system requirements and specify appropriate system environments to meet operational needs and system performance objectives.
 - ▶ Present software construction disciplines to peers in public forums.
 - ▶ Develop policy and standards for software construction.
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Technical Competency	Application Support and Enhancement
Competency Description	Provide ongoing technical support and improvements to users of applications. This includes technical guidance and assistance related to the installation and maintenance of applications, fixing and resolution of application problems or disruptions, and responding to change requests that will enhance the operations and usage of an application.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Perform routine installation and maintenance of applications. ▷ Collate performance statistics and user feedback on an application.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Install, maintain and troubleshoot commonly encountered problems in applications. ▷ Respond to simple change requests.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Analyse application performance statistics and user feedback. ▷ Resolve bugs as required. ▷ Review application change requests, reengineering, models and processes redesign.
Level 5 (Strategise)	N/A

Technical Competency	Applications Integration
Competency Description	Integrate data or functions from one application programme with that of another application programme - involves development of an integration plan, programming and the identification and utilisation of appropriate middleware to optimise the connectivity and performance of disparate applications across target environments.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Integrate data and functions across application programmes. ▶ Perform follow-up tests to verify proper functioning.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Oversee end-to-end process of application integration. ▶ Determine suitable middleware and testing procedures. ▶ Resolve issues that arise.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Establish a business case for application integration. ▶ Introduce new middleware tools and methodologies to enable both intra and inter-enterprise application integration.

Technical Competency	Audit and Compliance
Competency Description	Assess and ensure adherence to internal policies, external regulations, standards, and contractual obligations related to ICT systems, processes, and data.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow clear instructions to gather specific, predefined evidence (e.g., logs, screenshots) for audits. ▶ Use simple checklists to verify basic compliance points under direct supervision. ▶ Document findings accurately using standard templates.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist auditors by performing assigned basic test procedures (e.g., checking configurations against a baseline). ▶ Help document audit findings and track the status of agreed remediation actions. ▶ Organize and maintain audit evidence according to guidelines.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Conduct audits or compliance reviews for specific controls or processes using standard methodologies. ▶ Identify and document instances of non-compliance and proposes basic corrective actions. ▶ Interpret straightforward policies and standards relevant to the audit scope.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Plan, scope, and lead audit engagements or compliance assessments for significant areas. ▶ Evaluate the effectiveness of internal controls and risk mitigation strategies. ▶ Report audit findings, risks, and recommendations clearly to management and stakeholders.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation’s annual ICT audit plan based on risk assessment. ▶ Establish and maintain the overall ICT compliance framework, policies, and procedures. ▶ Advise senior leadership on ICT risk and compliance posture, aligning with business strategy.

Technical Competency	Brand Management
Competency Description	Define, position, and maintain the perception and reputation of a product, service, or the organisation itself in the market.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Use approved brand assets (logos, templates, colours) correctly according to guidelines. ▶ Follow instructions for creating simple internal or external communications adhering to brand voice. ▶ Identify and report incorrect usage of brand elements observed.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Help monitor brand mentions across various channels (social media, news) using predefined tools. ▶ Assist in compiling reports on brand sentiment or campaign performance based on templates. ▶ Support the logistical coordination of brand-related events or material production.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Execute specific brand-building activities or campaigns according to the plan. ▶ Manage the inventory and distribution of brand assets and ensures their correct application by others in their team/department. ▶ Write copy or creates content consistent with the defined brand voice and messaging for assigned channels.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop and implement brand plans for specific products, services, or business units. ▶ Monitor and analyse brand health metrics (awareness, perception, equity) and recommends actions. ▶ Ensure brand consistency across all marketing materials and customer touchpoints within their scope.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define and evolve the overall brand strategy, architecture, positioning, and values for the organisation. ▶ Make strategic decisions regarding brand portfolio management, extensions, or repositioning. ▶ Oversee crisis communication from a brand reputation perspective.

Technical Competency	Budgeting
Competency Description	Prepare organisational budgets to support short and long-term business plans through forecasting, allocation and financial policy setting.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Understand basics of the budgeting process, including purpose and use. ▷ Analyse historical revenues and expenses to determine seasonal patterns and anticipate annual requirements.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Anticipate operational and capital requirements. ▷ Develop financial budgets to support goals of a small to midsize organisation or department/division. ▷ Validate assumptions made by departments.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Prepare business unit's operational budgets.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Manage budgeting and forecasting for annual financial and business planning within the business unit. ▷ Develop long-term financial plans and budget requirements. ▷ Recommend an appropriate budgeting methodology (e.g., flexible, continuous, rolling, zero-based) to use in a given business situation. ▷ Link budgeting process to forecasting and strategic planning process. ▷ Integrate and consolidate information from diverse departments. ▷ Communicate budget to organisation effectively.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Endorse organisational financial and treasury management policies, systems, budgets and plans. ▷ Design and lead budget and financial planning process across multiple business units in a complex organisation using advanced software tools. ▷ Understand complex budgets and communicate them to others. ▷ Serve as an expert in the field.

Technical Competency	Business Agility
Competency Description	Respond quickly and effectively to change by sensing shifts in priorities, adapting plans, aligning stakeholders, and delivering value iteratively while managing risk and performance.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Adapt to changes in tasks or priorities without losing quality; asks clarifying questions early. ▶ Learn and applies new processes/tools quickly; seeks feedback to improve. ▶ Share timely updates on progress and blockers to help the team adjust.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Re-prioritise work based on new information and explains trade-offs (time, cost, quality, scope). ▶ Support flexible ways of working (short cycles, check-ins, retrospectives) and contributes improvement ideas. ▶ Identify small risks/opportunities early and escalates with proposed options, not just problems.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Lead iterative delivery for a workstream: breaks work into increments, tests assumptions, and adjusts based on results. ▶ Use data and customer/stakeholder feedback to refine solutions and maintain value focus. ▶ Manage change impacts within scope (people, process, technology), maintaining alignment and delivery momentum.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Build agility across teams: aligns priorities, removes bottlenecks, and coordinates dependencies to speed decision-making. ▶ Design operating rhythms that enable fast adaptation (governance cadence, backlog/prioritisation, rapid issue resolution). ▶ Anticipate market/operational shifts and reshapes plans proactively while controlling risk and maintaining performance.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Shape organisational agility strategy (structure, culture, decision rights, metrics) to enable continuous adaptation at scale. ▶ Embed agility into business planning and portfolio management (dynamic prioritisation, funding/resource flexibility, outcome-based KPIs). ▶ Develop resilience and learning culture: institutionalises experimentation, knowledge sharing, and continuous improvement across the enterprise.

Technical Competency	Business Analysis
Competency Description	Knowledge and ability to apply the principles of business analysis in the planning, reengineering, requirement gathering for business environments, operations, processes, and practices.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Demonstrate awareness of business rules and concepts.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Understand business lines. ▷ Understand basic industry, organisation and departmental services. ▷ Draft simple requirements.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Understand client’s business requirements, business roles, business planning and business processes. ▷ Understand and work within governance principles. ▷ Understand audit and compliance principles, change management principles and the impact of changes. ▷ Understand how technologies can enable business processes. ▷ Translate business requirements into technical requirements. ▷ Develop clear requirement statements. ▷ Develop simple business cases. ▷ Carry out simple business process reengineering, models and processes redesign.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Validates business requirements and applies business priorities. ▷ Gather/refine complex business requirements, recommend, or make decisions on business requirements/inter-dependencies. ▷ Develop complex business cases. ▷ Carry out impact analyses and environmental scans to make recommendations. ▷ Lead business process reengineering. ▷ Present and defend complex positions and strategies for business decisions, processes, and plans. ▷ Guide other business analysts. ▷ Advise on compliance, governance structures and audit principles.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Work at the “integration level” by understanding the business architecture and its relationship to other architectures. ▷ Make recommendations to senior management on strategies and plans. ▷ Carry out environmental scans of architecture. ▷ Assess corporate impacts of changes and recommend strategies to senior management. ▷ Develop complex business cases across multiple business lines and platforms. ▷ Set standards for compliance and governance structures. ▷ Understand and apply standards (Quality standards). ▷ Address governance issues. ▷ Define metadata models at the enterprise level, information models and the interoperability model. ▷ Extend the body of knowledge and contributes to industry standards.

Technical Competency	Business Continuity
Competency Description	Anticipate disruptions, maintain critical operations, and restore services quickly through structured planning, preparedness, response, and continuous improvement (e.g., Business Impact Analysis (BIA), continuity plans, crisis communication, recovery testing).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Identify own critical tasks and knows where to find relevant Business Continuity BC/Disaster Recovery DR procedures and contacts. ▶ Follow instructions during incidents (e.g., evacuation, system downtime steps) and reports issues promptly. ▶ Maintain readiness for assigned role. Keeps key information updated. Participates in briefings/drills when asked.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Contribute information for Business Impact Analysis (BIA) (e.g., critical activities, dependencies, acceptable downtime). ▶ Help maintain team continuity documents (checklists, call trees, workarounds) and keeps updates accurate. ▶ Support incident response activities such as logs actions, escalates appropriately, communicates status to immediate stakeholders.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop and improves continuity plans for a function/department, including roles, triggers, communication, and workarounds. ▶ Coordinate and execute BC exercises (table-top/simulation), captures lessons learned, and updates plans accordingly. ▶ Manage disruptions within scope by prioritising recovery steps, aligning resources, and ensuring service restoration targets are met.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Lead cross-functional BIA and continuity planning across multiple teams/vendors; validates dependencies and recovery strategies. ▶ Design recovery strategies (alternate site/process, data/system recovery, staffing contingencies) and ensures alignment to risk appetite. ▶ Oversee enterprise-level incident coordination (command structure, stakeholder comms, executive updates) and drives post-incident improvement.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set Business Continuity strategy and governance (policy, standards, assurance), ensuring compliance and measurable readiness across the organisation. ▶ Anticipate emerging risks and integrates Business Continuity with enterprise risk, cybersecurity, supply chain resilience, and strategic planning. ▶ Build organisational resilience culture: secures leadership buy-in, prioritises investments, and tracks maturity via KPIs/audits to continuously raise capability.

Technical Competency	Business Development
Competency Description	Identify and pursue new business opportunities, partnerships, markets, or customer segments to drive growth and revenue.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow instructions to perform basic research on potential leads or market segments using predefined sources. ▶ Accurately inputs data about leads or prospects into CRM systems as directed. ▶ Prepare standard information packages for potential clients based on templates.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in qualifying inbound leads against predefined criteria. ▶ Help prepare background research, presentations, or proposals for business development managers. ▶ Support the coordination of meetings or calls with prospective clients or partners.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Identify and research potential new business opportunities within an assigned area or market segment. ▶ Initiate contact with prospects, presents the company's value proposition, and qualifies opportunities. ▶ Develop initial proposals or quotes for standard offerings.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the full business development cycle for key opportunities or market segments. ▶ Build and maintain relationships with decision-makers at prospective client organisations or potential partners. ▶ Negotiate terms and closes deals within defined parameters.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the overall business development strategy, identifying target markets, partnership models, and growth objectives. ▶ Identify and evaluate strategic opportunities, such as new market entry or major partnerships. ▶ Direct and guide the business development team or function.

Technical Competency	Business Environment Analysis
Competency Description	Systematically assess internal and external factors (e.g., market trends, competition, regulations, economic conditions, organisational capabilities) influencing the business.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Collect specific, predefined data points about competitors or market conditions from designated sources (e.g., websites, news feeds). ▶ Follow instructions to populate templates with gathered environmental data. ▶ Organizes collected information according to specified formats.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in gathering and organizing a broader range of information for environmental analysis reports. ▶ Help conduct basic competitor profiling or tracks specific market indicators using standard tools. ▶ Prepare simple charts or summaries of collected data under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Conduct analysis of specific environmental factors (e.g., PESTLE, SWOT components, competitor benchmarking) using established frameworks. ▶ Identify key findings and trends within the analysed data. ▶ Prepare reports summarizing analysis results and potential implications for their area.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design and lead comprehensive environmental scanning and analysis projects. ▶ Synthesize information from diverse sources to identify critical threats, opportunities, and strategic uncertainties. ▶ Present findings and actionable insights clearly to management and strategy teams.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Establish and oversee the organisation's ongoing process for business environment intelligence gathering and analysis. ▶ Interpret complex, dynamic environmental shifts and their long-term strategic impact on the organisation. ▶ Advise senior leadership on strategic positioning and adaptation based on environmental analysis.

Technical Competency	Business Innovation
Competency Description	Generate, develop, and implement new ideas, products, services, processes, or business models to create value and competitive advantage.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Follow the defined process for submitting new ideas or suggestions. ▷ Participate openly and constructively in team brainstorming or ideation sessions when invited. ▷ Show willingness to try new ways of doing routine tasks.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Assist in researching the feasibility or potential of new ideas under guidance. ▷ Help document innovation proposals or concepts using standard templates. ▷ Support the logistical setup and execution of pilot tests or experiments for new ideas.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Actively generate novel ideas relevant to their work area or identified business problems. ▷ Apply creative problem-solving techniques to develop potential solutions. ▷ Contribute actively to the development, prototyping, or testing of innovative concepts within a team.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Lead specific innovation projects or initiatives from idea through to initial implementation. ▷ Facilitate ideation workshops and manages the idea pipeline for their area. ▷ Evaluate the potential business impact, feasibility, and risks of new innovations.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Develop and champion the organisation's overall innovation strategy, framework, and processes. ▷ Foster an organisational culture that encourages experimentation, risk-taking, and learning from failure. ▷ Identify and secure resources for high-potential strategic innovation initiatives.

**Updated for Phase 3A (2026)*

Technical Competency	Business Needs Analysis
Competency Description	Identify, analyse, and document business problems, opportunities, and stakeholder requirements to define solutions that deliver value.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow specific instructions to gather predefined pieces of information from stakeholders using simple questions or forms. ▶ Use standard templates accurately to document the information gathered. ▶ Take clear notes during requirements gathering meetings as directed.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist senior analysts in conducting stakeholder interviews or workshops by taking detailed notes and organizing information. ▶ Help draft requirement statements or user stories based on gathered information, under supervision. ▶ Support the documentation and organization of requirements artefacts.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Independently conduct requirements elicitation activities (interviews, workshops, observation) for moderately complex projects using standard techniques. ▶ Analyse, document, and validate business requirements and functional specifications. ▶ Create process models (e.g., flowcharts) or use cases to represent business needs.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Lead and facilitate the business needs analysis process for complex or large-scale initiatives. ▶ Ensure requirements are complete, unambiguous, prioritized, traceable, and aligned with overall business objectives. ▶ Manage stakeholder expectations and resolves conflicts related to requirements.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and implement organisational standards, methodologies, and tools for business needs analysis and requirements management. ▶ Proactively identify strategic business needs and opportunities beyond specific project requests. ▶ Mentor and develop the capabilities of business analysts within the organisation.

Technical Competency	Business Negotiation
Competency Description	Engage in discussions with internal or external parties to reach agreements that are mutually acceptable and achieve business objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Follow scripts or clear guidelines for simple, transactional negotiations (e.g., confirming standard terms). ▷ Understand the defined limits and escalation points for basic negotiation situations. ▷ Communicate politely and clearly during interactions.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Assist in preparing for negotiations by gathering relevant data (e.g., pricing benchmarks, past agreements). ▷ Help draft supporting documents or summaries for negotiation meetings. ▷ Observe negotiations, takes notes, and tracks action items under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Conduct negotiations for moderately complex agreements (e.g., standard vendor contracts, non-strategic sales deals) within defined boundaries. ▷ Apply basic negotiation tactics and strategies learned through training or experience. ▷ Prepare negotiation positions and identifies potential trade-offs for standard scenarios.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Plan and lead complex negotiations for significant contracts, partnerships, or internal resource allocations. ▷ Develop tailored negotiation strategies based on situation analysis and stakeholder interests. ▷ Manage the negotiation process effectively, builds consensus, and ensures outcomes align with organisational goals.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Develop the organisation's overall negotiation framework, guidelines, and best practices. ▷ Lead critical, high-stakes negotiations involving strategic partnerships, major disputes, or significant investments. ▷ Coach and mentor others in advanced negotiation skills and strategies.

Technical Competency	Business Performance Management
Competency Description	Establish metrics, monitor progress, analyse results, and take action to improve business performance against objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow instructions precisely to collect specific performance data points. ▶ Accurately input collected data into predefined spreadsheets, reports, or dashboards. ▶ Understand the basic performance metrics relevant to their own tasks.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in compiling standard performance reports by gathering data from various sources. ▶ Help track Key Performance Indicators (KPIs) against targets using established tools. ▶ Perform basic data validation checks under supervision.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Monitor and analyse performance metrics for an assigned area, process, or project. ▶ Identify deviations from targets or expected performance levels. ▶ Prepare performance reports including basic charts, analysis, and commentary on findings.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design and implement performance measurement frameworks (including relevant KPIs and targets) for a business unit or function. ▶ Analyse performance trends, identify root causes of performance issues, and recommend improvement actions. ▶ Facilitate performance review meetings, present data and insights effectively.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and oversee the organisation-wide business performance management strategy, system, and governance. ▶ Ensure alignment of KPIs across the organisation with strategic objectives. ▶ Interpret overall business performance trends and advises senior leadership on strategic interventions.

Technical Competency	Business Requirement Mapping
Competency Description	Translate business needs and requirements into detailed functional and non-functional specifications for technology solutions or process changes.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Use standard templates to document simple functional requirements based on clear instructions from analysts or users. ▶ Follow guidelines to link requirements to specific business needs as directed. ▶ Organize documented requirements according to predefined structures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in translating documented business requirements into draft functional specifications under guidance. ▶ Help create basic traceability links between business requirements and specification elements. ▶ Support the review process by checking specifications for clarity and consistency based on checklists.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Independently maps business requirements to detailed functional and non-functional specifications for specific system modules or features. ▶ Create and maintain traceability matrices to ensure coverage and alignment. ▶ Collaborate with technical teams to ensure specifications are understood and technically feasible.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Oversee the requirement mapping process for complex projects, ensuring accuracy, completeness, and consistency of specifications. ▶ Resolve ambiguities, conflicts, or gaps identified during the mapping process. ▶ Ensure specifications adequately address non-functional requirements (e.g., performance, security).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and implement organisational standards, tools, and best practices for business requirement mapping and specification management. ▶ Ensure strategic alignment between business goals and the functional design of solutions through effective mapping. ▶ Mentor analysts and designers in effective requirement mapping techniques.

Technical Competency	Business Risk Management
Competency Description	Forecast and assess existing and potential IT risks which impact the operation and/or profitability to the business as well as the development and roll out of company-wide strategies and processes to mitigate risks, minimise their impact or effectively manage such business risks.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Being aware of what kind of business problems can be addressed by data-driven solutions. ▷ Understand the principles and general ideas of creating a data science/analytics solution.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Undertake basic risk management activities. ▷ Maintain documentation of risks, threats, vulnerabilities and mitigation actions.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Identify risks and their business impact and propose measures to manage risks. ▷ Carry out risk management activities within a specific function, technical area or project of medium complexity. ▷ Identify risks and vulnerabilities, assess their impact and probability, develop mitigation strategies and reports to the business. ▷ Involve specialists and domain experts as necessary. ▷ Assess current and potential risks within a defined functional area, and develop risk countermeasures and contingency plans.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Critically evaluate, review and drive organisation-wide risk mitigation and management initiatives. ▷ Plan and implement complex and substantial risk management activities within a specific function, technical area, project or programme. ▷ Implement consistent and reliable risk management processes and reporting to key stakeholders. ▷ Engage specialists and domain experts as necessary. ▷ Advise on the organisation's approach to risk management. ▷ Plan and manage the implementation of organisation-wide processes and procedures, tools and techniques for risk management. ▷ Consider organisation-wide risk and mitigation activities within the context of business risk as a whole and the organisation's appetite for risk. ▷ Provide leadership on risk management at the organisational and business levels.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Anticipate emerging threats and potential risks, and define the overarching risk management strategy for the business. ▷ Establish organisational strategy for risk management. ▷ Define and communicate the organisation's appetite for risk. ▷ Provide resources to implement the organisation's risk strategy. ▷ Delegate authority for detailed planning and execution of risk management activities across the organisation.

Technical Competency	Change Management
Competency Description	Plan, implement, and reinforce changes in processes, technology, or organisational structure to minimise resistance and maximise the benefits of change.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Receive and understand communications about upcoming changes affecting their work. ▶ Attend required training sessions for new processes or systems and follows instructions for adoption. ▶ Report any issues or difficulties encountered during the transition according to procedure.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in drafting basic change communication materials (e.g., FAQs, announcements) based on templates and key messages. ▶ Help track stakeholder feedback, concerns, or readiness assessments related to a change. ▶ Support the logistical arrangement of change-related training or support sessions.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Implement specific change management activities for a project, such as conducting stakeholder impact assessments for their area. ▶ Develop targeted communication or training materials for specific user groups. ▶ Monitor adoption rates and gathers feedback from affected users during implementation.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop comprehensive change management strategies and plans for significant projects or organisational changes. ▶ Manage stakeholder engagement, communication campaigns, and resistance management activities. ▶ Assesse organisational readiness for change and measures the effectiveness of change initiatives.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation’s overall change management methodology, framework, and capability. ▶ Integrate change management principles into strategic planning and portfolio management. ▶ Coach senior leaders on effectively sponsoring and leading organisational change.

Technical Competency	Cloud Computing
Competency Description	Implement cloud solutions to enhance business performance and security of IT systems.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Deploy cloud solutions and resolve cloud integration issues. ▷ Design cloud services and capabilities using appropriate modelling techniques following agreed architectures, design standards, patterns and methodology. ▷ Identify and evaluate alternative design options and trade-offs. ▷ Create multiple design views to address the concerns of the different stakeholders of the architecture and to handle both functional and non-functional requirements. ▷ Model, simulate or prototype the behaviour of proposed cloud services to enable approval by stakeholders. ▷ Produce detailed service design specification to form the basis for the realisation of cloud-based service solutions. ▷ Review, verify and improve own designs against specifications.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Develop plans to implement cloud solutions. ▷ Adopt and adapt appropriate cloud computing design methods, tools and techniques selecting appropriately from predictive (plan-driven) approaches or adaptive (iterative/agile) approaches, and ensure they are applied effectively. ▷ Design large or complex cloud-based service solutions. ▷ Undertake impact analysis on major design options and trade-off. ▷ Make recommendations and assess and manage associated risks. ▷ Review others' cloud-based service designs to ensure selection of appropriate technology, efficient use of resources, and integration of multiple cloud providers and technology. ▷ Ensure that the cloud-based service design balances functional and non-functional requirements. ▷ Contribute to development of service design policies and standards and selection of architecture components and building blocks. ▷ Plan and direct migration of IT services from traditional infrastructure to cloud computing-based infrastructures and/or services.

Level 5 (Strategise)

- ▶ Develop organisational policies, standards, guidelines, and methods for cloud-based service design.
 - ▶ Champion the importance and value of cloud-based design principles and the selection of appropriate service design life cycle models; whether predictive (plan-driven) approaches or more adaptive (iterative/agile) approaches
 - ▶ Drive adoption of and adherence to relevant policies, standards, strategies and architectures.
 - ▶ Lead cloud-based service design activities for strategic, large and complex solution development programmes.
 - ▶ Develop effective implementation and procurement strategies, consistent with specified requirements, architectures and constraints of performance and feasibility.
 - ▶ Develop cloud-based service solutions requiring introduction of new technologies or new uses for existing technologies.
 - ▶ Evaluate the suitability of cloud computing-based solutions for IT services considering policies, standards, cost-effectiveness, performance and corporate strategy.
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Technical Competency	Computational Modelling
Competency Description	Develop, select and apply algorithms and advanced computational methods to enable systems or software agents to learn, improve, adapt and produce desired outcomes or tasks. This also involves the interpretation of data, including the application of data modelling techniques to explore and address a specific issues or requirements.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Identify and utilise appropriate statistical algorithms and data models to test hypotheses and derive patterns or solutions. ▶ Establish, modify or maintain simple data structures and associated components. ▶ Use specific data modelling and design techniques under guidance. ▶ Apply standard data modelling and design techniques based upon a detailed understanding of requirements. ▶ Establish, modify and maintain data structures and associated components. ▶ Communicate the details of data structures and associated components to others using the data structures and associated components.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Investigate enterprise data requirements where there is some complexity and ambiguity. ▶ Plan own data modelling and design activities, selecting appropriate techniques and the correct level of detail for meeting assigned objectives. ▶ Provide advice and guidance to others using the data structures and associated components.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set standards for data modelling and design tools and techniques, advise on their application and ensure compliance. ▶ Manage the investigation of enterprise data requirements based upon a detailed understanding of information requirements. ▶ Coordinate the application of analysis, design and modelling techniques to establish, modify or maintain data structures and their associated components. ▶ Manage the iteration, review and maintenance of data requirements and data models.

Technical Competency	Computer Vision Technology
Competency Description	Design, build, evaluate, deploy, and govern computer vision solutions that deliver measurable outcomes (accuracy, latency, reliability, compliance).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand basic Computer vision (CV) terms and follows SOP/templates to complete simple tasks. ▶ Highlight and seek guidance for unclear cases early. ▶ Produce basic outputs with review (e.g., labeling, running inference/training scripts).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Gather and completes routine CV tasks using standard tools and best practices. ▶ Troubleshoot common issues (data quality, training errors) using known fixes. ▶ Document work clearly and delivers repeatable results for standard cases.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Deliver end-to-end solutions for typical CV use cases (data → model → evaluation → handover). ▶ Perform root-cause analysis and improves performance using metrics and error analysis. ▶ Make sound technical decisions and manages moderate ambiguity with minimal supervision.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design system architecture and sets quality standards/acceptance criteria for CV solutions. ▶ Optimise for production constraints (latency, cost, reliability) and leads complex delivery. ▶ Coach others and aligns cross-functional stakeholders on trade-offs and risks.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define enterprise CV roadmap, governance, and reusable reference architectures. ▶ Lead high-stakes deployments (privacy/ethics/compliance) and drives innovation adoption. ▶ Deliver organisation-wide impact through standardisation, capability building, and strategic decisions.

Technical Competency	Content Management
Competency Description	Plan, create, organise, review, publish, maintain, and retire content (e.g., documents, web pages, knowledge articles, policies, media) so it stays accurate, consistent, easy to find, compliant, and up to date across the organisation's channels and systems (Content Management (CMS), Document Management System (DMS), knowledge bases).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand basic content types, naming conventions, and where content should be stored/published. ▶ Create/update simple content using templates and follows SOP (tagging, filing, basic formatting). ▶ Review information for correctness under close guidance.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Perform routine content updates (create, edit, upload, schedule) using CMS/DMS tools. ▶ Apply metadata/taxonomy correctly and maintains version control and approval steps. ▶ Resolve common issues (formatting, access, broken links) and documents changes clearly.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage end-to-end content lifecycle (plan → create → review → publish → archive) for a section or product area. ▶ Improve content quality and findability based on feedback/data. ▶ Coordinate stakeholders (subject matter experts SMEs, approvers) and ensures compliance with standards (brand, style, governance).
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design content structures, governance workflows, and standards (taxonomy, templates, Quality Assurance gates, SLAs). ▶ Optimise content operations for scale (content reuse, automation, multilingual workflows, editorial calendars). ▶ Coach teams and leads complex migrations/rollouts (new CMS, Information Architecture redesign, consolidation).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set enterprise content strategy aligned to organisational goals (customer experience, knowledge, digital services). ▶ Establish governance, compliance, and risk controls (privacy, security, audit trails, retention policies). ▶ Drive measurable impact through analytics and continuous improvement (findability, adoption, reduced rework, faster publishing).

Technical Competency	Content Strategy
Competency Description	Plan and govern content strategy to determine what content to create, for whom, why, where it will live, and how it will be maintained—so content consistently supports business goals and user needs across channels.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand what content strategy is and why it matters (audience, goals, consistency). ▶ Perform simple tasks using templates (basic outlines, content inventories, copying into formats).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Prepare draft basic content plan based on defined objectives, audience needs, and channel requirements. ▶ Apply basic frameworks (persona, key messages, tone/voice) and follows editorial standards. ▶ Use simple data (engagement, feedback) to refine content and propose improvements.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop content plans (themes, journey mapping, content calendars) tied to outcomes and KPIs. ▶ Audit content, identifies gaps/duplication, and recommends governance and reuse opportunities. ▶ Align stakeholders (Subject Matter Experts, comms, product/ops) and ensures consistency across channels.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Define content strategy for a programme/portfolio (information architecture, messaging hierarchy, governance model). ▶ Establish standards and operating rhythm (editorial workflow, QA gates, measurement framework). ▶ Lead major initiatives (content redesign, migration, localisation strategy) and coaches others.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set enterprise content strategy aligned to organisational priorities and customer experience. ▶ Build scalable governance and capability (operating model, tooling decisions, maturity roadmap). ▶ Drive measurable impact using analytics and experimentation (improved findability, adoption, conversion, reduced service load).

Technical Competency	Configuration Tracking
Competency Description	Identify, record, and track the configuration items (CIs) of an IT infrastructure and their relationships, often as part of Configuration Management.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow specific procedures to accurately record basic attributes of new or updated CIs (e.g., serial number, location) in a designated system. ▶ Use predefined forms or tools for data entry related to configuration items. ▶ Report discrepancies found during simple inventory checks as instructed.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist administrators in updating the Configuration Management Database (CMDB) or configuration records based on approved changes. ▶ Help perform basic audits to verify the accuracy of configuration data against physical inventory. ▶ Support the documentation of simple relationships between CIs under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Maintain the accuracy and completeness of configuration records for assigned IT systems, services, or applications. ▶ Identify, verify, and record relationships between CIs based on system dependencies. ▶ Use configuration data effectively to support incident, problem, and change management processes.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the configuration management process for a significant portion of the IT environment. ▶ Define CI types, attributes, statuses, and relationship models within the CMDB. ▶ Plan and oversee regular configuration audits and reconciliation activities to ensure data integrity.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and oversee the organisation's configuration management strategy, policy, scope, and processes. ▶ Define the architecture and integration points for the CMDB with other IT Service Management tools. ▶ Ensure configuration management practices support strategic goals like automation, cloud management, and security.

Technical Competency	Contract Management
Competency Description	Formalise contracts and/or service level agreements with providers of products and services including measure and manage supplier performance and fulfilment of agreed-upon service level agreements. This includes resolution of contractual issues and maintenance of vendor and/or provider relationships.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Basic knowledge of purchasing. ▷ Knowledge of purchasing techniques. ▷ Ability to research and apply laws, regulations, and policies. ▷ Knowledge of negotiated procurement procedures and the laws, regulations and precedents governing procurement by this method, to perform developmental assignments or segments of large procurement actions.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Knowledge of the principles, techniques, methods, and procedures of contracting to perform pre-award and post-award procurement actions where the actions are well defined and well precedented. ▷ Knowledge and skills sufficient to evaluate bids and proposals, recommend competitive ranges, make standard investigations of contractor capabilities concerning financial, personnel, equipment, and managerial resources necessary to fulfil contract terms. ▷ Limited knowledge of negotiation methods, techniques, and principles sufficient to work with request for quotations and requests for proposals for standard items. ▷ Knowledge and skill sufficient to monitor the progress of contractors with fixed price contracts; to advise contractors regarding contractual requirement limitations; to coordinate requests for deviations from contract specifications; to review payment requests; and to recommend approval payment or withholding of partial or final payment. ▷ Research, interpret, and analyse precedent decisions, laws, and regulations. ▷ Communicate orally and in writing to present instructions, policy, and/or supporting documentation.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Source and collect contract performance data (such as pricing and supply chain costs), and monitor performance against KPIs. ▷ Identify and report under-performance and develop opportunities for improvement. ▷ Monitor compliance with Terms and Conditions and take appropriate steps to address non-compliance. ▷ Pro-actively manage risk and reward mechanisms in the contract. ▷ Monitor progress against business objectives specified in the business case. ▷ Identify where change is required, and plan for variations. ▷ Ensure that change management protocols are implemented in consultation with stakeholders.

Level 4 (Ensure)

- ▶ Oversee and measure the fulfilment of contractual obligations.
- ▶ Use Key Performance Indicators (KPIs) to monitor and challenge performance and identify opportunities for continuous improvement.
- ▶ Develop strategies to address under-performance and compliance failures, including application of contract terms.
- ▶ Identify where changes are required, evaluate the impact, and advise stakeholders about the implications and consequences for the business and/or the procurement element of programmes/projects.
- ▶ Negotiate variations and seek appropriate authorisation.
- ▶ Actively support and engage with experts and stakeholders to ensure continuous improvements are identified through review and benchmarking processes.

Level 5 (Strategise)

- ▶ Negotiate and resolve contractual issues, including failure to meet contractual obligations.
 - ▶ Promote change control processes and lead variation negotiations when necessary.
 - ▶ Champion continuous improvement programmes, jointly developing strategies and incentives to enhance performance.
 - ▶ Undertake comprehensive financial evaluations.
 - ▶ Ensure non-discriminatory behaviour and legal compliance.
 - ▶ Ensure that lessons learned from reviews are documented and promoted with all stakeholders.
 - ▶ Develop broad industry/category credentials as “best practice” champion.
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Technical Competency	Customer Behaviour Analysis
Competency Description	Devise tools and approaches for customer behaviour analysis and analyse customer behaviour information.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Collect information based on established research frameworks and historical data on customer behaviours and characteristics.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Analyse information to develop customer behaviour insights, such as how marketing activities can be affected to increase the customer base. ▶ Understand the range of metrics used to measure value and effectiveness and can use analytics to review the business impact of key marketing activities.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage customer behaviour analysis activities and present findings and recommendations relating to possible changes in marketing activities with a view to influence the behaviour of target consumers.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Establish a model and framework of customer behaviour analysis and devise parameters to identify types of customer characteristics that are essential for making informed decisions about changes in marketing activities.

Technical Competency	Customer Experience Management (CXM)
Competency Description	Design, monitor, and improve customer interactions across all touchpoints to meet or exceed expectations and foster loyalty.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow established guidelines and scripts for interacting with customers professionally and courteously. ▶ Use standard tools correctly to log customer interactions or basic feedback as instructed. ▶ Escalate customer issues or complex inquiries according to defined procedures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in deploying customer feedback surveys or monitoring social media channels for customer sentiment using predefined tools. ▶ Help map simple customer journeys or touchpoints based on templates and guidance. ▶ Compile basic reports on CX metrics (e.g., satisfaction scores, complaint volumes) from available data.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Map customer journeys for specific products, services, or processes to identify key interaction points. ▶ Analyse customer feedback (surveys, comments, support logs) to identify specific pain points or areas for improvement. ▶ Implement targeted improvements to specific customer touchpoints based on analysis and feedback.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the overall customer experience for a specific product line, channel, or customer segment. ▶ Design and implement CX measurement programs (e.g., NPS, CSAT, Customer Effort Score). ▶ Analyse CX trends, identifies root causes of dissatisfaction, and drives cross-functional improvement initiatives.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and champion the organisation's overall customer experience vision, strategy, and governance. ▶ Define target customer personas and designs ideal end-to-end customer journeys. ▶ Align organisational culture, processes, and technology investments around delivering the desired customer experience.

Technical Competency	Customer Intelligence Analysis
Competency Description	Devise frameworks for consumer intelligence analysis to develop an understanding of customer knowledge from various customer touch points, for example, Customer Relationship Management (CRM), Point of Sale (POS) and e-commerce systems.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Analyse data from CRM, POS and e-commerce systems. ▶ Generate relevant customer insights.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Determine the value of accumulated business, CRM, POS, and e-commerce data and integrate customer interaction data across all touch-points. ▶ Demonstrate an ability to take a comprehensive approach to insights development, through demonstrating integrated thinking (both behavioural and data). ▶ Work with cross functional teams across the business to ensure that the organisation is gathering good quality behavioural information and data.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design the consumer intelligence analysis framework to drive efforts to collect data and set specific consumer intelligence analysis goals and generate derived measures. ▶ Lead the business insights strategy for the organisation and makes a significant contribution to the overall marketing and strategic planning process. ▶ Ensure that the power and benefits of all relevant information sources, is shared across the organisation and not restricted to marketing.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Drive data collection efforts and set specific objectives of consumer intelligence analysis. ▶ Generate derived measure.

Technical Competency	Cyber and Data Breach Management
Competency Description	Plan strategies and ways to prevent, detect, respond to, contain, investigate, and recover from cybersecurity incidents and data breaches—while meeting legal/regulatory obligations, coordinating stakeholders, and strengthening controls to reduce future risk.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Recognise common cyber and data-breach indicators (phishing, malware alerts, unusual access) and reports immediately via correct channels. ▶ Follow security and data-handling rules (password hygiene, MFA, clean desk, secure sharing) and avoids risky behaviours. ▶ Preserve evidence by not deleting suspicious emails/files and by following “do’s and don’ts” during incidents.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Execute assigned response steps (isolate device, reset credentials, revoke access, notify stakeholders) according to SOP/runbook. ▶ Support incident documentation (timeline, impacted systems/data types, actions taken) and maintains clear handover notes. ▶ Assist in basic containment and recovery activities under guidance (patching, access review, user comms, backup restore checks).
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Response for incidents within scope: triages severity, coordinates containment, and drives recovery to agreed service targets. ▶ Conduct structured investigation (root cause, attack vector, affected data) and ensures evidence handling meets internal requirements. ▶ Prepare stakeholder communications (management, users, customers) with accurate status, risk, and next steps in plain language.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Lead major incident / breach response across IT, Security, Legal, HR, Comms, and business units; establishes command structure and decision cadence. ▶ Manage regulatory and contractual obligations (notification thresholds/timelines, reporting content, customer/vendor coordination) with appropriate advisors. ▶ Drive enterprise improvements post-incident: control enhancements, security architecture changes, training, and testing of incident response plans.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set organisational strategy and governance for incident & breach management (policies, playbooks, metrics, assurance) aligned to risk appetite. ▶ Anticipate evolving threat landscape and ensures readiness through threat modelling, red teaming/tabletops, and resilience investment prioritisation. ▶ Build a strong security culture and operating model (roles, competencies, vendor ecosystem, SOC/IR maturity), continuously improving detection-to-recovery performance.

**Updated for Phase 3A (2026)*

Technical Competency	Cyber Forensics
Competency Description	Collect, examine, analyse, and preserve digital evidence from computer systems, networks, and devices in a legally admissible manner to investigate cyber incidents or crimes.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow strict procedures for identifying and isolating potential digital evidence sources under direct supervision. ▶ Accurately label and document the handling of physical media or devices according to instructions. ▶ Maintain awareness of basic chain of custody principles.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist forensic investigators in acquiring forensically sound images of storage media using standard tools and techniques. ▶ Help meticulously document all steps taken during evidence handling and acquisition (maintaining chain of custody). ▶ Perform basic keyword searches or data extraction tasks on acquired images under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Conduct forensic examinations of common digital devices (computers, mobile phones) and media using standard forensic tools and methodologies. ▶ Recover deleted files, analyses file system structures, and examines operating system artefacts (e.g., logs, registry). ▶ Document findings clearly and objectively in preliminary reports.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Plan and lead complex cyber forensic investigations involving multiple systems, networks, or advanced techniques (e.g., memory forensics, network forensics). ▶ Ensure adherence to legal standards, rules of evidence, and internal procedures throughout the investigation. ▶ Interpret complex technical findings, correlates evidence from multiple sources, and prepares comprehensive expert reports.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and maintain the organisation's cyber forensic policies, procedures, and laboratory capabilities. ▶ Establish forensic readiness plans to ensure evidence can be effectively captured when needed. ▶ Provide expert testimony and advises legal counsel or senior management on complex forensic matters.

Technical Competency	Cyber Risk Management
Competency Description	Develop cyber risk assessment and treatment techniques that can effectively pre-empt and identify significant security loopholes and weaknesses, demonstrate the business risks associated with these loopholes and provide risk treatment and prioritisation strategies to effectively address the cyber-related risks, threats and vulnerabilities identified to ensure appropriate levels of protection, confidentiality, integrity and privacy in alignment with the security framework.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop cyber risk assessment techniques and roll out endorsed measures to address identified cyber security risks, threats and vulnerabilities.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Assess and direct enhancements to cyber risk assessment techniques, and develop strategies to address cyber security loopholes. ▶ Evaluate the readiness and robustness of the organisation's cyber security defences, and authorise cyber risk assessment activities.
Level 5 (Strategise)	N/A

Technical Competency	Data Analytics
Competency Description	Knowledge and ability to identify patterns in data. Ability to use statistics, operations research, and other mathematical tools to make sense of information generated or collected by organisations.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Appreciation of custom coding requirement to customise every step of the data science/analytics life cycle. ▷ Awareness of the mainstream programming languages available (e.g., R, Python, etc). ▷ Awareness and understanding of all stages of data science/analytics life cycle and specifics of the data science/analytics project management.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Familiarity with the wide range of mainstream commercial and open-source data science/analytics software tools, their constraints, advantages, disadvantages and areas of application. ▷ Intermediate skills in using at least one such tool. ▷ Familiarity with programming languages (e.g., R, Python, etc). ▷ Basic programming skills. ▷ Interpret an existing script of moderate complexity. ▷ General understanding of all stages of Data Science/Analytics life cycle and project management. ▷ Assist in the scoping, planning and delivery of projects under the direction of Senior Analyst or Lead Analyst, including documenting business requirements. ▷ Manage moderate-scale projects and assist in management of large-scale or multi-stage projects.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Familiarity with the wide range of data science/analytics commercial and open-source software tools, their constraints, advantages, disadvantages, areas of application and mainstream packages relevant to technical stages of data science/analytics projects. ▷ Expertise with at least one such tool from intermediate to advanced skills in programming languages used for data science/analytics (e.g., R, Python, etc) and ability to apply these for data acquisition, pre-processing, modelling and model deployment. ▷ Interpret and modify existing scripts and conduct quality checks. ▷ Conduct general impact analysis on database change management. ▷ Prepare a project plan, communicate the plan to the team and allocate the tasks. ▷ Experience in working with stakeholders and the collection of business requirements for data science projects including establishing the business need, key stakeholders, scope, resourcing and success criteria for a specific issue.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Familiarity with the wide range of data science/analytics commercial and open-source software tools, their constraints, advantages, disadvantages, areas of application and best-practice packages. ▷ In-depth expertise with at least one or two such tools. ▷ Advanced skills in programming languages used for data science/ analytics (e.g., R, Python, etc). ▷ Apply these skills for data acquisition, pre-processing, modelling and model deployment. ▷ Ability to coordinate quality checks of scripts for one or more projects as well as to maintain and monitor a library of team scripts and coordinate its review and updates.

Level 5 (Strategise)

- ▶ In-depth knowledge of big data technologies, the specifics of integrating them with existing information systems and using them for data science/analytics solutions.
 - ▶ Design and lead data science/analytics projects including creation of a big data environment by setting up and deploying tools, capturing and evaluating results and deploying big data solutions on large-scale data sets in the enterprise.
 - ▶ Lead a team in identifying a big data problem, selecting the adequate techniques and performing data acquisition, data audit, cleansing, pre-processing, model development and testing and deployment.
 - ▶ Design and implement a multi-stage solution that encapsulates systems dealing with both structured and unstructured data.
 - ▶ Share knowledge, experience and skills with team members through coaching and mentoring.
 - ▶ In-depth understanding of all stages of data science/analytics life cycle and specifics of data science/analytics project management, the relevant resources, time requirements, etc.
 - ▶ Manage large-scale data science/analytics projects and assist in managing data science/analytics programmes.
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Technical Competency	Data and Trend Analytics
Competency Description	Implement data analytics within the organisation using statistical and computational techniques and tools, algorithms, predictive data modelling and data visualisation to generate business insights and intelligence.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Collect data by conducting research, support the analysis of market trends and developments and prepare research documentation. ▶ Use statistical and computational methods and instruments to identify underlying trends and patterns in business data.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Analyse market trends and industry developments. ▶ Analyse findings or report of market trends and industry developments on impact on business strategies or business operations strategies. ▶ Identify underlying trends and patterns in data modelling, as well as develop, apply and evaluate algorithms, predictive data modelling and data visualisation. ▶ Utilise forecasting techniques to interpret future demands.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Identify market trends and developments that may impact organisational marketing activities. ▶ Analyse market trends and developments to forecast emerging market needs and develop appropriate recommendations. ▶ Drive organisational decisions and insights as well as design and conduct data studies.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Manage and improve the capacity of organisational data science by refining criteria for financial and other business performance and design data studies. ▶ Devise situational analysis frameworks to obtain information regarding organisation and competitors' competencies.

Technical Competency	Data Centre Facilities Management
Competency Description	Manage the physical environment of a data centre, including power, cooling, security, space, and cabling, to ensure availability, efficiency, and safety of IT equipment.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow procedures for monitoring environmental alerts (temperature, humidity) and reporting anomalies. ▶ Adhere strictly to physical access control procedures when entering/exiting the data centre or escorting visitors. ▶ Perform basic visual inspections of equipment or infrastructure as per checklists.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist technicians in performing routine checks and basic maintenance tasks on power (UPS, PDU) and cooling systems. ▶ Help manage physical inventory, track rack space utilization, and update layout diagrams. ▶ Support structured cabling installations or removals under supervision.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Monitor and manage day-to-day data centre environmental conditions using monitoring tools. ▶ Manage physical space, power, and cooling capacity for equipment installations and changes. ▶ Coordinate vendor access for maintenance and ensures adherence to safety protocols.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Oversee the operational management of data centre facilities, ensuring reliability, efficiency, and compliance with standards (e.g., uptime tiers, safety regulations). ▶ Plan and manage capacity upgrades for power, cooling, and space based on forecasts. ▶ Develop, test, and maintain facility emergency response and disaster recovery procedures.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the long-term strategy for the organisation's data centre footprint (build, buy, colocate, cloud). ▶ Lead the design and implementation of new data centre facilities or major renovations. ▶ Drive initiatives for improving energy efficiency, sustainability, and operational cost-effectiveness in data centre operations.

Technical Competency	Data Cleansing
Competency Description	Knowledge and ability to fix or remove incorrect, corrupted, incorrectly formatted, duplicate or incomplete data within a dataset. It includes fixing structural errors, filtering unwanted outliers, handle missing data and validating data.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Experience in utilising a number of data cleansing techniques and approaches for structured and unstructured data such as data wrangling, batch processing, data mining, data enhancement, data harmonisation and data standardisation. ▶ Conduct data cleansing of noisy, incomplete data or data with established data quality issues using experience of relevant tools and programming languages. ▶ Utilise knowledge of how the interaction of multiple data issues, such as missing data, outliers, multiple values and meaning of data, impact analysis and identify an appropriate cleansing approach.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Extensive and/or in-depth knowledge of best-practice data cleansing techniques and approaches for a variety of data types such as data wrangling, batch processing, data mining, data enhancement, data harmonisation and data standardisation. ▶ Extensive experience in utilising these techniques and approaches for cleansing complex, large, incomplete data or data with established quality issues. ▶ Ability to design and implement data cleansing approach for complex data and projects.
Level 5 (Strategise)	N/A

Technical Competency	Data Design
Competency Description	Specify and create a data structure or database model, including the setting of various parameters or fields that can be modified to suit different structured or unstructured data requirements, the design of data flow, as well as the development of mechanisms for maintenance, storage and retrieval of data based on the business requirements.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Identify data requirements and support the design of database models, incorporating parameters, fields and mechanisms for the maintenance, storage and retrieval of data. ▶ Interpret installation standards to meet project needs and produces database or data warehouse component specifications. ▶ Develop appropriate physical database or data warehouse design elements, within set policies, to meet data requirements.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Implement physical database designs to support transactional data requirements for performance and availability. ▶ Develop and maintain specialist knowledge of database and data warehouse concepts, design principles, architectures, software and facilities. ▶ Assess proposed changes to object/data structures and evaluate alternative options. ▶ Implement data warehouse designs that support demands for business intelligence and data analytics.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Provide specialist expertise in the design characteristics of database management systems or data warehouse products/services. ▶ Provide expert guidance in the selection, provision and use of database and data warehouse architectures, software and facilities. ▶ Ensure that physical database design policy supports transactional data requirements for performance and availability. ▶ Ensure that data warehouse design policy supports demands for business intelligence and data analytics.

Technical Competency	Data Engineering
Competency Description	Develop and implement efficient and stable processes to collect, store, extract, transform, load and integrate data at various stages in the data pipeline. This also involves processing varying amounts of data from a variety of sources and preparing data in a structure that is easily access and analysed according to business requirements.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Assist in developing and implementing data pipelines and data stores. ▷ Perform administrative tasks to provide accessibility, retrievability, security and protection of data.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Design and implement data pipelines and data stores to acquire and prepare data. ▷ Apply data engineering standards and tools to create and maintain data pipelines and extract, transform and load data. ▷ Carry out routine data quality checks and remediation. ▷ Implement data management processes and systems to map data sources. ▷ Implement processes and relationships, and transform and process multiple streams of data.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Design, implement, and maintain complex data engineering solutions to acquire and prepare data. ▷ Create and maintain data pipelines to connect data within and between data stores, applications and organisations. ▷ Carry out complex data quality checking and remediation. ▷ Translate business requirements into data structures and processes to standardise data, verify data reliability and validity, as well as store, extract, transform, load and integrate data.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Plan and drive the development of data engineering solutions ensuring that solutions balance functional and non-functional requirements. ▷ Monitor application of data standards and architectures including security and compliance. ▷ Contribute to organisational policies, standards, and guidelines for data engineering. ▷ Lead the selection and development of data engineering methods, tools and techniques. ▷ Develop organisational policies, standards, and guidelines for the development and secure operation of data services and products. ▷ Ensure adherence to technical strategies and architectures. ▷ Plan and lead data engineering activities for strategic, large and complex programmes.

Technical Competency	Data Ethics
Competency Description	Apply legal and ethical principles in the collection, use, storage and disposal of data.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Apply and uphold principles of professional, legal and ethical conduct, policies and procedures in the handling of data. ▷ Fully understand the importance and application of security and ethics to own work and the operation of the organisation. ▷ Understand how own role impacts security and ethics, and demonstrate routine security and ethical practice and knowledge required for own work. ▷ Fully aware of and comply with essential organisational security and ethical practices expected of the individual. ▷ Proactively ensure security and ethics are appropriately addressed within their area by self and others. ▷ Engage or work with security and ethics specialists as necessary. ▷ Contribute to the security and ethics culture of the organisation.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Analyse unethical practices and apply ethical decision-making models and strategies to address ethical dilemmas and issues. ▷ Contribute to the security and ethics culture of the organisation and ensures implementation in area of responsibility.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Champion security and ethics within own area of work and throughout the organisation. ▷ Take a leading role in promoting security and ethics throughout own area of responsibilities and collectively in the organisation.

Technical Competency	Data Governance
Competency Description	Develop and implement guidelines, laws, and regulations across the organisation for the handling of data at various stages in its life cycle as well as the provision of advice on proper data handling and resolution of data breaches in a range of complex, ambiguous or multi-faceted contexts.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Ensure implementation of information and record management policies and standard practices. ▶ Ensure effective controls are in place for internal delegation, audit and control relating to information and records management. ▶ Assess and manage risks around the use of information. ▶ Provide reports on the consolidated status of information controls to inform effective decision-making. ▶ Recommend remediation actions as required. ▶ Ensure that information is presented effectively.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Implement guidelines, laws, statutes and regulations on appropriate handling of data at various stages in their life cycle. ▶ Monitor compliance with data policies. ▶ Understand the implications of information, both internal and external, that can be mined from business systems and elsewhere. ▶ Make decisions based on that information, including the need to make changes to the systems. ▶ Review new change proposals and provide specialist advice on information and records management, including advice on and promotion of collaborative working and assessment and management of information-related risk. ▶ Create and maintain an inventory of information assets, which are subject to relevant legislations. ▶ Prepare and review the periodic notification of registration details and submit them to the relevant regulatory authorities. ▶ Ensure that formal information access requests and complaints are dealt with according to approved procedures. ▶ Contribute to development of policy, standards and procedures for compliance with relevant legislation.

Level 5 (Strategise)

- ▶ Develop organisational policies, standards, and guidelines for information and records management ensuring that uniformly recognised and accepted data definitions are developed and applied throughout the organisation.
 - ▶ Ensure that the business processes and information required to support the organisation are defined, and devise appropriate processes and data architectures.
 - ▶ Identify the impact of any relevant statutory, internal or external regulations on the organisation's use of information and develop strategies for compliance.
 - ▶ Lead and plan activities to communicate and implement information management strategies.
 - ▶ Coordinate information resources to meet specific business objectives whilst maintaining the principles of professional standards, accountability, openness, equality, diversity and clarity of purpose.
 - ▶ Implement systems and controls to measure performance and manage risk.
 - ▶ Specify at a strategic level the business functions and data subjects needed to support future business, thereby enabling the development of an Information Architecture.
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Technical Competency	Data Migration
Competency Description	Plan and perform activities to migrate data between computer storage types or file formats.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in providing accessibility, retrievability, security and protection of data in an ethical manner.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply ethical and robust techniques in the transformation of data from one format/medium to another, in line with organisational policies and procedures and being sensitive to risks around the use of information. ▶ Prepare data and perform manual or automated data migration. ▶ Troubleshoot database errors faced. ▶ Validate migrated data post-migration to ensure accuracy. ▶ Take responsibility for the accessibility, retrievability, security, quality, retention and ethical handling of specific subsets of data. ▶ Assess the integrity of data from multiple sources. ▶ Provide advice on the transformation of data/information from one format or medium to another. ▶ Maintain and implement information handling procedures. ▶ Enable the availability, integrity and searchability of information through the application of formal data and metadata structures and protection measures. ▶ Manipulate specific data from information services to satisfy defined information needs.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Devise and implement master data management processes, including classification, security, quality, ethical principles, retrieval and retention processes. ▶ Derive data management structures and metadata to support consistency of information retrieval, combination, analysis, pattern recognition and interpretation, throughout the organisation. ▶ Plan effective data storage, sharing and publishing within the organisation. ▶ Independently validate external information from multiple sources. ▶ Assess issues which might prevent the organisation from making maximum use of its information assets.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Derive an overall strategy of master data management, within an established information architecture, that supports the development and secure operation of information and digital services. ▶ Develop organisational policies, standards and guidelines for data management, aligned with ethical principles. ▶ Take overall responsibility for planning effective data storage, security, quality, sharing, availability, retention and publishing within the organisation. ▶ Plan, establish and manage processes for regular and consistent access to data, and independent validation of external information from multiple sources.

Technical Competency	Data Modelling And Design
Competency Description	Knowledge and ability to apply architecture theories, principles, concepts, practices, methodologies, and frameworks.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply standard data modelling and design techniques based upon a detailed understanding of requirements. ▶ Establish, modify and maintain data structures and associated components. ▶ Communicate the details of data structures and associated components to others using the data structures and associated components.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Investigate enterprise data requirements where there is some complexity and ambiguity. ▶ Plan own data modelling and design activities, selecting appropriate techniques and the correct level of detail for meeting assigned objectives. ▶ Provide advice and guidance to others using the data structures and associated components. ▶ Investigate enterprise data requirements where there is some complexity and ambiguity. ▶ Plan own data modelling and design activities, selecting appropriate techniques and the correct level of detail for meeting assigned objectives. ▶ Provide advice and guidance to others using the data structures and associated components.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set standards for data modelling and design tools and techniques and advise on their application and ensure compliance. ▶ Manage the investigation of enterprise data requirements based upon a detailed understanding of information requirements. ▶ Coordinate the application of analysis, design and modelling techniques to establish, modify or maintain data structures and their associated components. ▶ Manage the iteration, review and maintenance of data requirements and data models.

Technical Competency	Data Security
Competency Description	Control and apply good practices to protect data from unauthorised access, alteration, loss, or disclosure throughout its lifecycle (create → store → use → share → archive/dispose), so the organisation maintains confidentiality, integrity, and availability.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand basic security hygiene (strong passwords, MultiFactor Authentication MFA, phishing awareness, safe file handling). ▶ Follow SOP for storing/sharing data (approved drives, correct access settings). ▶ Promptly report suspected security incidents (such as lost devices, suspicious emails, or potential data leaks) through designated reporting channels.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Apply organisation data security policies and controls (classification, access control, encryption, secure sharing). ▶ Handle data securely in daily work (least privilege, clean desk/screen, secure disposal). ▶ Identify common risks (mis-sent emails, public links, weak permissions) and mitigates them.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Implement security controls in workflows/projects (role-based access, audit trails, secure data transfer). ▶ Conduct basic risk assessment and ensures compliance requirements are met (retention, logging, approvals). ▶ Investigate and resolves recurring issues with root-cause analysis; supports incident response.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design security controls for systems and processes (data lifecycle, segregation, DLP, monitoring). ▶ Lead security reviews (threat modelling, vendor/third-party assessment, penetration findings remediation). ▶ Coach teams and enforces standards; manages high-risk data use cases with governance.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define enterprise data security strategy, policies, and control framework aligned to business risk. ▶ Lead organisation-wide security programmes such as Zero Trust, Identity and Access Management (IAM), Data Loss Prevention (DLP) strategy, resilience, audit readiness. ▶ Oversee major incidents and regulatory obligations; drives continuous improvement and security culture.

Technical Competency	Data Strategy
Competency Description	Define the vision, goals, principles, and roadmap for how an organisation will acquire, store, manage, share, and use data to achieve its objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow established data entry, data quality, and data privacy procedures in their daily work. ▶ Understand the basic importance of data accuracy and security based on the provided guidelines. ▶ Use organisational data tools according to instructions.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in gathering information about existing data sources, data flows, or data quality issues for strategic assessments. ▶ Help document data definitions, metadata, or data lineage according to defined standards. ▶ Support the creation of basic data catalogues or inventories under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Contribute to the development or implementation of specific components of the data strategy, such as data quality rules or master data management processes within their domain. ▶ Apply data governance policies and standards consistently in their projects or activities. ▶ Analyse data requirements for specific business initiatives to ensure alignment with strategic data principles.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop specific data strategies or roadmaps for key business units, functions, or data domains (e.g., customer data, product data). ▶ Define and oversee the implementation of data governance policies, standards, and stewardship roles within their area. ▶ Champion data literacy and promotes the value of data assets within their scope of influence.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Lead the development, articulation, and promotion of the enterprise-wide data strategy and vision. ▶ Establish the overall data governance framework, council, and operating model for the organisation. ▶ Align data strategy and investments with overarching business strategy and digital transformation goals.

Technical Competency	Data Visualisation
Competency Description	Implement contemporary techniques, dynamic visual displays with illustrative and interactive graphics to present patterns, trends, analytical insights from data or new concepts in a strategic manner for the intended audience.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Use a visualisation product, as guided, to design and create data visuals. ▶ Select appropriate visualisation techniques from the options available. ▶ Engage with the target user to prototype and refine specified visualisations.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Apply a variety of visualisation techniques and designs the content and appearance of data visuals. ▶ Operationalise and automate activities for efficient and timely production of data visuals. ▶ Select appropriate visualisation approaches from a range of applicable options. ▶ Contribute to exploration and experimentation in data visualisation.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Lead exploration of new approaches for data visualisation. ▶ Establish the purpose and parameters of the data visualisation. ▶ Provide overall control to ensure the appropriate use of data visualisation tools and techniques. ▶ Format and communicate results using textual, numeric, graphical and other visualisation methods appropriate to the target audience. ▶ Advise on the appropriate use of data visualisation for different purposes and contexts to satisfy requirements. ▶ Develop plans showing how the identified user needs will be met.

Technical Competency	Data Warehouse
Competency Description	Plan, establish and govern central and structured repository that collects and integrates data from multiple systems (e.g., ERP, CRM, HR, finance, apps) and stores it in a consistent format so it can be queried efficiently for reporting, dashboards, and analytics.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand what a data warehouse is and basic concepts (tables, schemas, ETL or ELT, reporting). ▶ Run predefined queries/reports and follows SOP for accessing and extracting data. ▶ Handle data responsibly (uses correct datasets, avoids sharing restricted data).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Build and maintains standard tables/views; writes reliable SQL for routine analytics needs. ▶ Support scheduled data loads and basic data quality checks (nulls, duplicates, row counts). ▶ Document datasets and resolves common issues (failed jobs, missing fields) with guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Design dimensional models (facts/dimensions) and implements ETL/ELT pipelines end-to-end. ▶ Implement data quality rules, lineage documentation, and performance optimisation (partitioning, indexing, clustering). ▶ Support stakeholders with curated datasets, semantic layers, and consistent KPI definitions.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Architect scalable warehouse solutions (ingestion patterns, modelling standards, orchestration, security). ▶ Establish governance: data catalogue, access controls, naming conventions, SLA/monitoring, cost management. ▶ Lead complex initiatives (migration, consolidation, real-time/near-real-time pipelines) and mentors team.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define enterprise data platform strategy (warehouse/lakehouse direction, tooling roadmap, operating model). ▶ Drive organisation-wide standardisation (master data, KPI governance, metadata strategy, compliance readiness). ▶ Ensure business value at scale: trusted single source of truth, measurable improvements in speed, quality, and decision-making.

Technical Competency	Database Administration
Competency Description	Knowledge and ability to apply the methods, practices and policies to ensure that databases are always available and in working condition.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Demonstrate basic understanding of database management, logical design concepts and levels of database security. ▷ Understand the difference between different database structures (e.g., relational vs. network). ▷ Comprehend database design (e.g., diagrams, schemas, models). ▷ Demonstrate basic understanding of data manipulation language (DML). ▷ Demonstrate an awareness of performance issues (e.g., distribution of data, size definitions).
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Understand a single database management system (DBMS), its components and how they relate to each other. ▷ Demonstrate a good knowledge of data manipulation language (DML) and data definition language (DDL). ▷ Code/test basic database access modules (e.g., stored procedures). ▷ Troubleshoot, at a basic level, to understand database problem and identify where to direct it (e.g., basic database accessibility). ▷ Recognise the importance of database basic recovery and, with guidance, perform backup and recovery. ▷ Understand database release management, applications business rules, data integrity issues, database security implementation, workload manager and interaction with DBMS. ▷ Perform data population, debugging and testing. ▷ Conduct basic impact analysis for database change management. ▷ Assist in database support activities.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Use database management system software and tools to collect agreed performance statistics. ▷ Carry out agreed database maintenance and administration tasks. ▷ Demonstrate working level understanding of single DBMS relevant operating systems, applications business rules and its dependencies with other applications, databases and/or business partners. ▷ Apply wide range of concepts to the corporate/vendor environment (e.g., database security and/or individual profiles). ▷ Make recommendations on logical/physical models (e.g., converts from logical model, implements, and maintains physical model to meet storage, availability, and performance requirements). ▷ Develop, code, test, and review complex database access modules. ▷ Solve problems that impact on the business or service, resolves data integrity issues and implements data integrity safeguards, and use diagnostic and monitoring tools to prevent problems/enhance performance and availability. ▷ Demonstrate a solid knowledge of system testing and integration environments. ▷ Develop, select, recommend, and implement strategies for backup and recovery, data population and migration. ▷ Conduct general impact analysis on database change.

Level 4 (Ensure)

- ▶ Use database management system software and tools, and knowledge of logical database schemata, to investigate problems and collect performance statistics and create reports.
- ▶ Carry out routine configuration, installation, and reconfiguration of database and related products.
- ▶ Develop and configure tools to enable automation of database administration tasks.
- ▶ Identify problems and issues and recommend corrective actions.

Level 5 (Strategise)

- ▶ Develop and maintain procedures and documentation for databases.
 - ▶ Identify, evaluate and manage the adoption of appropriate database administration tools and processes, including automation.
 - ▶ Contribute to the setting of standards for definition, security and integrity of database objects and ensures conformance to these standards.
 - ▶ Manage database configuration including installing and upgrading software and maintaining relevant documentation.
 - ▶ Monitor database activity and resource usage.
 - ▶ Optimise database performance and plans for forecast resource needs.
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Technical Competency	Database Management
Competency Description	Knowledge and ability to apply methods, practices and policy to plan, develop, manage databases and retrieval.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Demonstrate basic understanding of database management, logical design concepts and levels of database security. ▶ Understand the difference between different database structures (e.g, relational vs. network) ▶ Comprehend database design (e.g., diagrams, schemas, models). ▶ Demonstrate basic understanding of data manipulation language (DML). ▶ Demonstrate an awareness of performance issues (e.g., distribution of data, size definitions).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Understand a single database management system (DBMS), its components and how they relate to each other. ▶ Demonstrate a good knowledge of data manipulation language (DML) and data definition language (DDL). ▶ Code/test basic database access modules (e.g., stored procedures). ▶ Troubleshoot, at a basic level, to understand database problem and identify where to direct it (e.g., basic database accessibility). ▶ Recognise the importance of database basic recovery and, with guidance, perform backup and recovery. ▶ Understand database release management, applications business rules, data integrity issues, database security implementation, workload manager and interaction with DBMS. ▶ Perform data population, debugging and testing. ▶ Conduct basic impact analysis for database change management.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Demonstrate working level understanding of single DBMS relevant operating systems, applications business rules and its dependencies with other applications, databases and/or business partners. ▶ Apply wide range of concepts to the corporate/vendor environment (e.g., database security and/or individual profiles). ▶ Make recommendations on logical/physical models (e.g., converts from logical model, implements, and maintains physical model to meet storage, availability, and performance requirements). ▶ Develop, code, test, and review complex database access modules. ▶ Solve problems that impact on the business or service, resolves data integrity issues and implements data integrity safeguards, and use diagnostic and monitoring tools to prevent problems/enhance performance and availability. ▶ Demonstrate a solid knowledge of system testing and integration environments. ▶ Develop, select, recommend, and implement strategies for backup and recovery, data population and migration. ▶ Conduct general impact analysis on database change.

Level 4 (Ensure)

- ▶ Demonstrate broad understanding of multiple DBMS or an in-depth knowledge of one or more DBMS.
- ▶ Develop logical models incorporating business requirements such as high availability, redundancy, and disaster recovery into the logical/physical database design.
- ▶ Research, pilot, evaluate new technologies and standards, identify how they will integrate with the corporate network and recommend strategies.
- ▶ Solve unusual problems or problems with a significant impact on the business.
- ▶ Deal with major and/or multiple application groups.
- ▶ Create or review certification testing.
- ▶ Develop standards and procedures for implementing new database technology.
- ▶ Mentor people and provide input/guidance to cross-functional teams.

Level 5 (Strategise)

- ▶ Demonstrate expert knowledge of data management, data stewardship, government-wide data management initiatives and trends in data management and how they can be applied.
 - ▶ Hold an enterprise-wide view and/or is regarded as the subject matter expert in one or more areas of expertise and provide effective strategic direction to enterprise-wide data management.
 - ▶ Develop enterprise-wide multi-disciplinary architectural documents translating business data requirements into topographical format.
 - ▶ Demonstrate broad-based knowledge of information technology (e.g., programming, data management, platforms).
 - ▶ Develop business cases for enterprise-wide data management initiatives as a direct response to business drivers.
 - ▶ Guide and oversee multiple-concurrent data management projects.
 - ▶ Conduct procurement for data management solutions and related services.
 - ▶ Develop strategies, policy and standards for corporate data management and contributes to standards working groups and/or industry.
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Technical Competency	Design Thinking
Competency Description	Apply a human-centered, iterative approach to problem-solving and innovation, involving empathy, ideation, prototyping, and testing.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Participate actively and openly in Design Thinking activities (e.g., empathy interviews, brainstorming) when guided by a facilitator. ▶ Use basic Design Thinking tools or templates (e.g., empathy maps, idea cards) as instructed. ▶ Show willingness to consider user perspectives when discussing problems.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist facilitators in preparing materials and setting up logistics for Design Thinking workshops. ▶ Help synthesize research findings from empathy interviews or observations into themes or insights. ▶ Support the creation of simple prototypes (e.g., sketches, mock-ups) based on team ideas.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply core Design Thinking methods (e.g., persona creation, journey mapping, ‘How Might We’ questions, basic prototyping and testing) to tackle specific problems within a project. ▶ Conduct user research (interviews, observations) to gain empathy for user needs. ▶ Iterate on solutions based on user feedback gathered during testing.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Plan and facilitate end-to-end Design Thinking workshops or sprints for teams. ▶ Guide teams effectively through all phases: empathize, define, ideate, prototype, test. ▶ Ensure resulting solutions are genuinely user-centered, validated, and address the core problem definition. ▶ Coach team members on applying Design Thinking principles and methods.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop strategies for integrating Design Thinking methodologies into the organisation’s standard product development, service design, or problem-solving processes. ▶ Champion a human-centered design culture across the organisation. ▶ Train, mentor, and build a community of Design Thinking practitioners within the organisation.

Technical Competency	Digital Advertising Platforms
Competency Description	Plan, create, target, deliver, track, and optimise paid advertisements across digital channels (e.g., social media, search engines, display networks, video, and apps). They allow advertisers to reach specific audiences, manage budgets and bids, and measure performance using campaign data and conversion tracking.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand key platforms and terms (Meta Ads, Google Ads, LinkedIn; campaign/ad set/ad; Click-Through Rate CTR, Cost Per Click CPC). ▶ Support simple tasks using templates (upload creatives, update copy, basic targeting changes) under guidance. ▶ Follow compliance/brand rules and flags issues (rejected ads, wrong landing page, missing UTM).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Set up and manages standard campaigns (objective, audience, budget, placements, basic A/B tests). ▶ Implement tracking basics (pixel/tag, UTMs) and monitors performance against simple targets. ▶ Optimise routine levers (creative refresh, bid/budget adjustments, audience refinement) and reports results.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Design multi-campaign funnels (awareness → consideration → conversion) aligned to KPIs such as Marketing Qualified Lead (MQL), Sales Qualified Lead (SQL), Cost Per Acquisition (CPA), Return on Ad Spend (ROAS). ▶ Perform deeper optimisation (segmentation, retargeting, lookalikes, landing page alignment) based on data insights. ▶ Manage measurement integrity (conversion events, attribution assumptions) and troubleshoots tracking/performance issues.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Define platform strategy and operating standards (testing framework, naming conventions, QA, governance, SLAs). ▶ Lead advanced setups (conversion API/server-side, feed/catalogue ads, lead form automation, cross-channel orchestration). ▶ Coach team and manages agency/vendor performance; controls budget allocation and risk (policy, brand safety).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set enterprise paid media strategy and investment model (budget mix, incrementality, attribution approach, LTV). ▶ Drive scalable growth through experimentation and measurement maturity (Marketing Mix Modelling MMM, lift tests, audience strategy). ▶ Establish governance for compliance, privacy changes (cookie loss), and sustainable performance across markets.

Technical Competency	Digital Analytics
Competency Description	Collect, measure, analyse, and interpret data from digital channels (websites, apps, social media, email, and ads) to understand user behaviour and campaign performance, and to improve outcomes such as engagement, conversion, retention, and service adoption.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand common digital metrics (such as sessions, users, Click-through Rate CTR conversions) and basic tracking concepts. ▶ Use existing dashboards/reports to retrieve data and share simple observations. ▶ Follow SOP for tagging/UTM usage and flags obvious data issues (missing data, broken links).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Perform routine reports and explores data by channel/campaign/audience; explains basic trends. ▶ Apply consistent tagging (UTMs), validates tracking basics, and troubleshoots common reporting discrepancies. ▶ Produce actionable insights for day-to-day optimisation (content, ads, landing pages).
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Design measurement plans (KPIs, events, funnels) aligned to business objectives and user journeys. ▶ Perform deeper analysis (cohort, funnel drop-off, segmentation) and turns findings into clear recommendations. ▶ Manage data quality and consistency across tools (web/app analytics, CRM exports) with documented assumptions.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Establish analytics standards and governance (naming conventions, KPI definitions, QA gates, dashboard frameworks). ▶ Lead experimentation and optimisation (A/B testing design, hypothesis tracking, impact measurement). ▶ Integrate multi-source data (ads + web/app + CRM) to provide full-funnel performance insights and coach teams.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define enterprise digital measurement strategy (north-star metrics, multi-touch attribution approach, reporting operating model). ▶ Drive analytics maturity (automation, advanced modelling, decision systems) and ensures compliance/privacy readiness. ▶ Influence strategy using insights at scale (investment allocation, product/UX direction, growth roadmap).

Technical Competency	Digital Marketing Tools
Competency Description	Apply digital marketing tools to plan, create, execute, automate, track, and optimise marketing activities across digital channels (email, social media, websites, ads, and CRM).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand common tools and purposes (email platform, social scheduler, CRM spreadsheet, design tools, landing forms). ▶ Perform basic tasks using templates/SOP (send draft email, schedule post, update contact list) with review. ▶ Follow data hygiene and brand rules; flags errors (wrong link, duplicate contacts, missing UTM).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Independently use key tools to execute routine campaigns (email blasts, social scheduling, simple automation, lead capture forms). ▶ Apply tagging and tracking basics (UTM, segments, lists) and maintains clean databases (dedupe, naming conventions). ▶ Troubleshoot common issues (deliverability basics, broken forms, permission/access) and documents changes.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Build end-to-end campaign workflows across tools (ads/email/social/forms/CRM) with consistent tracking and reporting. ▶ Set up automation/journeys (welcome series, follow-up sequences, lead routing) and improves performance using data. ▶ Standardise templates, segments, and processes to reduce rework and improve lead quality.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design the marketing tech stack usage model (tool roles, integration approach, governance, QA, SLAs). ▶ Lead complex implementations (multi-step automation, integrations via API/Zapier, lead scoring rules, dashboarding). ▶ Coach team and enforces standards (data policy, access control, naming conventions, compliance).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define enterprise martech strategy and roadmap (capability gaps, build/buy decisions, scalability and cost control). ▶ Establish measurement and governance framework across tools (single source of truth, attribution alignment, audit readiness). ▶ Drive organisation-wide adoption and continuous optimisation (process maturity, automation, performance uplift).

Technical Competency	Disaster Recovery Management (DRM)
Competency Description	Plan, implement, test, and maintain procedures and technologies to recover IT systems and infrastructure following a disaster event.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow documented IT disaster recovery procedures accurately during tests or actual declared incidents relevant to their role. ▶ Know how to access specific DR plans and contact lists applicable to their systems or tasks. ▶ Report status or issues during DR activities as instructed.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in updating technical documentation within DR plans (e.g., configuration details, recovery steps). ▶ Help execute specific predefined tasks during DR tests under supervision (e.g., verifying data replication, starting specific services). ▶ Support the maintenance of DR site inventory or contact lists.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop or maintain DR plans and detailed recovery procedures for specific applications or infrastructure components. ▶ Participate actively in DR tests, executes assigned recovery tasks, identifies issues, and documents results. ▶ Implement and manage backup and recovery solutions according to DR requirements (RPO/RT0).
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the overall IT disaster recovery program for a significant part of the organisation or specific critical services. ▶ Design DR solutions and architectures to meet defined Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO). ▶ Plan, coordinate, and oversee comprehensive DR tests, analysing results and driving remediation actions.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and gain approval for the organisation's overall IT DR strategy, policy, and governance framework, aligning it with Business Continuity Management. ▶ Determine DR investment priorities based on business impact analysis and risk appetite. ▶ Direct major IT recovery efforts during a significant disaster event.

Technical Competency	Embedded System Interface
Competency Description	Design, develop, test, and integrate software and hardware components that allow embedded systems to communicate with other systems, sensors, actuators, or users.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow instructions to perform basic tests of predefined interface functions on an embedded system (e.g., checking sensor readings, activating an output). ▶ Use standard tools or scripts for simple interface configuration tasks under supervision. ▶ Report test results accurately using specified formats.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist engineers in writing or modifying simple interface driver code based on examples or specifications. ▶ Help document interface protocols or Application Programming Interfaces (APIs) using standard templates. ▶ Perform unit testing of specific interface modules under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop and test software interfaces (e.g., drivers for sensors/actuators, communication protocol handlers) for embedded systems based on defined specifications. ▶ Debug common interface issues (e.g., timing problems, data corruption) using appropriate tools (e.g., oscilloscopes, logic analyzers, debuggers). ▶ Integrate developed interface modules with the main embedded application software.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design robust and efficient interface architectures for complex embedded systems, considering hardware limitations, real-time constraints, and communication protocols (e.g., I2C, SPI, UART, CAN, Ethernet). ▶ Select appropriate hardware components and communication protocols for interface requirements. ▶ Lead the development, integration, and testing efforts for critical system interfaces.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define the overall strategy, standards, and reusable patterns for interfaces across a portfolio of embedded systems products. ▶ Evaluate and select emerging interface technologies or communication standards for future products. ▶ Make key architectural decisions regarding system interoperability and interface design philosophy.

Technical Competency	Emerging Technology Synthesis
Competency Description	Explore the development of ICT technology across multi-sector. Review and conduct research on emerging technologies that correlate to industry technology adoption. Evaluate the usage of the multiple emerging technologies and the benefits to be gained in terms of cost, process and productivity improvement.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Support monitoring of the external environment and assessment of emerging technologies. ▷ Contribute to the creation of reports, technology road mapping and the sharing of knowledge and insights.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Evaluate new and emerging technologies and trends against the organisational needs and processes. ▷ Monitor the external environment to gather intelligence on emerging technologies. ▷ Assess and document the impacts, threats and opportunities to the organisation. ▷ Create reports and technology roadmaps and shares knowledge and insights with others.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Plan and lead the identification and assessment of emerging technologies and the evaluation of potential impacts, threats and opportunities. ▷ Create technology roadmaps that align organisational plans with emerging technology solutions. ▷ Engage with and influence relevant stakeholders to obtain organisational commitment to technology roadmaps. ▷ Develop organisational guidelines for monitoring emerging technologies. ▷ Collaborate with internal and external parties to facilitate intelligence gathering.

Technical Competency	Enterprise Architecture (EA)
Competency Description	Define the structure and operation of an organisation's processes, information systems, personnel, and technology, and aligning them with strategic goals.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow established EA principles and modelling standards when documenting specific systems or processes they work with. ▶ Use EA repository tools according to instructions to find or input basic architectural information. ▶ Understand the purpose of EA within the organisation at a high level.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist enterprise architects by collecting and organizing information about existing applications, technologies, or business processes. ▶ Help create or update simple architectural diagrams (e.g., context diagrams, basic component diagrams) using standard templates and tools. ▶ Support the maintenance of the EA repository by entering or validating data under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop specific architectural views (e.g., application interaction diagrams, technology component models) for projects or systems within a defined scope. ▶ Assess proposed solutions for alignment with relevant EA standards, reference models, and patterns. ▶ Document architectural decisions and designs according to EA guidelines.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Lead the definition of solution architectures for significant projects, ensuring they are robust, scalable, secure, and aligned with overall EA strategy. ▶ Develop and maintain domain-specific architectures (e.g., business capability maps, application integration patterns, technology roadmaps). ▶ Conduct architecture reviews and provides guidance to project teams to ensure compliance with EA standards.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop, maintain, and govern the organisation's overall enterprise architecture framework, methodology, principles, and standards. ▶ Create and communicate the future-state EA vision and strategic technology roadmaps. ▶ Advise senior leadership on technology strategy, investment decisions, and the architectural implications of business initiatives.

Technical Competency	Fault Management
Competency Description	The process of finding, isolating and troubleshooting network faults in the fastest way possible. It minimises downtime and prevents device failures by resolving faults rapidly, thereby ensuring optimal network availability and preventing business losses. Monitor network from Network Operations Centre (NOC) location and undertaking configuration changes, upgrades and node back-up activities.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Ensure continuous monitoring of network alarms on the Network Monitoring System (NMS). ▷ Ensure monitoring of threshold levels to prevent occurrence of faults. ▷ Ensure tickets are raised for all alarms as per the priority matrix. ▷ Coordinate with the Infra NOC to verify if alarm was caused by fault with passive infrastructure sites. ▷ Follow agreed procedures to identify, register and categorise incidents. ▷ Gather information to enable incident resolution and allocate incidents as appropriate.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Provide first line investigation and gather information to enable incident resolution and allocate incidents. ▷ Determine alarm severity, priority, Service Level Agreements (SLAs) and the affected network elements. ▷ Conduct diagnose from NOC location to identify root cause of fault. ▷ Isolate the cause of fault by conducting appropriate diagnostic test like remotely interrogating the active equipment. ▷ Determine the options to rectify the fault and confirm with supervisors if required. ▷ Advise relevant persons of actions taken.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Able to maintain network uptime by ensuring coordination with field team. ▷ Able to direct and coordinate with the field team to carry out corrective/change activities on site. ▷ Ensure clear and concise instructions are given to field staff to facilitate fault rectification efforts. ▷ Ensure rectification of network problem/ fault within the alarm SLAs and monitor the activities performed by the Infra engineer and technicians. ▷ Able to upgrade configurations and perform backups.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Ensure that fault incidents are handled according to agreed procedures. ▷ Prioritise and diagnose incidents. Investigate causes of incidents and seeks resolution. Escalate unresolved incidents. ▷ Facilitate recovery, following resolution of incidents. Documents and close resolved incidents. ▷ Contribute to testing and improving incident management procedures. ▷ Ensure periodic updates to the SOPs to ensure repeat faults are corrected promptly.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Analyse performance reports and identify instances of deteriorating performance sites. ▷ Develop, maintain and test incident management procedures in agreement with service owners. ▷ Investigate escalated, non-routine and high-impact incidents to responsible service owners and seek resolution. ▷ Facilitate recovery, following resolution of incidents. Ensure that resolved incidents are properly documented and closed. ▷ Analyse causes of incidents, and inform service owners to minimise probability of recurrence, and contribute to service improvement. Analyse metrics and reports on the performance of the incident management process.

Technical Competency	Information Security Management
Competency Description	Knowledge and ability to ensure there are adequate technical and organisational safeguards to protect the continuity of IT infrastructure services by the implementation of IT security principles, methods, practices, policies and tools that are used in securing IT resources including information and operations security, physical security, business continuity/disaster recovery planning, methods to deal with security breaches and security assessment in a technical environment.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Demonstrate awareness of security requirements. ▷ Demonstrate awareness of certification policies. ▷ Demonstrate awareness of privacy requirements and standards. ▷ Understand concepts of IT security and its application to computer systems architecture.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Execute security test plans. ▷ Deal with low impact threats. ▷ Act to protect integrity of system data at operation level (e.g., single key incident). ▷ Perform security certifications. ▷ Provide advice on disaster recovery planning. ▷ Participate in disaster recovery tests. ▷ Recommend security safeguards. ▷ Execute standards.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Demonstrate a broad understanding or very detailed area of expertise in security subject(s). ▷ Demonstrate a broad knowledge of security policies and interprets policies. ▷ Understand a specific security application or tool and how it works. ▷ Conduct risk assessments. ▷ Assess security safeguards. ▷ Deal with threats and serious incidents. ▷ Deal with intrusions at a high threat level.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Demonstrate an expert understanding or very detailed area of expertise in multiple security subject(s). ▷ Demonstrate expert knowledge of law, regulation, and policies, and interpret policies and standards. ▷ Expert in multiple security applications and tools. ▷ Lead risk and security safeguards assessments. ▷ Mitigate threats and serious security incidents at the enterprise level. ▷ Consult on security issues and recommend corporate strategies. ▷ Lead the development of enterprise policies and standards. ▷ Direct employees and consultants and provide mentorship to others.

Technical Competency	Infrastructure Design
Competency Description	Establish design policies and principles covering elements of connectivity, capacity, security, access, interfacing as well as the translation of that into the specifications, outline and design of IT infrastructure within the organisation, in order to support the business requirements.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Translate a broader infrastructure blueprint into technical specifications and develop prototypes for simple infrastructure components.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Define and deliver technical and conceptual visualisation of IT infrastructure components and features.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Project infrastructure requirements and define IT infrastructure design policies and principles, evaluating the viability and managing the impact of design options.

Technical Competency	Infrastructure Management (Network Engineer & Network Team Lead)
Competency Description	Knowledge and ability to support the enterprise computing infrastructure (e.g., enterprise servers, client server, storage devices and systems, hardware, and software) in the provision, management, storage, operation, scheduling, support, and maintenance of the infrastructure.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Demonstrate awareness of the platform principles and procedures. ▷ Understand the need for capacity planning and performance management. ▷ Operate the platform at a simple level under supervision. ▷ Demonstrate awareness of the standards for the platform.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Understand the platform technology and concepts. ▷ Understand how basic concepts relate to each other and apply them. ▷ Understand how the platform integrates with other environments, at a basic level, from an end-user perspective. ▷ Operate the platform at a simple level. ▷ Troubleshoot basic physical or software problems. ▷ Understand and apply the standards.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Understand how the platform integrates with other environments (e.g., network). ▷ Participate in day-to-day operations (e.g., monitoring operations of the platform). ▷ Use performance data collection tools and techniques. ▷ Install software and hardware on the platform. ▷ Solve routine problems. ▷ Solve typical hardware and software problems. ▷ Use diagnostic tools to solve complex problems. ▷ Execute standards.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Demonstrate in-depth knowledge of an area of expertise. ▷ Contribute to high-level architecture. ▷ Evaluate/pilot new technologies, assess the results, identify how they integrate with the platform and implement them. ▷ Carry out performance measurement and capacity planning. ▷ Incorporate business requirements such as high availability, redundancy, and disaster recovery into platform design. ▷ Resolve complex problems. ▷ Develop and monitor/enforce standards and procedures for new technology configuration and implementation. ▷ Mentor/guide individuals and cross-functional teams.

Level 5 (Strategise)

- ▶ Demonstrate expert knowledge of platform principles, technology, government-wide technology initiatives and technological trends.
 - ▶ Demonstrate an intimate knowledge of the environment, interdependencies, and impact of change.
 - ▶ Provide effective strategic direction to enterprise-wide platform design and initiatives.
 - ▶ Develop enterprise-wide multi-disciplinary architectural and design documents.
 - ▶ Resolve very complex problems and recommend capacity and performance improvements.
 - ▶ Conduct procurement for platform hardware and services.
 - ▶ Set standards and technology direction for the platform.
 - ▶ Lead the development of people in the infrastructure domain.
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Technical Competency	Infrastructure Management (IT Technician)
Competency Description	Knowledge and ability to support the enterprise computing infrastructure (e.g., enterprise servers, client server, storage devices and systems, hardware, and software) in the provision, management, storage, operation, scheduling, support, and maintenance of the infrastructure.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Demonstrate awareness of the platform principles and procedures. ▷ Understand need for capacity planning and performance management. ▷ Operate the platform at a simple level under supervision. ▷ Demonstrate awareness of the standards for the platform.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Understand the platform technology and concepts. ▷ Understand how basic concepts relate to each other and apply them. ▷ Understand how the platform integrates with other environments, at a basic level, from an end-user perspective. ▷ Operate the platform at a simple level. ▷ Troubleshoot basic physical or software problems. ▷ Understand and apply the standards.
Level 3 (Apply)	N/A
Level 4 (Ensure)	N/A
Level 5 (Strategise)	N/A

Technical Competency	Infrastructure Management (Systems Engineer)
Competency Description	Knowledge and ability to support the enterprise computing infrastructure (e.g., enterprise servers, client server, storage devices and systems, hardware, and software) in the provision, management, storage, operation, scheduling, support, and maintenance of the infrastructure.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Understand the platform technology and concepts. ▷ Understand how basic concepts relate to each other and apply them. ▷ Understand how the platform integrates with other environments, at a basic level, from an end-user perspective. ▷ Operate the platform at a simple level. ▷ Troubleshoot basic physical or software problems. ▷ Understand and apply the standards.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Understand how the platform integrates with other environments (e.g., network). ▷ Participate in day-to-day operations (e.g., monitoring operations of the platform). ▷ Use performance data collection tools and techniques. ▷ Install software and hardware on the platform. ▷ Solve routine problems. ▷ Solve typical hardware and software problems. ▷ Use diagnostic tools to solve complex problems. ▷ Execute standards.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Demonstrate in-depth knowledge of an area of expertise. ▷ Contribute to high-level architecture. ▷ Evaluate/pilot new technologies, assess the results, identify how they integrate with the platform and implement them. ▷ Carry out performance measurement and capacity planning. ▷ Incorporate business requirements such as high availability, redundancy, and disaster recovery into platform design. ▷ Resolve complex problems. ▷ Develop and monitor/enforce standards and procedures for new technology configuration and implementation. ▷ Mentor/guide individuals and cross-functional teams.
Level 5 (Strategise)	▷ Establish an integration strategy and a clear vision for an integrated ICT architectural design.

Technical Competency	Infrastructure Strategy
Competency Description	Plan long-term direction and evolution of the organisation's IT infrastructure (hardware, software, networks, facilities) to support current and future business needs.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand the basic components (servers, network, storage) of the organisation's current infrastructure. ▶ Follow guidelines and best practices related to the efficient use of infrastructure resources. ▶ Aware of the high-level infrastructure goals relevant to their area.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in gathering data on current infrastructure utilization, performance metrics, or operational costs to inform strategic planning. ▶ Help document existing infrastructure components or configurations as input for strategy development. ▶ Support research on specific infrastructure technologies under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Contribute analysis and recommendations for infrastructure plans related to specific technologies or platforms (e.g., server virtualization, network upgrades). ▶ Evaluate technical requirements from projects and assesses potential infrastructure impacts or options based on current strategy. ▶ Analyse trends in specific infrastructure areas (e.g., storage growth, network traffic patterns).
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop detailed infrastructure strategies and multi-year roadmaps for specific domains (e.g., cloud adoption, data centre consolidation, network modernisation). ▶ Ensure proposed infrastructure strategies align with enterprise architecture, security policies, and overall business objectives. ▶ Assess the business case, risks, and benefits of adopting new infrastructure technologies or approaches.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define, communicate, and drive the overall IT infrastructure vision, strategy, and principles for the entire organisation. ▶ Align infrastructure investments and major architectural decisions (e.g., cloud-first policy, hybrid models) with long-term business strategy and financial goals. ▶ Anticipate future business needs and technological shifts to ensure infrastructure scalability, resilience, and cost-effectiveness.

Technical Competency	Infrastructure Strategy, Development and Support
Competency Description	Encompass the entire lifecycle of IT infrastructure, from strategic planning and design, through implementation and rollout, to ongoing operational support and maintenance. (Broader scope).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow procedures for basic infrastructure support tasks (e.g., password resets) and simple deployment steps (e.g., installing approved software). ▶ Understand how their tasks fit within the broader infrastructure lifecycle (strategy, deploy, support). ▶ Use infrastructure components according to established policies.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in deploying standard infrastructure components (e.g., PCs, basic servers) following detailed instructions and checklists. ▶ Help perform routine monitoring and maintenance tasks as part of infrastructure support. ▶ Contribute data on operational issues or deployment activities to inform strategic reviews, under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Deploy, configure, and provide ongoing operational support for specific infrastructure components or systems (e.g., virtual machines, specific network segments). ▶ Participate in planning and execution of smaller infrastructure changes or upgrades, ensuring alignment with strategic direction. ▶ Troubleshoot common operational issues within their assigned infrastructure area.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the end-to-end lifecycle (strategy contribution, deployment oversight, operational management) for a significant infrastructure domain (e.g., enterprise storage, messaging systems). ▶ Ensure operational stability, performance, and security of the managed infrastructure. ▶ Provide significant input into the strategic planning process based on operational insights and technological advancements.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and oversee the integrated strategy covering the entire lifecycle for the organisation's IT infrastructure. ▶ Ensure seamless transitions and feedback loops between strategy, deployment, and support phases. ▶ Make strategic decisions on sourcing models, technology standards, and investment priorities across the infrastructure lifecycle to optimize value and alignment with business goals.

Technical Competency	Infrastructure Support
Competency Description	Provide operational support, maintenance, and troubleshooting for IT infrastructure components (hardware, software, networks) to ensure availability and performance.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow Standard Operating Procedures (SOPs) precisely to perform routine checks (e.g., backup logs, system health). ▶ Respond to basic, well-defined alerts from monitoring systems according to instructions. ▶ Escalate unresolved issues promptly to the correct team using defined procedures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist senior staff in troubleshooting common infrastructure incidents by gathering diagnostic information and performing directed actions. ▶ Perform basic, supervised maintenance tasks such as applying standard patches or replacing faulty components (e.g., hard drives). ▶ Accurately documents support activities and incident details in ticketing systems.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Provide independent technical support for specific infrastructure components (e.g., servers, operating systems, network devices). ▶ Diagnose and resolve common incidents and problems using standard troubleshooting techniques and tools. ▶ Perform routine system administration tasks (e.g., user account management, permissions configuration, performance monitoring).
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the operational support function for a critical infrastructure area or technology stack. ▶ Lead the resolution of complex or major incidents, performing root cause analysis to prevent recurrence. ▶ Plan and execute preventative maintenance schedules and system upgrades to ensure stability and performance. ▶ Mentor junior support staff.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the overall strategy and operating model for infrastructure support within the organisation. ▶ Define support processes, Service Level Agreements (SLAs), and key performance indicators (KPIs) for infrastructure operations. ▶ Oversee major incident management processes and plans for infrastructure resilience and continuous improvement based on operational data.

**Updated for Phase 3A (2026)*

Technical Competency	Integrated Marketing
Competency Description	Coordinate various marketing communication channels and tools (e.g., advertising, PR, digital, events) to deliver a consistent, unified message and achieve marketing objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow specific instructions to ensure consistency in applying key messages or brand elements across simple assigned tasks (e.g., formatting an email signature, using correct logo on a flyer). ▶ Understand the core message of a campaign they are supporting with basic tasks. ▶ Use project management tools to track completion of assigned low-level campaign tasks.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist campaign managers in coordinating logistical tasks across different marketing channels (e.g., booking ad space, compiling mailing lists, scheduling social media posts). ▶ Help gather performance data (e.g., website clicks, social media engagement) from various channels into a consolidated report. ▶ Support the maintenance of integrated campaign calendars and timelines.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Implement specific parts of an integrated marketing campaign across one or more assigned channels (e.g., managing the social media component, coordinating email marketing). ▶ Ensure messaging and branding are consistent across their assigned channels and align with the overall campaign plan. ▶ Monitor and report on the performance of their assigned channels against campaign goals.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop and manage integrated marketing campaigns, selecting the appropriate mix of channels to reach target audiences effectively. ▶ Ensure synergy and consistent messaging across all campaign elements (paid, owned, earned media). ▶ Measure overall campaign effectiveness against defined objectives and KPIs, optimizing based on results.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall strategic approach to integrated marketing communications. ▶ Determine the optimal allocation of marketing budget and resources across various channels based on strategic goals and audience insights. ▶ Ensure alignment of all integrated marketing efforts with the overarching brand strategy and business objectives.

Technical Competency	Intelligent Reasoning
Competency Description	Design and build intelligent machine reasoning systems that can integrate, make sense of, and act upon heterogeneous sensory information sources, using domain knowledge accumulated in respective industries
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	N/A
Level 4 (Ensure)	▶ Build knowledge-based intelligent software applications using machine reasoning techniques and computer programming.
Level 5 (Strategise)	▶ Evaluate, design and build intelligent software systems.

Technical Competency	IT Architecture
Competency Description	Knowledge and ability to apply architecture theories, principles, concepts, practices, methodologies, and frameworks.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Possess basic understanding of architecture principles. ▷ Read and understand architecture specifications and models. ▷ Distinguish between different architecture domains.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Create basic models based upon specifications. ▷ Define key terms and concepts.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Focus on a single area of expertise. ▷ Produce analytic and candidate design models to be used for further analysis (e.g., telecommunications, networks). ▷ Demonstrate awareness of other architectures. ▷ Validate models created by projects and/or junior staff. ▷ Sign off functional models.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Demonstrate good understanding of architecture across the business lines and how they interact but focus on a single architecture. ▷ Produce frameworks for a single architecture. ▷ Assess new requirements and make design recommendations. ▷ Sign off architecture models. ▷ Manage transformations. ▷ Define metadata models and information models. ▷ Monitor standards.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Understand how architecture relates to the organisation's vision, how new business fits in the current business lines, the integration of business and technology, and relate government priorities to target architectures. ▷ Build corporate data model. ▷ Deliver and sign off frameworks for architectures and integration models. ▷ Recommend priorities for business based upon the architecture. ▷ Understand and apply standards (e.g., International Organization for Standardization (ISO), Quality standards). ▷ Address governance issues. ▷ Define metadata models at the enterprise level, information models and the interoperability model. ▷ Extend the body of knowledge and contribute to government standards.

Technical Competency	IT Asset Management
Competency Description	Manage, optimise and protect the organisation's IT assets. This includes the timely purchase, deployment, categorisation, maintenance and phase out of IT assets within the organisation in a way that optimises business value. Also includes development and implementation of procedures to guide the proper handling, usage and storage of IT assets to limit potential business or legal risks.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Procure and categorise IT assets across different life cycle stages, and monitor IT asset levels regularly. ▶ Use agreed procedures to create and maintain an accurate register of assets. ▶ Perform activities related to the administration of assets. ▶ Produce routine reports to assist asset management activities and decision-making.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Determine the IT assets to be procured and guidelines for proper handling, storage and maintenance, and manage the phase-in and phase-out of IT assets. ▶ Apply tools, techniques and processes to create and maintain an accurate asset register. ▶ Produce reports and analysis to support asset management activities and aid decision-making. ▶ Control assets in one or more significant areas ensuring that administration of full life cycle of assets is carried out. ▶ Produce and analyse registers and histories of authorised assets and verify that all these assets are in a known state and location. ▶ Act to highlight and resolve potential instances of unauthorised assets.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Integrate understanding of future IT asset requirements and policy changes to define an asset management plan that optimises business value and minimise risk. ▶ Manage and maintain the service compliance of IT and service assets in line with business and regulatory requirements. ▶ Identify, assess and communicate associated risks. ▶ Ensure asset controllers, infrastructure teams and the business co-ordinate and optimise value, maintain control and maintain appropriate legal compliance.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set the strategy for asset management across the organisation. ▶ Communicate the policy, governance, scope, and roles involved in asset management. ▶ Promote awareness of and commitment to the role of asset management in the continuing economic and effective provision of services. ▶ Provide information and advice on complex asset management issues. ▶ Initiate impact assessment arising from decisions to obtain, change or continue the possession or use of an asset, system or service.

Technical Competency	IT Governance
Competency Description	Establish and maintain a framework of processes, structures, and relational mechanisms to ensure that IT sustains and extends the organisation's strategies and objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Consistently follow established IT policies, procedures, and standards in their daily work. ▶ Understand the basic principles of IT governance (e.g., security awareness, acceptable use) relevant to their role. ▶ Complete required compliance training related to IT policies.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in collecting data or evidence required for IT governance reporting or audits under guidance. ▶ Help maintain documentation related to IT policies, standards, or control procedures. ▶ Support the logistics of governance meetings (e.g., scheduling, taking minutes).
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply relevant IT governance framework elements (e.g., specific controls from COBIT, ITIL processes like Change Management) within their area of responsibility. ▶ Monitor compliance with specific IT policies and controls related to their work. ▶ Participate in IT risk assessments or control self-assessments for their domain.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Implement, manage, and monitor specific IT governance processes (e.g., IT risk management, IT compliance management, vendor governance) within a defined scope. ▶ Ensure IT activities and projects within their area align with the overall IT governance framework and policies. ▶ Report on governance effectiveness, risks, and compliance status for their domain to relevant committees or management.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Design, develop, implement, and oversee the organisation-wide IT governance framework, policies, structures (e.g., committees), and processes. ▶ Ensure IT strategy, investments, and operations align with business strategy and objectives through governance mechanisms. ▶ Advise senior leadership and the board on IT governance matters, including IT-related risks and value delivery.

Technical Competency	IT Project Management
Competency Description	Knowledge and ability to apply formal project management principles and practices during the planning, implementation, monitoring and completion of projects, ensuring effective management of scope, resources, time, cost, quality, risk, and communications.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Demonstrate awareness of the platform principles and procedures. ▷ Understand need for capacity planning and system performance management. ▷ Operate platform at a simple level under supervision. ▷ Demonstrate awareness of the standards for the platform.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Understand the platform technology and concepts. ▷ Understand how basic platform concepts relate to each other and apply them. ▷ Understand how the platform integrates with other environments, at a basic level, from an end-user perspective. ▷ Operate the platform at a simple level. ▷ Troubleshoot basic physical or software problems. ▷ Understand and apply the standards.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Manage a complete multi-stage project in own area. ▷ Identify, allocate and manage resources needed to meet project objectives. ▷ Develop and manage the project plan, including timelines, deliverables, milestones, and costs. ▷ Identify potential roadblocks and risks and develop contingency plans to deal with them. ▷ Oversee implementation of the project plan, monitor progress, resource usage and quality, and make needed adjustments.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Manage complex, multifaceted/interrelated IT projects that span own area or department boundaries. ▷ Conduct comprehensive risk assessment and develop plans for eliminating and mitigating the risks identified. ▷ Mentor other project managers. ▷ Understand the impact of the project on the department. ▷ Develop complex plans (e.g., with interdependencies or cross-department). ▷ Articulate project implementation standards.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Oversee/manage large, highly complex, diverse or strategic projects that impact the organisation as a whole. ▷ Develop departmental policies and standards. ▷ Market project management principles and benefits across the department. ▷ Set/evolve the vision of how project management should be done. ▷ Change project management practices. ▷ Know multiple project management disciplines.

Technical Competency	IT Standards
Competency Description	Define, implement, and enforce agreed-upon rules, specifications, or guidelines for IT systems, processes, data, or components to ensure quality, compatibility, and efficiency.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Consistently follow documented IT standards applicable to their tasks (e.g., coding conventions, naming conventions, standard hardware configurations). ▶ Use approved tools and technologies according to established standards. ▶ Identify and report obvious deviations from standards encountered in their work.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in documenting new or updated IT standards based on input from senior technical staff or architects. ▶ Help perform checks on specific deliverables (e.g., code modules, design documents) for compliance with established standards, using checklists. ▶ Support the maintenance of a central repository for IT standards documentation.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply relevant IT standards rigorously and consistently throughout their work (e.g., development, system configuration, documentation). ▶ Provide constructive feedback on the clarity and applicability of existing standards based on practical experience. ▶ May contribute to the review and refinement process for specific standards within their area of expertise.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the implementation, communication, and enforcement of specific IT standards within a project, team, or technology domain. ▶ Develop new or updates existing standards based on industry best practices, technological advancements, and organisational requirements. ▶ Conduct reviews or audits to ensure adherence to standards and address non-compliance issues.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall strategy and governance framework for defining, managing, and evolving IT standards. ▶ Determine which international, industry, or internal standards should be adopted across the enterprise. ▶ Oversee the lifecycle management (creation, review, retirement) of all IT standards, ensuring they support strategic goals like interoperability, security, and efficiency.

Technical Competency	IT Strategy
Competency Description	Define the long-term vision, goals, principles, and roadmap for how IT will support and enable the organisation's overall business strategy.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand the key elements of the current IT strategy that directly impact their role or team. ▶ Perform tasks in a way that aligns with the stated IT goals (e.g., using preferred technologies, following security guidelines). ▶ Aware of major IT initiatives derived from the strategy.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in gathering information (e.g., current system inventories, business requirements, technology trends) to support the IT strategy development process. ▶ Help document specific sections of the IT strategic plan or roadmap under the direction of senior strategists. ▶ Support the tracking of progress against strategic IT initiatives.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Contribute analysis and recommendations for IT plans within their specific technical or functional domain, ensuring alignment with the overarching IT strategy. ▶ Analyse relevant technology trends and assesses their potential impact or applicability to the organisation based on strategic goals. ▶ Provide input into the IT budgeting process for initiatives related to their area, linking requests to strategic objectives.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop specific IT strategies and multi-year roadmaps for key business units, functions, or technology domains (e.g., digital workplace strategy, cloud migration strategy). ▶ Ensure clear alignment and traceability between proposed IT initiatives, defined IT strategic goals, and overall business objectives. ▶ Effectively communicates relevant aspects of the IT strategy to stakeholders within their area of responsibility.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Lead the collaborative process of developing, articulating, refining, and communicating the enterprise-wide IT strategy and vision. ▶ Ensure the IT strategy directly enables and supports the achievement of the organisation's core business strategy and transformation goals. ▶ Advise executive leadership and the board on strategic technology investments, digital opportunities, and IT-related risks.

Technical Competency	Machine Learning
Competency Description	Develop systems that learn through experience and by the use of data.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply existing machine learning techniques to new problems and datasets. ▶ Evaluate the outcomes and performance of machine learning systems. ▶ Identify issues and recommend improvements to machine learning systems and the data they use.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Given a well-described problem and dataset, assess whether machine learning is likely to provide an effective solution. ▶ Implement algorithms developed by others. ▶ Advise on the effectiveness of specific techniques, based on project findings and wider research. ▶ Contribute to the development, evaluation, monitoring and deployment of machine learning systems. ▶ Understand and apply rules and guidelines specific to the industry, and anticipate risks and other implications of modelling. ▶ Design, implement, test and improve machine learning architectures and systems. ▶ Select techniques based on a breadth of knowledge of the strengths, weaknesses and expected performance of different approaches. ▶ Establish good practice in the development, evaluation, monitoring and deployment of machine learning systems.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Lead the development of new approaches and organisational capabilities to design, train, and evaluate machine learning systems. ▶ Set standards and guidelines for the application and traceability of machine learning systems to business problems, and oversees their implementation. ▶ Design and oversee organisational policies on the creation, training and use of machine learning systems.

Technical Competency	Market Evaluation / Market Intelligence
Competency Description	The research, analysis and stimulation of potential or existing markets for IT and related products and services, both to provide a sound basis for business development and to generate a satisfactory flow of customer enquiries.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Collect and monitor results of marketing activities. ▷ Assist in market research and data collection providing summary reports of their findings. ▷ Understand the basic principles of marketing and tools used by the organisation for planning, implementing and monitoring marketing activities.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Leverage on market research materials, customer and employee insights and other sources, to identify industry trends, needs and opportunities. ▷ Select and use marketing tools appropriate to the allocated assignment. ▷ Conduct market research. ▷ Maintain relevant information, including lessons learned from previous campaigns, and effectiveness measures for current and previous activities. ▷ Contribute to marketing plans, identifying and articulating unique selling points and key messages for marketing material. ▷ Present and communicate at marketing events.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Plan and conduct market research to investigate and understand customer and competitor dynamics. ▷ Use appropriate channels and tools to engage with the desired audience. ▷ Use research and lessons learned to inform marketing plans. ▷ Create unique selling points and key messages for marketing material. ▷ Make creative use of elements relevant to both digital and traditional environments, and drafts appropriate support materials. ▷ Analyse the effectiveness of campaigns and services, and their impact on audience behaviour and business outcomes. ▷ Organise and participate actively in marketing events.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Manage and monitor market research, analysis and the marketing planning process. ▷ Devise and manage marketing campaigns within specified budgets to meet specified objectives. ▷ Advise on brand management and promotion of corporate reputation. ▷ Play an active role in promoting engagement of staff and business partners. ▷ Produce marketing materials and stage events. ▷ Find innovative solutions to marketing problems. ▷ Use experience and data to make recommendations to senior management. ▷ Review and report on the effectiveness of marketing approaches and services and their impact on business outcomes. ▷ Provide oversight of all marketing plans and direct the marketing planning process.

Technical Competency	Market Research
Competency Description	Extract useful business insights, plan and conduct marketing and digital research and analysis to uncover market, customer and competitor trends. This also includes assessing the effectiveness of marketing activities and developing ways of optimising marketing efforts.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Analyse product performance, market trends and marketing effectiveness, conduct research and collect data on customers and competitors to support. ▶ Use the organisation's information systems and external customer and market information sources to develop customer, service and market insights.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Market competitor and client research activities, plan and analyse trends and dynamics through collected data. ▶ Understand the range of metrics used to measure value and effectiveness. Use analytics and tailored research to review the effectiveness of key marketing activities. ▶ Develop and implement an effective research strategy to guide and direct the strategic marketing planning process and to inform business planning overall. ▶ Lead the research strategy for the organisation and make a significant contribution to the marketing and strategic planning processes.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Expertise in research and make a strong contribution to executive team and board, problem solving and decision-making processes. ▶ Influence the organisation's ICT strategy, to ensure that the organisation has the ability to manage and mine big data. ▶ Strongly support the organisation's capacity to implement its market research strategy. Ensure the overall strategy meets the business's strategic information needs. ▶ Optimise the amount and quality of responses and business insights through direct market research and analytics activities and processes.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Define critical business issues, develop new ways of optimising digital data and presenting marketing and digital research insights to senior management. ▶ Provide clear leadership across the organisation and demonstrate the power of effective research to appropriately drive problem solving and strategic decision making.

Technical Competency	Market Trend Analysis
Competency Description	Identify, analyse, and interpret trends in the marketplace, including customer behaviour, competitor actions, technological advancements, and economic factors, to inform business decisions.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow instructions to systematically gather specific data points on market trends from predefined sources (e.g., tracking competitor price changes, monitoring specific industry news sites). ▶ Accurately input collected data into specified formats or databases. ▶ Organize gathered information according to provided categories.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist analysts in compiling and organizing data from multiple sources for market trend reports. ▶ Help track specific market indicators or competitor activities over time using established tools. ▶ Create basic charts or summaries visualizing trend data under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Monitor and analyse key market trends relevant to a specific product, service, or customer segment using standard research techniques. ▶ Identify emerging patterns, shifts in customer preferences, or competitor moves within their assigned scope. ▶ Prepare reports summarizing trend findings and potential implications for their area.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Conduct comprehensive analysis of broad market trends, synthesizing information from diverse quantitative and qualitative sources. ▶ Identify significant trends, assess their potential impact (opportunities and threats) on the business, and determine strategic implications. ▶ Present complex trend analysis and actionable insights clearly and persuasively to decision-makers.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Establish and oversee the organisation's framework and processes for continuous market intelligence gathering and trend analysis. ▶ Interpret complex, interconnected market dynamics and anticipates future shifts to inform long-term organisational strategy and innovation. ▶ Advise senior leadership on strategic responses to market trends, potential market disruptions, and competitive positioning.

Technical Competency	Marketing Campaign Management
Competency Description	<ul style="list-style-type: none"> ▶ Plan, execute, monitor, and measure marketing campaigns designed to achieve specific objectives, such as lead generation, brand awareness, or product adoption.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow detailed instructions to execute specific, assigned tasks within a marketing campaign plan (e.g., sending approved emails, posting pre-written social media updates). ▶ Use campaign management tools correctly for assigned tasks (e.g., updating status). ▶ Report completion of tasks according to schedule.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist campaign managers in coordinating activities across different teams or vendors involved in a campaign. ▶ Help track campaign expenses against the budget under supervision. ▶ Compile performance data from various campaign elements into basic reports based on templates.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage smaller, well-defined marketing campaigns or significant components of larger campaigns (e.g., managing paid search advertising, running an event). ▶ Develop detailed activity plans, coordinate execution, monitor progress against timelines and budget for their assigned scope. ▶ Track and report on key performance indicators (KPIs) for their campaign elements.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Plan, develop, execute, and manage complex marketing campaigns from inception to completion. ▶ Define clear campaign objectives, target audience, key messaging, channel mix, and measurable KPIs. ▶ Manage campaign budgets, resources, and timelines effectively, analysing performance data to optimize results throughout the campaign lifecycle.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the overall strategic framework and approach for marketing campaign planning and execution within the organisation. ▶ Determine campaign priorities, themes, and budget allocations aligned with broader marketing and business goals. ▶ Oversee the portfolio of major marketing campaigns, ensuring consistent strategy and evaluating overall ROI.

Technical Competency	Marketing Communications Plan Development
Competency Description	Develop a detailed plan outlining the objectives, target audiences, key messages, communication channels, activities, timeline, and budget for marketing communications.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follows an existing marketing communication plan to understand the context and execute assigned communication tasks (e.g., distributing a press release, formatting a newsletter). ▶ Understand the specific target audience and key message relevant to their assigned task. ▶ Use specified templates or formats for communication materials.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in drafting specific sections of a marketing communication plan under guidance (e.g., compiling audience profile data, listing potential communication activities). ▶ Help gather information on different communication channel options, costs, or reach. ▶ Support the creation of detailed activity schedules or timelines for the plan.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop straightforward marketing communication plans for specific, smaller-scale initiatives, products, or events. ▶ Define clear communication objectives, identifies target audiences, crafts core messages, and selects appropriate channels and tactics based on the plan framework. ▶ Outline a realistic timeline and estimates resource needs for the plan.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop comprehensive and integrated marketing communication plans for major product launches, campaigns, or strategic initiatives. ▶ Ensure clear alignment between communication objectives, target audiences, messaging, channel selection, and overall marketing strategy. ▶ Define key metrics for measuring communication effectiveness and manages the budget allocated within the plan.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set the overall strategic direction and framework for all marketing communication planning within the organisation. ▶ Develop guidelines and best practices for creating effective and consistent communication plans. ▶ Ensure that the collective impact of various communication plans aligns with and supports the organisation's brand positioning and strategic business objectives.

Technical Competency	Marketing Strategy
Competency Description	Define the long-term approach and plan for achieving marketing objectives, including target market selection, positioning, marketing mix (product, price, place, promotion), and resource allocation.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand the key elements of the organisation’s marketing strategy relevant to their role (e.g., target customer segments, core value proposition). ▶ Execute assigned marketing tasks in a way that is consistent with the overall strategy. ▶ Aware of the main marketing goals for their product or service area.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in gathering market research data (e.g., customer surveys, competitor analysis) to provide input for strategy development. ▶ Help document specific components of the marketing plan or strategy under the guidance of senior marketers. ▶ Support the tracking of marketing performance metrics related to strategic goals.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Contribute to the development of marketing plans for specific products, services, or market segments, ensuring clear alignment with the overarching marketing strategy. ▶ Analyse market data, customer insights, and competitor activities relevant to their area to inform tactical decisions. ▶ Provide input into defining elements of the marketing mix (e.g., promotional activities, feature suggestions) for their assigned scope.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop comprehensive marketing strategies and plans for specific business units, major product lines, or key target markets. ▶ Define clear value propositions, positioning statements, and competitive differentiation strategies. ▶ Manage the allocation of marketing budgets and resources effectively to achieve strategic objectives within their area.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Lead the development, articulation, and implementation of the organisation’s overall marketing strategy. ▶ Make strategic decisions regarding market segmentation, targeting, branding, portfolio management, and overall market positioning. ▶ Ensure deep alignment between the marketing strategy, sales strategy, product strategy, and overarching business objectives.

Technical Competency	Media and Platform Management
Competency Description	Manage the organisation's presence and activities on various media channels and digital platforms (e.g., social media, websites, content platforms, advertising platforms).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow content calendars and specific instructions to post approved content or updates on assigned digital platforms (e.g., company blog, specific social media channel). ▶ Use platform interfaces correctly for basic tasks like uploading text, images, or responding to simple comments using templates. ▶ Adheres to platform-specific guidelines and organisational policies.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist platform managers in monitoring user engagement (comments, messages, reviews) across assigned platforms and flagging issues requiring response. ▶ Help prepare draft content calendars or schedule posts using platform tools under guidance. ▶ Compile basic performance reports (e.g., follower counts, post reach, likes) for specific platforms using built-in analytics.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage the day-to-day activities and content publishing on one or more specific media platforms (e.g., managing the LinkedIn company page, running the corporate website CMS). ▶ Optimise content format and messaging for the specific requirements and audience of each platform. ▶ Monitor platform analytics to understand content performance and audience engagement, making basic adjustments.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop and manage the content strategy, editorial calendar, and operational processes for key owned or paid media platforms. ▶ Analyse platform performance data deeply to optimize for engagement, reach, conversion, or other defined KPIs. ▶ Manage budgets allocated for specific platforms (e.g., social media advertising) and ensures efficient use of resources.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall strategy for its presence across all relevant media and digital platforms. ▶ Select the optimal mix of platforms based on target audiences, marketing objectives, and resource availability. ▶ Define governance policies, best practices, and performance benchmarks for all organisational platform usage, staying ahead of platform trends and algorithm changes.

**Updated for Phase 3A (2026)*

Technical Competency	Media Strategy
Competency Description	Plan how to effectively use paid, owned, and earned media channels to reach target audiences and achieve marketing or communication objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand the different types of media channels (paid, owned, earned) used by the organisation. ▶ Follow instructions related to specific media activities (e.g., providing assets for an ad placement, tracking media mentions found online). ▶ Aware of the target audience for the media activities they support.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist media planners by gathering information on different media channel options, audience demographics, and indicative costs. ▶ Help track media schedules, booking deadlines, and the delivery of creative assets to media partners. ▶ Compile basic performance data from media reports (e.g., impressions, clicks) under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Contribute to the development of media plans for specific campaigns or initiatives by recommending appropriate channels based on objectives and target audience research. ▶ Select specific media placements or tactics within assigned channels (e.g., choosing specific websites for banner ads, identifying relevant journalists for PR outreach). ▶ Monitor the execution of media placements and tracks basic performance metrics against the plan.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop comprehensive media strategies and detailed media plans, selecting the optimal mix of paid, owned, and earned channels to achieve campaign goals efficiently. ▶ Manage media budgets, negotiates rates and placements with media vendors or agencies. ▶ Measure and analyse the effectiveness and ROI of media investments across different channels, optimizing the mix based on data.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set the overall strategic direction for the organisation's use of media channels, aligning media investment with marketing objectives and business priorities. ▶ Oversee relationships with major media partners or advertising agencies. ▶ Evaluate emerging media platforms, technologies, and consumption trends to ensure the organisation's media strategy remains relevant and effective.

Technical Competency	Network Administration and Maintenance
Competency Description	Monitor the network in order to provide for optimum levels of network performance and minimisation of downtime. This includes detection, isolation, recovery and limitation of the impact of failures on the network as well as provision of support to system users through ongoing maintenance information sharing and training.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Contribute to the operational configuration of network components. ▶ Assist in the investigation and resolution of network problems. ▶ Assist with specified maintenance procedures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Carry out agreed network maintenance tasks and specified operational configuration of network components. ▶ Establish and diagnose network problems/faults using the required troubleshooting methodology and tools. ▶ Use network management software and tools to collect agreed performance and traffic statistics.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Maintain the network support process and check that all requests for support are dealt with according to agreed procedures. ▶ Ensure network configurations are applied to meet operational requirements in line with agreed procedures. ▶ Use network management software and tools to investigate and diagnose network problems, collect performance statistics and create reports.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Demonstrate in-depth knowledge and capability in software construction, testing, infrastructure, configuration, a wide range of system development methodologies and operating standards. ▶ Demonstrate knowledge in multiple applications, data management systems and technologies or in a single area of expertise. ▶ Demonstrate application and corporate knowledge, and understand how a change would affect multiple applications.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Draft and maintain procedures and documentation for network support and operation. ▶ Make a significant contribution to the investigation, diagnosis and resolution of network problems. ▶ Ensure that all requests for support are dealt with according to set standards and procedures. ▶ Develop policy and standards for software construction.

Technical Competency	Network Management
Competency Description	Monitor, manage, and maintain network infrastructure (routers, switches, firewalls, wireless) to ensure connectivity, performance, availability, and reliability.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow procedures to monitor basic network status using predefined dashboards or tools. ▶ Perform simple, documented network tasks like checking physical port status or restarting a specific network service under supervision. ▶ Accurately report observed network alerts or anomalies according to instructions.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist network administrators in troubleshooting common network connectivity issues for end-users or basic infrastructure. ▶ Help configure network devices (e.g., switches, access points) using standard templates or scripts under guidance. ▶ Perform routine network checks (e.g., ping tests, bandwidth monitoring) and updates documentation.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage and troubleshoot specific network segments or technologies (e.g., LAN switching, WLAN infrastructure) independently for common issues. ▶ Configure routers, switches, and firewalls according to approved designs and change requests. ▶ Monitor network performance using standard tools, identifies potential bottlenecks, and performs basic optimizations.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design, implement, and manage significant parts of the enterprise network infrastructure (e.g., core routing, data centre networks, WAN links). ▶ Ensure network performance, availability, and capacity meet agreed service levels and business requirements. ▶ Lead complex network troubleshooting efforts and root cause analysis for major network incidents. ▶ Plan and execute network upgrades and technology refreshes.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the overall network architecture vision, strategy, standards, and multi-year roadmap for the organisation. ▶ Define network policies related to addressing, routing, security, QoS, and remote access. ▶ Plan long-term network capacity, scalability, and resilience to support future business growth and technological advancements (e.g., cloud integration, IoT).

Technical Competency	Network Security
Competency Description	Design, implement, monitor, and continuously improve secure networks by controlling access, segmenting traffic, detecting threats, and ensuring availability and integrity of network services.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow network security rules (VPN use, secure Wi-Fi, approved devices) and reports suspicious network behaviour (slowdowns, unusual pop-ups, unknown SSIDs). ▶ Apply basic safe practices: does not bypass security controls, uses strong authentication, and protects credentials. ▶ Understand the purpose of common controls (firewalls, antivirus, MFA, encryption) and complies with required procedures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Perform routine network security tasks under guidance (access provisioning, rule change requests, inventory updates, log checks). ▶ Assist with vulnerability remediation (patch coordination, removing unused ports/services, enforcing secure configurations). ▶ Support incident handling steps (identify affected endpoints/segments, isolate devices, collect basic information for escalation).
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Implement and maintains core network security controls (firewall rules, ACLs, VPN, IDS/IPS, secure DNS) with proper documentation and approval. ▶ Monitor network events/logs, investigates anomalies, and tunes controls to reduce false positives while maintaining protection. ▶ Apply segmentation and least privilege principles (VLANs, micro-segmentation, NAC) to protect critical systems and data flows.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design secure network architecture and standards (segmentation strategy, zero trust principles, secure remote access, cloud network security). ▶ Lead major changes and security improvements (migration, firewall/IPS refresh, NAC rollout), ensuring risk assessment and minimal downtime. ▶ Coordinate response to network-based attacks (DDoS, lateral movement, ransomware spread), aligning IT Ops, Security, vendors, and management.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set enterprise network security roadmap and governance (policies, control framework, KPIs, audits) aligned to business risk appetite. ▶ Anticipate evolving threats and drives continuous improvement using threat intelligence, attack simulations, and security maturity assessments. ▶ Establish resilient network security operating model (SOC integration, monitoring strategy, vendor management, standardised playbooks, capability building).

Technical Competency	Network Security Management
Competency Description	Design and configure network systems to ensure the integrity of network infrastructure through the use of appropriate protection, detection and response mechanisms.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Install, configure and test network security. ▷ Manage network security throughout a network.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Maintain the network security process and procedures. ▷ Check that all security vulnerabilities are dealt with according to agreed procedures. ▷ Use network management software and tools to investigate and diagnose network problems.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Design, develop and maintain procedures and documentation for network security management. ▷ Coordinate investigation, diagnosis and resolution of network security challenges. ▷ Ensure that all requests for support are dealt with according to set standards and procedures. ▷ Play custodial role for network security standards.

Technical Competency	Network Configuration
Competency Description	Configure network hardware and software components according to organisational guidelines and technical requirements. This includes the implementation and configuration of multiple servers, network devices and network management tools as well as the management of user network access to ensure stable and reliable network operations.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Contribute to the operational configuration of network components. ▷ Assist in the investigation and resolution of network problems. ▷ Assist with specified maintenance procedures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Carry out agreed network maintenance tasks and specified operational configuration of network components. ▷ Establish and diagnose network problems/faults using the required troubleshooting methodology and tools. ▷ Use network management software and tools to collect agreed performance and traffic statistics.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Maintain the network support process and check that all requests for support are dealt with according to agreed procedures. ▷ Ensure network configurations are applied to meet operational requirements in line with agreed procedures. ▷ Use network management software and tools to investigate and diagnose network problems, collect performance statistics and create reports, working with users, other staff and suppliers as appropriate.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Evaluate organisational network requirements and develop a network configuration blueprint. ▷ Maintain the network support process and check that all requests for support are dealt with according to agreed procedures. ▷ Ensure network configurations are applied to meet operational requirements in line with agreed procedures. ▷ Use network management software and tools to investigate and diagnose network problems, collect performance statistics and create reports, as well as working with users, other staff and suppliers as appropriate.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Draft and maintain procedures and documentation for network support and operation. ▷ Make a significant contribution to the investigation, diagnosis and resolution of network problems. ▷ Ensure that all requests for support are dealt with according to set standards and procedures.

Technical Competency	Networking
Competency Description	Understand and apply the principles, protocols, technologies, and architectures used to connect computers and devices to enable communication and data sharing. (More fundamental).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand basic networking concepts like IP addresses, subnets, gateways, and the difference between LAN and WAN. ▶ Follow instructions for simple network-related tasks such as connecting a computer or printer to the network correctly. ▶ Can describe the basic function of common network devices like routers and switches.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in performing basic network configuration tasks on end-user devices (e.g., setting static IP addresses, configuring Wi-Fi settings). ▶ Help troubleshoot simple network connectivity problems using standard command-line tools (e.g., ping, ipconfig/ifconfig, tracert). ▶ Understand the layers of the OSI or TCP/IP model at a basic level.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply solid knowledge of core networking protocols (TCP/IP suite including DNS, DHCP) and technologies (Ethernet, Wi-Fi standards) to configure and troubleshoot network connectivity for servers, workstations, and basic infrastructure. ▶ Understand basic switching concepts (VLANs, MAC addresses) and routing concepts (static routes, default gateways). ▶ Can interpret network diagrams and documentation to understand network topology.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Apply deep understanding of advanced networking protocols (e.g., BGP, OSPF), complex routing and switching techniques, network addressing schemes (IPv4, IPv6), and network architectures (e.g., three-tier, spine-leaf). ▶ Diagnose complex network performance issues involving latency, jitter, and packet loss. ▶ Understand network security principles and how they integrate with network design.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Leverage expert knowledge of current and emerging networking principles, technologies (e.g., SDN, NFV, cloud networking), and architectures to inform strategic network design and evolution. ▶ Understand the critical interplay between network design choices and application performance, security posture, and overall business capabilities. ▶ Contribute to the development of organisational networking standards and best practices.

**Updated for Phase 3A (2026)*

Technical Competency	Partnership Management
Competency Description	Identify, establish, maintain, and grow relationships with external partners (e.g., agencies, vendors, universities, GLCs, associations) to achieve mutual goals and measurable outcomes such as revenue, capability building, market access, or service delivery.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand partnership basics (types of partners, mutual value, roles, basic etiquette and follow-up). ▶ Support simple tasks using templates (meeting notes, contact updates, scheduling, basic info packs). ▶ Promptly report concerns and issues such as unclear scope, delayed responses, missing documents.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Manage day-to-day coordination with partners (updates, deliverables tracking, basic reporting) independently. ▶ Maintain partnership records (contacts, MoU/LoA status, timelines) and ensures agreed actions are followed up. ▶ Resolve common operational issues related to partnership (communication gaps, document versioning, scheduling conflicts).
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop and runs partnership plans (objectives, activities, timelines, KPIs) aligned to business outcomes. ▶ Negotiate practical win-win terms (scope, roles, deliverables, revenue/cost sharing) with stakeholder alignment. ▶ Manage relationship health: cadence, performance reviews, issue resolution, and continuous improvement.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design partnership strategy for a portfolio (segmentation, prioritisation, partner journeys, governance model). ▶ Lead complex negotiations and ensures legal/compliance requirements (contracts, risk, brand, data) are met. ▶ Coach teams and manages partner performance (scorecards, escalation paths, renewal/expansion decisions).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set enterprise partnership strategy and ecosystem roadmap (strategic alliances, platforms, co-innovation). ▶ Establish partnership management governance and operating model (policy, approval workflow, risk framework, metrics, audit readiness). ▶ Drive measurable growth and impact through scalable partner programmes (channel expansion, pipeline, brand equity).

Technical Competency	Pattern Recognition
Competency Description	Understand and apply methods to identify meaningful patterns, regularities, or structures within data sets. (More theoretical/algorithmic).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow clear instructions to apply simple, predefined rules or visual checks to identify known patterns in small, structured datasets (e.g., finding specific sequences in logs). ▶ Use basic software tools (e.g., spreadsheet functions) to highlight data points matching specific criteria. ▶ Understand the concept of a 'pattern' in data.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist data scientists or analysts in preparing and cleaning data for pattern recognition analysis (e.g., formatting data, handling missing values). ▶ Help run existing, pre-configured pattern recognition algorithms or scripts under guidance. ▶ Support the visualization of simple data patterns using standard charting tools.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply standard pattern recognition techniques (e.g., basic clustering algorithms like k-means, simple classification methods like decision trees) to analyse prepared datasets. ▶ Interpret the output of these techniques to identify meaningful patterns or groupings within the data. ▶ Evaluate the performance of basic pattern recognition models using standard metrics (e.g., accuracy).
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Select and apply appropriate, sometimes complex, pattern recognition algorithms (e.g., advanced clustering, dimensionality reduction, sequence analysis methods) based on the problem and data characteristics. ▶ Design experiments and validation strategies to confirm the significance and reliability of identified patterns. ▶ Interpret complex or subtle patterns and communicates their implications effectively. ▶ May develop custom scripts or modify existing algorithms for specific pattern recognition tasks
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop novel pattern recognition methodologies or significantly adapts existing ones for unique organisational challenges. ▶ Directs research and development efforts in applying advanced pattern recognition techniques (e.g., deep learning for pattern detection). ▶ Identify strategic opportunities where pattern recognition can provide significant business value or competitive advantage.

**Updated for Phase 3A (2026)*

Technical Competency	Pattern Recognition Systems
Competency Description	Design, build, evaluate, and operationalise systems that detect meaningful patterns in data (e.g., anomaly detection, classification, clustering, signal/image/text patterning) to support decisions, automation, risk detection, or performance improvement.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand what pattern recognition is and where it is used (e.g., fraud flags, defect detection, anomaly alerts) and can describe basic inputs/outputs. ▶ Follow data handling and labelling guidance accurately (clean data entry, tagging rules, version control basics). ▶ Use provided tools/models correctly (runs standard reports, interprets simple outputs, escalates unusual results).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Prepare datasets for pattern recognition (cleaning, handling missing values, feature basics, balancing/encoding) with guidance. ▶ Assist in building simple models or rules (threshold alerts, basic classifiers) and documents assumptions and limitations. ▶ Perform basic evaluation (train/test split, accuracy/precision/recall, confusion matrix) and communicates results clearly
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Design end-to-end pattern recognition solutions for a use case (problem framing, data pipeline, model selection, evaluation, deployment approach). ▶ Tune models and features to improve performance, manages overfitting, and selects appropriate metrics for business impact (e.g., false positives cost). ▶ Implement monitoring for model performance and data drift; sets retraining triggers and feedback loops.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Lead development of scalable, reliable pattern recognition systems (real-time vs batch, latency constraints, MLOps, governance, security/privacy). ▶ Conduct robust validation (cross-validation, bias/fairness checks where relevant, stress testing) and ensures explainability for stakeholders. ▶ Integrate solutions into business processes (alerts workflow, case management, human-in-the-loop review) and drives adoption/change management.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set strategy and standards for pattern recognition/ML capability (architecture, tooling, model governance, risk controls, assurance). ▶ Anticipate emerging methods and threat landscapes (adversarial patterns, model abuse) and builds resilient, trustworthy systems. ▶ Develop organisational maturity through talent development, reusable frameworks, portfolio prioritisation, and measurable value realisation across functions.

Technical Competency	Performance Management
Competency Description	Evaluate and optimise network, system and/or software performance against user and business requirements. This involves the introduction and utilisation of new tools and mechanisms to gather, analyse and fully optimise performance data. This also includes the initiation of controls, modifications and new investments to enhance end-to-end performance of ICT components, systems and services.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop a performance management framework that meets the asset management system objectives, levels of service and requirements. ▶ Design a performance management framework that is balanced and concise. ▶ Test the performance framework to ensure it delivers the desired objectives and avoid unintended consequences. ▶ Establish metrics and mechanisms to assess network, software or system performance, and determine ICT infrastructure components and parameters to be enhanced.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Evaluate and integrate new mechanisms and technology, and leverage analytics to optimise performance data, and determine implications of performance levels reported. ▶ Review the risk register and report the performance of the mitigation measures. ▶ Identify benefits realised from the opportunities taken. ▶ Chart direction on key performance indicators of ICT infrastructure and develop a strategy to enable achievement to achieve long term business requirements.
Level 5 (Strategise)	N/A

Technical Competency	Pricing Strategy
Competency Description	Determine the optimal pricing for products or services based on costs, value perception, market conditions, competition, and business objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Accurately use established price lists and standard discount structures when generating quotes or processing orders. ▶ Follow procedures for escalating requests for non-standard pricing or discounts. ▶ Understand the basic pricing structure for the products/services they handle.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist pricing analysts by gathering data on competitor pricing, production/service delivery costs, or sales transaction history. ▶ Help prepare reports comparing internal pricing against market benchmarks or analysing basic pricing scenarios (e.g., volume discounts). ▶ Maintain pricing documentation or databases under supervision.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Analyse pricing data, cost information, and market conditions for specific products, services, or customer segments. ▶ Contribute recommendations for setting or adjusting prices based on established pricing models, guidelines, and analysis. ▶ Monitor the impact of pricing changes on sales volume and revenue for assigned areas.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop and implement specific pricing strategies and models (e.g., value-based, cost-plus, tiered pricing) for product lines or business units. ▶ Conduct thorough profitability analysis, competitive pricing analysis, and price elasticity studies. ▶ Manage the process for setting prices, approving exceptions, and communicating pricing structures effectively.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overarching pricing strategy, framework, policies, and governance process. ▶ Align pricing strategy with overall business strategy, brand positioning, market segmentation, and financial objectives. ▶ Makes strategic decisions on complex pricing structures (e.g., subscription models, dynamic pricing) and oversees their implementation.

Technical Competency	Problem Management
Competency Description	Manage the life cycle of problems to prevent problems and incidents from occurring, eliminate recurring incidents and minimise impact of unavoidable incidents.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Handle specific problems from diagnosis and prioritisation to the identification and implementation of solution. ▷ Review the risk register and report the performance of the mitigation measures.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Introduce processes, guidelines and technologies to facilitate the management of problems throughout their life cycle. ▷ Establish problem management strategies, protocols, and mechanisms to guide the prevention, resolution and minimisation of problems and their effects.
Level 5 (Strategise)	N/A

Technical Competency	Process Improvement
Competency Description	Establish systems to discover critical processes and maximise these processes to achieve maximum efficiency in accordance with organisation procedures.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Identify and implement the adoption of process improvement and optimisation methods. ▷ Evaluate the effectiveness of the opportunity benefits being realised. ▷ Measure performance against desired standards. ▷ Identify issues or improvements needed, based on deviations and corrective actions required.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Analyse and develop, review of plans for process improvement and optimisation. ▷ Communicate performance and recommendations for improvement. ▷ Communicate successes and learning across the organisation and/or sector with verification of benefits and cost savings. ▷ Utilise a continuous improvement framework to drive performance management improvements.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Devise strategies for the adoption of improvements and optimisation of processes.

Technical Competency	Process Improvement and Optimisation
Competency Description	Systematically analyse existing processes to identify inefficiencies or bottlenecks and implementing changes to improve efficiency, quality, speed, or cost-effectiveness.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow established work processes accurately and consistently. ▶ Identify and report obvious problems, errors, or deviations encountered in their own tasks using defined channels. ▶ Participates constructively when asked for input about their part of a process.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist analysts in mapping existing (“as-is”) processes by documenting steps, inputs, outputs, and roles involved, using standard tools (e.g., flowcharts). ▶ Help collect baseline data on process performance (e.g., cycle times, error rates) under guidance. ▶ Support the documentation of proposed process changes.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Analyse specific business or operational processes using basic process improvement methodologies (e.g., value stream mapping basics, 5 Whys, fishbone diagrams). ▶ Identify specific inefficiencies, bottlenecks, or waste within the analysed process. ▶ Develop, propose, implement, and monitor the results of targeted improvements within their scope of work.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Lead formal process improvement projects using structured methodologies (e.g., Lean, Six Sigma DMAIC). ▶ Apply advanced process analysis, statistical tools, and optimisation techniques to diagnose root causes and design effective solutions. ▶ Facilitate cross-functional workshops to redesign processes and manages the implementation of significant process changes. ▶ Measure the impact and benefits of implemented improvements against defined metrics.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develops and implements the organisation’s overall strategy, framework, and methodology for continuous process improvement and operational excellence. ▶ Prioritises process improvement initiatives based on strategic impact, potential ROI, and alignment with business goals. ▶ Fosters a sustainable culture of continuous improvement, empowering employees to identify and implement improvements.

Technical Competency	Procurement
Competency Description	Develop and apply procurement processes related to the solicitation of technology services through external providers. This includes the review of proposals, setting of vendor selection guidelines, risk assessment through appropriate audits and tests and selection of external service providers based on stipulated evaluation criteria.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Conduct research and simple quality, risk and security checks on IT vendors, preparing draft documents and materials required in the procurement process. ▶ Assist in the preparation of pre-qualification questionnaires and tender invitations in response to business cases. ▶ Assemble relevant information for tenders. ▶ Produce detailed evaluation criteria for simple tender criteria. ▶ Assist in the evaluation of tenders. ▶ Prepare pre-qualification questionnaires and tender invitations in response to business cases. ▶ Recognise the difference between open source and proprietary systems options. ▶ Apply standard procedures and tools to produce detailed evaluation criteria for complex tenders and to evaluate tenders.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Prepare Requests for Proposals (RFP), and assess them against selection criteria and technical specifications, implement security due diligence review in the vendor selection process. ▶ Review business cases (requirements, potential benefits and options) and determine appropriate procurement routes. ▶ Use market knowledge to inform specifications, and ensure detailed pre-qualification questionnaires and tender invitations are prepared. ▶ Collect and collate data to support collaboration and negotiate terms and conditions to reflect the scale of requirements and encourage good performance. ▶ Evaluate tenders based on specification and evaluation criteria, prepare acceptance documentation and advise on contracts and SLAs.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop a procurement plan including vendor selection guidelines, and select a suitable service provider considering potential risks. ▶ Plan and manage procurement activities. ▶ Manage tender, evaluation and acquisition processes. ▶ Research suppliers and markets, and maintain a broad understanding of the commercial environment in order to inform and develop commercial strategies and sourcing plans. ▶ Advise on the business case for alternative sourcing models. ▶ Advise on policy and procedures covering tendering, the selection of suppliers and procurement. ▶ Negotiate with potential partners and suppliers, developing acceptance criteria and procedures. ▶ Draft and place contracts.

Level 5 (Strategise)

- ▶ Develop policy and procedures for sourcing and procurement activities.
 - ▶ Establish procurement strategies, standards, methods, processes and good practices that ensure compliance with legislation, regulation and third-party information security.
 - ▶ Lead the procurement process, from clarifying requirements through to placing, monitoring and terminating contracts.
 - ▶ Identify external partners, engaging with professionals in related disciplines as appropriate.
 - ▶ Ensure that terms and conditions are aligned with current legislation and policy.
 - ▶ Establish an organisation-wide procurement process as well as policies and criteria for security due diligence review, retaining accountability for procurement decisions made.
 - ▶ Determine overall strategies for managing supplier relationships, embracing effective operational relationships at all levels.
 - ▶ Take overall responsibility for sourcing and procurement activities.
 - ▶ Develop, deploy and review acquisition processes.
 - ▶ Negotiate major contracts.
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Technical Competency	Product Management
Competency Description	Oversee the entire lifecycle of a product, from ideation and development through launch, growth, maturity, and decline, including defining product strategy, roadmap, and features.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow instructions related to updating product documentation or performing basic product testing tasks. ▶ Understand the core features, target users, and basic purpose of the product they support. ▶ Use internal product management tools (e.g., backlog system) for assigned tasks.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist product managers by gathering market research, competitor information, or user feedback related to the product. ▶ Help maintain product backlogs by documenting simple user stories or requirements under guidance. ▶ Support logistical aspects of product launch activities (e.g., coordinating materials, updating website content).
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage specific features, components, or modules of a product throughout their lifecycle. ▶ Write clear user stories or detailed requirements for assigned features, collaborating closely with development teams. ▶ Analyse basic product usage data and customer feedback to inform feature prioritization and minor improvements. ▶ Contribute input to the product roadmap for their area.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage a complete product or a significant product line through its entire lifecycle (ideation, development, launch, growth, maturity, end-of-life). ▶ Define the product vision, strategy, and roadmap based on market analysis, customer needs, and business goals. ▶ Prioritise features, manages the product backlog, and makes trade-off decisions to maximize product value. ▶ Lead cross-functional teams (development, marketing, sales, support) and is accountable for the product's success metrics (e.g., revenue, adoption, satisfaction).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and manage the organisation's overall product portfolio strategy, ensuring alignment with business objectives and market opportunities. ▶ Define the long-term vision and strategic direction for major product areas or the entire product function. ▶ Make strategic decisions regarding new product investments, build vs. buy vs. partner, market entry/exit, and product portfolio optimization. ▶ Mentor and develop senior product management talent.

Technical Competency	Project Management
Competency Description	Plan, execute, monitor, control, and close projects to achieve specific goals within defined scope, time, budget, and quality constraints.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow established project procedures for completing assigned tasks (e.g., updating a task status in a project tool, submitting timesheets). ▶ Understand basic project terminology (e.g., task, milestone, deliverable) and the overall project goal. ▶ Report progress on assigned tasks accurately and on time.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist project managers by coordinating specific, well-defined project tasks or activities. ▶ Help track project progress against the plan, collecting status updates from team members. ▶ Prepare basic project status reports or meeting minutes using standard templates under supervision. ▶ Help maintain project documentation (e.g., risk logs, issue logs).
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage small, non-complex projects independently or significant workstreams within larger projects. ▶ Apply standard project management methodologies (e.g., creating work breakdown structures, developing schedules, tracking progress). ▶ Identify and manages risks and issues at the task or workstream level. ▶ Communicate effectively with project team members and stakeholders for their scope.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage large, complex projects or programs involving multiple teams, significant budgets, and complex stakeholder landscapes. ▶ Develop comprehensive project plans covering scope, schedule, budget, resources, quality, risk, and communication. ▶ Manage project execution effectively, proactively identifying and mitigating risks, resolving issues, controlling scope creep, and ensuring delivery of project objectives. ▶ Ensure adherence to project management standards and methodologies.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and implement project and program management methodologies, standards, and tools for the entire organisation or a major division. ▶ Oversee project portfolio management, including prioritization, resource allocation, and strategic alignment of projects. ▶ Establish project governance frameworks and provides oversight for major strategic initiatives. ▶ Mentor and develop project managers within the organisation.

Technical Competency	Quality Standards
Competency Description	Understand, define, implement, and adhere to agreed-upon standards and benchmarks for quality in products, services, or processes.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Consistently follow documented quality procedures and work instructions relevant to their tasks. ▶ Use basic quality checklists to verify that their own work meets predefined, simple quality criteria. ▶ Report defects or deviations from quality standards accurately using specified methods.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist quality assurance personnel by performing specific quality checks or tests based on predefined test plans or criteria. ▶ Help document quality results, non-conformances, or test outcomes accurately under guidance. ▶ Support the maintenance of quality records or documentation.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Apply relevant quality standards (e.g., specific ISO 9001 clauses, internal coding standards, service level targets) consistently within their area of work or project. ▶ Perform defined quality assurance activities, such as peer reviews, inspections, or testing, for their deliverables or those of their immediate team. ▶ Identify deviations from quality standards, analyses basic root causes, and suggests corrective actions.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Implement and manage quality management processes or systems for a specific project, team, product, or service area. ▶ Define relevant quality metrics, monitors quality performance, and analyses trends to identify improvement opportunities. ▶ Ensure compliance with applicable internal and external quality standards (e.g., conducting internal audits, preparing for external audits).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall quality strategy, policy, objectives, and Quality Management System (QMS). ▶ Champion a proactive quality culture throughout the organisation, integrating quality principles into all processes. ▶ Determine which quality standards or certifications (e.g., ISO 9001, CMMI) are strategically important for the organisation and oversees their implementation and maintenance.

**Updated for Phase 3A (2026)*

Technical Competency	Quality Assurance
Competency Description	The process of ensuring that the agreed quality standards within an organisation are adhered to and that best practice is promulgated throughout the organisation
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Use appropriate methods and tools in the development, maintenance, control and distribution of quality and environmental standards. ▶ Make technical changes to quality and environmental standards according to documented procedures, and distribute new and revised standards.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Investigate and document the internal control of specified aspects of automated or partly automated processes, and assess compliance with the relevant standard. ▶ Assist projects, functions or teams in planning the quality management for their area of responsibility. ▶ Assist in the development of new or improved practices and organisational processes or standards. ▶ Facilitate localised improvements to the quality system or services.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Use quality standards to review past performance and plan future activities. ▶ Conduct audits of quality requirements and produces audit reports. ▶ Monitor and report on the outputs from the quality assurance and audit processes. ▶ Optimise the amount and quality of responses and business insights, direct market research and analytics activities and processes.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop organisational commitment to ongoing quality and environmental improvement by ensuring that the quality assurance process is robust and is based on the best industry practice. ▶ Consider implications of emerging technological developments, economic and social trends, etc. ▶ Plan and resource periodic quality assurance audits. ▶ Conduct and/or manage audits of quality requirements, and analyses audit results, to ensure appropriate quality standards and operational definitions are in place. ▶ Prepare and deliver formal audit reports.

Technical Competency	Sales Strategy
Competency Description	Develop the overall plan and approach for achieving sales targets, including defining target markets, sales channels, sales processes, team structure, and resource allocation.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow established sales scripts or processes for basic customer interactions or lead follow-up. ▶ Understand the key features, benefits, and standard pricing of the products/services they represent. ▶ Accurately record sales activities and customer information in the CRM system as instructed.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist the sales team by performing lead qualification based on predefined criteria. ▶ Help prepare standard sales proposals, presentations, or quotes using templates and guidance. ▶ Support sales representatives by scheduling appointments, managing calendars, and maintaining CRM data hygiene.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage an assigned sales territory, customer segment, or portfolio of smaller accounts to achieve individual sales targets. ▶ Execute the defined sales process (prospecting, qualifying, presenting, handling objections, closing) for standard deals. ▶ Build relationships with customers, understands their basic needs, and effectively proposes relevant solutions.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop specific sales plans and strategies for a region, product line, key account segment, or sales team. ▶ Manage sales pipelines, accurately forecasts sales performance, and analyses results to identify areas for improvement. ▶ Coach, motivate, and manage a team of sales representatives to achieve collective targets. ▶ May handle negotiations for more complex deals.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and implement the organisation's overall sales strategy, including defining target markets, go-to-market approaches, sales channel strategy (direct, indirect), and sales methodologies. ▶ Design the sales organisation structure, defines roles, sets quotas, and develops compensation plans. ▶ Ensure tight alignment between sales strategy, marketing strategy, product strategy, and overall business objectives.

Technical Competency	Security Administration
Competency Description	Administer, configure and update of security programmes and mechanisms, including the application of system patches to ensure that enterprise assets are adequately protected against threats. This also includes the authorisation, management and monitoring of access control permissions and/or rights to various IT facilities.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Run system diagnostic tools, and install and update simple, basic security programmes, virus protection and system patches.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Administer, configure and troubleshoot security programmes and mechanisms, and analyse impact of patches and updates on system and networks. ▶ Apply standards for testing.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Plan the administration and technical operationalisation of security programmes, and investigate security breaches in information, system and network access.
Level 5 (Strategise)	N/A

Technical Competency	Security Architecture (Applications Developer)
Competency Description	Design security architectures and controls; either embedding of security principles into the design of architectures to mitigate the risks posed by new technologies and business practices, or the actual design and specification of implementable security components, along with the accompanying control measures, to meet defined business security needs.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Perform basic analysis on enterprise-wide security systems. ▶ Assist end-user on security related issues upon trigger raised. ▶ Assist in performing security gap analysis. ▶ Contribute to the identification of risks that arise from potential technical solution architectures.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Design secure systems and define security specifications of components, integrating appropriate security controls. ▶ Demonstrate awareness of other architectures.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design a security blueprint and direct the design of a robust and coherent security architecture, based on a suite of security solutions and key design principles.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Establish organisational guidelines and principles for the design of security architecture and controls, and drive the enhancement of organisation-wide security systems.

Technical Competency	Security Architecture (Solutions Architect, Associate Security Analyst, Cyber Risk Analyst, Security Engineer)
Competency Description	Design security architectures and controls; either embedding of security principles into the design of architectures to mitigate the risks posed by new technologies and business practices, or the actual design and specification of implementable security components, along with the accompanying control measures, to meet defined business security needs.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Interpret relevant security policies and risk profiles into secure architectural solutions that mitigate the risks and conform to legislation. ▶ Present security architecture solutions as a view within broader IT architectures. ▶ Relate security architectures to business needs and risks. ▶ Work with recognised security architecture. ▶ Devise standard solutions that address requirements delivering specific security functionality whether for a business solution or for a product. ▶ Minimise the risk to an asset or product through “standard” security architecture practices. ▶ Deliver the security architecture that supports the risk management strategy using current security technologies and techniques. ▶ Maintain awareness of the security advantages and vulnerabilities of common products and technologies. ▶ Design secure systems and define security specifications of components, integrating appropriate security controls.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Establish organisational guidelines and principles for the design of security architecture and controls, and drive the enhancement of organisation-wide security systems. ▶ Minimise the risk to an asset or product through the use of “standard” security technologies and products. ▶ Design and develop processes for maintaining the security of an asset or product through its full life cycle. ▶ Maintain awareness of the security advantages and vulnerabilities of common products and technologies. ▶ Design robust and fault-tolerant security mechanisms and components appropriate to the perceived risks. ▶ Select the appropriate security products, components and technologies to meet a security requirement. ▶ Select the most appropriate information interchange protocols that meet the security requirements.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Design a security blueprint and direct the design of a robust and coherent security architecture, based on a suite of security solutions and key design principles.

Technical Competency	Security Education and Awareness
Competency Description	Plan, develop, deliver, and measure programs to educate employees and stakeholders about security risks, policies, and best practices to foster a security-conscious culture.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Complete all mandatory security awareness training modules on time. ▶ Consistently follow basic security best practices learned (e.g., creating strong passwords, locking screen, identifying basic phishing attempts). ▶ Know how and where to report potential security incidents or concerns.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in organizing logistics for security awareness events (e.g., booking rooms, sending invitations). ▶ Help distribute security awareness materials (e.g., posters, newsletters) according to a communication plan. ▶ Assist in tracking training completion rates or collecting basic feedback on awareness activities under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Deliver standard security awareness training sessions using existing, approved materials. ▶ Develop simple awareness content (e.g., short articles, tips of the week, basic quizzes) based on defined topics and key messages. ▶ Respond to basic employee queries regarding security policies or best practices.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design, develop, and manage comprehensive security education and awareness programs tailored to different roles and risks within the organisation. ▶ Create engaging and effective training content, communication campaigns, and phishing simulations. ▶ Select appropriate delivery methods (e.g., e-learning, workshops, gamification) and measures the effectiveness of the program using relevant metrics (e.g., phishing click rates, incident reporting rates, knowledge assessments).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall strategy for building and maintaining a strong security culture through education and awareness. ▶ Align awareness program topics and intensity with the organisation's key security risks, compliance requirements, and threat landscape. ▶ Champions security awareness at the leadership level and integrates security behaviour metrics into overall risk reporting.

Technical Competency	Security Governance
Competency Description	Develop and disseminate corporate security policies, frameworks and guidelines to ensure that day-to-day business operations guard or are well protected against risks, threats and vulnerabilities.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Proactively identify security risks in business operations and implement security guidelines and protocols, in line with corporate security policies. ▶ Recognise potential strategic application of information security and initiate investigation and development of innovative methods of protecting information assets, to the benefit of the organisation and the interface between business and information security. ▶ Exploit opportunities for introducing more effective secure business and operational processes.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Evaluate security risks and establish corporate security policies and frameworks to guard against them. ▶ Establish frameworks to develop and maintain appropriate information security expertise within an organisation. ▶ Gain management commitment and resources to support the governance structure. ▶ Incorporate physical, personnel and procedural issues into the overall security governance process. ▶ Relate an organisation's business needs to their requirements for information security. ▶ Encourage an information risk awareness culture within an organisation. (e.g., raising awareness of how the various forms of social engineering can be used to compromise information).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Anticipate potential security threats and emerging trends in security management, establish targets for the organisation's security policies and systems. ▶ Establish frameworks for maintaining the security of information throughout its life cycle.

Technical Competency	Security Implementation
Competency Description	Execute and implement operational and tactical-level action plans in alignment with the organisation's business strategies.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Receive and respond to routine requests for security support. ▶ Maintain records and advise relevant persons of actions taken. ▶ Assist in the investigation and resolution of issues relating to access controls and security systems.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Analyse strategies for critical business functions to ensure plans are within risk mitigation factors. ▶ Investigate minor security breaches in accordance with established procedures. ▶ Assist users in defining their access rights and privileges. ▶ Perform non-standard security administration tasks and resolve security administration issues.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Evaluate strategies for critical business functions to ensure plans are realistic and reflect health of business. ▶ Monitor the application and compliance of security administration procedures and review information systems for actual or potential breaches in security. ▶ Ensure that all identified breaches in security are promptly and thoroughly investigated and that any system changes required to maintain security are implemented. ▶ Ensure that security records are accurate and complete and that request for support are dealt with according to set standards and procedures. ▶ Contribute to the creation and maintenance of policy, standards, procedures and documentation for security.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop policies, standards, processes, guidelines for ensuring the physical and electronic security of automated systems. ▶ Ensure that the policy and standards for security administration are fit for purpose, current and are correctly implemented. ▶ Review new business proposals and provide specialist advice on security issues and implications.

Technical Competency	Security Planning
Competency Description	Develop organisational strategies and policies by analysing the impact of internal and external influencing factors and seeking consultation from relevant stakeholders.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Develop resource allocation plans and implement strategies and policies. ▷ Explain the purpose of and provide advice and guidance on the application and operation of elementary physical, procedural and technical security controls. ▷ Perform security risk, vulnerability assessments, and business impact analysis for medium complexity information systems. ▷ Investigate suspected attacks and manage security incidents. ▷ Use forensics where appropriate.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Formulate the strategies and policies that are forward-looking and focus on bottom line results. ▷ Provide advice and guidance on security strategies to manage identified risks and ensure adoption and adherence to standards. ▷ Obtain and act on vulnerability information and conduct security risk assessments, business impact analysis and accreditation on complex information systems. ▷ Investigate major breaches of security, and recommend appropriate control improvements. ▷ Contribute to the development of information security policy, standards and guidelines.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Build actionable organisation strategy plans and policies that are forward-looking, anticipate strategic risks and focus on bottom line results. ▷ Develop and communicate corporate information security policy, standards and guidelines. ▷ Contribute to the development of organisational strategies that address information control requirements. ▷ Identify and monitor environmental and market trends and pro-actively assess impact on business strategies, benefits and risks. ▷ Lead the provision of authoritative advice and guidance on the requirements for security controls in collaboration with experts in other functions such as legal and technical support. ▷ Ensure architectural principles are applied during design to reduce risk and drive adoption and adherence to policy, standards and guideline. ▷ Direct the development, implementation, delivery and support of an enterprise information security strategy aligned to the strategic requirements of the business.

Technical Competency	Security Programme Management
Competency Description	Develop and manage security solutions, products and services through technology innovation, experimentation and collaboration. This includes security programme planning, developing and testing new security capabilities and implementing security technologies and programmes.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Detail the security requirements for system architecture components and implement security programmes. ▷ Establish processes for maintaining the security of information throughout its existence. ▷ Establish and maintain security operating procedures in accordance with security policies, standards and procedures. ▷ Coordinate penetration testing on information processes against relevant policies. ▷ Assess and respond to new technical, physical, personnel or procedural vulnerabilities. ▷ Manage implementation of information security programmes, and co-ordinate security activities across the organisation.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Manage large-scale secure system initiatives and collaborations with programmers to develop new security solutions and capabilities. ▷ Securely configure information and communications equipment in accordance with relevant security policies, standards and guidelines. ▷ Maintain security records and documentation in accordance with Security Operating Procedures. ▷ Administer logical and physical user access rights. ▷ Monitor processes for violations of relevant security policies (e.g. acceptable use, security, etc.).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Spearhead new, complex or revolutionary security programmes, and integrate a suite of enterprise-wide security programmes into a cohesive security architecture. ▷ Develop and implement procedures for responding to and stabilising the situation following an incident or event. ▷ Establish and manage a security emergency operations centre to be used as a command centre during an emergency. ▷ Mount pre-plan and coordinate plan exercises, and evaluate and document plan exercise results. ▷ Verify that the plan will prove effective by comparison with a suitable standard, and of reporting results in a clear and concise manner. ▷ Establish applicable procedures and policies for coordinating continuity and restoration activities with external agencies while ensuring compliance with applicable statutes or regulations. ▷ Coordinate, evaluate, and exercise plans to communicate with internal stakeholders, external stakeholders and the media.

Technical Competency	Security Strategy
Competency Description	Define the organisation's overall approach, priorities, principles, and roadmap for managing information security risks and protecting information assets.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand the key security principles and policies derived from the strategy that apply to their role. ▶ Follow security procedures consistently in their daily work. ▶ Recognise the importance of security for the organisation.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in gathering data on security risks, incidents, or control effectiveness to provide input for strategic reviews. ▶ Help document specific components of the security strategy or related policies under guidance. ▶ Support the tracking of progress on security initiatives defined within the strategy.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Contribute to the implementation of specific security controls, technologies, or processes that are part of the security strategy (e.g., configuring a security tool according to policy). ▶ Apply security principles aligned with the strategy when involved in projects or system changes. ▶ Provide input on security considerations for their specific area of technical or functional expertise.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Develop specific security strategies and roadmaps for key domains (e.g., cloud security, data security, identity management) aligned with the overall security strategy. ▶ Ensure security requirements and controls implemented within their area of responsibility are consistent with the organisation's risk appetite and strategic security goals. ▶ Communicate relevant aspects of the security strategy and associated risks to stakeholders in their domain.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Lead the development, articulation, implementation, and ongoing refinement of the enterprise-wide information security strategy, vision, and principles. ▶ Align the security strategy and investments directly with business objectives, digital transformation initiatives, and the organisation's overall risk management framework. ▶ Advise executive leadership and the board on cybersecurity posture, strategic security priorities, major risks, and necessary investments.

Technical Competency	Service Level Management
Competency Description	Define, agree, monitor, report, and manage the levels of service provided by IT to the business, typically documented in Service Level Agreements (SLAs).
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand the basic Service Level Agreement (SLA) targets (e.g., response times, availability) relevant to their role or the services they use/support. ▶ Follow operational procedures designed to help meet those targets. ▶ Know how to find information about agreed service levels.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist SLM managers by collecting and compiling performance data from monitoring tools or operational logs for service level reporting. ▶ Help track service performance against specific SLA metrics under guidance. ▶ Support the maintenance of SLA documentation or service catalogue entries.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Monitor operational performance against agreed SLAs for specific IT services they are involved in delivering or supporting. ▶ Identify actual or potential SLA breaches based on monitoring data and established thresholds. ▶ Prepare routine service level reports for assigned services, highlighting performance against targets.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Negotiate and agree on achievable and meaningful SLAs and Operational Level Agreements (OLAs) with business stakeholders and internal IT teams/suppliers. ▶ Manage the end-to-end SLM process for key IT services, ensuring services are delivered according to agreed levels. ▶ Analyse service performance trends, investigates root causes of SLA failures, and drives Service Improvement Plans (SIPs).
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall strategy, framework, policies, and processes for Service Level Management. ▶ Define the structure and content of the enterprise Service Catalogue and standard SLA templates. ▶ Ensure alignment between agreed service levels, underlying IT capabilities, business needs, and cost considerations across the organisation.

**Updated for Phase 3A (2026)*

Technical Competency	Service Management
Competency Description	Knowledge and ability to implement the methods, practices and policies governing the design, development and use of the IT support processes which are designed to keep the IT environment functioning efficiently, effectively and securely. Plan, monitor and manage service provisions for the achievement of agreed service level targets.
Level 1 (Follow)	<ul style="list-style-type: none"> ▷ Understand service management processes and concepts (e.g., incident management, change management, release management). ▷ Understand concepts, techniques and practices of helpdesk operations and service delivery.
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Monitor service levels, review and report service delivery deviations. ▷ Understand and follow a process in problem management, change management or configuration management. ▷ Provide IT helpdesk support services. ▷ Gather information from end-users to determine the nature of problems and resolve them. ▷ Monitor SLAs and escalate problems. ▷ Perform initial evaluation of problem and routes as necessary. ▷ Understand the requirements of process (e.g., involvement of service management early in the process). ▷ Monitor service levels, review and report service delivery deviation.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Understand interrelationships and interdependencies between service management processes. ▷ Install, configure, troubleshoot and support application software. ▷ Analyse, evaluate, and diagnose technical problems and propose solutions. ▷ Manage processes ensuring they are followed (e.g., change, problem, testing, costing, backup and recovery, QA release). ▷ Schedule release after ensuring absence of conflicts. ▷ Serve as a point of escalation. ▷ Conduct customer satisfaction surveys. ▷ Guide others in processes. ▷ Implement changes to processes.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Implement and manage services using the principles and methods associated with Information Technology Infrastructure Library (ITIL) and other industry best practices. ▷ Identify who to call for severe or complex problems. ▷ Manage the provision of helpdesk services and problem resolution. ▷ Analyse problem trends and make recommendations. ▷ Develop service management processes. ▷ Write/negotiate SLAs for operational level agreements and internal SLAs. ▷ Develop customer satisfaction surveys. ▷ Set guidelines for others to follow.

Level 5 (Strategise)

- ▶ Formulate the organisation's service delivery standards and strategy, drive an SLA-oriented mindset, and establish strategic networks and partnerships.
 - ▶ Negotiate, develop, implement and manage SLAs.
 - ▶ Develop service management standards, practices and policies.
 - ▶ Build and maintain a network of experts.
 - ▶ Develop SLA templates.
 - ▶ Negotiate complex SLAs.
 - ▶ Provide guidelines for service management (e.g., recommend changes based upon results of a customer satisfaction survey).
 - ▶ Recommend continual improvements in service management strategy and processes.
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Technical Competency	Service Orientation
Competency Description	Plan and deliver quality service towards customer satisfaction by being responsive, helpful, and solutions-focused—while delivering reliable service quality and building trust over time.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Interact with customers professionally ▶ address routine requests by following established procedures and templates. Actively listen to clarify customer needs and promptly escalates issues that fall outside of own authority or expertise. ▶ Deliver assigned tasks on time and communicates status as needed.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Maintain consistent communication with customers by proactively providing updates on milestones, required information, and expected timelines. Address and settles standard service issues autonomously to ensure all customer commitments and service levels are met. ▶ Apply suitable interpersonal communication styles to suit different customer needs while consistently upholding organizational standards of conduct.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Identify and addresses potential customer needs proactively, offering comprehensive solutions and alternative options rather than just responding to basic inquiries. Manage expectations and handles complaints professionally with root-cause thinking. ▶ Maintain respect and builds trust through consistent delivery, clear communication, and reliable follow-through.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design/improve service standards and processes (SOPs, service standards, response SLAs) to enhance customer experience. ▶ Handle complex stakeholders and high-impact issues; leads service recovery effectively. ▶ Coach others on service quality, communication, and customer-centric problem solving.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set customer experience/service strategy aligned to organisational goals and brand promise. ▶ Establish service governance (KPIs, voice-of-customer feedback loops, continuous improvement, training standards). ▶ Drive organisation-wide culture of service excellence with measurable improvements (NPS/CSAT, retention).

Technical Competency	Software Configuration (Applications Developer)
Competency Description	Configure software products and apply scripts and automation tools to integrate and deploy software releases to various platforms and operating environments. This includes subsequent modifications to software configuration, based on outcomes of systems and/or configuration tests.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Apply standard scripts and tools to deploy software products. ▶ Assist in document release and deployment activities. ▶ Perform modifications to software configurations.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Identify appropriate scripts and tools. ▶ Perform configuration of software products to run effectively on various platforms.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Establish and revise an effective release and configuration plan. ▶ Evaluate configuration test results to recommend modifications to the product or deployment process.
Level 5 (Strategise)	N/A

Technical Competency	Software Configuration (Solutions Architect)
Competency Description	Configure software products and apply scripts and automation tools to integrate and deploy software releases to various platforms and operating environments. This includes subsequent modifications to software configuration, based on outcomes of systems and/or configuration tests.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Assist in designing, verifying, documenting, amending and refactoring moderately complex software configurations for deployment. ▷ Apply agreed standards and tools, to achieve a well-engineered result. ▷ Collaborate in reviews of work with others as appropriate. ▷ Apply standard scripts and tools to deploy software products, and document release and deployment activities as well as modifications to software configurations.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Identify appropriate scripts and tools, and configure software products to run effectively on various platforms. ▷ Establish and revise an effective release and configuration plan. ▷ Evaluate configuration test results to recommend modifications to the product or deployment process. ▷ Design, verify, document, amend and refactor complex software configurations for deployment.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Contribute to the selection of the software configuration methods, tools and techniques. ▷ Apply agreed standards and tools, to achieve well-engineered outcomes. ▷ Participate in reviews of own work and leads reviews of colleagues' work. ▷ Take technical responsibility across all stages and iterations of configuration development and deployment. ▷ Plan and drive software configuration activities. Adopts and adapts appropriate software configuration methods, tools and techniques. ▷ Measure and monitor the application of standards for configuration design and deployment including software security. ▷ Contribute to the development of organisational policies, standards, and guidelines for software configuration design and deployment.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Develop organisational policies, standards, and guidelines for software configuration design, deployment and refactoring. ▷ Plan and lead software configuration and deployment activities for strategic, large and complex deployment projects. ▷ Develop new methods and organisational capabilities and drives adoption of, and adherence to policies and standards.

Technical Competency	Software Design (Applications Developer)
Competency Description	Create and refine the overall plan for the design of software, including the design of functional specifications starting from the defined business requirements as well as the consideration and incorporation of various controls, functionality and interoperability of different elements into a design blueprint or model which describes the overall architecture in hardware, software, databases, and third-party frameworks that the software will use or interact with.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Design simple software components. ▷ Assess functionality of different elements, and produce design documentation.
Level 4 (Ensure)	▷ Create a software design blueprint based on a broad design concept, and business and user requirements.
Level 5 (Strategise)	N/A

Technical Competency	Software Design (Solutions Architect)
Competency Description	Create and refine the overall plan for the design of software, including the design of functional specifications starting from the defined business requirements as well as the consideration and incorporation of various controls, functionality and interoperability of different elements into a design blueprint or model which describes the overall architecture in hardware, software, databases, and third-party frameworks that the software will use or interact with.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Design simple software components, assessing functionality of different elements, and produce design documentation. ▷ Create and document detailed designs for simple software applications or components. ▷ Apply agreed modelling techniques, standards, patterns and tools. ▷ Contribute to the design of components of larger software systems. ▷ Review own work.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Create a software design blueprint based on a broad design concept, and business and user requirements. ▷ Undertake complete design of moderately complex software applications or components. ▷ Apply agreed standards, guidelines, patterns and tools. ▷ Assist as part of a team in the design of components of larger software systems. ▷ Specify user and/or system interfaces. ▷ Create multiple design views to address the different stakeholders' concerns and to handle functional and non-functional requirements. Assists in the evaluation of options and trade-offs. ▷ Collaborate in reviews of work with others as appropriate.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Translate complex software ideas and concepts into a design blueprint and establish key design principles and methodologies. ▷ Design complex software applications, components and modules. ▷ Use appropriate modelling techniques following agreed software design standards, guidelines, patterns and methodology. ▷ Create and communicate multiple design views to balance stakeholders' concerns and to satisfy functional and non-functional requirements. ▷ Identify, evaluate and recommend alternative design options and trade-offs. ▷ Model, simulate or prototype the behaviour of proposed software to enable approval by stakeholders, and effective construction of the software. ▷ Verify software design by constructing and applying appropriate methods. ▷ Review, verify and improve own designs against specifications. ▷ Lead reviews of others' designs.

Level 5 (Strategise)

- ▶ Adopt and adapt software design methods, tools and techniques.
 - ▶ Undertake impact analysis on major design options, make recommendations and assess and manage associated risks.
 - ▶ Specify prototypes/simulations to enable informed decision-making.
 - ▶ Evaluate software designs to ensure adherence to standards and identify corrective action.
 - ▶ Ensure that the software design balances functional, quality, security and systems management requirements.
 - ▶ Contribute to the development of organisational software design and architecture policies and standards.
 - ▶ Inspire new and innovative software design ideas, and align design principles and parameters with current and future needs.
 - ▶ Lead the selection and development of software design methods, tools and techniques.
 - ▶ Develop organisational policies, standards, and guidelines for software design and software architectures.
 - ▶ Ensure adherence to technical strategies and systems architectures (including security).
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Technical Competency	Software Testing
Competency Description	Assess and test the overall effectiveness and performance of an application. This involves the setting up of suitable testing conditions, definition of test cases and/or technical criteria.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Demonstrate awareness of testing principles and processes. ▷ Understand testing terminology. ▷ Test and debug software modules. ▷ Conduct unit testing. ▷ Understand testing methodologies and principles. ▷ Understand standards for testing. ▷ Execute test scripts. ▷ Report test results. ▷ Understand and apply IT system security for applications. ▷ Use a testing tool.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Understand systems integration principles (i.e., the methods, practices and policies that are used during a systems integration process, including hardware, software, network, and applications). ▷ Understand release and certification processes. ▷ Prepare test cases/scripts. ▷ Carry out complex testing/validation (e.g., volume testing, integration testing). ▷ Ensure other applications are not affected. ▷ Match results with expectations in the design document. ▷ Troubleshoot/resolve issues. ▷ Implement test tools. ▷ Apply standards for testing.

Level 4 (Ensure)

- ▷ Conduct application testing.
- ▷ Conduct. complex series test scenarios.
- ▷ Prepare test plans and strategies.
- ▷ Research/test testing tools and make recommendations.
- ▷ Develop test practices.
- ▷ Implement and monitor standards for testing.
- ▷ Test standards.
- ▷ Understand the impact of testing on the environment and other tests being carried out.
- ▷ Ensure that the right/appropriate tests are being carried out.
- ▷ Mentor others.
- ▷ Guide application stakeholders in testing methods and tools.

Level 5 (Strategise)

- ▷ Manage integration testing.
 - ▷ Set standards for cycle testing.
 - ▷ Design testing methodologies.
 - ▷ Develop test standards, best practices and policies.
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Technical Competency	Solutions Architecture
Competency Description	Design specific IT solutions (applications, systems, integrations) to meet business requirements, ensuring alignment with enterprise architecture standards, and considering technical feasibility, performance, security, and cost.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow existing solution design documents or architectural patterns when developing, configuring, or testing specific components of a system. ▶ Understand the basic architecture (e.g., main components, interfaces) of the specific solution they are working on. ▶ Use standard tools or platforms according to the solution design.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist solution architects by documenting specific parts of a solution design (e.g., detailing component specifications, creating sequence diagrams) based on their guidance. ▶ Help research technical options or specific products to meet defined functional or non-functional requirements. ▶ Support the creation or updating of architectural diagrams using standard modelling tools.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Design specific components, modules, or subsystems of a larger IT solution based on defined business requirements and under the guidance of senior architects or existing architectural patterns. ▶ Create detailed technical design specifications for the components they are responsible for. ▶ Evaluate different technology choices or implementation approaches for specific technical problems within the solution.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Lead the end-to-end architectural design of complex IT solutions, translating business requirements into robust, scalable, secure, and maintainable technical designs. ▶ Make key technology choices and architectural decisions, ensuring the solution meets all functional and critical non-functional requirements (e.g., performance, reliability, security). ▶ Ensure the solution architecture aligns with Enterprise Architecture standards, principles, and roadmaps, and effectively communicates the design to stakeholders and development teams.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop reusable solution architecture patterns, reference architectures, and design standards for common business problems or technology domains within the organisation. ▶ Provide architectural leadership, oversight, and governance across multiple projects or product teams. ▶ Evaluate emerging technologies and architectural trends, assessing their potential applicability and impact on future solution designs. ▶ Mentor and develop other solution architects.

Technical Competency	Stakeholder Management
Competency Description	Manage stakeholder expectations and needs by aligning those with requirements and objectives of the organisation. This involves planning of actions to effectively communicate with, negotiate with and influence stakeholders.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Identify key stakeholder relationships, needs and interests, and coordinate with stakeholders on a day-to-day basis. ▶ Serve as the organisation’s main contact point for stakeholder communications, clarifying responsibilities among stakeholders, and engaging them to align expectations. ▶ Understand which external and internal stakeholders are relevant to own work.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Develop a stakeholder engagement plan and negotiate with stakeholders to arrive at mutually beneficial arrangements. ▶ Build relationships with relevant external peers reflecting business needs. ▶ Be an ambassador for the organisation, supporting its strategy and living its values and behaviours. ▶ Proactively share information gained from external stakeholder engagement in a helpful and timely way. ▶ Build and maintain positive relationships with internal peers and other colleagues, in ways that help to deliver the strategy as a whole.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Define a strategic stakeholder management roadmap, and lead critical discussions and negotiations, addressing escalated issues or problems encountered. ▶ Build relationships and networks with relevant external peers, regulators, relevant stakeholders or professional bodies. ▶ Maintain a positive approach to influence, persuade and negotiate effectively as required by the project(s). ▶ Develop and maintain an understanding of different approaches to stakeholder management and be able to make an informed recommendation about which approach to use to maximum effect. ▶ Develop awareness and identify opportunities to collaborate effectively.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Establish the overall vision for the alignment of organisation’s and stakeholders’ objectives, co-creating shared goals and strategic initiatives with senior stakeholders. ▶ Develop and maintain a good understanding of the organisation’s stakeholder landscape, interactions and linkages across it, trends over time, and future movements. ▶ Play a key role in using stakeholder engagement (including collaborative working) to deliver strategic benefits. This may include developing networks and influencing on issues beyond regulation. ▶ Drive the development of stakeholder activities across the organisation remit to maintain relationships that deliver maximum strategic benefit.

Technical Competency	Strategy Implementation
Competency Description	Translate strategic plans into actionable initiatives, projects, and operational changes, and managing their execution to achieve strategic objectives.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand how their assigned tasks or project activities contribute to the achievement of larger strategic initiatives or goals. ▶ Complete assigned tasks according to the plans and timelines established for the strategic initiative. ▶ Report progress and any obstacles related to their tasks within the initiative.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist initiative or program managers in tracking the progress of specific activities or milestones within a strategic implementation plan. ▶ Help prepare status reports, presentations, or communication materials related to the initiative's progress. ▶ Support the coordination of meetings or workshops related to strategy execution.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Manage specific projects or well-defined workstreams that are key components of a broader strategic initiative. ▶ Develop detailed action plans for their assigned scope, translating strategic objectives into concrete deliverables and tasks. ▶ Monitor progress, manages resources, and reports on outcomes for their part of the strategy implementation.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Manage the end-to-end implementation of significant strategic initiatives or programs involving multiple projects and cross-functional teams. ▶ Develop comprehensive implementation plans, including defining key performance indicators (KPIs) to measure success against strategic objectives. ▶ Proactively identifies and manages risks, dependencies, and resource conflicts that could impede strategy execution. ▶ Ensure effective stakeholder communication and change management throughout the implementation process.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Design and oversee the organisation's overall framework, processes, and governance structures for translating strategic plans into executable initiatives and monitoring their progress. ▶ Prioritise strategic initiatives, ensures appropriate resource allocation, and facilitates alignment across different parts of the organisation. ▶ Monitor overall strategic performance, identify systemic barriers to implementation, and advise senior leadership on necessary adjustments to strategy or execution approach.

Technical Competency	Strategic Implementation
Competency Description	Translate strategy into executable plans, align stakeholders and resources, manage delivery, track benefits, and adapt execution to achieve intended outcomes.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Understand team/unit priorities and how individual work assignments contribute to the organisational goals. ▶ Complete assigned tasks on time, follows plans, and flags risks or blockers promptly. ▶ Employ standard tracking tools and techniques (checklist, timelines) to provide accurate and timely status updates on work progress.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist in translating objectives into practical actions (tasks, owners, timelines) to support project coordination. ▶ Align own work with key stakeholders' requirements and communicates progress regularly and clearly. ▶ Monitor basic performance indicators and identify opportunities for improvements.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Translate strategic goals into implementation plans with milestones, dependencies, resources, and success measures. ▶ Lead delivery for a programme/workstream by managing scope, risks, schedule, budget, stakeholders expectations, and change impacts. ▶ Evaluate implementation outcomes against intended and adjusts plans accordingly. Documents lessons learned.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Drive cross-functional strategic initiatives by securing buy-in, resolving conflicts, and ensuring alignment across units, vendors and other stakeholders. ▶ Establish governance frameworks (cadence, workflows, decision rights, reporting, issue escalation) and maintains momentum through disciplined execution. ▶ Balance competing priorities and resources; anticipates obstacles and adapts implementation approach to changing conditions.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Set organisational approach to strategy execution (operating rhythm, portfolio management, KPI framework, accountability model). ▶ Influence and shapes strategic choices through execution insights (what's working, what to stop, what to scale) ensuring sustainable implementation and capability build. ▶ Champion large-scale transformation by embedding change management, cultural alignment, and capability building to ensure results are sustainable in the long-term.

Technical Competency	System Integration
Competency Description	Develop and implement a roadmap and specific integration solutions to facilitate integration of various ICT components and optimise interoperability of systems and their interfaces. This includes the integration of various architectural components such as networks, servers, system platforms and their interfaces.
Level 1 (Follow)	N/A
Level 2 (Assist)	<ul style="list-style-type: none"> ▷ Perform basic compatibility assessments and integrate selected system components according to plan. ▷ Produce software builds from software source code. ▷ Conduct tests as defined in an integration test specification and record the details of any failures. ▷ Analyse and report on integration test activities and results. ▷ Identify and report issues and risks.
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Determine interoperability of system components and develop a system integration plan. ▷ Define the software modules needed for an integration build and produce a build definition for each generation of the software. ▷ Accept completed software modules, ensuring that they meet defined criteria. ▷ Produce software builds from software source code for loading onto target hardware. ▷ Configure the hardware and software environment as required by the system being integrated. ▷ Produce integration test specifications, conduct tests and record and report on outcomes. ▷ Diagnose faults and record and report on the results of tests. ▷ Produce system integration reports.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Design a feasible integration roadmap, monitor system integration outcomes and drive enhancements to integration plans. ▷ Provide technical expertise to enable the configuration of software, other system components and equipment for systems testing. ▷ Collaborate with technical teams to develop and agree on system integration plans and report on progress. ▷ Define complex/new integration build. ▷ Ensure that integration test environments are correctly configured. ▷ Design, perform and report results of tests of the integration build. ▷ Identify and document system integration components for recording in the configuration management system. ▷ Recommend and implement improvements to processes and tools.

Level 5 (Strategise)

- ▶ Establish an integration strategy and a clear vision for an integrated ICT architectural design.
 - ▶ Identify, evaluate and manage the adoption of appropriate tools, techniques and processes (including automation and continuous integration) to create a robust integration framework.
 - ▶ Lead integration work in line with the agreed system and service design.
 - ▶ Monitor and report on the results of each integration and build.
 - ▶ Design and build integration components and interfaces.
 - ▶ Contribute to the overall design of the service and the definition of criteria for product and component selection.
 - ▶ Contribute to development of systems integration policies, standards and tools.
 - ▶ Develop organisational policies, standards, and guidelines for systems integration and build.
 - ▶ Lead the development of organisational capabilities for systems integration and build, including automation and continuous integration.
 - ▶ Provide resources to ensure systems integration and build can operate effectively and ensure adoption and adherence to policies and standards.
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Technical Competency	Telecommunications Network Management
Competency Description	<p>Knowledge and ability to implement the methods, practices and policies governing the design, analysis, development, management and use of the IT and telecommunications hardware and software to transfer information such as data, voice, images, video and other telecommunication services over fibre optic, wired or wireless over short or long distances. This involves utilisation of telecommunication network management systems and signalling network protocols. The telecommunications networking system components comprises of software (operating systems and applications) and hardware (computer, routers, radiocommunication equipment, fibre optic, switches, cable and hub) whether underground or above ground.</p>
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Demonstrate basic understanding of telecommunication, data communications and components, definitions, key concepts, communication protocols and platforms (e.g., firewalls, security, passive optical network (PON), hubs/routers/ gateways switches, Voice over Internet Protocol (VoIP), routing protocols).
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Understand telecommunication services routing, data routing and switching technology. ▶ Understand how basic concepts relate to each other and apply them. ▶ Understand how telecommunication services, data communications integrate with other environments (e.g., telecommunications data centre and switches) and are distributed, at a basic level, from an end-user perspective. ▶ Assist in the design of basic connections (e.g., connecting 100 people to a Fibre-To-The-Home (FTTH) network or a wireless radiocommunication network). ▶ Troubleshoot basic physical or software connectivity problems, network congestion (e.g., cables/connections defective equipment, logging in to network equipment, checking configuration of routers/switches). ▶ Use telecommunication and data communications diagnostic tools. ▶ Test, configure, install, and support hardware and software at any typical site. ▶ Talk clients through troubleshooting.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Understand how telecommunication or data communications integrate with other environments such as mainframe, firewalls, and external networks, at a component level. ▶ Demonstrate and apply wide range of concepts to the corporate/vendor environment. ▶ Understand vendor-specific network switching and routing products. ▶ Translate multiple client network connectivity requirements and limitations into technical specifications for building/site designs. ▶ Design complex building environments using existing standards and deployment best practices. ▶ Resolve typical hardware and software problems (e.g., connectivity, network congestion, protocols, and uses diagnostic tools). ▶ Conduct certification testing. ▶ Apply telecommunication standards and best practices.

Level 4 (Ensure)	<ul style="list-style-type: none">▶ Incorporate business requirements (e.g., high availability, redundancy, disaster recovery) into data communications design using analytical techniques.▶ Evaluate/pilot new technologies, identify how they integrate with the corporate network and implement.▶ Resolve unusual or atypical network problems without clear precedents and/or that have significant impact or consequence on the business or service.▶ Create or review certification testing.▶ Develop standards and procedures for new technology configuration and implementation.▶ Mentor/guide individuals and cross-functional teams.▶ Deal with major client groups (e.g., regional or national client).
Level 5 (Strategise)	<ul style="list-style-type: none">▶ Demonstrate expert knowledge of telecommunication and data communications principles, network technology, enterprise-wide technology for public/private sector and technological trends.▶ Demonstrate broad-based knowledge of information, radiocommunication, deployment technology.▶ Develop enterprise-wide multi-disciplinary telecommunication architectural documents.▶ Develop business cases for enterprise-wide telecommunication network technology initiatives as a direct response to business drivers.▶ Provide effective strategic direction to enterprise-wide telecommunication network design.▶ Guide and oversee multiple-concurrent telecommunication network projects.▶ Conduct procurement for telecommunications network solutions, hardware and services.▶ Develop policy and standards for telecommunication networking technology and contribute to governmental and/or industry standards working groups (e.g., International Telecommunication Union).

Technical Competency	Test Analytics and Processing
Competency Description	Collect, analyse, and interpret data generated during the software testing process to provide insights into product quality, test effectiveness, and process improvement opportunities.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Accurately and consistently records test execution results (pass, fail, blocked) and defect information into designated test management tools or logs following procedures. ▶ Follow instructions for categorizing defects or linking test results to requirements. ▶ Understand the basic metrics being tracked for their testing activities.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist test leads or analysts in compiling basic test metrics reports (e.g., test execution progress, defect counts by severity, pass/fail rates) using predefined templates or tool queries. ▶ Help gather data required for specific analyses (e.g., extracting defect data for root cause analysis). ▶ Perform basic data validation checks on collected test data under guidance.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Collect and analyse test data for specific projects, test cycles, or feature areas. ▶ Identify basic trends and patterns in test results, defect data (e.g., defect density, common failure points), or test coverage. ▶ Prepare test summary reports that include quantitative data, charts, and basic qualitative analysis of findings.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Design and implement frameworks and processes for systematic collection, analysis, and reporting of test data across projects or product lines. ▶ Define meaningful quality and testing metrics (KPIs) aligned with project goals and quality objectives. ▶ Analyse trends and patterns in test data to provide actionable insights into product quality risks, test process effectiveness (e.g., test suite efficiency, defect detection rate), and potential areas for process improvement.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall strategy for leveraging test analytics and data-driven decision making in quality assurance. ▶ Define advanced metrics, statistical process control techniques, or predictive quality models based on test data. ▶ Use insights from test analytics to drive strategic improvements in testing methodologies, automation strategies, resource allocation, and overall software development lifecycle processes.

Technical Competency	Test Planning
Competency Description	Develop a test strategy and systematic test procedures to verify and ensure that a product, system or technical solution meets its design specifications as well as the performance, load and volume levels set out. This includes the ability to define when different requirements will be verified across the product life stages, the tools used to perform the test, the data and/or resources needed to conduct the tests and test ware in test cases, test scripts, test reports and test plans required.
Level 1 (Follow)	N/A
Level 2 (Assist)	▶ Identify and document the basic tools, test ware, resources and processes to carry out required tests.
Level 3 (Apply)	▶ Determine requirements and develop a phase test plan, identifying optimal schedules and means for executing test scripts.
Level 4 (Ensure)	▶ Define testing objectives, and design a master test plan including a series of systematic test procedures to achieve them.
Level 5 (Strategise)	▶ Develop a test strategy, and establish testing policies, guidelines and metrics according to internal and external standards.

Technical Competency	Threat Analysis and Defence
Competency Description	Identify, analyse, and understand potential cyber threats and vulnerabilities, and designing, implementing, and managing defensive measures to mitigate risks.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow established procedures for reporting suspicious emails, websites, or unusual system behaviour observed. ▶ Understand basic types of common cyber threats (e.g., malware, phishing) based on training. ▶ Adhere to security policies designed as basic defensive measures.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist security analysts in gathering information about specific known threats or vulnerabilities from predefined sources (e.g., security advisories, vulnerability databases). ▶ Help monitor security tool dashboards (e.g., antivirus console, basic logs) for alerts related to known threats under guidance. ▶ Support the application of predefined patches or basic configuration changes as part of vulnerability remediation.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Analyse specific threat intelligence reports or vulnerability scan results to understand potential threats relevant to the organisation's environment. ▶ Assess the potential impact and likelihood of specific threats or vulnerabilities within their area of responsibility. ▶ Implement standard defensive measures or configurations (e.g., applying security patches, configuring firewall rules based on requests, tuning basic security tool settings).
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Conduct in-depth analysis of complex threats, attack vectors, and organisational vulnerabilities using various techniques (e.g., threat modelling, detailed vulnerability analysis). ▶ Design, implement, and manage effective defensive strategies and security controls (technical and procedural) to mitigate identified risks. ▶ Lead incident response activities related to specific analysed threats, coordinating defensive actions. ▶ Continuously evaluates and improves the effectiveness of existing defences against evolving threats.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop the organisation's overall strategy for proactive threat analysis, vulnerability management, and cyber defence. ▶ Establish threat modelling frameworks and integrates threat analysis into the system development lifecycle and risk management processes. ▶ Direct strategic defence initiatives (e.g., implementing advanced security architectures, developing custom detection capabilities) based on analysis of the threat landscape and organisational risk posture.

Technical Competency	Threat Intelligence and Detection
Competency Description	Gather, process, analyse, and disseminate information about current and emerging cyber threats, threat actors, and attack methods to enable proactive threat detection and response.
Level 1 (Follow)	<ul style="list-style-type: none"> ▶ Follow procedures for handling threat intelligence alerts or indicators of compromise (IoCs) received through internal tools or communications. ▶ Understand the concept of threat intelligence and its purpose at a basic level. ▶ Know where to find approved sources of basic threat information within the organisation.
Level 2 (Assist)	<ul style="list-style-type: none"> ▶ Assist analysts in collecting and organizing threat intelligence data from predefined feeds, reports, and sources. ▶ Help perform basic searches or correlations for known IoCs (e.g., malicious IP addresses, file hashes) within security logs or tools under guidance. ▶ Support the maintenance of threat intelligence repositories or tracking systems.
Level 3 (Apply)	<ul style="list-style-type: none"> ▶ Analyse structured threat intelligence reports (e.g., identifying relevant Tactics, Techniques, and Procedures - TTPs, IoCs) applicable to the organisation's environment. ▶ Use validated threat intelligence (e.g., IoCs, detection rules) to configure or tune security detection tools (e.g., SIEM, IDS/IPS, EDR). ▶ Conduct basic investigations into security alerts potentially linked to threat intelligence findings.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▶ Analyse structured threat intelligence reports (e.g., identifying relevant Tactics, Techniques, and Procedures - TTPs, IoCs) applicable to the organisation's environment. ▶ Use validated threat intelligence (e.g., IoCs, detection rules) to configure or tune security detection tools (e.g., SIEM, IDS/IPS, EDR). ▶ Conduct basic investigations into security alerts potentially linked to threat intelligence findings.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▶ Develop and oversee the organisation's comprehensive threat intelligence strategy, program, and capabilities (people, process, technology). ▶ Determine strategic intelligence requirements based on business risks and the evolving threat landscape. ▶ Establish relationships with external intelligence communities, feeds, and partners. ▶ Integrate threat intelligence deeply into strategic security decision-making, risk management, incident response planning, and defensive posture adjustments.

Technical Competency	User Interface Design
Competency Description	Design user interfaces for machines and software, incorporating visual, technical and functional elements that facilitate ease of access, understanding and usage. This involves adding, removing, modifying or enhancing elements to make the user's interaction with the product as seamless as possible.
Level 1 (Follow)	N/A
Level 2 (Assist)	N/A
Level 3 (Apply)	<ul style="list-style-type: none"> ▷ Identify functionalities and information flows to develop components of user interface prototypes. ▷ Making tweaks to graphical user interfaces. ▷ Apply standard techniques and tools for designing user interactions with and experiences of selected system, product or service components. ▷ Review design goals and agreed security, usability and accessibility requirements. ▷ Create storyboards, static wireframes and dynamic or workable prototypes. ▷ Assist as part of a team, with overall user experience design. ▷ Assist in the evaluation of design options and trade-offs. ▷ Consistently apply visual design and branding guidelines.
Level 4 (Ensure)	<ul style="list-style-type: none"> ▷ Design the information architecture, process flow and user interface prototypes as well as graphical user interfaces. ▷ Select appropriate tools, methods and design patterns to design user interactions with and experiences of a product, system or service. ▷ Translate concepts into outputs and prototypes and capture user feedback or evaluation to improve designs. ▷ Evaluate alternative design options and recommend designs taking into account performance, security, usability and accessibility requirements. ▷ Interpret and follow visual design and branding guidelines to create a consistent and impactful user experience. ▷ Plan and drive user experience design activities, providing expert advice and guidance to support the adoption of agreed approaches. ▷ Determine the approaches to be used to design user experiences. ▷ Use iterative approaches to incorporate user feedback or evaluation rapidly into designs. ▷ Integrate required visual design and branding into the user experience design activities.
Level 5 (Strategise)	<ul style="list-style-type: none"> ▷ Direct the development of prototypes and user interface. ▷ Customise complex graphical user interfaces. ▷ Obtain organisational commitment to strategies to deliver required user experience, usability, accessibility and security. ▷ Define organisational policies, standards and techniques for user experience design. ▷ Plan and lead user experience design activities for strategic, large or complex programmes.

Technical Competency	Vendor Management
Competency Description	Manage vendor relationships by ensuring performance as per contracts, operations within standards established by the organisation such as adherence to safety, security, and compliance standards.
Level 1 (Follow)	N/A
Level 2 (Assist)	▶ Monitor vendors' performance and resolve contractual issues.
Level 3 (Apply)	▶ Develop and sustain vendor relationships and manage vendors' performance.
Level 4 (Ensure)	▶ Establish organisation's expectations of vendors and manage critical vendor interactions.
Level 5 (Strategise)	N/A

Soft Skills Competencies

Soft Skills Competencies Glossary

No.	Competency	Definition
1	Analytical Thinking	Work systematically and logically to resolve problems, address opportunities, or manage the situation at hand. Analyse the situation; identify the underlying problem; identify causes, relationships and implications; identify opportunities; draw from a range of resources, contexts and experiences; conceptualise solutions; consider alternatives; and implement the most appropriate action.
2	Communication	Express ideas effectively in individual and group situations. Listen effectively; share information, ideas and arguments; adjust terminology, language and communication modes to the needs of the audience; ensure accurate understanding; act in a way that facilitates open exchange of ideas and information; use appropriate non-verbal communication.
3	Creativity and Innovation	Generate creative solutions to work situations. Generate and promote new ideas and uses them to develop new or improved processes, methods, systems, solutions, products, or services; try different and novel ways to deal with problems and opportunities.
4	Decision-Making	Decision-making process is a series of steps taken by an individual to determine the best option or course of action to meet their needs. In a business context, it is a set of steps taken by managers in an enterprise to determine the planned path for business initiatives and to set specific actions in motion. Ideally, business decisions are based on an analysis of objective facts, aided by the use of Business Intelligence (BI) and analytics tools.
5	Negotiation	Effectively explore alternatives and positions to reach outcomes that gain the support and acceptance of all parties.
6	People Management	Motivate and guide others to accomplish work objectives through performance management. Set clear performance expectations; use appropriate interpersonal skills to gain commitment from staff; monitor and guide progress; seek and give feedback; appraise performance outcomes; plan and support the development of others; facilitate relationships with others; advise staff to better navigate complexity in roles; allocate decision-making authority and task responsibilities to appropriate subordinates; utilise subordinate's time, skills and potential effectively.

No.	Competency	Definition
7	Resilience	Handle disappointment and/or rejection while maintaining effectiveness. Stay with a position or plan of action until the desirable objective is achieved or is no longer reasonably attainable.
8	Results Orientation	Stay focused on the efforts necessary to achieve quality results consistent with institutional and departmental goals. Demonstrate the ability to achieve effective results; demonstrate concern for the successful achievement of results; work persistently to overcome obstacles to goal achievement.
9	Service Orientation	Make client's needs a primary focus of actions. Proactively develop and sustain productive client relationships; understand the client needs; anticipate and provide solutions to client needs; demonstrate concern for meeting and exceeding immediate and future needs of clients; give high priority to client satisfaction.
10	Teamwork	Work effectively with team/work groups or those outside formal line of authority to accomplish goals. Actively participate as a member of a team; take action that respects the needs and contributions of others; contribute to and accept the consensus, subordinating own needs to those of the team; develop and build cohesive team relations to produce required outputs; possess knowledge and understanding of peer's work.
11	Work Management	Establish a course of action for self-and/or others to accomplish a specific goal. Effectively plan, schedule, prioritise and control activities; identify, integrate and orchestrate resources (people, material, information, budget, and/or time) to accomplish goals; prioritise work according to the organisation's goals, not just formal position responsibilities; manage own time effectively.

Soft Skills Competencies Descriptor

Soft Skills Competency	Analytical Thinking
Competency Description	Work systematically and logically to resolve problems, address opportunities, or manage the situation at hand. Analyses the situation; identify the underlying problem; identify causes, relationships and implications; identify opportunities; draw from a range of resources, contexts and experiences; conceptualise solutions; consider alternatives; and implement the most appropriate action.
Basic	<ul style="list-style-type: none">▶ Effectively use existing procedures, processes, and tools to identify and solve routine problems.▶ Appropriately apply learned concepts, procedures, or “rules of thumb” to analyse data.▶ Identify the information needed to solve a problem.▶ Recognise a match or mismatch between current data and a known standard.
Intermediate	<ul style="list-style-type: none">▶ Appropriately derive and organise the essence of information to draw solid conclusions.▶ Effectively resolve problems of a moderately complex nature.▶ Synthesise data from different sources to identify trends.▶ Look beyond symptoms to uncover root causes of problems to be solved.▶ Present problem analysis and a recommended solution rather than just identifying and describing the problem itself.▶ Proactively approach others to obtain missing information.▶ Take action to reconcile discrepancies.
Advanced	<ul style="list-style-type: none">▶ Effectively resolve complex problems that require substantial, in-depth analysis.▶ Quickly identify key issues, stakeholders and viewpoints in a complex situation or problem.▶ Find ways to condense large amounts of information into a useful form.▶ Anticipate the consequences of situations and proactively work to overcome potential obstacles.▶ Asks perceptive, probing questions to get to the heart of the matter.
Expert	<ul style="list-style-type: none">▶ Effectively resolve the most difficult and complex problems that require the creation of new, innovative approaches.▶ Analyse and appropriately weigh the pros, cons, opportunities, and risks before deciding on a course of action.▶ Integrate seemingly unrelated information from different sources to identify new approaches that strengthen the long-term position of the organisation.

Soft Skills Competency	Communication
Competency Description	Express ideas effectively in individual and group situations. Listen effectively; share information, ideas and arguments; adjust terminology, language and communication modes to the needs of the audience; ensure accurate understanding; act in a way that facilitates open exchange of ideas and information; use appropriate non-verbal communication.
Basic	<ul style="list-style-type: none"> ▷ Appropriately express one's own opinion. ▷ Listen closely to the message being delivered. ▷ Wait until the speaker has ended the intended message before responding. ▷ Accurately report mistakes, errors and unintended outcomes without glossing over what went wrong.
Intermediate	<ul style="list-style-type: none"> ▷ Ask open ended questions that encourage others to give their point of view. ▷ Check understanding by stating what he/she understands of the message and asking the speaker to verify or clarify. ▷ Show respect for the opinion of others. ▷ Adapt communication (vocabulary, pace, etc.) for the audience.
Advanced	<ul style="list-style-type: none"> ▷ Refrain from immediate judgement and criticism of others' ideas delivering criticism in a way that demonstrates sensitivity to the feelings of others. ▷ Stand firm when presenting own ideas yet is flexible in listening to and accepting others' input. ▷ Help the other person to vent anger and negative emotions. ▷ Encourage the open expression of dissent and contrary viewpoints. ▷ Alert appropriate parties upon the discovery of potential problems, ensuring no surprises.
Expert	<ul style="list-style-type: none"> ▷ Create a climate that promotes the free flow of communication in own team, department and organisation. ▷ Communicate effectively across all functions and levels of the organisation. ▷ Being sensitive to individual or group communication patterns and work to overcome dysfunctional behaviour, if necessary.

Soft Skills Competency	Creativity and Innovation
Competency Description	Generate creative solutions to work situations. Generate and promotes new ideas and uses them to develop new or improved processes, methods, systems, solutions, products, or services; try different and novel ways to deal with problems and opportunities.
Basic	<ul style="list-style-type: none"> ▷ Generate ideas for own area of responsibility. ▷ Try new methods for completing required tasks more efficiently. ▷ Contribute ideas in team meetings.
Intermediate	<ul style="list-style-type: none"> ▷ Generate ideas beyond own area of responsibility, benefiting the team or department. ▷ Question established processes and procedures to find a better way. ▷ Help to develop new approaches by building on the ideas of others. ▷ Possess good judgement of which ideas and suggestions.
Advanced	<ul style="list-style-type: none"> ▷ Generate ideas for creatively applying existing technology or processes to the benefit of the department/organisation. ▷ Continually look for ways to expand the department's capabilities. ▷ Energise others to come up with creative ideas. ▷ Facilitate idea generation by creating networking opportunities. ▷ Promote the further development and implementation of creative ideas. ▷ Assess the impact of institutional/legislative/policy/context changes and determine appropriate tactics to respond.
Expert	<ul style="list-style-type: none"> ▷ Generate ideas that create breakthrough opportunities and change (not just extensions of the past). ▷ Continually examine and challenge the assumptions of organisation policies and strategies. ▷ Lead initiatives to promote creativity and innovation throughout the department/organisation. ▷ Translate creative ideas into strategies and plans that will succeed in the organisation. ▷ Anticipate how institutional/legislative/policy/context changes will affect the organisation and develop strategies to capitalise on these changes.

Soft Skills Competency	Decision-Making
Competency Description	Decision-making process is a series of steps taken by an individual to determine the best option or course of action to meet their needs. In a business context, it is a set of steps taken by managers in an enterprise to determine the planned path for business initiatives and to set specific actions in motion. Ideally, business decisions are based on an analysis of objective facts, aided by the use of Business Intelligence (BI) and analytics tools.
Basic	<ul style="list-style-type: none"> ▷ Use sound judgement to make appropriate and timely decisions in well-structured or routine situations. ▷ Weigh the advantages and consequences of alternative options before deciding on the approach to take. ▷ Know when to escalate a decision to a higher level. ▷ Make decisions that have an impact on own area of responsibility.
Intermediate	<ul style="list-style-type: none"> ▷ Use sound judgement to make appropriate, timely decisions in moderately complex situations. ▷ Make decisions with available information, even if such information is not fully conclusive. ▷ Evaluate situations objectively. ▷ Avoid making assumptions about the facts of a situation or the motivation of others. ▷ Make decisions having an impact on own team or other related teams. ▷ Appropriately solicit the input of those who will be affected by the decision. ▷ Set priorities in accordance with team/departmental objectives and strategies.
Advanced	<ul style="list-style-type: none"> ▷ Use sound judgement to make appropriate, timely decisions in complex situations. ▷ Make decisions that may have a major impact on other functions. ▷ Make courageous decisions in the face of risks or uncertainty. ▷ Appropriately weigh the costs and benefits of an immediate decision versus further analysis. ▷ Predict how a decision will affect individuals and groups in the department and organisation and develop strategies to build support for the decision and overcome obstacles. ▷ Develop contingency plans prior to their need. ▷ Set priorities in accordance with organisational objectives and strategies.
Expert	<ul style="list-style-type: none"> ▷ Use sound judgement to make appropriate, timely decisions in highly complex situations. ▷ Make key decisions that have an organisation-wide or strategic impact. ▷ Predict how a decision will affect key stakeholder groups (internal and external) and develop strategies to build support for the decision and overcome obstacles. ▷ Rapidly identify the key issues that need to be considered when making strategic decisions. ▷ Set priorities in accordance with organisational objectives and strategies.

Soft Skills Competency	Negotiation
Competency Description	Effectively explore alternatives and positions to reach outcomes that gain the support and acceptance of all parties.
Basic	<ul style="list-style-type: none"> ▷ Question others to gain clarity on their needs and desired outcomes. ▷ Keep calm and use assertive, tactful and diplomatic behaviour. ▷ Listen carefully to the arguments of the other party. ▷ Respond to opposing views in a non-defensive manner. ▷ Make sure there is an agreed deadline for resolution. ▷ List all the issues which are important to both sides and identify the key issues. ▷ Identify any areas of common ground.
Intermediate	<ul style="list-style-type: none"> ▷ Clearly communicate own needs and desired outcomes of the discussion. ▷ Understand the underlying concerns and needs of the parties involved. ▷ Summarise the points of agreement and areas of difference in the positions of the parties involved in the discussion and test the understanding by communicating to parties involved. ▷ Know when to compromise to achieve desired outcomes. ▷ Modify argument to suit audience. ▷ Use a range of approaches and strategies to gain support for ideas.
Advanced	<ul style="list-style-type: none"> ▷ Be a master negotiator. ▷ Be sought out by others to mediate prolonged, complex and difficult disputes. ▷ Try to achieve a mutually agreeable outcome by offering ideas and possible solutions which take all parties' needs into consideration.
Expert	<ul style="list-style-type: none"> ▷ Identify minimal or ideal conditions of others during negotiations. ▷ Demonstrate use of a direct and diplomatic style; challenge information to detect discrepancies in reasoning. ▷ Show an excellent sense of timing, quickly gain trust and respect of all other parties to the negotiations. ▷ Lead the most complex negotiations and demonstrate expert closing skills and excellent political and cultural savvy.

Soft Skills Competency	People Management
Competency Description	Motivate and guide others to accomplish work objectives through performance management. Set clear performance expectations; use appropriate interpersonal skills to gain commitment from staff; monitor and guide progress; seek and give feedback; appraise performance outcomes; plan and support the development of others; facilitate relationships with others; advise staff to better navigate complexity in roles; allocate decision-making authority and task responsibilities to appropriate subordinates; utilise subordinate's time, skills and potential effectively.
Basic	<ul style="list-style-type: none"> ▷ Display people management potential. ▷ Demonstrate leadership fundamentals. ▷ Demonstrate self-awareness and self-control. ▷ Demonstrate growth mindset.
Intermediate	<ul style="list-style-type: none"> ▷ Take action to clarify goals and objectives for the team if there is uncertainty around performance expectations. ▷ Continually examine own and team's actions to assess whether they are in line with team objectives. ▷ Monitor the progress of the team toward the accomplishment of performance expectations; give timely, constructive, actionable feedback. ▷ Make plans to facilitate progress towards objectives. ▷ Implement performance improvement process where necessary. ▷ Define tasks and activities of team members.
Advanced	<ul style="list-style-type: none"> ▷ Define roles and responsibilities of team members. ▷ Set measurable and achievable performance expectations for team members that align with department and organisation objectives. ▷ Delegate assignments and tasks appropriately, ensuring that the individual has the skills and competencies to get it done. ▷ Provide appropriate guidance and support for delegated tasks. ▷ Push responsibility back to team members (rather than taking charge) if they have the capability to accomplish something. ▷ Conduct productive performance feedback discussions, giving team members necessary focus, guidance, and direction. ▷ Hold team members responsible for the attainment of established performance expectations; deal effectively with poor performance. ▷ Recognise and reward successful behaviours and results within policy.
Expert	<ul style="list-style-type: none"> ▷ Ensure that faculty/departmental goals and objectives are aligned with organisation's strategy. ▷ Focus own department on the accomplishment of key objectives. ▷ Ensure commitment to and application of the performance feedback process throughout the department/organisation.

Soft Skills Competency	Resilience
Competency Description	Handle disappointment and/or rejection while maintaining effectiveness. Stay with a position or plan of action until the desirable objective is achieved or is no longer reasonably attainable.
Basic	<ul style="list-style-type: none"> ▷ Pursue objectives with energy and persistence. ▷ Set high personal standards for performance. ▷ Adapt working methods in order to achieve objectives. ▷ Accept ownership of and responsibility for own work. ▷ Do not give up at the first obstacle.
Intermediate	<ul style="list-style-type: none"> ▷ Measure progress against targets. ▷ Acknowledge the work and contribution of others. ▷ Make adjustments to activities/processes based on feedback. ▷ Seek to understand reasons for obstacles and to find ways to overcome. ▷ Maintain performance after disappointment or rejection. ▷ Assist others in dealing with disappointment/rejection.
Advanced	<ul style="list-style-type: none"> ▷ Tackle difficult and complex problems and take personal responsibility and accountability for reaching solutions. ▷ Remain determined despite frequent obstacles. ▷ Maintain enthusiasm of others after disappointment or rejection; bounce back very quickly. ▷ Lead others through dealing with disappointment/rejection. ▷ Re-engineer or create new processes and systems to get around obstacles. ▷ Anticipate problems and proactively design contingency plans.
Expert	<ul style="list-style-type: none"> ▷ Make decision through weighing up the cost-benefit and risk implications. ▷ Stay the course in the face of adversity while ensuring the motivation and commitment of others. ▷ Lead the organisation through challenging times. ▷ Build organisation-wide support for the cause and appoint champions. ▷ Re-engineer or create new strategy to get around obstacles. ▷ Proactively scan environment to identify long-term risks and proactively designs contingency plans.

Soft Skills Competency	Result Orientation
Competency Description	Stay focused on the efforts necessary to achieve quality results consistent with institutional and departmental goals. Demonstrate the ability to achieve effective results; demonstrate concern for the successful achievement of results; work persistently to overcome obstacles to goal achievement.
Basic	<ul style="list-style-type: none"> ▶ Clarify results/expectations for all work he/she is taking on; go back to manager if there is any lack of clarity about results/expectations. ▶ Stay focused on task despite distractions, demonstrating commitment to the successful achievement of challenging goals. ▶ Clearly define the expected output and results of all assignments and projects.
Intermediate	<ul style="list-style-type: none"> ▶ Put in extra efforts (above what would normally be required) to accomplish a goal. ▶ Take on-going, repeated action to overcome obstacles to goal achievement. ▶ Look for and identify better, faster, less expensive, or more efficient ways to achieve results. ▶ Continuously monitor progress towards goal achievements and act decisively when progress is stalling. ▶ Willingly take on difficult assignments.
Advanced	<ul style="list-style-type: none"> ▶ Give advice and guidance to others on how to define their work in terms of results expectations. ▶ Reinforce effective behaviours and results in others. ▶ Take multiple, different actions to overcome resistance or obstacles. ▶ Engage others who can help “turn the tides” towards successful goal achievement. ▶ Hold self and others accountable for achieving results. ▶ Willingly take on very difficult tasks and assignments.
Expert	<ul style="list-style-type: none"> ▶ Facilitate progress towards desired results by anticipating potential obstacles and taking steps to avoid or minimise the barriers. ▶ Continuously “raise the bar” for increasingly high levels of excellence and success. ▶ Willingly take on the most complex and difficult assignments and ensure the successful achievement of expected results.

Soft Skills Competency	Service Orientation
Competency Description	Make client's needs a primary focus of actions. Proactively develop and sustain productive client relationships; understand the client needs; anticipate and provide solutions to client needs; demonstrate concern for meeting and exceeding immediate and future needs of clients; give high priority to client satisfaction.
Basic	<ul style="list-style-type: none"> ▷ Ask questions to identify needs and expectations. ▷ Respond with the appropriate level of urgency. ▷ Take into account the impact on the client when carrying out one's own position tasks. ▷ Take personal ownership in ensuring that expectations are met.
Intermediate	<ul style="list-style-type: none"> ▷ Be alert and responsive to changes in expectations. ▷ Seek information about real needs, beyond those expressed initially. ▷ Take personal responsibility to ensure external and internal satisfaction despite time pressures and significant obstacles. ▷ Develop on-going relations with clients. ▷ Take a variety of actions to assess satisfaction.
Advanced	<ul style="list-style-type: none"> ▷ Clearly state what one can and cannot do to meet desires with strong emphasis on creatively applying what one can do to meet the needs. ▷ Work to remove barriers that get in the way of providing exceptional service. ▷ Work to meet the client's needs rather than own or department's short-term needs. ▷ Design solutions to address key priorities and adapt solutions as needed to changing client and market demands. ▷ Build relationships with key decision-makers in the client area. ▷ Set up systems to effectively monitor satisfaction.
Expert	<ul style="list-style-type: none"> ▷ Develop strategic, long-term relationships, gaining trust and respect. ▷ Use feedback for developing future-oriented client service strategies. ▷ Look for trends that are likely to shape the wants and needs in the future. ▷ Develop scenarios and strategies that anticipate future needs. ▷ Identify products and services that meet the needs.

Soft Skills Competency	Teamwork
Competency Description	Work effectively with team/work groups or those outside formal line of authority to accomplish goals. Actively participate as a member of a team; take action that respects the needs and contributions of others; contribute to and accept the consensus, subordinating own needs to those of the team; develop and build cohesive team relations to produce required outputs; possess knowledge and understanding of peer's work.
Basic	<ul style="list-style-type: none"> ▷ Contribute willingly towards the accomplishment of own and team goals, doing his or her share of the work. ▷ Demonstrate respect for the opinions and ideas of others. ▷ Not remaining silent or withhold differing opinions in team settings. ▷ Willing to accept compromises to progress toward the achievement of group goals. ▷ Follow through on commitments made to other team members. ▷ Keep people informed and up to date.
Intermediate	<ul style="list-style-type: none"> ▷ Solicit the input of team members and encourage their participation. ▷ Ensure participation of others who are affected by plans or actions. ▷ Put team's agenda and the good of the whole ahead of personal needs. ▷ Find areas of agreements when working with conflicting individuals or groups. ▷ Support and act in accordance with final group decisions even if such decisions may not reflect entirely, one's own opinion. ▷ Help others to solve work problems and achieve team objectives.
Advanced	<ul style="list-style-type: none"> ▷ Establish goals for the team that are aligned to the organisation's strategy and mission. ▷ Build support, enthusiasm and energise people to work together for the accomplishment of team goals. ▷ Use the agenda and perspectives of others to establish mutually beneficial objectives. ▷ Take responsibility for the accomplishment of team goals. ▷ Remove obstacles to team success. ▷ Give recognition and credit to people who have contributed to team success. ▷ Keep the organisation's overall priorities at the top of own team's priorities. ▷ Take specific steps to keep morale and levels of performance high during times of intense work pressure.
Expert	<ul style="list-style-type: none"> ▷ Build and expand networks and coalitions, to achieve strategic goals. ▷ Network both internally and externally to accomplish goals. ▷ Understand implications of outcomes of committees and ensure relevant actions are taken within own department/organisation. ▷ Use networks and relations to achieve results and influence strategic outcomes. ▷ Defuse high-tension situations, if they arise. ▷ Use negotiation to develop mutually agreeable outcomes with people at all levels.

Soft Skills Competency	Work Management
Competency Description	Establish a course of action for self-and/or others to accomplish a specific goal. Effectively plan, schedule, prioritise and control activities; identify, integrate and orchestrate resources (people, material, information, budget, and/or time) to accomplish goals. Prioritise work according to the organisation's goals, not just formal position responsibilities; manage own time effectively.
Basic	<ul style="list-style-type: none"> ▷ Set priorities with an appropriate sense of what is most important. ▷ Manage time effectively to accomplish what needs to get done. ▷ Always know the status of own work. ▷ Participate in planning sessions that affect own team.
Intermediate	<ul style="list-style-type: none"> ▷ Plan and implement moderately complex activities/projects. ▷ Clearly define objectives and translate them into workable activities. ▷ Plan with a realistic sense of the time and resource demands involved maintaining awareness of the interrelationships between own and other activities/project. ▷ Anticipate potential obstacles and their impact on the accomplishment of goals and timelines. ▷ Use time and resources effectively to accomplish desired results. ▷ Monitor and track progress to ensure delivery of all planned commitments, and keep the appropriate people informed.
Advanced	<ul style="list-style-type: none"> ▷ Plan and implement complex activities/projects. ▷ Maintain a keen awareness of the interrelationships among various components of large-scale activities/projects. ▷ Allocate time and resources as required when faced with multiple demands and competing priorities. ▷ Consider the financial implications before finalising activity/project plans. ▷ Actively monitor costs incurred against budget and make adjustments to plans as necessary.
Expert	<ul style="list-style-type: none"> ▷ Plan and lead the most complex and difficult activities/projects. ▷ Make sound business decisions when faced with complex and contradictory alternatives. ▷ Skilfully lead and coordinate the work of multiple, diverse teams; facilitate optimal cooperation among those teams takes quick and decisive action to remove obstacles to overall success. ▷ Re-engineer or create new business processes and systems to provide the highest quality services. ▷ Regularly review service strategy, identifying ways to provide better services to clients. ▷ Build organisation-wide support and champions provision of high-quality service to clients. ▷ Take highly visible action to underscore organisations commitment and determination for providing highest quality service to all clients.

Annex 1: Brunei Darussalam Qualifications Framework (BDQF)

BDQF Levels	Schools Sector Qualifications	Technical and Vocational Education Sector Qualifications	Higher Education Sector Qualifications
8			Doctoral Degree
7			<ul style="list-style-type: none"> ▷ Master's Degree ▷ Post Graduate Diploma ▷ Post Graduate Certificate
6			▷ Bachelor's Degree
5		<ul style="list-style-type: none"> ▷ Advanced Diploma ▷ Higher National Diploma (HND) 	<ul style="list-style-type: none"> ▷ Foundation Degree ▷ Advanced Diploma ▷ Higher National Diploma (HND)
4	<ul style="list-style-type: none"> ▷ GCE "A" Level ▷ IGCSE "A" Level ▷ IB Diploma ▷ STPU 	<ul style="list-style-type: none"> ▷ Diploma ▷ Higher National ▷ Technical Education Certificate (HNTec) 	
3	<ul style="list-style-type: none"> ▷ GCE "O" Level (Grades A–C) ▷ IGCSE and GCSE "O" Level (Grade A* - C) ▷ SPU (Grades A-C) ▷ BTEC level 2 Diploma 	<ul style="list-style-type: none"> ▷ Skills Certificate 3 (SC3) ▷ National Technical Education Certificate (NTec) 	
2	<ul style="list-style-type: none"> ▷ GCE "O" Level (Grades D-E) ▷ IGCSE "O" Level (Grade D-E) ▷ SPU (grades D) ▷ BTEC Level 2 Extended Certificate 	<ul style="list-style-type: none"> ▷ Skills Certificate 2 (SC2) ▷ Industrial Skills Qualifications (ISQ) 	
1	▷ BTEC Level Introductory Certificate	▷ Skills Certificate 1 (SC1)	

Source: Brunei Darussalam Qualifications Framework, Ministry of Education (bdnac.moe.gov.bn)

Annex 2: Manpower Industry Steering Committee Working Group for ICT Sector (MISC-WG ICT)

With the consent of His Majesty Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah ibni Al-Marhum Sultan Haji Omar 'Ali Saifuddien Sa'adul Khairi Waddien, Sultan and Yang Di-Pertuan of Brunei Darussalam, the Manpower Industry Steering Committee (MISC) has been established under the Manpower Planning and Employment Council (MPEC) at the Prime Minister's Office.

The establishment of the committee will support the MPEC's vision to have an effective manpower planning aligned to employability, by focussing on gainful and sustainable jobs, increasing localisation and reducing unemployment in the Sultanate.

The MISC was set up as a platform for collaboration between industries, regulators as well as education and training institutions in ensuring alignment to the sectoral manpower demands by supplying the right people, at the right number and at the right time.

As a start, the MISC will focus on five industrial sectors which are Energy, Construction, ICT, Marine, and Hospitality and Tourism, at which Sectoral MISC Working Groups (MISC-WG) have been set up and are led by industry players and regulators.

The MISC-WG has three components, namely:

Workforce Development Planning Group (WDPG)

- ▶ To focus on the type and number of jobs demanded by MISC sector.
- ▶ To identify the critical occupation that is demanded by the industry.

Competency Development Technical Group (CDTG)

- ▶ To work with industry to co-develop curriculum and programme that align with the industry's standards and requirement.
- ▶ To propose a National Competency Framework (NCF) in alignment to the industry requirements.

Accreditation and Assurance

- ▶ To approve standards and accredit programmes / courses endorsed by the MISC.

MISC-WG ICT was set up in August 2020 with expected deliverables as follows:

- ▶ Consolidation of manpower demands within the ICT industry in the upcoming 5 years;
- ▶ Identification of critical occupations;
- ▶ Identification of skill and competency gaps; and
- ▶ Development of competencies standards and training programmes.

The Brunei ICT Industry Competency Framework (BIICF) is one of the deliverables of MISC-WG ICT.

Co-Leads

Haji Jailani bin Haji Buntar

Chief Executive, Authority for Infocommunications Technology Industry for Brunei Darussalam (AITI)

Sheikh Haji Abas bin Sheikh Mohamad

Infocom Federation Brunei (IFB) Honourary Advisor

Former Chairman of IFB

As Former Co-Lead of MISC-WG ICT

(June 2020 – March 2022)

Pengiran Sarimah binti Pengiran Haji Abdul Latiff

Chairman, Infocom Federation Brunei (IFB)

(May 2022 – Present)

Members (As of June 2026)

Government Agencies

Pengiran Amirul Hayat bin Pengiran Haji Yussof

Acting Director, E-Government National Centre (EGNC), Ministry of Transport and Infocommunications

Pengiran Nurul Ihsan binti Pengiran Damit

Director, Manpower Planning Office, Prime Minister's Office

Haji Mohd Fadzillah Haji Abdullah

Acting Assistant Director, Brunei Darussalam National Accreditation Council (BDNAC)

Haswandi bin Haji Osman

Acting Director, Youth Development Centre (PPB), Ministry of Culture, Youth & Sport (KKBS)

Government Linked Companies

Radin Sufri bin Radin Basiuni

CEO, Datastream Digital Sdn Bhd (DST)

Shamsul Bahri bin Haji Kamis

CEO, IT Protective Security Services Sdn Bhd (ITPSS)

Hajah Nurul Haniah binti Haji Jaafar

CEO, Progresif Sdn Bhd

Christopher Phan Teck Yin

Acting CEO, Unified National Networks (UNN)

Ahmad Fathi bin Dato Paduka Haji Junaidi

Interim CEO, Imagine Sdn Bhd

Institute of Higher Learning (IHL)

Dr. Muhammad Saifullah Abu Bakar

Assistant Professor, Chemical and Process Engineering, Faculty of Integrated Technologies, University Brunei Darussalam (UBD)

Dr. Haji Mohammad Saiful bin Haji Omar

Assistant Vice-Chancellor (Industry, & Services) School of Computing and Informatics, Universiti Teknologi Brunei (UTB)

Tan Szu Tak

Head, School of Information and Communication Technology (SICT), Politeknik Brunei (PB)

Muhd Sahrudi Iswandi bin Hashim

Senior Education Officer (Technical) / Director of IT Services, Institute of Brunei Technical Education (IBTE)

Industry

Pengiran Yusrian bin Pengiran Haji Mohammad

CEO, Alif Technologies Sdn Bhd

Dr. Yong Chee Tuan

Vice Chairman and CEO, Yi Ecomodern Solutions Sdn Bhd

Pengiran Mohd Khairi bin Pengiran Haji Metussin

CEO, Mindtrex Academy Sdn Bhd

Abdul Rahman Mohammed Yoonus

Co-Founder and Chief Technology Officer, Think-Axis Solutions

Arjuna Ranasinghe

Director, Tech One Global

Agus Muslim

CEO, Nextacloud Technologies Sdn Bhd

Annex 3: Brunei ICT Industry Competency Framework Working Group

Chairperson

Julianah binti Haji Ali Ahmad

Deputy Chief Executive, Development, Authority for Infocommunications Technology Industry for Brunei Darussalam (AITI)

Members (2020 - 2024)

Hajah Ilyasuriani binti DP Haji Hamdani

System Manager, E-Government National Centre (EGNC), Ministry of Transport and Infocommunications

Mohd Fadhil bin Haji Abd Kadir

Team Manager, Technology Delivery and Support, Darussalam Enterprise (DARe)

Pengiran Dr Emeroylariffion bin Pengiran Haji Abas

Assistant Professor, Faculty of Intergrated Technologies and Deputy Director Office of AVC (Innovation and Enterprise), Universiti Brunei Darussalam (UBD)

Dr. Haji Mohammad Saiful bin Haji Omar

Dean, School of Computing and Informatics, Universiti Teknologi Brunei (UTB)

Mohammad Hamdani bin Mustapa

Head, School of ICT, Politeknik Brunei (PB)

Muhd Sahrudi Iswandi bin Hashim

Senior Education Officer (Technical) / Director of IT Services, Institute of Brunei Technical Education (IBTE)

Suhaila binti Haji Kabri

Lead for BIICF Sub-Sector for Telecommunications and Network

Learning and Development Manager, HR, Unified National Networks (UNN)

Keith Chung Chir Lim

Manager, IT Architecture and Strategy, Unified National Networks (UNN)

Mohd Hilmi Shah bin Mohd Sahri

Lead for BIICF Sub-Sector for IT Services
Manager, Enterprise Cloud and Computing, Imagine Sdn Bhd

Lily Tan

Manager, Innovation, Imagine Sdn Bhd

William Lai Tze Hong

Lead for BIICF Sub-Sector for Project Management
Head of Operations, Dynamik Technologies Sdn Bhd

Mohamad Azad Zaki bin Haji Mohd Tahir

Senior Operation Officer, Head of Digital Forensic, ITPSS

Pengiran Mohd Khairi bin Pengiran Haji Metussin

Lead for BIICF Sub-Sector for Applications and Solutions Development

CEO, Mindplus Education Sdn Bhd

Muhd Nur Aiman bin Haji Minorhadi

CEO, GroMinda Group

Mohammad Yazdi bin Yahya

Lead for BIICF Sub-Sector for Digital Media
Director of Human Capital, Progresif Sdn Bhd

Arjuna Ranasinghe

Lead for BIICF Sub-Sector for ICT Security
Director, Tech One Global

Abd Rahman Mohammed Yoonus

Lead for BIICF Sub-Sector for Data and Artificial Intelligence

Co-Founder and CTO, Think-Axis Solutions

Joshua Lew

Account Director and Co-Partner, Hoco Agency

Wong Teck Sion

Head of Technical, Network Integrity Assurance Technologies Sdn Bhd (NIAT)

Members (2024 – 2027)

Basil Mathew George

IT Architect, Alif Technologies Sdn Bhd

Dayang Hajah Rohani binti Haji Mohd Salleh

Pegawai Pendidikan Tingkat Khas, Institute of Brunei Technical Education (IBTE)

Dayang Vivi Ruzyilinanismah binti Mamud

Guru Tingkat I, Institute of Brunei Technical Education (IBTE)

Dk Nurul Hazirah Binti Pg Haji Sazalee

Vice President, Human Capital, Progresif Sdn Bhd

Dominic George McDonald

CEO, ULAP Networks Sdn Bhd

Dr Hjh Syamimi Hj Md Ariff

Lead for BIICF Sub-Sector for IT Services

Deputy Director for Innovation in Teaching and Learning Centre (InTELECT), Universiti Brunei Darussalam (UBD)

Dr Rosyzie Anna binti Awg Hj Mohd Apong

Lead for BIICF Sub-Sector for Data and Artificial Intelligence

Deputy Dean, School of Digital Science, Universiti Brunei Darussalam (UBD)

Dr. Au Thien Wan

Senior Assistant Professor, Universiti Teknologi Brunei (UTB)

Dr. Haji Sharul Tazrajiman Haji Tajuddin

Senior Assistant Professor, Universiti Teknologi Brunei (UTB)

Dr. Nor Zainah Siau

Senior Assistant Professor, Universiti Teknologi Brunei (UTB)

Faizan Hj Abdul Ghani

Head IT Project Management, Brunei Shell Petroleum Sdn Bhd (BSP)

Haji Abdul ‘Azeez bin Dato Paduka Haji Abd Salam

Talent Management Advisor, Progresif Sdn Bhd

Haji Mohammad Kamrizan bin Haji Antin

Senior Manager (Information Security Management Lead), Perbadanan Tabung Amanah Islam Brunei (TAIB)

Haji Muhammad Saufi Bin Haji Jamahat

Lead for BIICF Sub-Sector for Applications and Solutions Development

CEO/Co-Founder, DotRoot Technologies Sdn Bhd

Hj Mohd Radziman bin Hj Abd Rahman

Senior Vice President, Business Strategy, Imagine Sdn Bhd

Hj Norazman Hj Mat Nor

Lead for BIICF Sub-Sector for Telecommunications and Network

Associate Vice President, Operations, Digital & Innovation, Datastream Digital Sdn Bhd

Izzati Mohd Noor

Head of IT Department, Baiduri Bank Sendirian Berhad

Joseph Justin Subin

Assistant General Manager Creative Media, Cosmopolitan College

Keith Chung Chir Lim

Manager, IT Architecture and Strategy, Unified National Networks (UNN)

Mariah Zaharaa Abdullah @ Mary Ann San Miguel Castro

Lead for BIICF Sub-Sector for Digital Media

Managing Director of Oddbox Media and Communications, Oddbox Media and Communications Sdn Bhd

Md Imamull Qhaeer Md Syamsol

CEO/Co-Founder, AICREATIVV

Mohamad Azad Zaki Haji Mohd Tahir

Lead for BIICF Sub-Sector for ICT Security

Deputy Chief Information Security Officer, IT Protective Security Services Sdn Bhd (ITPSS)

Mohd Idzwan Bin Hj Zunaidi

Senior IT Capability Manager, IT Governance, People and Strategy, Information Technology Division, Bank Islam Brunei Darussalam (BIBD)

Muhamad Raimi bin Ramli

ITS Senior Associate, Darussalam Assets Sdn Bhd

Muhammad Arifuddin bin Ahmad

Solution Architect, Labworks Digital Sdn Bhd

Noor Afiqah Maisarah Binti Noor Azlin

Lecturer, Laksamana College of Business (LCB)

Nooreduanty Binti Riduan

Head of Human Resource Department, Network Integrity Assurance Technology Sdn Bhd (NIAT)

Norfarrah binti Muhammad Masdi

School of ICT, Programme Leader – Level 5 Diploma in Data Analytic, Politeknik Brunei

Nursheila Binti Ziziumiza

Co-Founder / CTO / System Engineer, Rumine Corporation

Nurul Hafizah Binti Wahdaly

HR Compensation & Training, Network Integrity Assurance Technologies Sdn Bhd (NiAT)

Pengiran Khadijah binti Pengiran Badaruddin

System Analyst, E-Government National Centre (EGNC), Ministry of Transport and Infocommunications

Pg Mohd Farid Zulhusni bin Pg Aziz

Senior Operation Officer, IT Protective Security Services Sdn Bhd (ITPSS)

Pg Mohd Sufian Bin Pg DP Hj Maidin

Deputy General Manager, Alif Technologies Sdn Bhd

Redzwan Bin Hasim

Senior Cyber Security Engineer, EVYD Technology

Sharon Chin

General Manager/Principal, Micronet International College Sdn Bhd

Simon Luke Hansman

CIO, Baiduri Bank Sendirian Berhad

Siti Aminah Masayu Binti Mohd Suria

Data Engineer, Data Office, EVYD Technology

Siti Fathin Maziyyah Amal Hayati Binti Haji Metussin

Operation Assistant, Micronet International College Sdn Bhd

Tse Tow Joon Mann

Associate Vice President, Product Marketing, Datastream Digital Sdn Bhd

Yu Wei Cheng

Associate Vice President, Data and Security, Digital & Innovation, Datastream Digital Sdn Bhd

Zurainah Hj Mohd Alidin

Assistant CIO/1, IT Governance, People and Strategy, Information Technology Division, Bank Islam Brunei Darussalam (BIBD)

Secretariat

Hajah Fariah binti Haji Md Said

Senior Manager, Digital Capacity Development,
Industry Development Group, Authority for
Infocommunications Technology Industry of Brunei
Darussalam (AITI)

Pg Asrin Arbi bin Pg DP Haji Sharifuddin

Manager, Digital Capacity Development,
Industry Development Group, Authority for
Infocommunications Technology Industry of Brunei
Darussalam (AITI)

Umi Kalshum binti Suhaimi

Manager, Digital Capacity Development,
Industry Development Group, Authority for
Infocommunications Technology Industry of Brunei
Darussalam (AITI)

Ak Muhammad Syukri bin Pg Sulaiman

Assistant Manager, Digital Capacity Development,
Industry Development Group, Authority for
Infocommunications Technology Industry of Brunei
Darussalam (AITI)

Abdul Fattah bin Abdul Razak

Apprentice, Digital Capacity Development,
Industry Development Group, Authority for
Infocommunications Technology Industry of Brunei
Darussalam (AITI)

Principal Consultants

Rhymin and Partners, Brunei Darussalam

- ▷ Sairul Rhymin C.A. Mohamed
- ▷ Ahmad Raji Yaakub
- ▷ Muhammad Imran Kunalan Abdullah
- ▷ Farid Metassim

