

**ANNEX B – Grade descriptors- Digital and Technology Solutions Specialist – By Assessment Method**

<b>Professional Discussion informed by Portfolio</b>					
<b>Fail</b>	<b>Pass</b>	<b>Merit</b>	<b>Distinction</b>		
The apprentice will be deemed to have Failed the Professional discussion if they have not met the pass criteria <b>The Apprentice:</b>	The apprentice will be deemed to have Passed the Professional Discussion if they provide evidence to meet all the Knowledge, Skills and Behaviour requirements set out for the Professional Discussion informed by the Portfolio in Annex A and all of the criteria below: <b>The Apprentice:</b>	The apprentice will be deemed to have achieved a Merit in the Professional Discussion if they provide evidence to meet all the pass criteria and also all of the additional criteria below: <b>The Apprentice:</b>	The apprentice will be deemed to have achieved a Distinction in the Professional Discussion if they provide evidence to meet all of the merit criteria and also all of the additional criteria below: <b>The Apprentice</b>		
<b>Core Themes aligned to KSBs (See Annex 1 for how the themes link to standard)</b>					
<b>Business and change management</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Develops well-reasoned technology roadmaps and clear plans for their implementation Demonstrates an awareness of how to deliver technology based business change programmes</li> </ul>	<ul style="list-style-type: none"> <li>Plans and implements technology based business change programmes</li> </ul>	<ul style="list-style-type: none"> <li>Manages time effectively and with constant attention to detail, contributes positively to the effective working of a team.</li> <li>Displays a comprehensive and leadership understanding of IT enabled business processes and technology road-mapping</li> <li>Compares different methods of achieving technology based business change programmes that positively contributes to the effective delivery of workplace transformations</li> </ul>	
<b>Professional competences</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Is able to demonstrate negotiation skills and present budget requests.</li> </ul>	<ul style="list-style-type: none"> <li>Shows confidence and control in negotiations and is able to communicate effectively to agree budgets.</li> </ul>	<ul style="list-style-type: none"> <li>Is able to confidently and authoritatively negotiate and gain agreement for well-defined and justified budget requests across a range of different contexts.</li> </ul>	

		<ul style="list-style-type: none"> <li>• Selects suitable presentation media and delivers presentation.</li> <li>• Can apply problem solving as part of developing solutions</li> <li>• Can select and apply problem solving techniques as an integral part of the solution development process.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepares for and confidently delivers presentations adjusting to different audience needs and responding to stakeholder requests.</li> </ul>	<ul style="list-style-type: none"> <li>• Is highly aware of the audience environment and can determine appropriate presentation style and action and articulate recommendations to the audience, maintaining a balanced outline and regulating the pace of the presentation to fit time limits and to deal with questions.</li> <li>• Discusses and provides evidence of problem solving techniques and approaches and how to apply them in a range of conditions.</li> </ul>
<b>Leadership</b>	<ul style="list-style-type: none"> <li>• Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Can identify different leadership styles and motivational techniques to drive high quality technical solutions and outcomes</li> <li>• Correctly identifies professional values that contribute to building high performing teams.</li> <li>• Understands coaching techniques to develop leadership and technical skills in others.</li> <li>• Understands ways to develop good working relationships within own team and between teams.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides clear evaluation of the human factors that contribute to leadership and management of technology in business.</li> <li>• Is able to describe own leadership style, strengths and weaknesses.</li> </ul>	<ul style="list-style-type: none"> <li>• Is highly proactive in their approach to leadership and management, and demonstrates a comprehensive understanding and application of the human factors that contribute to effective leadership and management.</li> <li>• Contributes positively to effective team working, making robust and reliable judgements and explains the reasoning behind judgements made.</li> <li>• Is highly proactive in developing leadership and technical skills in others.</li> <li>• Is highly proactive to ensure excellent working relationships between own and other groups.</li> </ul>
<b>Technology Management</b>	<ul style="list-style-type: none"> <li>• Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Shows evidence of understanding of the business context.</li> <li>• Shows awareness of the factors that enable technology driven change</li> </ul>	<ul style="list-style-type: none"> <li>• Understands and can explain the dynamic nature of the business environment and the internal and external factors that contribute to change.</li> </ul>	<ul style="list-style-type: none"> <li>• Displays a depth of understanding in technical knowledge and of how managing business change to respond to changing markets can deliver to the company's business strategy.</li> </ul>

		<ul style="list-style-type: none"> <li>and continuous improvement</li> <li>Understands that aligning new products, processes and services contributes to the company's business strategy</li> </ul>	<ul style="list-style-type: none"> <li>Can describe how effective technology and change management can provide measurable improvements in business performance.</li> <li>Can develop and communicate business proposals for the development of new products, processes and services that align with the company's business strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Shows evidence of proactive technology leadership for managing technology driven change and continuous improvement</li> <li>Shows evidence of developing compelling business proposals for new products, processes and services that have a justifiable and of measurable contribution with the company's business strategy.</li> </ul>
<b>Software Engineering Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates competence in architecting software platforms.</li> </ul>		
<b>Data Analytics Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the information governance and data protection requirements that exist in the UK together with the legal, social and ethical concerns involved.</li> </ul>		
<b>Digital Business and Enterprise Systems Architecture Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Knows how to assess enterprise architecture architectures for relevance and suitability.</li> </ul>		
<b>System Test and Assurance Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the need and how to deliver clear test results, defect reports and associated test information</li> </ul>		
<b>IT Strategy Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Is aware of the role and nature of IT consultancy as a mechanism for creating business improvements</li> </ul>		

<b>IT Business Analysis Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain how business objectives are met by information systems</li> </ul>		
<b>Network Engineering Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain industry trends in Networking and their viability in different business scenarios</li> </ul>		
<b>IT Operations Management Specialist</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the part information technology has in supporting business operations and supply chain management</li> </ul>		
<b>IT Project Management Specialist</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the importance of and how to communicate progress updates to stakeholders</li> </ul>		
<b>Cyber Security Technical Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the different approaches and design principles used to embed security, privacy and resilience in initial design</li> </ul>		
<b>IT/Digital Futures Management Specialist only</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain how to conduct technology foresight activities to review changes to the IT landscape to meet current and future business requirements</li> </ul>		

<b>Project Report</b>					
	<b>Fail</b>	<b>Pass</b>	<b>Merit</b>	<b>Distinction</b>	
	The apprentice will be deemed to have Failed the Professional Report if they have not met the pass criteria	The apprentice will be deemed to have Passed the Professional Report if they provide evidence to meet all the Knowledge, Skills and Behaviour requirements set out for the Professional Report in Annex A and all the criteria below:  <b>The Apprentice:</b>	The apprentice will be deemed to have achieved a Merit in the Professional Report if they have met all of the pass criteria and all of the additional criteria below:  <b>The Apprentice:</b>	The apprentice will be deemed to have achieved a Distinction in the Professional Report if they meet all of the merit criteria and the additional criteria below:  <b>The Apprentice</b>	
<b>Core Professional competences</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates competence in designing complex IT enabled business processes and in making some recommendations for improvement</li> <li>Demonstrates practical report writing skills to produce solution reports</li> </ul>	<ul style="list-style-type: none"> <li>Is able to accomplish complex IT enabled business process design and in making detailed business recommendations aligned and justifiable improvements</li> <li>Can select appropriate formats to produce digital and technology solution specialism plans and solutions in a well-structured business report</li> </ul>	<ul style="list-style-type: none"> <li>Is proactive in improving complex IT enabled business processes</li> <li>Is able to select, discuss and prepare a range of appropriate professionally presented digital and technology solution specialism plans and solutions in a well-structured business report, including clear outcomes, methods in a compelling way with a succinct management summary</li> </ul>	
	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Can plan and implement digital and technology solutions specialist tasks at a professional level</li> </ul>	<ul style="list-style-type: none"> <li>Can implement structured problem solving approaches and plan and implement digital and technology solutions specialist tasks at a professional level</li> </ul>	<ul style="list-style-type: none"> <li>Can demonstrate self-direction and originality in solving problems, using structured approaches and act autonomously in planning and implementing digital and technology solutions specialist tasks at a professional level</li> </ul>	
	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Can apply negotiating skills to agree outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Is competent at negotiating and closing techniques for semi complex problems and can deal with senior internal and external stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Is competent at selecting and applying negotiating and closing techniques in a range of interactions and</li> </ul>	

				Specialism aligned to KSBS		engagements, both with senior internal and external stakeholders
<b>Software Engineering Specialist</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates competence in architecting software platforms.</li> <li>Is aware of contemporary software development approaches and methodologies including DevOps and Cloud Computing.</li> <li>Can develop and deliver, basic software solutions that deliver most of the specified functionality.</li> <li>Can update existing software solutions</li> <li>Can interpret a plan and deliver software solutions on time.</li> <li>Can test own software and others software to ensure that it is defect free.</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the features and benefits of a range of alternative software development methodologies and technologies.</li> <li>Is able to accomplish semi-complex software solutions that deliver all of the required functionality.</li> <li>Can review existing software and improve the efficiency and functionality.</li> <li>Can incorporate basic security considerations into software projects, delivering solutions on time and to meet specified level of quality.</li> <li>Understands and can explain the range of factors that contribute to software quality including source code quality, how testing assures quality, and the importance of quality in design, documentation etc.</li> </ul>	<ul style="list-style-type: none"> <li>Compares different software methodologies and can select technologies for different contexts of software development.</li> <li>Can develop and deliver complex software solutions that are scalable and which deliver feature rich user experiences.</li> <li>Is proactive in code review and refactoring.</li> <li>Plans and implements security considerations across the software development process. Can plan and deliver complex software projects.</li> <li>Displays a comprehensive understanding of software quality and can select and implement quality frameworks for software development.</li> </ul>		
<b>Data Analytics Specialist</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Is able to demonstrate basic data acquisition techniques.</li> <li>Shows evidence of being able to appreciate the quality aspects of data.</li> <li>Can develop simple analytical hypotheses for investigation.</li> <li>Can conduct analysis on data using statistical techniques to help solve business problems.</li> </ul>	<ul style="list-style-type: none"> <li>Shows confidence in identifying sources of data and in processing complex and large data sets.</li> <li>Understands and can explain the factors that contribute to data quality and can develop data quality rules.</li> <li>Prepares for a data analysis by formulating hypotheses.</li> <li>Confidently delivers semi-complex investigations using analytical programming techniques and statistical</li> </ul>	<ul style="list-style-type: none"> <li>Is able to confidently and authoritatively identify, select, extract and combine data from across a range of different data sources and contexts.</li> <li>Is highly aware of the nature of data and the quality issues that can arise from incomplete or dirty data. Can select and apply data cleansing techniques to improve the quality of data.</li> </ul>		

		<ul style="list-style-type: none"> <li>• Can select suitable methods to present data and the outcomes of a data study.</li> <li>• Can develop a business report to summarise the outcomes of the data study.</li> </ul>	<ul style="list-style-type: none"> <li>• methods, including an understanding of the application of machine learning.</li> <li>• Can present different data architectures adjusting to different audience needs and using data visualisation techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Can formulate analysis questions and hypotheses and develop associate algorithms to answer complex problems with statistically sound conclusions;</li> <li>• Can conduct complex analyses of data, selecting and utilising a range of analytical software, statistical modelling &amp; machine learning techniques to come to conclusions and make recommendations.</li> <li>• Can model and visualise complex data and select appropriate methods to present data and results that support human understanding of complex data sets.</li> </ul>
<b>Digital Business and Enterprise Systems Architecture Specialist</b>	<p>Has not met the pass criteria</p>	<ul style="list-style-type: none"> <li>• Understands and can explain the principles of systems architecture and is able to implement these in the design of standard architectural solutions.</li> <li>• Is aware of the different models available for representing system architecture designs and can produce standard logical and physical architectural designs.</li> <li>• Can develop system implementation plans for enabling the proposed architecture.</li> <li>• Is aware of architectural design governance frameworks</li> <li>• Can document and present architectures and roadmaps at a high level.</li> </ul>	<ul style="list-style-type: none"> <li>• Can evaluate different alternative architectural models and select appropriate solutions for the business context</li> <li>• Understands and can explain different models, views and representations of enterprise architectures to describe the structure and behaviour of them, and can produce logical and physical architectural designs, and recommend products and services from software and solution providers in support of the architecture designs.</li> <li>• Can develop system implementation plans and recommend optimal delivery roadmaps.</li> <li>• Understands and can explain the different architectural design governance frameworks and how these can be implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• Can identify optimal architectural solutions for a range of the business context, factoring consideration of both deployment and operation as well as continuous enhancements.</li> <li>• Understands and can explain the models available how they interact with each other, and can select appropriate approaches to represent the data produced and consumed, and the interactions with business users. Can produce optimised logical and physical architectural models and designs, understanding the need for different models, views and representations of enterprise architectures, how they interact with each other, the data consumed and produced, and the interactions with business users.</li> </ul>

		<ul style="list-style-type: none"> <li>• Can work with implementation teams to support the delivery of the proposed architecture.</li> </ul>	<ul style="list-style-type: none"> <li>• Can document architectures and roadmaps to communicate the logical and physical system to be developed in both high and low-level detail.</li> </ul>	<ul style="list-style-type: none"> <li>• Can develop alternative approaches and recommend optimal delivery roadmaps and system implementation plans that deliver enterprise architecture-led change initiatives to improve business performance, assessing the different approaches for their suitability in supporting the enterprise</li> <li>• Is able to compare the different architectural design governance frameworks and align these to the organisational risk mitigation strategies and develop, implement and maintain enterprise architectures and operating models in line with organisational requirements.</li> <li>• Can document architectures and roadmaps to communicate the logical and physical system to be developed in both high and low-level detail and present these to gain support from senior stakeholders articulating their importance and value to stakeholders.</li> </ul>
<b>System Test and Assurance Specialist</b>	<ul style="list-style-type: none"> <li>• Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Is aware of the fundamental software testing and assurance concepts and methods and can specify and configure digital system solution test environments.</li> <li>• Can create test plans.</li> <li>• Can design and implement test cases.</li> <li>• Can execute tests for each test case and is aware of the</li> </ul>	<ul style="list-style-type: none"> <li>• Understands and can explain the different software testing and assurance concepts and methods and how to apply these and can create, configure and maintain multi-server test environments.</li> <li>• Can create test plans that specify the testing objectives, test deliverables and test schedule.</li> <li>• Understands and can explain how to develop test cases that are used to</li> </ul>	<ul style="list-style-type: none"> <li>• Understands and can explain the goals, challenges and limitations of software testing and how to review and select options to specify, create, configure and maintain multi-server test environments to best represent the usage context, against which tests can be execute in line with the organisation's test strategy.</li> <li>• Can create and present comprehensive test plans that specify</li> </ul>



		<ul style="list-style-type: none"> <li>different approaches when using manual or automated test methods.</li> <li>Can produce test results and defect reports.</li> <li>Can review and refine test methodology and develop reusable automated testing approaches.</li> </ul>	<ul style="list-style-type: none"> <li>verify that each element of the digital system solution under test performs as specified.</li> <li>Can apply appropriate test techniques to execute tests for reach test case using both manual and automated test methods as appropriate.</li> <li>Can review and report on test outcomes and apply industry standard test management tools to define test cases and specify test data.</li> </ul>	<p>the testing objectives, test deliverables, test schedule, as well as providing test activity estimates and specifying the required test resources.</p> <ul style="list-style-type: none"> <li>Can use test results to identify and proactively reduce the likelihood of similar defects in subsequent developments.</li> <li>Understands and can explain how to implement testing and assurance methodologies and procedures for a range of digital solution platforms including front- and back-office enterprise, mobile apps and web based applications, including automated testing, where appropriate to execute tests.</li> <li>Can review test methodologies in line with best practice and develop strategies for continuously improving test coverage and test effectiveness. This includes making recommendations to development teams for designing out common patterns of test failure that have been identified.</li> </ul>
<b>IT Strategy Specialist</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Can assess an organisation's technology operations to identify areas for improvement.</li> <li>Applies a structured approach and can apply analytical tools and techniques to investigate a business scenario.</li> <li>Can make recommendations for improvement activities.</li> </ul>	<ul style="list-style-type: none"> <li>Can assess an organisation's technology operations and their capability to deliver the organisations technology based products and services.</li> <li>Selects appropriate analytical tools and techniques and applies a structured approach to investigate a business scenario and make recommendations</li> </ul>	<ul style="list-style-type: none"> <li>Can assess an organisation's technology operations and their continued capability to deliver the organisations technology based products and services, and can develop plans for implementing digital technologies and revising as required.</li> <li>Can select appropriate analytical tools and techniques and applies a</li> </ul>

		<ul style="list-style-type: none"> <li>• Is aware of different technology domains such as infrastructure, cloud, application and storage platforms aligned with business demand.</li> <li>• Can plan technology change delivery and migration programmes.</li> <li>• Can analyse and assess complex digital business problems via data business data collection and review and formulates technology based designs.</li> </ul>	<ul style="list-style-type: none"> <li>• Can perform analysis of information systems, their structure and current effectiveness, in order to make systems rationalisation, systems integration and other improvement proposals</li> <li>• Can produce technical solution proposals for different technology domains such as infrastructure, cloud, application and storage platforms aligned with business demand</li> <li>• Can plan and implement technology change delivery and migration programmes, ensuring successful implementation of the chosen technology</li> </ul>	<ul style="list-style-type: none"> <li>• structured approach to investigate a business scenario and make recommendations</li> <li>• Can perform a strategic analysis of organisational information systems, to review their structure and current effectiveness, in order to make systems rationalisation, systems integration and other improvement proposals and plans</li> <li>• Can analyse and assess complex digital business problems, develop and implement technology lifecycle roadmaps, assessing different technical options and plan and manage technology change delivery and migration programmes, ensuring successful implementation of the chosen technology.</li> <li>• Can produce clear technology recommendations to internal and external clients which bring achievable financial benefits to the organisations.</li> </ul>
<b>IT Business Analysis Specialist</b>	<p>Has not met the pass criteria</p>	<ul style="list-style-type: none"> <li>• Can lead the gathering, validation, prioritisation and documentation of high level and detailed system requirements.</li> <li>• Understands and can explain how to deliver system requirements, including the methods and techniques for analysing the business</li> </ul>	<ul style="list-style-type: none"> <li>• Can lead the gathering of requirements through elicitation, validation, prioritisation and documentation of high level and detailed system requirements, both functional and non-functional, using appropriate documentation and modelling techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Using the information gathered can determine the priority of the data to achieve the most significant business benefits.</li> <li>• Can manage requirements ensuring that there is traceability through the project lifecycle from initiation to final delivery</li> <li>• Can lead business process workshops to assess the client business</li> </ul>

		<ul style="list-style-type: none"> <li>domain and producing business requirements</li> <li>Can produce technical specifications for systems understanding interdependencies</li> <li>How to deliver system requirements, including the methods and techniques for analysing the business domain and producing business requirements</li> <li>Can map requirements with existing functionality</li> <li>Can communicate requirements to stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Can help facilitate business process workshops for understanding the client system specifications</li> <li>Can produce system specifications and document these</li> <li>Can review requirements with existing functionality and identify gaps that require additional configuration or customisation</li> <li>Can communicate requirements and other business analysis findings to internal and external team stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>environment and analyse, develop and document system specifications</li> <li>Can manage and document change with the business and communicate to the development team</li> <li>Can document and present business requirements throughout the project lifecycle, using a variety of recognised techniques and tools together with the advantages and disadvantages in using them;</li> </ul>
<b>Network Engineering Specialist</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain how to build and maintain secure networks and how IT networks can impact business objectives and processes</li> <li>Can produce network and storage specifications</li> <li>Understands and can explain how to manage the operation of secure network environments</li> <li>Can apply network monitoring tools to assess network performance and identify issues and escalate these</li> <li>Can produce network technology roadmaps to meet evolving business needs to meet evolving</li> </ul>	<ul style="list-style-type: none"> <li>Can design, build and deploy secure network solutions to meet customer requirements</li> <li>Can formulate detailed network and storage specifications in terms of throughput, reliability and delay, and ensuring that performance, security, availability and continuity standards meet required service levels and business needs</li> <li>Can manage the operation, maintenance and support of secure network environments, including diagnosing and troubleshooting network-related issues</li> <li>Can select and apply network monitoring tools to assess network performance and aid planning network upgrades before they become critical.</li> </ul>	<ul style="list-style-type: none"> <li>Can take responsibility for the design and implementation of secure network solutions to meet customer requirements at an enterprise level and within budget</li> <li>Can formulate detailed network and storage solution specifications for stable and secure computing operations in dynamic environments and implement scalable traffic design considerations ensuring that performance, security, availability and continuity standards meet required service levels and business needs</li> <li>Can manage the operation, maintenance and support of secure network environments, including diagnosing and troubleshooting network-related issues and ensuring</li> </ul>

		<ul style="list-style-type: none"> <li>business needs for enterprise computing environments.</li> <li>Can ensure network infrastructure solutions chosen are aligned to the enterprise infrastructure architecture, security architecture and security standards</li> </ul>	<ul style="list-style-type: none"> <li>Can demonstrate how the network technology roadmaps produced represent value for money and offer business benefits.</li> </ul>	<ul style="list-style-type: none"> <li>that performance, security, availability and continuity standards meet required service levels and business needs</li> <li>Can select and apply network monitoring tools to assess network performance and aid planning network upgrades before they become critical and make recommendations for improvements to security, scalability, manageability, and performance across a network, storage, and related technologies</li> <li>Can follow network industry trends, assessing their viability for use within different business scenarios.</li> </ul>
<b>IT Operations Management Specialist</b>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Is aware of the principles governing modern approaches to the management of IT enabled operations and the factors related to IT operations and support services</li> <li>Understands and can explain the importance of IT operations within a business and can implement strategic plans to ensure the IT infrastructure and services capacity and capability meets existing and future requirements</li> <li>Is aware of the key issues in the design and management of IT enabled operations</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the principles governing modern approaches to the management of IT enabled operations and the development, management, application and implementation of information systems to support business processes and manage the operation of business IT systems</li> <li>Understands and can explain the importance of IT operations for competitiveness and how key aspects of customer service such as quality, cost, delivery and customisation are linked to the type of system adopted and can implement strategic plans to ensure the IT infrastructure and services</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain the principles governing modern approaches to the management of IT enabled operations and the development, management, application and implementation of information systems to support business processes and manage the operation of business IT systems to support business processes and their impact on the organisation, taking responsibility for the availability, performance and resilience of all business IT systems and support services and the operational maintenance of servers, storage and other technical back-office elements</li> </ul>

		<ul style="list-style-type: none"> <li>• Can implement procedures for monitoring the performance of IT operations and produce and maintain detailed documentation on operational IT systems, processes and procedures</li> <li>• Is aware of the regulatory and mandatory requirements and standards for IT governance</li> <li>• Can manage 3<sup>rd</sup> party IT systems and services and business applications in line with the IT strategy, meeting current and future availability and performance requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• capacity and capability meets existing and future requirements</li> <li>• Understands and can explain the key issues in the design and management of IT enabled operations and can manage the transition and maintenance of new or updated solutions or other changes into the live operations environments</li> <li>• Can review and implement the organisation's procedures for monitoring and measuring the performance of IT operations and produce and maintain detailed documentation on operational IT systems, processes and procedures</li> <li>• Can assess the compliance of IT systems with information governance, regulatory and mandatory requirements and standards including local inventory maintenance and software license management</li> </ul>	<ul style="list-style-type: none"> <li>• Understands and can explain the importance of IT operations within a business for competitiveness and how key aspects of customer service such as quality, cost, delivery and customisation are linked to the type of system adopted and can design and implement short and long-term strategic plans to ensure the IT infrastructure and services capacity and capability meets existing and future requirements</li> <li>• Understands and can explain the key issues in the design and management of IT enabled operations and can manage the transition and maintenance of new or updated solutions or other changes into the live operations environments, including scheduled installation of software updates, backups and patches to development and production systems</li> <li>• Can develop the organisation's procedures for monitoring and measuring the performance of IT operations and produce and maintain detailed documentation on operational IT systems, processes and procedures</li> <li>• Can ensure that IT systems are compliant with information governance, regulatory and mandatory requirements and standards including local inventory</li> </ul>
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				<p>maintenance and software license management and manage 3rd party IT systems and, ensuring that their availability and performance meets the firm's requirements</p>
<p><b>IT Project Management Specialist</b></p>	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Can plan the development of software solutions including scoping, sizing, and estimating the main activities required to complete the project</li> <li>Can identify the factors associated with demand planning, forecasting, budgeting, and supply planning for software solutions development delivery and produce high level resourcing requirements</li> <li>Monitor the progress of the software solution development activity against planned deliverables</li> <li>Understands and can explain the different contemporary software development methodology (including Agile, and Waterfall) and how to apply these</li> <li>Can identify and communicate project milestones to stakeholders in accordance with the organisation's standards.</li> <li>Can establish trusted relationships with clients,</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain how IT project management drives change within organisations, the importance of delivering business value via IT projects, and how this is achieved</li> <li>Can manage the demand planning, forecasting, budgeting, and supply planning for software solutions development delivery and Identify resources, assign responsibilities and formulate work packages in accordance with organisational standards</li> <li>Can manage the work of the software solution development team to ensure appropriate resources are in place and to deliver the outputs specified to meet client expectations</li> <li>Can manage the delivery aspects of IT solutions in alignment to relevant software development methodologies (including Agile, and Waterfall)</li> <li>Can manage the project progress, communicating milestones and providing status reports and progress updates of solutions to client stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain how to select appropriate modern software development methods for a variety of software projects, including the processes, methodologies, tools and standards to improve the cost, speed and quality of solution development</li> <li>Can manage the demand planning, forecasting, budgeting, and supply planning for software solutions development delivery, selecting appropriate software development methods for a variety of software projects and can identify resources, assign responsibilities and formulate work packages in accordance with organisational standards</li> <li>Can take responsibility for the work of the software solution development teams to ensure optimal resource utilisation and engagement, ensuring that the evolution and development of software solutions meets the software specification and client's expectations</li> <li>Ensure all delivery aspects of IT solutions adhere to an appropriate</li> </ul>

		<p>business stakeholders and software solutions teams to deliver the project, negotiating as necessary on technical matters and managing expectations.</p>		<ul style="list-style-type: none"> <li>• software development methodology (including Agile, and Waterfall)</li> <li>• Can take proactive responsibility for the solution roadmap and project delivery, communicating milestones providing status reports and progress updates of solutions to client stakeholders and managing documentation in accordance with the organisation's standards</li> </ul>
<p><b>Cyber Security Technical Specialist</b></p>	<ul style="list-style-type: none"> <li>• Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Is aware of the principles of cyber security threat intelligence, and the main sources of attack techniques and can identify the main security testing strategies on IT infrastructures to identify new issues and recommend remediation</li> <li>• Can perform basic cyber security threat intelligence analysis by reviewing trusted sources of information to identify the main threats that have the potential to impact the organisation</li> <li>• Can identify security events, including performing fundamental network traffic analysis using the organisation's procedures and investigate and escalate where appropriate</li> <li>• Understands and can explain how to carry out a variety of security testing activities</li> </ul>	<ul style="list-style-type: none"> <li>• Understands and can explain the principles of threat intelligence, modelling and assessment. The range of modern attack techniques, and can plan and carry out the common security testing strategies on IT infrastructures, recommend remediation and enhancements to information technology procedures</li> <li>• Can perform detailed cyber threat security threat intelligence analysis to research, to analyse and evaluate technical threats by reviewing open source and other information from trusted sources for new vulnerabilities, malware, or other threats that have the potential to impact the organisation; Can undertake a variety of security testing activities including vulnerability scanning and penetration testing, to reveal gaps in security provisioning and can recommend cost-effective mitigations</li> </ul>	<ul style="list-style-type: none"> <li>• Understands and can explain the principles of threat intelligence, modelling and assessment and can apply these to real world situations. Can identify modern attack techniques and how and where to research emerging attack techniques to inform the development of improved security controls, countermeasures and policies and standards. Can plan and carry security testing strategies on IT infrastructures, to identify new issues and recommend remediation and enhancements to security policies and information technology procedures</li> <li>• Perform cyber threat intelligence analysis to research, analyse and evaluate technical threats by reviewing open source and other information from trusted sources for new vulnerabilities, malware, or other threats that have the potential to impact the organisation;</li> </ul>

		<ul style="list-style-type: none"> <li>including vulnerability scanning and penetration testing to reveal gaps in security provisioning and can conduct a vulnerability assessment, to identify vulnerability issues</li> <li>Is aware of the cyber security forensic tools and techniques for attack reconstruction</li> <li>Understands and can explain how to evaluate new attack tools and their impact to the organisation</li> </ul>	<ul style="list-style-type: none"> <li>Can apply security forensic analysis for attack reconstruction, for events simple forensic analysis</li> <li>Can conduct analysis of new attack tools including classifying and identifying attack patterns</li> </ul>	<ul style="list-style-type: none"> <li>Can select and apply tools and techniques to carry out a variety of security testing activities including vulnerability scanning and penetration testing, to reveal gaps in security provisioning and can identify, investigate and correlate security events, including performing network traffic analysis. Can select and apply appropriate techniques to assess security risks and mitigate these, and escalating where these fall outside area of responsibility.</li> <li>Can select and apply cyber security forensic tools and techniques for attack reconstruction, undertaking forensic analysis and volatile data collection and analysis</li> <li>Can identify emerging attack tools and conduct analysis to provide indicators for enterprise defensive measures including classifying and identifying attack patterns</li> </ul>
IT / Digital Futures Management Specialist	<ul style="list-style-type: none"> <li>Has not met the pass criteria</li> </ul>	<ul style="list-style-type: none"> <li>Is aware of how to review, evaluate, select and test digital product technologies that contribute toward business improvements. Can design and develop digital architecture and infrastructure roadmaps</li> <li>Understands and can explain how to develop business case proposals, prepare reports and deliver presentations to senior management</li> </ul>	<ul style="list-style-type: none"> <li>Understands and can explain how to develop new technology implementation strategies and can review, evaluate, select and test digital product technologies to improve business processes. Can design and develop digital architecture and infrastructure roadmaps, and their implementation strategies</li> <li>Can develop digital business case proposals with financial return analysis, prepare reports and deliver presentations to senior management</li> </ul>	<ul style="list-style-type: none"> <li>Can develop strategies for the management and deployment of new and emerging technologies, tools and techniques which deliver business value. Can review, evaluate, select and test digital product technologies and business processes and design and develop digital architecture and infrastructure roadmaps, their implementation strategies and transformation plans focused on digital workplace transformation</li> <li>Can develop strategies and digital business case proposals that provide return on investment and total cost of</li> </ul>



		<ul style="list-style-type: none"> <li>• Understands how to conduct digital technology foresight activity and can horizon scan to identify new and appropriate digital technologies.</li> <li>• Understands and can explain the stages through which digital business services are created from discovery, through to live and how to align with business goals</li> <li>• Understands and can explain how to develop strategies for the management and deployment of new and emerging technologies, tools and techniques and can work with solutions architects, providers and systems administrators to assist with planning</li> <li>• Understands and can explain that digital workplace infrastructure solutions need to achieve high availability, stable and robust operational service for end users</li> </ul>	<ul style="list-style-type: none"> <li>• Can identify and align digital infrastructure planning with business goals to create effective digital workplace environments</li> <li>• Can contribute to the development of strategies for the management and deployment of new and emerging technologies, tools and techniques. Can work with solutions architects, providers and systems administrators to assist with planning and implementation of enterprise- wide resilient, capable, adaptable, scale-able, user-friendly systems that meet business needs.</li> <li>• Understands and can explain how to implement digital solutions that improve business processes and services, ensuring stable and robust operational service delivery and high availability for end users</li> </ul>	<ul style="list-style-type: none"> <li>• ownership analysis, and develop reports and deliver presentations to senior management to secure budget</li> <li>• Can align digital Infrastructure strategy and planning with business goals to create effective digital workplace environments and develop policies, and guidelines that direct the selection and implementation of digital workplace infrastructure</li> <li>• Can develop and implement strategies for the management and deployment of new and emerging technologies, tools and techniques which deliver business value within the context of a digital workplace in a fast-changing business environment and work with solutions architects, providers and systems administrators to provide resilient, capable, adaptable, scale-able, user-friendly systems.</li> <li>• Can implement digital solutions that improve business processes and services, reduce administration costs and provide improved communications. Can take responsibility for digital workplace infrastructure solutions that focus on achieving stable and robust operational service delivery and high availability for end users.</li> </ul>
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