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| **TSC Category** | Development and Implementation | | | | | |
| **TSC Title** | Infrastructure Deployment | | | | | |
| **TSC Description** | Set up, deploy and decommission infrastructure components and associated equipment in accordance to a set plan and established safety and/or quality procedures. This includes the assessment and preparation of appropriate site locations, infrastructure, the development of an installation plan, layout at the site, the testing of on-site systems, infrastructure components, equipment and the correction of issues and/or malfunctions | | | | | |
| **TSC Proficiency Description** | **Level 1** | **Level 2** | **Level 3** | **Level 4** | **Level 5** | **Level 6** |
| **ICT-DIT-1008-1.1** | **ICT-DIT-2008-1.1** | **ICT-DIT-3008-1.1** | **ICT-DIT-4008-1.1** |  |  |
| Set up and remove basic infrastructure and associated equipment, and run basic tests on the on-site systems, infrastructure components and equipment | Deploy, deactivate and decommission infrastructure components, verify performance through installation tests, and resolve basic infrastructure deployment issues | Detail an infrastructure installation and testing plan for suitable site locations, resolving infrastructure malfunctions where required | Lead large-scale installation projects, involving deployment, decommissioning and coordination of multiple hardware and software deployment plans |  |  |
| **Knowledge** | * Basic infrastructure components * Proper set up and removal of infrastructure components and equipment * Safety standards in usage and handling of infrastructure components and equipment * Simple tests for on-site systems and equipment * Indicators of performance or suitability of infrastructure components * Potential problems or red flags in infrastructure deployment and decommissioning * Basic troubleshooting procedures for infrastructure component malfunctions | * Process for site preparation * Capacity and performance tests for on-site systems * Impact analysis of new infrastructure deployment or removal * Safety and quality standards * Installation tests on infrastructure components * Diagnostic tools for infrastructure-related problems | * Site identification criteria * Risks and potential impact associated with on-site systems and infrastructure components * Elements of an installation plan and site layout * Range of installation tests and techniques * Steps to align a software system with its environment * Technical solutions or techniques to resolve infrastructure / equipment malfunctions | * Industry quality and performance standards in infrastructure deployment * New hardware or software releases and their potential relevance to the business * Hardware and software lifecycle planning, and impact on deployment and decommissioning schedules * Interactions among various infrastructure components and systems * Impact of infrastructure component additions, changes or removals to the organisation infrastructure and operations * Types of middleware products or conversion tools for software deployment * Elements and functioning of automated software deployment * Scripting and programming languages |  |  |
| **Abilities** | * Set up basic infrastructure and associated equipment in accordance to safety and quality standards * Run basic tests for on-site systems and equipment, to ensure proper functioning * Identify problems and issues at the site location, or non-compliance with safety standards * Perform basic checks and detect problems with infrastructure components * Correct commonly-encountered errors in infrastructure deployment and decommissioning * Report any complex issues or malfunctions observed with infrastructure components and equipment, escalating where required * Remove basic infrastructure and associated equipment in accordance to safety and quality standards | * Prepare the site location in ensuring that necessary infrastructure is in place * Test on-site systems' performance and capacity to support requirements * Conduct basic impact analysis of new infrastructure deployment or removal * Deploy and decommission infrastructure components and associated equipment in accordance to a set plan and safety and quality procedures * Perform simple deactivation of system components, if required * Conduct installation tests on infrastructure components to check for performance * Document malfunctions in infrastructure components, and their corrections deployed * Resolve simple to semi-complex problems in infrastructure components and associated equipment using appropriate tools | * Identify site locations and the infrastructure that would be required to serve the business requirements * Assess potential risk, infrastructure redundancy of systems and utilities at the site against safety and performance standards * Draft a detailed infrastructure installation plan and layout at the site, including suitable infrastructure components to support operations * Deploy and decommission software operating systems according to broad organisational direction and guidelines * Develop a comprehensive testing plan to assess stability, suitability and performance of on-site infrastructure and systems * Adapt a software system to its site environment * Identify potential causes and triggers of malfunctions in infrastructure components * Implement solutions to correct infrastructure-related problems or equipment malfunctions | * Make decision on the installation and decommissioning of infrastructure components, in line with business priorities, user needs, and infrastructure lifecycles * Manage a broad view of the interconnections and interdependencies among infrastructure components * Determine the critical features and performance levels of infrastructure components required to support business needs * Lead large-scale installation projects, involving the integration and coordination of multiple hardware and software deployment plans * Identify appropriate middleware products or code conversion tools to facilitate infrastructure deployment * Develop scripts or programs to facilitate effective and efficient software or operating system deployment * Develop reliable, and sustainable solutions for complex infrastructure-related deployment errors or problems * Verify functioning of infrastructure or system components in both standalone and integrated environments |  |  |
| **Range of Application** | Types of networks may include but are not limited to:   * LAN network (e.g., SOHO network, WLAN) * Radio network * Telecommunications network * Next generation network (NGN)   Wide area network (WAN) | | | | | |