

SKILLS FRAMEWORK FOR INFOCOMM TECHNOLOGY TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT

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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 		

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				<ul style="list-style-type: none"> • Elements and functioning of automated software deployment • Scripting and programming languages 		
Abilities	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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- 		

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			<ul style="list-style-type: none"> Implement solutions to correct infrastructure-related problems or equipment malfunctions 	related deployment errors or problems <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> LAN network (e.g., SOHO network, WLAN) Radio network Telecommunications network Next generation network (NGN) Wide area network (WAN) 					