

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

TSC Category	Design and Architecture					
TSC Title	Security Architecture					
TSC 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					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			ICT-DES-3004-1.1	ICT-DES-4004-1.1	ICT-DES-5004-1.1	
			Design secure systems and define security specifications of components, integrating appropriate security controls	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	Establish organisational guidelines and principles for the design of security architecture and controls, and drive the enhancement of organisation-wide security systems	
Knowledge			<ul style="list-style-type: none"> Security threats and vulnerabilities facing IT systems Security assurance and functional requirements Security system components Elements and workings of security controls Goals and purpose of security controls Common specifications and designs for secure 	<ul style="list-style-type: none"> Emerging security threats and impact on IT systems Key components of security system blueprint Principles of security system integration Range of system security tests and interpretation of results Evaluation guidelines for system architecture security 	<ul style="list-style-type: none"> Industry best practices in security architectures and systems design Emerging trends in the industry and potential impact on enterprise architecture and security Key criteria for determining required level of security controls New and emerging security system design methodologies, tools and techniques 	

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Abilities			<ul style="list-style-type: none"> Identify key security risks and problems posed by new technologies and business practices Design secure systems and controls based on IT architectural guidelines and requirements Define security specifications of system components, that address security objectives and functional requirements Incorporate controls into security system components to minimise security breaches or lapses Check for an adequate level of security robustness in system designs 	<ul style="list-style-type: none"> Investigate potential security threats and articulate implications on IT systems Define overarching security system blueprint including protection profile and security targets Integrate security solutions and design principles to develop a robust and coherent security architecture Direct the design of new or enhanced security systems and architectures Develop a control plan for the security system architecture based on organisational guidelines and security principles Lead review of system architecture against security requirements Recommend modifications to security control designs to boost the protection of organisation assets 	<ul style="list-style-type: none"> Establish organisational guidelines and principles for the design of security system architecture and controls Review security system architecture against industry best practices and business security needs Define the level of security controls needed for the organisation's IT systems, information and assets Plan design of organisation-wide security systems Endorse new, modified or strengthened security controls that are in line with the organisation's security strategy Introduce new security system design methodologies, tools and techniques to the organisation Review systems' security plans in view of potential evolution of the enterprise strategy and architecture 	
Range of Application						