

SKILLS FRAMEWORK FOR INFOCOMM TECHNOLOGY SKILLS MAP – SECURITY ARCHITECT			
<b>Sector</b>	Infocomm Technology		
<b>Track</b>	Cyber Security		
<b>Sub-track</b>	Security Design and Engineering		
<b>Occupation</b>	ICT Security Specialist		
<b>Job Role</b>	<b>Security Architect</b>		
<b>Job Role Description</b>	<p>The Security Architect leads unique and highly complex projects involving design, development and implementation of secure system architectures. He/She plans and monitors the design of artefacts into enterprise systems that describe security principles and how they relate to the overall enterprise system architecture. He is involved in the development and application of new solutions in infrastructure security. He recommends and leads the adoption of new technological advances and best practices in infrastructure security systems to mitigate security risks. He identifies and resolves unique and complex issues, which may have organisation-wide and long-term impact.</p> <p>He is an expert in cyber security standards, protocols and frameworks, and ensures the organisation's compliance to the Cyber Security Act 2018. He is knowledgeable of various application and hardware technologies and services.</p> <p>The Security Architect has a creative and critical mind, and enjoys identifying linkages and interconnections among various parts of a system or architecture. He is a technical expert who should also be people-oriented, consultative, developmental and actively engaging stakeholders to design optimal secure system architectures. He also mentors and provides technical leadership to the junior staff.</p>		
<b>Critical Work Functions, Key Tasks and Performance Expectations</b>	<b>Critical Work Functions</b>	<b>Key Tasks</b>	<b>Performance Expectations</b>
	<b>Formulate the organisation's security architecture strategy, governance, roadmap, standards, policies and procedures</b>	Lead and coordinate the domain technical and business discussions	In accordance with: <ul style="list-style-type: none"> <li>Cyber Security Act 2018, Cyber Security Agency of Singapore</li> </ul>
		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	
		Lead and facilitate the business architecture governance process based on the enterprise architecture governance structure	
		Manage exceptions to architectural standards at a security level	
		Review and approve recommendations to security architectural standards	
	<b>Develop architecture requirements and maintain oversight</b>	Analyse and develop security 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	
	<b>Manage quality and continuous improvement of architecture</b>	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	Consult with clients and IT teams on security architecture solutions		
		Analyse cost versus benefits, risks, impact and technology priorities		
		Provide recommendations on emerging technology to senior management		
		Develop a communication plan for security architecture		
		Lead the research and evaluation of emerging technology, industry and market trends to assist in project development		
		Identify organisational requirements for resources		
	Translate security architecture into security solutions	Oversee the development and maintenance of the organisation’s security strategy		
		Oversee the translation of the security architecture to solutions		
		Ensure adequate security solutions are in place throughout all IT systems and platforms		
		Define the alignment of security governance with enterprise architecture governance		
		Act as a security expert in application development, database design and network efforts		
		Ensure compliance with enterprise and IT security policies and industry regulations		
		Contribute to the alignment of security governance with enterprise architecture governance		
		Evaluate secure solutions based on approved security architectures		
		Explores new security technologies and architectures		
Skills and Competencies	Technical Skills and Competencies		Generic Skills and Competencies	
	Business Needs Analysis	Level 4	Communication	Advanced
	Cyber Risk Management	Level 5	Creative Thinking	Advanced
	Emerging Technology Synthesis	Level 4	Developing People	Advanced
	Infrastructure Design	Level 4	Problem Solving	Advanced
	Network Security	Level 5	Sense Making	Advanced
	Security Administration	Level 4		
	Security Architecture	Level 4, Level 5		
	Solution Architecture	Level 5		
	Security Governance	Level 5		
	Security Programme Management	Level 4, Level 5		
	Security Strategy	Level 5		
	Stakeholder Management	Level 5		
	Strategy Implementation	Level 4		
	Strategy Planning	Level 5		
Programme Listing	For a list of Training Programmes available for the ICT sector, please visit: <a href="http://www.skillsfuture.sg/skills-framework/ict">www.skillsfuture.sg/skills-framework/ict</a>			

The information contained in this document serves as a guide.