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| **SKILLS FRAMEWORK FOR INFOCOMM TECHNOLOGY SKILLS MAP – SOLUTIONS ARCHITECT** | | | | | | |
| **Sector** | Infocomm Technology | | | | | |
| **Track** | Strategy and Governance | | | | | |
| **Sub-track** | Enterprise Architecture | | | | | |
| **Occupation** | Enterprise Architect | | | | | |
| **Job Role** | **Solutions Architect** | | | | | |
| **Job Role Description** | The Solutions Architect analyses, designs and develops roadmaps and implementation plans based on a current versus future state solutions architecture. He/She leads and facilitates the solutions architecture governance processes based on the enterprise architecture governance structure and manages exceptions to architectural standards at a solutions level. He assesses near-term needs to establish business priorities, analyses and develop solutions architectural requirements, and ensures alignment of architectural requirements with the IT strategy. He analyses the current architecture to identify weaknesses and identifies opportunities for improvement, and performs ongoing architecture quality review activities.  He works in a dynamic and evolving business environment. He is familiar with enterprise architecture methodologies and frameworks, architecture modelling tools, as well as product development methodologies. He is knowledgeable about digital product development of industrial Internet of Things, applications and web services. He is also familiar with international telecommunications standards and protocols.  The Solutions Architect is recognised as the most experienced and knowledgeable resources within the field in the organisation. He collaborates with other departments on architecting solutions design, and integrating diverse needs and perspectives to develop fresh ideas and solutions. He possesses strong leadership and communication abilities, is creative and innovative in nature, and is able to influence key stakeholders. | | | | | |
| **Critical Work Functions and Key Tasks** | **Critical Work Functions** | **Key Tasks** | | | | |
| **Formulate the organisation’s architecture strategy, roadmap, standards, policies and procedures, and governance** | Lead and coordinate the domain technical and business discussions | | | | |
| Participate in ecosystem strategy development, environment analyses 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 solutions architecture governance process based on the enterprise architecture governance structure | | | | |
| Manage exceptions to architectural standards at a solutions level | | | | |
| Review and approve recommendations to solutions architectural standards | | | | |
| **Develop architecture requirements and maintain oversight** | Analyse and develop solutions 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 | | | | |
| **Manage quality and continuous improvement of architecture** | 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** | Consults with clients and IT teams on solutions architecture | | | | |
| Analyses cost versus benefits, risks, impact and technology priorities | | | | |
| Provide recommendations on emerging technology to senior management | | | | |
| Develop communication plans for solutions architecture | | | | |
| Lead the research and evaluation of emerging technology, industry and market trends to assist in project development | | | | |
| Identify organisational requirements for resources | | | | |
| **Drive implementation of solutions architecture** | Formulate the solutions viewpoint in which business, information and technology viewpoints are synthesised into solutions | | | | |
| Design and lead the implementation of the solution architecture | | | | |
| Define repeatable rules for the implementation of solutions in repeatable or reusable ways | | | | |
| **Skills and Competencies** | **Technical Skills and Competencies** | | | **Generic Skills and Competencies** | | |
| Agile Software Development | | Level 5 | Decision Making | | Advanced |
| Applications Integration | | Level 5 | Interpersonal Skills | | Intermediate |
| Business Agility | | Level 4 | Problem Solving | | Intermediate |
| Business Environment Analysis | | Level 4 | Leadership | | Advanced |
| Business Innovation | | Level 5 | Resource Management | | Intermediate |
| Business Needs Analysis | | Level 5 |  | | |
| Business Performance Management | | Level 4 |
| Business Process Re-engineering | | Level 5 |
| Business Requirements Mapping | | Level 5 |
| Business Risk Management | | Level 5 |
| Change Management | | Level 5 |
| Data Visualisation | | Level 5 |
| Design Thinking Practice | | Level 4 |
| Embedded Systems Interface Design | | Level 5 |
| Emerging Technology Synthesis | | Level 4 |
| Enterprise Architecture | | Level 4, Level 5 |
| IT Strategy | | Level 4 |
| Networking | | Level 4 |
| Organisational Analysis | | Level 5 |
| Organisational Design | | Level 4 |
| Partnership Management | | Level 5 |
| Performance Management | | Level 5 |
| Process Improvement and Optimisation | | Level 5 |
| Project Feasibility Assessment | | Level 4 |
| Project Management | | Level 5 |
| Software Design | | Level 5 |
| Solution Architecture | | Level 5 |
| Stakeholder Management | | Level 5 |
| Strategy Implementation | | Level 4 |
| Strategy Planning | | Level 4 |
| Sustainability Management | | Level 4 |
| System Integration | | Level 5 |
| **Programme Listing** | For a list of Training Programmes available for the ICT sector, please visit: www.skillsfuture.sg/skills-framework/ict | | | | | |
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| The information contained in this document serves as a guide. | | | | | | |