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| **SKILLS FRAMEWORK FOR INFOCOMM TECHNOLOGY SKILLS MAP – SITE RELIABILITY ENGINEER** | | | | | | |
| **Sector** | Infocomm Technology | | | | | |
| **Track** | Product Development | | | | | |
| **Sub-track** | Software Development | | | | | |
| **Occupation** | Site Reliability Engineer | | | | | |
| **Job Role** | **Site Reliability Engineer** | | | | | |
| **Job Role Description** | The Site Reliability Engineer is responsible for monitoring the performance, reliability, availability, latency and security of systems, ensuring that they meet the requirements of internal and external users. He/She optimises system performance with automation to improve system quality and reliability. He conducts regular system maintenance and is responsible for incident response.   He possesses a high level of proficiency in developing scalable systems. He is familiar with cloud platforms and managing system infrastructure. He works well with internal and external stakeholders to manage the demands of both. He collaborates with the development team to provide solutions that meet operational demands for high reliability and security.  The Site Reliability Engineer is a problem solver who takes charge of investigating and solving complex problems. He is an analytical thinker who makes data-driven decisions and understands the business and consumer needs. | | | | | |
| **Critical Work Functions and Key Tasks** | **Critical Work Functions** | **Key Tasks** | | | | |
| **Monitor systems and optimise performance** | Monitor overall performance, reliability, availability, latency, and security of systems | | | | |
| Develop reports on performance, reliability, availability, and latency of systems by review of service uptime, utilisation and throughput | | | | |
| Monitor critical system functions to ensure availability and reliability during key business hours | | | | |
| Evaluate feasibility of integrating new functions into the system without compromising system performance and health | | | | |
| Propose suggestions to enhance infrastructure architecture | | | | |
| Carry out testing and release procedures to ensure rigour of systems | | | | |
| **Automate system operations** | Support initiatives to improve the system and service delivery through automation and virtualization | | | | |
| Develop tools and scripts to automate deployments and optimise performance | | | | |
| Develop an operating environment for monitoring, alerting, self-healing and automated recovery | | | | |
| **Resolve incidents** | Address gaps in performance or availability based on identified metrics | | | | |
| Utilise monitoring systems and diagnose the root cause of incidents | | | | |
| Resolve escalations or issues relating to system operations | | | | |
| Simulate user problems in performing end-to-end diagnosis for infrastructure incidents | | | | |
| Document system outages to provide critical insights on system health | | | | |
| Manage incident response process and system recovery | | | | |
| Provide regular feedback to product development team to improve system performance and reliability | | | | |
| **Skills and Competencies** | **Technical Skills and Competencies** | | | **Critical Core Skills** | | |
| Cloud Computing\* | | Level 4 | Communication | | Intermediate |
| Cyber and Data Breach Incident Management\* | | Level 3 | Customer Orientation | | Advanced |
| Disaster Recovery Management\* | | Level 4 | Learning Agility | | Intermediate |
| Infrastructure Support\* | | Level 3 | Problem Solving | | Intermediate |
| Performance Management\* | | Level 4 | Sense Making | | Intermediate |
| Problem Management\* | | Level 3 |  | | |
| Process Improvement and Optimisation\* | | Level 4 |
| Quality Standards\* | | Level 5 |
| Security Administration\* | | Level 2 |
| Service Level Management\* | | Level 4 |
| Stakeholder Management\* | | Level 3 |
| Test Planning\* | | Level 3 |
| Agile Software Development | | Level 3 |
| Applications Development | | Level 4 |
| Applications Integration | | Level 3 |
| Business Environment Analysis | | Level 3 |
| Change Management | | Level 3 |
| Continuous Integration and Continuous Deployment | | Level 3 |
| Emerging Technology Synthesis | | Level 4 |
| Network Security | | Level 3 |
| Partnership Management | | Level 3 |
| Product Management | | Level 4 |
| Software Configuration | | Level 3 |
| Software Testing | | Level 4 |
| **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. | | | | | | |

\*Note: Technical Skills and Competencies (TSCs) with an asterisk (\*) refer to Priority Skills (i.e., TSCs to be prioritised for this role).