Role Description
Senior Site Reliability Engineer

Role Description Fields	Details
Cluster	Education
Department/Agency	Department of Education
Division/Branch/Unit	Information Technology Directorate
Role number	207383
Classification/Grade/Band	Clerk Grade 11/12
Senior executive work level standards	Not Applicable
ANZSCO Code	511112
PCAT Code	1226392
Date of Approval	11 October 2024
Agency Website	education.nsw.gov.au

Agency overview

At the NSW Department of Education, we educate and inspire lifelong learners – from early childhood, through schooling to vocational education and training.

We ensure young children get the best start in life by supporting and regulating the early childhood education and care sector. We unlock excellence and unleash the potential of two-thirds of school children in NSW. We're proudly public and the largest education system in Australia. We nurture opportunities for every learner to develop the skills needed for their chosen career path, helping shape the industries of tomorrow.

We respect and value Aboriginal and Torres Strait Islander peoples as First Peoples of Australia

Primary purpose of the role

The Senior Site Reliability Engineer provides technical leadership and consultation on engineering largescale fault tolerant systems. The focus of the role is on delivering efficiency to deployment solutions and operational tasks via automation; and leveraging software to gain the utmost efficiency for the infrastructure, whilst bringing high levels of consistency and reliability to all workloads/tasks.

Key accountabilities

- Evaluate, test and build stable and scalable technological solutions to address a variety of business problems; applying relevant policies, standards, best practice and architectural strategy to ensure the resilience and longevity of systems and solutions
- Engage in and improve the lifecycle of services—from inception and design, through deployment, operation and refinement.
- Identify emergent issues that indicate scalability and reliability problems, working with development teams to help drive solutions.
- Engineer system upgrades and large-scale system integrations to documented standards
- Develop written procedures, engineering drawings, and other technical documentation to support effective implementation

- Deliver technical consulting and subject matter expertise to technological solution projects, including pre-project to ensure risks, interdependencies and exceptions are identified, mitigated or escalated and solutions are formulated in alignment with ICT strategy and architecture
- Develop high level options, conceptual approaches, technical recommendations and estimates to support the transition of system designs into operation
- Draft timely, succinct reports and briefings for the role supervisor, Executive Director and other Directors as appropriate; and ensure accurate records are maintained, and that responses to correspondence is timely and consistent with Departmental protocols

Key challenges

- Building effective relationships, identifying stakeholder expectations, and collaborating to ensure seamless delivery of ICT infrastructure; whilst ensuring consistent, high quality and timely project delivery in accordance with the IT Directorate's endorsed project management methodology across teams and work sites
- Sustaining the integrity of current services while implementing new strategic initiatives, especially given the complexity, size and scale of an environment which continually challenges the technical capability boundaries of both internal / external suppliers
- Rapidly designing and deploying cloud and virtualised server solutions in a large scale, complex, multi-platform, geographically dispersed and constantly changing environment

Key relationships

Internal

Who	Why
Supervisor	• Discuss business objectives, priorities, projects and issues arising • Provide specialist advice to inform decision-making and challenge current thinking
Infrastructure Services managers and staff	• Build and maintain collaborative working relationships to resolve technical and/or service delivery issues • Share technical advice and subject matter expertise
Departmental managers and staff	• Share information and liaise effectively to ensure effective customer service / problem resolution • Provide technical advice and subject matter expertise

External

Who	Why
Contractors, external suppliers and vendors	• Communicate priorities, expectations, standards and project scope • Monitor service delivery in accordance with agreed standards; negotiating /resolving / escalating issues arising

Role dimensions

Decision making

The Senior Site Reliability Engineer:

- Exercises high-level, independent judgement and initiative in prioritising activities within the broad framework set with the role supervisor, as well as Departmental policies, procedures and operational guidelines

- Is frequently required to resolve highly complex technological issues / problems in a wide and diverse range of contexts, requiring the application of fundamental principles and technical expertise
- Makes decisions which impact on the success of assigned projects i.e. results, deadlines and budget
- Is accountable for meeting technical and project objectives and for the quality, integrity, accuracy and content of advice provided

Reporting line

Each Senior Site Reliability Engineer reports to the Director, Data Centre & Cloud Services or a nominated manager

Direct reports

Nil

Budget/Expenditure

The role has financial delegation in accordance with Departmental policy.

Key knowledge and experience

- Demonstrated experience in the maintenance and operation of enterprise scale server platforms; development and maintenance of automated deployment solutions; and engineering automated solutions to resolve operational issues
- Industry certification in relevant technologies or equivalent industry experience
- Knowledge of and commitment to implementing the Department's Aboriginal Education Policy and upholding the Department's Partnership Agreement with the NSW AECG and to ensure quality outcomes for Aboriginal people

Essential requirements

- Knowledge of and commitment to the Department's Aboriginal education policies
- Demonstrated understanding of and commitment to the value of public education

Capabilities for the role

The NSW public sector capability framework describes the capabilities (knowledge, skills and abilities) needed to perform a role. There are four main groups of capabilities: personal attributes, relationships, results and business enablers, with a fifth people management group of capabilities for roles with managerial responsibilities. These groups, combined with capabilities drawn from occupation-specific capability sets where relevant, work together to provide an understanding of the capabilities needed for the role.

The capabilities are separated into focus capabilities and complementary capabilities

Focus capabilities

Focus capabilities are the capabilities considered the most important for effective performance of the role. These capabilities will be assessed at recruitment.

The focus capabilities for this role are shown below with a brief explanation of what each capability covers and the indicators describing the types of behaviours expected at each level.

Focus capabilities

Capability group/sets	Capability name	Behavioural indicators	Level
Personal Attributes	**Manage Self** Show drive and motivation, an ability to self-reflect and a commitment to learning	- Keep up to date with relevant contemporary knowledge and practices - Look for and take advantage of opportunities to learn new skills and develop strengths - Show commitment to achieving challenging goals - Examine and reflect on own performance - Seek and respond positively to constructive feedback and guidance - Demonstrate and maintain a high level of personal motivation	Adept
Relationships	**Commit to Customer Service** Provide customer-focused services in line with public sector and organisational objectives	- Take responsibility for delivering high-quality customer-focused services - Design processes and policies based on the customer's point of view and needs - Understand and measure what is important to customers - Use data and information to monitor and improve customer service delivery - Find opportunities to cooperate with internal and external stakeholders to improve outcomes for customers - Maintain relationships with key customers in area of expertise - Connect and collaborate with relevant customers within the community	Adept
Relationships	**Work Collaboratively** Collaborate with others and value their contribution	- Recognise outcomes achieved through effective collaboration between teams - Build cooperation and overcome barriers to information sharing, communication and collaboration across the organisation and across government - Facilitate opportunities to engage and collaborate with stakeholders to develop joint solutions - Network extensively across government and organisations to increase collaboration - Encourage others to use appropriate collaboration approaches and tools, including digital technologies	Advanced

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	Deliver Results Achieve results through the efficient use of resources and a commitment to quality outcomes	• Use own and others' expertise to achieve outcomes, and take responsibility for delivering intended outcomes • Make sure staff understand expected goals and acknowledge staff success in achieving these • Identify resource needs and ensure goals are achieved within set budgets and deadlines • Use business data to evaluate outcomes and inform continuous improvement • Identify priorities that need to change and ensure the allocation of resources meets new business needs • Ensure that the financial implications of changed priorities are explicit and budgeted for	Adept
	Think and Solve Problems Think, analyse and consider the broader context to develop practical solutions	• Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues • Work through issues, weigh up alternatives and identify the most effective solutions in collaboration with others • Take account of the wider business context when considering options to resolve issues • Explore a range of possibilities and creative alternatives to contribute to system, process and business improvements • Implement systems and processes that are underpinned by high-quality research and analysis • Look for opportunities to design innovative solutions to meet user needs and service demands • Evaluate the performance and effectiveness of services, policies and programs against clear criteria	Advanced
	Technology Understand and use available technologies to maximise efficiencies and effectiveness	• Champion the use of innovative technologies in the workplace • Actively manage risk to ensure compliance with cyber security and acceptable use of technology policies • Keep up to date with emerging technologies and technology trends to understand how their application can support business outcomes • Seek advice from appropriate subject-matter experts on using technologies to achieve business strategies and outcomes • Actively manage risk of breaches to appropriate records, information and knowledge management systems, protocols and policies	Advanced
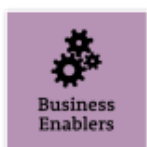
Occupational Specific Focus Capabilities

Capability group/sets	Capability name	Behavioural indicators	Level
	Strategy and Architecture	Advice and Guidance - Technical Specialism	Level 5 - TECH
	Strategy and Architecture	Advice and Guidance - Consultancy	Level 5 - CNSL
IIIII SFIA	Development and Implementation	System Development - Systems Design	Level 5 - DESN

Complementary capabilities

Complementary capabilities are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identifying performance required for the role and development opportunities.

Note: capabilities listed as 'not essential' for this role are not relevant for recruitment purposes however may be relevant for future career development.

Capability group/sets	Capability name	Description	Level
Personal Attributes	Display Resilience and Courage	Be open and honest, prepared to express your views, and willing to accept and commit to change	Adept
Personal Attributes	Act with Integrity	Be ethical and professional, and uphold and promote the public sector values	Adept
Personal Attributes	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Intermediate
Relationships	Communicate Effectively	Communicate clearly, actively listen to others, and respond with understanding and respect	Advanced
Relationships	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Adept
Results	Plan and Prioritise	Plan to achieve priority outcomes and respond flexibly to changing circumstances	Adept
Results	Demonstrate Accountability	Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	Adept

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Capability group/sets	Capability name	Description	Level
Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Intermediate
Business Enablers	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Adept
Business Enablers	Project Management	Understand and apply effective planning, coordination and control methods	Adept

Occupational Specific Complimentary Capabilities

Capability group/sets	Capability name	Description	Level
SFIA	**Strategy and Architecture - Advice and Guidance - Technical Specialism**	**Specialist advice TECH -** Actively maintains recognised expert level knowledge in one or more identifiable specialisms. Provides definitive and expert advice in their specialist area(s). Oversees the provision of specialist advice by others, consolidates expertise from multiple sources, including third party experts, to provide coherent advice to further organisational objectives. Supports and promotes the development and sharing of specialist knowledge within the organisation.	**Level 5 - TECH**
	Strategy and Architecture - Advice and Guidance - Consultancy	**Consultancy CNSL -** Takes responsibility for understanding client requirements, collecting data, delivering analysis and problem resolution. Identifies, evaluates and recommends options, implementing if required. Collaborates with, and facilitates stakeholder groups, as part of formal or informal consultancy agreements. Seeks to fully address client needs, enhancing the capabilities and effectiveness of client personnel, by ensuring that proposed solutions are properly understood and appropriately exploited.	**Level 5 - CNSL**
	Development and Implementation - System Development - Systems Design	**Systems design DESN - Adopts** and adapts appropriate systems design methods, tools and techniques selecting appropriately from predictive (plandriven) approaches or adaptive (iterative/agile) approaches, and ensures they are applied effectively. Designs large or complex systems. Undertakes impact analysis on major design options and trade-off. Makes recommendations and assesses and manages associated risks. Reviews others' systems designs to ensure selection of appropriate technology, efficient use of resources, and integration of multiple systems and technology. Ensures that the system design balances functional and non-functional requirements. Contributes to development of systems design policies and standards and selection of architecture components.	**Level 5 - DESN**

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