# Role Description
# Senior DevOps Engineer

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|---|---|
| **Cluster** | Department of Education |
| **Division/Branch/Unit** | Information Technology Directorate |
| **Location** | Australian Technology Park, Sydney |
| **Classification/Grade/Band** | Clerk Grade 11/12 |
| **Role Number** | 211194, 211195 |
| **ANZSCO Code** | 511112 |
| **PCAT Code** | 1119192 |
| **Date of Approval** | April 2019 |
| **Agency website** | www.dec.nsw.gov.au |

## Overview

The NSW Department of Education serves the community by leading the provision of world-class education. The department protects young children by regulating pre-school and long day care providers. Once children move into school, we provide them with a world-class primary and secondary education. We also work to advance the wellbeing of Aboriginal people.

## Primary purpose of the role

The Senior DevOps Engineer provides technical leadership, change, consulting and subject matter expertise technologies and practices to meet customer requirements for rapid service delivery, reliability and innovation. The role works collaboratively with key stakeholders, vendor representatives, other IT teams / experts to deliver complex and innovative solutions in alignment with ICT strategy and architecture.

## Key accountabilities

- Actively contribute to and guide innovation in DevOps practices and incorporate agile delivery approaches and technologies that assist with the development and delivery of high quality software.
- Develop and deliver efficient/repeatable infrastructure through the latest orchestration tools and Infrastructure as Code practices.
- Work with a variety of stakeholders both internal and external to promote and support the adoption of technologies that will automate, optimize and modernize the delivery of platforms and services.
- Promote and advocate changes to software engineering and operations with the adoption of new technologies that benefit the delivery of automated, highly scalable systems.
- 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
- Improve services level by implementing performance management strategies, robust configuration management practices and automated processes

- Draft timely, succinct reports and briefings for the role supervisor, Executive Director and other senior managers as appropriate ; ensure accurate records are maintained, and that responses to correspondence are 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
- Effectively driving change within the department, ensuring that the transition to agile delivery practices and 'infrastructure as code' is managed in a way that considers risk, staff well-being, capacity, skills, technology and capability

## Key relationships

| Who | Why |
|---|---|
| **Internal** | |
| Director, Infrastructure Application Platforms | • Discuss business objectives, priorities, projects and issues arising<br>• Provide specialist technical advice to inform decision-making and challenge current thinking |
| Infrastructure Services managers and staff | • Build and maintain collaborative working relationships to resolve technical / service issues<br>• Share technical advice and subject matter expertise |
| Departmental managers and staff | • Liaise effectively to ensure effective service / problem resolution<br>• Share information; provide technical advice and subject matter expertise |
| **External** | |
| Contractors, external suppliers and vendors | • Communicate priorities, expectations, standards and project scope<br>• Monitor service delivery in accordance with agreed standards; negotiating /resolving / escalating issues arising |

## Role dimensions

### Decision making

The Senior DevOps 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

The Senior DevOps Engineer reports to the Director, Infrastructure Applications Platforms or a nominated manager.

**Direct reports**
Nil

**Budget/Expenditure**
Refer to ICT Budget and financial delegation documentation.

# Essential requirements

- Demonstrated experience in all facets of designing, developing, delivering and iterating quality software, particularly modern web and mobile applications.
- Excellent knowledge in implementing end-to-end deployment pipeline including an understanding of DevOps Principals, CI/CD, infrastructure as code, container platforms and system monitoring with sound knowledge of the infrastructure stack used to provide private and public cloud services.
- Industry certification in relevant technologies and/or equivalent industry experience.
- Knowledge of and commitment to the Department's Aboriginal education policies.

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# Capabilities for the role

The NSW Public Sector Capability Framework applies to all NSW public sector employees. The Capability Framework is available at www.psc.nsw.gov.au/capabilityframework

This role also utilises an occupation specific capability set which contains information from the Skills Framework for the Information Age (SFIA). The capability set is available at http://www.sfia-online.org/en

## Capability summary

Below is the full list of capabilities and the level required for this role. The capabilities in bold are the focus capabilities for this role. Refer to the next section for further information about the focus capabilities.

| NSW Public Sector Capability Framework | | |
|---|---|---|
| **Capability Group** | **Capability Name** | **Level** |
| Personal Attributes | Display Resilience and Courage | Adept |
| | Act with Integrity | Adept |
| | **Manage Self** | **Adept** |
| | Value Diversity | Intermediate |
| Relationships | Communicate Effectively | Advanced |
| | **Commit to Customer Service** | **Adept** |
| | **Work Collaboratively** | **Advanced** |
| | Influence and Negotiate | Adept |
| Results | **Deliver Results** | **Adept** |
| | Plan and Prioritise | Adept |
| | **Think and Solve Problems** | **Advanced** |
| | Demonstrate Accountability | Adept |
| Business Enablers | Finance | Intermediate |
| | **Technology** | **Advanced** |
| | Procurement and Contract Management | Adept |
| | Project Management | Adept |

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| Occupation / profession specific capabilities | | |
|---|---|---|
| **Capability Set** | **Category, Sub-category and Skill** | **Level and Code** |
|  | **Strategy and Architecture - Advice and Guidance - Technical Specialism** | **Level 5 - TECH** |
| | **Strategy and Architecture - Advice and Guidance - Consultancy** | **Level 5 - CNSL** |
| | **Development and Implementation - System Development - Systems Design** | **Level 5 - DESN** |

## Focus capabilities

The focus capabilities for the role are the capabilities in which occupants must demonstrate immediate competence. The behavioural indicators provide examples of the types of behaviours that would be expected at that level and should be reviewed in conjunction with the role's key accountabilities.

| NSW Public Sector Capability Framework | | |
|---|---|---|
| **Group and Capability** | **Level** | **Behavioural Indicators** |
| **Personal Attributes**<br>Manage Self | Adept | • Look for and take advantage of opportunities to learn new skills and develop strengths<br>• Show commitment to achieving challenging goals<br>• Examine and reflect on own performance<br>• Seek and respond positively to constructive feedback and guidance<br>• Demonstrate a high level of personal motivation |
| **Relationships**<br>Commit to Customer Service | Adept | • Take responsibility for delivering high quality customer-focused services<br>• Understand customer perspectives and ensure responsiveness to their needs<br>• Identify customer service needs and implement solutions<br>• Find opportunities to co-operate with internal and external parties to improve outcomes for customers<br>• Maintain relationships with key customers in area of expertise<br>• Connect and collaborate with relevant stakeholders within the community |
| **Relationships**<br>Work Collaboratively | Advanced | • Build a culture of respect and understanding across the organisation<br>• Recognise outcomes which resulted from effective collaboration between teams<br>• Build co-operation and overcome barriers to information sharing and communication and collaboration across the organisation and cross government<br>• Facilitate opportunities to engage and collaborate with external stakeholders to develop joint solutions |
| **Results**<br>Think and Solve Problems | Advanced | • Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues<br>• Work through issues, weigh up alternatives and identify the most effective solutions<br>• Take account of the wider business context when considering options to resolve issues<br>• Explore a range of possibilities and creative alternatives to contribute to systems, process and business improvements<br>• Implement systems and processes that underpin high quality research and analysis |
| **Results**<br>Deliver Results | Adept | • Take responsibility for delivering on intended outcomes<br>• Make sure team/unit staff understand expected goals and acknowledge success<br>• Identify resource needs and ensure goals are achieved within budget and deadlines<br>• Identify changed priorities and ensure allocation of resources meets new business needs<br>• Ensure financial implications of changed priorities are explicit and budgeted for<br>• Use own expertise and seek others' expertise to achieve work outcomes |

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| NSW Public Sector Capability Framework | | |
|---|---|---|
| **Group and Capability** | **Level** | **Behavioural Indicators** |
| **Business Enablers**<br>Technology | Advanced | • Show commitment to the use of existing and deployment of appropriate new technologies in the workplace<br>• Implement appropriate controls to ensure compliance with information and communications security and use policies<br>• Maintain a level of currency regarding emerging technologies and how they might be applied to support business outcomes<br>• Seek advice from appropriate technical experts to leverage information, communication and other technologies to achieve business outcomes<br>• Implement and monitor appropriate records, information and knowledge management systems protocols and policies |

| Occupation specific capability set (Skills Framework for the Information Age – SFIA) | | |
|---|---|---|
| **Category,<br>Sub-category** | **Level and Code** | **Skill and Level Description** |
| **Strategy and Architecture**<br>Advice and Guidance | Level 5<br>TECH | **TECHNICAL SPECIALISM (TECH)** - Maintains an in-depth knowledge of specific technical specialisms, and provides expert advice regarding their application. Can supervise specialist technical consultancy. The specialism can be any aspect of information or communication technology, technique, method and product or application area. |
| **Strategy and Architecture**<br>Advice and Guidance | Level 5<br>CNSL | **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. |
| **Development and Implementation**<br>System Development | Level 5<br>DESN | **SYSTEMS DESIGN (DESN)** - Specifies and designs large or complex systems. Selects appropriate design standards, methods and tools, consistent with agreed enterprise and solution architectures and ensures they are applied effectively. Reviews others' systems designs to ensure selection of appropriate technology, efficient use of resources, and integration of multiple systems and technology. Contributes to policy for selection of architecture components. Evaluates and undertakes impact analysis on major design options and assesses and manages associated risks. Ensures that the system design balances functional, service quality, security and systems management requirements. |

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