

Role description

ICT Infrastructure Engineer

Cluster	Separate Agency
Agency	NSW Education Standards Authority
Division/Branch/Unit	Information Technology and Business Systems Directorate
Location	117 Clarence Street Sydney
Classification/Grade/Band	Clerk Grade 7/8
ANZSCO Code	111111
PCAT Code	1111111
Date of Approval	February 2023
Agency Website	www.educationstandards.nsw.edu.au

Agency overview

The NSW Education Standards Authority (NESA) is an independent statutory authority responsible for the curriculum, assessment, teacher accreditation and regulatory standards in NSW schools, and accreditation of early childhood teachers. NESA is responsible for developing policies and initiatives for evaluating and improving quality teaching and student learning across all schools and school sectors.

NESA was established on 1 January 2017, in response to the need to adopt a more strategic and outward-looking focus, greater clarity of regulatory roles and responsibilities and streamlined processes and systems. The NSW Education Standards Authority (NESA) was formally established on 2 January 2017 to improve quality teaching and student learning across all schools and school sectors. It is responsible for the curriculum, assessment, teacher accreditation and regulatory standards in NSW schools, and accreditation of early childhood teachers.

Find out more [NSW Education Standards Authority](http://www.educationstandards.nsw.edu.au)

Primary purpose of the role

The ICT Infrastructure Engineer is responsible for the designing, testing and implementation of routine installations of ICT hardware, including computers, network components, data storage and multi-functional devices in virtualised and cloud computing environments in accordance with industry standards including compatibility, security, and sustainability.

Key accountabilities

- Design and implement infrastructure solutions that adhere to current architecture standards in order to support the systems and services used by the organisation
- Determine the extent to which solutions perform “as required” within the current environment including monitoring the performance of systems and services in relation to their contribution to business performance, their security and sustainability to ensure that current and future solutions meet anticipated demand

- Ensure that installations are completed to time, cost and quality to minimise operational and project risk and to ensure costs are contained
- Apply infrastructure management tools to automate provisioning, testing, deployment and monitoring of infrastructure components to ensure optimal performance
- Ensure testing of hardware and software components, defect resolution, recording of results and handover of implemented solutions are conducted as per organisational standards, reducing the risk and adverse impact of change
- Ensure configuration management records are updated and end-user technology is fully documented to meet current and future infrastructure engineering requirements

Key challenges

- Managing conflicting and/or concurrent hardware upgrades, refresh projects and programs given potentially competing demands

Key relationships

Who	Why
Internal	
Manager	<ul style="list-style-type: none"> ▪ Escalate issues, keep informed, advise and receive instructions ▪ Identify emerging issues and risks and recommend solutions ▪ Participate in meetings and discussions to share information and provide input and feedback
Work team	<ul style="list-style-type: none"> ▪ Work collaboratively to contribute to achieving business outcomes ▪ Participate in meetings to obtain the work group perspective and share information
Clients/customers	<ul style="list-style-type: none"> ▪ Resolve and provide customer focused solutions to issues ▪ Articulate the needs and requirements of the service and collaborate with to negotiate solutions, provide expert advice and regular updates

Role dimensions

Decision making

This role has autonomy and makes decisions that are under their direct control as directed by their manager. It refers to a managers' decisions that require significant change to program outcomes or timeframes or are likely to escalate or require submission to a higher level of management. This role is fully accountable for the delivery of work assignments on time and to expectations in terms of quality, deliverables and outcomes. This role submits reports, technical documents, and other forms of written advice with minimal input from the manager.

Reporting line

Manager Architecture and Infrastructure

Direct reports

This role has no direct reports

Budget/Expenditure

NIL

Essential requirements

- Tertiary qualifications in information technology and/or industry experience in related field
- Extensive experience in Private and Public Cloud (Azure and/or AWS) Infrastructure
- Exceptional problem solving, analytical and organisational skills including the ability to recommend improvements/alternatives
- Sound knowledge of Microsoft AND/OR Linux operating environment





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 www.psc.nsw.gov.au/capabilityframework/ICT

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	Foundational
	Act with Integrity	Adept
	Manage Self	Adept
	Value Diversity	Intermediate
 Relationships	Communicate Effectively	Intermediate
	Commit to Customer Service	Adept
	Work Collaboratively	Intermediate
	Influence and negotiate	Intermediate
 Results	Deliver Results	Adept
	Plan and prioritise	Intermediate
	Think and Solve Problems	Adept
	Demonstrate Accountability	Intermediate
	Finance	Foundational

Technology	Adept
Procurement and Contract Management	Intermediate
Project Management	Adept

Occupation / profession specific capabilities		
Capability Set	Category, Sub-category and Skill	Level and Code
	Development and Implementation - Installation and Integration Systems Installation/Decommissioning	Level 4 – HSIN
	Strategy and Architecture - Technical Strategy and Planning Solution Architecture	Level 5 – ARCH
	Delivery & Operation – Service Operation IT Infrastructure	Level 4 - ITOP
	Delivery & Operation - Service Operation System Software	Level 4 – SYSP

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 Manage Self	Adept	<ul style="list-style-type: none"> • 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

Relationships Work Collaboratively	Intermediate	<ul style="list-style-type: none"> • Build a supportive and cooperative team environment • Share information and learning across teams • Acknowledge outcomes that were achieved by effective collaboration • Engage other teams and units to share information and jointly solve issues and problems • Support others in challenging situations • Use collaboration tools, including digital technologies, to work with others
Relationships Commit to Customer Service	Adept	<ul style="list-style-type: none"> • 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
Results Think and Solve Problems	Adept	<ul style="list-style-type: none"> • Research and apply critical-thinking techniques in analysing information, identify interrelationships and make recommendations based on relevant evidence • Anticipate, identify and address issues and potential problems that may have an impact on organisational objectives and the user experience • Apply creative-thinking techniques to generate new ideas and options to address issues and improve the user experience • Seek contributions and ideas from people with diverse backgrounds and experience • Participate in and contribute to team or unit initiatives to resolve common issues or barriers to effectiveness • Identify and share business process improvements to enhance effectiveness
Business Enablers Technology	Adept	<ul style="list-style-type: none"> • Identify opportunities to use a broad range of technologies to collaborate • Monitor compliance with cyber security and the use of technology policies • Identify ways to maximise the value of available technology to achieve business strategies and outcomes • Monitor compliance with the organisation's records, information and knowledge management requirements

NSW Public Sector Capability Framework

Group and Capability	Level	Behavioural Indicators
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- Support compliance with the records, information and knowledge management requirements of the organisation

Occupation specific capability set (Skills Framework for the Information Age – SFIA)

Category and Sub-Category	Level and Code	Level Descriptions
Development and Implementation Installation and Integration	Level 4 - HSIN	SYSTEMS INSTALLATION /DECOMMISSIONING - Undertakes routine installations and de-installations of items of hardware and/or software. Takes action to ensure targets are met within established safety and quality procedures, including, where appropriate, handover to the client. Conducts tests of hardware and/or software using supplied test procedures and diagnostic tools. Corrects malfunctions, calling on other experienced colleagues and external resources if required. Documents details of all hardware/software items that have been installed and removed so that configuration management records can be updated. Develops installation procedures and standards, and schedules installation work. Provides specialist guidance and advice to less experienced colleagues to ensure best use is made of available assets, and to maintain or improve the installation service.
Strategy & Architecture Technical Strategy & Planning	Level 5 – ARCH	SOLUTION ARCHITECTURE - Leads the development of solution architectures in specific business, infrastructure or functional areas. Ensures that appropriate tools and methods are available, understood and employed in architecture development. Within a change programme, leads the preparation of technical plans and, in liaison with business assurance and project staff, ensures that appropriate technical resources are made available. Provides advice on technical aspects of solution development and integration (including requests for changes, deviations from specifications, etc.) and ensures that relevant technical strategies, policies, standards and practices (including security) are applied correctly.

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Occupation specific capability set (Skills Framework for the Information Age – SFIA)

Category and Sub-Category	Level and Code	Level Descriptions
Delivery & Operation Service Operation	Level 4 - ITOP	IT INFRASTRUCTURE - Provides technical expertise to enable the correct application of operational procedures. Uses infrastructure management tools to determine load and performance statistics. Contributes to the planning and implementation of maintenance and installation work, including building and configuration of infrastructure components in virtualised environments. Implements agreed infrastructure changes and maintenance routines. Configures tools to automate the provisioning, testing and deployment of new and changed infrastructure. Identifies operational problems and contributes to their resolution, checking that they are managed in accordance with agreed standards and procedures. Provides reports and proposals for improvement, to specialists, users and managers.
Delivery & Operation Service Operation	Level 4 - SYSP	SYSTEMS SOFTWARE - Reviews system software updates and identifies those that merit action. Tailors system software to maximise hardware functionality. Installs and tests new versions of system software. Investigates and coordinates the resolution of potential and actual service problems. Prepares and maintains operational documentation for system software. Advises on the correct and effective use of system software.