

# Role description

## Transmission Engineer



Customer  
Service

Cluster	Customer Service
Agency	Department of Customer Service
Division/Branch/Unit	Digital.NSW and Customer Service ICT / NSW Telco Authority
Classification/Grade/Band	Clerk Grade 9/10
ANZSCO Code	263312
PCAT Code	1316292
Date of Approval	November 2019

### Primary purpose of the role

Responsible for designing and managing the development of telecommunications radio site infrastructure. This role provides transmission and backhaul expertise with a focus on providing input, direction and governance to internal and external stakeholders in site design matters, and improving guidelines and compliance associated with telecommunications infrastructure.

### Key accountabilities

- Contribute and adhere to transmission design guidelines and standards ensuring it is compliant to legislation and policies
- Apply cost-effective design solutions for the Government Radio Network
- Provide advice, analysis and recommendations to internal and external stakeholders on transmission planning, design and operation of the Government Radio Network
- Provide technical input on assigned projects and deliver the required outputs in the timeframe required
- Ensure continual improvement and assess innovative products/features that can offer new or improved capability to the Government Radio Network
- Provide microwave link analysis, fibre/leased line analysis, satellite backhaul analysis, capacity planning, spectrum planning, interference analysis and drawing reviews. This includes using expertise in Mentum Ellipse, Pathloss or similar tools to support the delivery of services.
- Establish and maintain relationships ensuring that fundamental knowledge is applied for E2E architecture and site build process to collaborate with other disciplines such as radio, core, civil, structural, acquisition, environmental and operations, providing expert advice and information to negotiate and influence site build process to optimise effective solution and service

### Key challenges

- Maintaining knowledge and understanding of the NSW Government's critical communication needs in a rapidly changing environment
- Working in a matrix team environment with internal teams and external partner organisations to prioritise work packages and take appropriate action to address differing needs
- Applying experience in wireless industry, transmission and site design for telecommunications sites and in-depth knowledge of key Australian Standards and ACMA regulations for transmission design and licencing to resolve complex issues to deliver critical communications standards of coverage

## Key relationships

Who	Why
<b>Internal</b>	
Telco Authority Staff	<ul style="list-style-type: none"><li>• Provide technical input and designs in accordance with project schedules</li><li>• Share information, consult, give and seek advice.</li><li>• Collaborate on projects and/or project specific tasks.</li><li>• Act as the subject matter expert where appropriate.</li><li>• Maintain effective working relationships to promote collaboration.</li></ul>
Management	<ul style="list-style-type: none"><li>• Provide advice and consult with as required.</li></ul>
<b>External</b>	
Other Government agencies	<ul style="list-style-type: none"><li>• Liaise with and provide advice and information on radio site design matters</li><li>• Work collaboratively with other agencies to deliver cost-effective solutions for the expansion of the Government Radio Network</li></ul>
Telco Authority Contractors	<ul style="list-style-type: none"><li>• Govern contractors to ensure designs meet Telco Authority Design Guidelines and Standards</li></ul>

## 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, business cases and other forms of written advice with minimal input from the manager.

### Reporting line

Engineering Manager

### Direct reports

This role has no direct reports

### Budget/Expenditure

As per the Customer Service Delegations

## Essential Requirements

Relevant tertiary qualifications and demonstrated experience in a similar and complex high-volume 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](http://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](http://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	Intermediate
	<b>Act with Integrity</b>	<b>Adept</b>
	Manage Self	Adept
	Value Diversity	Intermediate
 Relationships	Communicate Effectively	Adept
	<b>Commit to Customer Service</b>	<b>Adept</b>
	Work Collaboratively	Adept
	Influence and Negotiate	Intermediate
 Results	Deliver Results	Adept
	<b>Plan and Prioritise</b>	<b>Adept</b>
	<b>Think and Solve Problems</b>	<b>Advanced</b>
	Demonstrate Accountability	Adept
 Business Enablers	Finance	Intermediate
	<b>Technology</b>	<b>Adept</b>
	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
	<b>Development and Implementation, Systems Development, Systems Design</b>	<b>Level 4 - DESN</b>
	Strategy and Architecture, Technical Strategy and Planning, Methods and Tools	Level 4 - METL
	<b>Delivery and Operation, Service Operation, Radio Frequency Engineering</b>	<b>Level 4 - RFEN</b>

## 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
<b>Personal Attributes</b> Act with Integrity	Adept	<ul style="list-style-type: none"> <li>• Represent the organisation in an honest, ethical and professional way and encourage others to do so</li> <li>• Demonstrate professionalism to support a culture of integrity within the team/unit</li> <li>• Set an example for others to follow and identify and explain ethical issues</li> <li>• Ensure that others understand the legislation and policy framework within which they operate</li> <li>• Act to prevent and report misconduct, illegal and inappropriate behaviour</li> </ul>
<b>Relationships</b> Commit to Customer Service	Adept	<ul style="list-style-type: none"> <li>• Take responsibility for delivering high quality customer-focused services</li> <li>• Understand customer perspectives and ensure responsiveness to their needs</li> <li>• Identify customer service needs and implement solutions</li> <li>• Find opportunities to co-operate with internal and external parties to improve outcomes for customers</li> <li>• Maintain relationships with key customers in area of expertise</li> <li>• Connect and collaborate with relevant stakeholders within the community</li> </ul>
<b>Results</b> Plan and Prioritise	Adept	<ul style="list-style-type: none"> <li>• Take into account future aims and goals of the team/unit and organisation when prioritising own and others' work</li> <li>• Initiate, prioritise, consult on and develop team/unit goals, strategies and plans</li> <li>• Anticipate and assess the impact of changes, such as government policy/economic conditions, on team/unit objectives and initiate appropriate responses</li> <li>• Ensure current work plans and activities support and are consistent with organisational change initiatives</li> <li>• Evaluate achievements and adjust future plans accordingly</li> </ul>
<b>Results</b> Think and Solve Problems	Advanced	<ul style="list-style-type: none"> <li>• Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues</li> <li>• Work through issues, weigh up alternatives and identify the most effective solutions</li> <li>• Take account of the wider business context when considering options to resolve issues</li> </ul>

## NSW Public Sector Capability Framework

Group and Capability	Level	Behavioural Indicators
<b>Business Enablers</b> Technology	Adept	<ul style="list-style-type: none"> <li>Explore a range of possibilities and creative alternatives to contribute to systems, process and business improvements</li> <li>Implement systems and processes that underpin high quality research and analysis</li> <li>Demonstrate a sound understanding of technology relevant to the work unit, and identify and select the most appropriate technology for assigned tasks</li> <li>Identify opportunities to use a broad range of communications technologies to deliver effective messages</li> <li>Understand, act on and monitor compliance with information and communications security and use policies</li> <li>Identify ways to leverage the value of technology to achieve team/unit outcomes, using the existing technology of the business</li> <li>Support compliance with the records, information and knowledge management requirements of the organisation</li> </ul>

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

Category and Sub-Category	Level and Code	Level Descriptions
Development and Implementation Systems Development	Level 4 – DESN	<p><b>Systems Design</b> Designs components using appropriate modelling techniques following agreed architectures, design standards, patterns and methodology. Identifies and evaluates alternative design options and tradeoffs. Creates multiple design views to address the concerns of the different stakeholders of the architecture and to handle both functional and non-functional requirements. Models, simulates or prototypes the behaviour of proposed systems components to enable approval by stakeholders. Produces detailed design specification to form the basis for construction of systems. Reviews, verifies and improves own designs against specifications.</p>
Delivery and Operation Service Operation	Level 4 – RFEN	<p><b>Radio Frequency Engineering</b> Investigates and resolves system-wide fault conditions using a wide range of diagnostic tools and techniques. Reconfigures equipment to circumvent temporary outages.</p>