



## Position Description

<b>Title</b>	<b>Senior Network Design Engineer</b>
<b>Technology</b>	
Location:	Christchurch
Reports to:	Team Leader Network Design
Direct Reports:	N/A
Indirect Reports:	N/A
Date:	April 2026

### Overview

Our people manage New Zealand's 30 million square kms of airspace, providing air traffic control, surveillance, communication, flight inspection, mapping and airspace design services. We work with government, regulatory authorities, airlines, airports and the general aviation community to ensure pilots, passengers and goods reach their destination - safely. At Airways, our values underpin all that we do. We value Safety, One Airways, Excellence and Success in all that we do.

Our organisation is made up of operational business groups that are supported by governance and corporate services functions. To learn more about our people and organisational structure, check out [www.airways.co.nz/about](http://www.airways.co.nz/about).

### Business Unit Purpose

The Technology business unit is responsible for the effective delivery, management, and services of all technology disciplines within the air navigation services environment – engineering design, software design and development, technology architecture and infrastructure, asset management, installation and maintenance, technical training, workload planning, maintenance program development, project management, and logistics support.

Network Engineers ensure the provision of safe air traffic systems by providing engineering expertise and support services in the design, installation, modification, and standards of systems used by Airways and our overseas clients.

The Network Design team carries out the ongoing activities and procedures required to plan, architect, and design the network infrastructure for Airways services. This includes the responsibility for ensuring the technical knowledge is documented, maintained and accessible for the day-to-day operation

This role supports mission-critical Air Traffic Control services where network failure has direct safety, operational, or national impact. The role leads the design of intent-driven network solutions that ensure deterministic performance, operational assurance, and rapid service recovery.

## Purpose of the Position

To provide specialist network design and delivery of network services on a critical communication network.

The Senior Network Design Engineer exhibits pride and ownership for the stability and reliability of the network to deliver the best network experience for our customers and peers. Provides guidance and coaching of others, to enhance network automation and operation. Projecting a positive, inquisitive attitude to solving issues, discovering solutions and leading by example.

The Senior Network Design Engineer has an in-depth knowledge of the network and the services operating across it. They are highly skilled in network management, design, and operations. Able to research solutions for any request assigned to them or the team and work with minimal guidance.

A major focus is on leading future planning, designing, documenting solutions for automating the Airways Networks.

## General

This role is central to the organisation's transition toward autonomous, intent-driven networks, enabling faster service delivery, reduced operational risk, and improved network reliability. The Senior Network Design Engineer will play a key role in shaping the future-state network architecture and automation strategy.

Your general duties include those outlined in this position description and may be reviewed and updated from time to time in consultation with you. You will also be required to undertake any other duties that are within your ability to perform, if asked to do so.

Key Areas of Accountability	
Leadership	<ul style="list-style-type: none"> <li>▶ Empower, motivate, and share expertise to support the development of others to enable an engaged and high performing business.</li> <li>▶ Provide direction, empower, motivate and develop others to achieve business unit, group and organisational goals.</li> <li>▶ Provide thought leadership and act as a subject matter expert in field of network automation, evolution and design.</li> <li>▶ Provide on-the-job training and support the preparation of training course material for staff in training if requested.</li> <li>▶ Keeping abreast of network technology trends, sharing knowledge with the team.</li> <li>▶ Be a role model for our shared values.</li> </ul>
Service Delivery	<ul style="list-style-type: none"> <li>▶ Provide consistent, regular and comprehensive communication regarding system deficiencies and supply progress reports to senior stakeholders and</li> </ul>

	<p>management, including recommendations of options and a solution.</p> <ul style="list-style-type: none"> <li>▶ Act as a subject matter expert regarding the impact of automation of network tasks on services.</li> <li>▶ Provide support with proof-of-concept designs and LAB testing.</li> <li>▶ Support the monitoring of service delivery performance and ensure that service level agreements are not breached without the stakeholders being given the opportunity of planning for deterioration in service.</li> <li>▶ Proactively identifying and leading Project lifecycle programs in the production or lab networks.</li> <li>▶ Provide oversight and assurance that change documentation is accurate.</li> <li>▶ Provide subject matter oversight of Network Changes.</li> <li>▶ Optimize future implementations to simplify connectivity and reduce costs.</li> <li>▶ Directly influence the development and enhancement of network automation.</li> <li>▶ Drive open communication and discussion between stakeholders, acting as a single point of contact by developing, maintaining, and working to stakeholder engagement strategies and plans.</li> <li>▶ Lead the automation and maintenance of operational methods, procedures, and facilities in assigned area of responsibility and reviews them regularly for effectiveness and efficiency.</li> <li>▶ Assist Network Support team with project “first in” implementations to maximise change success and if required updating design documentation to match the successful implementation.</li> <li>▶ Assist Network Support team to provide root cause analysis of network issues and recommend corrective actions.</li> <li>▶ Support a culture that focusses on exceeding customer expectations in delivering network documentation and projects.</li> </ul>
<p>Network Design</p>	<ul style="list-style-type: none"> <li>▶ Creation of concept papers for Network projects.</li> <li>▶ Creation of Network Preliminary Design Certificates (PDC) for Network initiated projects.</li> <li>▶ Creation of Low-Level Detailed Design documents to the required standard for a critical communication network.</li> <li>▶ Creation of Network Intents documentation and standards</li> <li>▶ Creation or modification of Network Drawings</li> </ul>

- ▶ Support creation of business requirements that relate to the Network and its design
- ▶ Ensure that the relevant operational and technical procedures are followed in all activities involving Airways equipment.
- ▶ Utilise subject matter expertise to clearly understand and articulate the risk to system availability or performance to the relevant parties when individual system components either fail or are released to service.
- ▶ Lead the specification and design of large, significant, or complex systems.
- ▶ Act as the senior subject matter expert in the selection of appropriate design standards, methods, and tools, consistent with agreed enterprise and solution architectures, and ensure that they are applied effectively.
- ▶ Support the reviews of systems designs to ensure selection of appropriate technology, efficient use of resources, and integration of multiple systems and network automation technology.
- ▶ Provide oversight to the writing, reviewing and implementation of Network Changes, Engineering Orders (EOs) Low Level Network Designs (LLND) and Firewall Change Requests (FCR) within the required timeframes.
- ▶ Provide enhancements to existing network designs as required.
- ▶ Contribute to policy for selection of architecture components.
- ▶ Act as the senior subject matter expert in the evaluation and impact analysis on major design options and assess and manage associated risks.
- ▶ Ensure that the network design balances functional, service quality, security, and systems management requirements.
- ▶ Lead LAB development/testing (with network support) and the FAT/SAT/Proof of Concept activities.
- ▶ Provide oversight and quality monitoring of network equipment selection or ordering.
- ▶ Develop change approval documentation; create and disseminate Network changes and Engineering Orders (EO), when required.
- ▶ Review changes, EO and documentation from other colleagues.
- ▶ Act as the subject matter expert in the commercial awareness of external service providers, equipment, software and automation capabilities.

	<ul style="list-style-type: none"> <li>▶ Ensure that the status of the work assigned, issues or any other relevant information is clearly communicated to the Team Leader(s), Project Manager and/or other affected team members and other areas.</li> <li>▶ Develop and update equipment and maintenance specifications and procedures.</li> </ul>
Security and Risk	<ul style="list-style-type: none"> <li>▶ Involved with security risk, vulnerability assessments, and business impact analysis for medium complexity networks including investigations of security incidents, event, or breaches.</li> <li>▶ Ensure risk assessments for networks are performed and that specific security controls are applied in line with organisational policy and local risk assessments.</li> <li>▶ Assist with leading actions to respond to security and availability breaches in line with appropriate policy or guidelines and ensure recording of incidents and actions taken.</li> <li>▶ Ensure actions for disaster recovery and documentation for procedures, lead testing for recovery procedures.</li> </ul>
Self-Development	<ul style="list-style-type: none"> <li>▶ Monitor own performance and seeks development opportunities to improve performance.</li> <li>▶ Implements agreed development plans within agreed timeframes.</li> </ul>
Asset Management	<ul style="list-style-type: none"> <li>▶ Assist with leading the control of network assets in one or more significant areas, ensuring that administration of the acquisition, storage, distribution, movement, and disposal of assets is carried out.</li> <li>▶ Provide oversight to the production and analysis of registers and histories of authorised assets (including secure master copies of software, documentation, data, licenses and agreements for supply, warranty, and maintenance) and verify that all assets are in a known state and location. Highlight and resolve potential instances of unauthorised assets and ensure the identification of changes to an asset and advise Network Design team so that the Asset Management Plan (AMP) can be updated.</li> </ul>
Quality and Continuous Improvement	<ul style="list-style-type: none"> <li>▶ Proactively identifying and leading continuous improvement processes using network automation where suitable</li> <li>▶ Make recommendations on the maintenance and improvement of assigned technical systems.</li> <li>▶ Maintains and adds to network knowledge bases and network information framework (NIF).</li> <li>▶ Minimises the cost of all activities while fulfilling agreed customer requirements.</li> </ul>

	<ul style="list-style-type: none"> <li>▶ Lead the analysis of system performance, quality, efficiency, and capability and suggest improvements.</li> <li>▶ Identify deficiencies in processes and procedures and actively lead the improvement process.</li> <li>▶ Participate as the subject matter expert in internal audit activity including acting as an escort or auditor.</li> <li>▶ Contribute to improving solution development processes using Network Automation.</li> </ul>
Health & Safety	<ul style="list-style-type: none"> <li>▶ Responsible for proactively demonstrating Airways Safety value - it's at the heart of everything we do.</li> <li>▶ Responsible for operating role in a safe manner and striving for continuous improvement in health &amp; safety throughout the business.</li> <li>▶ Responsible for ensuring Airways security is always maintained.</li> <li>▶ Accountable for proactively raising health or safety issues in line with Airways safety management systems and participating in position related health &amp; safety training.</li> </ul>
Travel Requirement	<ul style="list-style-type: none"> <li>▶ Work may be required in other locations within NZ/internationally to perform the duties of the role.</li> </ul>
Budget	<ul style="list-style-type: none"> <li>▶ Responsible for managing an <u>opex</u> budget of \$NIL.</li> </ul>
Financial Delegation	<ul style="list-style-type: none"> <li>▶ Delegated financial authority for <u>capex business cases</u> \$NIL.</li> <li>▶ Delegated financial authority for <u>transactional expenditure</u> of \$NIL.</li> </ul>
Contractual Delegation	<ul style="list-style-type: none"> <li>▶ Signing Authority to a limit of \$ NIL.</li> <li>▶ Please refer to <a href="#">Delegated Authority Policy</a> for further information.</li> </ul>
Legislative Owner	<ul style="list-style-type: none"> <li>▶ NIL.</li> </ul>
Safety Sensitive	<ul style="list-style-type: none"> <li>▶ YES.</li> </ul>

Key Relationships / Customers	Nature of Relationship
<b>Internal</b>	
Team Leader Network Design	Direct reporting line.
Network Design Engineers, Network Support Engineers, Technicians Systems and Software Engineers, Project teams and Technical Coordinators	Work collaboratively with and manage relationships to assist with network performance and availability.

## External

Vendors/Suppliers	Work collaboratively with and manage relationships to assist with network performance and availability.
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Formal Qualifications / Training / Experience	Required	Desirable
Hold a diploma, NZ certificate, or university qualification in a technology field with five to seven years of experience in network support or network operation roles for other organisations of similar size and complexity to Airways	✓	
Experienced with managing suppliers/vendors	✓	
Experienced coaching and mentoring the performance and development of junior or trainee staff members	✓	
Experience in, and a genuine passion for Network Automation	✓	
Senior level experience as a network design engineer in the critical communication networks, or other large multi-platform environments.		✓

Key Competencies / Skills / Knowledge	Required	Desirable
<b>Accountable</b> - Decisions and is accountable; consults with people; accesses information and analyses facts from a broad viewpoint; balances the needs of stakeholder triangle; has confidence in decisions; identifies core principles and applies them consistently to decisions.	✓	
<b>Communication</b> - Communicates openly and honestly, explaining reasons in a prompt and timely way that people understand and find relevant to their position; is clear and concise, seeking to be understood; anticipates needs of audience and adapts style and communication methods using face to face for difficult issues; listens and seeks to understand others points of view, understands body language; is relentless on what is important, demonstrating enthusiasm and conviction.	✓	
<b>Customer &amp; Partnership Focused</b> - Builds long-term, strategic and sustainable relationships with customers/partners; understands the customer's business and requirements; manages expectations and builds respect rather than seeking to be liked; measures performance against customer-based targets; delivers on promises to	✓	

customers and personally commits to resolving customer issues; inspires a customer-centric approach across Airways.		
<b>Dealing with Pressure</b> - Copes with complex problems calmly; maintains a good rapport with people in stressful situations; manages issues and problems as they arise; is calm even under difficult circumstances; takes time to think problems through.	✓	
<b>Enthuses &amp; Inspires</b> - Is enthusiastic about what they do; is driven and has energy and is prepared to do more; 'gets boots dirty and rolls up sleeves'; sets the scene by painting the whole picture, gives goals and is genuinely interested in how things are going by keeping people posted on performance; is calm in the face of negativity and doesn't back off.	✓	
<b>Planned &amp; Organised</b> - Develops realistic plans to ensure deadlines are met; ensures all resources available to implement the plan; continually reprioritises as new work comes in, based on criteria and information from the customer; works on a number of jobs simultaneously without any dropping off.	✓	
<b>Problem Solving</b> - Seeks out the data required; identifies discrepancies in data and is meticulous in generating hypotheses that incorporate all the symptoms; is tenacious when faced with difficult problems maintaining a systematic and logical approach; appreciates there are always a number of solutions to problems and thinks laterally to identify these.	✓	
<b>Quality Focused</b> - Thoroughly checks own work against standards, designs or specifications; tests in detail all functionality before releasing systems; uses knowledge of the whole system to test all potential impacts and to verify final outcome; designs or uses tests which checks changes made.	✓	
<b>Our Values</b> - Demonstrates the Airways Values consistently and naturally, showing a personal commitment to value Safety, One Airways, Excellence and Success; consistently exhibits behaviours that inspire understanding of and commitment to these values.	✓	

Key Behaviours – Leading Self			Required
Put Our People First	Lead and Engage Authentically	<p><b>Coaches and develops others:</b> Helps others in day-to-day tasks and promotes a One Airways approach by sharing knowledge with others</p> <p><b>Fosters trust, safety, and inclusion:</b> Treats others with respect and values diverse perspectives</p> <p><b>Celebrates the success and achievements of others:</b> Congratulates peers on their success</p>	✓
Serve all Airspace users	Safety Focused Thinking	<p><b>Operates with a safety-led mindset:</b> Takes personal accountability for the safety of themselves and those around them, and proposes new ideas to improve safety</p> <p><b>Applies a customer-centric lens:</b> Understands the needs of relevant customers and stakeholders</p>	✓
Unlock Future Growth	Innovation & Results Driven	<p><b>Focuses on growth, financial performance, and drives innovation:</b> Focuses on growth and financial impacts and looks for innovative Network Automation solutions</p> <p><b>Considers future needs when making decisions:</b> Understands future objectives and needs</p> <p><b>Strives for excellence in performance:</b> Completes day to day tasks at a high quality</p>	✓
Support Sustainable Aviation	Sustainability Champion	<p><b>Promotes sustainability and champions sustainable practices:</b> Champions Airways commitment to sustainability and Network Automation</p> <p><b>Embeds and improves sustainable practices:</b> Adopts sustainable practices and proposes ideas for incorporating sustainability into existing processes</p>	✓

## Our values underpin everything we do



We are  
**safe**

Safety is at the forefront of everything we do. We are committed to the safety of our people, operations and the communities we serve.



We strive for  
**excellence**

We deliver our best work each and every day, and look for ways to continue to improve what we do



We are  
**One Airways**

We all have our own areas of expertise and by working together, collaborating and sharing knowledge, we achieve our aspiration



We celebrate  
**success**

We recognise our people's achievements, big and small, and celebrate our successes