



Senior Control Systems Networking Engineer

Position Description – Infrastructure

Team:	Control Systems	Location:	Auckland / Wellington
Reports to:	Engineering Team Leader Control Systems		
Role Type:	Permanent		

About Us

KiwiRail’s Role in Aotearoa, New Zealand

KiwiRail, a proud State-Owned Enterprise, delivers sustainable and inclusive growth for our customers, communities, and people.

For more than 150 years, rail in New Zealand has connected communities, delivered freight and passengers around the country, and showcased our spectacular scenery to the world. Our purpose—Hononga Whaikaha, Oranga mo Aotearoa (Stronger Connections, Better New Zealand)—speaks to connection with our customers and the future needs of their businesses, connection with the communities we serve and operate in, and connection with each other. KiwiRail is carrying this legacy into the future, delivering connected rail and shipping transport services that create economic, social, and environmental value for New Zealand and New Zealanders.

Our Workplace

At KiwiRail, our values define the behaviour we expect from everyone. We have a team of over 4500 people, and every connection we make with each other, our union partners, our customers and all our stakeholders must be of the highest standard.

Safety, health, and well-being are our number one priority, ensuring our people return home safe and healthy every day.



About the Role

Purpose of the role

KiwiRail is in a phase of significant transformation to modernise and grow our rail and Interislander ferry services in Aotearoa.

The Senior Control Systems Networking Engineer plays a critical role in delivering resilient, secure, and high-performing engineering telecommunications networks that support KiwiRail's control systems. This role supports the Control Systems Team Leader in managing projects and services that enhance network infrastructure, particularly in metro areas, and ensures compliance with engineering standards. It also provides technical leadership, mentoring, and advanced support across the organisation, contributing to KiwiRail's safety, operational efficiency, and asset management goals.

Key Accountabilities

Within the area of responsibility, this role is required to:

- Lead the design and delivery of control systems networking projects, including RNIP and capital upgrades.
- Provide tier 2 and 3 technical supports for network infrastructure and safety-rated systems.
- Mentor and supervise junior engineers, fostering technical growth and capability.
- Maintain and enhance network security, architecture, and documentation.
- Conduct engineering investigations and assessments to support decision-making.
- Ensure compliance with KiwiRail engineering standards, codes, and processes.

Key challenges

- Managing complex network upgrades in safety-critical environments with minimal disruption.
- Balancing project delivery with ongoing support and asset management responsibilities.
- Ensuring accurate documentation and configuration control across diverse technologies.

Key Relationships		Manage /Lead	Deliver to	Collaborate with	Advise or inform
Here are the key relationships relevant to this role					
Internal	Engineering Managers		✓	✓	
	Engineering Staff			✓	
	Technical Director & Professional Heads			✓	
	NTCC			✓	✓
	ICT Operational Technologies Group			✓	✓
	Operations Managers				✓
External	Consultants			✓	✓
	Contractors				✓
	Suppliers				✓
	Relevant Authorities			✓	✓

What you will do to contribute

Health Safety and Wellbeing	• Prioritise safety in all engineering activities and challenge unsafe behaviours. • Ensure compliance with rail safety standards and statutory requirements. • Lead and participate in Safety in Design workshops. • Promote a culture of safety and wellbeing across the team. • Report and manage safety incidents and hazards effectively.
Customer Focus	• Provide expert technical advice to internal stakeholders and external partners. • Ensure engineering solutions meet operational and customer needs. • Support incident recovery with timely and effective engineering input. • Deliver high-quality outcomes that benefit both customers and KiwiRail. • Build rapport with field teams and ensure their support needs are met.
High Performing Teams Skills	• Mentor junior engineers and promote continuous learning. • Collaborate across engineering disciplines to share knowledge and best practices. • Provide constructive feedback and technical guidance. • Foster a supportive and inclusive team environment. • Encourage innovation and improvement in engineering processes.
Commercial Acumen	• Recommend strategic asset management options balancing cost, risk, and service. • Maintain accurate asset records and contribute to capital planning. • Understand the financial implications of engineering decisions. • Support procurement and contractor management to ensure value delivery. • Participate in technical committees to align engineering with business goals.
Other Role-Related Competencies	• Stay current with emerging technologies and apply them to KiwiRail's context. • Lead risk assessments and manage asset risk registers. • Review and develop technical standards and documentation. • Support assurance activities including compliance reviews and investigations.

Decision Making

The position is accountable for decisions regarding all project operational objectives and for the provision of advice to project team members and relevant stakeholders on day-to-day operational decisions.

Key decision-making requirements of the position include:

- Design management and delivery decisions
- Risk management decisions

Human Resources Delegations	Nil
Direct reports	Nil
Finance Delegations	Nil
Budget (operating and capital)	Nil
Travel Delegations	Nil
Statutory powers	Nil

Physical demands and the nature of work

This role is administration-based and requires:

- prolonged sitting and high computer usage
- limited walking, standing, twisting, bending (at the waist), crouching (bend knee)
- carrying of laptop and paperwork when alternating between home and office
- limited lifting of up to 7 kg archive boxes

Your role may include other tasks suited to your level, as your manager directs. This job description shows your current duties. We'll review and update it with you if your responsibilities change.

About you

Knowledge and experience

- You have 5+ years' experience in network engineering or administration.
- You're skilled in network architecture, security, and troubleshooting.
- You understand protocols such as TCP/IP, Modbus, BGP, OSPF, and VRRP.
- You've worked with monitoring tools like Nagios and Wireshark.
- You're familiar with VM technologies and safety-critical systems.
- You've supported or designed networks for railway or industrial environments.

Ways of working / Work-related qualities

- You prioritise safety and act with integrity.
- You communicate clearly and tailor your message to different audiences.
- You collaborate effectively and support team success.
- You stay calm under pressure and adapt to changing priorities.
- You seek learning opportunities and apply feedback to improve.

Other Requirements

- You can pass regular drug and alcohol screenings.
- You hold a current and valid NZ driver's licence.
- You are willing to travel nationally as required.

Qualifications

You need either:

- You have a relevant tertiary qualification in Computer Science, Engineering, or a related field.
- You hold or are working towards professional certifications (e.g., Cisco CCNP, CCDP).

Or

- You have equivalent industry experience in safety-critical network environments.

**CREATING
STRONGER
CONNECTIONS**

The KiwiRail logo, featuring the word "KiwiRail" in a bold, sans-serif font, followed by a stylized graphic of a kiwi bird's tail feathers.