



## Senior Control Systems Networking Engineer

### Position Description – National

|                    |  |                  |                        |
|--------------------|--|------------------|------------------------|
| <b>Team:</b>       | Control Systems - Infrastructure           | <b>Location:</b> | Auckland or Wellington |
| <b>Reports to:</b> | Team Lead Control Systems – Infrastructure |                  |                        |
| <b>Role Type:</b>  | 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 Network Engineer (SNE) supports the Control Systems Team Leader in achieving the efficient delivery of projects and support services assigned to the Control Systems Team in compliance with engineering policies, principles, standards, codes, processes, and task instructions.

This role reports to the Control Systems Team Leader, who in turn reports through the Engineering Electrical Manager to the General Manager Engineering who is responsible for Engineering Design, Engineering Advice, Codes and Standards, Asset Management, and Assurance.

The SNE role is designed to be a 'next step' for experienced networking engineers with proven capabilities and emphasises active leadership in a wide variety of projects.

The role requires excellent problem-solving skills and thorough knowledge of contemporary network administration and architecture. You're also passionate about resiliency, security and accurate design and configuration record keeping.

### Key Accountabilities

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

- Manage, Design and Deliver Control Systems assigned RNIP and Capital projects that upgrade or modify engineering telecommunications networks and their supported equipment and applications.
- Develop and maintain a working knowledge of Control Systems assigned Networking assets with an emphasis on technologies and systems implemented in the Metro Areas.
- Provide tier 2 & 3 support to regional field staff.
- Technical supervision & mentoring of junior/ less experienced engineers
- Develop and maintain functional and secure networks to support SIL 2 & SIL 4 safety-rated equipment and applications.
- Preparing reports, undertaking engineering investigations/assessments and designs to determine the best outcomes for engineering problems.
- At the team leads direction and mentoring, assess and escalate as required.

### Key challenges

- Provide technical leadership and influence to drive a collaborative whole-of-asset focus to ensure best for business outcomes.
- Develop understanding of new control systems and network assets to ensure support requirements are understood and planned for.
- Deliver day-to-day Engineering support and technical management for Control Systems and CTC network assets.
- Maintain active involvement with projects modifying the network and ensure compliance with relevant Engineering standards and processes.
- Provide tier 1 on-call support for network outages and assess and escalate as required.
- Provide tier 2 support for Rail 9000 (R9k) issues, including appropriate authorisations and escalations.

| <b>Key Relationships</b><br>Here are the key relationships relevant to this role |   | Manage /Lead | Deliver to | Collaborate with | Advise or inform |
|--|---|--------------|------------|------------------|------------------|
| Internal   | Team Lead Control Systems                 |              | ✓          | ✓                | ✓                |
|  | Engineering managers                      |              |            |                  | ✓                |
|  | Engineering services                      |              | ✓          | ✓                | ✓                |
|  | Technical director and professional heads |              | ✓          | ✓                | ✓                |
|  | ICT Operational Technology group          |              |            | ✓                | ✓                |
|  | NTCC                                      |              | ✓          | ✓                | ✓                |
| External   | Consultants                               |              |            | ✓                | ✓                |
|  | Contractors                               |              |            | ✓                | ✓                |
|  | Suppliers                                 |              |            | ✓                | ✓                |
|  | Relevant Authorities                      |              |            | ✓                | ✓                |

## What you will do to contribute

|                                     |  |
|-------------------------------------|--|
| <b>Health Safety and Wellbeing</b>  | <ul style="list-style-type: none"> <li>• Implement safety procedures and ensure team compliance</li> <li>• Analyse workplace risks and develop mitigation strategies</li> <li>• Promote a culture of safety and wellbeing within your team</li> <li>• Respond effectively to safety incidents and near-misses</li> <li>• Support team members' physical and mental health</li> </ul>   |
| <b>Customer Focus</b>               | <ul style="list-style-type: none"> <li>• Provide a positive customer experience</li> <li>• Support a customer-focused culture at KiwiRail</li> <li>• Know our services well and explain them to customers</li> <li>• Respond quickly to customer needs</li> <li>• Develop solutions to meet customer requirements</li> <li>• Solve complex customer issues</li> <li>• Work with colleagues to improve customer outcomes</li> </ul> |
| <b>High Performing Teams Skills</b> | <ul style="list-style-type: none"> <li>• Set clear performance standards aligned with KiwiRail's goal</li> <li>• Build a supportive and cooperative team environment</li> <li>• Provide timely and constructive feedback</li> <li>• Actively seek diverse perspectives in problem-solving</li> <li>• Identify opportunities for coaching and mentoring</li> </ul>  |
| <b>Commercial Acumen</b>            | <ul style="list-style-type: none"> <li>• Plan and monitor resource allocation to achieve team objectives</li> <li>• Consider financial implications when making recommendations</li> <li>• Understand and comply with procurement guidelines</li> <li>• Work with suppliers to ensure quality outcomes</li> <li>• Recognise how financial decisions impact KiwiRail's overall position</li> </ul>                                  |
| <b>Role specific domain</b>         | <ul style="list-style-type: none"> <li>• Follow Principles and Standards including task instructions</li> <li>• Identify and address governance issues early</li> </ul>  |
| <b>Role specific domain</b>         | <ul style="list-style-type: none"> <li>• Choose and adapt appropriate risk management frameworks</li> <li>• Identify and forecast risks, issues, and opportunities in projects</li> </ul>  |
| <b>Role specific domain</b>         | <ul style="list-style-type: none"> <li>• Apply asset management policies</li> <li>• Implement asset management frameworks</li> </ul>   |

## Decision Making

Key decision-making requirements of the position include:

- Lead and support risk assessments and manage relevant asset risk registers Safety management decisions: Identifying potential hazards and implementing measures to manage operational risks.
- Undertake and review investigations into asset and process failures.
- Review and interpret asset reports and make recommendations based on their findings.
- Review, update and develop KiwiRail technical standards.

|                                       |     |
|---------------------------------------|-----|
| <b>Human Resources Delegations</b>    | Nil |
| <b>Direct reports</b>                 | Nil |
| <b>Finance Delegations</b>            | Nil |
| <b>Budget (operating and capital)</b> | Nil |
| <b>Travel Delegations</b>             | Nil |
| <b>Statutory powers</b>               | Nil |

## Physical demands and the nature of work

This role is physically demanding and requires:

- Working in railway environments on and around track
- occasional weekend work as and when required
- working in various weather conditions and environments
- exposure to mechanical equipment, electrical systems, vibration and noise
- ability to work in confined spaces and at heights using ladders/lifts
- capability to respond to emergency callouts and work extended shifts
- prolonged sitting and high computer usage
- protective equipment usage including safety boots, hard hats, eye/ear protection

*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

- Five or more years' experience in Network Engineering or Administration.
- Solid background in network administration and architecture
- In-depth understanding of commercial communication technologies such as Carrier Ethernet and protocols (mainly TCP/IP, Modbus & proprietary safety protocols) and routing protocols (e.g. BGP, OSPF, VRRP)
- Solid understanding of network security architectures
- Experience with monitoring and analysis tools (e.g. Nagios, Wireshark or similar)
- Solid understanding of VM concepts and supporting technologies
- Sharp troubleshooting skills

### Ways of working / Work-related qualities

- Engaged and motivated to achieve business and group KPIs.
- Collaborative, respectful, engaging, and supportive within the team.
- Strong written and verbal communication skills, including the ability to effectively present information and advice to a range of audiences.
- Innovative, creative, and focused on continuous improvement.
- Customer-focused and driven to exceed service delivery expectations.
- Organised and able to manage conflicting demands in order to achieve deadlines and deliver responsibilities.
- Flexible and responsive to changing priorities as programmed and directed.
- Self-managing and able to work effectively without direct supervision.
- Self-aware and motivated to contribute personal strengths and identify and develop areas for personal improvement.
- Values-driven and consistently demonstrating honesty, integrity, professionalism.

### Other Requirements

- Railway or safety-critical network design/support/administration experience.
- Cisco, Ciena, RuggedCom and Fortigate equipment (or similar) experience
- Knowledge of scripting languages
- Radio systems – microwave, SCADA and voice technologies
- Maintain level of fitness to obtain/retain medical certificate
- You can pass regular drug and alcohol screenings
- You have a current and valid NZ Driver's Licence

### Qualifications

You need:

- Tertiary qualification in a relevant technical discipline. E.g. BSc/BA in Computer Science, Engineering or a related field

And desirable

- Professional certification (e.g. Cisco CCNP, CCDP or similar)

**CREATING  
STRONGER  
CONNECTIONS**

