Position description

Position title	Senior Network Design Engineer
Position numbers	200551, 200740, 201104, 201105, 201106
Classification level	E
Group	Telecommunications
Reports to	Team Leader Network Design
Location	1010 La Trobe Street Docklands Victoria
Date	December 2025
Tenure	Permanent full-time

Our organisation

VicTrack is custodial owner of Victoria's rail transport land, assets and infrastructure. We work to protect and grow the value of the portfolio, to support a thriving transport system and make travel and living better for all Victorians. With much of our asset portfolio dedicated to rail transport – our land, infrastructure, trams, trains and telecommunication networks – our focus is on strategic asset management and supporting the delivery of better transport solutions.

Whether we're planning and managing the use of transport land, upgrading the telecommunication network or partnering on major infrastructure projects, our job is to ensure the state's assets continue to serve Victoria now and well into the future.

Our core functions include:

- delivering telecommunications infrastructure and services that form the backbone of the transport network from signalling, driver communications, public information displays and myki ticketing
- managing land set aside for transport purposes, including the development and sale of land no longer required for transport to optimise its use
- generating income through land sales and commercial leases that is reinvested into the state's transport system
- providing project management, engineering and construction services to deliver a range of government transport projects from Victoria's Big Build to station and car park upgrades
- managing transport facilities and assets, including the open access Dynon Rail Freight Terminal, heritage buildings and environmental preservation.

VicTrack is the custodial owner of most of Victoria's tourist and heritage assets and performs the role of Tourist and Heritage Registrar

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Our business groups

Our business is made up of two specialist delivery groups – Property and Telecommunications – supported by Corporate Services, Strategy & Transformation and the Office of the Chief Executive.

Our vision

As a part of the transport portfolio, we share a common vision as defined in the *Transport Integration Act 2010*:

"To meet the aspirations of Victorians for an integrated and sustainable transport system that contributes to an inclusive, prosperous and environmentally responsible state".

In realising this vision, we are working towards a transport system that promotes:

- social and economic inclusion
- economic prosperity
- environmental sustainability
- integration of transport and land use
- efficiency, coordination and reliability
- safety, health and wellbeing.

Our mission

To protect and grow our rail transport assets and drive reinvestment to service Victorians now and into the future.

Our values

- Professional – We make decisions with integrity and respect. By behaving professionally and ethically we win the trust of our colleagues, stakeholders and customers.

- Collaborate – We collaborate to get things done efficiently and effectively. We have greater opportunity through leveraging our collective knowledge, building stronger bonds and respecting each other.

- Achieve – We perform our roles with integrity and skill. We hold ourselves accountable for delivering what is needed and own both our successes and mistakes.

- Innovate – We embrace all new ideas that bring about change that adds value. We become more efficient, effective and competitive.

Dimensions

Reporting relationships

The Senior Network Design Engineer will report to the Team Leader Network Design.

Budget

N/A

Other

The Senior Network Design Engineer will have Delegation of Authority for the Engineering Management Framework.

Rail Safety Worker

The Senior Network Design Engineer is considered a Rail Safety Worker in accordance with Rail Safety National Law (RSNL) specifically in regard to the design of telecommunications systems relating to rail infrastructure.

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Purpose of the position

The Senior Network Design Engineer is responsible to plan, improve, participate, or lead the execution of the Network Engineering Design Process for all fixed and/or wireless design in response to requests for designs from internal and external customers.

This position manages and oversees continuous improvement of the design process to ensure that it is adhered to in order to develop and deliver innovative and appropriate network solutions that meet or exceed customer requirements while delivering commercial value for VicTrack, its customers and other stakeholders.

The Senior Network Design Engineer will also provide technical support, guidance and mentoring to other Network Design Engineers and other engineering teams including Operations when required.

Key accountabilities/functions

- Provide expertise in the design activities, planning, assessment, and implementation of network architecture including integration with wireless and fixed network with commitment to complete the projects on time and within budget.

- Provide escalation support for projects, including development of recommendations and identifying and tracking necessary corrective action to ensure optimal network performance.

- Assist with executing Proof of Concept, Proof of Technology, and Pilot activities in support of rationalising and vetting technologies resulting with new standards, templates and implementation plans that provide value to the Victorian Government.

- Assist Presales team to build and lead technical solutions in conjunction with organisation strategy that also meet and/or exceed customer requirements.

- Produce device configurations for Manager Design, including handover documentation packs in order to facilitate the delivery of compliant fixed and/or wireless solutions.

- Play a key role in lifecycle management of fixed and/or wireless technologies, products and systems that support existing revenue and maintain SLAs and the reliability of the network.

- Support integration for new RAN vendors and MOCN/MORAN environments.

- Perform coverage analysis and produce site reports for project deployments, maintaining adherence to ACMA compliance requirements for VicTrack.

- Identify opportunities for process improvement, automation, and standardisation in network engineering practices. Propose and implement enhancements to streamline workflows, increase efficiency, and enhance network reliability and performance.

Customer focus

VicTrack staff practise customer focus by recognising the importance of valuing customers (internal and external) and ensuring that all activities are oriented towards meeting customer needs. We listen to customers about their expectations and focus on delivering solutions that address their needs. Customer focus also includes proactively seeking and acting on feedback to enhance the customer experience.

Safety and environmental responsibilities

Ensure safety and environmental instructions are adhered to and report any inappropriate practices and incidents. Comply with the *Occupational Health and Safety Act,* as it applies to self, tenants and customers, and environmental legislation in regard to preserving the environment.

Rail safety

All staff who may be required to come into contact with rail activity, including design work and the management of other staff, must:

- be responsible for their actions where those actions can in any way affect or compromise railway safety

- be aware of the railway safety requirements associated with their duties and responsibilities

- take whatever action is possible to prevent unsafe conditions and/or incidents

- report any railway safety problems/hazards to the Manager Safety

- safely access the rail corridor.

Individual attributes

Qualifications

- Tertiary qualifications in Electronics or Telecommunications Engineering (mandatory)
- Eligible for membership to the Institution of Engineers Australia or equivalent (desirable)

Knowledge and experience

- Sound work experience in a network design role
- Proven, extensive experience in fixed and/or wireless communications network field with experience in at least five or more of the following technologies:
    - IP/MPLS
    - Security in IP networks and systems
    - Network Topologies
    - VoIP
    - Optical Transport Networks / DWDM / CWDM
    - Radio technologies like UHF, GSM-R/LTE/5G, Microwave, Distributed Antenna Systems
- Experience in planning and designing 5G Core nodes: AMF SMF, UPF, AUSF, UDM, NSSF. NRF, etc (desirable)
- Knowledge of packet core dimensioning principles covering signalling capacity, user-plane throughput, and session scalability (preferred)
- Extensive experience in commissioning of the relevant technologies and equipment in accordance with specifications and in compliance with relevant standards
- Knowledge and awareness of ACMA and the *Telecommunications Act*
- Commercial and practical experience in designing solutions
- Experience in rail and transport (desirable)
- Exposure to works in an industrially sensitive environment
- Proven experience and understanding of quality management systems and processes

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Skills

- Proven ability to deal with a wide variety of stakeholders, customers and other interested parties in a sensitive and intelligent manner
- Ability to undertake a wide range of requests, work to tight timeframes and be self-managed and motivated
- Sound analytical skills when developing solutions for customers
- Highly developed oral and written communication skills
- Ability to work in a consultative manner to effectively gather requirements and develop solutions
- Able to perform effectively as an individual and as part of a team
- Capable of dealing with customers at many organisational levels
- Ability to present to technical and business audiences

Interpersonal and other features

Internal relationships

- All VicTrack employees

External relationships

- Government departments and agencies
- All VicTrack customers
- Regulators
- Subcontractors
- Carriers and vendors

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