

Position Description

Senior Software Engineer, Software and Data Engineering

This position description is designed to give an overview of the type of work and performance required for this role and may include other duties as required.

Who We Are

The Civil Aviation Authority of New Zealand is the country's aviation safety and security regulator. We are a Public Service Crown entity responsible through our Board to the Minister of Transport. We regulate a wide range of aviation activities, from commercial airlines to private pilots, ensuring that all aspects of the industry meet the highest standards of safety and security. Our important work not only saves lives but also facilitates travel, recreation, commerce, and protects the environment. By ensuring a safe and secure aviation system, we provide confidence and safeguard the reputation of New Zealand, benefiting our country as a whole.

Our Vision and Purpose

Everything we do is related towards the achievement of 'a safe and secure aviation system – so people are safe, and feel safe when they fly'.

Our Pathways

We have three pathways that lead us to delivering our vision and purpose:

1. Leadership and Influence

Through regulatory leadership we influence a safe and secure civil aviation system for New Zealand.

2. Active Regulatory Stewardship

We monitor and care for the civil aviation regulatory system through our policy and operational responsibilities.

3. Professional Regulatory Practice

We act to identify risk and reduce it through intelligence-led intervention.

Our Values

Our organisation's Values support how we work to keep New Zealand skies safe and secure.

Collaboration - *Me mahi tahi*

We work together to achieve and succeed

Transparency - *Me mahi pono*

We are open and honest communicators

Integrity - *Me mahi tika*

We do the right thing

Respect - *Me manaaki*

We treat all people with consideration and kindness

Professionalism - *Kia tu rangatira ai*

We act in a way that brings credit to ourselves and our organisation



These feathers symbolise our Values, which are inspired by the sacred huia bird – a revered symbol of friendship, respect, leadership and mana.

Each feather in the Values has a different hue to reflect different aspects of the diversity, leadership, talent and experience our people bring to their work every day.

Our Values are us – we are many cultures, languages, genders, unique personalities and perspectives working together to achieve our Vision and Purpose.



Role Purpose

The Senior Software Engineer provides senior technical and day-to-day delivery oversight for the Software and Data Engineering team. The role actively engages with the business, providing advice, to ensure the effective solutions of software and data services, and then supports the team to deliver high-quality outcomes aligned with organisational objectives.

The Senior Software Engineer works closely with the Team Leader to support planning, prioritisation and sequencing of work, contributing to workload management, technical decision-making and quality assurance of the team's outputs. The role acts as an informal lead within the team, by guiding technical work, coordinating day-to-day activities, providing mentoring, advice, and support to other Software Engineers and Data Engineers. The role is key to ensuring software and data platforms are robust, up to date and continuously improved, enabling the achievement of outcomes and supporting the Team Leader to focus on strategic, people and organisational priorities.

Key Dimensions

Group:	Digital Transformation and Technology (DTT)	
Team:	Digital	
Reports to:	Team Leader, Software and Data Engineering	
Location:	Datacom House	
Salary Band:	Band 17	
Financial:	Nil	None
People:	Nil	None
Key Relationships:	Internal: <ul style="list-style-type: none"> Architects Business Analysts Tester Engineers Managers and staff across CAA 	External: <ul style="list-style-type: none"> Vendors Service providers

Shared Accountabilities

- We work professionally, aligned with our Values, Code of Conduct and guiding CAA policies.
- We foster a safe, inclusive culture by respecting and embracing the diverse perspectives, experiences, and backgrounds of all.
- We ensure our work is aligned to our strategy, vision and purpose in our approach to delivering intelligence led, risk-based safety and security outcomes.
- We carry out work and conduct our relationships in a way that supports CAA's commitment to Te Tiriti o Waitangi.
- We work together to create an environment that keeps ourselves and others safe and by following the responsibilities laid out in our Health, Safety and Wellbeing Commitment Statement which outlines the expectations of leaders and all staff.



- As leaders, we are accountable for building trust, fostering growth, and empowering teams. We create environments that prioritise well-being, collaboration, and performance, ensuring our people feel valued and supported. We bring to life the CAA's leadership expectations which are designed to empower teams to succeed and deliver on the organisational outcomes.

Key Accountabilities

- Engage and communicate with business leaders, and cross-functional teams, to ensure delivery of software and data services that enable the CAA's achievement of strategic objectives.
- Collaborates with technical teams to ensure alignment with software architecture and scope dependencies, risks and timelines.
- Lead the planning, prioritisation and coordination of teamwork programmes on a day-to-day basis, monitoring progress, identifying risks and resolving or escalating issues as appropriate to ensure effective delivery of the team.
- Provide day-to-day technical oversight for the Software and Data Engineering team by
 - Making sound architectural and design decisions within the team's domain
 - Breaking down complex technical problems into workable solutions
 - Providing guidance on task allocation and sequencing of work
 - Assisting team members to resolve technical and delivery challenges
 - Supporting continuous improvement and shared ownership of outcomes
- Provide coaching, mentoring and technical guidance to team members, supporting the development of skills and capabilities in line with team and personal goals.
- Contribute to recruitment, onboarding and team capability activities by:
 - Providing technical input to role requirements and selection processes
 - Supporting the onboarding and technical ramp-up of new team members
- Provide senior technical expertise for software development, software configuration and support, and system integrations.
- Lead and support delivery of the Software and Data Engineering Team outputs, including:
 - Development, implementation, maintenance and support of software
 - Evaluation, implementation, configuration, maintenance and support of third-party applications
 - Technical expertise across system design, code quality, testing and documentation
 - Provision of advice and support to ensure appropriate solutions are selected and implemented, considering policy, best practice and business needs
- Contribute to, and at times leads, the development and delivery of projects and key pieces of work to support the team.
- Recommend and implement improvements to procedures, processes, standards and tools, contributing to continuous improvement of team delivery and technical practices.
- Apply agreed standards and support quality assurance by:
 - Promoting good engineering practices, including peer review and testing strategy and CI/CD practices.



- Assisting with tracking and monitoring service delivery metrics
- Analysing issues and contributing to their resolution
- Developing incident management and continuity management plans.
- Work closely with the Team Leader to support effective team operation, taking ownership of day-to-day technical and delivery oversight to enable the Team Leader to focus on strategic, people and organisational priorities.
- Maintain an awareness of organisational issues, and Aviation trends, to identify risks and issues, to inform options for resolution.
- Build strong relationships across the CAA, and work collaboratively with stakeholders, to ensure initiatives are informed by operational insights, are fit for purpose and meet operational needs.

Competencies

Get Smart – Knowledge & Context: Level 2

Understands the role of the CAA within the aviation sector, and has a holistic understanding of the regulatory environment, the structure and interrelated operating practices of the CAA. Follows the guidance and processes expected of all CAA employees as a modern, adaptive regulator, set out in policies, legislation, aviation rules and other internal documents.

Think Smart – Sound Judgement: Level 2

Makes appropriate and transparent decisions by analysing relevant information, takes into consideration different points of view, demonstrating the ability to make difficult and/or sensitive decisions. Has flexibility to both adopt a course of action and change it when required by the situation.

Work Smart – Achieves Results: Level 2

Drives change and results through effective planning, collaboration, and communication. Builds trust, fosters teamwork, and demonstrates self-awareness to achieve shared goals and continuous improvement.

Act Smart – Personal Effectiveness: Level 2

Is adaptable and resilient to meet changing needs and expectations. Displays self-awareness and is respectful of diversity. Takes responsibility for self-learning and development. Demonstrates behaviours consistent with the Code of Conduct and CAA Values.

Skills and Experience

- A relevant qualification in Software Development or related field and/ or experience working in a senior software engineering role, or similar, across complex organisations
- A computer science or information systems qualification (or similar) is desirable but not essential
- Proactive and effective management of internal and external relationships, using influencing and persuading techniques to build confidence and trust
- Strong communication and collaboration skills – should be able to clearly explain technical decisions and risks to non-technical stakeholders
- Coaching and mentoring team members and supporting growth through feedback.
- Deep understanding of software design patterns, data structures, and algorithms.
- Skilled in configuring, customising and optimising complex third-party software



- Proven capability working with .NET (Framework and Core); Angular; SQL Server; Azure DevOps, Databricks, CI/CD pipelines.
- Understanding SilverStripe; Power BI/SSRS; PowerShell is advantageous.
- Well-developed ability to critically analyse and interpret complex information and make effective, well-reasoned decisions.

