ENGINEERING SPECIALIST (IT)

Position detail

Position Title	Engineering Specialist (IT)
Reports to	Airways IT Team Leader
Classification	Technology Professional Band 2 (TP2)
Group	Technology Enablement
Branch	Airspace Platform
Location	Brisbane

Organisational environment

Airservices Australia (Airservices) is a government-owned organisation providing safe, secure, efficient and environmentally responsible services to the aviation industry.

Each year we manage over four million aircraft movements carrying more than 156 million passengers and provide air navigation services across 11 per cent of the world's airspace.

Airservices has two major operating centres in Melbourne and Brisbane and a corporate office in Canberra. We operate 29 air traffic towers at international and regional airports, and provide aviation rescue firefighting services at 27 Australian airports.

We are committed to continuing to improve our business by providing our customers with services they value, and embedding new ways of working and technology investments to further innovate and optimise.

Primary purpose of position

The **Airways IT** Team in Airspace Platform branch of Technology Enablement is responsible for the on-going management, maintenance and sustainment of Technology systems that form part of the National Airways System (NAS).

Within our remit are systems used across Australia at all airports, aerodromes and international partners in the aviation industry.

As **Engineering Specialist** working on the portfolio of operational IT systems, you will be responsible for the technical implementation, sustainment and enhancements of operational software-based airways systems, ensuring the systems meets its agreed technical performance requirements and continues to provide services to industry.

This includes:

- Perform IT system design, implementation, performance monitoring, specifying, reporting and analysis and support tasks throughout the system life-cycle in accordance with Airservices safety and system management policies, frameworks, guidelines and procedures; and

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- Apply Systems Engineering and technical oversight throughout the engineering lifecycle, from requirements definition, through design, integration, verification, validation, and support phases of a system for complex software-based new systems and upgrades to existing systems.
- Maintain an appropriate level of skills and monitor technology developments in existing and future systems within the Aviation domain.
- Contribute to engineering reports, specifications, feasibility studies and proposals to determine and recommend changes in the design, performance or functionality of systems.
- Manage and control the configuration of systems including hardware, software/firmware and documentation.

Accountabilities and responsibilities

Position Specific

Perform systems engineering tasks in accordance with the Airservices' Technology Management Framework (TMF) and other relevant processes, policies and guidelines. These include (but are not limited to):

- Design and develop technical specifications and standards that meet customers' requirements;
- Manage in-depth investigations, analysis and diagnosis of complex system issues, and recommend and implement solutions;
- Prepare test plans, test cases and participate in various levels of system testing for new system implementations, approved enhancements and software updates for existing systems;
- Gather, analyse and report system performance data, recognise trends and identify areas in need of improvement to ensure reliability and maintainability of systems;
- Prepare documentation related to system upgrade activities such as system requirements specifications, statement of requirements, project proposals and cost estimates, System Engineering Management Plans and Tests and Evaluation Master Plans;
- Participate in on-going system changes as they occur to assure technical integrity and software assurance at the system level;
- Maintain the suite of engineering and technical documentation;
- Provide specialist technical expertise to project;
- Actively participate in cross training to develop specialised skills and technologies; and
- Maintain awareness of industry and technology developments, standards and regulations.

People

- Maintain an effective working relationship with other Airservices staff to ensure that there is effective coordination of all activities in support of organisational objectives
- Manage own performance in ways that earn the trust of management team and other members of the team, including consistent modelling of supportive behaviours
- Actively participate in knowledge sharing with and coaching/mentoring less experienced team members
- Be part of a high-performance team with an emphasis on an accountable performance culture

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- Demonstrated oral and written communication skills with the ability to converse on technical matters at all levels of the organization.

Compliance, Systems and Reporting

- Adhere to Airservices technology management framework, procedures and policies
- Adhere to Airservices security and information management policies and guidelines

Safety

- Demonstrate safety behaviours consistent with enterprise strategies
- Comply with Airservices WH&S, Safety & Risk Management processes, policies & guidelines
- Identify potential system safety risks and take appropriate action to prevent, address or escalate safety related system issues eliminating any adverse impact on the system or operations
- Participate in or contribute to hazard reviews, assessments and safety reports relevant to Air Traffic Management systems

Key performance indicators

Efficient, Effective and Accountable

- Effective time management and work prioritisation based on the significance and criticality of tasks undertaken
- Business group objectives and performance measurements are met in respect of solution architecture and system design

Commercial

- Nil

Safety

- Compliance with safety, risk, environmental and any other standards

Key relationships

As a member of the Technology Enablement Group, your key relationships are:

- Technology Enablement engineering and technical teams
- Internal stakeholders including:
    - Air Traffic Controller and Network Co-ordination teams;
    - Internal engineering, security, architecture teams; technical services and
    - Project teams
- External suppliers and service providers

Skills, competencies and qualifications

The Airservices competency framework applies to this role. Behavioural competencies in line with the Technology Professional Band 2 (TP2) level apply with the focus areas as noted below. This role also utilises an occupation specific capability set which contains information from the Skills Framework for the Information Age (SFIA).

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SFIA framework skills

Category	Sub-category	Skills	Level
Solution development & implementation	Systems Development	System Design (DESN)	2-3
		Safety Engineering (SFEN)	2-3
		Testing (TEST)	3-4
	Installation & Integration	Systems Integration (SINT)	2-3
		Systems Installation/decommissioning (HSIN)	2-3
Delivery & Operation Technology	Technology management	Release and deployment (RELM)	2-3
	Service management	Change Control (CHMG)	2-3
		Service management Problem Management (PBMG)	2-3

Qualifications and Experience

1. **Essential**: A degree in an appropriate Engineering, Computer Science, Software Engineering or Information Technology degree from an Australian tertiary institution or certified equivalent qualification (for overseas qualifications)
2. **Essential**: An understanding of and demonstrated experience applying Systems Engineering practices throughout the SDLC and system management processes.
3. **Essential**: Experience in the design, development, testing and implementation of robust and reliable software systems. This includes the over-arching aspects of quality assurance and configuration management.
4. **Essential**: Demonstrated experience in stakeholder and vendor management
5. **Essential**: Demonstrated ability to take ownership of tasks and work as a member of a dynamic team, including ability to work under limited direction to achieve positive outcomes
6. **Essential**: Strong documentation skills with experience in preparing and reviewing solution architecture documents and system design documents, including alignment to strategies and existing initiatives
7. **Highly Desirable**: Experience in designing, maintaining and supporting technology systems, in particular:
    - N-tier architectures and distributed systems;
    - Real-time systems;
    - Message handling; and
    - Internet technologies.
8. **Highly Desirable**: Registration as a Professional Engineer in relevant area of engineering in accordance with relevant legislation e.g. Professional Engineer Queensland (RPEQ).
9. **Desirable**: Awareness of Information Security Manual (ISM) and demonstrated experience in adhering to ISM principles and applying ISM controls
10. **Desirable**: Awareness of DO-278A guidelines, software assurance levels and relevant processes and artefacts

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Performance standards and behaviours

As a member of Airservices Australia, you will consistently demonstrate performance standards and behaviours that meet our Code of Conduct. This includes:

- Treating everyone with dignity, respect and courtesy
- Acting with honesty and integrity
- Acting ethically and with care and diligence
- Complying with all Airservices' policies and procedures, and applicable Australian laws
- Disclosing and taking reasonable steps to avoid any actual, potential or perceived conflict of interest
- Behaving in a way that upholds our vision, mission and values, and promotes the good reputation of Airservices.

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