Solution Architect

Position Detail			
Reports To	WSIA Integration and Test Manager	**Group**	WSIA
Classification	ASA7	**Location**	Melbourne, Sydney, Brisbane
Reports – Direct Total	0	**Term**	2 Years Fixed Term

Organisational Environment

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 fire-fighting 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.

The Western Sydney International Airport (WSIA) Change Program is responsible for the planning, development, and implementation of Airservices' service delivery expansion at WSIA. The WSIA Change Program is delivering various aspects of Airservices' capabilities to enable WSIA to open in 2026: Digital Aerodrome Services (DAS) (including initial DAS capability at Canberra), Airfield Systems (AS), Aviation Rescue and Fire Fighting Services (ARFFS), and Airspace change.

The WSIA Change Program engineering response is a complex framework of roles and responsibilities spanning multiple engineering domains and specialities. These include several aviation and air traffic domains, such as tower, airport surface, aeronautical information, as well as fire control; many operational systems, such as Tower Control and Fire Control systems, voice communications systems, and monitor and control systems; and various specialty domains, such as Safety Management, Human Factors, Networks and Integration, and Verification and Validation (V&V).

Primary Purpose of Position

WSI is the first significant new airport that has been built in Australia for several decades. Airservices will be implementing airfield systems (ILS/DME, SMR, MLAT), a new ARFFS stations, with associated systems and providing a Digital Aerodrome Service (DAS) for aerodrome Air Traffic Management

(ATM). In addition, West Sydney Airport Corporation (WSACO) are implementing an AODB (Airport Operational Data Base), and have other systems such as the Airfield Ground Lighting (AGL) and Runway Viewing Range (RVR) which require interfaces to Airservices systems. Networking between the systems will be delivered by ENMP.

You will be responsible for Solution Architecture services. This includes determining the external and interface architecture into Airservices and internal systems / interfaces / integration designs, and to provide a high level logical and physical design for the ATFM connection between Airservices systems and the external operations centre system (WIS, CBR).

Accountabilities and Responsibilities

Position Specific

- Work across the entire scope of the WSI program, defining and documenting interfaces and architecture between the following systems and between the systems and the NAS:
  - Airfield systems
  - DAS (Canberra and WSI)
  - ARFFS
  - External Org. data needs
- Development and validation of solution architectures, both at the high and detailed levels.
- Support technical input to Cyber Security
- Assist in the determination, recording and approval of architectural decisions.
- The provisioning and requests for Airservices services.
- Assessment, quality assurance and endorsement of the vendor outputs.
- Assist in the identification and coordination of required specialist personnel and stakeholders within Airservices.
- Ensure alignment of technical delivery and success criteria in alignment with Airservices requirements – Safety, Regulatory, Technical, User requirements and Enterprise Architecture.
- Assist in coordination of the project team to enable delivery of the WSI Program activities under the scope of the Airservices responsibilities (such as solution design, Operational, External system integration, etc.) and provide any support required to the vendor.
- Advise and assist the project team, stakeholders and other relevant Airservices stakeholders with technical details/explanations as necessary.
- Provide specialist advice on their domain (as it relates to implementation within the Airservices architecture and environment)
- Identify risks and issues facing successful delivery (and propose management/ mitigation options as required)
- The WSI Solution Architect is expected to liaise and coordinate work with (to ensure no double-up of effort):
  - DAS, Airfield and ARFFS PTLs
  - ENMP Business analysts and Solution Architects providing network architecture
  - WSACO / Canberra Airport
  - Aerodrome Platforms Service Integration Manager
  - Cyber security Team

People

- Maintain an effective working relationship with other Airservices staff to ensure there is effective coordination of all activities in support of organisational objectives
- Maintain productive relationships with WSIA Program leadership, relevant Airservices lifecycle sustainment managers and engineers, and business and regulatory points of contact - to ensure effective coordination of all activities in support of the commissioning objective;

- Provide solution architecture, cyber security and interface/integration design related solutions / options / advise / guidance to WSIA engineering leadership
- Form ad hoc and long-term teams of experts, with received delegation and in collaboration with other WSIA Program leads, to identify, track, manage, and execute the commissioning objective.

Compliance, Systems and Reporting

- Support implementation of enterprise governance systems and policies, including safety, environmental, WHS, risk and compliance.

Safety

- Demonstrate safety leadership and behaviours consistent with enterprise strategies and manage
- the transition outcomes in accordance with WHS accountability requirements.
- Demonstrate safety behaviours consistent with enterprise strategies

Key Performance Indicators

Efficient, Effective and Accountable

- Develops and promulgates interface requirements, expectations, and outcomes
- Builds and maintains effective working relationships
- Provides team with clear direction, and motivates and empowers others as appropriate
- Takes responsibility for actions, outcomes, and people
- Achievement of WSIA Program integration and testing objectives.

Safety

- Identification of safety related risks
- Compliance with regulatory standards, safety, risk, environmental, and all relevant standards.

Key Relationships

- Enterprise Architecture Team
- Cyber Security Team
- Aerodrome Platform Engineering Management
- WSIA Engineering and Operations leadership
- Counterparts in the WSIA ARFFS program
- Counterparts in business units responsible for connected Airservices and external systems, such as lifecycle sustainment, ENMP (networks), and the OneSKY Program

Skills, Competencies and Qualifications

- **Essential:**
    - Tertiary qualification (i.e. Bachelor's degree) in computer science / engineering or Information Technology. Master's Degree in Information Technology **(**Highly Regarded)
    - Experience in Solution Architecture, Cyber Security
    - Strong appreciation for integration architecture.

- o Experience in software engineering and design architecture
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- **Preferable:**
  - o Previous experience with ATC systems such as: Eurocat, Towermet, Airport Airfield Ground Lighting, Voice systems or ATMIS
  - o Demonstrated ability to communicate the complexities of technical programs and change.
  - o Advanced understanding of business analysis techniques and processes as it relates to Architecture requirements.

Performance Standards and Behaviours

As a member of Airservices, 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.