Capability Statement
AVIATION • LOGISTICS • SOLUTIONS
What we stand for

We specialise in the end-to-end delivery of optimal solutions.

Combining the most experienced aviation logistics designers with top level technical project management, we bring a fresh approach to automated systems delivery.

Completely independent specialist design and project management consultants for baggage handling, cargo, freight and general logistics automation systems. We cover the project requirements from end-to-end.

AvLogix prides itself in thinking outside the box, designing cost effective and innovative solutions then proactively managing the delivery process to ensure that the best possible outcomes are achieved for our clients.

Automated solutions for airports and logistics hubs are not simple. They require expert understanding of the process and experience in how to implement the solution. More often than not these systems must be installed and commissioned in continuously operating environments, making aviation projects some of the most complex to deliver in the world.

Our mission is to manage the complex - so that the stakeholders interactions are simplified.

Company Overview

Founded in early 2017 to meet a growing demand for specialist design and project management services in the aviation logistics and related industries, the company has evolved quickly into a best in class engineering consultancy firm.

Our engineers are highly skilled at working closely with our clients to ensure their requirements are understood fully and that our designs are of the highest quality to meet the clients’ needs.

The AvLogix team has strong working relationships with all the major equipment providers including Conveyor and Sortation equipment, Storage systems, Baggage and Parcel Security screening, Scanning Reading and Coding, Robotics, SCADA, Low Level and High Level Controls.

AvLogix has a keen focus on innovative solutions and are developing tools and applications that make operations and their stakeholders lives easier.
Understanding what outcome we are striving to achieve is the basis of developing an effective solution.

System analysis starts with a review of data and forecast operational schedules. Developing these into detailed models allows us to analyse the impact of growth on the existing infrastructure then to design solutions to cater for these changes.

We design systems with a phased approach to reach forecast targets over time. This allows for reduced short term spending with minimum future redesign to achieve the end result.

Our services include:

- Forecast Analysis
- System Capacity Audits
- Requirements Analysis
- Conceptual Design Development

Our Flight Schedule Analysis tools are changing the way that Airlines, Airports and Operator evaluate their system capabilities and future requirements.
Our mission is to make logistics processes simpler by delivering clever design. Our experience across many industries gives us exposure to new technologies for all types of applications. This enables us to deliver value to our customers through innovative solutions that make their operations more effective.

Our design experience covers all aspects of Baggage Handling, Parcel and Freight Systems plus General Warehouse Automation.

While the design process is similar in every industry, our specific detailed experiences in each of these areas allows us to design and deliver robust and reliable solutions to suit each specific application.

Our services include:

- Design Option
- Comparative Analysis
- Detailed Design
- Development
- Functional System Design
- Specification Development
- Tender Evaluation

Simplification is the greatest art of design. We make the effort with the detail to produce an optimal solution.
Airports and Airlines all over the world are turning to automated technologies to improve passenger experience, increase capacity and decrease waiting times.

AvLogix has the knowledge and experience to analyse airport processes and choose the technology that best suits our clients’ needs while anticipating the impact that the change will have on other airport infrastructure.

Baggage Handling Systems are without question the heart of the airport. It is constantly beating - tirelessly moving baggage around the airport terminal, making it easy to overlook how complex this process is, or that it even exists, until something goes wrong.

AvLogix staff have over a century of combined experience in the design and implementation of baggage handling systems both locally in Australia, New Zealand and around the world. We draw on our experience gained on large scale international projects to carefully tailor our solutions for our clients regardless of their location or scale.

AvLogix Solutions experts have been involved in many of Australia’s largest Cargo, Parcel and Freight systems from the high-speed distribution facilities of Startrack Express to the air cargo centres of Qantas and AAE plus the sortation and distribution centres of DHL.

Our growing international presence with SF Express and a variety of airports in China allow us to expand our process experience onto a larger scale.

While the size of the product to be handled changes, the fundamental principles of reliability, traceability and safety are consistent. The combination of understanding how these systems need to work with the restrictions created by aviation environments means that our team are uniquely placed to provide the best outcome.

In-Line Screening of Baggage and Freight leapt to the forefront of the industry many years ago, beginning with the Lockerbie disaster and then being cemented as a world-wide standard in 2001 with the World Trade Centre attacks. Since these atrocities aviation security has steadily advanced tightening requirements and protocols to protect travellers around the world.

The AvLogix team has been involved in dozens of hold / checked baggage and freight screening projects around the world. We are familiar with most of the worlds screening standards, work regularly with the global suppliers and have an expert understanding in the integration of these elements into the wider airports systems.
Delivery of complex engineering projects is not easy - throw in the challenges of working in continuously operating environments plus the large quantity of stakeholders that are often involved and you get projects that require constant monitoring and realignment to achieve the desired goals.

An airport, airline, freight operation, logistics provider or manufacturer needs to be certain that their project representatives are capable, reliable and will always have their clients and stakeholders best interests in the forefront of their mind.

Understanding that operations must be continuous throughout all activities, our project management tools are designed to ensure that risks are identified and managed so that impacts on the clients business are minimised. Business Continuity Plans are developed and cut-over strategies are simulated then tested prior to implementation.

With extensive experience and in-depth knowledge in project management, AvLogix Solutions can manage your projects ensuring that they are delivered on time, on budget and to the highest international standards.

Our role is client champion. We are there from the day the concept is formed to the day that we certify the completion.

Operational readiness planning is often not given enough consideration prior to equipment implementation.

AvLogix can assist to get your system ready to take best advantage of new solutions.
With the rapid increases in system complexities, simple mathematical modelling is often no longer sufficient to verify that the design requirements have been met or to judge the performance of the design when under pressure or in various fallback scenarios.

AvLogix' simulation engineers utilise detailed models developed to run in the Sim3D (Demo3D) simulation software environment.

Using these complex engines, the team is able to initially simulate base concept performance and then fine-tune the design to ensure that the solution achieves the best results.

Once the base requirements have been developed, we then expand the developed simulation models to run scenario tests to ensure that clients requirements can still be met with varied inputs and constraints. This provides valuable insight into what our clients can expect under particular fallback scenarios and often provide the basis for business continuity planning for the operations.

These simulations are very valuable during planning phases of a project to ensure that the proposed design meets the expectation of all stakeholders.

Virtual Reality augmentation dramatically improves the ability to get the message across quickly and accurately, particularly to people unfamiliar with the automation equipment.

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AvLogix' engineers are also able to extend the simulation models to emulate the equipment that will be installed, allowing us to evaluate a contractor's designed software prior to installation on site.

This ensures that the systems are actually ready to commence testing rather than waste precious time on site during commissioning.

The additional Virtual Reality provides a powerful training tool and allows the operators to plan the working environment long before the new system is in place.
We simplify logistics processes by delivering clever design.

Our Clients include

QANTAS

Newcastle Airport

Auckland Airport

SCL

NAJA

Coca-Cola

Aviation

Logistics

Solutions

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Companies that we work with

Aviation Security Service

AIRBIZ

ARUP

Aurecon

DesignInc

DHL

Infratex

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