



Same space, more capacity

A smart analytics concept developed by Woolpert leverages process improvement and technology in the wake of Covid-19

■ For over 40 years the aviation industry has suffered a series of financial shocks: airline deregulation in 1978, the Gulf War in 1990, the World Trade Center terrorist attacks in 2001, the financial crisis in 2008 and now Covid-19. Each of these events had a major impact on airport operations and development plans. The pandemic is forcing airports and their airline partners to develop creative ways to reduce operational and development costs, while maintaining exceptional passenger service with limited financial resources.

Amid Covid-19, Woolpert received a US trademark for the term 'Inspansion', which describes a method of adding capacity through smart analytics in lieu of more costly physical expansion. It uses process re-engineering, operational process improvements, technology, staffing and peaking to optimize facility performance

and defer expensive brick-and-mortar capital investments. Inspansion provides the opportunity to optimize resources in two important shades of green – from a financial standpoint and from an environmental standpoint – to promote sustainability.

Inspansion for airports is based on principles of leveraging excellence in business management practices, operations and technology to set a strategic direction. This practice results in greater efficiency, flexibility and capacity, while reducing costs and providing a higher level of service. The new paradigm is supported by non-visible process redesign based on analytics.

One example of Inspansion at airport terminals is virtual queuing for security screening checkpoints, whereby passengers receive an advance reservation time for security screening up to 24 hours before

ABOVE
Congestion at Sea-Tac (above right) is eased with Inspansion (above left)

BELOW
Woolpert also offers UAS services for airports

their flight. Virtual queuing supports physical distancing and queue capacity management by adjusting passenger arrival patterns at the security screening checkpoint. While this ensures the physical distancing needed to combat Covid-19, it will also prove valuable after the pandemic.

For passengers, virtual queuing will also mean reduced wait times; for the TSA it will mean appropriate and often reduced staffing. Additionally, the ability to process passengers more quickly through security screening allows them more time to spend at dining and retail establishments, which generates important non-aeronautical revenue.

Other examples of Inspansion involve check-in, retail, gate holdroom seating and energy reduction. Reduced queues at check-in can be achieved by preprocessing passengers with a cell phone boarding pass, preprinted bag tag, touchless technologies and self-service rapid bag drops before they arrive at the airport. Preordering retail and grab-and-go concepts can reduce the footprint needed and repurpose terminal space. A gate management system can be used to disperse departing passengers in gate holdrooms across a concourse, notifying them on their cell phones and, through concourse messaging, letting them know when a flight is boarding. Inspansion strategies can be used to reduce energy and greenhouse gas emissions by employing a smaller terminal footprint.

Airports and their airline and concession partners are driven to optimize financial performance, and this need is particularly acute during and after major financial shocks. As the industry works to recover from the damage caused by the Covid-19 pandemic, Inspansion provides a proven, creative way to reduce costs while maintaining or often improving passenger service. ■



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