Make Your Airport Its Own Destination

Gain Competitive Advantage with Cutting-Edge Location Intelligence
Bring Location Intelligence to Your Airport

Smart airports turn to Esri’s industry-leading ArcGIS® platform to meet the challenges of highly dynamic and competitive market. With increased passenger demand, regulations, and technology requirements; there has never been a more challenging time in aviation than today.

Geographic information system (GIS) technology and location intelligence give your airport the tools to thrive in this dynamic environment.

It’s time to bring the power of location to your airport.

The ArcGIS Platform Boosts Your Competitive Edge through . . .

Profit Maximization
Increased Asset Performance
Enhanced Customer Experience
Greater Sustainability
Safety and Security
High-Performance Operations
Profit Maximization
Achieve Greater Return

GIS and location intelligence give you comprehensive and continuous visibility into your revenue performance across your organization. From an executive dashboard, you can understand the performance of all your individual revenue sources and continuously optimize your revenue potential.

Property and Lease Management
The Esri® platform gives you instant visibility to your vacant properties and top performers, and then integrate that information with passenger counts to give you the latest leasing information. Better yet, you can access this information from any location, including a prospective customer’s office.

Retail and Landside Revenue
Satisfy traveler needs while maximizing revenue. GIS helps you create the best mix of retail establishments by analyzing footfalls and identifying both revenue hot spots and underperforming spaces. You can also geotrigger mobile device alerts for targeting coupons to proximate passengers—so they never miss a deal, and your vendors never miss a sale.

In addition, track and manage parking revenues efficiently and build greater customer loyalty by understanding your customer profiles and needs.

ArcGIS Increases Profitability by Letting You . . .
• Showcase leasable properties on any smartphone or tablet.
• View property performance statistics instantly.
• Chart property use by airport, vendor, and airline.
• Access lease documents and engineering drawings from any device.
• Maximize your prime real estate to its highest and best use.
Get the most out of your assets at the lowest cost. By integrating your asset management solution with Esri’s location platform, you know exactly where all your assets are. From daily inspections to tracking pavement conditions, your critical asset management performance improves with advanced GIS. Share information across your organization to make collaborative decisions that improve the life-span of everything—from elevators and movable walkways to jet bridges and terminal buildings.

**Inspections and Compliance**
Get rid of clipboards. Mobile GIS updates your asset database from inspectors’ devices in the field. Eliminate redundant, error-prone data reentry so that you can spend more time identifying trends and reducing costs. Plus, maintain historic records for analysis and compliance.

**Pavement Management**
Efficiently manage your costliest asset using GIS that’s integrated with your pavement management solution. Know exactly where you experience wear, cracking, and greater rubber buildup, all with the goal of achieving most efficient pavement-management regime. Better understand the effects of runway wear and weather, friction characteristics, and inspection results, so you can maintain your airport at peak performance.

**Maintenance**
Automate and track your maintenance workflows. Integrating work-order management systems lets your inspectors issue work orders for immediate response. GIS then guides your maintenance crews to the exact location. Meanwhile, you can track progress in real time on executive dashboards at your desk.

**Utilities**
Dig smart. You can avoid costly disruptions by knowing the exact locations of subsurface utilities. Put this information into the hands of your maintenance crews and field contractors. Understand proper shutoff valves and direction of flow so you can manage spills and other unforeseen events. Track repairs along with utility use over time to spot use patterns and reduce unnecessary costs.
Enhanced Customer Experience
Make Positive Memories

Reward engaged passengers. Engage travelers with social media apps where they can report issues. Offer them wayfinding apps and respond to their social-media observations and complaints (e.g., unattended bags, bathroom service needs). Meanwhile, collect travelers’ real-time movement data, which lets you spot trends in mobile commerce and, after unplanned situations, analyze passenger information. When you understand your customer base through demographics and more, you can build a modern, tailored travel experience.

Public Engagement Map Apps
• Wayfinding
• Location-Based Services
• Couponing via Geotriggers

Greater Sustainability
Be a Better Environmental Steward

Manage your airport in a more responsible way, maximizing your environmental sustainability. You can expand intelligently with GIS, which gives you a deeper understanding of your surroundings. Layering and monitoring environmental data onto internal information can help you build a sustainable airport so you can grow responsibly—and your community can thrive.

Less Impact
Monitor your social and environmental impacts. ArcGIS lets you visualize air quality, airport emissions, wildlife populations, bird migrations, noise levels, groundwater, and more. It lets you work toward reducing your carbon footprint. Meanwhile, advanced 3D graphics and building information modeling (BIM) programs help you design sustainable expansion projects that are compatible with land-use requirements.

Easier Outreach
Showcase your corporate citizenship. Share engaging web maps that let residents and reporters easily access sustainability information. These maps let the public drill down to see how your airport has been mitigating its environmental impact, which helps you build brand loyalty.
Safety and Security
Protect with ArcGIS

The best offense starts with defense. Model scenarios to develop your response plans ahead of real events to manage any situation. GIS can integrate your disparate technologies into a single common operational view, giving you real-time security intelligence. Combine your existing security systems onto the ArcGIS platform so you can prepare for anything.

Airport Security
Preserve your airport’s physical integrity. GIS can help you integrate digital video, sensors, access control systems, real-time tracking, and dispatch systems to give you constant visibility and control. Whether on your airport perimeter or in the terminal, you want continuous monitoring. With ArcGIS, you can manage and model passenger flow and queues. Just combine live security feeds from virtually any system onto your single map viewer.

Runway Safety
As the volume of air traffic increases, runway safety becomes more critical. With GIS, you can monitor—and control—every moving piece on your airfield. Understanding runway incursions and other airside safety issues with visual analysis lets you prevent dangerous events, protecting the safety of your passengers, employees, and assets.

ArcGIS gives you real-time data visibility and improved incident response.

ArcGIS Integrates . . .
- Airport Security Systems
- Safety Management Systems
- Perimeter Camera Feeds
- Closed Circuit Television (CCTV)
- Airport, Rescue, and Firefighting (ARFF) Stations
- Access Control Systems
- Security Dispatch Systems
- Asset Tracking
Gain Quick Understanding, High-Performance Operations
Build a Common Operating Picture

Find clarity in complex airport operations. A single dynamic map viewer can give you a comprehensive view of your operations. Collaborate across divisions, and make more informed decisions.

Communicate
With GIS, you can share information in real time. Your common operational picture lets you query information in one spot. Share your findings across your organization so you make agile, strong decisions together.

Watch Ground Support Equipment
Monitor—and optimize—surface movements in real time. Track vehicle movement by using geofences, so your vehicles go only where they need to and not to places they should avoid. Effectively manage response to severe weather, including snow removal, by ensuring your proper equipment is stationed where and when needed.

Manage
Know at a glance how to act quickly in specific types of events. Manage irregular operations (IROPs) capably. GIS lets you know gate availability, for instance, to accommodate unplanned arrivals, schedule passenger bussing, and more.

ArcGIS Helps You Track . . .
- Ground Vehicles
- Flight Tracks
- Temporary Cranes
- Obstacles
- Baggage
- Snowplows
- Notices to Airmen (NOTAMs)
- Gates
- Staff

Smart Airport
Start Your Journey with Esri

Get the most out of your technology. Learn why the ArcGIS platform leads the market in geospatial solutions for airports and aviation.

Learn more at esri.com/aviation.
Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth’s most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.