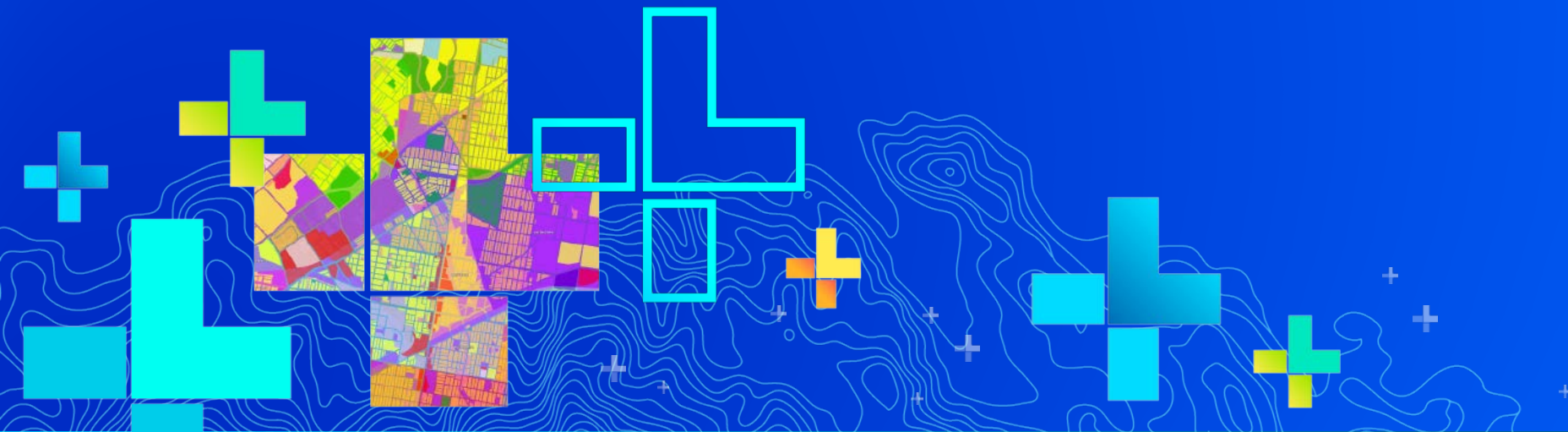


Greater Orlando Aviation Authority (GOAA)

Enterprise GIS

Miguel Garriga, GIS Administrator

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Orlando International Airport

- 3rd largest US Airport in area
 - After DIA and DFW
 - 12,294 Acres or 19.2 Square Miles
- Busiest airport in Florida
 - 49 million passengers / year
 - 39 Passenger Airlines
 - 4 Cargo Airlines
- 4 parallel N/S runways
- 7 Million SF under roof
- Largest rental car market in US
- 50 international destinations
- \$41B impact on local economy

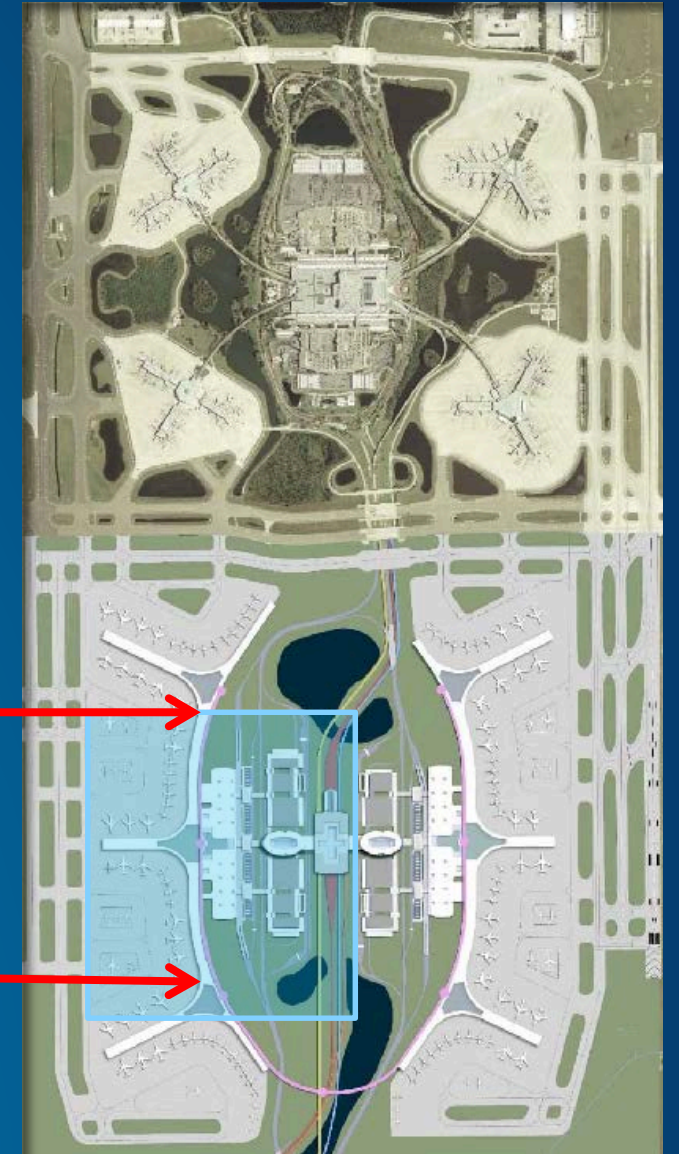


Expanding: South Terminal Complex Phase 1 (2021)

- South Terminal Construction
 - \$4.27 Billion Capital Improvement Program
 - Parking Garage C
 - Terminal C Phase 1 (19 Gates)
 - Intermodal Terminal Facility
 - Virgin Higher Speed Rail (110 MPH) by 2022
 - Miami - MCO
 - MCO – Disney - Tampa
 - SunRail Commuter Train
 - Ground Transportation
 - APM to North Terminal
- North Terminal Renovation



Phase 1



GOAA's GIS - Background

- Esri users since 1999
- 1 Full Time GIS staff
- 5 Embedded Contractors



- GIS Departments
 - IT: GIS Administration, Systems, Servers, Integration, Initiatives, Advise on Technology
 - Planning/Engineering: Data Development & Maintenance, Map Production, Exhibits
- Early Use for GIS: Managing Floorplan and Square Footage
 - Accurate SF Measurements for Contracts Billable by SF
 - Concessions & Commercial Properties Leases
 - Janitorial Contracts

Current Enterprise GIS

ArcGIS 10.5.1

- ArcGIS Enterprise Advanced
- ArcGIS Server and Portal (Federated)
- ArcGIS Online
- Enterprise Geodatabase in Oracle Linux

Integration

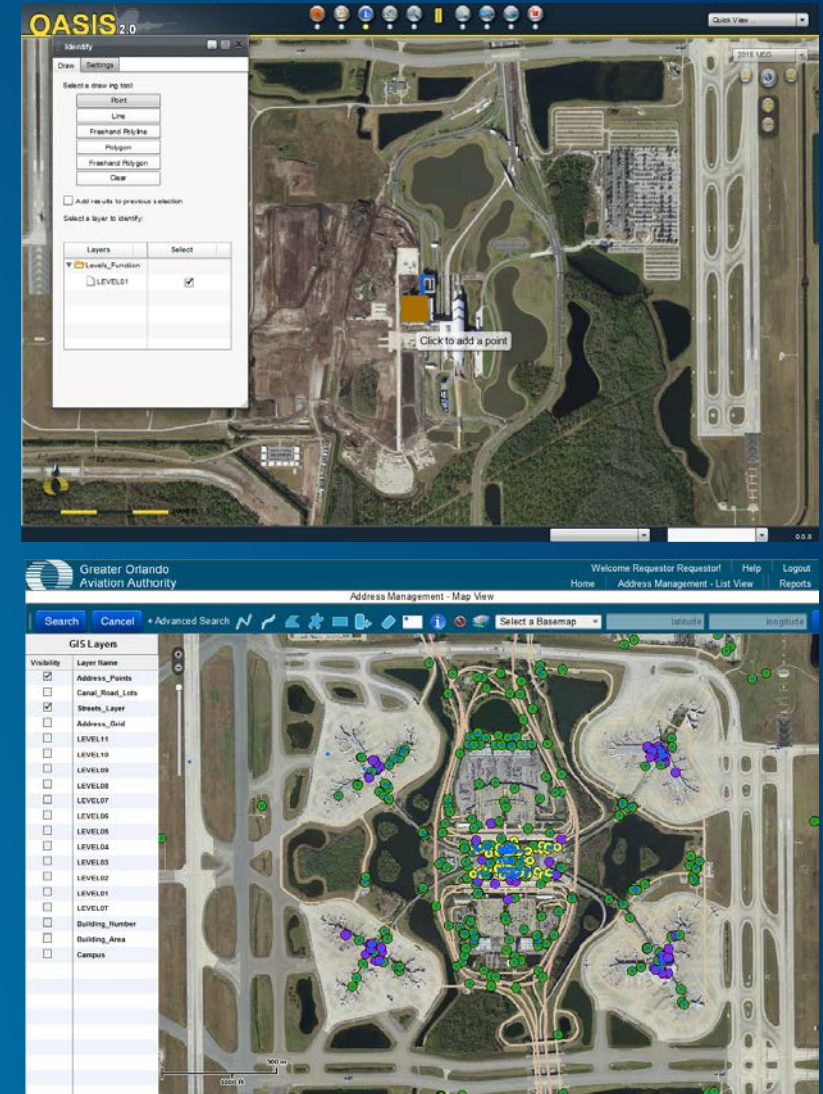
- Maximo (Asset Management)
- ASOCS (Airfield Inspections)
- Propworks (Property Management)
- Rhodium (Incident Management)
- Situator (Physical Security Information Management)





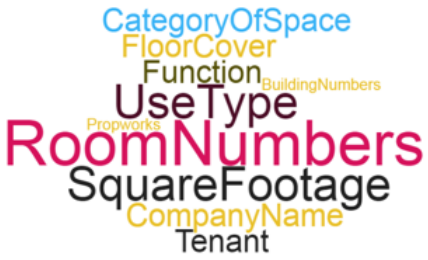

Legacy Web Maps

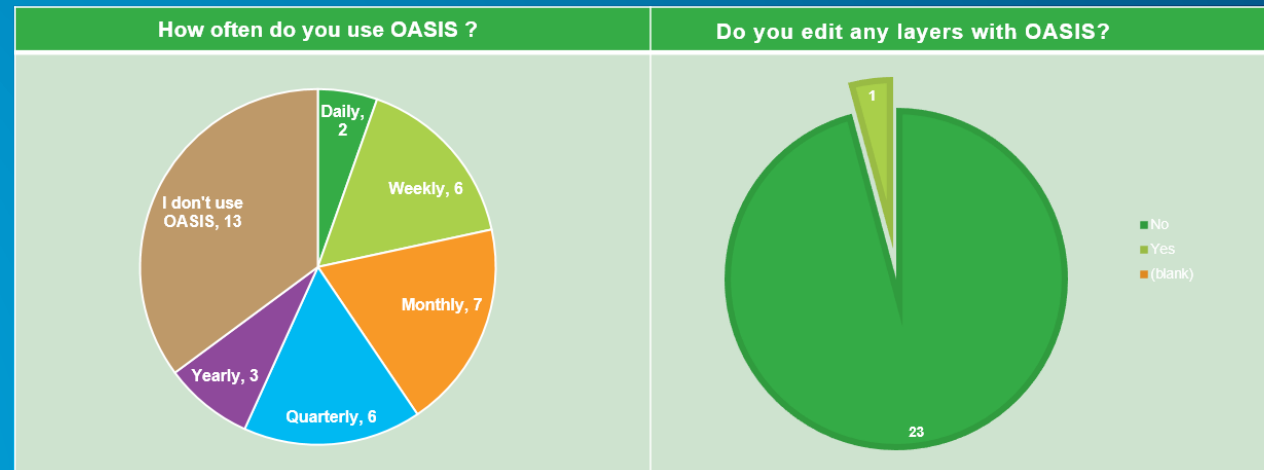
Phasing out, but still supported

- **OASIS**
 - Orlando Airport Spatial Information System
 - Flex web map
 - Custom views based on AD User Groups
 - Single Sign-On
 - Lots of clicks!
 - Many enhancement requests!
 - Replacing with ArcGIS Portal Apps
 - Propworks Integration
- **Addressing**
 - Address Data Management Application
 - Address generation and notifications as needed



Replacing OASIS – User Survey: *What do you use OASIS for ?*

What do you use OASIS for?	What Layers ?	What Fields ?	What Layers or Fields?
			



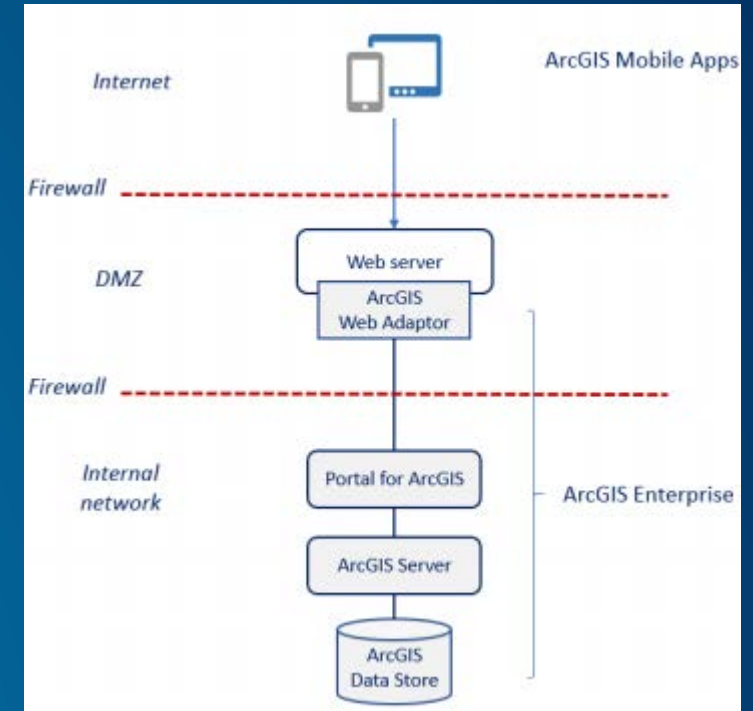
ArcGIS Portal: Vision and Challenges

Vision

- Replace OASIS legacy web map with Portal maps and apps
 - Replace Propworks Integration
- Targeted maps & apps
- External Access
- Mobile

Challenges

- External Access - Some maps over-authenticate
 - Browser differences
 - Sharing Settings
 - Certificates & IIS Settings
- Maintain Legacy Apps and Integration with other Systems through ArcGIS Upgrades



*From Esri Whitepaper:
"ArcGIS Secure Mobile Implementation Patterns"*

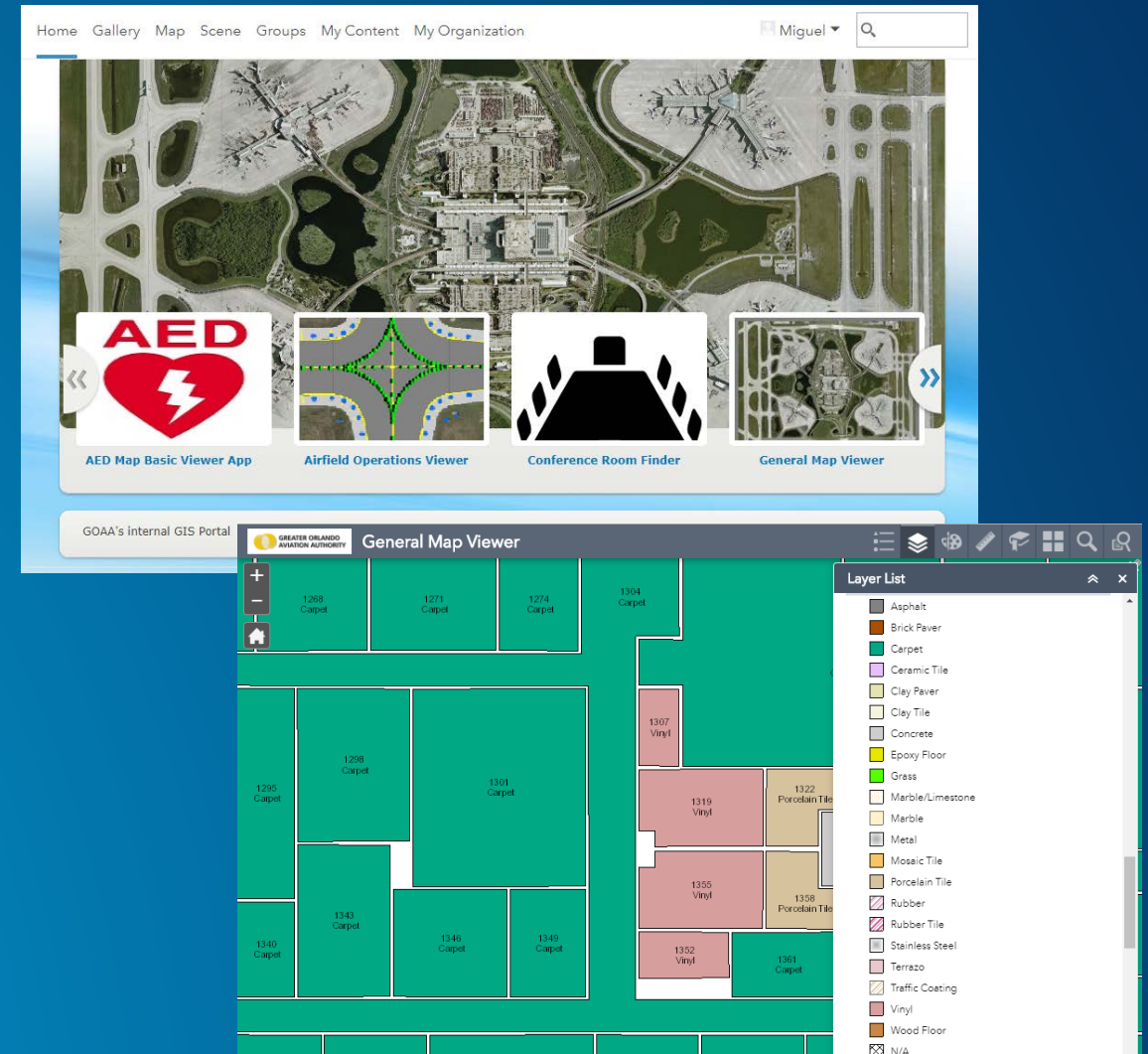
ArcGIS Portal – Current Status

Soft Rollout

- Rolling out to certain users and groups first

Featured Maps and Apps

- AED Map (Collector and ArcGIS Online)
- Airfield Operations Viewer
- General Map Viewer
- Conference Room Finder



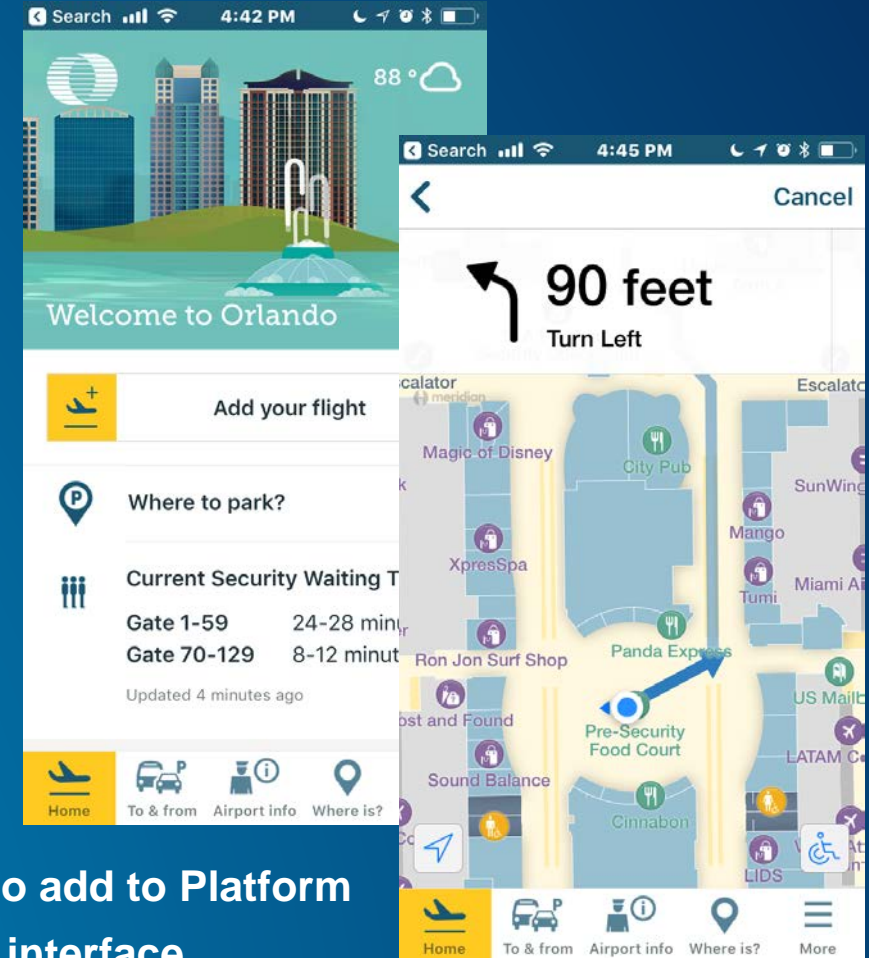
ArcGIS Online Strategic Commercial Land Development Program

- ArcGIS Online StoryMap
- Promote parcels available for development within airport property
- Developed by BRPH & DRMP



MCO App - Wayfinding

- Free Downloadable App for Apple and Android
 - Blue Dot
 - Enter Flight Info, route to Gate
 - Search POIs and navigate through airport
- Meridian Technology
- Bluetooth Beacons
 - More accurate position than WiFi
- Import/Export limitations
 - Meridian Import (Graphics)
 - No GIS Import; we send graphic files to Meridian for them to add to Platform
 - Once data loaded, we can do minor edits through Meridian interface
 - Meridian Export to GIS
 - Meridian can export GeoJSON
 - We have noticed coordinate displacement



Wayfinding - What's Next ?

M2mobi evaluation of wayfinding technology

- Meridian (existing solution)
- Esri ArcGIS Indoors
- Others...

Unified Experience for Mapping / Wayfinding

- Desktop = Mobile = Kiosks

“App-less App”

- Traveler reluctance to download app onto mobile device
- Have a GOAA web map pop up when they connect to wireless
- Still provide Blue Dot Wayfinding



Public Facing Web Map Layers

- Only show what public needs to see
- Generalized / Simplified Maps
 - Abstracted versions of detailed floorplans
 - Remove / obscure detail
- Faster Rendering
- Goal: Use these layers for all public-facing maps
 - MCO App
 - ArcGIS Online
 - Orlandoairports.net



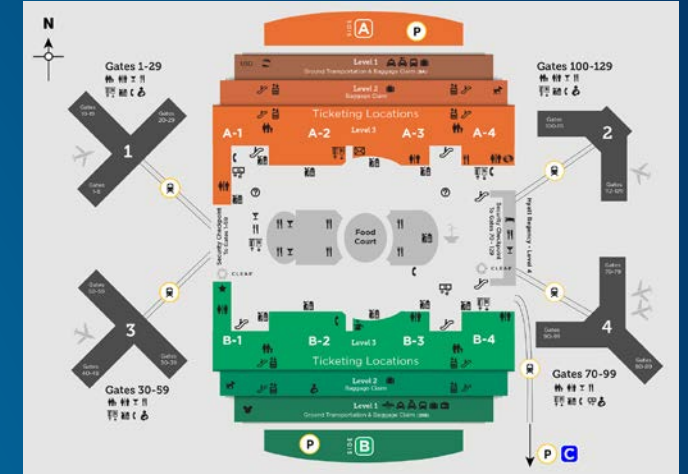
GOAA's Enterprise GIS – Initiatives

- Upgrading to 10.7.1
- Adding GeoEvent Server
 - Indoor Positioning System (IPS)
 - Use existing WiFi Access Points and Bluetooth Beacons
- Replace Legacy Web Map Applications
 - OASIS GIS-Propworks Integration Process
 - Addressing
- Support next Wayfinding App
 - Would like to see tighter integration between GIS and Wayfinding App



Future Efforts

- Authoritative Source for GOAA maps
 - MCO App
 - ArcGIS Portal Home Page / Department Landing Pages
 - Orlandoairports.net website
 - Information Kiosks
- Next Gen Wayfinding (App-less App)
- Cable Management (Telecommunications Fiber)
- Focus on Data Integrity
 - Metadata
 - Data Stewards
 - Increase visibility > uncover data issues > improve data quality
- Integrate with other business systems
- Explore ArcGIS Indoors



GOAA's Enterprise GIS

Questions...

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