



Real Time Geospatial Data: The
Fusion of PI and ArcGIS

Enabling Smarter
Facilities Management

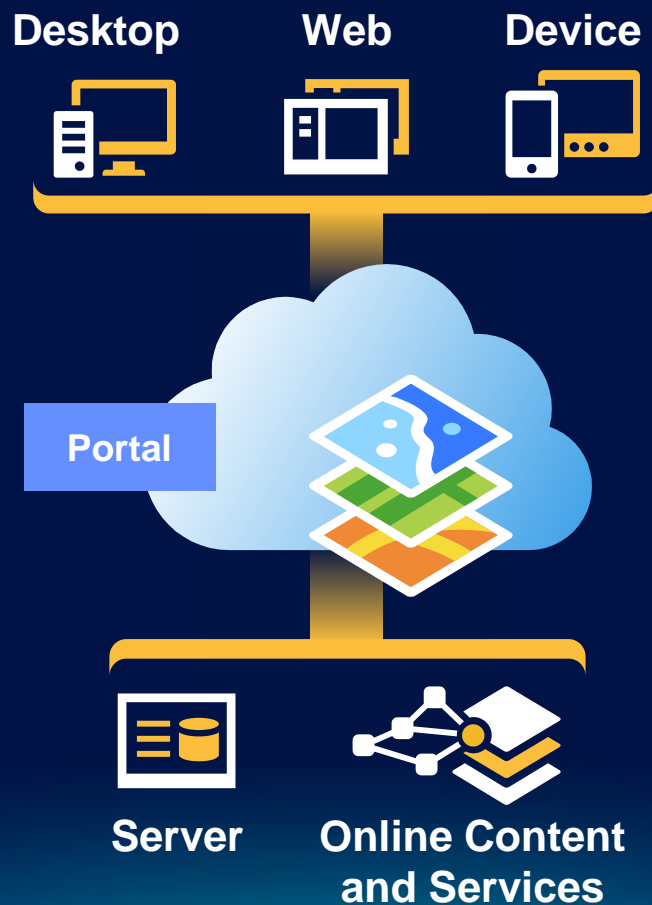
Facilities Challenges

- **Do more with less**
 - Create efficiencies in the many processes associated to facilities management
- **Sustainability**
 - Better management and faster decision making on aging facilities
- **Safety & Security**
 - Growing concerns over Physical and Environmental/Health safety
- **Fragmentation - A myriad of information needs**
 - At various scales
 - Over various time periods
 - From various data sources
 - For various stakeholders

The ArcGIS Platform

Enabling GIS Everywhere ...

Simple
Integrated
Open

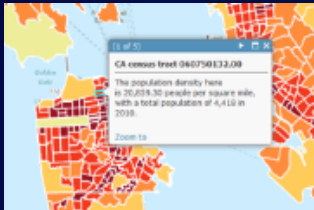


• ... including the inside
of Buildings!

The Platform Utilizes Building Information

Integrating Building Data with other Business Data and Geographic Information

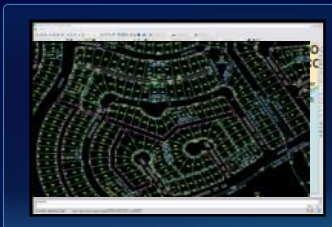
GIS



BIM



CAD



FM Systems Integration

- IBM Tririga/Maximo
- Archibus
- Manhattan
- Others...

Specifications

- BOMA/FICM
- OmniClass
- COBie
- OSCRE

BI Integration

- MS Office
- SAP
- Cognos
- Microstrategy
- Salesforce
- Others...

Tools

- 2D & 3D Data Models
- Editing
- Visualization
- Design
- Analysis

Real Time Feeds

- BAS
- Sensors
- Video
- Others....

Interoperability

- Web Server
- Extract, Translate, Load
- CAD/BIM Standards
- Interchange Formats

ArcGIS for Facilities – 3 Primary Business Patterns...



Portfolio...The Functions and the Tasks

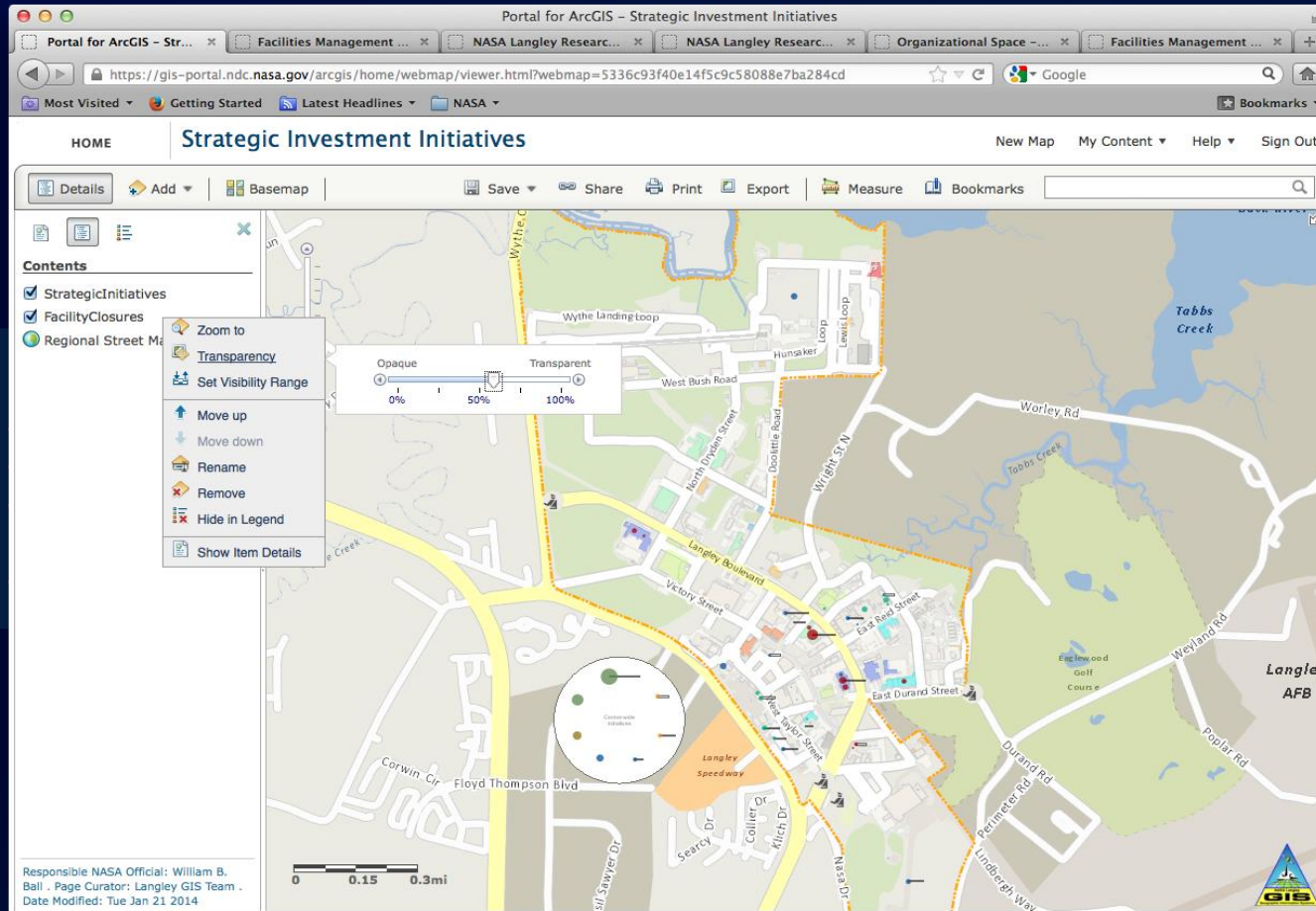
Real Property
Planning

Real Estate
Management

Energy &
Sustainability

Environmental
Compliance

Design &
Construction



IS Professional
centric Workflow)

Real Property Planning...The Solution

Portfolio...The Functions and the Tasks

Real Property
Planning

Real Estate
Management

Energy &
Sustainability

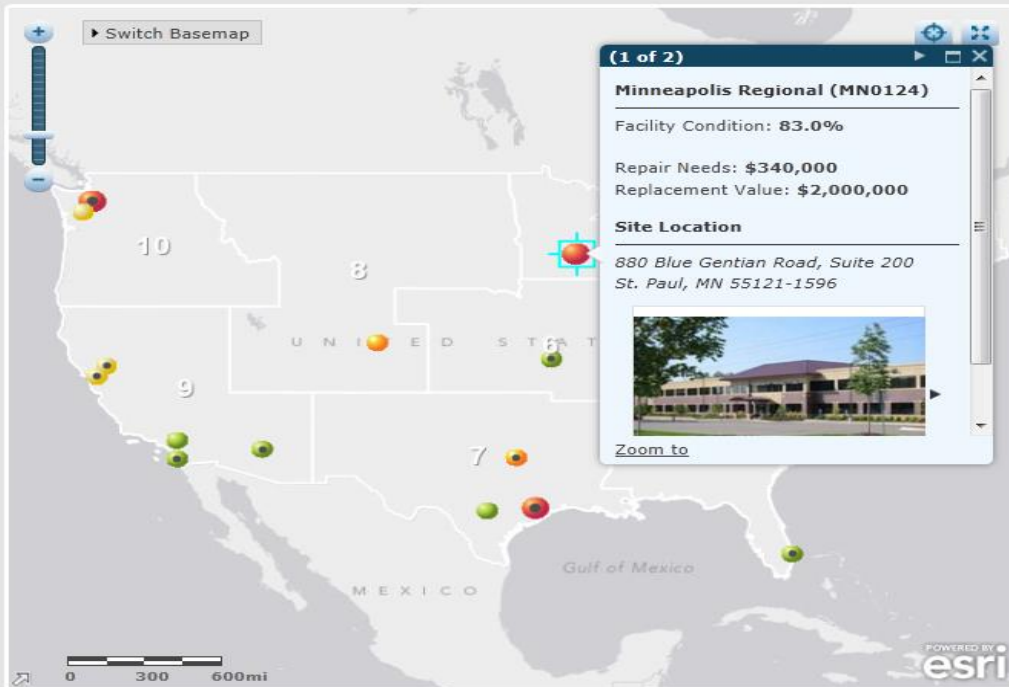
Environmental
Compliance

Design &
Construction

Facility Condition

This map shows the Facility Condition Index (FCI) of owned & leased properties in the United States.

Locate an address



 Tweet  Like  +1

[<Embed>](#)

Legend





About

Layers





- ☒ Facility Condition
- ☐ World Light Gray Reference

Legend

Facility Condition Owned Condition

-  Poor (<85%)
-  Fair (85-90%)
-  Good (90-95%)
-  Excellent (>95%)

Leased Condition

-  Poor (<85%)
-  Fair (85-90%)
-  Good (90-95%)
-  Excellent (>95%)

GSA Regional Summary

Boundaries
Federal Regions
36m



Professional
Centric Workflow)

Real Estate Management...The Solution

Portfolio...The Functions and the Tasks

Real Property
Planning

Real Estate
Management

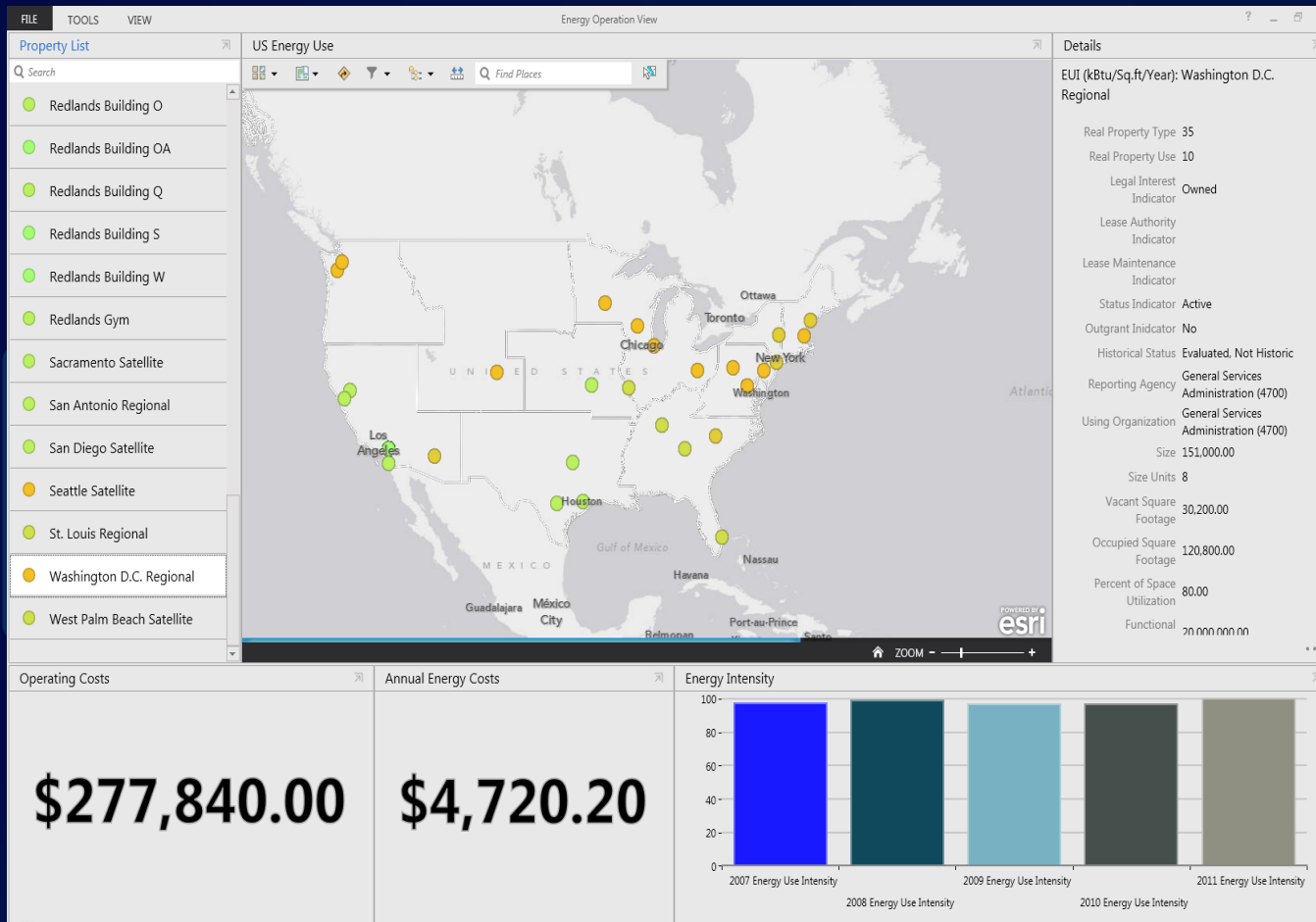
Energy &
Sustainability

Environmental
Compliance

Design &
Construction



GIS Professional
(Centric Workflow)



Energy & Sustainability...The Solution

Portfolio...The Functions and the Tasks

Real Property
Planning

Real Estate
Management

Energy &
Sustainability

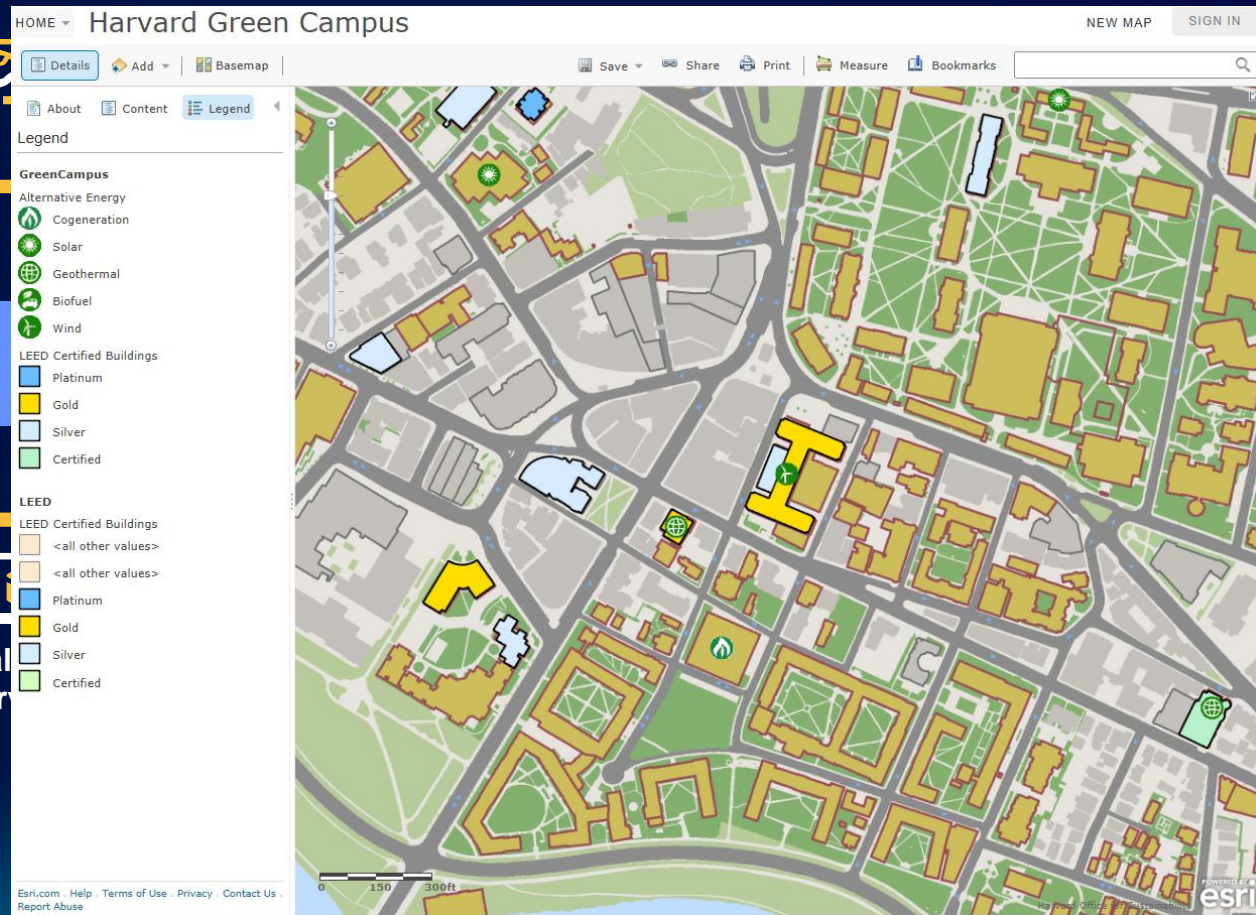
Environmental
Compliance

Design &
Construction



Knowledge Worker
(Simple/Easy/Anywhere)

Anal
Ser



Environmental Compliance...The Solution

Portfolio...The Functions and the Tasks

Real Property
Planning

Real Estate
Management

Energy &
Sustainability

Environmental
Compliance

**Design &
Construction**



Knowledge Worker
(Simple/Easy/Anywhere)



Design & Construction...The Solution

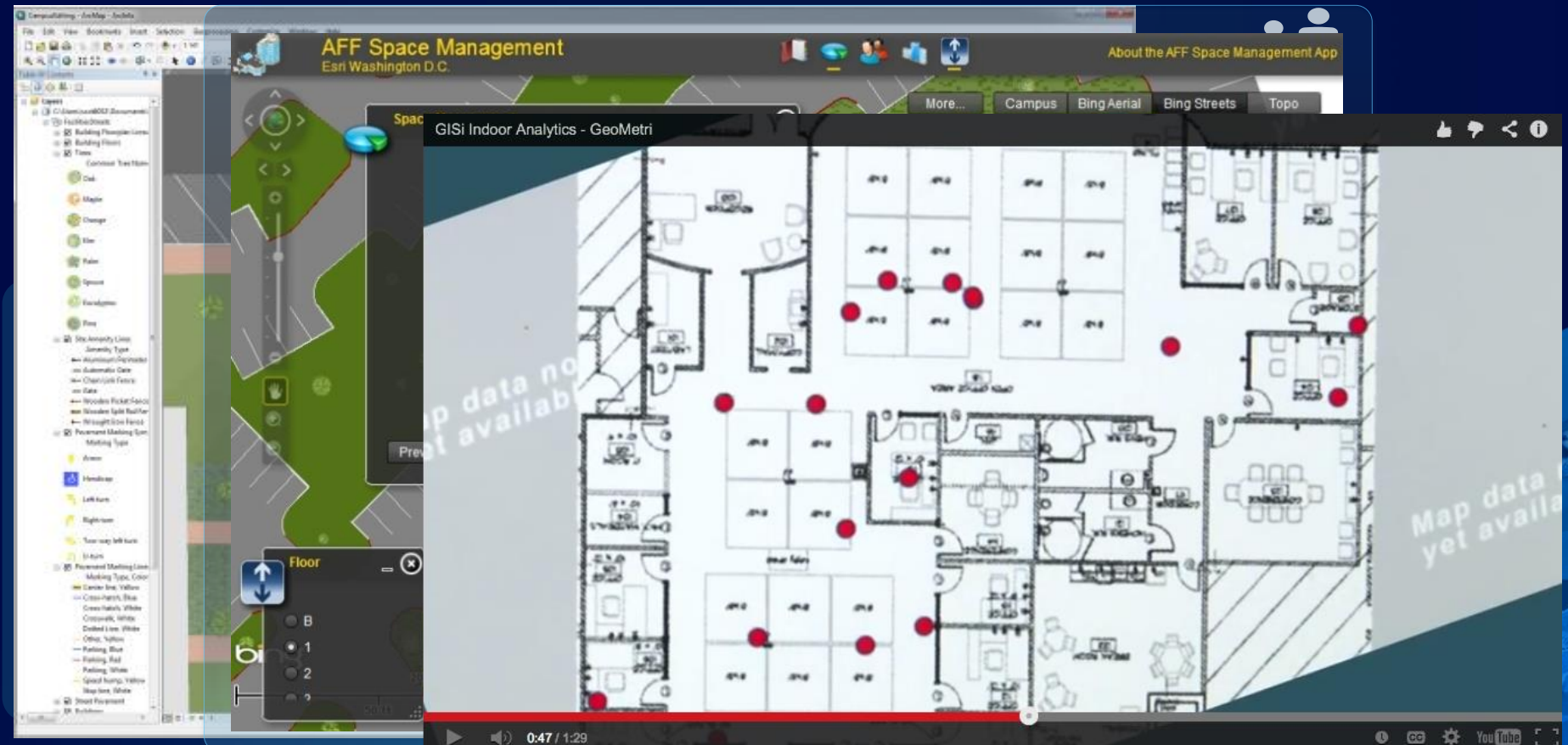
Operations...The Functions and the Tasks

**Facility
Operations and
Maintenance
(a.k.a. Facility
Management)**

**Energy &
Sustainability**

**Environmental
Compliance**

**Soft Services
And Support
Activities**



**Facility Operations and Maintenance...
The Solution**

Operations...The Functions and the Tasks

Facility
Operations and
Maintenance
(a.k.a. Facility
Management)

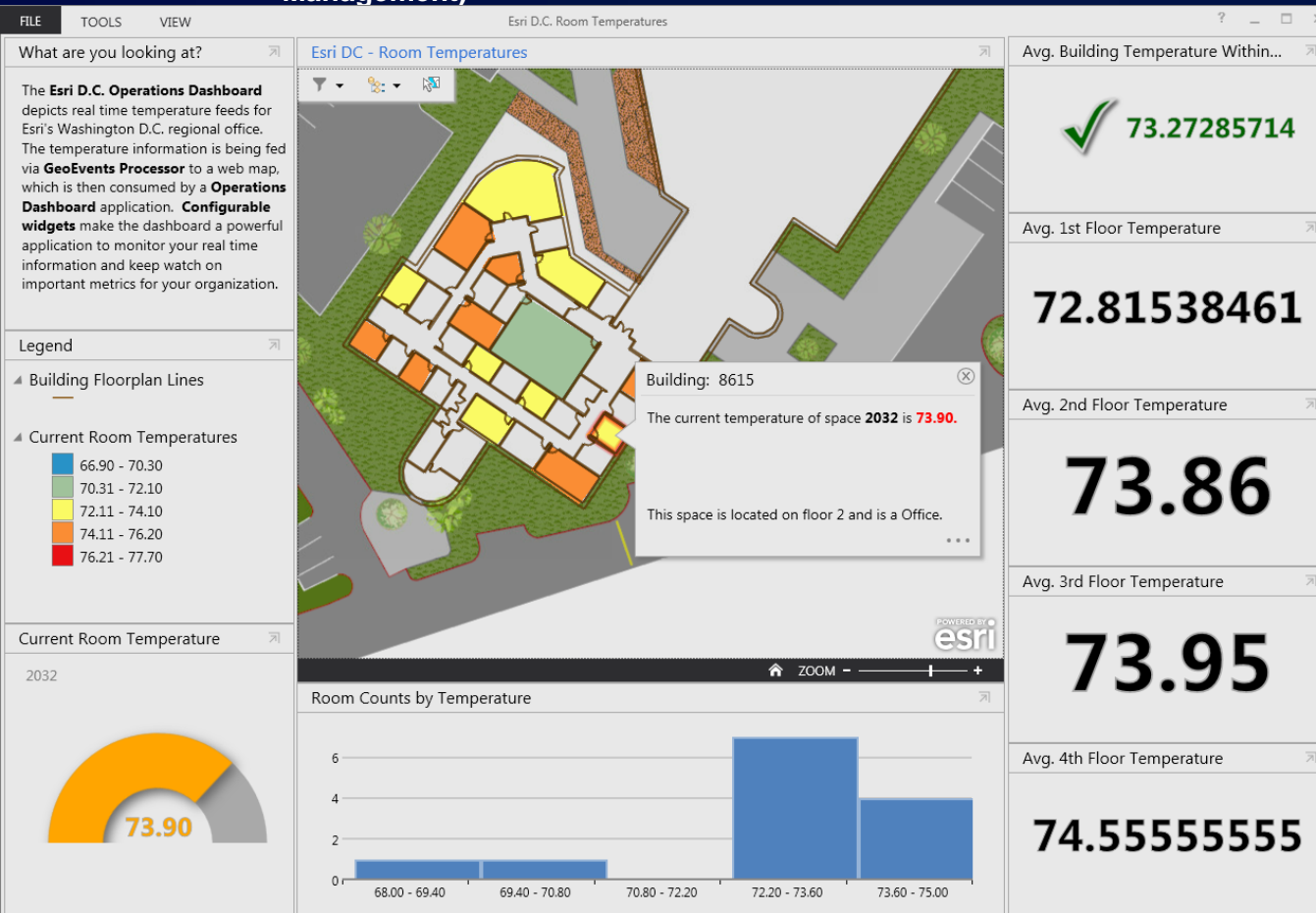
Energy &
Sustainability

Environmental
Compliance

Soft Services
And Support
Activities



Knowledge Worker
(Simple/Easy/Anywhere)



Energy & Sustainability...The Solution

Operations...The Functions and the Tasks

Facility
Operations and
Maintenance
(a.k.a. Facility
Management)

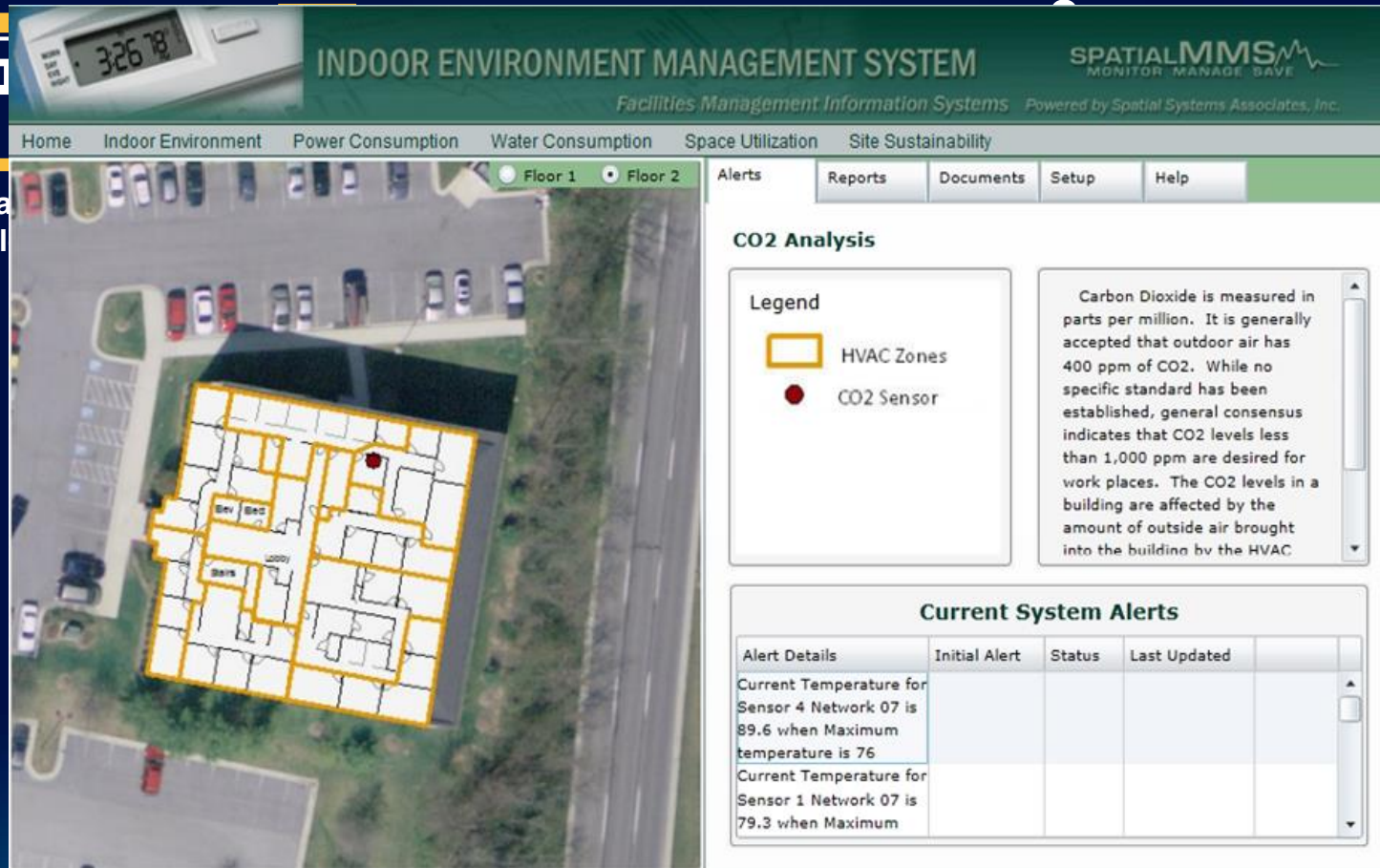
Energy &
Sustainability

Environmental
Compliance

Soft Services
And Support
Activities



GIS Professional
(Geocentric Workfl



Environmental Compliance...The Solution

Operations...The Functions and the Tasks

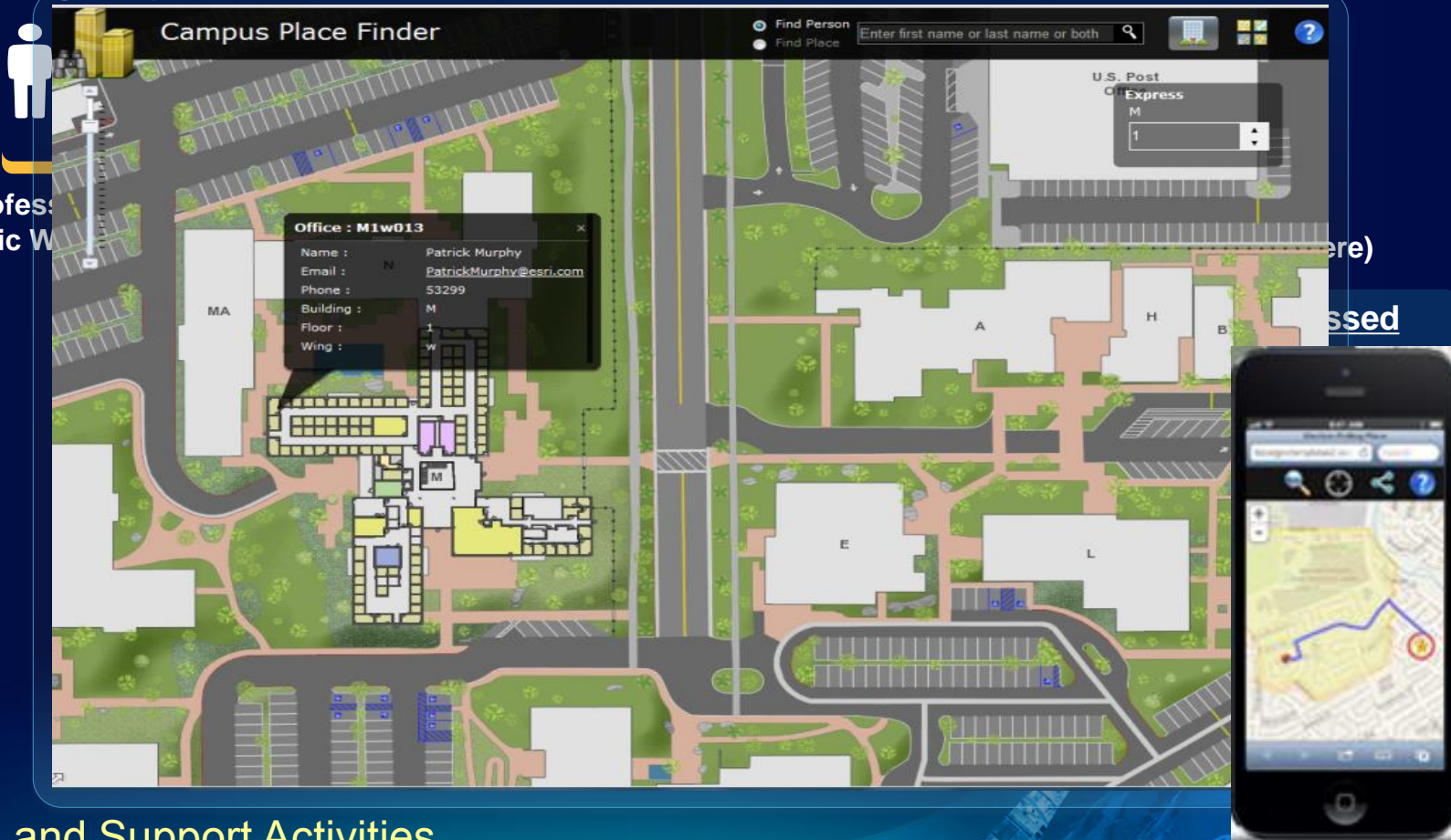
Facility
Operations and
Maintenance
(a.k.a. Facility
Management)

Energy &
Sustainability

Environmental
Compliance

Soft Services
And Support
Activities

GIS Professional
(Geocentric Work)



Soft Services and Support Activities...
The Solution

Safety & Security...The Functions and the Tasks

**Physical
Security**

**Health, Safety
& Environment**

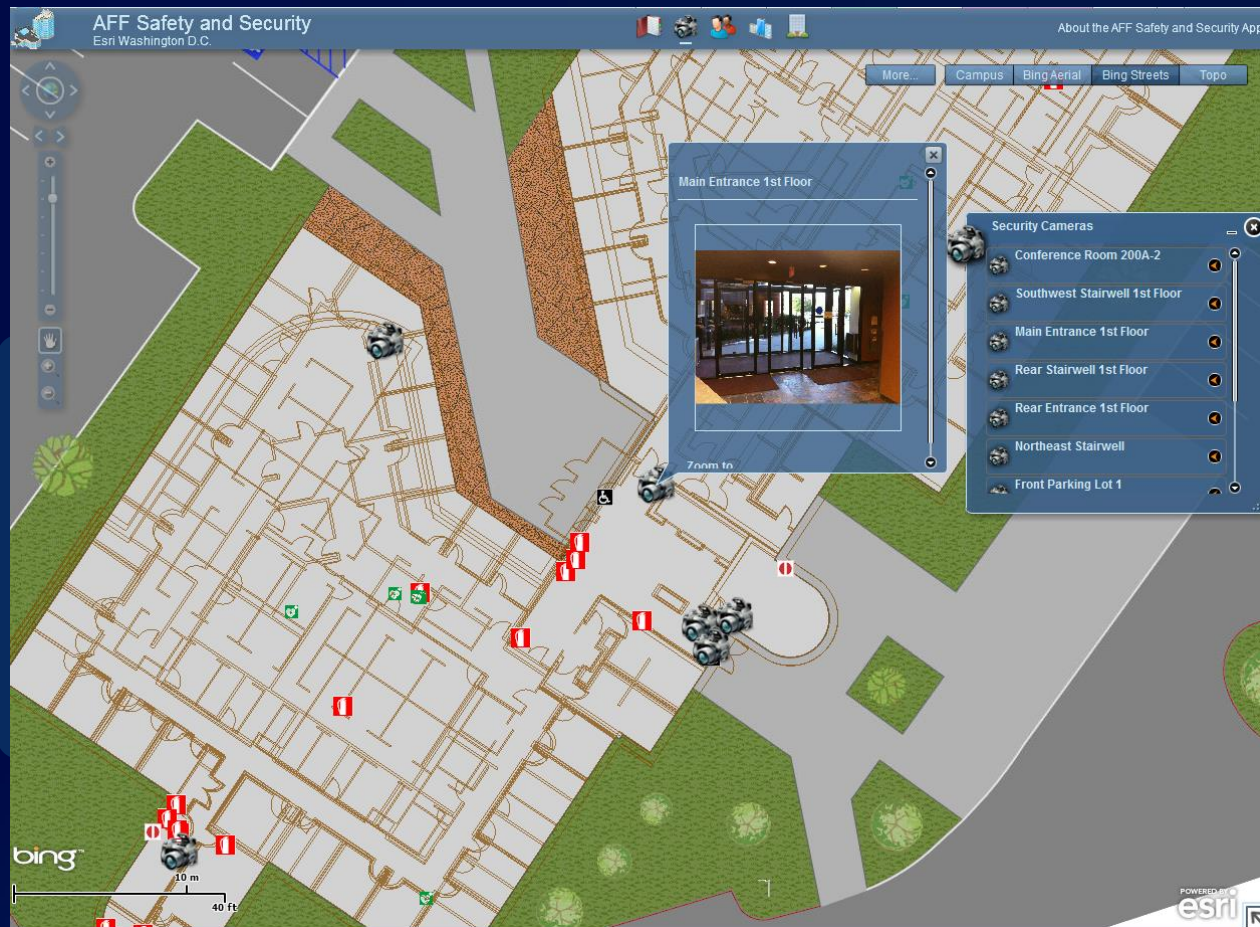
**Emergency
Services**



**Knowledge Worker
(Simple/Easy/Anywhere)**

al
ces

Physical Security...The Solution



Safety & Security...The Functions and the Tasks

Physical Security

Health, Safety & Environment

Emergency Services

Knowledge Worker
(Simple/Easy/Anywhere)

The screenshot displays the ArcMap interface with a map titled 'FloodPlanning.mxd'. The map shows a residential area with streets like Aurora Ave, W Porter Ave, and W White Rd. A large blue-shaded area indicates flood impact. Numerous red and orange symbols are scattered across the map, representing various infrastructure points. The left sidebar shows a 'Layers' panel with several checked items: Critical Facilities, Facility Site Points, Flood Level, Vulnerable Populations, Public Infrastructure, Sewer, Sewer Manholes, Sewer Service Connection, Sewer Lateral Lines, Sewer Gravity Mains, Stormwater, Flood Management Layers, Levels, Material, Municipal Boundaries, Flood Impact Areas, and Inundation Areas. The map scale is 1:5,000. The bottom status bar shows coordinates 1036466.904 and 1850787.216 Feet.

Health, Safety & Environment...The Solution

Physical Security	Health, Safety & Environment	Emergency Services
-------------------	------------------------------	--------------------

Physical Security	Health, Safety & Environment	Emergency Services
-------------------	------------------------------	--------------------

Physical Security	Health, Safety & Environment	Emergency Services
-------------------	------------------------------	--------------------

Health, Safety & Environment...The Solution

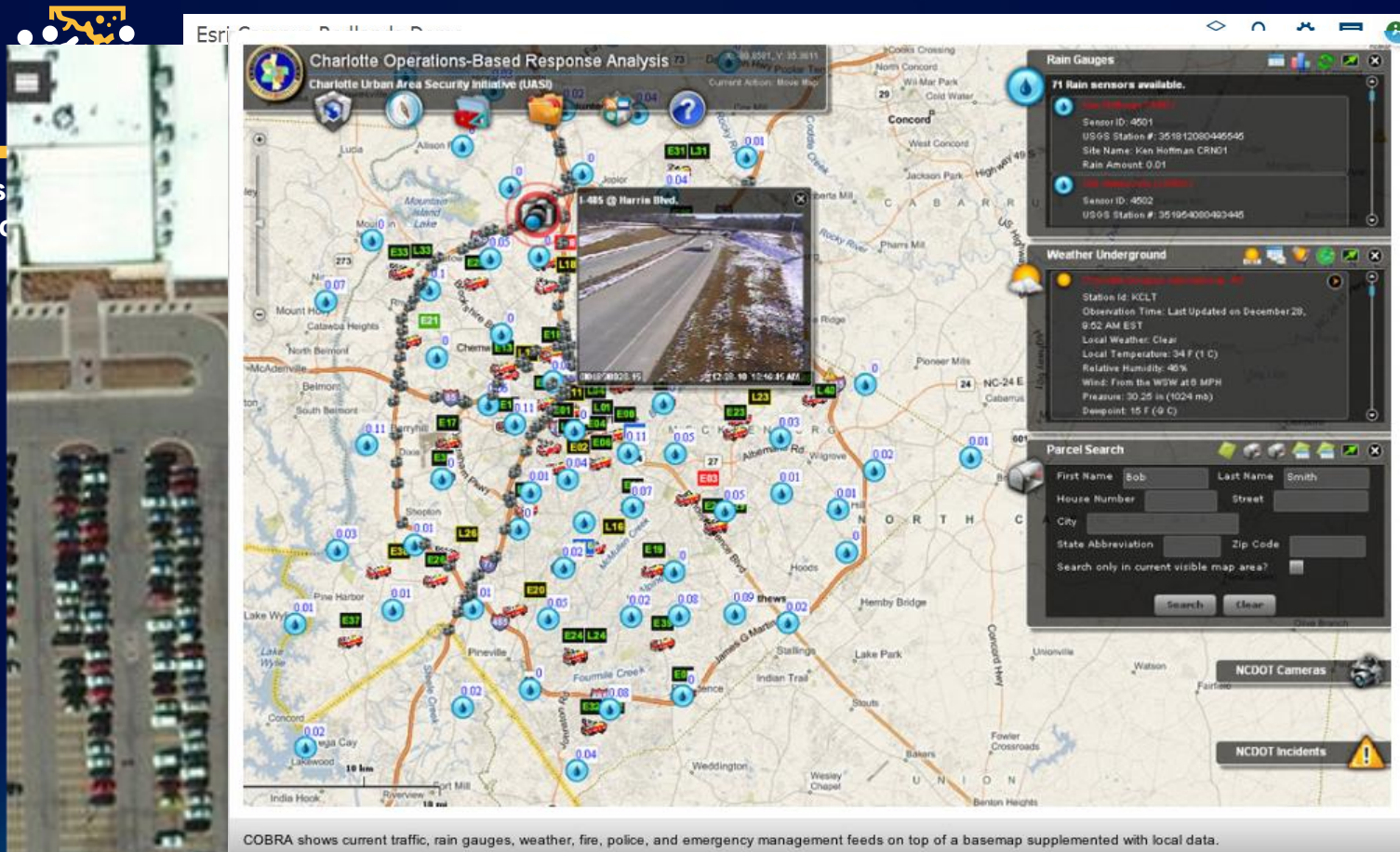
Safety & Security...The Functions and the Tasks

Physical
Security

Health, Safety
& Environment

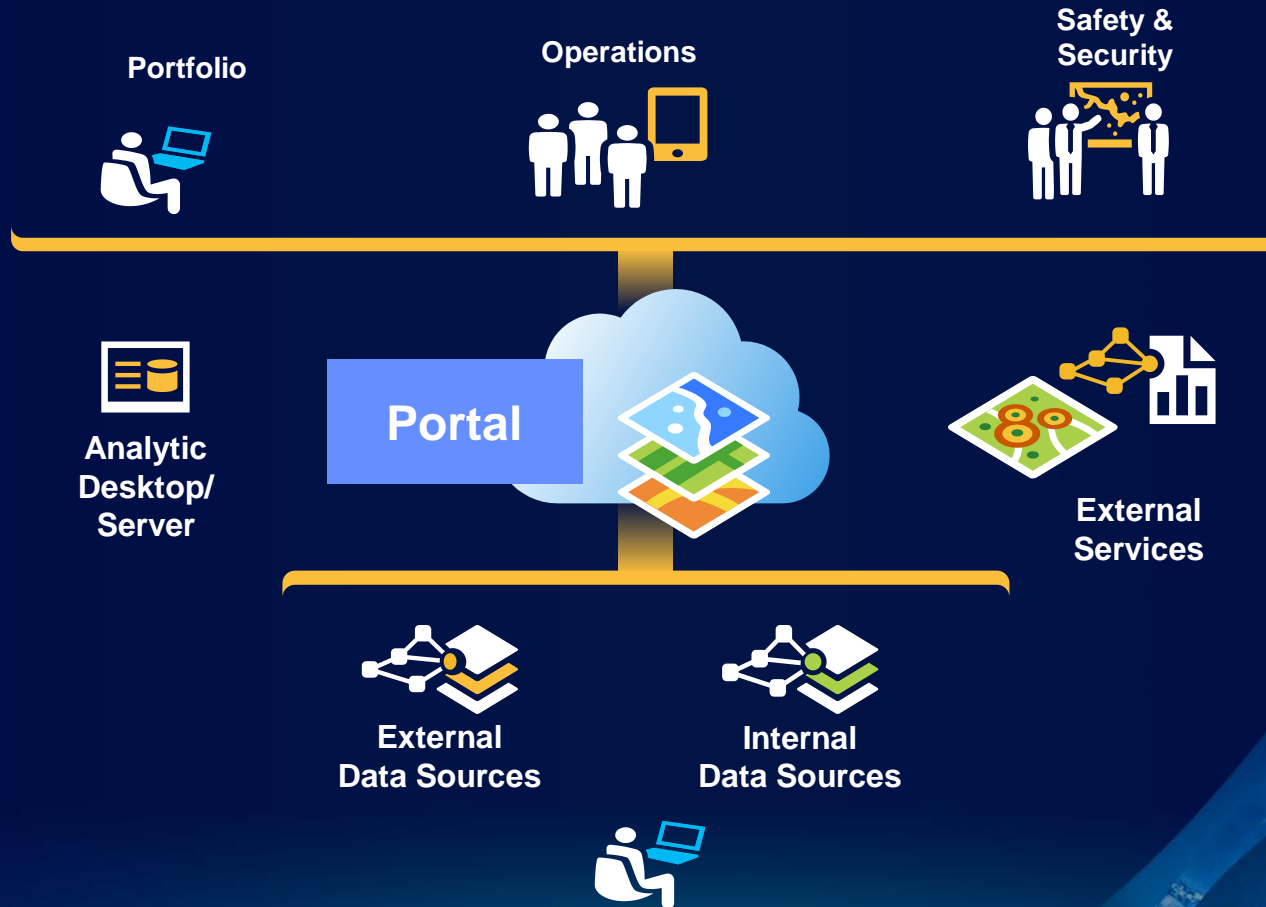
Emergency
Services

GIS Profess
(Geocentric W



Emergency Services...The Solution

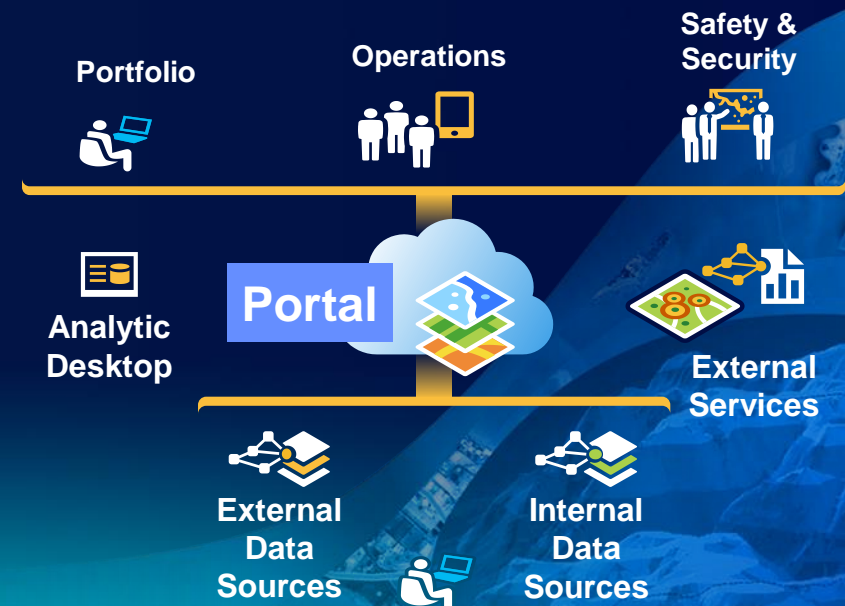
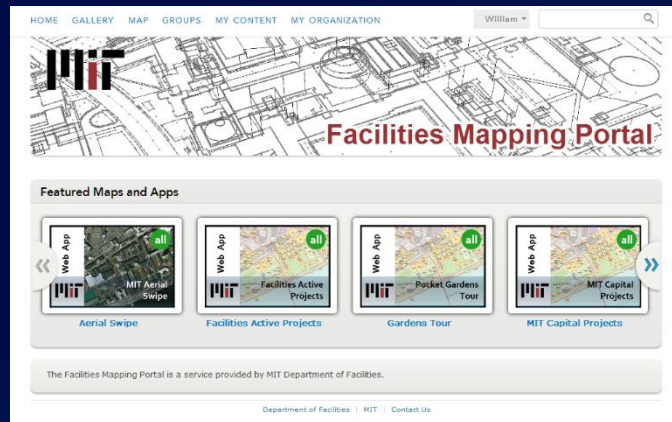
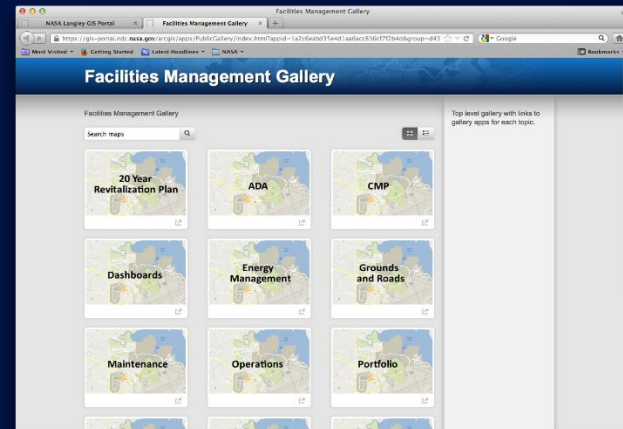
Facilities...The Geospatial Platform



Facilities...Implementing all 3 Patterns on the Platform



NASA



Portal/AGOL as the organizing construct

Facilities...The Platform...the 3 “C”s

Consumption



Capability

GIS Analytic Server



Portal/AG OL

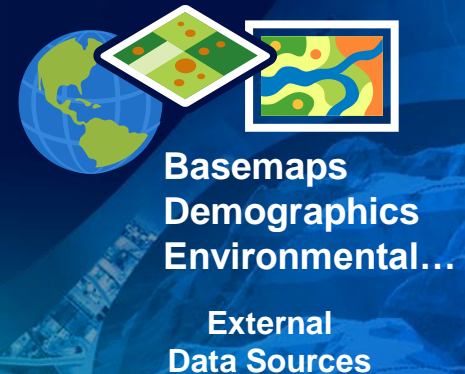
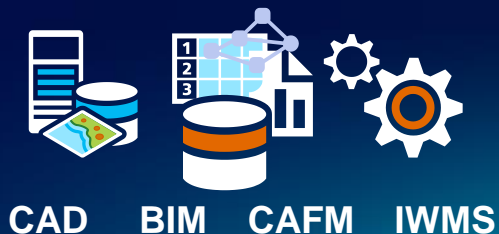
External Services

Routing
Geocoding
Drive Time
Reports...

Facilities Data

Business Systems

Content



Video Demonstration...





esri