Introducing ArcGIS Enterprise 10.5

Rob Hathcock
Account Manager
“Maps are never fully complete.”

Stephen P. Hanna
What is ArcGIS Enterprise?

- The new name for the ArcGIS for Server product line
- How you get Esri server technology
- How you deploy Web GIS in your infrastructure
Product evolution

Map Objects
IMS

ArcView IMS

ArcIMS

ArcSDE

ArcGIS Server

ArcGIS for Server

ArcGIS Enterprise
ArcGIS Enterprise is comprised of 4 software components.

ArcGIS Server

Portal for ArcGIS

ArcGIS Data Store

ArcGIS Web Adaptor

All of these components existed in the software pre-10.5
These 4 components configured together create what is called the **base ArcGIS Enterprise deployment**.

The base ArcGIS Enterprise deployment is how you deploy Web GIS in your infrastructure.
ArcGIS Enterprise

- ArcGIS Server
  - GIS Server
  - Image Server
  - GeoEvent Server
  - GeoAnalytics Server
  - Business Analyst Server

- Portal for ArcGIS
  - Level 1
  - Level 2

- ArcGIS Web Adaptor
  - Named user levels

- ArcGIS Data Store
  - Relational
  - Tile Cache
  - Spatiotemporal data store types

server roles

software components
ArcGIS Enterprise | Server Roles

ArcGIS GIS Server
ArcGIS GeoEvent Server
ArcGIS Image Server
ArcGIS Business Analyst Server
ArcGIS GeoAnalytics Server
GeoEvent Server

*with real-time & big data capabilities*

- Ingest high velocity real-time data into ArcGIS
- Perform continuous analytics on events as they are received
- Store observations in a spatiotemporal big data store
- Run analytics on stored observations
- Visualize high velocity & volume data:
  - as an aggregation
  - as discrete features
- Notify those who need to know about patterns of interest
Image Server

System of Insight

Extract Information from Imagery

Professional Imagery & Geospatial Analysts

Content: ArcGISOnline Partners, Org

System of Engagement

Share imagery products and information to those that need it

System of Record

Manage and process all your imagery

Server
Image Server | Raster Analytics: Adding to ArcGIS

Raster Analytics adds to existing ArcGIS concepts

Dynamic Raster Models
on-the-fly processing

Geoprocessing Models / spatial analysis
powerful analytics

Server-based distributed processing and storage
Scalable distributed analytics with persisted storage

Web GIS Layers
Rich geoinformation model

new
more
extends
more
Business Analyst Server

Federates with ArcGIS Enterprise
- Work flexibly

ArcGIS

Demographic Content
Data Enrichment
Reporting

In Your Infrastructure
Hybrid
Esri-Managed Cloud

Business Analyst Server
Business Analyst Desktop
Business Analyst Web App
Business Analyst Mobile App
ArcGIS has a new way of processing vector and tabular data with both spatial (location) and temporal (time) components that is designed fast distributed analytics and storage
GeoAnalytics Server | Adding to ArcGIS

- GeoAnalytics adds to existing ArcGIS analysis capabilities

Geoprocessing + GeoAnalytics + Web GIS Layers

More 

Distributed analytics and storage

Rich geoinformation model

Extends

New
GeoAnalytics Server | Rich Collection of Analysis Tools

Summarize Data
Aggregate Points
Join Features
Reconstruct Tracks
Summarize Attributes
Summarize Within

Find Locations
Find Similar Locations

Analyze Patterns
Calculate Density
Create Space Time Cube
Find Hot Spots

Use Proximity
Create Buffers

Manage Data
Copy to Data Store
GeoAnalytics Server | Familiar User Interfaces

ArcGIS Pro
Map Viewer
Insights

- New Paradigm (Visual, Intuitive, Responsive)
- Dynamic Analysis
- Very Fast Data Access

Transforming Understanding with Interactive Analysis

Linked and Responsive Charts and Maps

Integrated Spatial and Tabular Analysis

On-The-Fly Visual Models

Extending and Complementing Traditional Analysis…

… Supporting a System of Insight
Distributed Web GIS is introduced.

Roadmap

- Portal to Portal Collaboration
- Portal to ArcGIS Online Collaboration
- ArcGIS Online Org to Org Collaboration
- Dev – Staging – Production Workflows
Distributed Web GIS is introduced.

Roadmap

Portal to Portal Collaboration available at 10.5

Portal to ArcGIS Online Collaboration
ArcGIS Online Org to Org Collaboration
Dev – Staging – Production Workflows
Identity ▶ Your “key” to accessing the ArcGIS Platform wherever you are

Jenn
Human Resources
Collaboration

Enable people to work together by securely sharing data, apps, and knowledge
Named User Levels

**Level 1**
Applicable built-in roles: Viewer

Can view content, including maps, apps, and data.

Cannot create or own content.

**Level 2**
Applicable built-in roles: Viewer, User, Publisher, Administrator

Can create, view, share, and own content, including maps, apps, and data. Specific permissions will vary depending on privileges granted.
Identity Model

• The value and benefit of named users
• Seamless experience between Desktop, Mobile and Web
• Manage your Organization and users
• Track edits and control who can edit data
• Control access to apps and content
• Control which capabilities users have access to
<table>
<thead>
<tr>
<th>Functionality</th>
<th>Anonymous</th>
<th>Level 1</th>
<th>Level 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>View content (maps, operation views, insight cards, documents, etc.) created by others</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(if shared publicly)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use web mapping apps created by others</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(if shared publicly)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Join groups</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Edit features on public editable feature services</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Create new content (maps, feature services, etc.) and share it with others</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Create groups</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Edit features on private feature services</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Use Living Atlas of the World content (including Demographics, Elevation)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Use Spatial Analysis tools in Map Viewer (including GeoEnrichment)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Batch geocoding</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Administrative privileges</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Deploying ArcGIS Enterprise

• Start with the base ArcGIS Enterprise deployment; this is how you maximize the Web GIS experience.

• Once you have your base ArcGIS Enterprise deployment configured you can move on to adding additional server sites to federate with your base deployment.
ArcGIS Enterprise Web GIS

- Provides a centralized repository for storing geospatial and non-geospatial content, there are 80+ item types you can add to Portal for ArcGIS.

- Provides access to view, create, and share geospatial information through web maps and apps.

- Provides access to a rich library of Esri curated content through Living Atlas; this data can be used in maps, apps, and analysis tools.

- Gives you the ability to search and use any publicly shared content shared in the ArcGIS Online community.
ArcGIS Enterprise and Web GIS

- The Portal for ArcGIS component of ArcGIS Enterprise is code-free by default, but this does not mean you cannot use code to script, automate, expand or customize your Web GIS.
2017 is the Year for ArcGIS Pro

- ArcGIS Pro 1.4
  - Major development efforts
  - Increased and in some cases advanced functionality
  - Only way to do some sharing
  - Access to new tools for GeoAnalytics and Raster analysis
  - License management for ArcGIS Pro
  - Utility Network beta available in April 2017
ArcGIS Solutions Deployment Tool

- Deploy ArcGIS Solutions using ArcGIS Pro to ArcGIS Online or Portal for ArcGIS
- Includes tasks to assist with configuration and data loading
- Delivered as an ArcGIS Pro Add-in
- Deployment Tool includes a subset of the 400+ available ArcGIS Solutions
- Detailed info in Product Brief

http://solutions.arcgis.com/shared/help/deployment-tool/
3D Public Survey

- Use 3D scenes and configurable forms to solicit input from the public or stakeholders
- Potential uses include public comment on proposed developments, internal review of permit applications and urban planning public feedback

AED Locator

- Helps the public find the location of automated external defibrillators (AEDs)
- Displays AED access information

AED Reporter

- Enables the public to capture the location of AEDs in their community
- Includes app configurations for fire department management of public submittals and a dashboard for AED data collection and management

Calculate Solar Radiation

- Assess if buildings have potential for solar panel installation
- Calculate solar radiation maps for a community using ArcGIS Pro
- Visualize results in a 3D scene
- Evaluate solar radiation of selected roof areas

Shadow Impact Analysis

- Evaluate the shadow impact of proposed and existing buildings
- Create building shadows with ArcGIS Pro
- Visualize and share results in a 3D scene

Understanding our world.