



Introduction to ArcGIS Enterprise and Building Your First Deployment

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Palm Springs, CA

Overview

- **Web GIS options with Esri**
- **ArcGIS Enterprise Components**
- **ArcGIS Enterprise Base Deployment Overview**
 - **Steps to Build**
 - **Key Concepts**
- **ArcGIS Enterprise Builder**
 - **Installation and configuration**
- **Upgrading and command line tools**
- **Quick tips when using the Enterprise Builder**

Web GIS Options with Esri

ArcGIS Online

ArcGIS Enterprise

Core Web GIS functionality
(Apps, visualization, smart mapping, analysis...)

- Hosted by Esri (SaaS)
 - Upgraded automatically (by Esri)
 - Esri controls SLA

- In your own infrastructure (Software)
 - Upgraded manually (by you)
 - You control your ArcGIS Enterprise SLA

ArcGIS Enterprise | Components



ArcGIS Web
Adaptor



Portal for ArcGIS



ArcGIS Server



ArcGIS Data
Store

ArcGIS Enterprise | Components



ArcGIS Web
Adaptor

An Esri built application that integrates with your existing **web server** and appropriately directs network traffic for access to ArcGIS Enterprise.



Portal for ArcGIS



ArcGIS Server



ArcGIS Data
Store

ArcGIS Enterprise | Components



ArcGIS Web
Adaptor



Portal for ArcGIS

The **web frontend** and **infrastructure backend** that supports a user's interaction and overall experience with your ArcGIS Enterprise.



ArcGIS Server



ArcGIS Data
Store

ArcGIS Enterprise | Components



ArcGIS Web
Adaptor



Portal for ArcGIS



ArcGIS Server

Provides the layers,
services, and
horsepower required to
power your ArcGIS
Enterprise.



ArcGIS Data
Store

ArcGIS Enterprise | Components



ArcGIS Web
Adaptor



Portal for ArcGIS



ArcGIS Server



ArcGIS Data
Store

The **Esri managed data repository** that stores the spatial content that has been copied to Portal.

ArcGIS Enterprise | Components



ArcGIS Web
Adaptor



Portal for ArcGIS



ArcGIS Server



ArcGIS Data
Store

Three Types:

Relational

Tile Cache

Spatiotemporal

ArcGIS Enterprise | Components



ArcGIS Web
Adaptor



Portal for ArcGIS



ArcGIS Server



ArcGIS Data
Store

Three Types:

Relational
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ArcGIS Enterprise | Components



ArcGIS Web
Adaptor



Portal for ArcGIS



ArcGIS Server

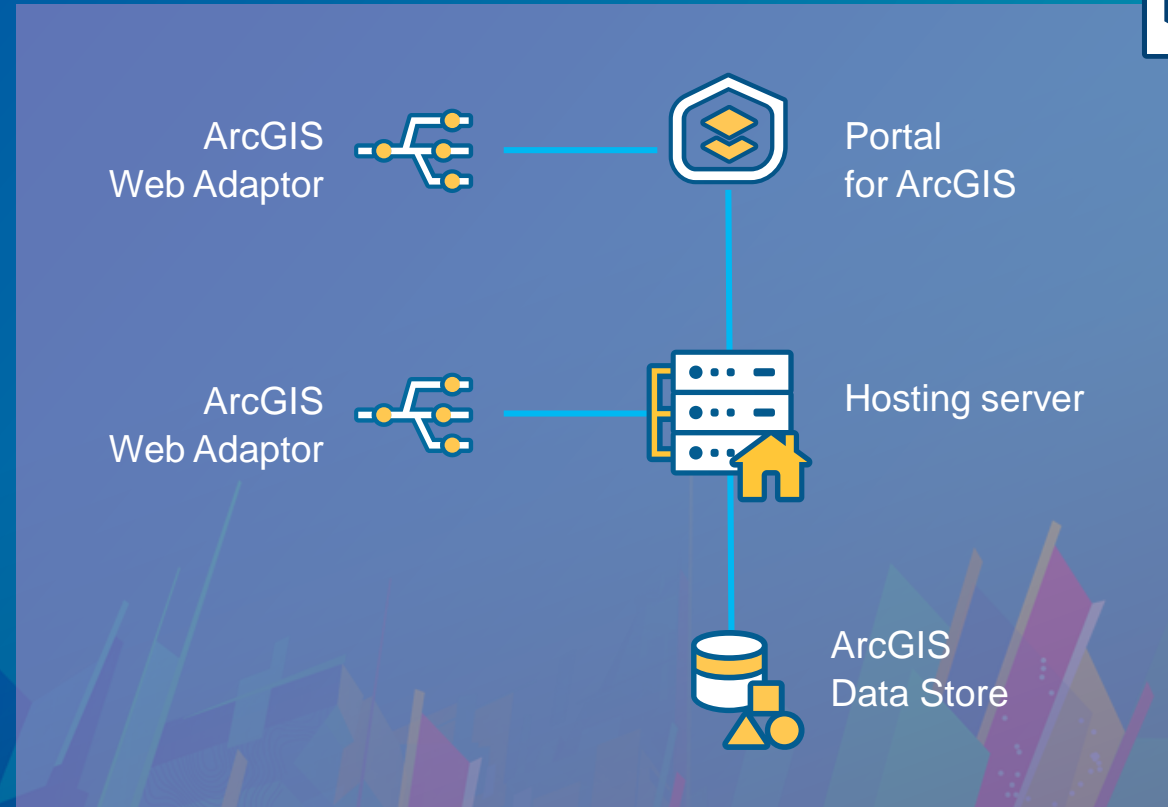


ArcGIS Data
Store

NOTE: It is not a
replacement to your
Enterprise
Geodatabases.

ArcGIS Enterprise Base Deployment Overview

- Four software components, one product.
- Each component has its own administrative endpoints.
- Supported on Windows and Linux
 - Windows examples used in this session, but also applies to Linux
- Supported on cloud deployments
 - Full support on AWS and Azure



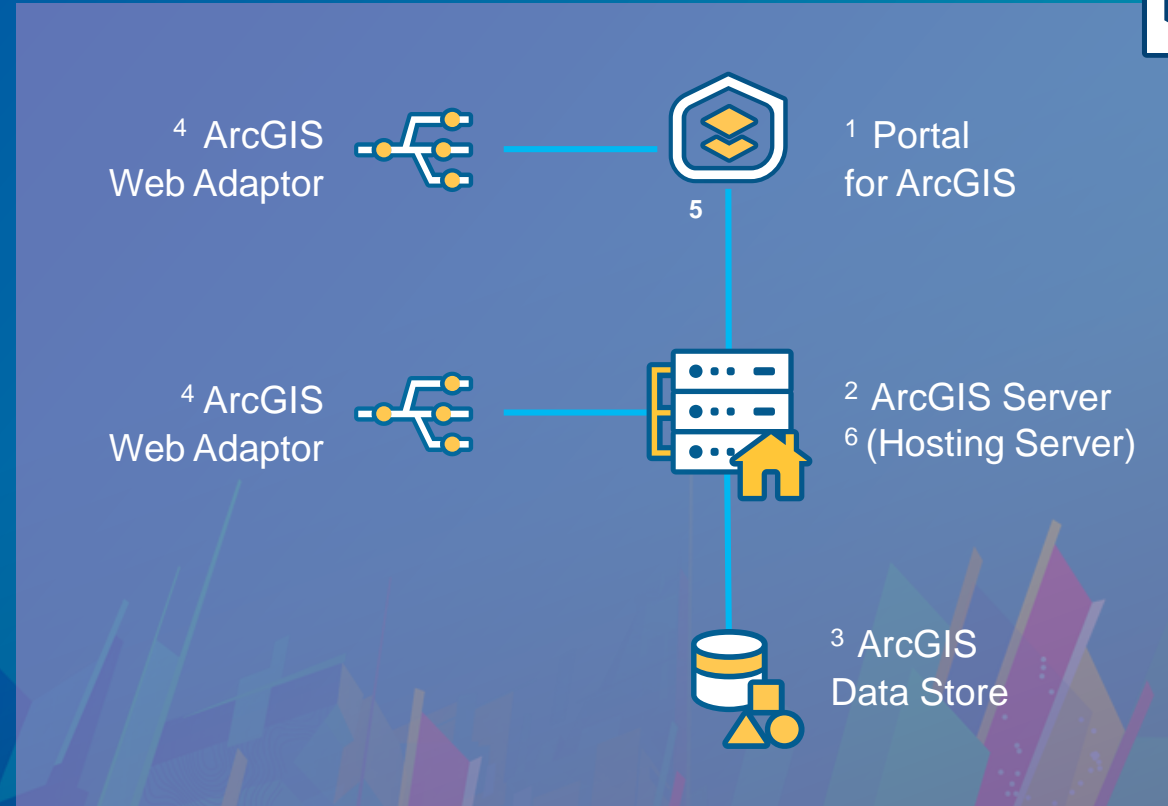
Manually Setup Base ArcGIS Enterprise Deployment

Steps to build:

1. Create the portal site
2. Create the ArcGIS Server site
3. Register the ArcGIS Data Store
4. Register the Web Adaptors
 - Portal for ArcGIS
 - ArcGIS Server
5. **Federate** ArcGIS Server with Portal for ArcGIS
6. Define the **Hosting Server**

Key Concepts

- Federation
- Hosting Server



Key ArcGIS Enterprise Concept: Federation

- Integrates security for Portal and Server
 - Portal user store controls access to the server
 - Services added as items in the portal
 - Sharing model controls access to services
 - Share with no one
 - Share with a group or the organization
 - Share with everyone

Add ArcGIS Server

Enter the URLs for accessing and administering your ArcGIS Server site. Also enter credentials for an administrator of the ArcGIS Server site.

Services URL:
Example: <https://webadaptorhost.domain.com/webadaptorname>

Administration URL:
Example: <https://gisserver.domain.com:6443/arcgis>

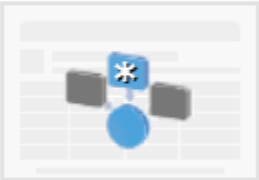
Username:

Password:

Key ArcGIS Enterprise Concept: Hosting server

- A server that hosts content published to the portal (copying data)
 - Requires a registered relational ArcGIS Data Store
- Needed for:
 - Standard analysis and GeoAnalytics
 - Publishing hosted layers
 - Batch geocoding
 - Adding shapefiles or csv to a map

Hosting Server



Optionally choose one of your servers to act as your portal's hosting server. Your portal members will be able to publish services to this server. ArcGIS Server's Managed Database must be configured on the site before it can be designated as the portal's hosting server.

WEBGIS.ESRI.COM/server ▾

No hosting server

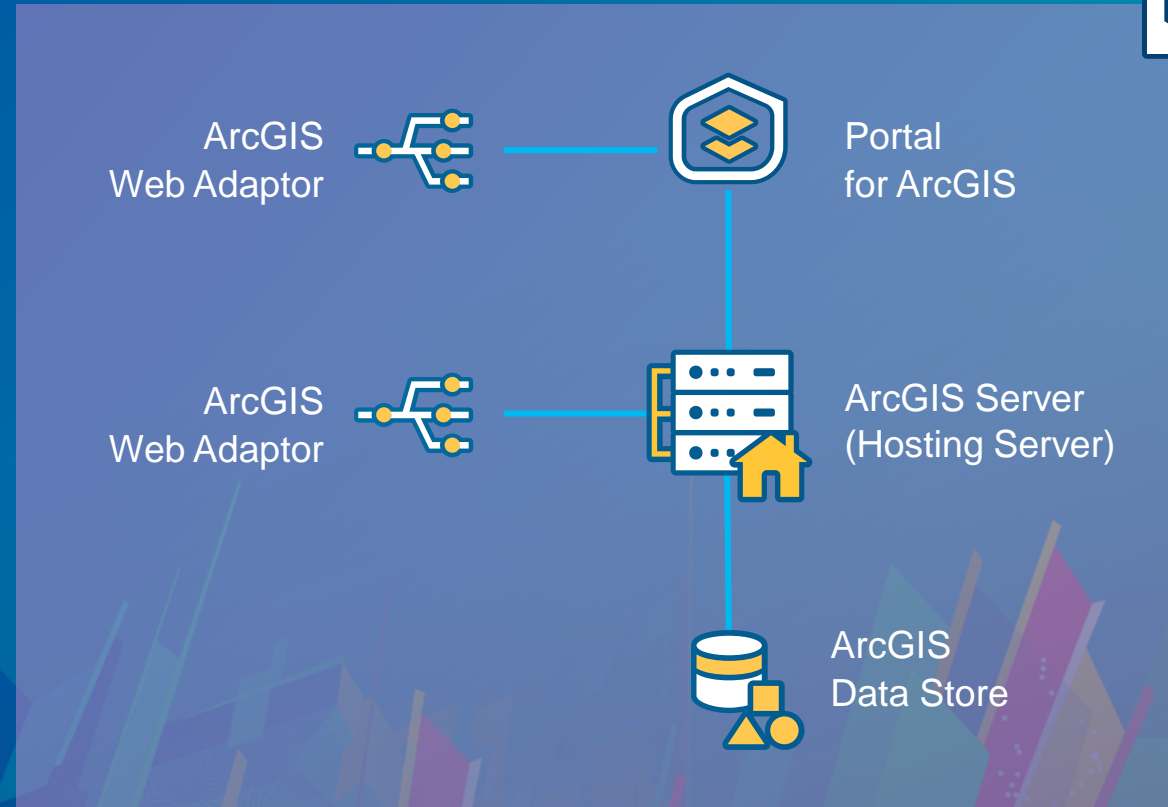
WEBGIS.ESRI.COM/server

Feature Analysis - Sta

ArcGIS Enterprise Base deployment overview

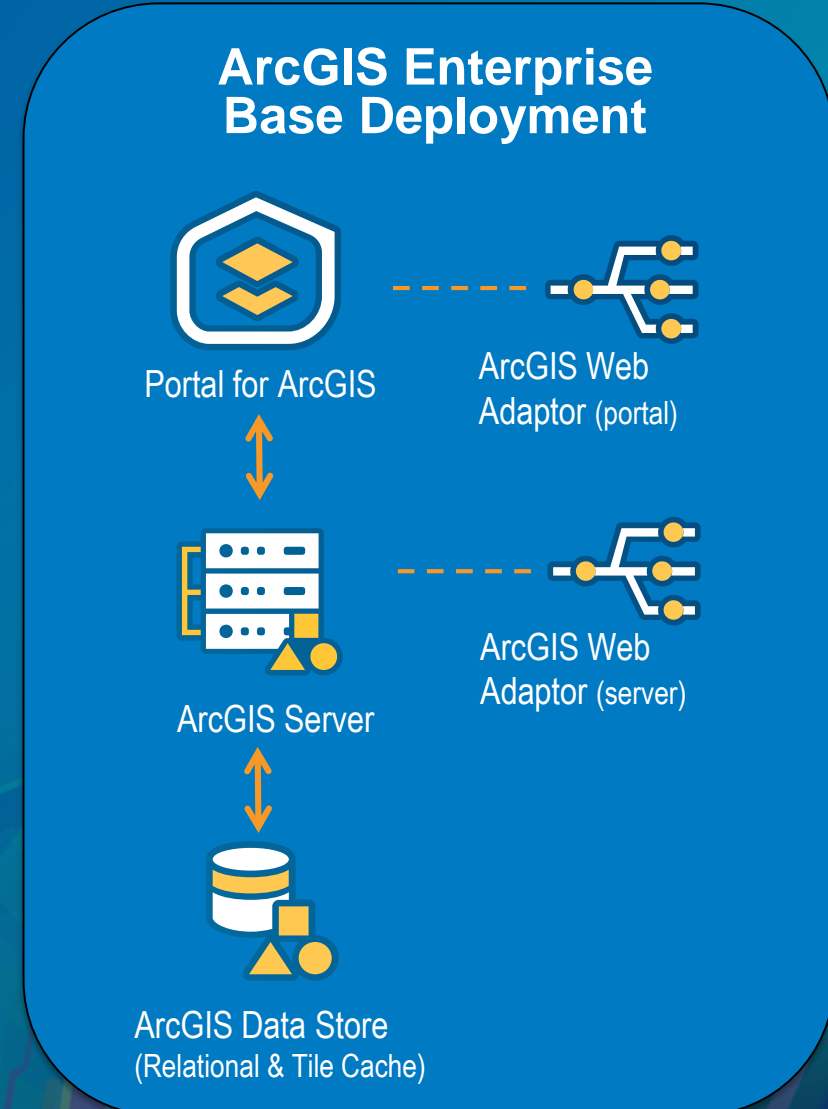
Key Components

- Installed Locations
- Content directories/Configuration Store
- Service Accounts
- Administrator Accounts

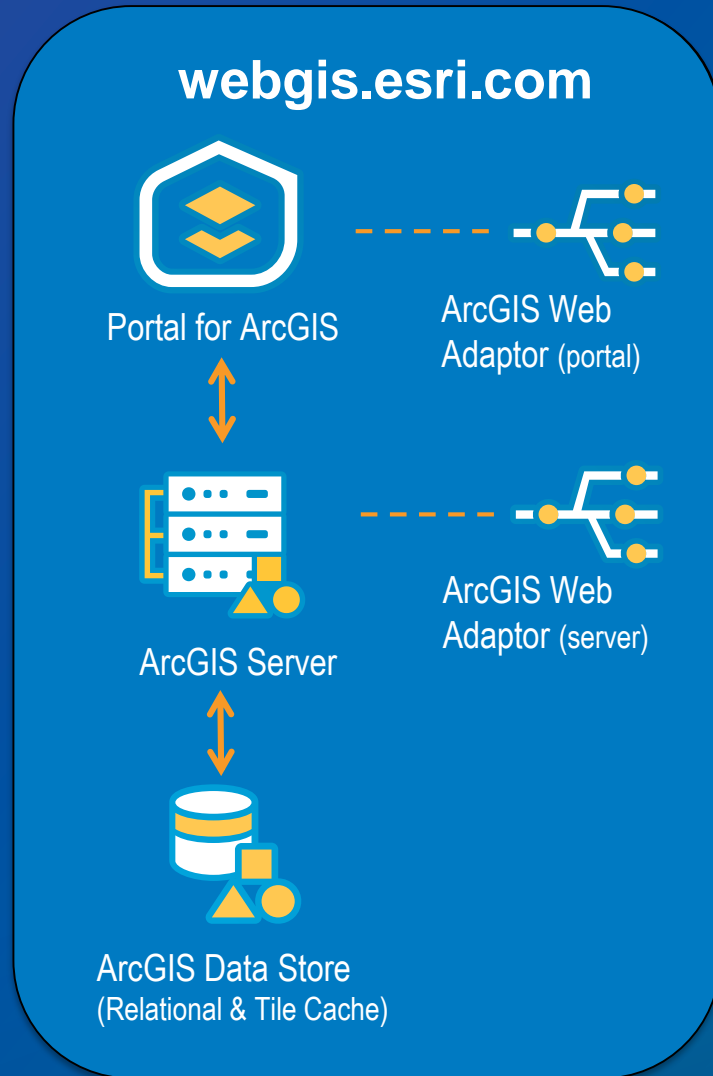


ArcGIS Enterprise Builder

- New at 10.5.1
- Simplifies the setup and configuration of a single machine ArcGIS Enterprise deployment
- Asks the minimum number of questions required to get a deployment up and running



Demo: Our setup



Portal Home Page URL: <https://webgis.esri.com/portal/home/>

Portaladmin URL: <https://webgis.esri.com/portal/portaladmin/>

Services URL: <https://webgis.esri.com/server/rest>

Server Manager URL: <https://webgis.esri.com:6443/arcgis/manager>



Demo: ArcGIS Enterprise Builder

Installing and configuring the deployment



Recycle Bin



server.ecp



ArcGIS Enterprise...

ArcGIS Enterprise 10.7 Builder

Desktop

File Home Share View

This PC > Desktop

Search Desktop

Name	Date modified	Type	Size
ArcGIS Enterprise Builder 10.7	12/19/2018 1:00 PM	Disc Image File	7,666,078 KB
server.ecp	12/18/2018 4:26 PM	ECP File	11 KB

2 items



Recycle Bin



server.ecp



ArcGIS Enterprise...

ArcGIS Enterprise 10.7 Builder

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Desktop

- Downloads
- Documents
- Pictures

This PC

- 3D Objects
- C on JONQNOH
- Desktop
- Documents
- Downloads
- E on JONQNOH
- Music
- Pictures
- Videos
- C Drive (C:)
- DVD Drive (E:) Es
- Setup Files

2 items



Recycle Bin



portal.json

ArcGIS Enterprise 10.7 Builder

ArcGIS Enterprise Builder

The ArcGIS Enterprise installation has completed. Click Finish to launch the ArcGIS Enterprise Configuration Wizard and complete your deployment (Configuration Wizard is available only if all components successfully installed).

ArcGIS Enterprise components status:

- ✓ Portal for ArcGIS
- ✓ ArcGIS Server
- ✓ ArcGIS Data Store
- ✓ ArcGIS Web Adaptor for portal - portal
- ✓ ArcGIS Web Adaptor for server - server

InstallShield

Finish



Recycle Bin



portal.json

ArcGIS Enterprise 10.7 Builder

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InstallShield

Finish

Start

Next Steps: Administering your Enterprise

- **Verify deployment**
 - Publish test data
- **Adding members**
 - Built-in or enterprise users
- **Customize the home page**
 - Branding your portal
- **Updating the behavior of the portal**
 - Custom utility services and basemap gallery
- **Review and monitor ArcGIS Enterprise Logs**
 - Portal for ArcGIS and ArcGIS Server logs



Next Steps: Administering your Enterprise

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 - **Portal for ArcGIS and ArcGIS Server logs**






Demo: ArcGIS Enterprise Builder

Verifying and Using the ArcGIS Enterprise



Using the ArcGIS Enterprise – connecting to the portal

- Portal home app URL: <https://webgis.esri.com/portal/home>
- Client apps URL: <https://webgis.esri.com/portal>
 - ArcGIS Pro
 - ArcMap
 - ArcGIS Maps for Office
 - Collector for ArcGIS



Upgrades and Command Line Tools

Overview, Demo, Command Line Tools

Upgrading an Enterprise Deployment

- Supports upgrades from 10.5.1
- One click experience that upgrades all components

License and Upgrade ArcGIS Enterprise [Help](#)

The components installed on this machine are ready to be upgraded.

Select a license file (*.json) to authorize your ArcGIS Enterprise portal's users and apps. Click Upgrade to continue.

License file:



Demo: ArcGIS Enterprise Builder

Upgrades





Recycle Bin



AEB 10.7



server



portal.json

File Explorer window showing Desktop contents:

Address bar: This PC > Desktop

Search: Search Desktop

Name	Date modified	Type	Size
AEB 10.7	2/27/2019 9:40 AM	File folder	
portal.json	1/24/2019 11:14 AM	JSON File	54 KB
server	12/18/2018 4:26 PM	ECP Copy Protecti...	11 KB

Left sidebar (Quick access): Desktop, Downloads, Documents, Pictures

Left sidebar (This PC): 3D Objects, C on JONQNOH, Desktop, Documents, Downloads, E on JONQNOH, Music, Pictures, Videos, C Drive (C:), Network

Status bar: 3 items, 1 item selected



Recycle Bin



AEB 10.7



server



portal.json

File Explorer window showing Desktop contents:

Address bar: This PC > Desktop > Search Desktop

Name	Date modified	Type	Size
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Left sidebar (Navigation pane):

- Quick access
 - Desktop
 - Downloads
 - Documents
 - Pictures
- This PC
 - 3D Objects
 - C on JONQNOH
 - Desktop
 - Documents
 - Downloads
 - E on JONQNOH
 - Music
 - Pictures
 - Videos
 - C Drive (C:)
 - Network

Status bar: 3 items | 1 item selected

Command Line Utilities - Install

- Install a base deployment
 - Usage: **<location of setup>/Builder.exe**
 - Supported options:
 - **GIS_INSTALLDIR= (Install directory)**
 - **GIS_USER_NAME= (Username of account to run the software)**
 - **GIS_PASSWORD= (Password of account to run the software)**
 - **SERVER_AUTHORIZATION= (Path to Server authorization file)**
 - **WAPortal = (Portal Web Adaptor Name)**
 - **WAServices = (Server Web Adaptor Name)**

Command Line Utilities - Configure

- **Configure a base deployment**

- **Usage: <ArcGIS Server Install Dir>/tools/configurebasedeployment/configurebasedeployment.bat**

- **Supported options:**

- **-fn (First Name)**
- **-ln (Last Name)**
- **-u (Username)**
- **-p (Password)**
- **-e (Email)**
- **-qi (Security Question index)**
- **-qa (Security Question answer)**
- **-ws (Server Web Adaptor URL for Java Web Servers)**
- **-wp (Portal Web Adaptor URL for Java Web Servers)**
- **-d (Content Directory)**
- **-lf (The path to the portal license file)**
- **-ut (The user type ID for the Initial Administrator)**
- **-f (Properties file for the configurebasedeployment utility)**
- **-h (Display help)**

Command Line Utilities - Upgrade

- Upgrade a base deployment
 - Usage: **<ArcGIS Server Install Dir>/tools/upgradebasedeployment/upgradebasedeployment.bat**
 - Supported options:
 - -lf (Path to the portal license file)
 - -s (Performs silent upgrade)
 - -h (Displays help)

Quick Tips for the Enterprise Builder

- Don't reinstall or uninstall components manually
- Can only upgrade ArcGIS Enterprise Builder deployments
- Run Patch Notification tool to check for available patches
- Run the security scans for Server and Portal

Resources

- Review help documentation – <https://enterprise.arcgis.com/en/documentation>
 - Topic - "Tutorial: Set up a base ArcGIS Enterprise deployment"
 - Other subjects – Pro licensing, SSL certificates, upgrading
- Technical Support – <https://support.esri.com>
- **Esri Showcase – ArcGIS Enterprise Area**

See Us Here

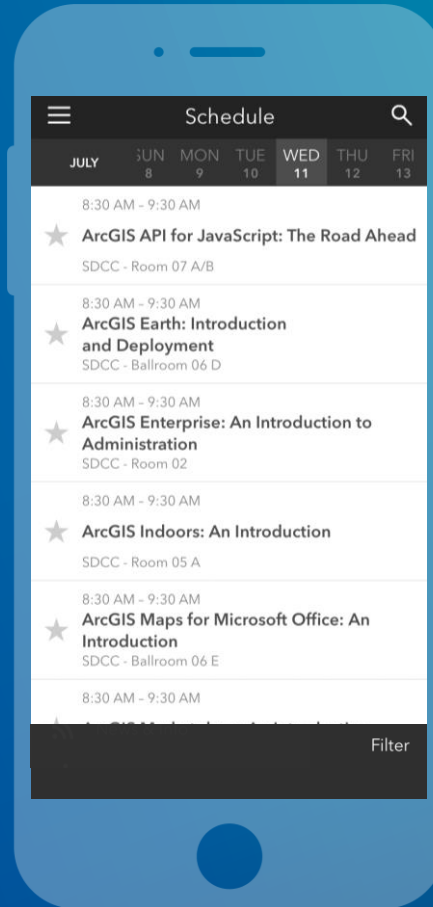
WORKSHOP	LOCATION	TIME FRAME
<ul style="list-style-type: none">• ArcGIS Enterprise Customization and Administration• Extending ArcGIS Enterprise• Upgrading ArcGIS Enterprise• Upgrading ArcGIS Enterprise (Repeat Session)• Using WebHooks in ArcGIS Enterprise• ArcGIS Enterprise and SSL Considerations• ArcGIS Enterprise and SSL Considerations (Repeat)• ArcGIS Enterprise: Architecting your Deployment• ArcGIS Enterprise: The Road Ahead	<ul style="list-style-type: none">• Primrose B• Mesquite G-H• Primrose B• Mesquite G-H• Demo Theater 3• Primrose B• Primrose C-D• Smoketree A-E• Catalina/Madera	<ul style="list-style-type: none">• Tuesday: 4:00pm – 5:00pm• Tuesday: 5:30pm – 6:30pm• Tuesday: 5:30pm – 6:30pm• Friday: 1:00pm – 2:00pm• Wednesday: 1:30pm – 2:00pm• Thursday: 1:00pm – 2:00pm• Friday: 1:00pm – 2:00pm• Friday: 1:00pm – 2:00pm• Friday: 10:00am – 11:00am

Please Take Our Survey on the App

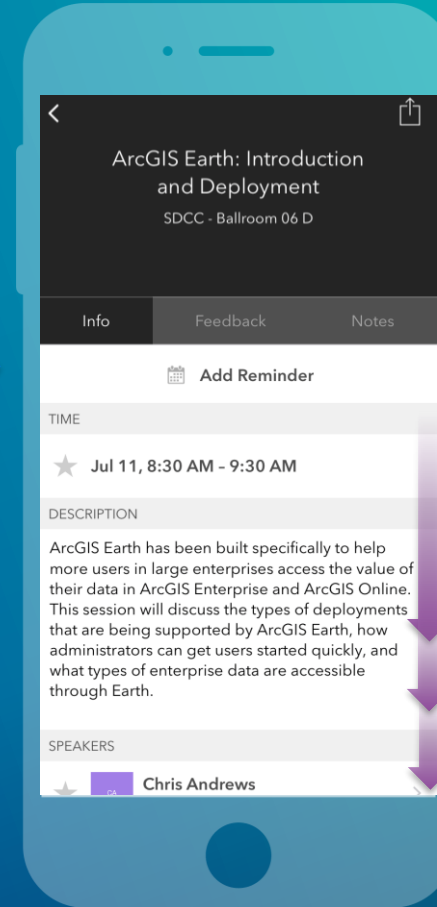
Download the Esri Events app and find your event



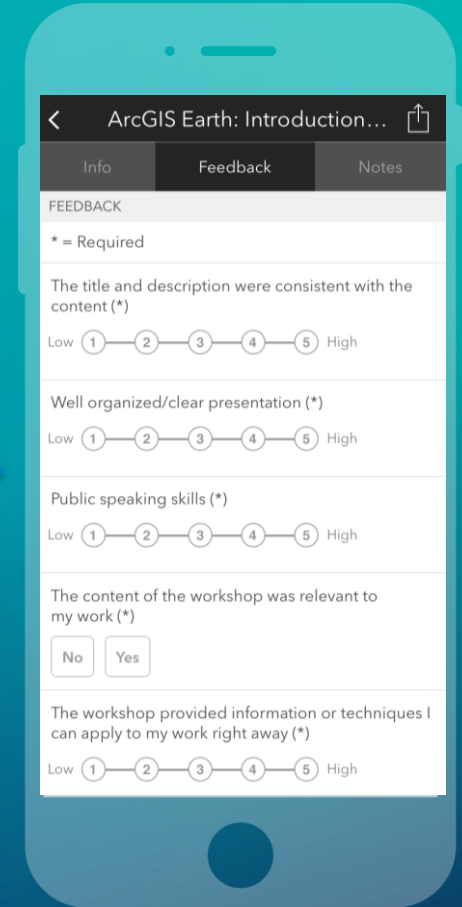
Select the session you attended



Scroll down to find the feedback section



Complete answers and select "Submit"





esri

THE
SCIENCE
OF
WHERE