

ArcGIS Enterprise: Best Practices for Upgrading

Mark Carlson, System Architect

Erin Richmond, Solution Engineer



esri

THE
SCIENCE
OF
WHERE®

Agenda

01

Why Upgrade?

02

Planning Your Upgrade
Upgrade Considerations

03

ArcGIS Enterprise Components
Portal for ArcGIS, Web Adaptor, ArcGIS Server,
ArcGIS Datastore

04

Validate
After Upgrade

05

Demo
Upgrade ArcGIS Enterprise 10.7.1 to 10.8.1

06

Summary
Benefits, Considerations, Automation, Resources



Why Upgrade?

NEW • New features, functionality, apps and products



• Take advantage of performance enhancements

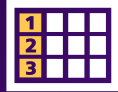


• Stay within the supported product lifecycle



• Security updates and bug fixes

Why Upgrade?



- ArcGIS Enterprise product lifecycle

- <https://support.esri.com/en/other-resources/product-life-cycle>

- STS releases (*short-term support release*)
 - 3 years of support (1.5 years of patches)
 - 10.8, 10.9
- LTS releases (*long-term support release*)
 - 6 years of support (4 years of patches)
 - 10.8.1, 10.9.1

The screenshot shows the 'Product Life Cycles' support page. It features a header with a checkmark icon and the text 'Product Life Cycles' and 'Look up information related to the software and technical support provided by Esri throughout a product's life cycle.' Below the header, the page is organized into two main sections: 'Desktop' and 'Enterprise'. The 'Desktop' section lists 'ArcGIS Desktop' (with sub-items 'ArcGIS Pro' and 'ArcMap'), 'Industry Focused Extensions' (with sub-items: 'ArcGIS Aviation Airports', 'ArcGIS Aviation Charting', 'ArcGIS Bathymetry', 'ArcGIS Maritime', 'ArcGIS Pipeline Referencing', 'ArcGIS Defense Mapping', 'ArcGIS Production Mapping', and 'ArcGIS Roads and Highways'), and 'Data and Workflows Extensions' (with sub-items: 'ArcGIS Data Reviewer', 'ArcGIS Data Interoperability', and 'ArcGIS Workflow Manager'). The 'Enterprise' section lists 'ArcGIS Server' (with sub-item 'ArcGIS Server'), 'Portal for ArcGIS' (with sub-item 'Portal for ArcGIS'), 'ArcGIS Data Store' (with sub-item 'ArcGIS Data Store'), and 'ArcGIS Web Adaptor' (with sub-items 'ArcGIS Web Adaptor' and 'ArcGIS Web Adaptor (Java)'). At the bottom, there is a link for 'GIS Server Extensions'.

Product lifecycle

Planning Your Upgrade

- App compatibility with ArcGIS Enterprise
 - Some applications release on different cycles (e.g. ArcGIS Insights)
 - Check Esri documentation for app compatibility
 - <https://doc.arcgis.com/en>

		ArcGIS Enterprise							
		10.5.1	10.6	10.6.1	10.7	10.7.1	10.8	10.8.1	10.9
Insights Version	3.1	✓	✓	✓	✗	✗	✗	✗	✗
	3.2	✗	✗	✓	✗	✗	✗	✗	✗
	3.2.1	✗	✗	✗	✓	✗	✗	✗	✗
	3.3	✗	✗	✓	✗	✗	✗	✗	✗
	3.3.1	✗	✗	✗	✓	✓	✗	✗	✗
	3.4	✗	✗	✓	✗	✗	✗	✗	✗
	3.4.1	✗	✗	✗	✓	✓	✗	✗	✗
	2020.1	✗	✗	✗	✗	✓	✓	✗	✗
	2020.2	✗	✗	✗	✗	✓	✓	✓	✗
	2020.3	✗	✗	✗	✗	✓	✓	✓	✗
	2021.1	✗	✗	✗	✗	✗	✗	✓	✗
2021.1.1	✗	✗	✗	✗	✗	✗	✗	✓	

Planning Your Upgrade



- DO NOT UNFEDERATE



Planning Your Upgrade



- **DO NOT UNFEDERATE**



- **Portal license**
 - Starting at 10.7, license is a .JSON file



- **Hosting server**
 - Starting at 10.6.1, ArcGIS Datastore is only supported as the managed database for your hosting server



- **User types**
 - Review the member roles, user types available at the version to which you are upgrading

Planning Your Upgrade

- **Take snapshots of machines**
 - Verify all volumes are included in the snapshots
 - **Verify backups**
 - In a test environment, test your backup and restore process
 - **BACK UP Environment**
 - WebGISDR
 - ArcGIS Datastore (Relational, TileCache & Spatiotemporal)
 - Use the 'backupdatastore' utility
 - ArcGIS Server
 - Use the 'Backup' utility
 - Take backups of the content stores
 - Folders: arcgisportal , arcgisserver, arcgisdatastore
-

Planning Your Upgrade

- **Automated Upgrades**



ArcGIS Enterprise Builder

Upgrades Supported
At 10.6



CloudFormation Templates

ArcGIS Enterprise Cloud
Builder for Amazon Web
Services



ArcGIS Enterprise Cloud
Builder for Microsoft Azure



Advanced Automation

NEW



ArcGIS Enterprise on
Kubernetes



Recommended Upgrade Order

1. Portal for ArcGIS
2. ArcGIS Web Adaptor (*portal*)
3. Web Styles
4. ArcGIS Server
5. ArcGIS Web Adaptor (*server*)
6. ArcGIS Data Store (*primary first, then stand-by*)
7. All other Server Roles
GeoEvent, GeoAnalytics, Image, etc.



Portal for ArcGIS

Upgrading



Portal | Licensing

- You will need the portal .JSON license file before you can upgrade

Import License File and Continue Portal Upgrade

Select a license file (.json) to authorize your ArcGIS Enterprise portal's users and apps. Click Continue Portal Upgrade to continue upgrading your Portal for ArcGIS software.

License file

Browse...

No file selected.

Continue Portal Upgrade

Portal Administrator Directory

[Home](#) > [Upgrade](#)

Upgrade

Backup Directories True ▾

Roll back if upgrade failed True ▾

License File * No file selected.

Format HTML ▾

```
C:\Program Files\ArcGIS\Portal\tools\upgradeportal>upgradeportal.bat -h
Description: The upgradeportal utility allows you to upgrade the portal.

usage: upgradeportal [-lf <arg>] [-s]

-lf,--licenseFile <arg>  This is the path to the portal license file.
-s,--silent                Upgrade the portal silently.
-h,--help                 Display this tool help message and exit.

C:\Program Files\ArcGIS\Portal\tools\upgradeportal>_
```

Create a New Portal

Enter the username and password for the initial administrator account that will be created in your portal.
Use this account to configure a Web Adaptor with your portal and then sign in to the portal for the first time.

First Name	<input type="text"/>
Last Name	<input type="text"/>
E-mail	<input type="text"/>
Confirm E-mail	<input type="text"/>
Username	<input type="text" value="4 to 128 characters"/>
Password	<input type="text" value="8 to 28 characters"/>
Confirm Password	<input type="text" value="Repeat your password"/>
Security Question	<input type="text" value="Select a question for password recovery."/> ▾
Answer	<input type="text"/>

BACK

CREATE

CONTINUE PORTAL UPGRADE

JOIN EXISTING PORTAL

Home Gallery Map Scene Groups

Sign In



Continue Portal Upgrade

CONTINUE PORTAL UPGRADE

Import License File and Continue Portal Upgrade

Select a license file (.json) to authorize your ArcGIS Enterprise portal's users and apps. Click Continue Portal Upgrade to continue upgrading your Portal for ArcGIS software.

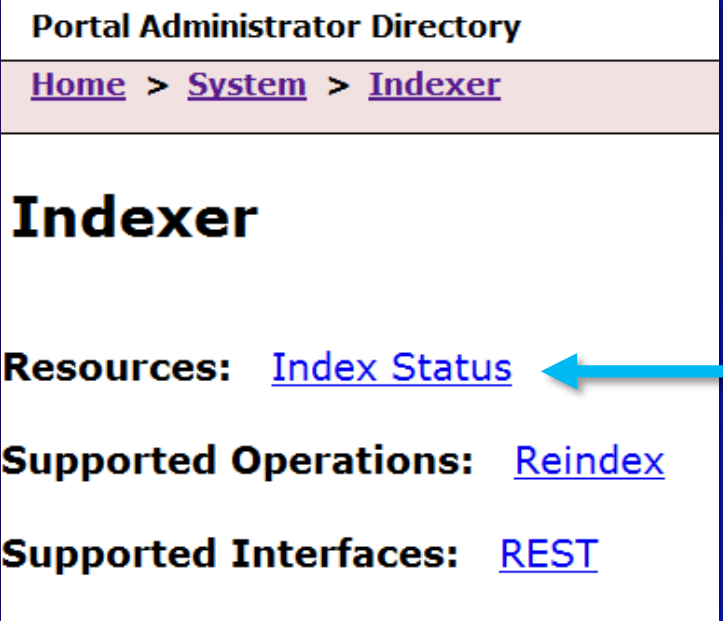
License file

Browse... No file selected.

Continue Portal Upgrade

Portal | Indexer

- Starting at 10.7
 - No need to manually Reindex if content is on a file system
- Upgrading to a version not 10.7 or Higher
 - Manually run a full Reindex
 - Ensures all New and Existing content is searchable
 - Ensures Portal knows where to find content



Portal Administrator Directory

[Home](#) > [System](#) > [Indexer](#)

Indexer

Resources: [Index Status](#)

Supported Operations: [Reindex](#)

Supported Interfaces: [REST](#)

Portal | Indexer

Portal Administrator Directory

[Home](#) > [System](#) > [Indexer](#) > [Status](#)

Index Status

Type	Count
users	
groups	
search	

Supported Interfaces:

Portal Administrator Directory

[Home](#) > [System](#) > [Indexer](#) > [Reindex](#)

Reindex

Mode

Include list (in CS)

Format

Portal Administrator Directory

[Home](#) > [System](#) > [Indexer](#)

Indexer

Resources: [Indexer](#)

Supported Operations:

Supported Interfaces:

Portal Administrator Directory

[Home](#) > [System](#) > [Indexer](#) > [Status](#)

Index Status

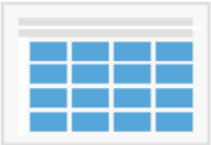
Type	Count in store	Count in index
users	39	39
groups	262	262
search	7091	7091

Supported Interfaces: [REST](#)

Portal | Living Atlas Content

- Starting at 10.7
 - Content is upgraded during a post-upgrade operation
- Upgrading to a version not 10.7 or Higher
 - Manually run the Living Atlas Upgrade

Configure Living Atlas Content [?](#)




Access Living Atlas content in your portal.

Note: Clicking Configure updates Living Atlas content in your portal and saves configuration changes. Content that is configured is shared with all users in your organization.

Check the box for the additional types of Living Atlas content you would like to enable in your portal, provide ArcGIS Online organizational account credentials for accessing them and click Configure. Using premium content in the portal consumes credits from the specified ArcGIS Online account.

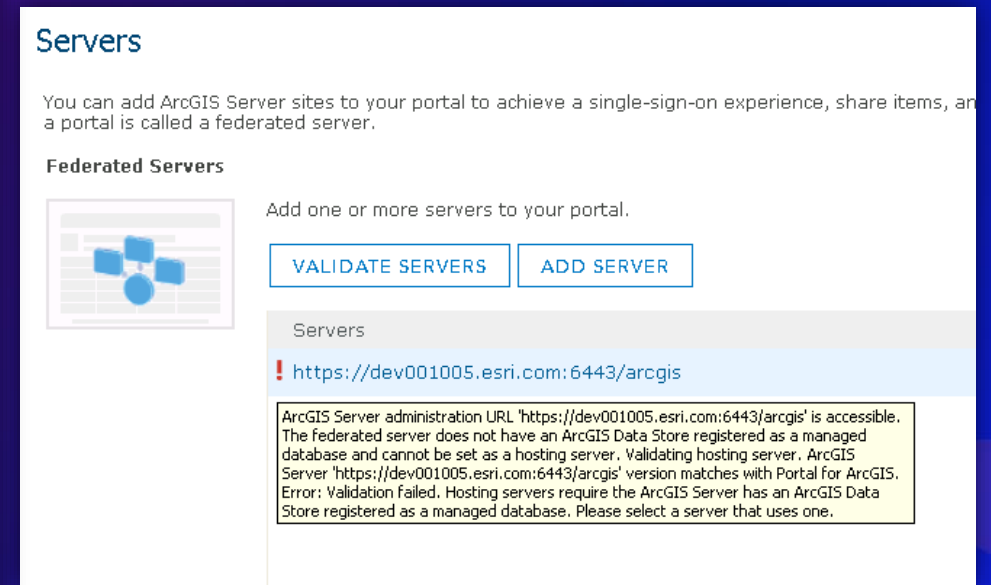
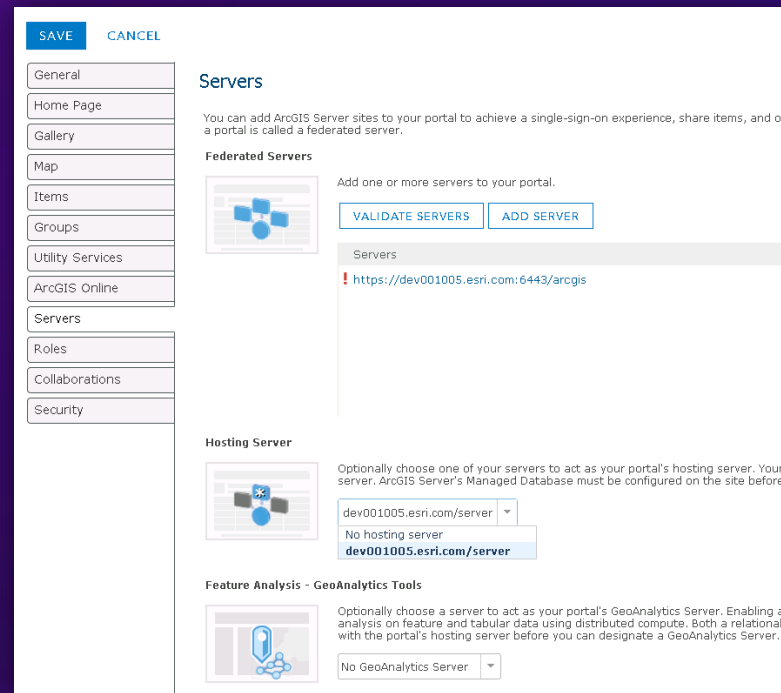
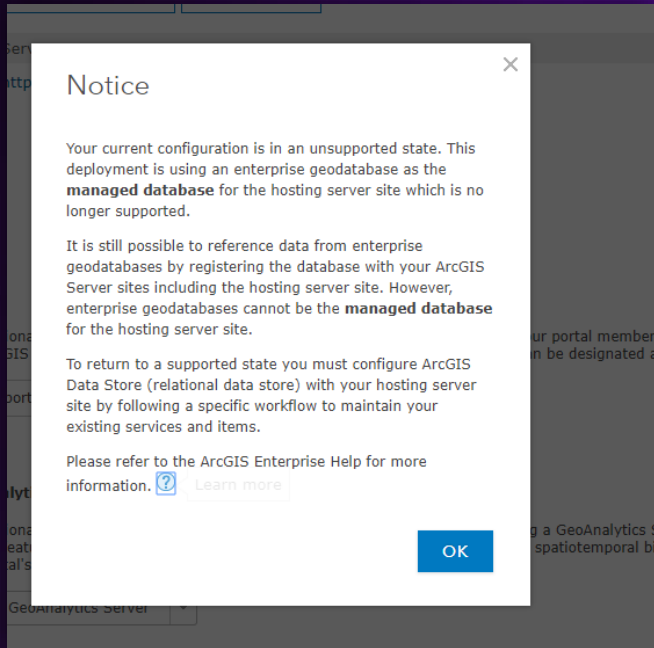
To disable an existing type of content, uncheck the account checkbox and click Configure.

Subscriber Premium (requires credits )

[UPGRADE CONTENT](#) [CONFIGURE](#)

Data Store | Managed Database

- Starting at 10.6.1
 - ArcGIS Datastore only supported as the Managed Database
 - Enterprise Geodatabases no longer supported as the Managed Database



Portal | Licensing



Members

10.2 – 10.4.1



Level-1 & Level-2

10.5 – 10.6.1



User Types

10.7 - ...

Portal | Licensing



Portal | Licensing



Portal | Licensing



Standard (Temporary)

210 assigned  -210 available | 0 total

Compatible add-on licenses

Compatible roles

 Expired

Lite (Temporary)

3 assigned  -3 available | 0 total

Compatible add-on licenses

Compatible roles

 Expired

Portal | Highly-Available Upgrades

Pre 10.6.1

- Had to Unregister standby
- No validation if it was done

10.6.1

- No need to Unregister standby
- Had to Continue Upgrade primary

10.7

- Continue Upgrade either machine

Portal | Upgrades

	Upgrading To															
	10.2	10.2.1	10.2.2	10.3	10.3.1	10.4	10.4.1	10.5	10.5.1	10.6	10.6.1	10.7	10.7.1	10.8	10.8.1	10.9
10.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
10.2		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗
10.2.1			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗
10.2.2				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗
10.3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
10.3.1						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗



Error

There was an error when attempting to upgrade the existing portal.

Upgrade from 10.2.1 to 10.8.0 is no longer supported. Portal for ArcGIS 10.7.x will be the last major release series to support direct upgrades from the 10.2 series. This includes versions 10.2, 10.2.1, and 10.2.2. Future releases will support upgrades from version 10.3 onwards.

For more information, please view the log messages located in the content directory specified during setup (C:\arcgisportal\logs).

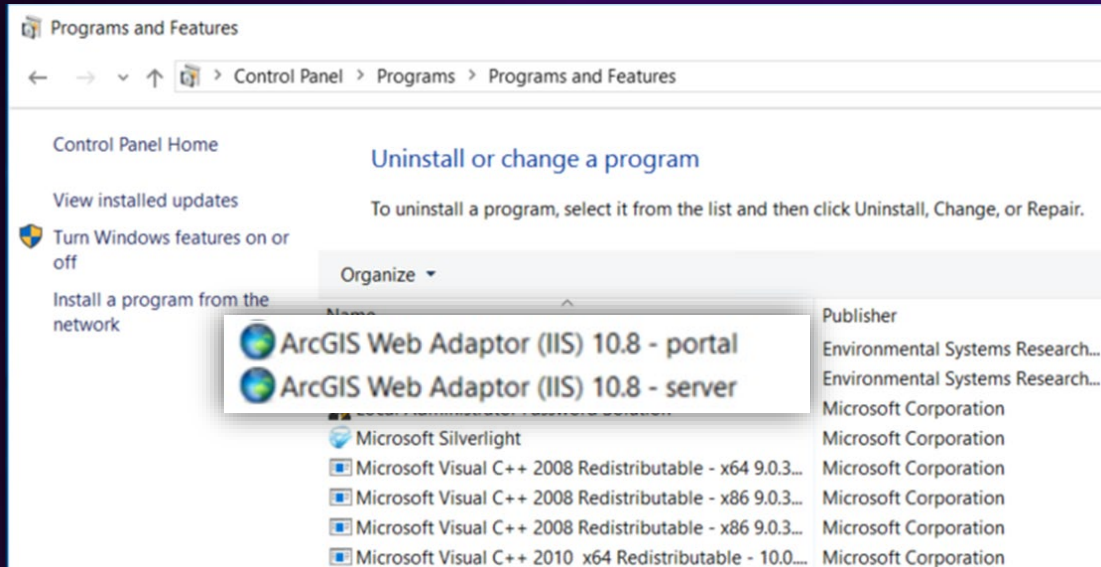
OK

ArcGIS Web Adaptor

Upgrading

ArcGIS Web Adaptor | Upgrades

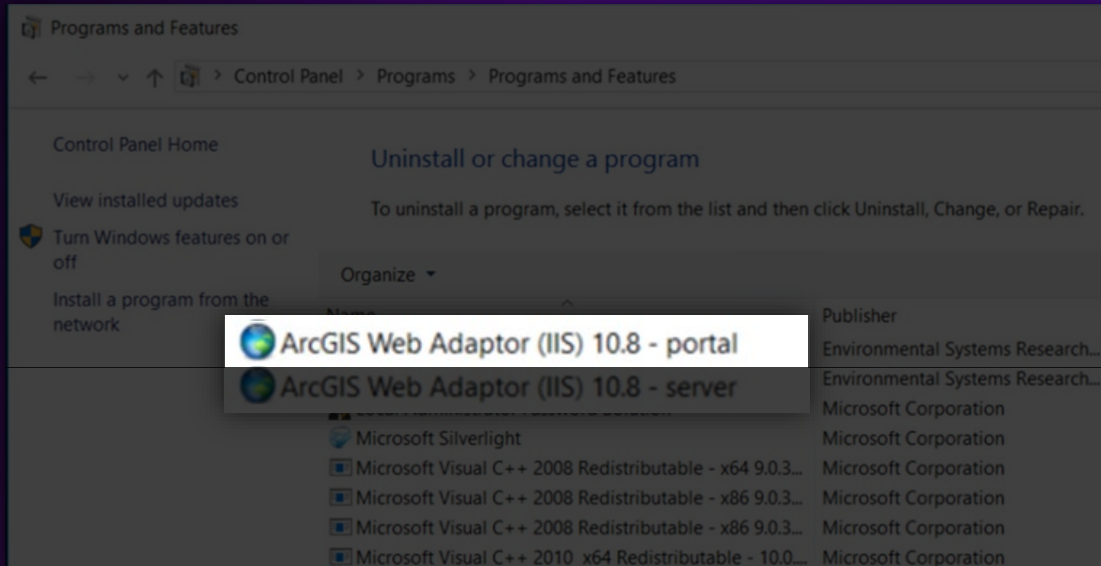
- Take note of the existing Web Adaptor Name
 - You will use the same name when configuring



```
root@ip-10-0-0-59: /opt/tomcat_arcgis/webapps
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps# pwd
/opt/tomcat_arcgis/webapps
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps# ls
host-manager portal portal.war server server.war
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps# █
```

ArcGIS Web Adaptor | Upgrades

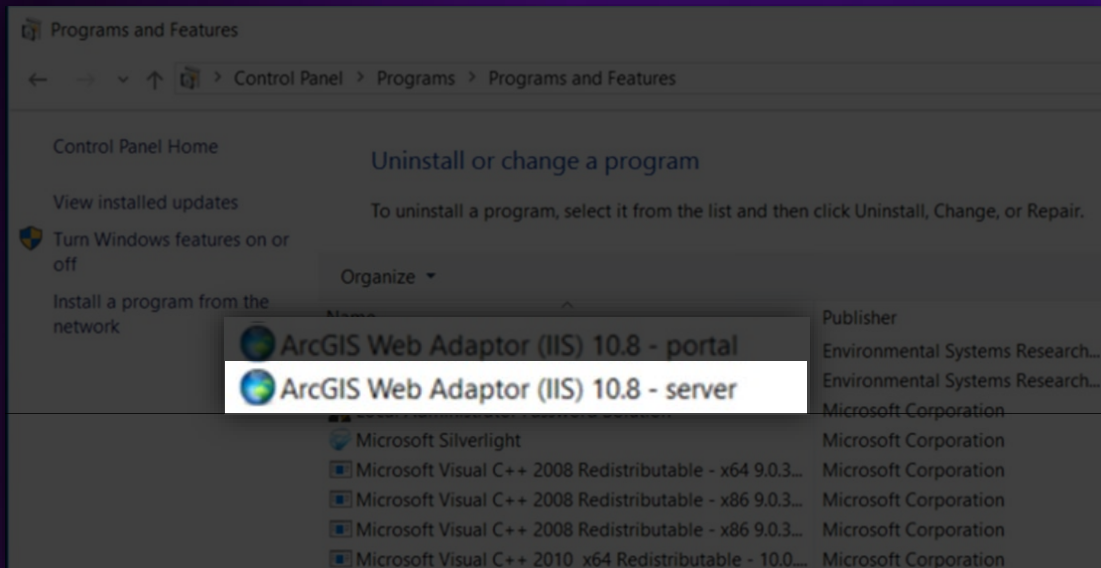
- Take note of the existing Web Adaptor Name
 - You will use the same name when configuring



```
root@ip-10-0-0-59: /opt/tomcat_arcgis/webapps
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps# pwd
/opt/tomcat_arcgis/webapps
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps# ls
host-manager  portal  portal.war  server  server.war
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps#
```

ArcGIS Web Adaptor | Upgrades

- Take note of the existing Web Adaptor Name
 - You will use the same name when configuring



```
root@ip-10-0-0-59: /opt/tomcat_arcgis/webapps
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps# pwd
/opt/tomcat_arcgis/webapps
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps# ls
host-manager  portal  portal.war  server  server.war
root@ip-10-0-0-59:/opt/tomcat_arcgis/webapps#
```

ArcGIS Web Adaptor | Upgrades

- **Uninstall Previous Version**
- **Install the Upgraded Version**
 - Use the same Web Adaptor Name
- **Configure new Web Adaptor**
- **Introduced at 10.8**
 - IIS requirement for 'WebSocket Protocol'



The background features a vibrant, abstract design with overlapping shapes in shades of purple, pink, orange, and blue. A faint, stylized map or topographic overlay is visible, particularly on the right side, showing contour lines and a grid pattern. A prominent yellow arc curves across the right side of the image.

ArcGIS Server

Upgrading

ArcGIS Server | Upgrades

- **ArcGIS Server 10.5 and beyond**
 - Continue Server Upgrade...
- Hosting Server must be at the same version as Portal for ArcGIS
- Other federated ArcGIS Server roles that are at a minimum of 10.5 can be upgraded at a later time, unless promoted in Portal for a specific purpose.
 - i.e. GeoAnalytics, Raster Analytics, etc.

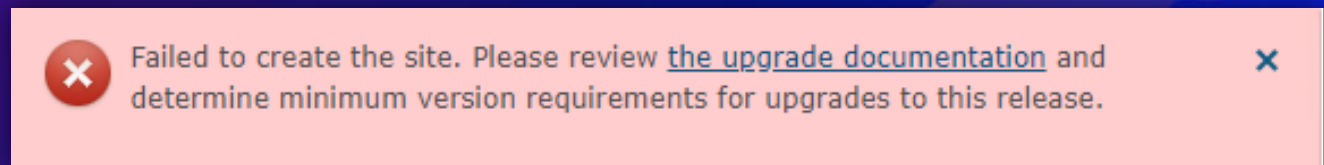
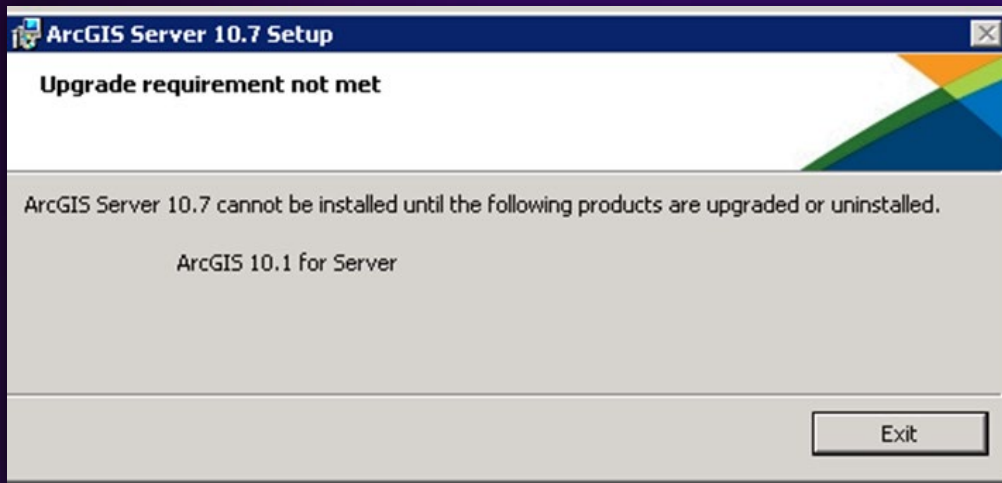


ArcGIS Server | Multi-Cluster Sites

- **ArcGIS Server 10.7 and beyond**
 - Multiple Server clusters within ArcGIS Server Site are no longer supported
- During an upgrade, if you have multiple server clusters:
 - 'Default' cluster will be created (if not already created)
 - The following will be moved to the 'Default' cluster
 - All ArcGIS Servers
 - All Services (includes System & Utility Services)
 - All Services will be in a 'STOPPED' state
 - Services will need to be manually started

ArcGIS Server | Upgrades

	Upgrading To															
	10.2	10.2.1	10.2.2	10.3	10.3.1	10.4	10.4.1	10.5	10.5.1	10.6	10.6.1	10.7	10.7.1	10.8	10.8.1	10.9
10.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
10.2		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗
10.2.1			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗
10.2.2				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗
10.3					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
10.3.1						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗



The background features a vibrant, abstract design with wavy, layered shapes in shades of blue, purple, pink, and orange. A faint topographic map is visible in the upper right quadrant, overlaid on the colorful background. A thin yellow arc curves across the right side of the image.

ArcGIS Data Store

Upgrading

ArcGIS Data Store | References

- Review the latest documentation

- <https://enterprise.arcgis.com/en/portal/latest/administer/windows/upgrade-data-store.htm>

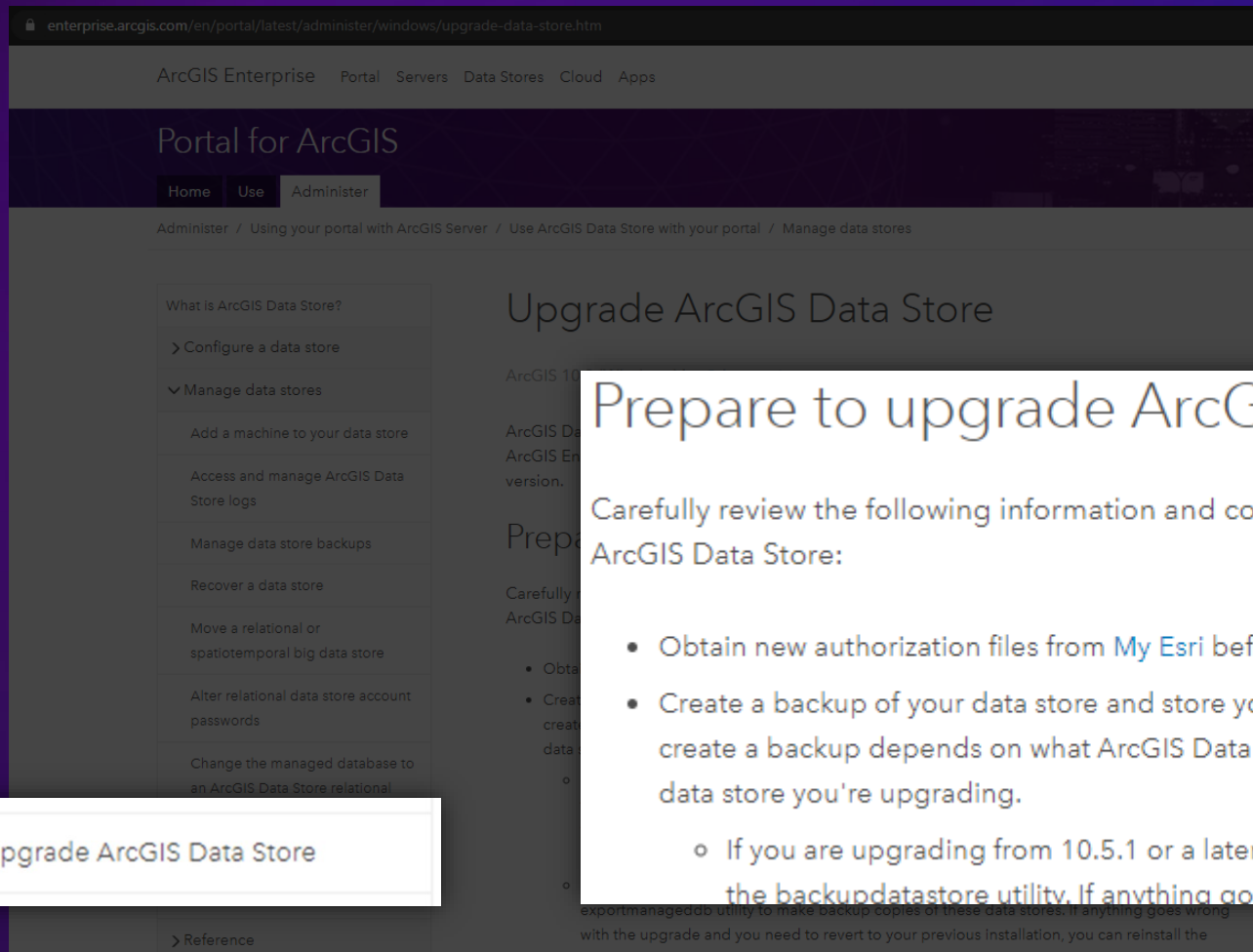
The screenshot shows the ArcGIS Enterprise Portal interface. At the top, there is a navigation bar with 'ArcGIS Enterprise', 'Portal', 'Servers', 'Data Stores', 'Cloud', and 'Apps'. Below this is the 'Portal for ArcGIS' header with 'Home', 'Use', and 'Administer' tabs. The main content area is titled 'Upgrade ArcGIS Data Store' and includes a breadcrumb trail: 'Administer / Using your portal with ArcGIS Server / Use ArcGIS Data Store with your portal / Manage data stores'. A left-hand navigation menu lists various tasks, with 'Upgrade ArcGIS Data Store' highlighted. The main content area contains the following text: 'ArcGIS 10.8 (Windows) | Other versions v'. Below this, it states: 'ArcGIS Data Store is registered with a GIS Server site, which you set as the hosting server for an ArcGIS Enterprise deployment. You must upgrade all components of this system to the same version.' The section 'Prepare to upgrade ArcGIS Data Store' follows, with the instruction: 'Carefully review the following information and complete any required actions before you upgrade ArcGIS Data Store:'. A bulleted list of instructions is provided: '• Obtain new authorization files from My Esri before upgrading to 10.8.', '• Create a backup of your data store and store your backup files in a remote, secure location. How you create a backup depends on what ArcGIS Data Store version you're upgrading from and the type of data store you're upgrading.', and two sub-points: '◦ If you are upgrading from 10.5.1 or a later release, create a full backup of each data store using the backupdatastore utility. If anything goes wrong with the upgrade and you need to revert to your previous installation, you can reinstall the older version of ArcGIS Data Store software and use these backup files and the restoredatastore utility to restore your data.', and '◦ If you are upgrading a 10.5 or earlier release tile cache or relational data store, use the exportmanageddb utility to make backup copies of these data stores. If anything goes wrong with the upgrade and you need to revert to your previous installation, you can reinstall the older version of ArcGIS Data Store software and use the restoredatastore utility to restore your data.'

Note: 10.9 Documentation available at the time of release.

ArcGIS Data Store | References

- Review the latest documentation

- <https://enterprise.arcgis.com/en/portal/latest/administer/windows/upgrade-data-store.htm>



Note: 10.9 Documentation available at the time of release.

Prepare to upgrade ArcGIS Data Store

Carefully review the following information and complete any required actions before you upgrade ArcGIS Data Store:

- Obtain new authorization files from [My Esri](#) before upgrading to 10.8.
- Create a backup of your data store and store your backup files in a remote, secure location. How you create a backup depends on what ArcGIS Data Store version you're upgrading from and the type of data store you're upgrading.
 - If you are upgrading from 10.5.1 or a later release, [create a full backup](#) of each data store using the [backupdatastore](#) utility. If anything goes wrong with the upgrade and you need to revert to

ArcGIS Data Store | Upgrades

- **Starting at 10.6**

- No longer perform an uninstall/install upgrade of ArcGIS Datastore
 - In-place upgrades only supported

- **Prior to 10.7**

- HA configurations required to upgrade Primary before upgrade Standby data store

- **10.7 and up**

- Upgrade from either the Primary or Standby data store
 - Upgrading multi-machine data stores
 - Install ArcGIS Data Store on all data store machines
 - Do NOT uninstall ArcGIS Data Store before installing new version
 - Only on one of the Data Store machines, execute the configuration command

ArcGIS Data Store | Upgrades

- Starting at 10.7



Relational

Primary

Install New Version

Secondary

Install New Version

Configure Data Store
Choose One Machine



Tile Cache

Primary

Install New Version

Secondary

Install New Version

Configure Data Store
Choose One Machine



Spatiotemporal

Machine 1

Install New Version

Machine 2

Install New Version

Machine 3...

Install New Version

Configure Data Store
Choose One Machine

ArcGIS Data Store | Tile Cache

- After upgrade to 10.8



Tile Cache

Primary

Secondary

ArcGIS Data Store | Tile Cache

- Beginning with ArcGIS Data Store 10.8



Tile Cache

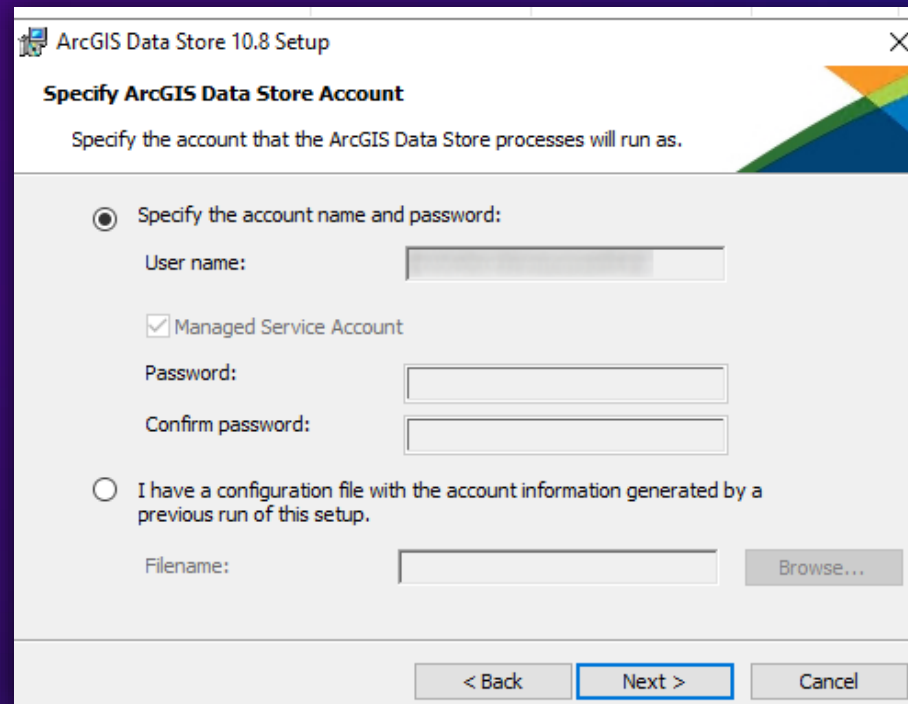
Machine 1

Machine 2

Machine 3...

ArcGIS Data Store | Group Managed Service Accounts

- Starting at 10.8
 - Support gMSA's
 - The ArcGIS Enterprise Builder does not yet support gMSAs
 - Previously configured gMSA as run-as account will be maintained
 - You cannot change to a gMSA during an upgrade



The screenshot shows the 'ArcGIS Data Store 10.8 Setup' window. The title bar reads 'ArcGIS Data Store 10.8 Setup'. The main heading is 'Specify ArcGIS Data Store Account'. Below the heading is the instruction: 'Specify the account that the ArcGIS Data Store processes will run as.' There are two radio button options. The first option, 'Specify the account name and password:', is selected. It includes a 'User name:' text box, a checked 'Managed Service Account' checkbox, a 'Password:' text box, and a 'Confirm password:' text box. The second option, 'I have a configuration file with the account information generated by a previous run of this setup.', is unselected. It includes a 'Filename:' text box and a 'Browse...' button. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'.

ArcGIS Data Store | Upgrades

- Create Backups Prior to upgrading !!
- Verify information is not being written to the data store during upgrade
 - Verify Hosted layers are not writing to the data store
 - Stop the ArcGIS GeoEvent Server service
 - Stop the ArcGIS GeoAnalytics Server
 - Stop the ArcGIS Mission Server
 - Verify Notebooks are not running or scheduled to run
 - Pause location tracking



Validation After Upgrade

Upgrading

Validate Upgrade

- **Login to Portal for ArcGIS**

- Confirm all Federated Servers Validate
- Check the Portal index status in the Portal admin directory
- Check the TLS settings (may need to be updated)

- **Publish Items**

- Publish to Portal for ArcGIS and to ArcGIS Server
- Common Workflows:
 - From Portal 'my content' – add from my computer
 - Server Manager
 - Publish items from ArcGIS Pro and/or ArcMap

- **If upgraded to 10.7 or higher**

- You may need to reassign members of the portal to a valid user type
 - In some cases, users may be assigned 'Standard (Temporary)' or 'Lite (Temporary)'

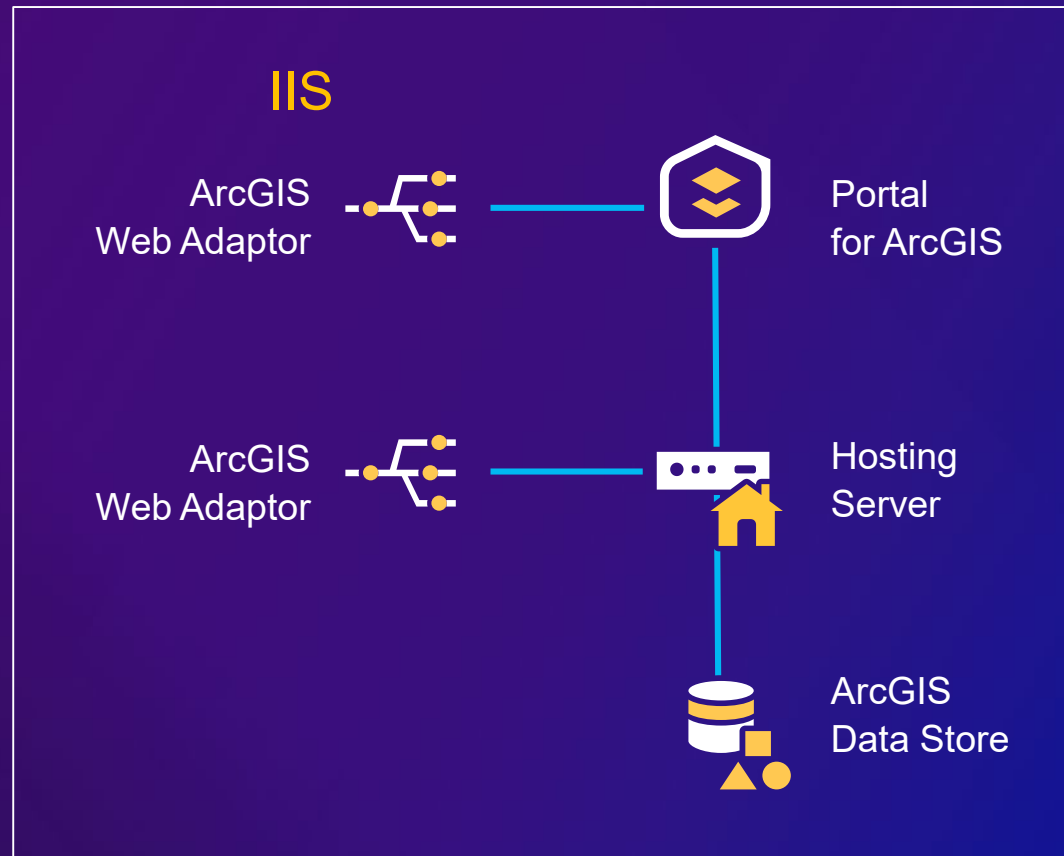
The ArcGIS logo is a white stylized 'A' inside a blue hexagon, centered on the slide. The background features a dark blue and purple gradient with abstract, colorful shapes and patterns, including a map-like texture on the left and a mountain range silhouette at the bottom right.

Upgrade ArcGIS Enterprise 10.8.1 to 10.9

Demo

ArcGIS Enterprise | Upgrade

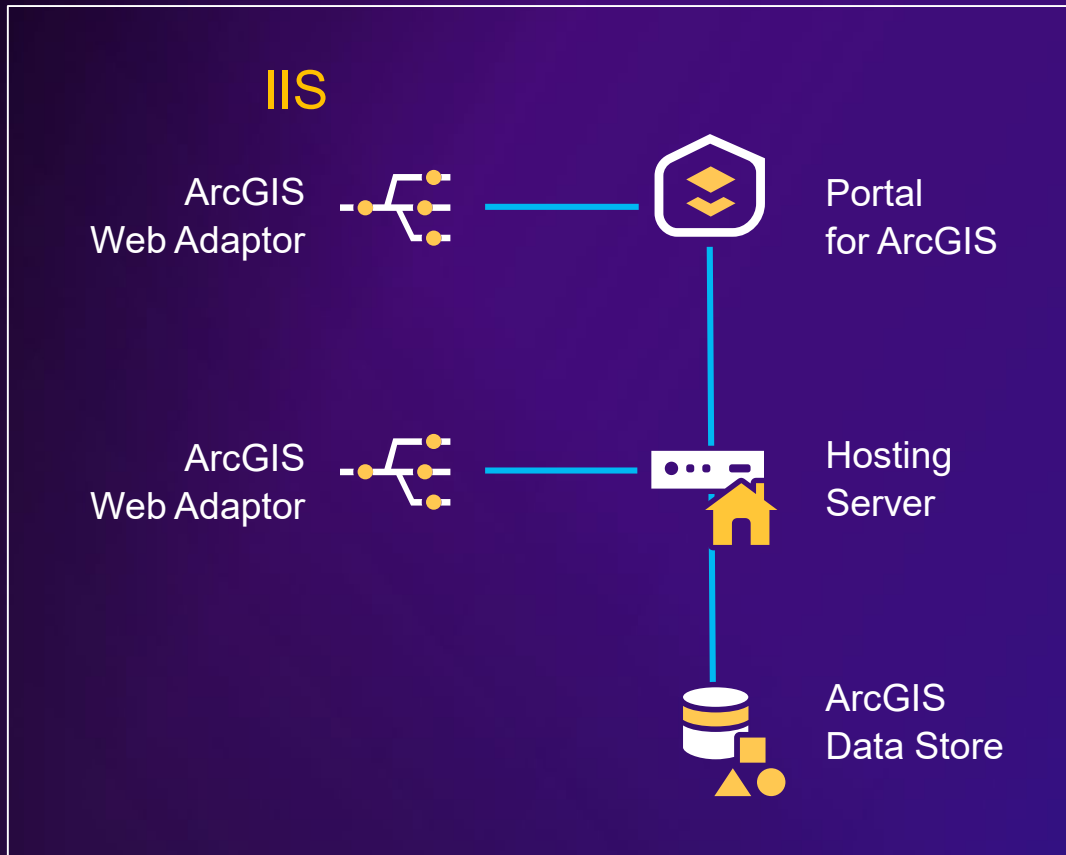
- Windows Server





ArcGIS Enterprise | Upgrade

- Windows Server



Upgrade Steps

1. Portal for ArcGIS
2. ArcGIS Web Adaptor (*portal*)
3. Web Styles
4. ArcGIS Server
5. ArcGIS Web Adaptor (*server*)
6. ArcGIS Data Store
(*Relational / Tile Cache*)

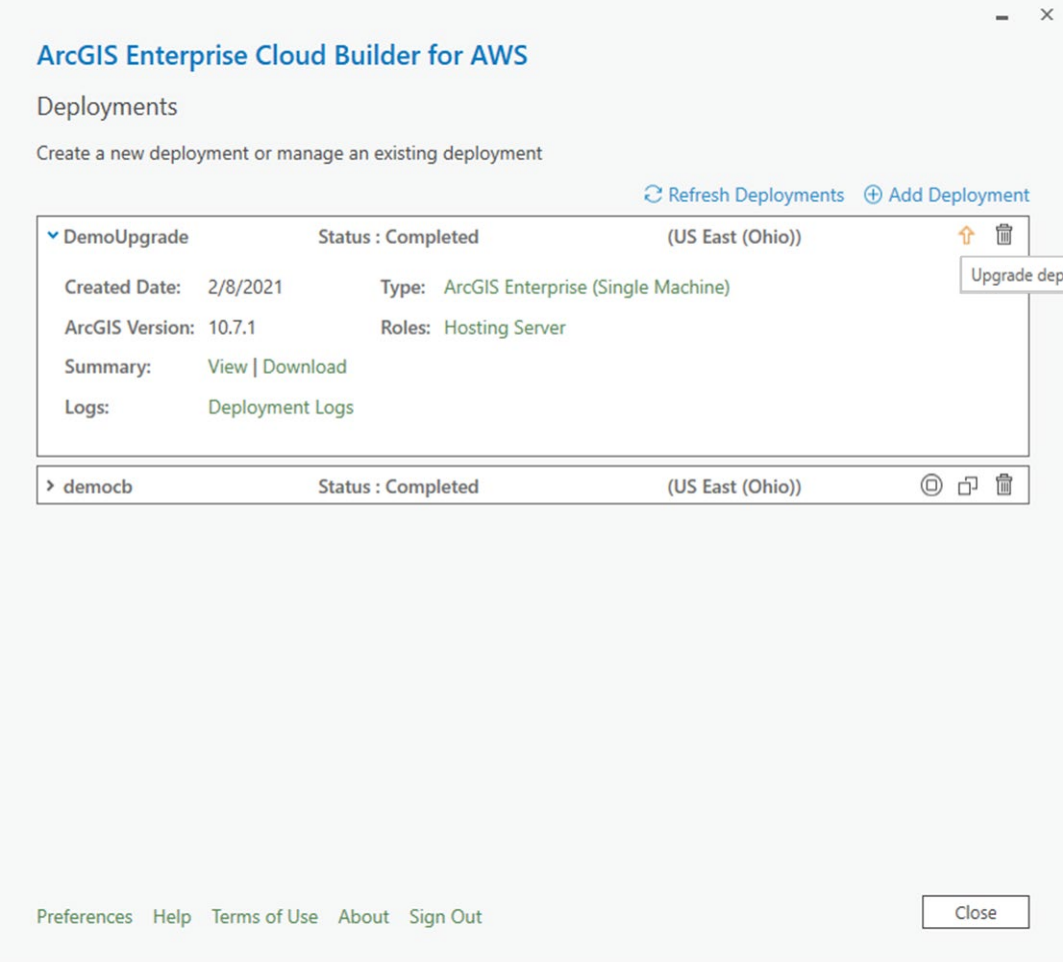
Upgrade Considerations

- **Automated Upgrades**



Upgrade Considerations

- Automated Upgrades



The screenshot displays the 'ArcGIS Enterprise Cloud Builder for AWS' interface. At the top, it says 'Deployments' and 'Create a new deployment or manage an existing deployment'. There are two buttons: 'Refresh Deployments' and 'Add Deployment'. Below this is a table of deployments:

Deployment Name	Status	Region	Actions
▼ DemoUpgrade	Completed	(US East (Ohio))	↑ (Upgrade) 🗑️ (Delete)
Created Date: 2/8/2021 Type: ArcGIS Enterprise (Single Machine)			
ArcGIS Version: 10.7.1 Roles: Hosting Server			
Summary: View Download			
Logs: Deployment Logs			
> democb	Completed	(US East (Ohio))	🔍 📄 🗑️

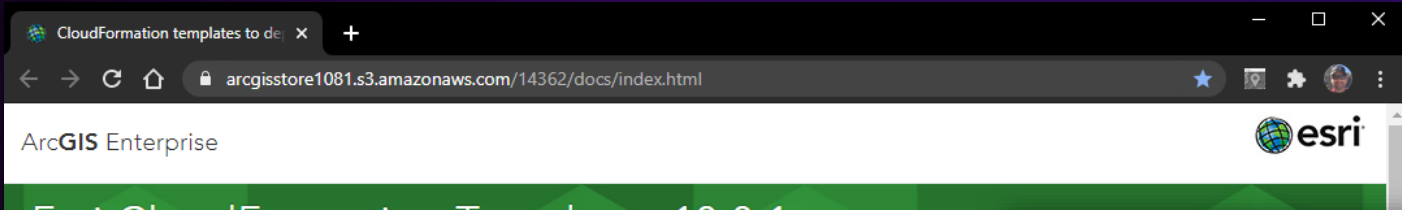
At the bottom of the interface, there are links for 'Preferences', 'Help', 'Terms of Use', 'About', and 'Sign Out', along with a 'Close' button.



Upgrade Considerations



• <https://arcgisstore1081.s3.amazonaws.com/14362/docs/index.html>



Esri CloudFormation Templates 10.8.1

CloudFormation templates to deploy ArcGIS Enterprise Web Services

The templates listed on this page use CloudFormation to create an ArcGIS Enterprise 10.8.1 deployment or ArcGIS Server or upgrade existing deployments to 10.8.1.

Looking for a different Esri template version?

10.8	10.7.1	10.7	10.6.1	10.6	10.5.1	10.5	10.4
----------------------	------------------------	----------------------	------------------------	----------------------	------------------------	----------------------	----------------------

Table of Contents

- [To use the CloudFormation templates](#)
- [Esri Cloud Builder Command Line Interface for Amazon Web Services](#)
- [ArcGIS Enterprise CloudFormation templates](#)
 - [Create a VPC to deploy ArcGIS Enterprise](#)
 - [Deploy base ArcGIS Enterprise](#)
 - [Deploy additional ArcGIS Server deployments](#)
- [Stop and start all the EC2 instances in your deployment stack](#)
- [Automate CloudFormation stack creation using Python](#)

Upgrade to 10.8.1 Top of Page

Step 0: Before you upgrade, make a backup of the existing system. Before upgrading an ArcGIS Enterprise deployment, use the [webgisdr](#) tool installed with Portal for ArcGIS to create a backup of the ArcGIS Enterprise components. This backup allows you to restore your deployment using the same URLs if you encounter issues that require you to revert to your old deployment. Note: If you have a spatiotemporal big data store in your deployment, use the [ArcGIS Data Store backupdatastore utility](#) to create a backup of it, as it is not included in the backup created by the webgisdr tool.

Upgrade to 10.8.1 from 10.7, 10.7.1, or 10.8 with CloudFormation stack update

The following steps are for upgrading 10.7, 10.7.1, or 10.8 to 10.8.1. The initial deployments might be created from Esri sample cloudformation templates or ArcGIS Enterprise Cloud Builder Command Line Interface.

- [Upgrade stand-alone base ArcGIS Enterprise deployment](#)
- [Upgrade highly available base ArcGIS Enterprise deployment](#)
- [Upgrade ArcGIS Server deployment \(stand-alone and federated\)](#)

Upgrade to 10.8.1 using Chef automation

Chef Automation can help upgrade in-place and upgrade from 10.6.1 or older version to 10.8.1. The deployments might be created from Esri sample cloudformation templates or ArcGIS Enterprise Cloud Builder Command Line Interface.

- [Upgrade stand-alone base ArcGIS Enterprise on Windows.](#)
- [Upgrade stand-alone base ArcGIS Enterprise on Ubuntu.](#)
- [Upgrade highly available base ArcGIS Enterprise deployment on Windows.](#)
- [Upgrade highly available base ArcGIS Enterprise deployment on Ubuntu.](#)
- [Upgrade spatiotemporal big data store on Windows.](#)
- [Upgrade spatiotemporal big data store on Ubuntu.](#)
- [Upgrade ArcGIS GIS Server deployment on Windows.](#)
- [Upgrade ArcGIS GIS Server deployment on Ubuntu.](#)

Upgrade to 10.8.1 by running ArcGIS Enterprise Setups.

It is recommended to move all the instances out of the auto-scaling group, and upgrade the ArcGIS components as you would upgrade an on-premise deployment.

Upgrade Considerations



ArcGIS Enterprise



Esri CloudFormation Templates 10.9

CloudFormation templates to deploy ArcGIS Enterprise on Amazon Web Services

The templates listed on this page use CloudFormation to create an ArcGIS Enterprise 10.9 deployment or ArcGIS Server 10.9 roles on Amazon Web Services (AWS).

Upgrade Considerations

- **Automated Upgrades**

ArcGIS Enterprise Cloud Builder 10.8.1 for Microsoft Azure

Terms of Use Help About Settings Signout

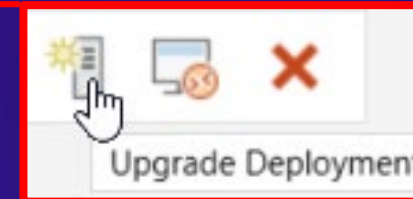
Deployments

Show V2 Sites V1 Sites Desktops

[demo-upgrade](#)

Deployed On:-	8 Feb 2021 13:19	Portal URL:-	http://demo-upgrade-azure.bd.esri.com/portal/home/
Version:-	10.7.1	Manager URL:-	https://demo-upgrade-azure.bd.esri.com/server/manager/
Role:-	ArcGIS Enterprise		

close



Summary | Benefits of Upgrading

- New Features, Functionality, Apps & Products

NEW

- Take advantage of Performance Enhancements



- Stay within the supported product lifecycle



- Security updates & bug fixes



Summary | Upgrade Considerations

- **Take snapshots of machines**
 - Verify all volumes are included in the snapshots

- **Verify backups**
 - In a test environment, test your backup and restore process

- **BACK UP Environment**
 - WebGISDR
 - ArcGIS Datastore (Relational, TileCache & Spatiotemporal)
 - Use the 'backupdatastore' utility
 - ArcGIS Server
 - Use the 'Backup' utility
 - Take backups of the content stores
 - Folders: arcgisportal , arcgisserver, arcgisdatastore

Summary | Automated Upgrades



ArcGIS Enterprise Builder

Upgrades Supported
At 10.6



CloudFormation Templates

ArcGIS Enterprise Cloud
Builder for Amazon Web
Services



ArcGIS Enterprise Cloud
Builder for Microsoft Azure



Advanced Automation

NEW



ArcGIS Enterprise on
Kubernetes



Summary | Resources

- **Upgrading ArcGIS Enterprise Documentation**

ArcGIS Enterprise

- <https://enterprise.arcgis.com/en/get-started/latest/windows/upgrade-arcgis-enterprise.htm>

ArcGIS Enterprise on Microsoft Azure

- <https://enterprise.arcgis.com/en/server/latest/cloud/azure/overview-arcgis-server-on-microsoft-azure.htm>

ArcGIS Enterprise on Amazon Web Services

- <https://enterprise.arcgis.com/en/server/latest/cloud/amazon/what-is-arcgis-server-on-aws.htm>



The background is a vibrant, abstract composition. It features a gradient of colors from deep purple and blue on the left to bright pink and orange on the right. There are several overlapping, semi-transparent shapes, including a large, curved yellow shape on the right side. The overall aesthetic is modern and energetic.

We want your feedback

Click on the [Session Survey link](#)
below this video window



esri®

THE
SCIENCE
OF
WHERE®