Data Appliance 6.0 for Arc**GIS**®

Data Collection Update for Windows®
ArcGIS 10.1 and 10.2 for Server

Quick Start Guide

Powered by ArcGIS

esri®

CUTTING EDGE NETWORKED STORAGE

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Overview

The purpose of the Quick Start Guide is to step you quickly and easily through the update of a Data Appliance 6.0 collection. This Quick Start Guide is for use with ArcGIS® 10.1 and 10.2 for Server. The update consists of the following steps:

Step 1   Unpack the Components
Step 2   Delete ArcGIS Services
Step 3   Shut Down Data Appliance for ArcGIS
Step 4   Remove Old/Install New Data Collection
Step 5   Power On Data Appliance for ArcGIS
Step 6   Verify New Data Collection
Step 6a   Assemble Import Disks
Step 7   Create Shares
Step 8   Configure ArcGIS Server to Use Cache Directory
Step 9   Publish Services
Step 10   Use Services

Before Starting

ArcGIS Server 10 SP5 or higher is required for Data Appliance 6.0. If you are planning to upgrade to ArcGIS 10.1 or 10.2 for Server, Esri recommends you do so prior to installing your collection. If you are using ArcGIS Server 10, please refer to the Quick Start Guide Data Appliance for ArcGIS 10 Data Collection Update for Windows. Services for Data Appliance for ArcGIS data collections installed on your Data Appliance for ArcGIS server will be unavailable during the installation process. This update should take approximately two hours to complete.

Important: It is imperative that care and precautions be taken when handling the data collection hard drives. The hard drives are sensitive to shock as well as electrostatic discharge. Make sure precautions are taken to eliminate any built-up static. The use of a grounding strap is highly recommended while handling the hard drives.

1 Unpack the Components

Your shipment contains one of the following Data Appliance for ArcGIS collections: World Premier Collection, World Small-Scale Collection, or North America Collection; a collection consists of two or more drives. Each drive is labeled with the collection name and version.

2 Delete ArcGIS Services

To update Data Appliance for ArcGIS collections, ArcGIS Services that utilize Data Appliance 5.1 services must be deleted from ArcGIS for Server before you disconnect Data Appliance 5.1.

A. Log in to ArcGIS for Server using Data Appliance for ArcGIS data account with administrative privileges.
B. Start ArcGIS Server Manager and log in using your account.
C. Click **Services > Manage Services**.
D. Check each service to select the services to stop.
E. Locate the service in the Services module and click **Delete**. The service is deleted from your server.

Map Services	Globe Services	Geocode Services
DeLorme_World_Base_Map	EESRI_Elevation_World	ESRI_Places_World
NatGeo_World_Map	USGS_Elevation_US	
Ocean_Basemap		
USA_Topo_Maps		
World_Boundaries_and_Places		
World_Boundaries_and_Places_Alternate		
World_Imagery		
World_Light_Gray_Base		
World_Light_Gray_Reference		
World_Physical_Map		
World_Shaded_Relief		
World_Street_Map		
World_Topo_Map		
World_Transportation		

3 Shut Down Data Appliance for ArcGIS

Although Data Appliance for ArcGIS has hot-swappable hard drive bays, hot swapping an entire data collection is not supported.

A. Log in to Data Appliance for ArcGIS using the **Administrator** account.
B. Click the **Start** menu, expand the **Shutdown** menu, and select **Shut down**.

C. Allow Data Appliance for ArcGIS to completely shut down.

4 Remove Old/Install New Data Collection

A. With Data Appliance for ArcGIS powered off, remove the existing data collection hard drives from the Data Appliance for ArcGIS system.
B. Place the removed hard drives in a secure and static-free location.
C. Continue removing all hard drives for the collection to be updated. Do not leave any hard drive from the old data collection in Data Appliance for ArcGIS.
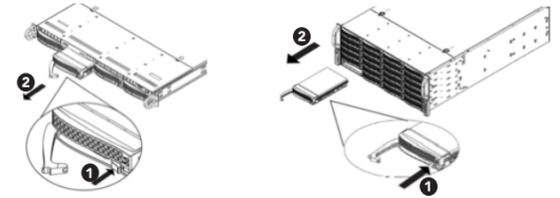
Depending on the configuration being serviced, use the above illustrations as guides, with 1U on the left and 4U on the right.

With Data Appliance for ArcGIS still powered off, install the new data collection hard drives into Data Appliance for ArcGIS. Note that the new hard drives are labeled as to what collection they belong to as well as the number of drives in the set, for example, World Premier Collection Drive 1 of 28. Each hard disk drive is labeled to match the label for the hard disk drive bay it should be installed into.

Although it does not matter which slot a drive is installed in, it is recommended that drives be installed in order, starting from the top left, filling in the drive bays across a row, then proceeding to the row below.

D. Note the label of the hard drive that is to be installed into Data Appliance for ArcGIS to find its position. Make sure all drives from each set are present. If you find that a drive is missing, **immediately stop the installation procedure and contact Cutting Edge Networked Storage technical support**.
E. Insert the replacement drive tray into the chassis. Make sure to press the drive carrier handle closed until it clicks in place.
F. Make sure all drives from all the data collections are installed in Data Appliance for ArcGIS.

5 Power On Data Appliance for ArcGIS

To turn on Data Appliance for ArcGIS, press the power button located on the front of the computer equipment rack.

Note: While booting up, the Windows 2012 Storage Server operating system performs a number of system checks to verify the integrity of the file system. During this time, the hard drive activity LEDs on Data Appliance for ArcGIS will blink. Please do not interrupt the system by powering it off or rebooting it.

6 Verify New Data Collection

Before utilizing the data collection, the health of the RAID arrays must be verified. Data Appliance for ArcGIS ships with the LSI/3ware 3DM2 utility pre-installed. This utility will be used to verify the status of the datasets.

A. Log in to Data Appliance for ArcGIS as **Administrator**.
B. From the desktop, locate the **Connect to 3DM2** shortcut.
C. Double-click **Connect to 3DM2** to start the 3DM2 utility.
D. Disregard the security warning and click **Continue to website (not recommended)**.
E. On the **Login** drop-down menu, select **Administrator**.

F. Enter the password "3ware" and click **Login**.
G. The 3DM2 summary screen is displayed. Note the Status column.

H. If the status for all collections is **OK** and green, the arrays are healthy and ready to use. If something other than **OK** is displayed, click **Information** and click **Unit Information**. This displays the status of each RAID array (unit).
   1. If the status is **Verifying**, the datasets are ready to use. (Verify procedures are run on schedules to preemptively correct any errors.)
   2. If the status is **Degraded** or **Offline**, immediately stop and contact Cutting Edge Networked Storage technical support.
I. Click **Logout** to log out of the 3DM2 utility. Once you have logged out, exit the web browser.

6a Assemble Import Disks

This step is required only if you are upgrading to World Premier 6.0 Collection.

After verifying that the two RAID arrays that make up the World Premier 6.0 collection are healthy, the volume on the two arrays needs to be imported.

A. Log in to Data Appliance for ArcGIS using the **Administrator** account.
B. Click the **Start** menu, right-click **Computer**, and select **Manage**.
C. In Server Manager, expand **Storage** on the left side menu, then click **Disk Management**.
D. Two new disks are displayed. Each disk has a yellow exclamation mark designating it as a foreign disk. Right-click either disk and select **Import Foreign Disks**.

6a — Assemble Import Disks (continued)

E. In the Import Foreign Disks dialog box, verify that "2 of 2 Disks" are present and click **OK**.

F. In the Foreign Disk Volumes dialog box, click **OK**.
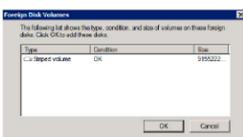
G. The disks are now online.

H. World Premier Collection volume now has a drive letter.

7 — Create Shares

Data Appliance for ArcGIS must be configured to share the data collections.

A. Log in to Data Appliance for ArcGIS as **Administrator**.
B. Click **Start > Administrative Tools > Computer Management**.
C. In the Computer Management application, click **Shared Folders** to expand the tree and right-click the **Shares** folder. Select **New Share**.
D. In the Create A Shared Folder Wizard, click **Next** to begin.
E. For Folder path, click **Browse** and navigate to the hard drive with the data collection (usually drive E). Select the cache directory and click **OK**.

F. Click **Next**.
G. In the Name, Description, and Settings dialog box, enter the **Share name** for cache or source documents and enter the **Share path** for the appropriate directory.
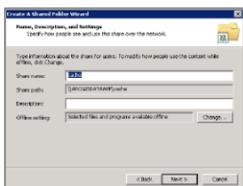
H. Click **Next**.
I. Select the **Customize Permissions** option and click **Custom**.
J. In the Customize Permissions window, click **Add**.
K. Add the following users and groups if needed: Administrator and arcgis.
L. Make sure the permissions for the users and groups are set to Full Control.
M. Repeat steps 7C through 7L for the source documents share.

8 — Configure ArcGIS Server to Use Cache Directory

ArcGIS 10.1 or 10.2 for Server maintains a list of directories in which it can find map and globe cache tiles. You need to explicitly add the Data Appliance cache directory to this list.

A. Log in to ArcGIS Server using the Data Appliance for ArcGIS data account with administrative privileges.
B. Start ArcGIS Server Manager and log in using your ArcGIS for Server account.
C. Click the **Site** tab.
D. On the **View** menu on the left, click **Directories**.
E. Click **Add Directory** on the right below the Directories description.
F. Enter a **Name**, for example, Cache. From the **Type** drop-down list, choose **Cache**.
G. For **Location**, enter the **path** to the cache folder on the ArcGIS Data Appliance data collection you made when you created shares, for example, \\ARCGISDATAAPP\cache.
H. You do not need to specify a Description, Cleaning Mode, or Maximum File Age.
I. Click **Add** to add the directory.

9 — Publish Services

The following instructions apply to map services. Information about globe services can be found in the help file on the *Data Appliance 6.0 for ArcGIS Help Documentation* DVD by opening arcgis_data_appliance.pdf.

Using ArcGIS Server Manager, you can publish a service definition file (.sd) as a service. To publish a service definition using Manager, follow these steps for each map service that you want to create:

A. Open ArcGIS Server Manager and log in.
B. Click **Services > Manage Services > Publish Service**.
C. Click the **Browse** button to navigate to the source_documents > service _definitions folder on the Data Appliance data collection, for example, \\ARCGISDATAAPP\source_documents\service_definitions.
D. Select the **service definition** you want to publish, for example, Ocean _Basemap.sd. See the Services Reference Guide for 6.0 at the end of this document for a list of the Data Appliance map services.

9 — Publish Services (continued)
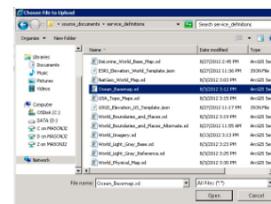
E. Click **Next**.
F. By default, the service definition is published to the server folder specified in the service definition configuration. You must publish the service definition to this root folder.
G. Optionally, choose the **GIS server cluster** that will host the published service definition. Click **Next**.
H. Optionally, choose to **enable** or **disable capabilities** for your service definition.
I. Click **Publish** to publish the service definition as a service. The new map service appears in the list of available services.

Ocean_Basemap (Map Service)
bathymetry, marine water body names, undersea feature names
Status: Started
Instances Running: 1
Instances in Use: 0
Maximum Instances:

The publish process uses the first directory in the server's list of cache directories. You need to change it to the data appliance cache directory created previously.

J. Click the **Stop** button to the right of the service name to stop the service.
K. Click the **Edit** button to edit the service properties.
L. Click **Caching** and change the **cache directory** setting to reference the Data Appliance collection.

M. Click **Save** to save your changes and click the **Start** button to restart the service.
N. Repeat this process for any other map services you want to publish.

10 — Use Services

For specific instructions on how to connect to and use the services, see the appropriate user guide for the ArcGIS application you are using.

Additional information can be found in the help file on the *Data Appliance 6.0 for ArcGIS Help Documentation* DVD by opening arcgis_data_appliance.pdf.

Services Reference Guide for 6.0

Map Services	Globe Services	Geocode Services
DeLorme_World_Base_Map	ESRI_Elevation_World	ESRI_Places_World[1]
NatGeo_World_Map	USGS_Elevation_US	
Ocean_Basemap		
USA_Topo_Maps		
World_Boundaries_and_Places		
World_Boundaries_and_Places_Alternate		
World_Imagery		
World_Light_Gray_Base		
World_Light_Gray_Reference		
World_Physical_Map		
World_Shaded_Relief		
World_Street_Map		
World_Topo_Map		
World_Transportation		

[1] Available on a separate DVD included with Data Appliance 6.0 for ArcGIS.

Resources

Cutting Edge Networked Storage provides several reference documents. These are available at **cuttedge.com/contact/DAWindows.html**.

The *Data Appliance 6.0 for ArcGIS Help Documentation* DVD is included in the box with your data collection drives. Refer to the help for additional details.

For an up-to-date online help system, system requirements, information on licensing, and more, visit **links.esri.com/data-appliance/6.0/tech-docs**.

Support

Esri Support
For information regarding the configuration and setup of ArcGIS services and usage, visit **support.esri.com/en/phoneSupport**.

For the most current information for all ArcGIS products, visit the ArcGIS Resources website at **resources.arcgis.com**.

Cutting Edge Networked Storage Support
For information and support regarding the Data Appliance for ArcGIS hardware, contact Cutting Edge Networked Storage using the following contact options:

Phone: 800-257-1666
E-mail: support@cuttedge.com
Website: cuttedge.com/contact/technical_support.html
Hours: Monday–Friday, 8:00 a.m.–5:00 p.m. (Pacific time)