

# ArcGIS® Data Appliance 2022

New User  
Quick Start Guide

Powered by Esri



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## Overview

The purpose of the Quick Start Guide is to walk you quickly and easily through the setup of ArcGIS® Data Appliance 2022. This Quick Start Guide is for use with ArcGIS Server. The setup consists of the following steps:

- Step 1** Unpack the Components
- Step 2** Install the Data Appliance
- Step 3** Cable the Data Appliance
- Step 4** Power On Data Appliance
- Step 5** System Licensing and Activation
- Step 6** Apply Windows Updates and Configure Network Settings
- Step 7** Verify the Data Collections
- Step 8** Create ArcGIS Users
- Step 9** Create Shares
- Step 10** Configure the Cache Directories
- Step 11** Publish Services
- Step 12** Use Services

## Before Starting

ArcGIS Server 10.7.1 or later is required for ArcGIS Data Appliance 2022. If you purchased a license for ArcGIS Data Appliance with ArcGIS Server, install ArcGIS Server before performing the steps in this Quick Start Guide. For more information on what's supported, visit [links.esri.com/data-appliance/2022/system-requirements](https://links.esri.com/data-appliance/2022/system-requirements).

**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 you handle the hard drives.

## 1 Unpack the Components

ArcGIS Data Appliance is delivered in multiple boxes containing the data collection hard disk drives and *ArcGIS Data Appliance 2022 Reference Content* USB flash drive with help documentation and World Places Locator.

If you purchased . . .	You received . . .
ArcGIS Data Appliance World Basic	Collection 1 and Basic Legacy
ArcGIS Data Appliance World Standard	Collection 2 and World Legacy*
ArcGIS Data Appliance World Advanced	Collection 3 and World Legacy*
ArcGIS Data Appliance North America Standard	Collection 4 and North America Legacy*
ArcGIS Data Appliance North America Advanced	Collection 5 and North America Legacy*

\* Esri Vector Basemaps and OSM Vector Basemaps ship separately on USB flash drives.

See [arcgis\\_data\\_appliance.pdf](#) on the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive for details on these collections.

For details on the hardware components, see [arxys.com/company/support](https://www.arxys.com/company/support) under Arxys Support Documentation, and select the ArcGIS Data Appliance tab.

## 2 Install the Data Appliance

ArcGIS Data Appliance ships with side rails that slide into the adjustable rails installed in the computer equipment rack. Depending on the depth of your rack cabinet, adjustments to the sliding rails may be required. Use the mounting screws provided to attach the sliding rails to your cabinet. Install ArcGIS Data Appliance into the computer equipment rack without the data collection hard disk drives installed.

See Arxys's Support page, [www.arxys.com/company/support/](https://www.arxys.com/company/support/), for additional documentation with detailed instructions.

- A. Install the data collection hard disk drives with Data Appliance powered off. Handle each drive with care and observe electrostatic discharge (ESD) best practices when handling the drives.
- B. Each data collection hard drive is labeled according to the collection it belongs to, as well as the number of drives contained in each data collection. Install the data collections in succession (i.e., Collection 1, Basic Legacy, etc.). Install the hard drives for each collection sequentially (i.e., Disk 1 of 8, Disk 2 of 8, etc.). The installation process varies according to which data collections you purchased. Insert the drive tray into the chassis. Press the drive carrier handle closed until it clicks into place.
- C. Verify that all drives from each set are present. If you find that a drive is missing, **immediately stop the installation procedure and contact Arxys technical support.**
- D. Make sure all drives from the data collections are installed in ArcGIS Data Appliance.

## 3 Cable the Data Appliance

ArcGIS Data Appliance hardware requires two AC power sources. Two power cords are included. Connect both power cords. Connect a monitor to the video port as well as a keyboard and mouse to their respective USB ports. Network connectivity is required during the operation of ArcGIS Data Appliance. Plug an Ethernet cable into the Ethernet port of Data Appliance. For detailed instructions, see [arxys.com/company/support](https://arxys.com/company/support) under Arxys Support Documentation, and select the ArcGIS Data Appliance tab.

## 4 Power On Data Appliance

To turn on ArcGIS Data Appliance, press the power button located on the front of Data Appliance. The Microsoft® Windows Server 2019 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 will blink. Allow Data Appliance to boot uninterrupted.

## 5 System Licensing and Activation

Once the system boots and reaches the final section of Windows Setup, follow the on-screen instructions.

- A. Select the appropriate Country/Region, App Language, and Keyboard layout. Click **Next**.
- B. Type the product key found on the Microsoft Certificate of Authenticity (COA) label located on the top front left corner of the system and click **Next**.
- C. Accept the Microsoft Software License Terms by clicking **Accept**.
- D. Follow the instructions to set the administrative password for the system and click **Finish**.
- E. At the login screen, press **Ctrl+Alt+Delete**.
- F. Select the **Administrator** account and log in to display the Windows desktop.

**Note:** Refer to the ArcGIS Data Appliance User Guide for Windows on the Arxys website for information on activating Windows without internet access or for additional details on system setup.

## 6 Apply Windows Updates and Configure Network Settings

**Read the following before continuing:** ArcGIS Data Appliance ships with the Microsoft Windows Server 2019 operating system. Microsoft routinely releases updates and patches to improve stability and security. Any updates released after ArcGIS Data Appliance has shipped will need to be applied.

Consult your network administrator for the information needed to configure the network with a static IP address on the Data Appliance: IP address, subnet mask, gateway, and DNS server

- A. Sign in to ArcGIS Data Appliance as an administrator.
- B. On the Server Manager Dashboard, select **Local Server** from the menu on the left.
- C. Locate **Ethernet**, and click the link to display the network connections list.
- D. Right-click the **Ethernet 1** Ethernet connection, click **Properties**, and double-click **Internet Protocol Version 4 (TCP/IPv4)**.
- E. Type the network information in the appropriate sections and click **OK**. The network setup is complete.

**Note:** Refer to the ArcGIS Data Appliance User Guide for Windows on the Arxys website for additional details on system setup.

## 7 Verify the Data Collections

Before utilizing the data collections, the health of the RAID arrays must be verified. ArcGIS Data Appliance ships with the LSI Storage Authority (LSA) utility preinstalled. This utility will be used to verify the status of the datasets.

- A. Sign in to ArcGIS Data Appliance as an administrator.
- B. From the desktop, locate the **Launch LSA** shortcut and double-click it to start the utility.
- C. Select the discovered server and select the option to **Sign In**.
- D. Type the ArcGIS Data Appliance Administrator user name and password and click **Sign In**.
- E. The LSI Storage Authority Dashboard is displayed.
- F. If the status for the collections are **Optimal** and green, the arrays are healthy and ready to use. If something other than **Optimal** is displayed, **immediately stop and contact Arxys technical support.**
- G. Exit the LSI Storage Authority utility.

## 8 Create ArcGIS Users

The ArcGIS user on ArcGIS Server must be created on ArcGIS Data Appliance.

- A. Sign in to ArcGIS Data Appliance as an administrator.
- B. Right-click the **Start** menu and select **Computer Management**.
- C. In the Computer Management application, in the left pane, click **Local Users and Groups** to expand the tree, and click the **Users** directory. In the main pane, right-click and select **New User**. The New User wizard is displayed.
- D. Use the New User wizard to create the user in the following table. The password must be configured to match the password for the respective account on ArcGIS Server, and the password must be set to never expire.

User Name	Full Name	Description
arcgis	ArcGIS Server Account	Account to perform a variety of functions in support of the GIS server

- E. Click **Create** to create the new user on ArcGIS Data Appliance.

## 9 Create Shares

ArcGIS Data Appliance must be configured to share the Data Appliance collections with ArcGIS Server.

- Sign in to ArcGIS Data Appliance as an administrator.
- Right-click the **Start** menu and select **Computer Management**.
- In the Computer Management application, click **Shared Folders** to expand the tree, and right-click the **Shares** folder. Select **New Share**.
- In the Create A Shared Folder Wizard, click **Next** to begin.
- For Folder path, click **Browse** and navigate to the hard drive with the data collection. Select the **cache** directory (or the **source\_documents** directory) to be shared and click **OK**.
- Click **Next**.
- Each product option comes with more than one collection of drives. Each collection requires uniquely named shares for the cache and source documents directories. When you enter the share name and description, use the following naming convention for your cache shares and source document shares according to the product option you purchased. For **Offline setting**, accept the default.

Collection	Directory	Share Name	Description
Collection 1	\\Collection1_v2022\cache	Collection1_cache	Collection 1 Cache
	\\Collection1_v2022\source_documents	Collection1_source_documents	Collection 1 Source Documents
Collection 2	\\Collection2_v2022\cache	Collection2_cache	Collection 2 Cache
	\\Collection2_v2022\source_documents	Collection2_source_documents	Collection 2 Source Documents
Collection 3	\\Collection3_v2022\cache	Collection3_cache	Collection 3 Cache
	\\Collection3_v2022\source_documents	Collection3_source_documents	Collection 3 Source Documents
Collection 4	\\Collection4_v2022\cache	Collection4_cache	Collection 4 Cache
	\\Collection4_v2022\source_documents	Collection4_source_documents	Collection 4 Source Documents
Collection 5	\\Collection5_v2022\cache	Collection5_cache	Collection 5 Cache
	\\Collection5_v2022\source_documents	Collection5_source_documents	Collection 5 Source Documents
Basic Legacy Collection	\\CollectionBL_v2022\cache	CollectionBL_cache	Basic Legacy Collection Cache
	\\CollectionBL_v2022\source_documents	CollectionBL_source_documents	Basic Legacy Collection Source Documents
World Legacy Collection	\\CollectionWL_v2022\cache	CollectionWL_cache	World Legacy Collection Cache
	\\CollectionWL_v2022\source_documents	CollectionWL_source_documents	World Legacy Collection Source Documents
North America Legacy Collection	\\CollectionNAL_v2022\cache	CollectionNAL_cache	North America Legacy Collection Cache
	\\CollectionNAL_v2022\source_documents	CollectionNAL_source_documents	North America Legacy Collection Source Documents

- Click **Next**.
- Select the **Customize permissions** option and click **Custom**.
- In the Customize Permissions dialog box, click **Add**.
- In the Select Users or Groups dialog box, click **Advanced**. The **Select Users or Groups** dialog box expands.
- Click **Find Now** to display a list of all local users. Press the Ctrl key and click the Administrator user and the arcgis user to highlight them. With both users highlighted, click **OK** above the Search results area. The dialog box reverts to a smaller size.
- The two users you just selected should be listed under Enter the object names to select. Click **OK**.
- Make sure the permissions for the users and groups are set to **Full Control**.
- Repeat steps 9C through 9N to create cache and source\_documents directories for each collection in your ArcGIS Data Appliance product option.

## 10 Configure the Cache Directories

ArcGIS Server maintains a list of directories in which it can find map cache tiles. You need to explicitly add the Data Appliance cache directories to this list.

- Sign in to ArcGIS Server using the ArcGIS Data Appliance data account with administrative privileges.
- Start ArcGIS Server Manager and sign in using your Primary Site Administrator account.
- Click the **Site** tab.
- From the **GIS Server** tab on the left, click **Directories**.
- Click the **Add Directory** button.
- Provide a **name**, for example, Collection1\_cache. From the **Type** list, choose **Cache**.
- For **Location**, provide the **path** to the cache directory on the ArcGIS Data Appliance collection you made when you created shares in step 9; for example, \\ARCGISDATAAPP\CollectionX\_cache. You do not need to specify **Description**, **Cleaning Mode**, or **Maximum File Age**.
- Click **Add** to add the directory.
- Repeat steps E through H for each collection you created a cache directory for when you created shares.

## 11 Publish Services

**Important:** If you are publishing the World\_Imagery service for World Standard (on Collection 2), World Advanced (on Collection 3), North America Standard (on Collection 4), or North America Advanced (on Collection 5), you need to configure ArcGIS Server to use the source document directories before you publish the World\_Imagery service. For more information, see [arcgis\\_data\\_appliance.pdf](#) on the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive.

The following instructions apply to map services. Information about other services can be found in the help file on the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive 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 Server Manager, follow these steps for each map service that you want to create:

- Open ArcGIS Server Manager and sign in.
- Click **Services > Manage Services > Publish Service**.

## 11 Publish Services (continued)

- Browse to the CollectionX\_source\_documents > service\_definitions directory on the Data Appliance data collection; for example, \\ARCGISDATAAPP\CollectionX\_source\_documents\service\_definitions.
- Select the **service definition** you want to publish; for example, World\_Imagery.sd, and click **Open**. See the Services Reference Guide for 2022 after step 12 of this document for a list of the Data Appliance services.
- Click **Next**.
- By default, the service definition is published in the server folder specified in the service definition configuration. You must publish the service definition in this root folder.
- If Build cache automatically when service starts is checked, uncheck it. Click **Next**.
- Optionally, choose to **enable** or **disable capabilities** for your service definition.
- Click **Publish** to publish the service definition as a service. The new map service appears in the list of available services. The publishing 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.
- Click the **Stop** button to the right of the service name to stop the service.
- Click the **Edit** button to edit the service properties.
- Click **Caching** and change the **cache directory** setting to reference the Data Appliance collection.
- Click **Save** to save your changes, and click the **Start** button to restart the service.
- Repeat this process for any other map services you want to publish.

**Note:** We recommend that all your service names match the names of the service definition file; you should not change a service name to a different name.

## 12 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 *ArcGIS Data Appliance 2022 Reference Content* USB flash drive by opening [arcgis\\_data\\_appliance.pdf](#).

### Services Reference Guide for 2022

Map Services	World Elevation and Geoprocessing Services <sup>1</sup>	Geocode Service <sup>1</sup>
Antarctic_Imagery	Elevation	Esri_Places_World
Arctic_Imagery	ElevationSync	
Arctic_Ocean_Base	Terrain	
Arctic_Ocean_Reference	Terrain3D	
NatGeo_World_Map <sup>2</sup>	Viewshed <sup>2</sup>	
USA_Topo_Maps <sup>2</sup>		
World_Boundaries_and_Places <sup>2</sup>		
World_Boundaries_and_Places_Alternate <sup>2</sup>		
World_Dark_Gray_Base <sup>2</sup>		
World_Dark_Gray_Reference <sup>2</sup>		
World_Hillshade		
World_Hillshade_Dark		
World_Imagery		
World_Light_Gray_Base <sup>2</sup>		
World_Light_Gray_Reference <sup>2</sup>		
World_Ocean_Base		
World_Ocean_Reference <sup>2</sup>		
World_Physical_Map <sup>2</sup>		
World_Street_Map <sup>2</sup>		
World_Topo_Map <sup>2</sup>		
World_Transportation <sup>2</sup>		

<sup>1</sup> Refer to the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive for more information on publishing these services.

<sup>2</sup> Legacy Collections. Refer to *What's new in arcgis\_data\_appliance.pdf* on the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive for more information.

### Resources

Arxys provides several reference documents. These are available at [arxys.com/company/support/](#) under the Arxys Support Documentation on the ArcGIS Data Appliance tab.

The *ArcGIS Data Appliance 2022 Reference Content* USB flash drive 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/2022/tech-docs](#).

### Support

#### Esri Support

For information regarding the configuration and setup of ArcGIS services and usage, visit [support.esri.com/en/contact-tech-support](#).

For the most current information about all ArcGIS products, visit the Esri Documentation website at [doc.arcgis.com](#).

#### Arxys Support

For information and support regarding the ArcGIS Data Appliance hardware, contact Arxys using the following options:

**Phone:** 800-257-1666  
**Email:** support@arxys.com  
**Website:** support.arxys.com  
**Hours:** Monday–Friday, 8:00 a.m.–5:00 p.m. (Pacific time)

