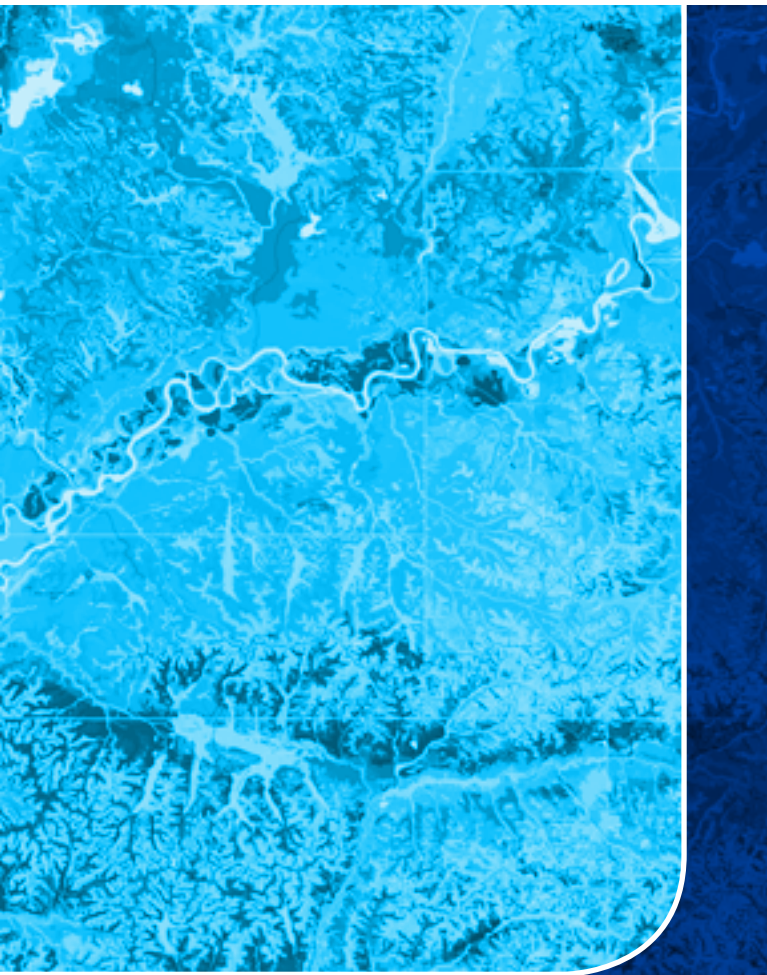




10.5 &
10.5.1



ArcGIS ENTERPRISE

Functionality Matrix

ArcGIS Enterprise is flexible server software for mapping and analytics that allows you to easily manage your location-enabled data and brings a browser-based GIS into your infrastructure. ArcGIS Enterprise provides your organization the power to analyze, create, and share content to any device, anywhere, at any time; helping you to discover and do more with your data.

Designed for flexibility, ArcGIS Enterprise gives you complete control over the infrastructure the software will use and supports deployments using physical or virtualized machines and cloud infrastructure alike. We also provide tools to make getting started a little easier including a wizard-based builder for all-in-one deployments, Chef scripts to automate repeat deployments, and machine images to jumpstart cloud deployments on Amazon Web Services or Microsoft Azure.

The heart of ArcGIS Enterprise is powerful server software with specific capabilities to serve, map, and analyze geographic information. The vast and diverse capabilities of ArcGIS Enterprise are organized into different servers, each one unlocking a distinct array of functionality -we've organized this Functionality Matrix so you can find which servers best fit your needs.

Finally, there is the ArcGIS Enterprise portal. This browser-based GIS interface allows members of your organization to search, organize, analyze, store, and share location-enabled content; with it you can transform raw data to a fully functional mobile app all without a writing a single line of code.

Powerful, collaborative, and secure; ArcGIS Enterprise is the epitome of modern GIS in your infrastructure.

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ArcGIS ENTERPRISE

Functionality Matrix

10.5 & 10.5.1

- Included
- Additional Purchase

¹ Windows Only

² Advanced geoprocessing tools refers to all geoprocessing tools available in ArcGIS Desktop Advanced.

SERVER CAPABILITIES

Capability	GIS Server Advanced	GIS Server Standard	GIS Server Basic	Image Server	GeoAnalytics Server	GeoEvent Server	Business Analyst Server ¹
Schematic diagram tools	●	●					
Distributed analytics - Raster, Image				●			
Distributed analytics - Vector, Tabular					●		
Can be designated as Hosting Server	●	●					
Enterprise geodatabase management	●	●	●				
Enterprise geodatabase read-access	●	●	●	●	●	●	●
Federation with Portal for ArcGIS	●	●	●	●	●	●	●
Geo-enabled alerting						●	
On-the-fly image processing and dynamic mosaicking				●			
Support for OGC web services	●	●		●			
Raster analytics				●			
Real-time data analytics and monitoring						●	
Advanced geoprocessing tools ²	●						
Business analyst geoprocessing tools							●
Run custom geoprocessing models	●	●					●
Space-time (spatiotemporal) analysis	●	●		●	●	●	
Visualize 3D spatial content	●	●					
Web editing	●	●					
ArcGIS Spatial Analyst tools	●						
ArcGIS 3D Analyst tools	●						
ArcGIS GeoStatistical Analyst tools	●						
Geofencing						●	
Large volume data analysis				●	●	●	
Geographic analysis of IoT data						●	

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- Included
- Additional Purchase

³ The only geoprocessing services that can be served are those that are pre-configured within the server; you cannot add or modify geoprocessing services.

SERVICE TYPES

	GIS Server Advanced	GIS Server Standard	GIS Server Basic	Image Server	GeoAnalytics Server	GeoEvent Server Business Analyst Server 1
Cached service - Map, Image	●	●		●		
Dynamic map service	●	●				
Feature service	●	●				
Feature service (read-only)	●	●	●			
Geocoding service	●	●				
GeoEnrichment service						●
Geodata service	●	●	●			
Geometry service	●	●	●			
Geoprocessing service	●	●			● ³	● ³
Image service - From mosaic dataset				●		
Image service - From single raster	●	●		●		
Network service	●	○				
Print service	●	●				
Schematic service	●	●				
Stream service					●	

HOSTED LAYER TYPES

	GIS Server Advanced	GIS Server Standard	GIS Server Basic	Image Server	GeoAnalytics Server	GeoEvent Server Business Analyst Server 1
Feature layer	●	●				
Imagery layer				●		
Scene layer	●	●				
Raster tile layer	●	●				
Vector tile layer	●	●				

CONTENT

	GIS Server Advanced	GIS Server Standard	GIS Server Basic	Image Server	GeoAnalytics Server	GeoEvent Server Business Analyst Server 1	
Living Atlas	●	●					02
Esri Business Analyst Data (U.S. Demographic, Consumer Spending, Tapestry Segmentation, Market Potential, Business, and Retail Marketplace Data)						●	03
StreetMap Premium (Display, Routing, Geocoding)	○	○				●	04
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- Included
- Additional Purchase

¹ Windows only

Supported Databases and Data Connections

⁵ To use cloud-hosted databases your ArcGIS Enterprise deployment must be collocated with the database in the same cloud environment.

⁶ CSV files or Shapefiles

⁷ Support for connections via Access Key only

⁸ GeoEvent Server input connectors included in this section are only those connectors that ship with the software. Additional GeoEvent Server input connectors can be added to the software from the [ArcGIS GeoEvent Gallery](#) and [ArcGIS GeoEvent Partner Gallery](#).

EXTENSIONS

ArcGIS Network Analyst for Server

ArcGIS for INSPIRE

ArcGIS Data Interoperability for Server ¹

ArcGIS Data Reviewer for Server ¹

ArcGIS Workflow Manager for Server ¹

ArcGIS for Maritime: Server ¹

Esri Defense Mapping for Server ¹

Esri Production Mapping for Server ¹

Esri Roads and Highways for Server ¹

GIS Server Advanced
 GIS Server Standard
 GIS Server Basic
 Image Server
 GeoAnalytics Server
 GeoEvent Server
 Business Analyst Server ¹

●	○						
○	○						
○	○						
○	○						
○	○						
○	○						
○	○						
○	○						

Supported database types for enterprise geodatabases + query layers

Amazon RDS for Microsoft SQL Server⁵
 Amazon RDS for PostgreSQL⁵
 IBM DB2
 IBM Informix
 Microsoft SQL Server
 Microsoft Azure SQL Database⁵
 Oracle
 PostgreSQL

Supported database types for query layers

ALTIBASE
 Dameng
 IBM Netezza
 SAP HANA
 SQLite
 Teradata

Big Data File Shares supported by GeoAnalytics Server

Apache Hadoop HDFS
 Apache Hive
 Local File Shares⁶
 Amazon AWS S3⁶
 Microsoft Azure Storage⁷

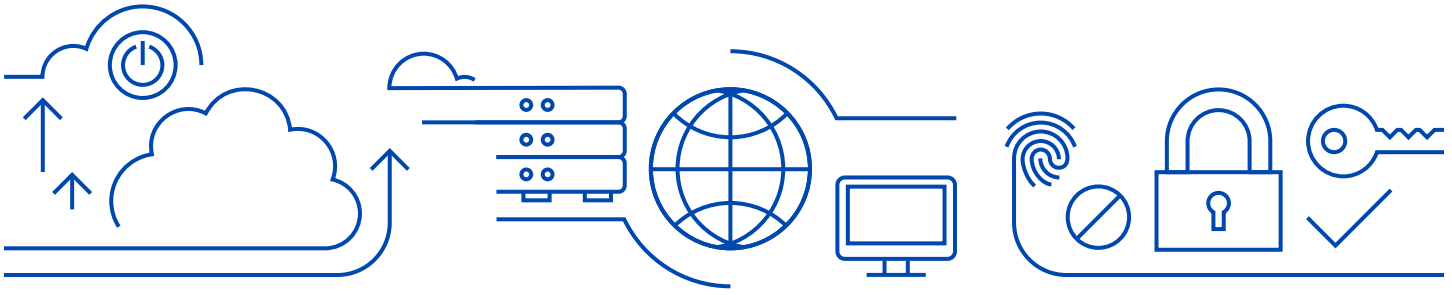
Raster Stores supported by Image Servers when running Raster Analytics

AWS S3
 Microsoft Azure Storage
 Local File Shares

Input Connectors supported by GeoEvent Server⁸

ArcGIS Server
 File (CSV, JSON)
 RSS
 Socket (TCP, UDP)
 Web (REST, JSON, GeoJSON, XML)
 WebSocket (JSON, GeoJSON)

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Supported Cloud Environments

ArcGIS Enterprise can be deployed in any cloud or virtualized environment that meets the [minimum system requirements](#). Esri provides technical support and pre-built machine images for:

- Amazon Web Services (AWS)
- Microsoft Azure

To configure, license, and launch ArcGIS Enterprise software you can use free templates and Cloud Builder software: [ArcGIS Enterprise on Amazon Web Services](#) or [ArcGIS Enterprise on Microsoft Azure](#).

Supported OGC and Open Web Services

As part of [Esri's Open Vision](#) the ArcGIS GIS Server (Advanced and Standard) in ArcGIS Enterprise can serve out the following Open Geospatial Consortium (OGC) and open web services:

- WMS - Web Map Service (versions: 1.0, 1.1, 1.1.1, and 1.3)
- WFS - Web Feature Service (versions 1.0, 1.1, and 2.0)
- WCS - Web Coverage Service (versions 1.0.0, 1.1.0, 1.1.1, 1.1.2, and 2.0.1)
- WMTS - Web Map Tile Service (version 1.0)
- WPS - Web Processing Service (version 1.0)
- KML - Keyhole Markup Language (version 2.2)
- GeoJSON

ArcGIS Servers licensed as Image Servers will be able to serve out Web Coverage Services at the same version levels as listed for ArcGIS GIS Server.

Security, Authentication, and Authorization

ArcGIS Enterprise comes with a robust and effective security framework that includes options for managing access and enforcing permissions for secured resources. [Configurable security settings](#) supported include:

- Web-tier authentication (IWA, PKI)
- GIS-tier authentication (built-in identity)
- Enterprise logins (SAML 2.0)
- Enterprise Groups (Active Directory and LDAP)
- TLS 1.0, 1.1, and 1.2

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NAMED USER ENTITLEMENTS

ArcGIS Enterprise includes named user entitlements that can be used within the Enterprise portal, the amount of initial entitlements varies depending on the edition and level of ArcGIS Enterprise that has been licensed. These entitlements are for Level 1 and Level 2 named user accounts.

Level 1 named user accounts are viewer only, members of your organization that are given a Level 1 named user account will be able to join groups, access, and view data but they will not be able to own, create, or run analysis tools on any data.

Level 2 named user accounts have full privileges to own, create, analyze, share, and store data within the Enterprise portal. Level 2 named user privileges can be customized by your organization's ArcGIS Enterprise portal administrator.

See the following table for the breakdown of number of included named user entitlements per ArcGIS Enterprise edition/level.

INCLUDED NAMED USER ENTITLEMENTS		Named User Membership Level	
		Level 1	Level 2
<i>ArcGIS Enterprise Advanced</i>		30	50
<i>ArcGIS Enterprise Standard</i>		30	5
<i>ArcGIS Enterprise Workgroup Advanced</i>		0	10
<i>ArcGIS Enterprise Workgroup Standard</i>		0	5

ADDING NAMED USERS

You can add named users to your ArcGIS Enterprise deployment by purchasing separate named user packs. With ArcGIS Enterprise Standard and Advanced there is no limit or restrictions on the number and level of additional named users you can purchase. Using ArcGIS Enterprise Workgroup Standard or Advanced you can have no more than ten named users and all ten must be Level 2. The named user entitlements that are bundled with ArcGIS Enterprise are per deployment, meaning that if your purchase a second ArcGIS Enterprise of any edition or level you cannot combine the named users included with the second purchase with those that came with the first.

Note that named user entitlement information listed within this document may not be applicable if you licensed ArcGIS Enterprise as part of a special program such as: An Enterprise License Agreement (ELA), Education site license, etc. Contact your local Esri representative for more details on how named user entitlements apply to your organization.

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Deploying ArcGIS Enterprise

ARCGIS ENTERPRISE WORKGROUP LEVEL

ArcGIS Enterprise Workgroup is a lower capacity level of ArcGIS Enterprise. It offers all the same functionality as ArcGIS Enterprise but is designed for use in smaller teams and organizations. The Workgroup level has the following differences:

- There is a limit of 10 simultaneous desktop connections to workgroup geodatabases. Workgroup geodatabases are only supported on Microsoft SQL Server Express and have a maximum size of 10 GB.
- The Workgroup level is only [licensed for use](#) with file-based data sources (e.g. file geodatabases) and workgroup geodatabases. It is not licensed for use with enterprise geodatabases.
- The base ArcGIS Enterprise deployment must be deployed all-in-one on a single machine with up to 4 cores.
- Each server role has a 4-core maximum. The additional roles can be deployed on separate machines from the base deployment. The spatiotemporal big data store from ArcGIS Data Store may be configured on a single, separate 4-core machine.

For more information and to determine if ArcGIS Enterprise Workgroup Level is a good fit for your organization, contact your local Esri representative.

BASE ARCGIS ENTERPRISE DEPLOYMENT

ArcGIS Enterprise is not one piece of software, it is four software components configured together that collectively provide the functionality of ArcGIS Enterprise; this minimum configuration is called the base ArcGIS Enterprise deployment. Aside from being deployable on physical and virtual hardware and within the cloud, the base ArcGIS Enterprise deployment can be patterned as:

- An all-in-one deployment where the entire base deployment is contained on a single machine - ideal for development or prototype environments, but also suitable to use as the production environment in smaller enterprise organizations.
- A multi-tiered deployment where the base deployment spans multiple machines creating a more robust overall deployment - ideal for production environments of any size.

For added resiliency you can deploy either base deployment pattern with high availability regardless of the infrastructure you use: physical, virtual, or cloud.

Once the base deployment is in place you can tailor and customize ArcGIS Enterprise to meet your organizations business needs by deploying additional server capabilities.

For more information on ArcGIS Enterprise deployment patterns and architectural recommendations see the [ArcGIS Enterprise deployment documentation](#).

