

# ArcGIS ENTERPRISE

Functionality Matrix

The background of the entire page is a grayscale aerial topographic map. It shows a complex network of rivers and streams, with a prominent, wide river winding through the lower-left portion of the image. The terrain is depicted with contour lines and shading, indicating elevation and land features.

ArcGIS Enterprise is a mapping and analytics platform that provides a Web GIS in your own infrastructure and enables you to discover, use, make, and share maps from any device, anywhere, at any time.

Designed for flexibility, ArcGIS Enterprise supports deployments on everything from physical hardware to private and public clouds such as Amazon Web Services (AWS) and Microsoft Azure.

ArcGIS Server is a key component of ArcGIS Enterprise. With the ArcGIS 10.5 release, ArcGIS Server has been expanded to offer five capability based roles: GIS Server, Image Server, GeoEvent Server, GeoAnalytics Server, and Business Analyst Server. Each role unlocks different capabilities of the platform.

The Esri Web GIS pattern comes to life through ArcGIS Enterprise where it enables server-based big data and raster analysis, access to maps and apps on the web, desktop, and your mobile devices, and opens the door to new ways to collaborate and share geospatial content.

ArcGIS Enterprise is the next evolution of the ArcGIS for Server product line; it's everything we were doing before -- and more.

# ArcGIS ENTERPRISE

## Functionality Matrix

# 10.5

- Included
- Additional Purchase

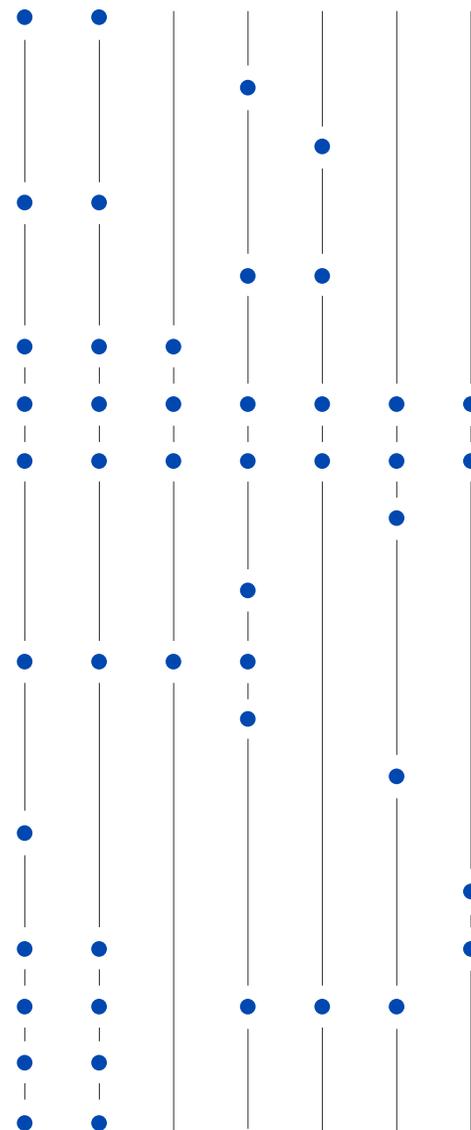
<sup>1</sup> Windows Only

<sup>2</sup> Advanced geoprocessing tools refers to all geoprocessing tools available in ArcGIS Desktop Advanced and also includes all tools in the spatial analyst, geostatistical analyst, and 3D analyst toolboxes.

### SERVER CAPABILITIES

- Access, create, update, and edit schematic diagrams
- Big data analysis - Raster, Image
- Big data analysis - Vector, Tabular
- Can be designated as Hosting Server
- Distributed and parallelized computing/analysis
- Esri geodatabase management
- Esri 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
- Run advanced geoprocessing tools <sup>2</sup>
- Run business analyst geoprocessing tools
- Run custom geoprocessing models
- Space-time (spatiotemporal) analysis
- Visualize 3D spatial content
- Web editing

GIS Server Advanced  
GIS Server Standard  
GIS Server Basic  
Image Server  
GeoAnalytics Server  
GeoEvent Server  
Business Analyst Server <sup>1</sup>



02  
03  
04  
05  
06  
07  
08



- Included
- Additional Purchase

<sup>1</sup> Windows only

## EXTENSIONS

ArcGIS Network Analyst for Server

ArcGIS for INSPIRE

ArcGIS Data Interoperability for Server <sup>1</sup>

ArcGIS Data Reviewer for Server <sup>1</sup>

ArcGIS Workflow Manager for Server <sup>1</sup>

ArcGIS for Maritime: Server <sup>1</sup>

Esri Defense Mapping for Server <sup>1</sup>

Esri Production Mapping for Server <sup>1</sup>

Esri Roads and Highways for Server <sup>1</sup>

GIS Server Advanced  
 GIS Server Standard  
 GIS Server Basic  
 Image Server  
 GeoAnalytics Server  
 GeoEvent Server  
 Business Analyst Server <sup>1</sup>

●	○						
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## Supported Database & File Share Connections

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

### Support for Enterprise Geodatabases + Query Layers

Amazon RDS for Microsoft SQL Server<sup>5</sup>  
 Amazon RDS for PostgreSQL<sup>5</sup>  
 IBM DB2  
 IBM Informix  
 Microsoft SQL Server  
 Microsoft Azure SQL Database<sup>5</sup>  
 Oracle  
 PostgreSQL

### Support for Query Layers

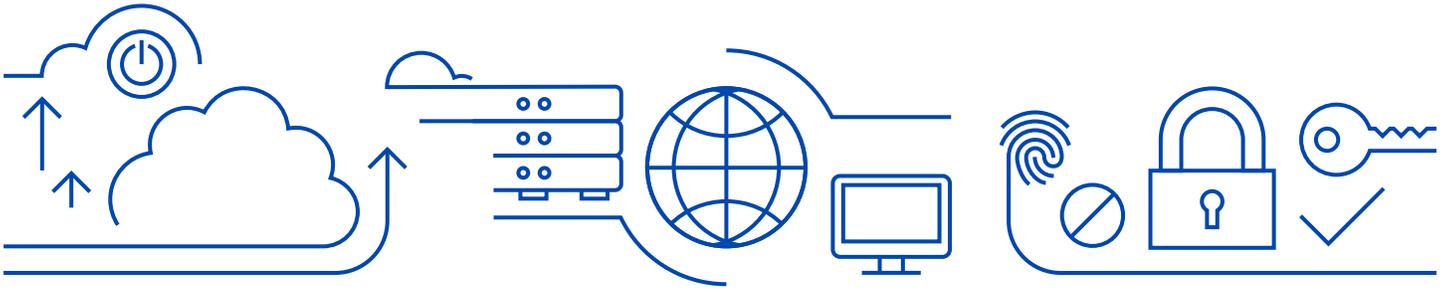
ALTIBASE  
 Dameng  
 IBM Netezza  
 SAP HANA  
 SQLite  
 Teradata

### Big Data File Shares supported by GeoAnalytics Server

Apache Hadoop HDFS  
 Apache Hive  
 Local File Shares (CSV, Shapefile)

### Raster File Share supported by Image Server

AWS S3  
 Microsoft Azure Storage  
 Local File Shares



## 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

## NAMED USER ENTITLEMENTS

The purchase of ArcGIS Enterprise includes a set of named user entitlements to be used within Portal for ArcGIS. The number of out-of-the-box entitlements you receive depends on the edition and level of ArcGIS Enterprise purchased.

### INCLUDED NAMED USER ENTITLEMENTS

Named User Membership Level

● Level 1 ● Level 2

*ArcGIS Enterprise Advanced*

30 | 50

*ArcGIS Enterprise Workgroup Advanced*

0 | 10

*ArcGIS Enterprise Standard*

30 | 5

*ArcGIS Enterprise Workgroup Standard*

0 | 5

Additional named user entitlements may be purchased for use with ArcGIS Enterprise, however the total number of named user entitlements for use with ArcGIS Enterprise Workgroup Edition is capped at 10 and is restricted to Level 2 only.

Note that named user entitlement information listed within this document may not be applicable if you are licensed under a special program such as: 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.

## NAMED USER MEMBERSHIP LEVELS AND ESRI DEFAULT ROLES

Members of an organization can be assigned roles with privileges at the two membership levels of named user: Level 1 or Level 2. The membership level number (1 or 2) corresponds to the supported functionality of that user level; as the level increases so does the breadth of privilege and access available to the user.

A Level 1 user is the most basic user level. Level 1 users are content viewers and do not have privileges to own items. This level corresponds to the Esri default Viewer role in Portal for ArcGIS.

A Level 2 corresponds to the Esri default roles of User, Publisher, and Administrator. Level 2 users are content contributors and have privileges to create content and conduct other tasks within Portal for ArcGIS.

For more information on Level 1 and Level 2 membership levels, default roles, and associated privileges see the [Portal for ArcGIS Help Documentation on Organization roles and membership levels](#).

# 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 includes several software components that are designed to work together. A foundational setup of ArcGIS Enterprise consists of a number of these components configured in a certain way; this is called a base ArcGIS Enterprise deployment.

The base deployment consists of: Portal for ArcGIS, ArcGIS Server (licensed as a GIS Server Standard or GIS Server Advanced and configured as the hosting server site for your portal), ArcGIS Data Store (configured as a relational and tile cache data store), ArcGIS Web Adaptor (one for Portal for ArcGIS and one for ArcGIS Server).

The base ArcGIS Enterprise deployment can be configured as a single machine deployment or a multitier deployment. All configuration patterns can be deployed with high availability.

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

