

ArcGIS Server on Microsoft Azure

ArcGIS 10.3.1 for Server is now available on the Microsoft Azure cloud platform, allowing you to quickly deploy ArcGIS for Server applications and services to the Azure cloud rather than buying and maintaining infrastructure. ArcGIS Server on Microsoft Azure consists of Esri virtual machine images and the ArcGIS Server Cloud Builder on Microsoft Azure.

Esri customers can use existing ArcGIS 10.3.1 for Server Standard or Advanced licenses to activate the Esri-created Microsoft Azure images containing ArcGIS for Server, Portal for ArcGIS, ArcGIS Data Store, and ArcGIS Web Adaptor (IIS) that are available from the Microsoft Azure Marketplace.

ArcGIS Server Cloud Builder on Microsoft Azure is a free, lightweight desktop application that lets you configure and deploy an ArcGIS for Server or Portal for ArcGIS site from your desktop. The Cloud Builder application abstracts some of the more technical aspects of working with the Azure platform.

It provides a set of tools for monitoring and administering sites on Azure. It helps you register an enterprise geodatabase in Azure SQL Data or SQL Server as an ArcGIS Server managed database. Cloud Builder provides two deployment options: a full web GIS implementation or a stand-alone GIS server deployment.

With the web GIS deployment option, the GIS server, Portal for ArcGIS, ArcGIS Web Adaptor, and ArcGIS Data Store (used to optimize publishing workflows to Portal) are tightly integrated, providing you with a complete ArcGIS platform running on your infrastructure. This option allows you to configure a federated and hosted ArcGIS Server site. You can use ArcGIS clients, such as ArcMap and ArcGIS Pro, to create and share maps with your organization via Portal for ArcGIS. It also creates a branded portal website for organizing and controlling access to all your GIS assets.

The web GIS deployment also gives you access to all the applications for Portal for ArcGIS, including productivity applications,

such as Collector for ArcGIS, Operations Dashboard for ArcGIS, Explorer for ArcGIS, and Web AppBuilder for ArcGIS (an easy-to-use tool for creating and configuring your own web apps without coding), and focused, configurable web app templates. Web GIS deployment also provides configurable security options including a built-in identity store for managing users and roles and SAML 2.0 Web Single Sign-On.

Alternatively, you can use Cloud Builder to simply deploy a stand-alone GIS server on Microsoft Azure. With this option, you can publish maps directly to your ArcGIS Server site using ArcMap. You can set up multiple ArcGIS Server instances and configure them as a highly available cluster of GIS servers on Microsoft Azure. This option creates a resilient system. If one ArcGIS Server instance fails, another instance is immediately available to provide your organization with continuous operations with minimum downtime. For more information, contact your local Esri representative.

Find Out Where the Water Goes

The Nighttime Flow Analysis solution, a COTS configuration of the ArcGIS platform, helps water utilities identify areas with underground leaks and other sources of nonrevenue water loss.

Nighttime Flow Analysis measures gallons per minute (GPM) of water consumption for an area at night, when households typically use significantly less water. It compares that rate to the expected flow estimated using industry standards for minimum nighttime uses—such as the use of toilets, washing

machines, and outdoor irrigators—to determine potential nonrevenue water loss, or water flows that are not reaching a meter.

This solution is a collection of services, maps, and apps supported on ArcGIS 10.3 that helps utilities find and fix underground leaks and other sources of water loss that might go undetected for months. Rapidly identifying and eliminating unnecessary water loss provide better service, more efficient distribution to customers, less wear on treatment equipment, and longer-term value from capital-improvements spending.

Over the long term, Nighttime Flow

Analysis can improve utility operations and capital planning by reducing high water loss, preventing service disasters, and reducing the time needed to make repairs from months to weeks or days.

Read the accompanying article in this issue “Tennessee Utility Proactively Stops Water Leaks” and learn how Tennessee’s largest water and wastewater utility, White House Utility District (WHUD), uses other ArcGIS for Utilities solutions to manage its 600-square-mile service area. For more information on Nighttime Flow Analysis, visit solutions.arcgis.com/utilities/water/help/nighttime-flow-analysis/.