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# What's New in ESRI® Business Analyst™ Server 9.3.1

*Last Revised September 24, 2009*

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# What's New in ESRI Business Analyst Server 9.3.1

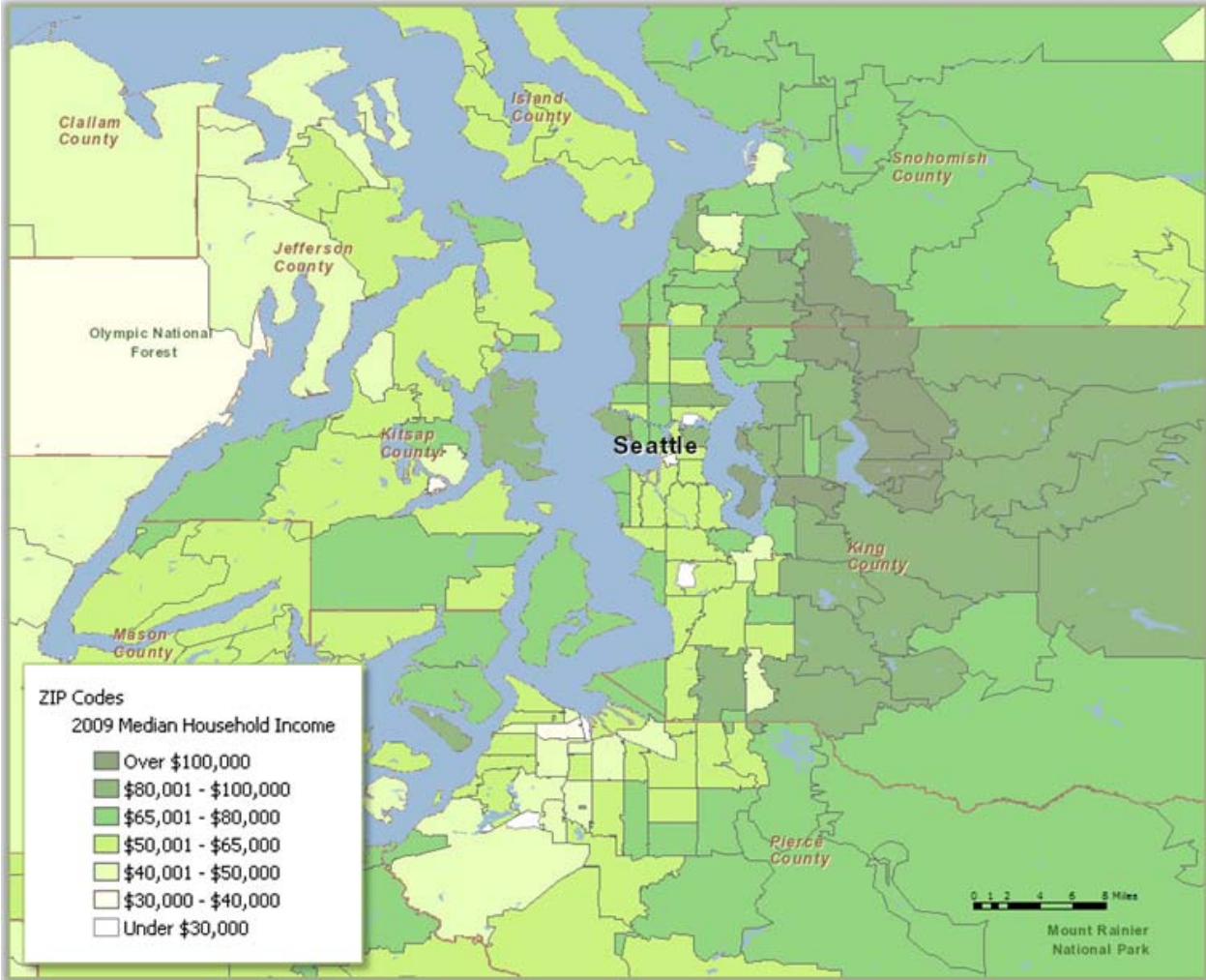
## **Overview**

ESRI® Business Analyst™ Server 9.3.1 is the newest major release of the product. This release builds on previous releases and adds important new capabilities.

# Data and Maps

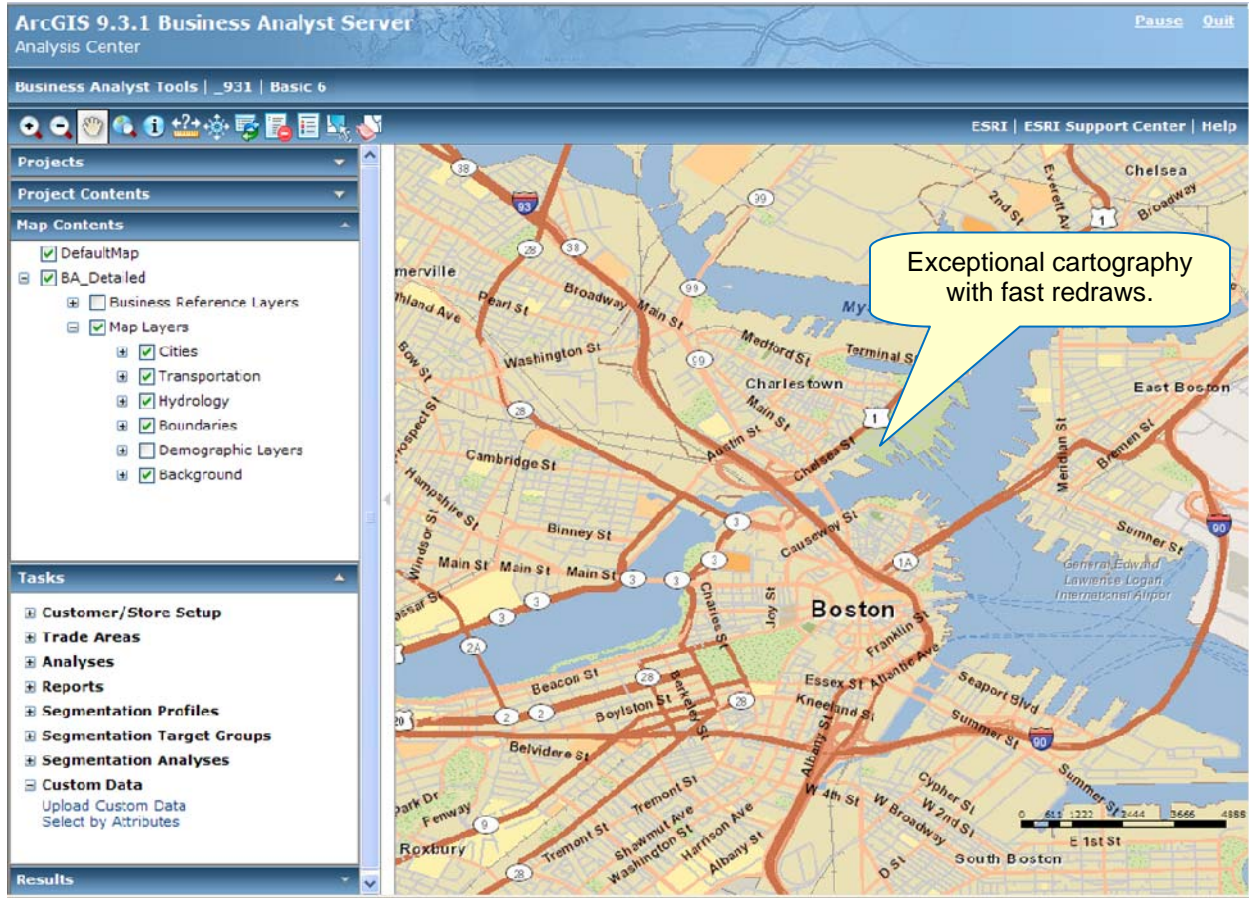
## 2009/2014 Data

This release includes updates to ESRI demographics and consumer spending data, Directory of Major Malls (DMM) shopping centers, *infoUSA* businesses, Tele Atlas streets and address points, and updated geocoding locators. Given the changes in economic conditions of 2008–2009, the release of the 2009/2014 data is particularly significant and should add immense value to the analyses performed using Business Analyst Server.



## New and Improved Background Map Service

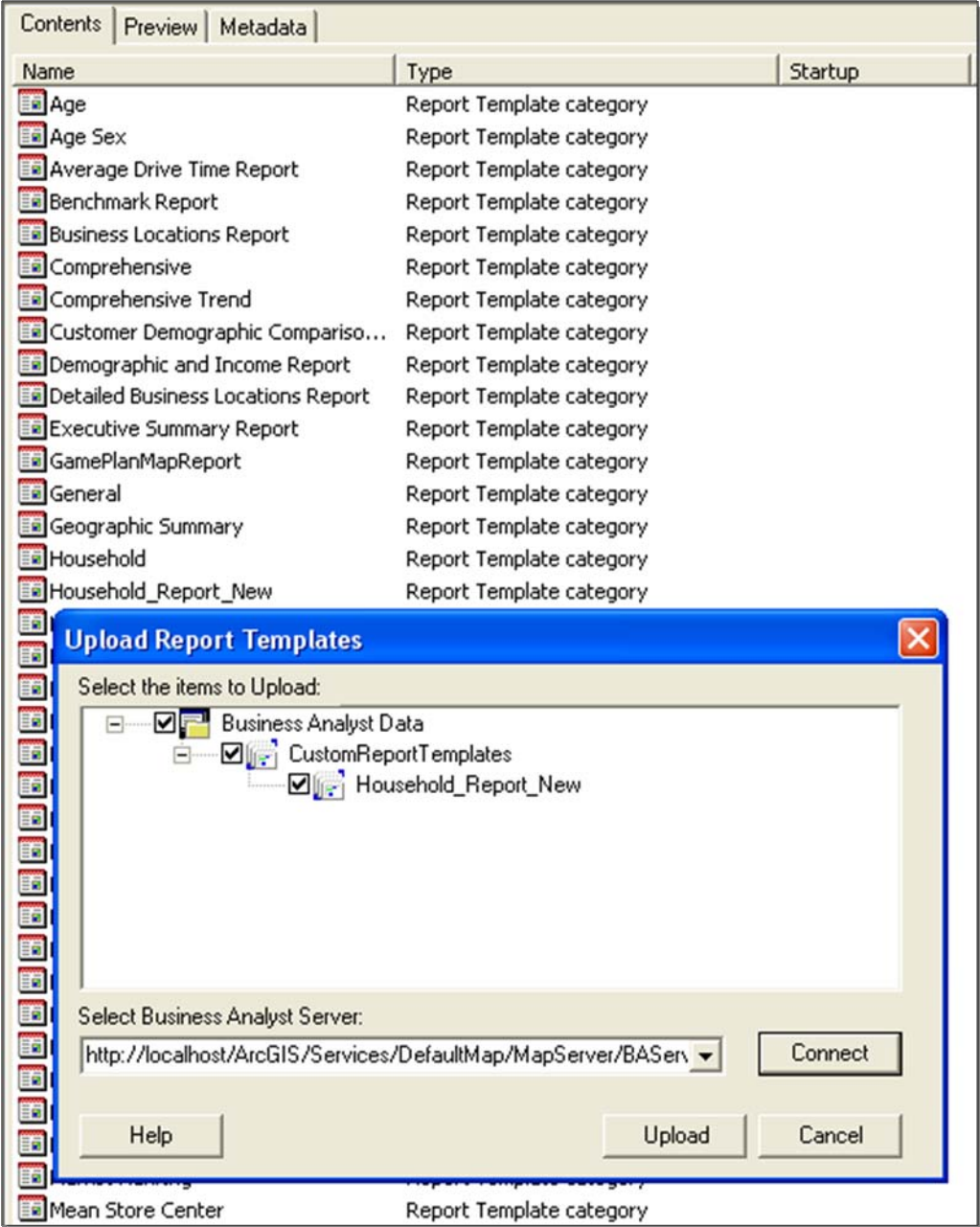
Business Analyst Server uses the new optimized ArcGIS Server map service, MSD, significantly boosting performance of dynamic operational layers in Web maps. The Business Analyst team has completely optimized the underlying basemap document (.mxd) file that was used as the background map service. Business Analyst Server takes advantage of the improved cartography and drawing speed of the new optimized map service definition (.msd) file, which results in map draw times up to four times faster than the previous release.



# Reports

## Upload and Run Custom Report Templates

Custom report templates can be created with Business Analyst Desktop, then uploaded for use in Business Analyst Server. Once a report template is published to the repository, Business Analyst Server client applications can consume this template to generate reports using Business Analyst. Developers can also consume the report output in XML format to supply data for application features.

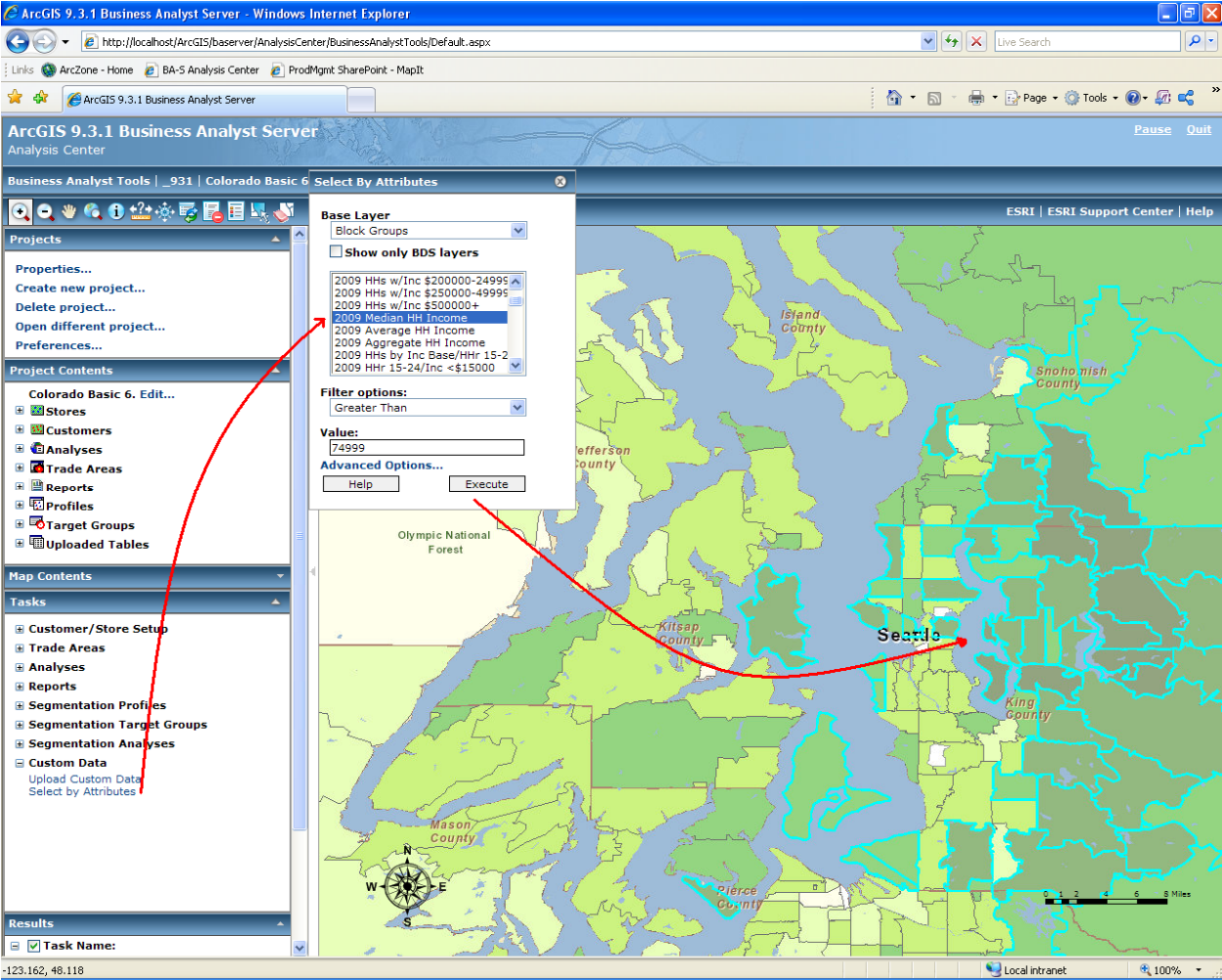




# Usability Improvements

## New Select by Attributes Tool

The Select By Attributes tool allows you to select features in a layer based on an attribute value. For example, you can select all ZIP Codes in a given market that have households with a median household income greater than \$74,999, or select by attributes in your own data (e.g., all stores that have more than 100 parking spaces).



## New Create Store/Customer Layer Using a Table of X,Y Coordinates

If your data is already geocoded, you can take advantage of x,y values directly. Whether you upload a dBASE file (.dbf), Excel 97-2003 file (.xls), or an Excel 2007 file (.xlsx), it is now possible to include the latitude/longitude value pairs for the points.

**Create Customers Using a Coordinate Table**

Customer Layer Name  
Create Customers by X-Y Table

Uploaded Table  
XCust\_1  
[Upload a table ...](#)

Coordinate Input Fields

Coordinate Fields	Table Fields
Longitude	LONGITUDE
Latitude	LATITUDE

Fields Values

	Table Fields	Values
s	Name	NAME
s	Store_ID	STORE_ID
s	Description	...none...

Help Execute

## Import Excel 2007 files (Upload Custom Table)

It is now possible to upload and use Office 2007 Excel (.xlsx) files as input to create store or customer layers, supply the list of items to be included in a standard geography trade area, or create segmentation profiles. The spreadsheets should have data arranged in columns that include field names in the first row.

## Improved Error Messages

We have designed a framework to improve error messages that are generated by Business Analyst Server.



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# API Improvements

## **New Methods in SOAP/REST API**

### **AddressToGeographyLevels**

Use this new method to return the standard geographic areas for an address location. For example, you can use this method to find out which county, state, and ZIP Code an address is located in. This method can be used in conjunction with the Benchmark Reports API to compare trade areas around a location against one or many standard geographic areas.

### **Import Shapefiles**

This method can be used to import trade area polygons to be used in other Business Analyst Server methods. For example, you may have a model or other analysis that produces a service area polygon. This shapefile can be uploaded to Business Analyst to be used with other methods such as Benchmark and Summary reports.

## Simplified XML Output for Summary Reports and Benchmark Reports

A new format is available for integrating or repurposing report output in Business Analyst Server applications. The hierarchy of the previous XML output has been removed in favor of a flatter structure that is easier to process programmatically. The XML files can also be imported into Microsoft Excel through the Get External Data tools. This new, simplified structure makes it easier to bind Business Analyst Server XML files directly to chart, table, and other Web programming controls.

```
- <Report>
  <ReportTitle>Customer Derived Areas</ReportTitle>
  <ReportName>Demographic and Income Profile Report</ReportName>
  <TemplateName>Demographic and Income Report</TemplateName>
  <DataPath>Data</DataPath>
  <ReportOrientation>Portrait</ReportOrientation>
  <ReportType>Summary</ReportType>
  <TextObjects />
  <ReportVariables />
- <Areas>
- <Area>
  <ReportItem name="AREA_ID" caption="" value="1_1" />
  <ReportItem name="AREA_DESC" caption="" value="0 - 40" />
  <ReportItem name="DEMOG_ID" caption="" value="0" />
  <ReportItem name="STORE_ID" caption="" value="1" />
  <ReportItem name="RING" caption="" value="1" />
  <ReportItem name="STORE_NAME" caption="" value="" />
  <ReportItem name="AMERIND00" caption="2000 Pop-1 Race: Amer Indian" value="17094.00000000" />
  <ReportItem name="AMERIND_CY" caption="2009 Pop-1 Race: Amer Indian" value="18379.00000000" />
  <ReportItem name="AMERIND_FY" caption="2014 Pop-1 Race: Amer Indian" value="19034.00000000" />
  <ReportItem name="ASIAN00" caption="2000 Pop-1 Race: Asian" value="54550.00000000" />
  <ReportItem name="ASIAN_CY" caption="2009 Pop-1 Race: Asian" value="77732.00000000" />
  <ReportItem name="ASIAN_FY" caption="2014 Pop-1 Race: Asian" value="92368.00000000" />
  <ReportItem name="AVGHHINC" caption="2000 Average HH Income" value="64854.00000000" />
  <ReportItem name="AVGHHISZ00" caption="2000 Avg HH Size" value="2.49000000" />
S.XML continues with 207 more variables and values...
- <Area>
  <ReportItem name="AREA_ID" caption="" value="1_2" />
  <ReportItem name="AREA_DESC" caption="" value="0 - 60" />
  <ReportItem name="DEMOG_ID" caption="" value="1" />
  <ReportItem name="STORE_ID" caption="" value="1" />
  <ReportItem name="RING" caption="" value="2" />
  <ReportItem name="STORE_NAME" caption="" value="" />
  <ReportItem name="AMERIND00" caption="2000 Pop-1 Race: Amer Indian" value="17355.00000000" />
  <ReportItem name="AMERIND_CY" caption="2009 Pop-1 Race: Amer Indian" value="18679.00000000" />
  <ReportItem name="AMERIND_FY" caption="2014 Pop-1 Race: Amer Indian" value="19363.00000000" />
  <ReportItem name="ASIAN00" caption="2000 Pop-1 Race: Asian" value="55186.00000000" />
  <ReportItem name="ASIAN_CY" caption="2009 Pop-1 Race: Asian" value="78646.00000000" />
  <ReportItem name="ASIAN_FY" caption="2014 Pop-1 Race: Asian" value="93414.00000000" />
  <ReportItem name="AVGHHINC" caption="2000 Average HH Income" value="64624.00000000" />
  <ReportItem name="AVGHHISZ00" caption="2000 Avg HH Size" value="2.50000000" />
S.XML continues with 207 more variables and values...
- <Area>
  <ReportItem name="AREA_ID" caption="" value="1_3" />
  <ReportItem name="AREA_DESC" caption="" value="0 - 80" />
  <ReportItem name="DEMOG_ID" caption="" value="2" />
  <ReportItem name="STORE_ID" caption="" value="1" />
  <ReportItem name="RING" caption="" value="3" />
  <ReportItem name="STORE_NAME" caption="" value="" />
  <ReportItem name="AMERIND00" caption="2000 Pop-1 Race: Amer Indian" value="17451.00000000" />
  <ReportItem name="AMERIND_CY" caption="2009 Pop-1 Race: Amer Indian" value="18917.00000000" />
  <ReportItem name="AMERIND_FY" caption="2014 Pop-1 Race: Amer Indian" value="19673.00000000" />
  <ReportItem name="ASIAN00" caption="2000 Pop-1 Race: Asian" value="58013.00000000" />
  <ReportItem name="ASIAN_CY" caption="2009 Pop-1 Race: Asian" value="83429.00000000" />
  <ReportItem name="ASIAN_FY" caption="2014 Pop-1 Race: Asian" value="99598.00000000" />
  <ReportItem name="AVGHHINC" caption="2000 Average HH Income" value="65327.00000000" />
  <ReportItem name="AVGHHISZ00" caption="2000 Avg HH Size" value="2.50000000" />
S.XML continues with 207 more variables and values...
  </Area>
</Areas>
</Report>
```

# Improved REST/SOAP API Documentation

The API documentation has been significantly updated to incorporate more details about the various concepts and methods, more illustrations, clearer descriptions of the parameters, and improved examples. Documentation can be found on the ESRI Resource Center Web site at <http://resources.esri.com/BusinessAnalyst/Server/>.

**ESRI Business Analyst Online 9.3.1 REST API**

Business Analyst Online  
REST API

FRAMES | NO FRAMES

## ESRI Business Analyst Online 9.3.1 REST API - Overview

### Introduction

Web services provide a standard way of exposing objects and methods over the Internet. REST is a Web services architectural style that accomplishes this simply and effectively by leveraging the same technology that makes the Web browser such a useful tool.

The ESRI Business Analyst Online REST API provides a simple, standards-based, and platform-independent Web interface to services hosted by ESRI Business Analyst Online. This offers businesses, organizations, and agencies the opportunity to leverage Business Analyst Online's valuable data and powerful analyses in their own network-accessible applications. All services exposed by the Business Analyst Online REST API are accessible through a set of endpoints for each published service.

[Utility Tasks](#) and [Analysis Tasks](#) in the Business Analyst Online REST API may be executed through the use of HTTP requests. Client HTTP requests, at its most fundamental level, involve constructing and submitting Uniform Resource Identifier (URI) requests through a Web browser, command line, or some other client application/system.

When accessing a REST API, a typical starting point is called a well-known endpoint. In the case of the Business Analyst Online REST API, it consists of the following base URLs:

<b>Authentication Endpoint</b>	<a href="https://baoapi.esri.com/rest/authentication">https://baoapi.esri.com/rest/authentication</a>
<b>Report Endpoint</b>	<a href="http://baoapi.esri.com/rest/report/&lt;task&gt;">http://baoapi.esri.com/rest/report/&lt;task&gt;</a>

A short-lived token can be securely requested with the use of the Authentication Endpoint. See [Security/Authentication](#) for more information.

After obtaining a valid token, Analysis Tasks and Utility Tasks may be submitted. These tasks use the signature of the Report Endpoint given above. See the catalog of these tasks in the Table of Contents to the left.

The Business Analyst Online REST API is stateless, which means that a RESTful architectural style does not keep track of transactions from one request to the next. Each request must contain all prerequisite information for successful execution including a valid and unexpired [token](#).

### Getting Started

The Business Analyst Online REST API allows a user to quickly and simply get up and running. Through the use of the [Getting Started](#) walkthrough and the examples provided in the documentation for each Analysis and Utility task, a user will be able to submit requests for powerful analyses surprisingly quickly.

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# Integration Improvements

## ArcGIS Online Maps

ArcGIS<sup>SM</sup> Online basemaps can easily be integrated into the Analysis Center. These tiled map services offer superb cartography and high-performance redraw speeds. Information about ArcGIS Online basemaps can be found here at <http://resources.esri.com/ArcGISOnlineServices/>.






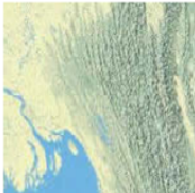

[Free Maps and Tasks](#) [Premium Maps](#) [Premium Data](#) [Imagery Maps](#) [Street Maps](#) [Content Viewer](#)

### Free Maps and Tasks

Free maps and tasks are available to use in your ArcGIS applications. Scroll to the bottom of page to see the available tasks. For [external commercial](#) use of ArcGIS Online maps and tasks, you must [purchase a subscription](#). Learn more about [using ArcGIS Online maps](#), [using free geocoding tools on the task server](#), and [using free routing tools on the task server](#).

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### Basemaps

<p><a href="#">World Imagery</a></p>  <p><a href="#">Description</a></p>	<p><a href="#">World Street Map</a></p>  <p><a href="#">Description</a></p>	<p><a href="#">USA Topographic Maps</a></p>  <p><a href="#">Description</a></p>	<p><a href="#">World User Imagery</a></p>  <p><a href="#">Description</a></p>	<p><a href="#">World IKONOS Cities Imagery</a></p>  <p><a href="#">Description</a></p>
<p><a href="#">World Physical Map</a></p>  <p><a href="#">Description</a></p>	<p><a href="#">World Shaded Relief Imagery</a></p>  <p><a href="#">Description</a></p>			