What **is** Business Analyst Server?

- A set of data, analysis methods & application development toolkits

  - To Create Applications
    - Support a large number of users from a central location
    - No individual desktop applications or GIS knowledge.
    - Web, mobile, *anywhere*

  - Applications, dashboards, analyses, and models
    - Shared across the organization
    - Provide a common platform
      - decision-making and planning
Business Analyst API

Quickly incorporate in your web or mobile application

- People, Places, Business
- Suitability Maps \ Reports
- Maintained by Esri

- Population
- Households
- Age
- Income
- Family Size
- Education
- Net Worth

- Consumer Spending
- Lifestyles
- Market Segmentation
- Businesses
- Products & Services Use
- Supply & Demand
A Flexible & Self-Sustaining Solution

configure

leverage

Business Analyst APIs

in-house data

Other external data, arcgis.com

disseminate

Business Analyst Reports, Analyses, Data
ArcGIS 10 — A Complete System

Easier
More Powerful
and Everywhere

- Discover
- Create
- Manage
- Visualize
- Analyze
- Collaborate

Cloud
Enterprise
Local

Web
Mobile
Desktop
Business Analyst API Technology Stack

ArcGIS Server 10.x
Business Analyst Server (on premises)

Web Service Endpoints

RESTful Services

SOAP Services

Business Analyst Server Online (SaaS infrastructure)

Business Analyst Server (Esri hosted)

Web Application

Web Service Endpoints

RESTful Services

SOAP Services

Flex SDK

Silverlight SDK

Flex SDK

Silverlight SDK

ArcGIS Server 10.x
Common Input Parameters

Study Locations/Areas

- Standard Geography/Administrative Boundary Areas
- Locations Defined by Address or Point Coordinates (demo)
- Areas Defined by Custom Geometries

Desired Summarization/Analysis Variables or Report Template IDs
Common Output

Excel

<table>
<thead>
<tr>
<th>id</th>
<th>attribute1</th>
<th>attribute2</th>
<th>attribute3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MyTextAttribute1</td>
<td>12345.67890</td>
<td><a href="http://www.esri.com">http://www.esri.com</a></td>
</tr>
<tr>
<td>2</td>
<td>MyTextAttribute2</td>
<td>12345.67890</td>
<td><a href="http://www.arcgis.com">http://www.arcgis.com</a></td>
</tr>
</tbody>
</table>

XML

```xml
<?xml version="1.0" ?>
<records>
  <record id="1" attribute1="MyTextAttribute1" attribute2="12345.67890" attribute3="http://www.esri.com" />
  <record id="2" attribute1="MyTextAttribute2" attribute2="12345.67890" attribute3="http://www.arcgis.com" />
</records>
```

JSON

```json
{
    "records": [
        {
            "id": "1",
            "attribute1": "MyTextAttribute1",
            "attribute2": 12345.67890,
            "attribute3": "http://www.esri.com"
        },
        {
            "id": "2",
            "attribute1": "MyTextAttribute2",
            "attribute2": 12345.67890,
            "attribute3": "http://www.arcgis.com"
        }
    ]
}
```

PDF


Examples

**JSON**

*Query the average and median owner-occupied home values; and the number of owner-occupied, renter-occupied, and vacant-housing units for each of the 48 contiguous states.*

http://baoapi.esri.com/rest/maps/ThematicQuery/execute?
geoLevelID=US.States&
f=pjson&
outFields=NAME,ID,AVGVAL_CY,MEDVAL_CY,OWNER_CY,RENTER_CY,VACANT_CY&
geometry={"xmin":-125,"ymin":25,"xmax":-43,"ymax":50}&geometryType=esriGeometryEnvelope&InSR=4326&Token=wlfe8G0HpRr_Lc2ECWhYJi7oYK8YGnJWwYXrN9udlAtYPWSTZ2xPNbso16uffF67FbcM=&

**XML**

*Develop a reusable Web App to quickly and easily analyze potential electric vehicle charging station locations*

**PDF**

*Create a Retail Marketplace Potential Report for a custom-defined Study Area*

**Applied Workflows with NO CODE!**
Conclusion

• Gain new and additional insights into your communities, constituencies

• Leverage quality data that would be prohibitively expensive to accumulate, process, update, and maintain.

• Use standards-based Web services to tap into the cloud and create and enhance your workflows to attract investment into your communities.
Simple Sophisticated Services
What are we doing?

Designing new BA Server API methods

• Simplify the naming and syntax
  - Make it obvious and easy to understand

• Reduce the number of required parameters
  - Provide one parameter and receive a result

• Anticipate and offer smart defaults
What does it look like?

A standard web address
• http://baoapi.esri.com/GetFacts?
• StudyAreas="380 New York St. Redlands, CA 92373"

What occurs
1. Address is evaluated & geocoded
2. A default, 1-mile ring around the point
3. Ring area retrieves variables in the default FactPack
4. Results are returned in a simple format
What does it look like?

Let’s get fancy

• http://baoapi.esri.com/GetFacts?
• StudyAreas=“380 New York St. Redlands, CA 92373”
• RunComparison=true (+token)

What occurs?

1. Address is evaluated & geocoded
2. A default, 1-mile ring around the point
3. Ring area retrieves variables in the default FactPack
4. The same variables are retrieved for multiple areas
   1. Zip code, county, state, country
5. Results are returned in a simple format
What does it look like today?

BenchmarkOptions=useMedianValues&
FieldSortType=sortNone&
StandardReportOptions={"ReportFormat":"PDF"}&
Summarizations=AVGVAL_CY;AVGHINC_CY;AVGHHSZ_CY&
TradeAreas=[{"StdLayer":{"ID":"US.Zip5","GeographyIDs":["92373"]}},
{"StdLayer":{"ID":"US.Counties","GeographyIDs":["06071"]}},
{"StdLayer":{"ID":"US.States","GeographyIDs":["06"]}},
{"StdLayer":{"ID":"US.WholeUSA","GeographyIDs":["01"]}}]&
f=pjson&
Token=ABC123
Business Analyst Server 10.1

• External Feature class/ data support
  - Reference other GDB’s or tables with spatial data
  - Leverage BA Server methods without copying data

• BA Application Template
  - Customizable, Localizable, Extensible, Skin-able
  - User Interface Component Library
Business Analyst Application Template
Wrap-up
Other Ways to Reach Us

Visit the Commercial Solutions Island

Read Our Blog!

Email Us!

bateam@esri.com

esri.com/bablog
General Info:
esri.com/ba

Technical Info, Videos, Doc, Help:
resources.arcgis.com Δ Business Analyst
Please Fill Out Your Surveys!
esri.com/sessionevals