

A stylized compass rose graphic with a semi-circular frame and directional markers for North (N) and West (W). The needle points towards the upper right.

FIRSTMAP

Introductory Seminar

September 2015

← Introduction

- ▶ FirstMap Overview
- ▶ FirstMap Website
- ▶ Connect to services using ArcGIS Desktop
- ▶ ArcGIS Online
- ▶ Open Data
- ▶ Web Development
- ▶ Wrap Up

FirstMap Overview

← FirstMap Overview

- ▶ State's Enterprise GIS system that consists of the following:
 - Infrastructure for storing data and providing web services
 - Website (<http://firstmap.delaware.gov>)
 - Web Mapping Portal (ArcGIS Online)
 - Web Maps and Applications
 - Data Download Site (Open Data)

← FirstMap Overview

▶ Public Users

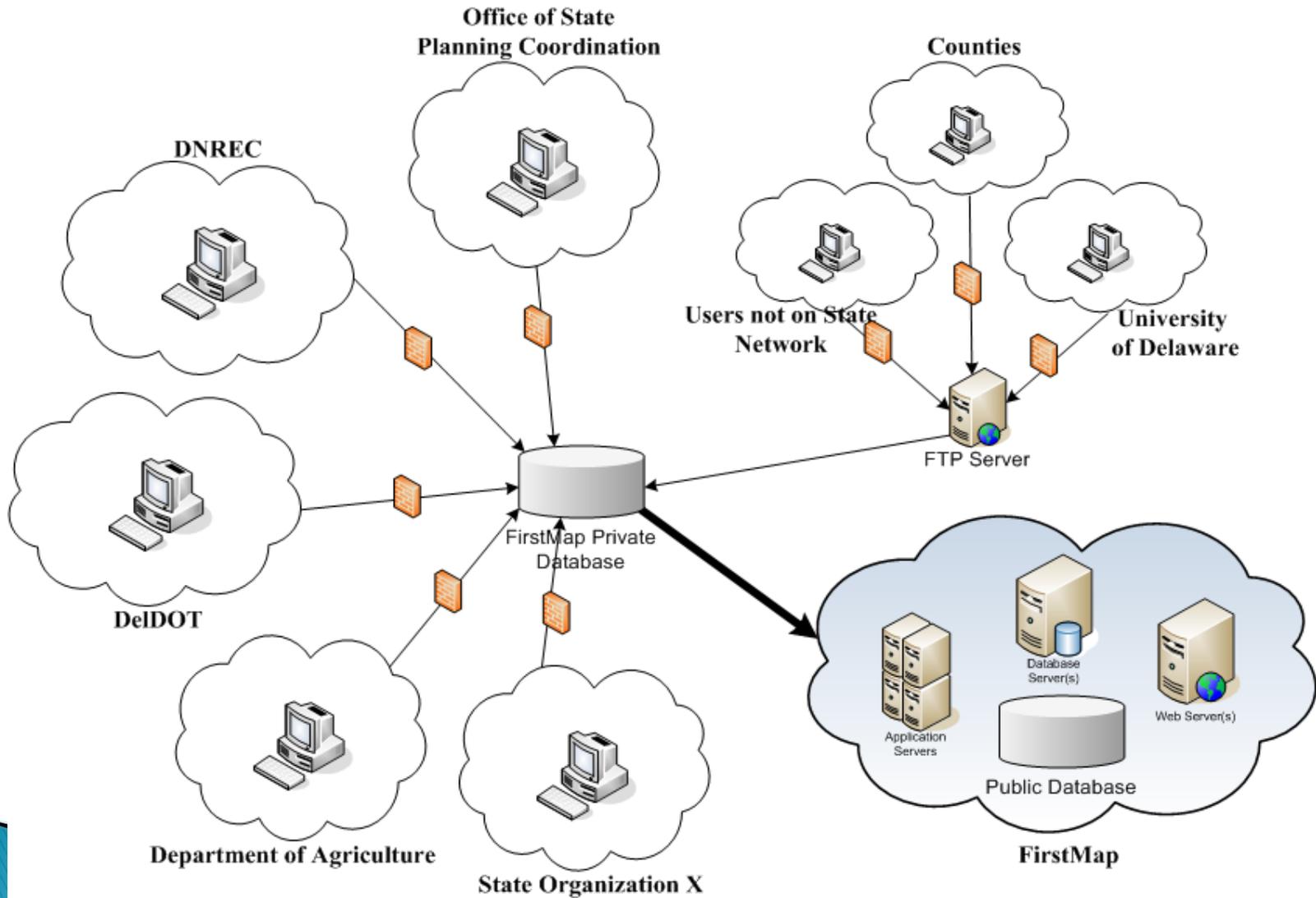
- No account needed
- Services accessible over the web to everyone
- Ability to share these services and consume them within ArcGIS Online
- KML capabilities enabled

← FirstMap Overview

▶ Private Users

- The services are only available inside the state firewall
- Agencies dictate if the service should be available to the public as well
- Some data are available on the private side but not on the public site, i.e. parcel ownership information

↖ FirstMap Data Flow



FirstMap Website

↖ FirstMap Website

▶ <http://firstmap.delaware.gov/>

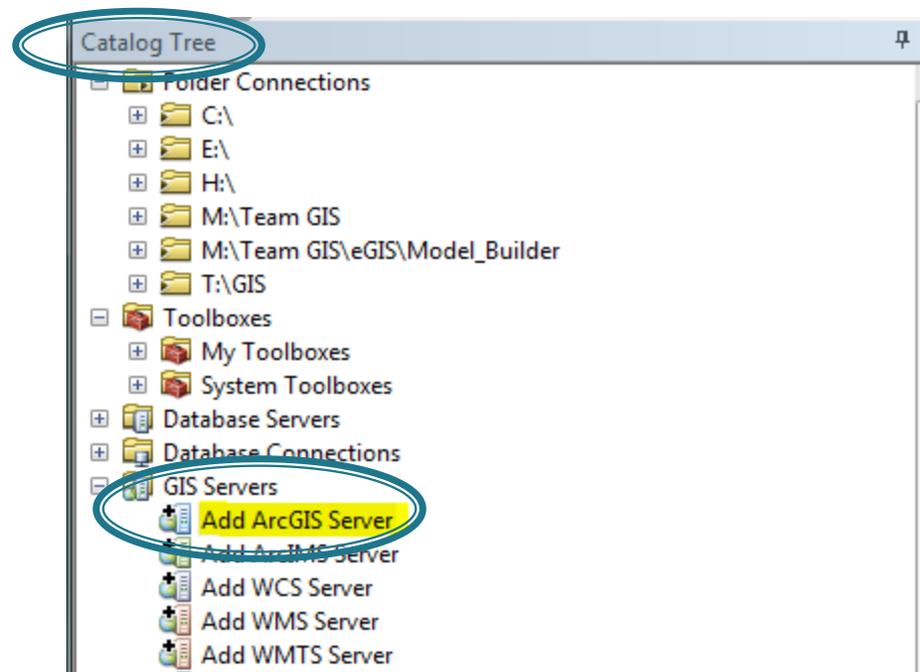
- How to documents
- FAQ documents
- Links to services
- Much More



← Connect to Services

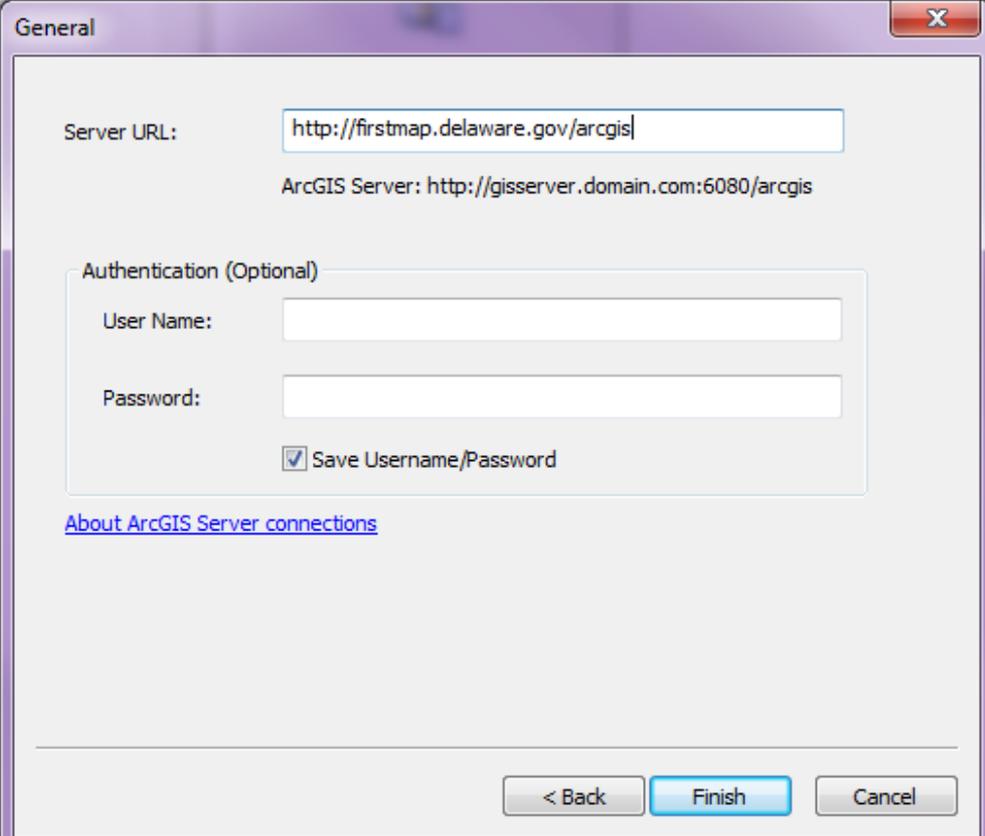
➤ Connect to Services

- ▶ Connect directly to the FirstMap services from ArcCatalog
- ▶ Go to GIS Servers –> Add ArcGIS Server



↖ Connect to Services

- ▶ Public: <http://firstmap.gis.delaware.gov/arcgis/>
- ▶ Private: <https://firstmap.dti.state.de.us/arcgis/>



The screenshot shows a 'General' dialog box with the following fields and options:

- Server URL:** A text box containing `http://firstmap.delaware.gov/arcgis|`. Below it, the text 'ArcGIS Server: http://gisserver.domain.com:6080/arcgis' is displayed.
- Authentication (Optional):** A section containing:
 - User Name:** An empty text box.
 - Password:** An empty text box.
 - Save Username/Password
- [About ArcGIS Server connections](#)
- Buttons at the bottom: '< Back', 'Finish', and 'Cancel'.

← Types of Services

▶ Map Services

- Data is served as a pre-created map
 - Cannot export the data
 - Cannot symbolize, query or select
 - WYSIWYG
 - Can view all features

← Types of Services

▶ Feature Services

- Data is served as an independent feature
 - Data is exportable from ArcGIS products
 - Can symbolize, query and select
 - Cannot edit
 - Can export/view up to 1000 features
 - Available for download in Open Data

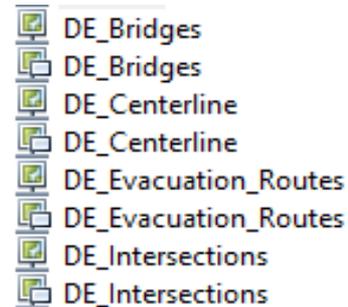
▶ Image Services

▶ Geocoding Services

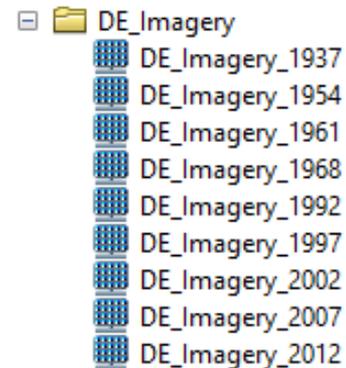
▶ KML Services

← Types of Services

- ▶ Map Service entries appear first and then the Feature Service (has a rectangle in the bottom right of the icon)

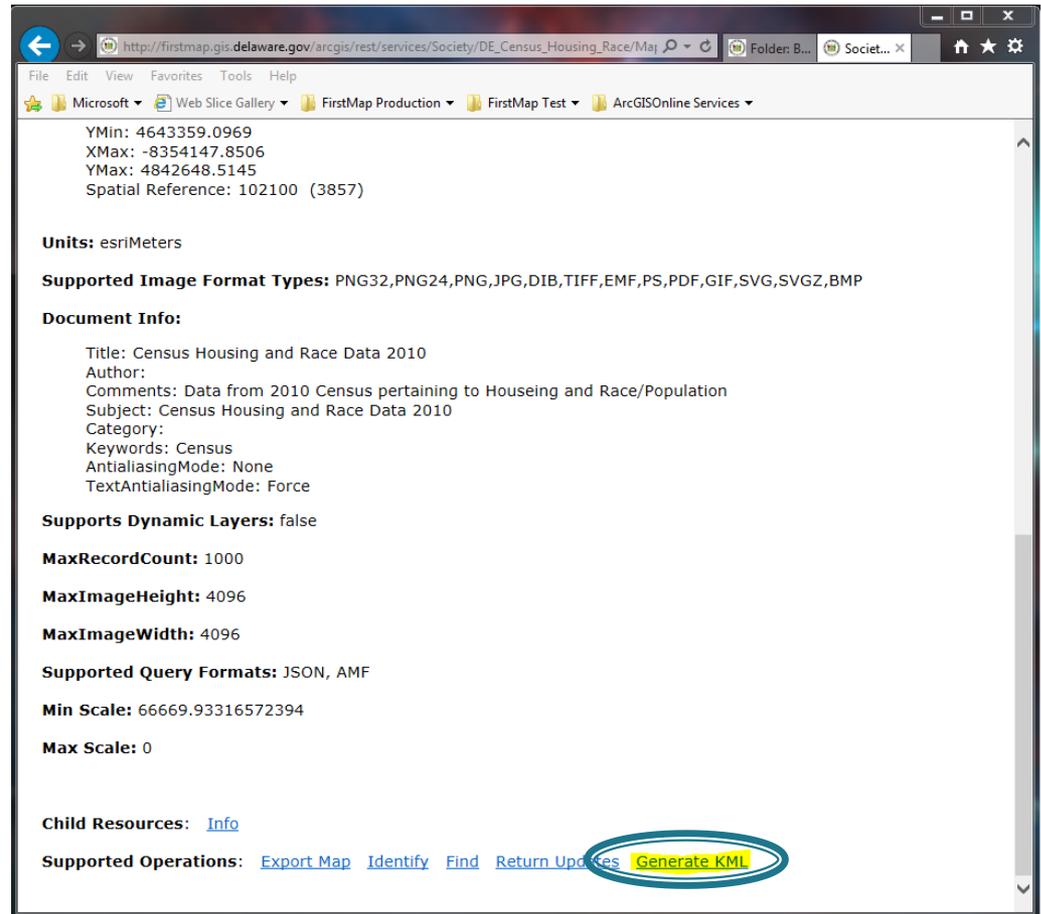


- ▶ Example of Image Services:



KML

- ▶ Most ArcGIS Services have KML Capabilities
- ▶ Supported Operations are listed at the bottom of the service.
- ▶ Click Generate KML to download a KMZ of the layer.

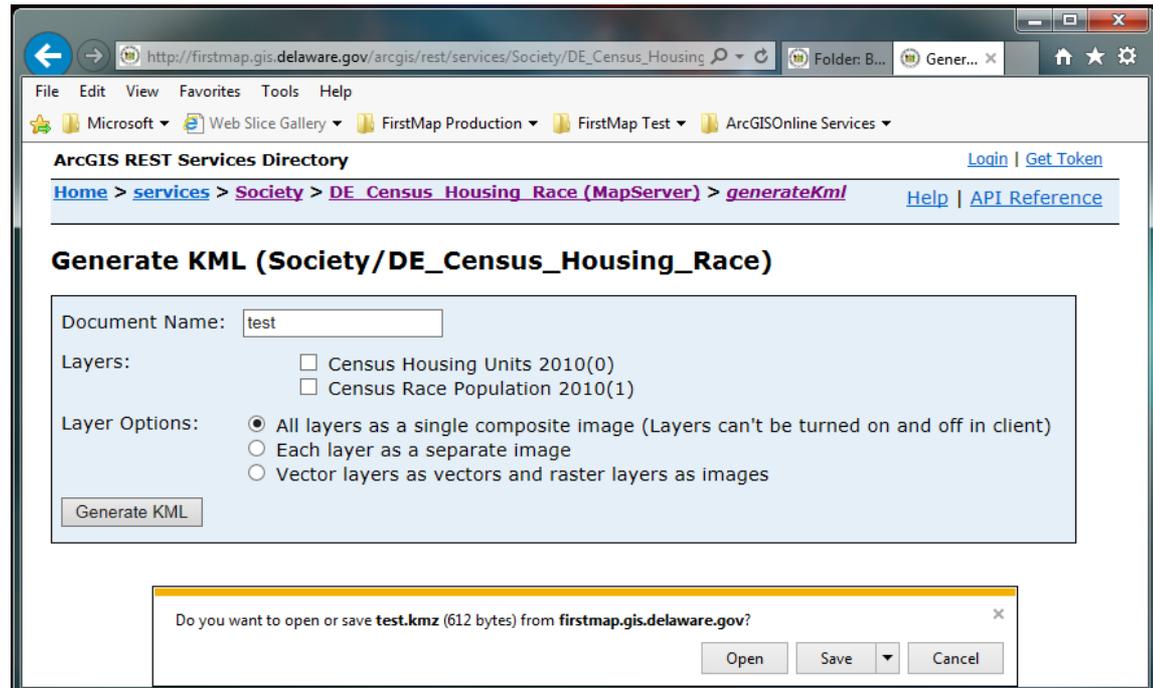


The screenshot shows a web browser window displaying the metadata for an ArcGIS REST service. The URL is http://firstmap.gis.delaware.gov/arcgis/rest/services/Society/DE_Census_Housing_Race/Maj. The metadata includes the following information:

- YMin:** 4643359.0969
- XMax:** -8354147.8506
- YMax:** 4842648.5145
- Spatial Reference:** 102100 (3857)
- Units:** esriMeters
- Supported Image Format Types:** PNG32,PNG24,PNG,JPG,DIB,TIFF,EMF,PS,PDF,GIF,SVG,SVGZ,BMP
- Document Info:**
 - Title:** Census Housing and Race Data 2010
 - Author:**
 - Comments:** Data from 2010 Census pertaining to Houseing and Race/Population
 - Subject:** Census Housing and Race Data 2010
 - Category:**
 - Keywords:** Census
 - AntialiasingMode:** None
 - TextAntialiasingMode:** Force
- Supports Dynamic Layers:** false
- MaxRecordCount:** 1000
- MaxImageHeight:** 4096
- MaxImageWidth:** 4096
- Supported Query Formats:** JSON, AMF
- Min Scale:** 66669.93316572394
- Max Scale:** 0
- Child Resources:** [Info](#)
- Supported Operations:** [Export Map](#) [Identify](#) [Find](#) [Return Updates](#) [Generate KML](#)

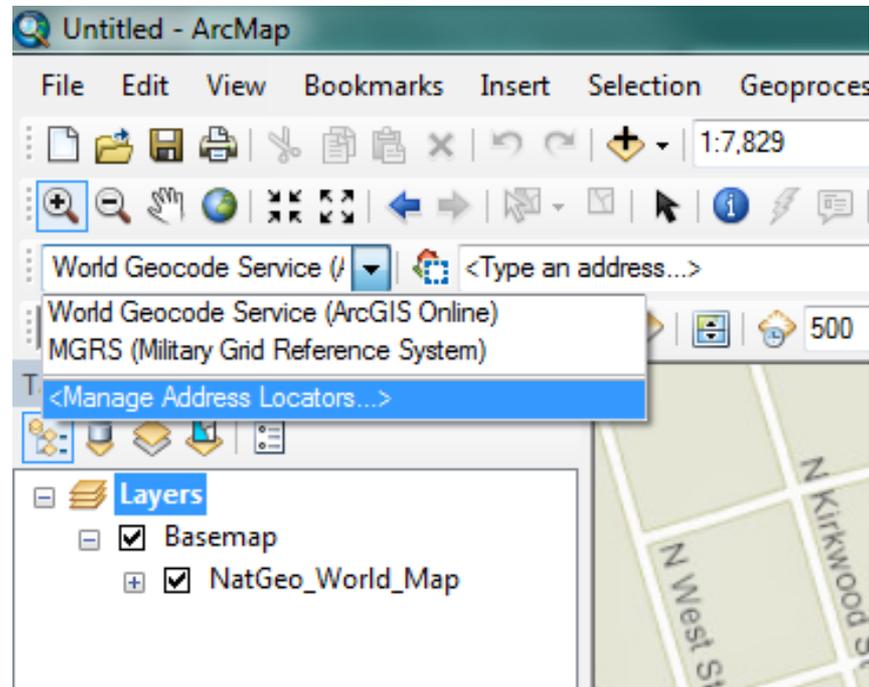
↖ KML

- ▶ Give the KMZ file a name.
- ▶ Choose what you want it to contain.
- ▶ Click Generate KML
- ▶ Save the file to disk.



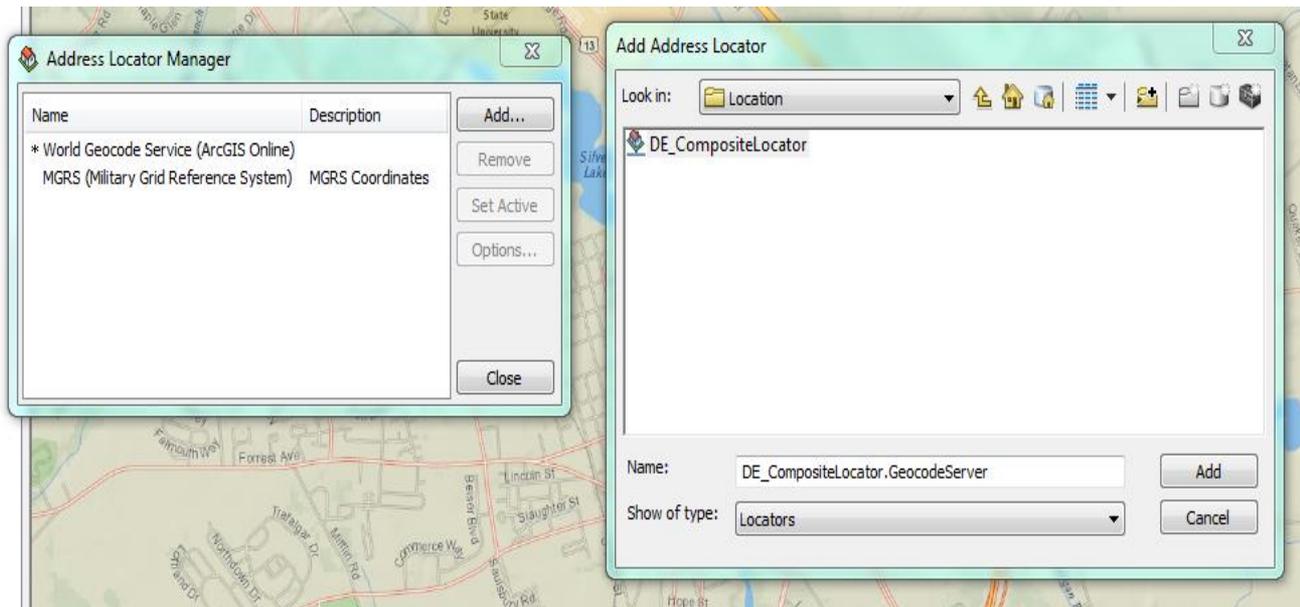
↖ Geocoder

- ▶ Add the Delaware Composite Locator to ArcMap from the Geocoding Toolbar.



➤ Geocoder

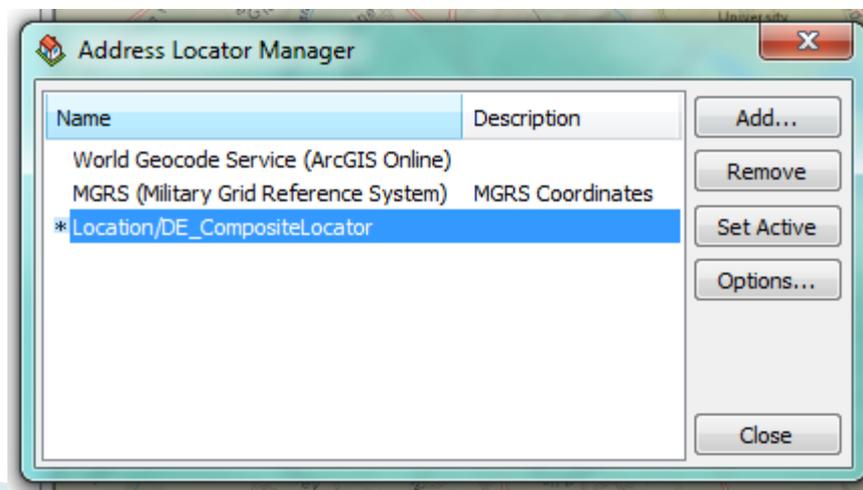
- ▶ Navigate to the FirstMap GIS Server connection
- ▶ In the Location folder, Select the DE_CompositeLocator service



↖ Geocoder

- ▶ Select the DE_CompositeLocator service when geocoding single or a batch of addresses.
- ▶ For more information on using the FirstMap Geocoder see:

<http://firstmap.gis.delaware.gov/pdfs/public/FirstMapGeocoder.pdf>



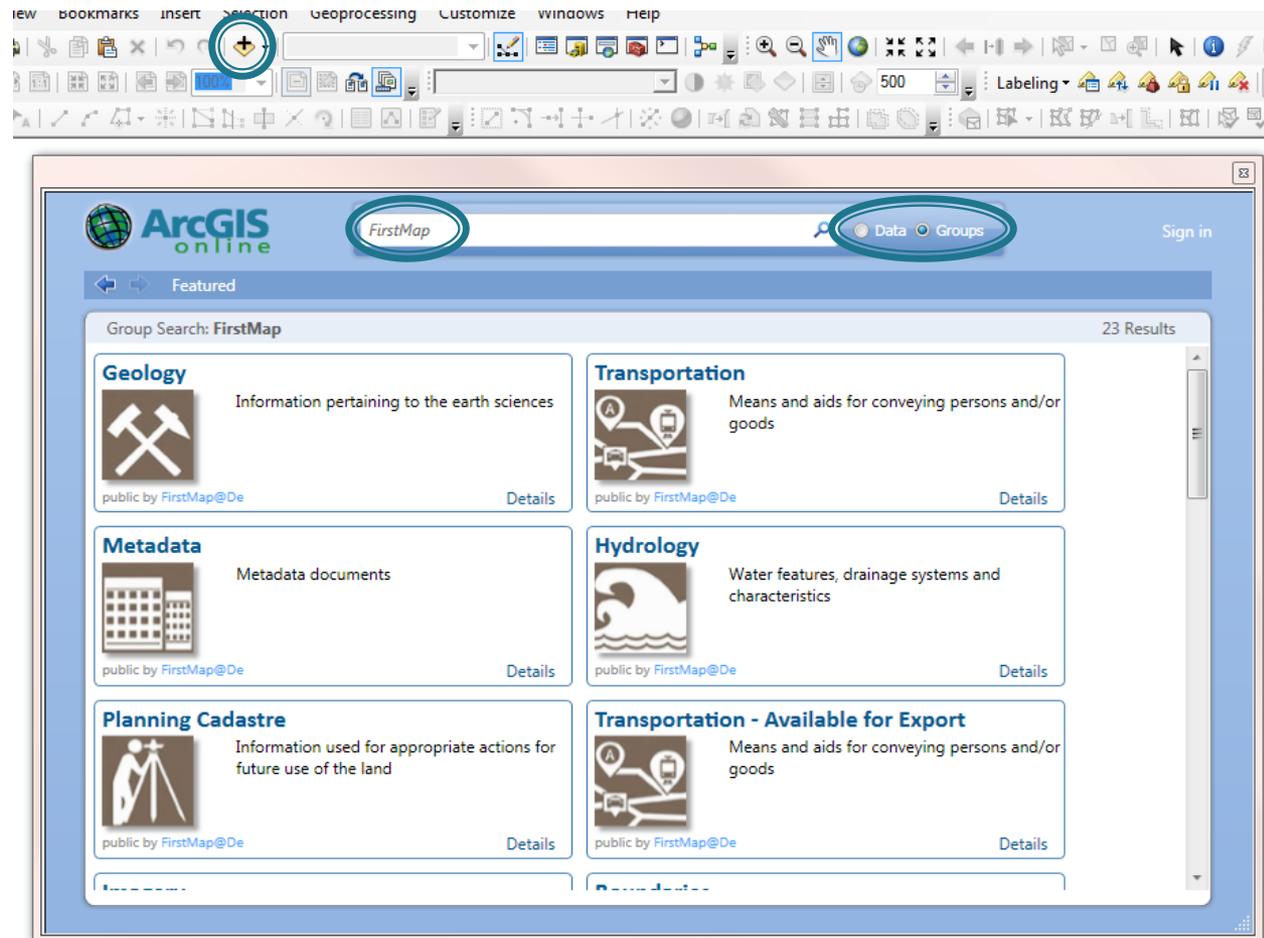
← ISO Categories

- ▶ Data is stored in Categories that are listed in the Source:
ISO 19115/TC 211 Geographic Information/Geomatics Metadata Standard

- [Applications](#)
- [BaseMap](#)
- [Biota](#)
- [Boundaries](#)
- [DE Imagery](#)
- [Elevation](#)
- [Environmental](#)
- [Geology](#)
- [Hydrology](#)
- [Location](#)
- [PlanningCadastre](#)
- [Society](#)
- [Transportation](#)
- [Utilities](#)

➤ Add Data in ArcMap

- ▶ From ArcMap, select the Add Data button and search for FirstMap.
- ▶ Narrow your search by selecting Groups.



ArcGIS Online

✦ ArcGIS Online (Web Mapping Portal)

▶ <http://delaware.maps.arcgis.com/home/>

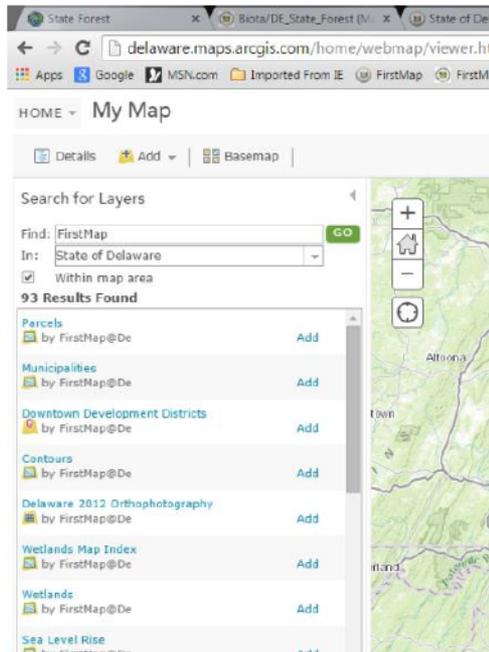
- Cloud solution hosted by esri, available world-wide
- Gallery of pre-made maps
- Self Service, create your own maps
- Add data owned by the State of Delaware or any data on ArcGIS Online

✦ ArcGIS Online

- ▶ Create your own web maps from ArcGIS Online
- ▶ Maps cannot be saved without an account
- ▶ Use a combination of FirstMap and local, regional or world data from ArcGIS Online
- ▶ Create HTML for static web pages

Discover Data using ArcGIS Online

5. Click: Add and Select “Search for Layers”



Under “Search for Layers” in the

“Find” Type “FirstMap” (There are no spaces between First and Map)

“In” Select “ArcGIS Online”

You will see a list of all the data layers that are available in FirstMap.

Add the layers to you map by selecting the “Add” button next to the layer.

You can also narrow the search by using key words in the “Find” for example”

“FirstMap orthophotography”, or “FirstMap water”.

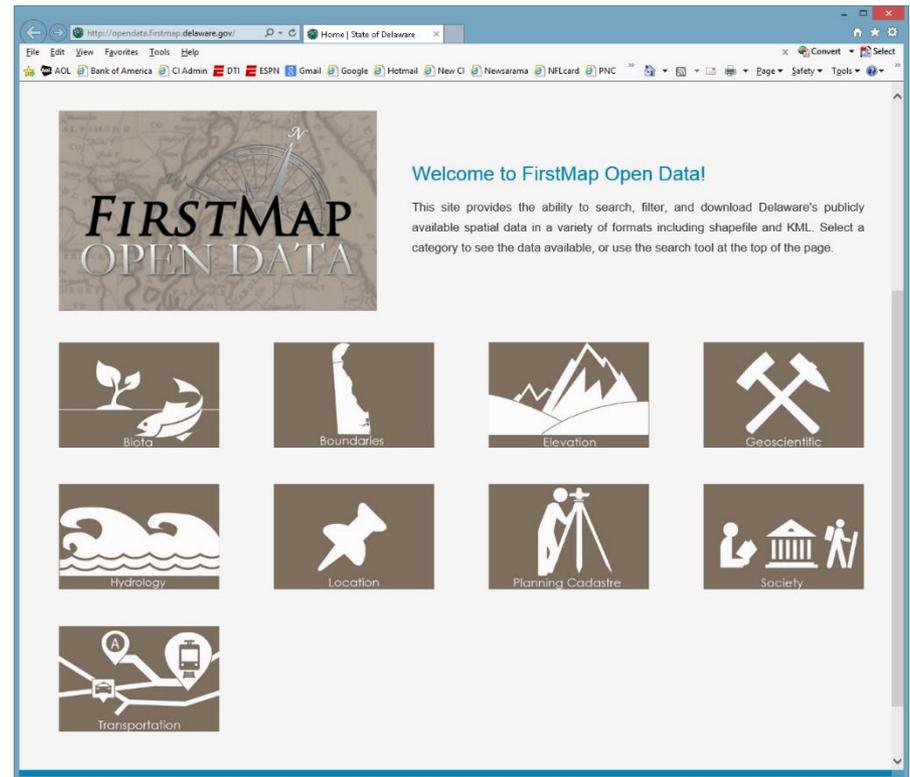
When you are done adding layers, click the DONE button at the bottom.

Please be aware that features that have more than 1000 features will not render more than 1000 at a time.

↖ Open Data

↖ Open Data

- ▶ Allows users to export data without being in an ArcGIS product
- ▶ Export to shapefile, KML or other options.
- ▶ Go to:
<http://opendata.firstmap.delaware.gov/>



↖ Open Data

- ▶ Search at top of screen and type in desired dataset.
- ▶ Choose dataset
- ▶ Go to right side of screen and click on Download Dataset. Choose type

DESCRIPTION
Data includes bridges and bridge maintenance zones.

DATASET ATTRIBUTES

BRIDGE_ID Text	
RDWAY_ID Number	min: 0 max: 999,999 avg: 34,221.21 count: 2,247
MILEPOINT Number	min: 0 max: 70 avg: 5.72 count: 2,217
BRIDGE_NO Text	759 (12), 902 (12), 809 (9), 757 (8), 680 (7), 812 (7), 748S (6), 830 (6), 600 (6), 013P (6)... (1339 more)
COUNTY Text	1 (1356), 3 (478), 2 (428)
OVER_RDWAY Number	min: 0 max: 110,437 avg: 27,393.76 count: 429

Download Dataset

DOWNLOAD ENTIRE DATASET
Spreadsheet KML Shapefile API
OR
DOWNLOAD FILTERED DATASET
Spreadsheet KML Shapefile API

2014
Updated: 2 months ago
Source <http://firstmap.gis.delaware.gov/arcgis/rest/services/Metadata/Bridges>
License [The State of Delaware makes no warranty or](#)

TAGS
Delaware | FirstMap | Transportation | Bridges

← Web Development

↖ Web Maps and Applications

- ▶ Series of web maps with different themes
- ▶ Can be created by anyone with an account in ArcGIS Online
- ▶ Templates available for creating custom applications
- ▶ Developer tools available to make creating apps much easier than in the past
- ▶ Add rest end points to applications
<https://firstmap.delaware.gov/arcgis/rest/services>

↖ Wrap-Up

- ▶ Questions
- ▶ FirstMap Team
 - FirstMap@state.de.us

