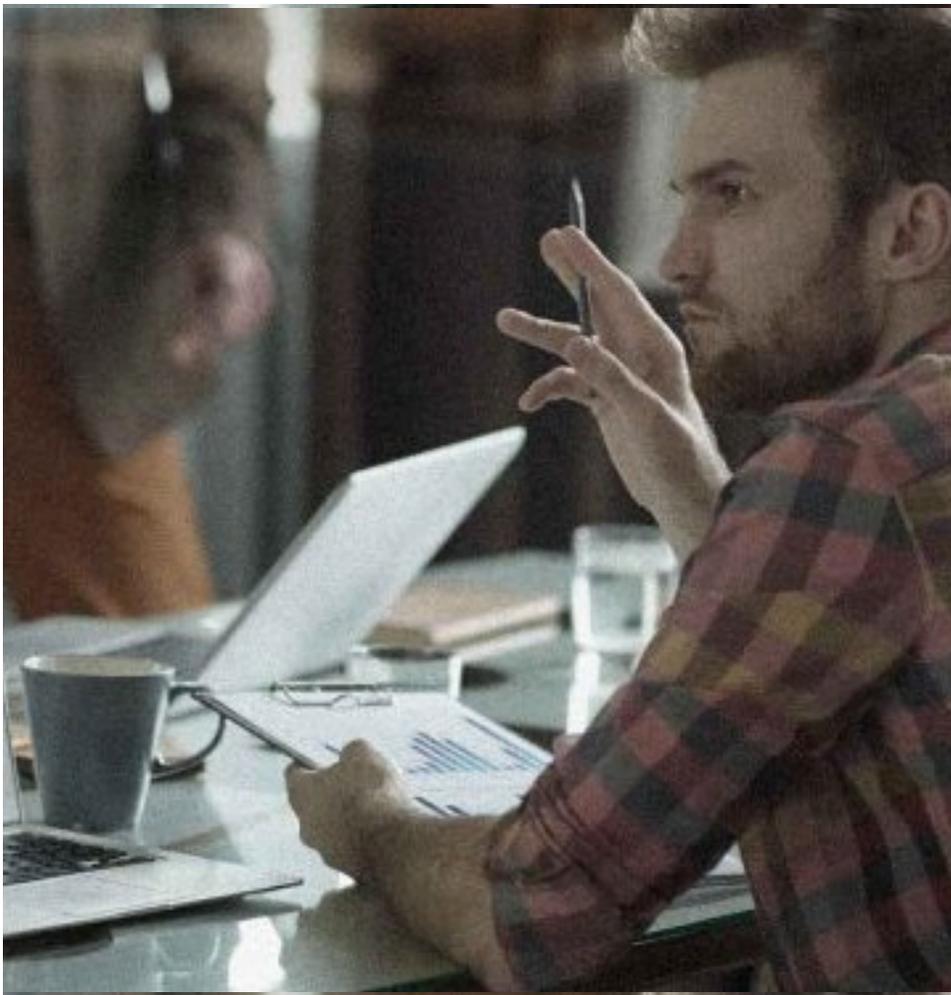# Deploying ArcGIS Online: Planning Guide

1. Introduction

ArcGIS Online is amazing. It represents a major advance in GIS technology. Not only does it provide you the ability to pull your location based data together in one central place, but has simplified publishing and visualizing that data on a map. More than that ArcGIS Online comes with a plethora of new tools which allow you to ask questions of your data. Where questions. We will get to these questions in due course.

Since ArcGIS Online is hosted in the cloud, organizations no longer need to host and maintain ArcGIS technology in-house. Overall there is little doubt that:

ArcGIS Online has made GIS easier

But many organizations are finding that they lack the knowledge, experience and/or time to deploy the platform correctly. That is the purpose of this guide, to help smooth the path. This eBook is designed to help you plan for your ArcGIS deployment. Our ultimate goal is to:

Help you get maximum benefit from ArcGIS Online

Planning is key to this process. In this guide we will walk you through the key deployment elements.

Let's begin with the Why?

2. The Why

Are you new to ArcGIS technology, or moving to ArcGIS Online from ArcGIS Desktop or Server? Wherever you have come from the questions remains the same: why are you moving to ArcGIS Online? What are you hoping to get out of ArcGIS Online? Are there particular goals you have in mind? To help answer these questions, let's consider the ArcGIS Solutions Pyramid shown below:
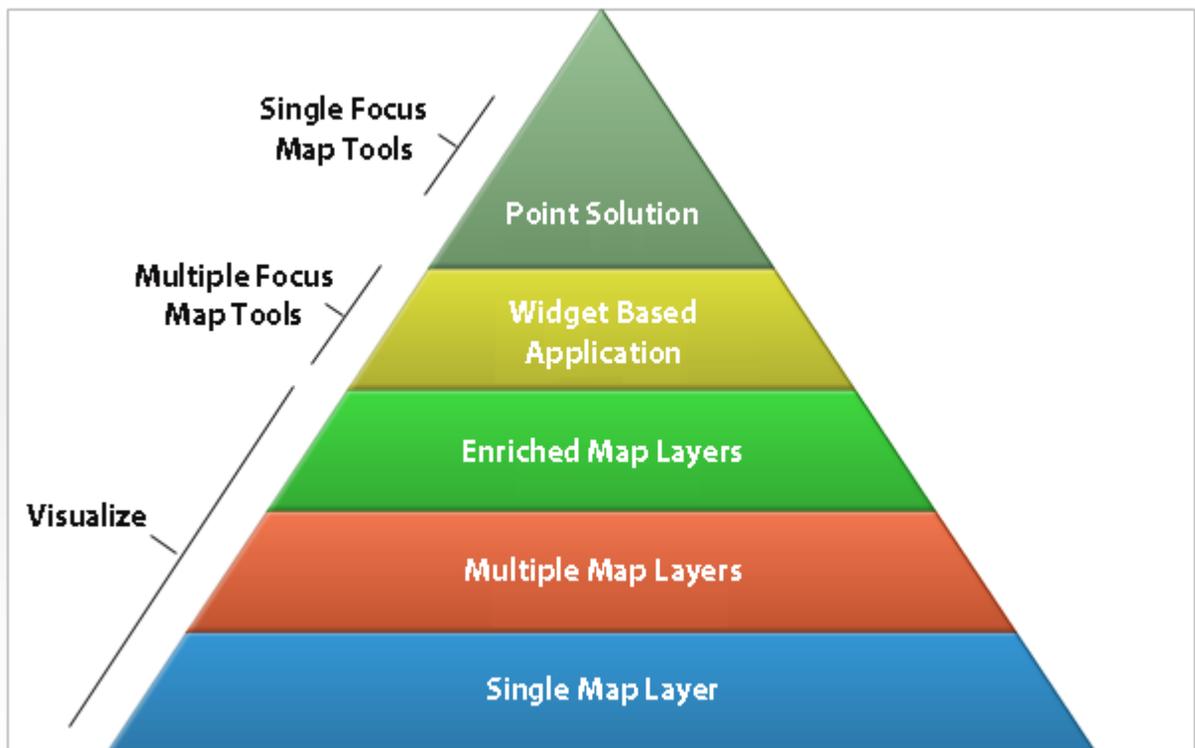
We often use the pyramid to help define organizational ArcGIS Online goals. Let's describe each of the pyramid's tiers.

The ArcGIS Solutions Pyramid has 5 tiers. The first 3 levels are focused on visualization:

Tier 1: Single Layer – Simply put this is viewing one data set on a map. For example, map all our water meters or properties for sale. A fast way to visualize your data on a map, maybe using map tools such as dragging-and-dropping CSV's onto the map.

Tier 2: Multiple Layers – This next level is focused on combining data-sets in the map. This helps us visualize relationships and patterns. For example, show me all the homes we insure which are in a flood plain.

Tier 3: Multiple Layers – The next level of complexity when it comes to visualizing data. Focused on the combining of data, calculating and outputting the results. Sometimes called enrichment, usually 'where' question driven. Show me the best locations in Salt Lake City for a new Starbucks based on a specific set of demographic factors, available properties and traffic flows is an example.

Tiers 4 and 5 are application focused. Often this means ways to access, work with and ask questions of the data.

Tier 4: Widget Based Applications - These are applications which provide a varying set of tools. This might be a desktop or web based application. On the web GeoAppSmart for ArcGIS and WebAppBuilder are excellent example of a customizable widget based web applications. They can be set up for many different needs and groups within your organization.

Tier 5: Single Use Applications -These are focused applications designed for one purpose. Collector for ArcGIS is an example of an excellent data collection mobile app which sits nicely in this tier. ArcGIS Online comes with many of these types of configurable solutions.

So ask yourself: why are you moving to ArcGIS Online? Is it for simple or complex data visualization. To provide users tools to see the data in different ways and ask questions?

Next the Who?

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3. The Who

Next let's consider who you are targeting for the maps and data you publish to ArcGIS Online. There are many user types. These include the organizational owners, including ArcGIS Online administrators, and publishers. Then there are the private users, or those who are named users but lack admin privileges. Finally there are the public users or those who you provide access to your maps and data without the need for a login.

ArcGIS Online needs to be set up carefully with each of these user types in mind. Your named users have access to your private data. You can control the data and maps they can access. There are many ways these users can be organized, and access controlled in ArcGIS Online including via groups.

Some of these private users will be given permission to edit data. That means adding, changing and deleting data. Again careful thought need go into the who in this group. There are ways in ArcGIS Online to track edits, and set up data layers for admin Q&A, to check before pushing to production.

Public layers are maps are for everybody. For example, if you are a small city, these are citizen maps. There are many public focused configurable apps which come with ArcGIS Online. Share polling stations, finding local facilities, get feedback on problems such as pot-holes, on and on.

Next the How?

4. The How

The how really addresses the process of deployment. ArcGIS comes with a wealth of resources to get started, and best practices.

There are three key parts to deployment:

1. Set up and configuration

Esri provide excellent ArcGIS Online guidance docs to get you moving forward. They can be accessed at this link:

https://doc.arcgis.com/en/trust/security/arcgis-online-best-practices.htm

2. Data preparation

Much of our client work with ArcGIS Online is focused on data. Some find this surprising. Data is the lifeblood or foundation of your GIS. The right data; accurate, complete, error free. That old saying 'garbage in means garbage' out is so true. Time and attention need go into the data you publish and map in ArcGIS Online.

3. Configuring user applications

We will consider where questions in the next section. But ArcGIS comes with an incredible number of configurable applications. These are web and mobile applications you set up yourself: style, add your own layers etc. Who are your users or audience for your mapped data? What do they need to do? Set up a specific app up for a specific problem.

Next the Where?

5. The Where

ArcGIS is designed to answer where questions.

- Where are the water valves I need to inspect today, and what do I need to do?

- Where do our potential customers live?

- Where did we collect those oil related geological sample?

- Where are the regions we are most at risk from a weather event?

- Where are the most affected areas from a natural disaster?

The where questions your users need answered will drive your ArcGIS Online deployment and implementation. What data you publish, which solution templates you deploy, how you manage and organize your users.

- Maybe specific data driven questions need answers: I need to know concentrated areas in Denver of 30-40 year old's with average incomes of $100,000 or above.
- Maybe you need a web app which contains a map with specific layers: our billboard locations, competitive billboards and major roads, and tools such as measure and query.
- Maybe you need to collect data in areas without wireless connectivity.

As you roll out ArcGIS Online consider your users where questions carefully.

So working with clients, what lessons have we learned?

6. Lessons Learned

Let's finish with 3 lessons learned, or what we have found from working with customers.

- **PJK** are an investment company focused on alternative power sources. They wanted to start with ArcGIS Online by publishing hydro electric data from a number of countries in Asia. We provided ArcGIS Online configuration, set up and training. PJK were very much focused on the web apps they wished to share with potential investors and less on the data. Using public data, they struggled with data inaccuracy. We helped them get past this hurdle.
Time spent planning and preparing data up front is critical.

- **GSL** are based in the South Eastern US. They provide land sales of rural, timberland, recreational, and transitional land. They approached WebMapSolutions looking to improve how they collected property data, and for new tools to analyze that data. After an initial ArcGIS Jumpstart to put the pieces in place. We set up and trained the staff on the use of Collector for ArcGIS, GeoForms for ArcGIS, ArcGIS Pro and a number of configurable solution templates. This deployment proved a great success with significant revenue gains as a direct result.
Leveraging ArcGIS Online configurable apps are an easy way to get fast results from your investment.

- **NMP** are a western US electric utility. They were interested in taking advantage of the the ArcGIS Online configurable apps. With WebMapSolutions help they set up a number of internal meetings to discover user needs. That meant starting with problem discovery, the story (what are the where questions and what might solutions look like?). Careful consideration was given to data. Finally a series of configurable templates were successfully rolled out based on user needs.
Carefully teasing out your users where questions is crucial for delivering successful outcomes.

Finally, Next Steps

7. Next Steps

 Step 1 – Get book smart. Take advantage of Esri's excellent online training.

Step 2 – Get street smart. Have WebMapSolutions help you put in place the right work flows using your data. By the end of our engagement you will have best combination of maps and apps in place based on your need. And the knowledge of how to do this yourself.

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