



By OnTerra Systems

Web Map Service Buying Guide



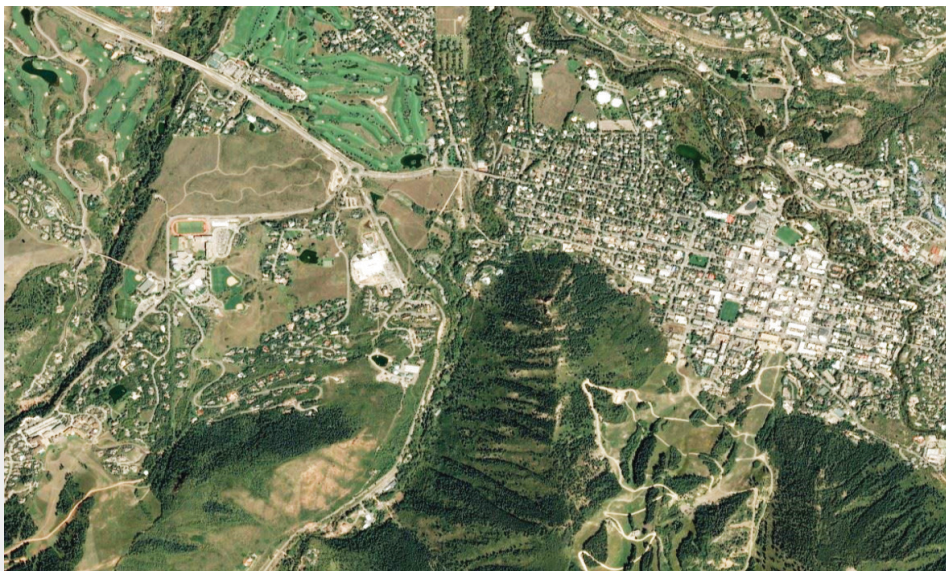
Learn how to buy the right web map service to access aerial imagery needed for your business, organization, or research team!

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Section 1

Introduction



This Web Map Service White Paper is designed to help people working at businesses, non-profits, government departments, or on research teams learn about:

- Web mapping technology basics
- How this technology works
- Basic applications for web mapping services
- Basic buying tips...and more.

For any industry where aerial imagery is needed, today's web mapping services provide access to web-based map imagery for a wide variety of uses.

Section 2

What is a Web Map Service

A web map service is a technology tool that serves up map images via the Internet, by accessing a geographical information system (GIS) map database.

These web-based map images are produced in a standard format that was developed by the Open Geospatial Consortium (OGC) in 1999. This technical standard provides a universal HTTP (web-based) interface for requesting and obtaining map images from various geospatial databases.

When a user requests a map using a WMS request, the WMS request specifies the geographic area for a map, as well as various “layers” of information that can be depicted on the map. Examples of map layers include:



- **Basic Web Map – Current** (shows the land from an overhead, or aerial, view of a specific geographic area as it is at the time of the map image request)
- **Basic Web Map – Past** (shows the land and infrastructure from an overhead, aerial view, from some point of time in the past)
- **Web Map with Roads** – (shows the land from an over-head view with roads shown as well)

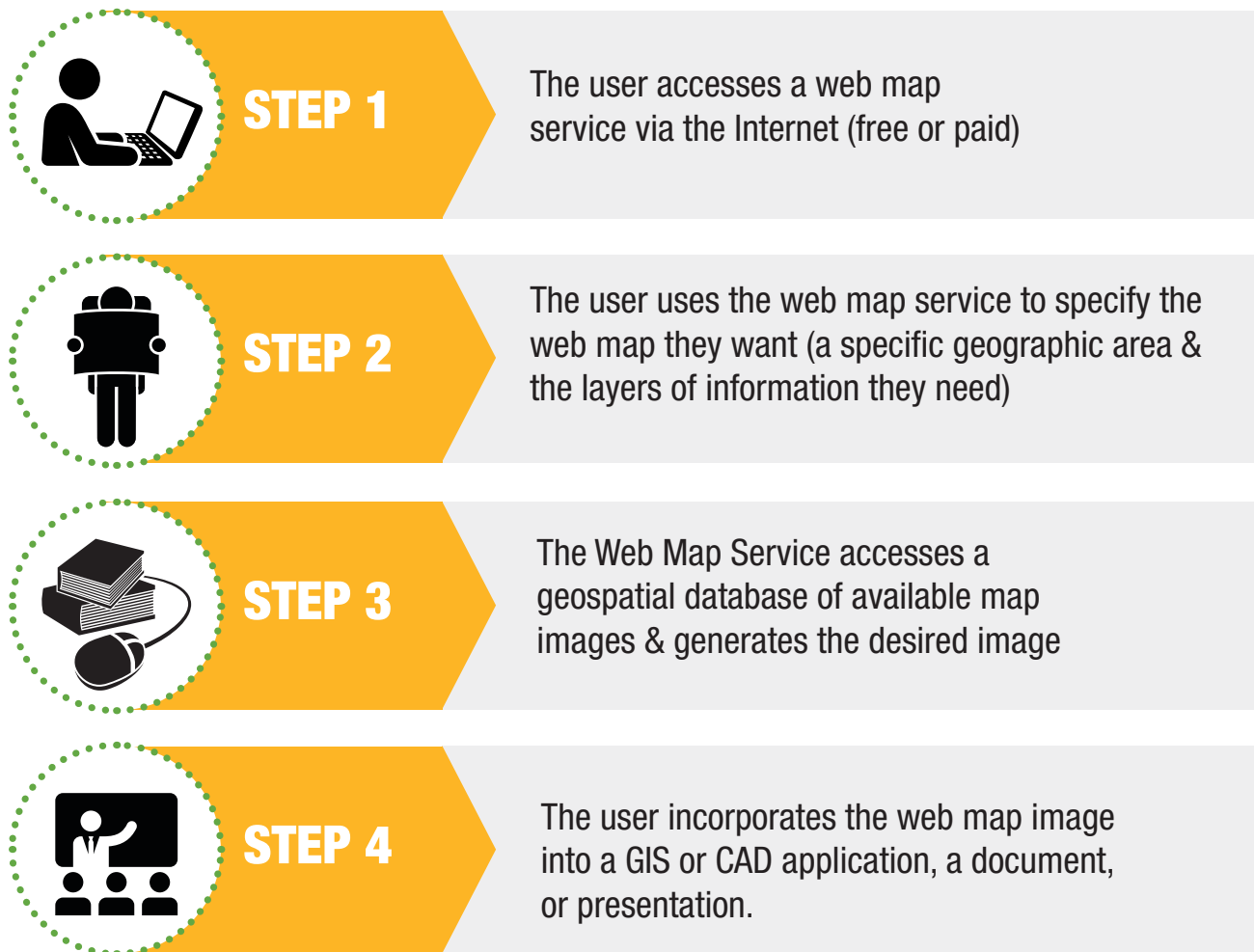


Once a web map is requested, the actual web map will appear in the user's web browser and can be displayed in a variety of file formats (a .jpeg file, a .png file, etc.)

There are a variety of **Web Map Services**, offering different types of web maps, and at vastly different prices ranging from free to very expensive.

Section 3

How Does Web Map Software Work?



Section 4

Industries That Need Web Maps

Any activity that requires detailed maps to incorporate into GIS/CAD projects, presentations & documents is a good candidate for making use of Web Map Services. Here's a look at industries that can benefit from using web map services:



BUSINESS

- Aerospace
- Agriculture
- Architecture
- Aviation
- Defense
- Dredging
- Engineering
- Environmental Consulting
- GIS Developers
- Oil & Gas Pipelines
- Mining
- Real Estate Development
- Retail Chains
- Surveying
- Telecommunications (Tower Planning)
- Tourism



RESEARCH

- Earth Mapping
- Environmental Research
- Oceanic Research
- University Research Programs
- Wildlife Tracking & Conservation



GOVERNMENT

- Census Bureaus
- City Planning
- Public Safety (Fire/EMS)
- Homeland Security
- Law Enforcement
- Military
- Transportation Planning
- Utility Planning

Section 5

Application Stories

One of the best ways to understand technology tools is to review examples of how the technology can be used. With that in mind, here are a few examples of how a web mapping service can be used in a variety of industries:

Architecture/Real Estate Development



When architects & developers are working on public projects, there's usually a process of civic engagement that's included in order to build public support for a project. During this community engagement process, architects & developers can access aerial imagery for presentations to the public. This imagery can help provide faster, clearer understanding of the location of a proposed project and the context of the development, i.e. surrounding buildings & infrastructure.

Wildfire Mapping & Strategic Planning



Well before wildfire seasons hits, public safety officials who have to deal with wildland fires can access aerial imagery to assess areas most likely to burn, and what would be needed to fight a fire in that area. They can use aerial imagery to assess areas of thick vegetation, dead trees, elevation, slope, and the general rugged nature of the area. This helps them plan for the firefighting resources that would be needed, and the level of difficulty for firefighters on the ground to access the area to fight fires.

Agriculture



Aerial imagery is particularly important for productive agriculture. Drones are helpful but can only fly to a height of 400 feet so as not to interfere with private and commercial planes flying at higher altitudes, per the Federal Aviation Administration. Given this, aerial imagery is a farmer's friend because it provides a higher-altitude view of their fields in order to make strategic decisions about irrigation, crop rotation, and more.

Law Enforcement



Web mapping services are increasingly being used in law enforcement, both for general crime mapping and to help solve specific cases. By accessing a web map of a specific area, and then applying known crimes and the location of the crimes, law enforcement can do everything from tell the public where the areas of highest crime are to plotting the behavior of specific criminals in order to catch them.

Section 6

Web Map Service Buying Tips

How To Choose The Right Web Mapping Service

There are many web mapping services on the market today, with vastly different features, functions, technology approaches, and price points. Here are some tips on how to find the right web map service for your business, organization, governmental department or research team.



Free Vs. Paid Web Map Services –

Some web mapping services are free. Some are paid.

Free Web Map Services Pros & Cons

Pros:

- There's no cost to access the images.

Cons:

- These free services don't always have the most up-to-date web maps.
- These free web map services sometimes have interfaces that are difficult to use.

Tip 2

Paid Web Map Services – Paid web map services range greatly in price from affordable (starting price of \$500 for the year) to thousands of dollars.

Paid Web Map Services Pros & Cons

Pros:

- You get high-quality images.

Cons:

- There's a cost involved, from a modest annual fee up to thousands of dollars per year.



Tip 3

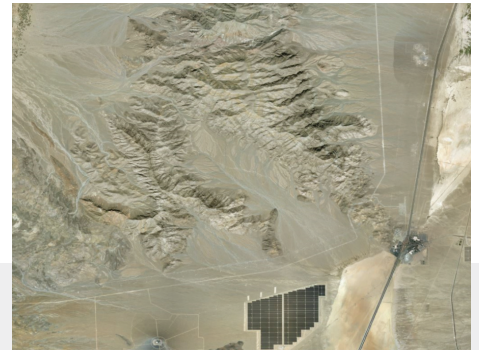
Coverage

- Coverage references the geographic areas for which the web map services has maps.
- Determine if the service provides maps worldwide, regionally, or locally.
- Choose the web map service that can provide maps with the geographic coverage that you need.

Tip 4

Clarity/Image Resolution

- Clarity references the resolution of the aerial images you're going to obtain. When you're researching web map services, determine if you need high-resolution or lower-resolution images.
- Then check with the web map service to see if they offer the clarity of web map images you need for your application.



Tip 5

Availability of Current Vs. Past Images

- Some web map services only offer the latest, most up-to-date images. Some only offer historic aerial images. Some web map services offer both.
- Determine if your application requires the most up-to-date images possible.
- Also determine if you'll ever need images of the same area from the past, for comparison to the up-to-date images.
- Then find out if the web map services you're considering can generate web maps from different periods of time.

Tip 6

Frequency of Mapping Updates

- Some web map services are cheap but the maps that can be generated are 10 years old, or more.
- Some web map services provide access to the latest, most recent aerial imagery that's been taken.
- When choosing a web map service, you'll have to determine if your application needs up-to-date imagery, or not.
- Then assess how frequently the aerial imagery from the web map service is updated.



Tip 7

General Pricing Model

- There are a lot of different pricing models used for web map services.
- Some web map services charge “ala carte,” i.e. for each web map you need, you’ll pay a certain price.
- Some web map services charge one flat fee and you can access everything they have in the way of web maps.
- This is really important. Be certain how the web maps you’ll be accessing are priced.
- With the “Ala carte” mode, you’ll end up with LARGE bills for the web maps you use.

Tip 8

Starting Price Point

- One of the most important questions to ask is: “What’s the starting price to access your images?”
- Some web map services start at just \$500 per year for the right to access thousands of web map images.
- Some web map services require a significant investment of thousands of dollars.
- Determine your budget & make sure you know what the starting price is, and what you can afford.



Tip 9

WMS Client Support

- WMS is an industry standard. But many GIS and CAD products support these standards in different ways.
- Make sure your application is compatible and will work with the Web Map Services you’re considering.
- Make sure the WMS service supports other projections if needed.

Tip 10

Customer Support

- Another factor to consider is that many free Web Map Services do not provide any tech support.
- Be sure to find out if the Web Map Services you’re considering offer responsive technical support.

Section 7

About the MapSavvy Web Map Service

MapSavvy was developed by USA-based OnTerra Systems. OnTerra Systems specializes in web mapping applications and is a long-time, high-level Bing Maps partner.

What Is MapSavvy?

MapSavvy is an affordable web mapping service that provides an inexpensive way to access Bing Maps images.

Is MapSavvy a Standard Tech Platform?

Web map images generated by MapSavvy are OGC-compliant (the industry standard).

How can MapSavvy Be Used?

Map images generate by MapSavvy can be incorporated into:

- Presentations
- Proposals
- Development plans
- Research reports
- GIS applications
- CAD applications & more



How Much Does MapSavvy Cost?

MapSavvy is super affordable, with all-inclusive pricing and a low starting price of \$500 per year. (This is 10 times less than what the big aerial maps providers are charging.)

What Kind of Aerial Images Can MapSavvy Provide?

MapSavvy provides Bing Maps aerial imagery in multiple formats:

- Original, high-resolution images
- Lower-resolution imagery updated by Bing Maps in 2017
- Multiple layers of aerial imagery including basic maps, maps layered with roads, maps layered with labels that identify landmarks
- MapSavvy offers advanced map projection support when required by WMS client software.



What Geographic Coverage Does MapSavvy Provide?

- MapSavvy provides worldwide coverage, i.e. aerial maps from all over the globe.
- Users can access the mapping imagery they need, whether it's local, regional, or from some far corner of the world.

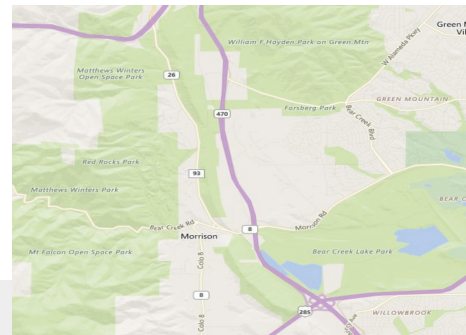


For more information, a **FREE Trial**, or to purchase, visit: www.MapSavvy.com

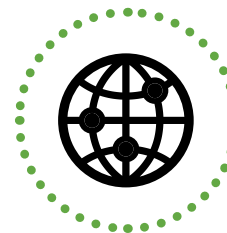
Section 8

Summary: Making the Case for MapSavvy as Your Web Map Service of Choice

There are many web map services on the market today, offering a wide range of aerial imagery options with a wide range of price points. MapSavvy is a powerful, affordable web map service using Bing Maps aerial imagery. Here are just a few reasons to choose MapSavvy for your web map imagery needs:



- **Affordable** – MapSavvy's starting price point is just \$500 a year. This is HALF of what many other web map services are charging
- **Massive Image Volume** – For just \$500 a year, your team can access up to 20,000 web map images per year for up to 5 users.
- **Easy to Use** – Thousands of customers worldwide are using MapSavvy because it's easy to use and easy on their wallets and budgets.
- **OGC-compliant** – MapSavvy has been designed from the ground up to adhere to web mapping protocols defined by the Open Geospatial Consortium.



Web Maps are finding their way into virtually all industries because a picture's worth a thousand words. If you're in the market for a web map service, use the buying tips outlined in this document to obtain the WMS that's right for your business, non-profit, government department, or research team.

To learn more about the MapSavvy Web Map Service visit: www.MapSavvy.com, and sign up for a **FREE 14-day Trial**.

