

Getting the Results You Need:

Five Critical Success Factors to Consider when Choosing a Web Mapping Service

Executive Summary

Several industry trends are merging and resulting in increased demand for hosted web mapping services. First, companies are realizing the value of location as a strategic asset in improving business operations. Second, advances in mapping technology and near-ubiquitous broadband connections, combined with the widespread availability of accurate, worldwide geographic data, have improved the economic business model for hosted web mapping from both the vendor and customer point of view.

There are now a number of web mapping services on the market to choose from for your business mapping application. This executive brief will help you evaluate these platforms and make the right choice based on five critical success factors: features & functions, customization capabilities, the ability to gain cost efficiencies, the reputation of the vendor, and access to additional resources.

1. Features & Functions are at the Foundation

The first factor to consider when evaluating a web mapping platform is the available feature set. You should consider not only the features and functions required for the application you have in mind, but also the functionality you might need in the future as your needs evolve and your organization expands its use of web mapping.

If the platform does not natively offer the features and functions you need—or they cannot be added through customization—the platform should be eliminated from contention.

Below is a list of foundation features and functions which should be available in your web mapping platform:

- A securely hosted and reliable service that is regularly updated, offers accurate geographic data, and comprehensive geographic coverage including international data.
- A rich and flexible set of intuitive tools allowing users to interact with the data and get answers to their questions. This includes the ability to visualize data, query data, and create theme maps that show data trends. Spatial queries are also essential to be able to investigate an area or location and determine relevant information as it pertains to your application.
- Rich and detailed map imagery including road maps, aerial maps, bird's eye view, and street-level maps that provide a real-world view. Users often have different preferences for viewing maps and should be able to choose their preferred view.
- The platform must be able to handle large data sets to service enterprise needs without compromising performance.
- The platform must be able to handle points (such as store locations or points of interest or locations of cell towers), polylines (such as custom routes), and boundaries (ZIP Codes, states, counties, etc.).

- Routing (shortest way, fastest way), geocoding (assigning longitude/latitude coordinates to address information), and reverse geocoding (finding addresses based on long/lat).
- The platform's geocoding should be in sync with the maps. Some systems use geocoders and maps from different vendors, causing mismatches or inaccuracies when geocoding points and placing them on maps.

2. Customizable for Specific Needs

A hosted web mapping platform, while often robust and cost efficient, may not offer all the functionality needed to meet the requirements of your specific need. Every business is different, and web mapping applications, like any other software, must be customizable using industry standard programming tools.

Through customization, you should be able to attain additional functionality for a variety of applications and streamline the integration of the mapping application into your existing enterprise systems. You will also be able to leverage the mapping service and your own geographic data in more places to gain a greater return on your investment.

Typical ways to customize the functions of a web mapping service include additional querying capabilities, the building of intuitive user interfaces, a broader selection of thematic mapping options, and the ability to create and use custom boundaries, among others.

To achieve customization, look for the availability of application programming interfaces (APIs) either from the platform vendor or through third-parties that will allow you to extend the base functions of the platform. Any third-party APIs under consideration should be in synch with the base APIs available through the mapping platform and should keep up with and accommodate any changes in the base APIs. Otherwise conflicts could occur.

3. Ability to Gain Cost Efficiencies

Gaining cost efficiencies can happen in a number of ways, depending on which web mapping service you use or third party you work with.

- Flexible licensing terms based on flat fee, or flat fee plus usage. Which one works for you will depend on the application you are building and its expected use. If you deploy multiple applications that access the web mapping service, make sure you have the option of using the same licensing terms across the applications.
- Flexibility and customization to deliver GIS functionality without the traditional costs and complexity associated with GIS.
- Flexible licensing terms based on flat fee, or flat fee plus usage. Which one works for you will depend on the application you are building and its expected use. If you deploy multiple applications that access the web mapping service, make sure you have the option of using the same licensing terms across the applications.

Look for the following ways to gain cost efficiencies when evaluating web mapping platforms:

- The web mapping service is hosted by the vendor but you have choices about where to host your application. If you choose not to host internally, look for a company that can offer reliable hosting and application support, along with the ability to easily update your data or application without incurring excessive costs. The hosting company must have the server strength to handle large data sets. For public web sites, the hosting company should provide abuse monitoring and blocking as needed.
- The ability to use your existing GIS data sources in a new web mapping application. You may have significant investments in GIS data; you want to preserve that investment by making the data available to all of your organization's web mapping applications.

4. Reputation of the web mapping platform company

A number of web mapping services have come and gone from the market in recent years. If you choose the wrong company, you may end up stranded or having to pay to migrate to another platform.

Check the reputation of the company that hosts the web mapping service. How long have they been in business?

Do they have enterprise customers using their platform? How well does their platform integrate with other technologies such as servers, databases and programming tools? You want the web mapping service to fit into your technology environment, rather than having to change your environment to fit the service.

5. Access to resources

Because of the complexity of spatial data and spatial processing, mapping applications often can be complex. You may benefit by engaging with third party experts that can provide services to ensure you get the right application containing the optimal functionality to meet your business needs today and moving forward.

Therefore, when choosing your web mapping platform, look for a company that has a strong partner network of mapping experts that can provide consultation, development, customization, and application hosting and support.

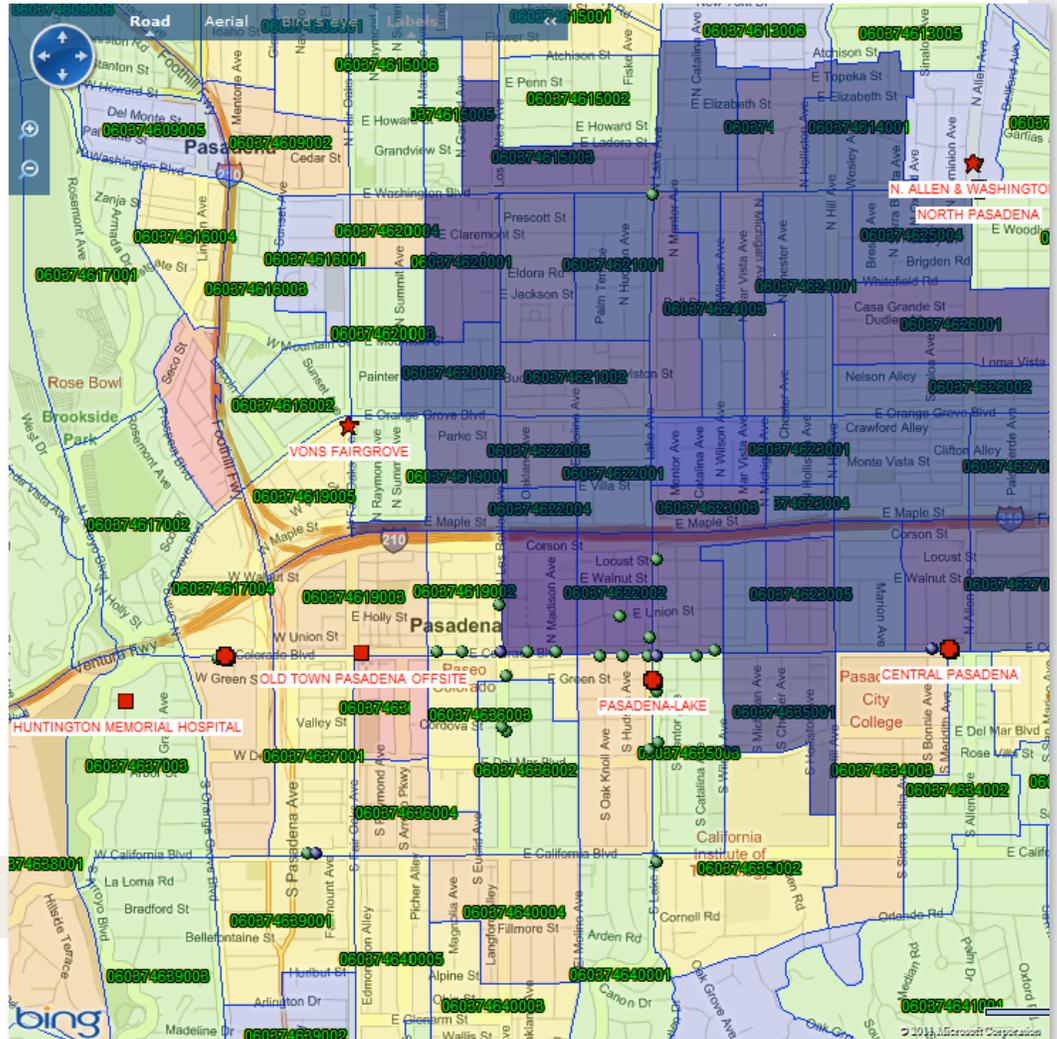
One key area that is sometimes overlooked is the design of the user interface. If the interface isn't intuitive, the application may end up underutilized, and won't achieve the ROI or results you expect. A third party with expertise in interface development can help ensure your application interface is designed for its intended audience, whether consumers or business users.

About SpatialPoint

SpatialPoint focuses on extending the Microsoft Bing Maps Enterprise technology platforms to help solve customer problems where location is critical and can provide competitive advantages. SpatialPoint customers deploy applications for online locators, tracking solutions, demographic analysis, sales territory analysis, site selection, data visualization, market analysis, and customer care solutions. A Microsoft MapPoint ISV, Gold Certified Partner, and Data Visualization Certified, SpatialPoint serves the needs of hundreds of companies for mapping products and related solutions.

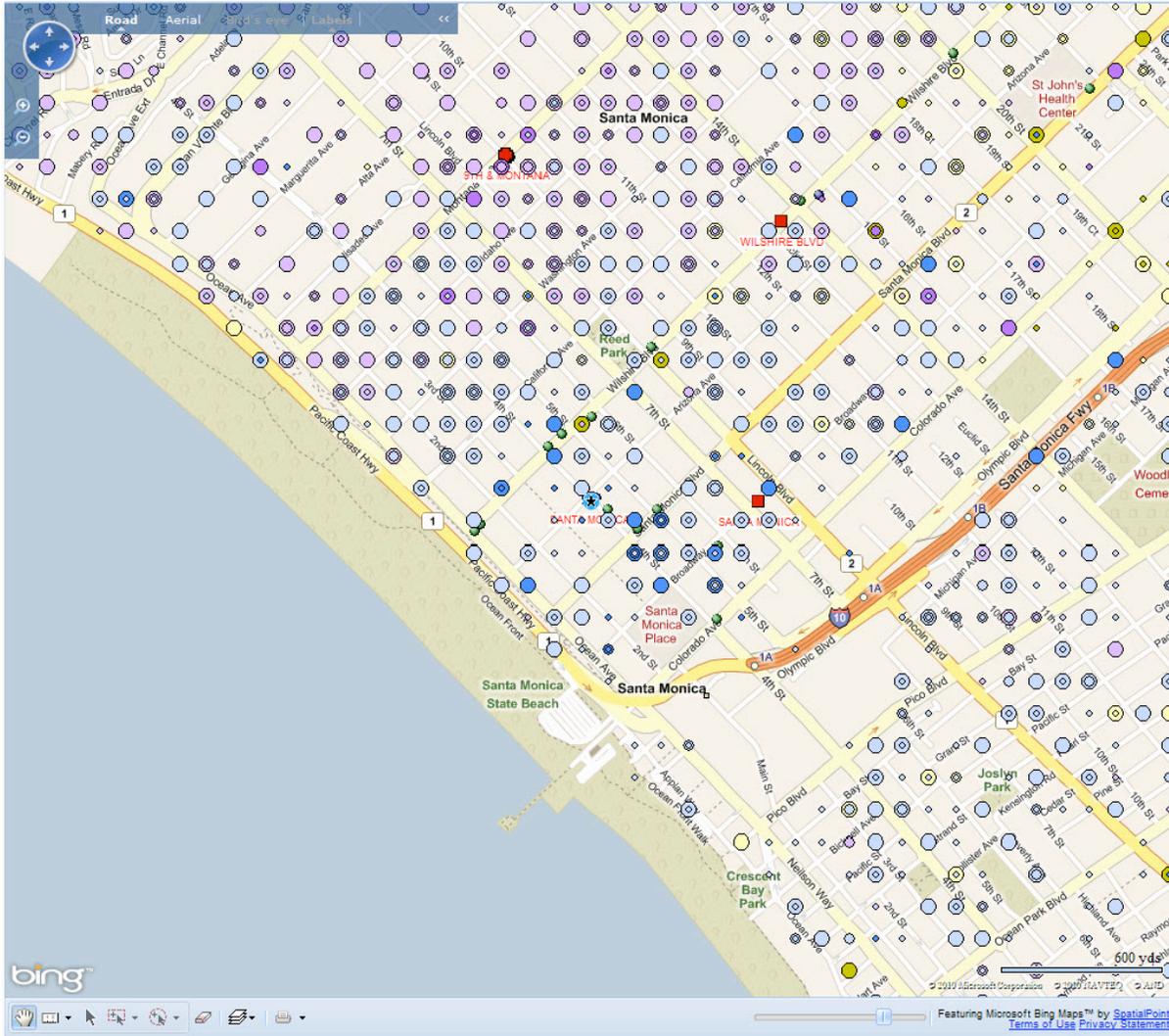
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The thematic map shows income growth by Block Group with relevant points of interest (stores, competitors, etc). Your web mapping platform should offer capabilities to create thematic maps and provide support for any standard or custom geographic boundaries.

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It's important to have the ability to customize the functionality of a web mapping platform. This multi-theme dot density map shows where revenue is coming from at the store level. Different colored dots are associated with different stores and the sizes of the dots represent revenue.