

Maps assume enterprise role

Think of the role maps have played in history. The West Indies trade routes. A map of the New World. Blackbeard's treasure map. Wagon train routes across Native American plains. A schematic of tourist attractions through Rome. A drawing of the links at Augusta Golf Course. Public transportation directories of New York City. Even a layout of Walt Disney World. Just as you need a map to navigate your way cross-country or through a foreign city, maps can help you navigate modern digital knowledge spaces. In a world with a surfeit of information, organizations cannot move without representations to give them an idea of what direction to go.

Cartographic specialists have documented a map—specifically, the town plan of Catal Hyük—dated an amazing 6200 B.C. Compared to a current satellite image map of a city with overlays of the locations of customers, the Catal Hyük map is an unprepossessing mass of lines (here's a modern rendering of the map fragment: henry-davis.com/MAPS/AncientWebPages/100B.html). Drawn from the stars and the astrolabe, or the compass and modern GPS, maps have become increasingly specific and useful.

So maps have gone from stone to paper, and now from paper to pixels. The Internet has revolutionized the concept of a map—they're cheap (if not free) and easy to find online, and they are customizable.

So not surprisingly, online maps and mapping services are among the most popular applications online. You can find a wide range of features and functions from [Google](#), [Microsoft](#) and [Yahoo](#). For an enterprise, no-charge Web maps are useful for locating a customer's new office, but they have to do more than find a restaurant or provide Point A to Point B driving directions.

It's those dynamic interfaces for customization and labeling that have made mapping services increasingly critical to both individuals and organizations—maps are now not just directions to and from. They're data containers: directions, restaurants, hotels, rest stops, tourist attractions, movie theaters, and the list goes on and on.

Google introduced maps as Google Local. But it was the 2004 purchase of Keyhole, a company with geospatial data visualization applications, that signaled the company's enterprise ambitions.

An enterprise can tap into a wide array of mapping functions. You can see some of the capabilities of Google's enterprise geospatial services by navigating to <http://www.maps.forum.nu/>. Google offers a range of Map API examples. You can look through those by directing your browser to <http://www.code.google.com/apis/maps/documentation/examples>

You can explore a range of functions such as controls, markers and polylines, and overlays and services. Google's examples are visual delights. Expect to spend a few minutes examining the possibilities. Those more intuitive constructions make the maps simple and more pleasing to the eye, not to mention chock-full of information. Mapmaking is no longer restricted to cartographers; you or I, any adult, or even a fifth-grader can sit down and make a map using those applications. So surely any business would be crazy not to take advantage of that highly personalizable service.

Google's enterprise service is called Google Maps API Premier. The Google solution, which starts at \$10,000 per year, has put pricing pressure on industry leaders [ESRI](#) and [NAVTEQ](#). Google's licensing is based on the

number of map page views for externally facing Web sites. For internal use, it's based on the number of users who utilize the application.

Maps API Premier is a cloud-based service. A licensee taps into Google's infrastructure to upload data and manipulate the information.

Google provides a service level agreement of 99.9 percent uptime and security services to protect a licensee's information. Organizations can embed a free Google Map API on their Web sites (navigate to <http://www.code.google.com/apis/maps/index.html> for more information). The differences between the free and for-fee APIs boil down to increased functionality and direct Google customer support.

For example, the U.S. government has found Google's geospatial services useful in executive branch agencies, as well as in specialized branches such as the Department of Homeland Security and various intelligence groups. Typical functions include the ability to overlay custom data with the JavaScript-based API, the ability to integrate maps into other applications and access to satellite images for detailed views of the Earth.

Enterprise applications, according to Google, include work force management so a manager can see where professionals are located. CRM applications include overlaying customer data on geographic areas. Companies wanting to track shipments in real time can plot truck locations on a Google map. And marketing data can be given a geographic perspective so analysts can better understand business metrics.

Google provides mobile device support. Enterprise applications can combine custom functions with GPS location, driving and transit directions, phone numbers and address look up. Google tucks this information away at google.com/mobile/default/maps/index.html.

Google has a number of services to modify Google Maps. You have to pay about \$500 for Google's SketchUp Pro 6, software used to create, export and present 3-D models that can easily be placed as buildings in Google Earth (google.com/intl/en/sketchup/3dwh/pdfs/modeling_a_city.pdf). Google also offers a library of structures you can explore at <http://sketchup.google.com/product/gsup.html>

The pay version of SketchUp provides technical support as well as extra functionality for people who need to export their work into CAD, rendering and other professional software applications. It also includes LayOut (<http://sketchup.google.com/product/layout.html>), a new program that lets you create complete presentations—paper and digital—from your SketchUp models. There is plenty more information available: plug-ins (<http://sketchup.google.com/download/plugins.html>) to extend the functionality of SketchUp Pro, as well as applications that are SketchUp-compatible (<http://sketchup.google.com/download/skpcompapps.html>).

There are fairly obvious applications, but Google has other map tricks up its sleeve as well. The new collaboration function in Google Maps is almost unnoticed by enterprise trade journals. An authorized user can invite others to be collaborators, similar to Google's better-known Google Docs application. The invitation supports a test message, permissions can be set to allow others in the organization to edit the map, and the function hooks into e-mail. Collaboration works with Google's personalization function. Basically, we're not using maps to find out where we are anymore. We're telling the applications where we are, and the map forms around us to our specifications.

And for many enterprise information technology managers, other innovations are even more difficult to find. Consider My Maps at <http://maps.google.com/help/maps/userguide/index.html>.

You can create personalized, annotated, customized maps using My Maps. Your maps can contain placemarks, lines and shapes. Once a map has been created either by a user or a script, you can add descriptive text, including rich text and HTML, embed photos and videos, share maps, import Google's markup or set up a geographic news feed to update the map, and open the map in Google Earth to create a TV news-style look at an area with data placed on the imagery.

To view a map in Google Earth, you have to install the fat client. A free version is available at <http://earth.google.com>. An enterprise version, called Google Earth Pro, is available for \$400 per user. Google provides a comparison of the free and for-fee versions of Google Earth.

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