

WHITE PAPER

Extending Location Content Solutions Across Your Organization

A white paper exploring the use of aerial imagery and location content in high-performing businesses

Introduction

Information about a location—often referred to as geospatial or spatial data—has traditionally been implemented in organizations with powerful and complex applications requiring a team of highly specialized GIS (Geographic Information Systems) analysts. Coupled with imagery, these types of applications and data provide organizations with valuable insights. Businesses use them to target sales and marketing. Local governments create smarter, safer communities, develop land, and plan human and environmental impact. These GIS professionals typically work with complex systems such as CAD, ArcGIS or others.

Image source: Panama City Beach FL, Nearmap



Cloud-based access, custom solutions and new features are leading to increased demand by a broader range of users.

With a growing number of applications, services, and imagery sources available, the technology is changing. Cloud-based access, custom solutions and new features are leading to increased demand by a broader range of users. The widespread use of Google Maps/Earth, Bing Maps, and Apple Maps have enabled non-specialized users to learn spatial technology and analyze information linked to a location. Nearly everyone uses maps, and people have integrated imagery and geospatial technology into their daily lives. For example, GPS-enabled phones are now ubiquitous, helping us pinpoint locations and get place to place.

Commercial businesses and local governments have a great opportunity. They can leverage skills the general public has acquired from working with various maps and location technologies. They can create new information products utilizing location content to inform, notify and direct everyone who uses them. But businesses that hope to capitalize on the benefits of imagery and spatial data require applications that are instantly accessible, easy to use and deliver immediate answers. In turn, this necessitates far less complex GIS applications.

The history behind geospatial systems & imagery

In the last decade, a number of grassroots organizations implemented GIS programs, which led to strategies that expanded the traditional views of GIS implementation and inspired innovation in GIS use. Sales and marketing professionals began using detailed maps and data to identify and target potential buyers. Logistics departments optimized transportation routes for products and services with speed and accuracy (e.g. think of technology advances that have driven businesses such as FedEx, Amazon, and Uber). Local governments began making community services and maps available to citizens through online applications. Operations teams started making important decisions without having to spend valuable time and resources on-site.

A study by R.E. Sieber¹ revealed that grassroots organizations mentioned above were able to successfully implement GIS technologies using alternative approaches. These approaches focused on ease-of-use and application within specific business functions rather than the science behind GIS. They were designed to evolve quickly with changing needs.

The research concluded that a successful implementation of this ground-breaking approach included the following factors:

- Evaluation and customization of geospatial applications to user needs
- Long-term upper management commitment to the project
- Sufficient allocation of resources
- A “GIS champion” to ensure smooth rollout and adoption
- Organization-wide communication

The use of imagery in business—a critical aspect of geospatial intelligence—has undergone a similar transition. In the past, the availability of aerial imagery required highly-specialized experts to fly, photograph, and “stitch” together individual images into cohesive and orthographically accurate photomaps. Once completed, organizations would need to maintain the photomaps with costly hardware, software, and IT resources. Today, innovative technologies capture, process and stream massive amounts of aerial imagery into the cloud within days, without the need for specialized teams that survey and publish imagery manually. According to Transparency Market Research, the aerial imagery market is expected to more than triple, reaching nearly \$1.6 billion by 2023.

The common theme is increased productivity. The availability of a wider number of user-focused geospatial applications and up-to-date imagery accessed from your desktop or mobile device has led to a dramatic rise in productivity and an increasing bottom line across dozens of industry segments. In a way, market growth is driven by this core factor.

These studies lay a solid foundation for implementing a non-specialized strategy for geospatial applications and imagery. They remind us of another recent movement that has changed the way organizations do business: Bring Your Own Device (BYOD).

¹ Public Participation Geographic Information Systems: A Literature Review and Framework, 2006, Renee Sieber Department of Geography, McGill University

Image source: Redding CA, Nearmap



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Maintaining only a specialized strategy is complex and costly

We understand that just because a trend is becoming reality doesn't necessarily mean organizations will embrace the changes willingly. But those organiza-

Image source: Peoria AZ, Nearmap



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tions that don't change with evolving technology and user demands will lose out on expanding business opportunities. Of course, the most complex analyses must remain with the experts. However, technologies now assist with much of the heavy lifting, allowing end users to focus on getting their jobs done rather than performing complex analyses. More and more, the business insights from geospatial applications can and should be distributed throughout the organization. Certain tasks, such as querying, creating and modifying maps, processing and editing data, can be done by non-scientists, thus allowing scientists more time for research and development. This

distributed strategy is more efficient and reduces costs as your organization handles greater volume with faster turn-around time.

HOW DOES THE BYOD MOVEMENT RELATE TO GEOSPATIAL DATA?

The BYOD movement was a positive, game-changing approach to IT. It challenged the conventional ways that IT departments and management conducted business within the organization. When employees started bringing their own devices into the workplace, they became more productive by using flexible, user-friendly apps.

The BYOD movement evolved into a comprehensive organization-wide strategy, which leveraged different tiers of technology. The lowest tier is the complex and fundamental back-end IT environment maintained by IT experts, and the tiers above it encompass flexible, front-end applications that specific business functions and individual employees use.

As we've now experienced several years later, a multi-tiered strategy is essential for keeping pace with changing technologies and business needs. The same principle applies to geospatial technologies.

Your competitive advantage

As noted earlier, nearly everyone on the web uses maps. The explosion of social mapping with location tagging and location tracking of GPS-enabled phones has allowed anyone, anywhere to visualize and analyze the information linked to a specified location. Geospatial applications that run on desktops and mobile devices, or cloud-based services, are the competitive game-changers for businesses today.

When an organization uses a high volume of geospatial data, ease-of-use is critical. Current and clear aerial imagery saves businesses thousands of dollars every year, and gives them confidence to make better decisions. When employees easily see what is on the ground with stunning detail, the number of required physical site visits is dramatically reduced. Business decisions become less risky. New business opportunities can be readily identified.

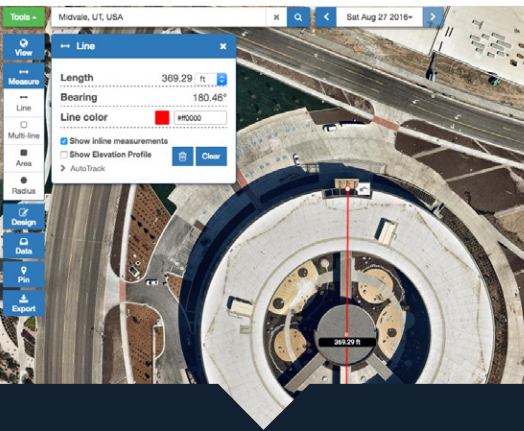
Extending user-friendly geospatial tools combined with current, high-resolution aerial imagery across your organization gives you a distinct competitive edge.

What are the primary benefits of extending location data across your organization?

STANDARDS AND INTEROPERABILITY. The development of standard protocols has streamlined spatial data sharing by prescribing file formats that are independent of software, and can easily integrate with business productivity systems. In the past, sharing imagery and spatial data with other core business applications was challenging. Today's solutions focus on inter-operability, providing "plug-and-play" integration with mission-critical business applications. For example, a solar installer requires seamless integration of aerial imagery in their PV design and quoting tool. Leading aerial imagery providers make this process as simple as authenticating into web-based services.

LEVERAGING SKILLS AND ENHANCING PRODUCTIVITY. Rather than limiting the use of geospatial data to a few highly trained scientists, you can leverage the skills of your entire workforce, which adds needed resources for higher volume use of geospatial information and imagery. Productivity is enhanced by integrating a solution with workflows and their supporting applications (for example, CRM or ERP). Information can be instantly shared and updated in real time, which improves decision-making for allocating the best-suited resources to the proper location.

Image source: Salt Lake City UT, Nearmap



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EXPANDING BUSINESS OPPORTUNITIES. The more efficient and agile your organization becomes, the more you can expand your current business and future opportunities. The pace of the digital world has accelerated. Consumers demand immediacy in their mobile apps, financial transactions are expected to be completed in seconds, and customers expect rapid responses from e-commerce sites. The same is true for location-based content.

Implementing a mapping solution across your organization that provides tools, apps, and data analysis will help your business expand and compete in today's digital transformation.

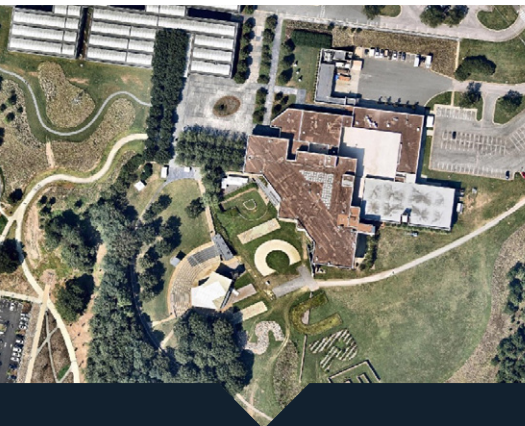
Transform your business with instantly accessible aerial imagery & geospatial tools

Specialized GIS tools were designed to meet specific needs of an industry, but they have traditionally required the expertise of a few highly-skilled people. Today, innovative geospatial and imagery solutions meet the needs of a wider array of use cases, and help non-specialized end users get their jobs done faster and smarter.

Nearmap is leading the way with its cloud-based service offering instant access to a library of current and historical high-resolution aerial imagery of major US metros. Nearmap's PhotoMaps™ empower anyone in your organization to make the right decisions by seeing what is on the ground now, in great detail. MapBrowser™ allows users to access PhotoMaps via web browsers on desktop or mobile devices anywhere, any time. MapBrowser includes a suite of easy-to-use geospatial tools that help professionals in commercial business and government make decisions quickly and confidently. For users who require imagery combined with more advanced and specialized GIS and CAD applications, Nearmap offers easy-to-configure seamless integration.

To learn more about Nearmap, visit: <http://go.nearmap.com>

Image source: Raleigh NC Museum of Art, Nearmap



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