

Information Discovery Improves Search Capability for the Largest Database of Geospatial Intelligence

Providing Geospatial Intelligence to the Nation

The National Geospatial-Intelligence Agency (NGA) has always served the military and intelligence community with GEOINT (Geospatial Intelligence) through several applications and services. GEOINT Online portal was built to provide a single point for online, on-demand discovery of and access to NGA's products, services, expertise, and support. In both the private and public sectors, GEOINT is critical to help decision makers analyze risks, gather intelligence, and determine logistics of operations.

User Growth Propels a Need to Deliver Services Faster

GEOINT Online has provided military decision support, as well as support to first responders for the 2010 Haiti earthquake, and the Deepwater Horizon Gulf of Mexico oil spill. These applications have been hosted in several locations on various networks; some geared towards the expert user, others towards occasional users in need of GEOINT. However, as the number of users needing GEOINT has rapidly expanded, it became necessary to provide a single point of access to NGA's products and services. This single point of access had to have an intuitive search interface to meet the needs to the new user and the expert.

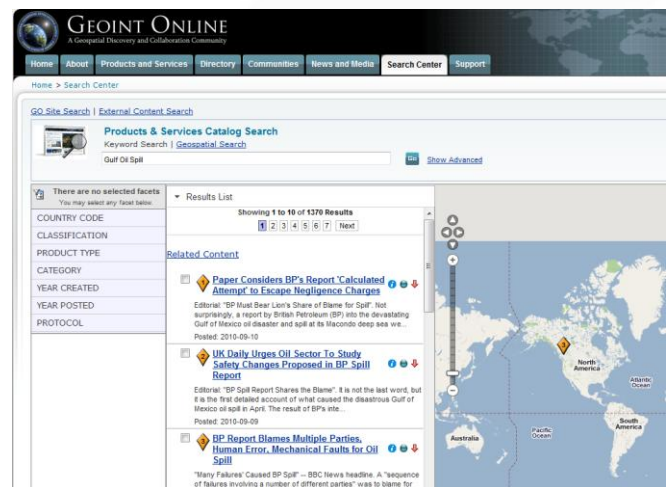
The agency's goal was to transform from purely a content producer to a services provider with access to information web services and content across a number of sources. A key to that goal is to give users the best tools to discover information.

Expanding Search to Handle All Types of Information Sources

One of the major challenges in applying geospatial data to help the varied goals of the GEOINT user was which search methodology could deliver timely and accurate information. Traditional searches for GEOINT relied strictly upon structured data searches using the available metadata and geo-coordinates. However, GEOINT increasingly incorporates maps and imagery with unstructured information such as intelligence reports, news articles, and analyses. For NGA, this means going beyond search tools that focus on searching geospatial

Technologies

- Microsoft Office SharePoint Server 2007
- Autonomy IDOL Server
- Autonomy Integration Suite (AIS)



GEOINT Online search combines news articles, reports, and NGA product data along with geospatial capabilities to provide a richer search for the user.

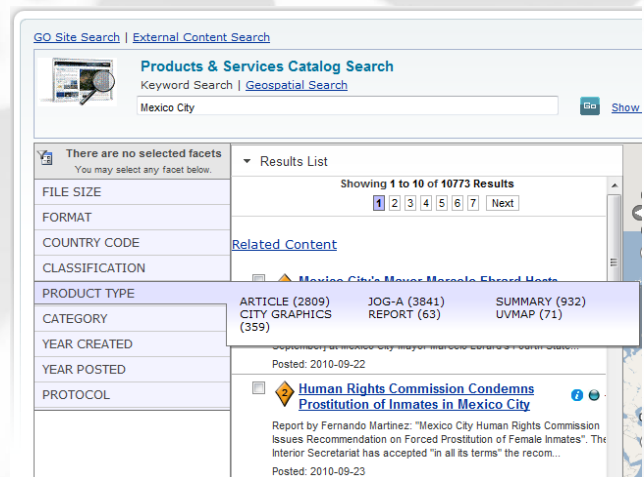
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data, and turning to a broader strategy that can handle all the different types of information that the organization possesses.

Choosing the Right Search is Crucial for Information Discovery

Choosing the right search tools was the vital part of the solution. Also, because the data resided in a SharePoint, there was a need to connect the unstructured and structured data in SharePoint and allow the information in IDOL Server to be surfaced through the SharePoint interface. Other issues MicroLink faced when proposing the appropriate search tool were:

- Handling both structured data (databases, XML data) and unstructured data (documents, emails, video, audio) and the numerous places they reside (Exchange servers, Portals, databases, the web, network file systems)
- Working with the increasing types of formats in the work place (Docs, PDFs, XML, HTML, Outlook messages, Lotus Notes, etc.)
- Finding the right search capabilities – Simple keyword search, Boolean, Faceted Navigation, Geospatial
- Augmenting data when needed – Entity Extraction, Categorization, Geo-tagging, and Reverse Geo-tagging



Refining the search is a snap using faceted navigation -users get to the most relevant information faster.

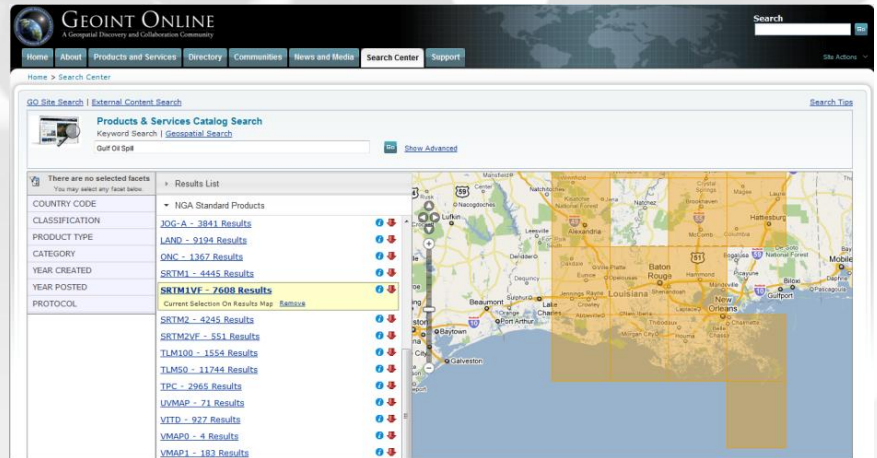
From Concept to Production in Nine Months-Power Search Is Added

The NGA GEOINT Online Program office selected Autonomy IDOL Server and MicroLink's Autonomy Integrated Suite to power search for the GEOINT Online portal. Out of the box .NET web parts and easily customizable controls were used to build an AJAX-based rich web experience to engage users and provide faster searching. A full suite of search options including conceptual search, geospatial search, faceted navigation, and "More like This" documents were deployed with an Agile development process that quickly brought the solution from concept to production in nine months.

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Millions of NGA Products Are Now Available Instantly

Powered by Autonomy IDOL Server, GEOINT Online is able to aggregate millions of NGA products alongside OpenSourceCenter (OSC), the top provider of foreign open source intelligence for the US government. Highly detailed imagery and maps are now searchable alongside news articles and analyses, providing a capability beyond that of traditional geospatial and simple keyword search. Users can now quickly find critical intelligence in the form of a report, and instantly pull up relevant maps for the areas discussed in it. Finally, to facilitate further integration with providers of content, a fully repeatable process was put in place to easily bring data in using the Department of Defense Metadata Specification (DDMS 2.0).



Users can immediately drill down into available NGA products and see coverage areas critical to their area of interest

Transformation to a Services Provider Starts with Access

MicroLink has helped the NGA accomplish its goal since GEOINT Online now integrates multiple services across NGA. Users can search National Geospatial-Intelligence Agency Standard Products alongside OpenSourceCenter content using GEOINT Online (GO) Search. Using faceted navigation, users can easily refine results to view either NGA data or OSC data, download it as a JPEG and open it on his/her desktop. Today, a user can search for an article from OpenSourceCenter (news reports, articles, etc.), find the document on GEOINT Online, connect directly to the document on the OpenSourceCenter website, and view the original data source. This was a key criterion for success and we delivered with outstanding reviews.

About MicroLink Information Discovery Solutions

Regardless of the mission and goals of our customers - they all have a basic need to leverage knowledge across their organization. In order to accomplish this, they need to find the most relevant, timely information. Increasingly, this information is spread throughout numerous sources in a variety of different formats. Helping these organizations find and leverage information from multiple data sources is what MicroLink does best.

MicroLink's information discovery solutions use Autonomy IDOL Server to search both structured and unstructured data, while providing customers advanced search features such as conceptual search, shareable user agents and profiles, automated taxonomy generation, faceted navigation, geospatial search, and visualization.