

Global Data Access for Mining (GDAm) Showcase—A Collaboration Tool Using Your Geologic Map Data

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Introduction

Global Data Access for Mining (GDAm) is a showcase geographic information system (GIS) Web application collaboration tool created by Esri's Energy and Mining Industry Team. The application highlights using framework Esri GIS technology (fig. 1) to create a powerful tool for browsing, searching, and discovering data and seamlessly launching the data into a variety of workflows to access, analyze, and share data (fig. 2).

GDAm was created using Microsoft SharePoint 2010 and the new ArcGIS Map Web Parts and introduces the overall functionality of Esri's framework GIS system technology implemented into a simple, rich Internet application (fig. 3). GDAm takes advantage of the power of ArcGIS Desktop and Server for authoring and serving a simulated mining company's data combined with the collaboration tools of Microsoft SharePoint highlighting the independence of company data and applications using the power of services-oriented architecture (SOA).

Four sample mining industry workflows are included in the showcase, including Data Discovery and Access, Land Management, Geoscience, and Health & Safety. In all these examples, geologic map data can be easily and quickly added to add intelligent decision making (fig. 4). Of special note when serving your geologic maps is the need to secure your online map services (fig. 5). Special attention should be given to granting "cross domain" access to your map services by using the appropriate security settings (fig. 6).

Demonstration

This was both an oral presentation and a live digital demonstration of the application.

Acknowledgments

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References

- ArcGIS10, Esri, 380 New York St., Redlands, CA 92373-8100 U.S.A., (909) 793-2853, <http://www.esri.com/>.
- Esri Cross Domain Help, http://resources.esri.com/help/9.3/ArcGISServer/apis/Flex/help/Default_Left.htm#CSHID=references%2Fusing_crossdomain_xml.htm.
- ADOBE Cross Domain Help, http://livedocs.adobe.com/flex/3/html/help.html?content=security2_04.html#139879.
- MICROSOFT Client Access Policy Help, [http://msdn.microsoft.com/en-us/library/cc197955\(VS.95\).aspx](http://msdn.microsoft.com/en-us/library/cc197955(VS.95).aspx).

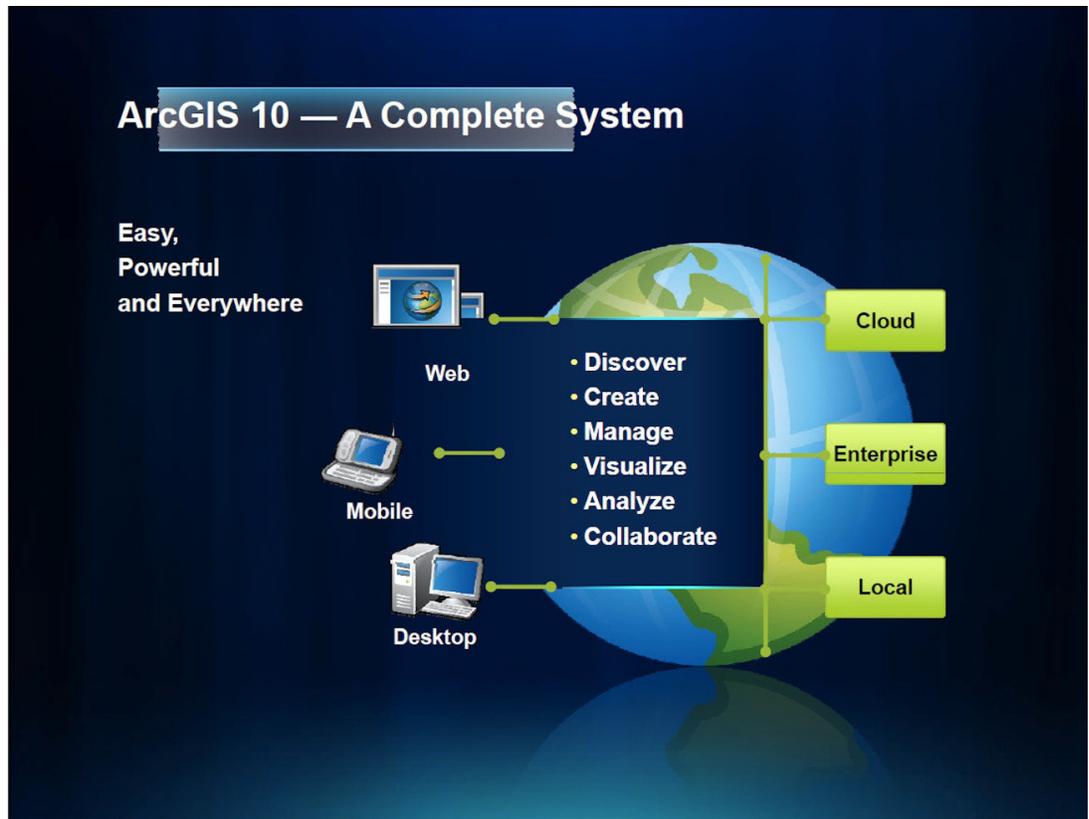


Figure 1. Esri's ArcGIS10. A complete GIS system for easy, powerful and everywhere GIS.

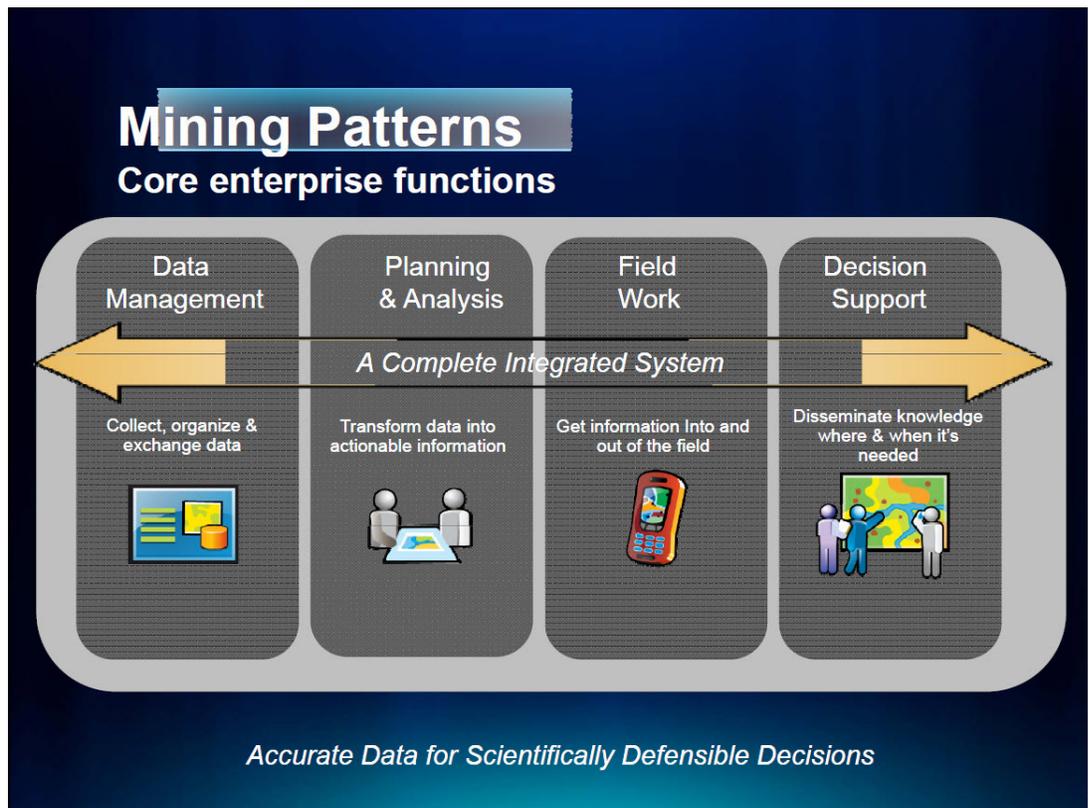


Figure 2. Esri's core enterprise GIS functions of data management, analysis, mobile, and decision support to enable accurate data for scientifically defensible decisions.

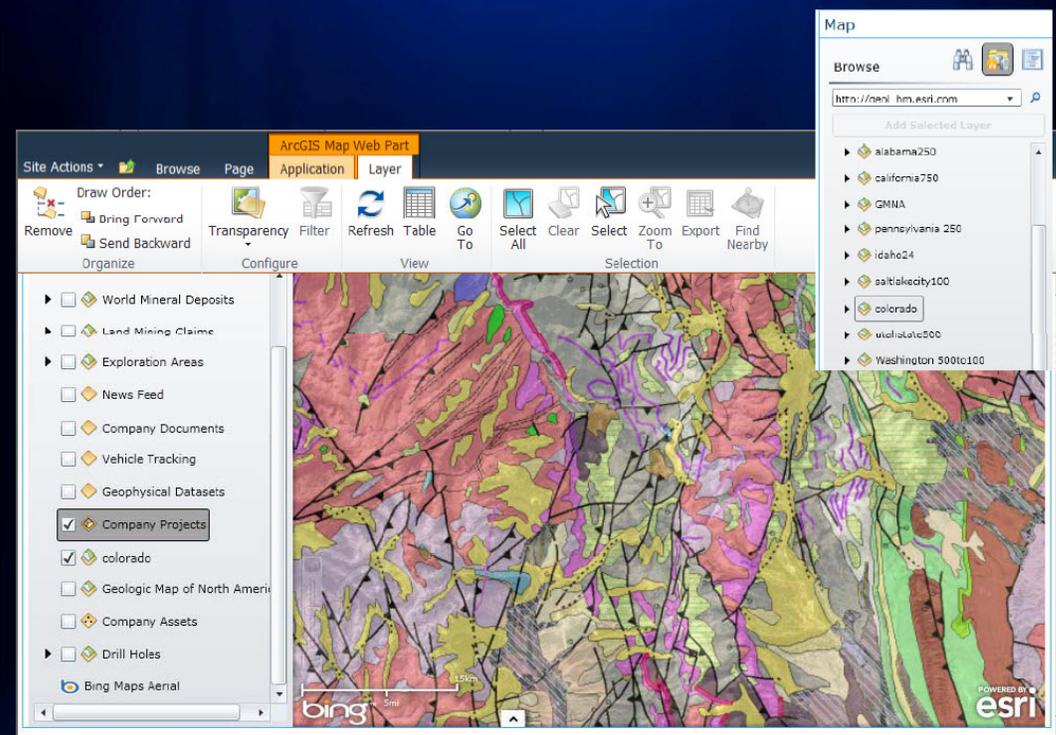
Web Development Options



The screenshot displays the ArcGIS Resource Center website with several key sections:

- ArcGIS API for Microsoft Silverlight™/WPF™ overview**: A section providing an overview of the API for Silverlight and WPF.
- ArcGIS Viewer for Flex**: A section highlighting the release of version 2.3.1 on April 29, 2011. It includes navigation links for Home, Concepts, Samples, Forum, and Code Gallery.
- ArcGIS Mapping for SharePoint**: A section announcing that version 2.0 is now available. It also includes navigation links for Home, Help, Samples, Forums, and Code Gallery.

Figure 3. Web development options from Esri (<http://resources.esri.com>).



The screenshot shows the ArcGIS Map Web Part interface with the following components:

- Map View**: A central geologic map with various colored regions and features. A scale bar indicates 1.5 miles.
- Site Actions**: A menu with options like Draw Order, Bring Forward, Send Backward, Organize, Transparency, Filter, Refresh, Table, Go To, Select All, Clear, Select, Zoom To, Export, and Find Nearby.
- Layer List**: A list of layers on the left side, including:
 - World Mineral Deposits
 - Land Mining Claims
 - Exploration Areas
 - News Feed
 - Company Documents
 - Vehicle Tracking
 - Geophysical Datasets
 - Company Projects
 - colorado
 - Geologic Map of North America
 - Company Assets
 - Drill Holes
 - Bing Maps Aerial
- Map Browser**: A panel on the right showing a list of layers to browse, including:
 - alabama250
 - california750
 - GMNA
 - pennsylvania250
 - idaho24
 - saltlakecity100
 - colorado
 - volcanic500
 - washington500to100

Figure 4. An example of Global Data Access for Mining (GDAm) SharePoint Web application with a geologic map combined with other data layers of interest to mining users.



Figure 5. Examples of Web application server map service security for State and Federal agencies.

