

# Enterprise Wikimapia

## Solutions Paper

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## Business Problem

Many enterprises suffer from the lack of a central repository for staff members and partners to quickly discover each other's knowledge of a given locale. Similarly, many enterprises find it difficult for their staff and partners to quickly contribute observations (e.g., reports, thoughts, pictures, and the like) that are tied to a particular time, geographic location and ascribed to one or more toponyms (e.g., place names). Lacking a central repository makes it difficult to "know" what others know about a given locale, and difficult to contribute to the larger enterprise. Often, back-office operations tend to describe the world "authoritatively," while direct/local observers of remote locales and activities critical to the success of the larger enterprise are unable to effectively contribute their knowledge.

## Interoperable Solution

The Enterprise Wikimapia solution leverages the concepts pioneered by [www.wikimapia.org](http://www.wikimapia.org), along with the Open Geospatial Consortium (OGC) concepts of transactional web feature service (WFS-T) and gazetteer (WFS-G). Enabling remote users to quickly browse a rich feature base through the use of name based navigation, add value (e.g., create, update, delete) to this repository and link to wiki (and other online) resources, Enterprise Wikimapia enables customers to deploy a spatially-enabled knowledge management capability governed by wiki-like business rules.

Enterprise Wikimapia allows all authorized users to contribute toponymically- and geospatially-aware data objects to the repository, enabling users to share related information in near-real time without special application software or training.

## User Scenarios

ERDAS' Enterprise Wikimapia allows three distinct use cases:

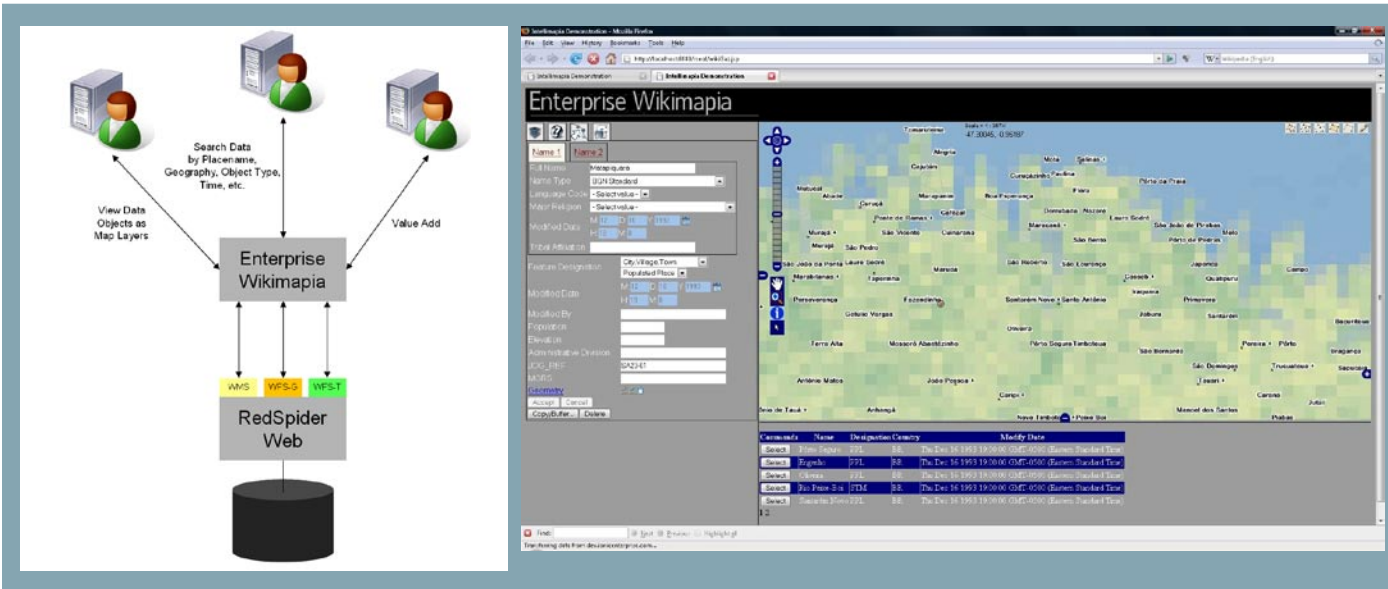
1. Use an online web mapping application to conduct name-based (toponymic) searches, bounded by a geographic area of interest and visualize data objects within the repository as geospatial features on a map. These features display rich attribution, including links to other online resources and multimedia objects that comprise the observation.
2. Create, update and delete named features (available via the gazetteer), while maintaining a user viewable online transaction history for these named features. This includes support for having both an "unknown" remote user create/update data, AND an "authorized" user create/update/delete data.
3. Discover (in an OGC catalog) web services that may further illuminate a user's understanding, and add this data dynamically into the Wikimapia view.
4. Link named features to content within a wiki using a link exported from the Enterprise Wikimapia interface. The Wikimapia could be launched directly from the link in the wiki entry.

When deploying an Enterprise Wikimapia, a customer can choose to implement fine grained access control using "label secure" database solutions, such as Oracle's

CDSS. This ensures that different user communities can securely contribute their observations into the same database as those they would like to deny access to. Enterprise Wikimapia requires the licensing of ERDAS Enterprise and ERDAS Web, as well as a spatial database such as Oracle Spatial, Postgres/PostGIS, etc. The former is the application development toolkit, which enables customization, and the later is the OGC web services tier, which provides the map serving, toponymic searching and the ability to add value to the repository.

The Enterprise Wikimapia application has both server and browser based elements. This application can be served from all major J2EE application servers (e.g., Apache/Tomcat, BEA WebLogic, Oracle Application Server, etc.). As it is AJAX/JavaScript based, it can be served into both Internet Explorer and Firefox browsers.

While the Transactional Web Feature Service (WFS-T) utilized by the Enterprise Wikimapia solution is very powerful, the editorial and review workflow can potential be augmented with integration into Oracle Workspace Manager. While this requires a consulting engagement to define an enterprise-specific workflow, some enterprises modify the wiki-like business rules with something more restrictive.



The gazetteer capability (WFS-G) within Enterprise Wikimapia supports UNICODE place names, allowing users to name a data object in any language and script. Additionally, a user can ascribe as many different place names to a particular object as necessary. The gazetteer service is not just a capability available to the Enterprise Wikimapia application; it is a network-accessible service, based on the Web Feature Service (WFS) that exposes both a structured vocabulary and a feature collection.

Together, these capabilities offer a powerful, spatially-enabled knowledge management infrastructure that enables an extended enterprise to collaboratively build its knowledge of the world.

## Contact Us

If you are interested in architecting and deploying an Enterprise Wikimapia, contact ERDAS Defense Solutions today: [defense@erdas.com](mailto:defense@erdas.com), 1 703 354 7415.