**Product Data Sheet: Woofnet Repository**

Woofnet repository is a spatial data repository which is implemented both in the cloud and end user devices. It contains metadata (tabular) and files. The repository provides restful interfaces as its Application Programming Interface. The repository is synchronized bi directionally and supports encryption.

The repository is implemented using Microsoft .Net technology stack and is targeted for Windows Azure.

It may be hosted either on Azure or IIS dedicated services.

Implementation architecture is MVC 3.0.

Controllers may be accessed directly by Views to render HTML 5/Java script for user presentation of data.

Leverage of existing Phasepoint code including:

Phasepoint pptp database structures, publication target framework, and MVC 3.0 admin project.

Code base is new work leveraging existing component design.

Object interchange types:

Organization

Team

Project

User

<objects>

RepositoryList

Security

PublicationTarget

Address

Contact

License

File

All data is encrypted.

Encryption in the cloud repository is based on WolfGis server key and salt.

Encryption in the end user device uses the specific security model with key and salt retrieved from the web repository and cached locally. Key and salt are user specific and will be recycled monthly. Licensure validation failure will result in a null key/salt pair being cached in the end user device.

Licensure invalidation will result in the software being unable to access the encrypted data sets.

Repository storage of user files will be via file based storage provider(s) and data conversion(s) handling will be via run time invocation of publication targets. Publication targets will enforce spatial geocoding/coordinate system conversion.

Storage Providers/Publication targets will be registered at one or all of the following levels:

Organization, Team, Project, User

**Woofnet Repository Restful web services**

HTTP Post:

woofnet/repository/organization/create/{organization string}

woofnet/repository/team/create/{team string}

woofnet/repository/project/create/{project string}

woofnet/repository/user/create/{user string}

woofnet/repository/repository listing/create/{repository listing string}

woofnet/repository/publicationtarget/create/{publicationtarget string}

woofnet/repository/license/create/{license string}

woofnet/repository/contact/create/{contact string}

woofnet/repository/address/create/{address string}

....

woofnet/repository/file/create/{address string}

woofnet/repository/organization/edit/{id}

....

HTTP Get:

All of above

HTTP Delete

A special version of clone will enable a deep copy of the [client,server] repository to replace the existing client/server repository.

**Integration Points**

Woofnet security services will provide licensure validation services.

Woofnet security services will provide user login services.

Woofnet security services will provide encryption/decryption services

Woofnet security services will provide key and salt generation services

Woofnet Repository Web Application will provide user interface/interaction to/from the Woofnet repository. MVC view models will serialize/deserialize objects to/from the Woofnet repository services using .net JSON serializer.

End user device applications will utilize the Woofnet Repository Web Application as part of a Hybrid application. (Phase I). Optionally end user device applications will mimic Woofnet Repository Web Applications in providing a rich client, device specific UI.

A synchronized end user repository will appear as a coincident file system to WolfGIS applications including WolfGIS II.

**Search Engine/Functions**

A global search function enable the user to search the repository web service for files based on GeoCode, Address, Parcel Id, Organization, Team, Project, User.