SuperGIS Server 3.2 Value Edition Specification

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Specification

1. All of the services support SOAP (Simple Object Access Protocol).

2. Use map file created by SuperGIS Desktop as map services SuperGIS Server publishes.

3. Publish 8 types of GIS web services

   - Edit service
     - ✧ Support to edit the data on SuperGIS Desktop, SuperPad, and web applications.
   - Map service
     - ✧ When publishing map services, you can add visible watermark and invisible watermark to the map.
     - ✧ Support to publish map services which can be used on mobile devices; mobile client software can update the real-time map data.
     - ✧ Support to display map services on SuperGIS Desktop, SuperPad, and the web applications.
   - KML (Keyhole Markup Language)
   - WMS (Web Map Service)
   - WCS (Web Coverage Service)
   - WFS (Web Feature Service)
   - WMTS (Web Map Tile Service)
   - Geoprocessing Services
     - ✧ Support to publish the analysis functions of SuperGIS Toolkit value level as geoprocessing services.

4. Support online editing

   - Enable users to add, delete, modify the features and attribute data in geodatabases.
   - Support online editing on various types of front end software
     - ✧ SuperGIS Desktop
     - ✧ SuperPad
     - ✧ Web browser

5. Create Map Cache

■ Support to create map cache from map services; users can choose to cache the map when browsing the map or in advance.

■ Support to define the layers, extents, scale, and levels to cache the map.

■ Support to update the cached images at a specific scale.

■ Support to create 8 bit, 24 bit, and 32 bit PNG format and JPEG format cached images.

■ Support to smooth cached images to have high-quality map display.

■ Provide SuperGIS Server Map Cache Tool that can generate cached maps of specified layers and scales and support map tile pack function.

6. Support types of geodatabases

■ Support types of geodatabases
   ✧ Microsoft Access
   ✧ Oracle Spatial 10i/11g
   ✧ Microsoft SQL Server 2008 Spatial
   ✧ Microsoft SQL Server 2012 Standard
   ✧ PostgreSQL

■ Support concurrent users to create, read, save, and manage spatial data in geodatabases.

■ No size limit for database.

7. Multiple client side applications

■ SuperGIS Desktop
   ✧ SuperGIS Server Desktop Client is the desktop client side application.
   ✧ Support to read the map services, WMS services, WCS services, WMTS services and WFS services.
   ✧ Support to query the attribute data of the layer.
   ✧ Support client side to use all of the extensions of the server side.

■ SuperPad
   ✧ Apply Data Services Toolbar Extension to access the services.
   ✧ Support to read the map services, WMS services, and WFS services.

■ SuperGIS Mobile Viewer
   ✧ Support to navigate the map service published by SuperGIS

Server, GPS positioning, record the GPS information of photo, map measurement, etc.

- Standard WMS, WFS, WCS, WMTS, and KML client side software
    - ✦ Support to use the client side software supporting OGC WMS, WFS, WCS, and WMTS to read the OGC WMS, WFS, WCS, and WMTS services published by SuperGIS Server.
    - ✦ Support to use the client side software supporting KML to read the KML services distributed by SuperGIS Server.
- Web Application
    - ✦ Front end supports various common browsers
        - Internet Explorer 8.0 or higher
        - Firefox 3.6.8 or higher
        - Chrome 5.0 or higher
        - Safari 5.0 or higher
        - Opera 10.60 or higher
    - ✦ SuperGIS Server provides JavaScript APIs, Flex APIs, and Silverlight APIs to customize web applications.
- Others
    - ✦ Provide tools, such as SuperGIS Server Client for ArcMap, to read the map services published by SuperGIS Server in front end applications and allow users to manage and maintain the config files in local host.

8. Web application development

- Provide numerous Web Control components for users to have advanced development.
- Provide the basic functions of web applications
    - ✦ Enable users to integrate the services from different servers into a web application.
    - ✦ Provide interactive table of contents including map layers and legends.
    - ✦ Support to zoom in/out, pan, navigate maps
    - ✦ Support to view the previous extent and the next extent
    - ✦ Provide numerous selection tools
    - ✦ Provide the tools to measure distance and area
    - ✦ Provide magnifier
    - ✦ Provide overview window

- ✧ Provide to query attribute data
- ✧ Provide to search attribute data
- ✧ Provide bookmark
- ✧ Provide to add notes to maps
- ✧ Support to print maps

9. Development Environments

- ■ Support the .NET software development tools
    - ✧ Microsoft Visual Studio 2005
    - ✧ Microsoft Visual Studio 2008 (.Net 2.0)
    - ✧ Microsoft Visual Studio 2010
- ■ Users can develop the GIS websites using many kinds of common web page languages, such as Macromedia Cold Fusion, Microsoft Active Server Pages, Microsoft ASP.NET, HTML/DHTML, JavaScript, Java, Java Server Pages, etc.

10. Support various file formats

- ■ Supported vector formats: GEO, SHP, DXF, DWG, DGN, and MIF
- ■ Supported raster formats: SGR, SID, ECW, LAN, JPG, BMP, and GeoTiff
- ■ Supported OGC standards：WMS 1.3.0, WCS 1.0.0, WFS 1.0.0, WMTS, and KML

11. Server system requirements

- ■ CPU: Pentium IV 1.6G or higher
- ■ RAM: 1 GB or higher
- ■ Operating system:
    - ✧ Windows Server 2008 (32/64 bit) /R2(64 bit)
    - ✧ Windows Server 2012 R2 DataCenter (64bit)
- ■ Software requirements:
    - ✧ IIS: 5.1 or higher
    - ✧ .Net Framework 2.0 SP2 or higher
- ■ Suggested bandwidth:
    - ✧ Intranet: 100Mb or higher
    - ✧ Internet: 4Mb/1Mb (upload/download) or higher
- ■ Communication environment:
    On server side, each AP is designed in an intranet. The communication environment between server and client is internet;

client side applies Web Service to access the data. The communication protocol is HTTP, and the COM port is 80 port. However, different client software can be set up with different settings.