



## Carmenta Server

### A complete solution for cost-effective visualisation and distribution of GIS data through web services

Carmenta Server is Carmenta's geospatial technology customised for use in service oriented architectures. It offers robust, cost-effective technology for building and maintaining highly scalable web-based geospatial applications.

- Native support for a wide range of data formats
- Optimised for handling dynamic data
- High performance and reliability
- Easy set-up and administration
- Compliant for OGC standards

With the strength of Carmenta Engine as its core map engine, Carmenta Server utilises the full power of Carmenta's robust software technology. Based on a common set of battle-proven components and already deployed in a wide range of customer applications, it can be relied upon as the backend of any demanding 24/7/365 web-based system.

Carmenta Server has demonstrated outstanding performance and reliability in operational deployments, and can handle anything to do with maps, sensor data and other types of 2D and 3D geospatial information.

Given the very high performance figures and its ability to handle high loads, this product enables mission critical web-based applications to run on fewer servers than the competition without compromising on capacity or availability. It fully supports the deployment of web-based services in virtual and cloud environments.

System integrators and software developers can benefit from Carmenta Server's adaptability and small footprint, as it can be easily integrated into any new or existing system architecture. Not to mention its hassle-free set-up, user-friendly web-based administration and flexible licensing system. And using the product's Software Development Kit (SDK), customers can develop, test and maintain online map sites very cost-effectively.

All Carmenta products use the same map configuration settings, which promote the re-use and sharing of maps within and between organisations. Furthermore, all maps used in a Carmenta Engine application can easily be published as geospatial web services through Carmenta Server. A number of geoprocessing and terrain analysis functions are also available in Carmenta Server, including things like line-of-sight, slope/aspect and vertical clearance analysis.

Carmenta is a technical committee member of the Open Geospatial Consortium, Inc. Using only standardised and open web interfaces, Carmenta Server is the perfect backend for any kind of web-based environment that handles geospatial data.

Carmenta Server comes bundled with a JavaScript web client composed of carefully selected open source components including Openlayers for 2D maps and Cesium for 3D globe presentation.

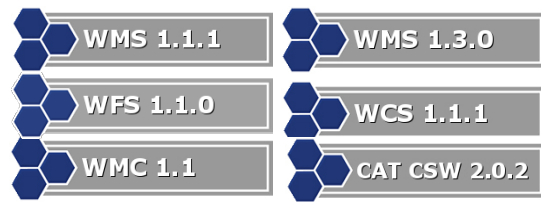
## KEY FEATURES

- Native reading of GIS data from more than 70 GIS file formats and spatial databases
- Powerful geoprocessing of geospatial data on-the-fly such as Slope and Line-of-Sight calculations
- Combines and analyses data from multiple sources simultaneously
- Full integration of sensor data and dynamic object information in all services
- On-the-fly transformation of customer-specific data models to external standards
- Geodata catalogues for keeping track of datasets and services with automatic updates
- Comes bundled with Carmenta Web Explorer, a feature-rich web client based on OpenLayers and Cesium, for advanced 2D and 3D maps
- Ready-to-use geospatial portal components
- Efficient tools for creating, editing, storing and publishing metadata
- Built-in map tile cache with tools to pre-populate the cache in runtime
- Built-in proxy server for cascading data from external services
- Full control over server administration from a single web page
- Optimised for multi-core processors in both 32-bit and 64-bit environments
- Highly scalable and adapted for deployment in virtual and cloud environments

## RELIABILITY AND SECURITY

- Possible to add and remove services without restart
- Login with ticket/cookie based sessions or challenge based (NTLM etc.)
- Security controlled by setting access restrictions on services and layers
- Integrated monitoring of server usage with live graph presentation in runtime

- Automatic notification of errors and re-start of services
- Flexible connection to external authentication servers
- Holds the following OGC certificates:



- Supports other OGC standards such as: WFS 2.0.0, GML 3.2.1, WCS 1.1.2 and WPS 1.0.0 etc.
- Transactional WFS (WFS-T) for creating, deleting and updating features on the server
- Publish metadata from Catalogue Service following ISO standards and INSPIRE requirements
- Feature Portrayal Service (FPS) for rendering features from WFS servers
- Automatic GML generation from multiple vector data sources on-the-fly
- Advanced download service based on WFS including on-the-fly Shapefile generation
- Support for Styled Layer Descriptor/Symbol Encoding (SLD/SE) for setting map portrayal
- Supports tiled vector data following the Mapbox Vector Tiles (MVT) specification, for high performance vector maps

## ABOUT CARMENTA

Carmenta has been supplying world-class software for mission-critical systems for more than 30 years – systems in which superior situational awareness is the key to success. We provide high performance software products, develop client-specific solutions and offer a wide range of services that help some of the world's most technologically-advanced customers optimise their operations using real-time geospatial information. For more information please visit [carmenta.com](http://carmenta.com)



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