



Service Description

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Version 3.6

Spatineo Inc.

Spatineo Monitor is SaaS-based solution for evaluating continuous Quality of Service of geospatial web services. The spatial data providers can use Spatineo Monitor to get detailed graphical usage analytics of their own WMS, WFS and WMTS services and get near real-time availability visualisations of any Internet-exposed spatial web services provided by them or by external parties.

General

- 100% web-based application, no software installations are required, and you can access your monitoring data anywhere at any time over the Internet.
- Running in a highly scalable and reliable Amazon AWS Cloud Computing platform.
- The monitoring network traffic as well as data from our European customers stays within Europe.

Monitoring Agents

- Supports monitoring of the services compliant with OGC Web Map Service (WMS) versions 1.3.0 and 1.1.1, OGC Web Map Tile Service (WMTS) version 1.0.0, OGC Web Feature Service (WFS) versions 2.0.0, 1.1.0 and 1.0.0 and ArcGIS MapServer versions 9.3+.
- Monitoring of spatial web services with a lightweight test request every 5 minutes.
- The results of these requests are analysed for possible errors, and the results are recorded in our monitoring database with other statistics such as the server response time.
- The monitoring network simulates real-world usage of the services by varying the request parameters intelligently using Spatineo MapFocus technology.
- The monitoring data from the Monitoring Agents is delivered to the Spatineo Monitor application as well as the alerting system in near real-time.

Managing the monitoring

- Choose freely the services to follow (own and others'). The maximum amount of followed services is based on subscription type.
- For own services, add and edit the meters and view the usage analytics of the service. The monitoring can measure any layer defined in the capabilities document of the service using different map projections, image sizes and formats.
- Followed services can be grouped into service groups for easier monitoring, reporting and management.
- A descriptive view names can be given for all the services followed in Spatineo Monitor.

Services Overview & Reporting

- Overview of all followed services and a list of the latest alerts.
- Create graphical and spreadsheet reports from the usage analytics for any combination of your services, and schedule them to be run weekly, monthly or yearly.
- Use specially designed INSPIRE report templates to calculate yearly user and request numbers to be included in the legally mandated INSPIRE reporting.
- Send scheduled reports automatically by email as soon as they are created.
- All reports are archived for later use and they can be downloaded at any time from Spatineo Monitor either in portrait or landscape page orientation except for the Executive Reports that support only portrait orientation.
- Graphical reports are produced in PDF format and spreadsheet reports in Office Open XML format compatible with MS Excel and other commonly used spreadsheet applications.
- Publish upcoming maintenance events and other notifications for one or more services.
- Maintenance events and notifications are shown in the Spatineo Directory pages. Anyone can subscribe to them as Atom and iCal feeds to automatically get notified when new maintenance breaks are announced. This functionality fulfils the requirements on public publishing of planned downtime of the EU INSPIRE directive Network Services Guidance documents.

Validating Service Metadata

- Validation of WMS (1.3.0.) and WMTS (1.0.0) services against OGC and INSPIRE standards.
- Details for all passed, skipped and failed tests are displayed, as well as a list for any warnings.
- Jump to the line in the capabilities document resulting in test failure or warning.
- Each test contains an exact reference to the standard or guideline document where the requirement is stated.

Usage Analytics

- Usage analytics for WMS, WMTS and WFS services based on server log file analysis.
- A set of interactive drill-down tools for getting insights on who is using the Spatial Web Services, where the users come from and what kind of information have they been looking for.
- The usage analytics in Spatineo Monitor is based on statistical analysis of the log files originating from the web servers providing the services (so called access logs). The user is responsible for uploading the server logs to Spatineo's server.
- A graphical timeline to see amount of recorded user requests per hour and the response times as recorded by the web server in the log files. (Note: The response time can only

be shown in Usage Analytics if this information is provided in the original access log files.)

- Drill down with segment table into details about the users and their requests within the selected time period. Categories include country of origin, organisation/ISP, device/browser, operating system, the requested image dimensions or the coordinate reference system of the request.
- Further drill-down based on the requested content.
- The usage analytics data for the current view can be downloaded in CSV format.
- Request distribution by time of the day and the day of the week.
- User location map view showing IP-address based analysis of locations where the users' devices were located at the time of making the selected requests.
- Request area map view to see which areas the users have been most interested in.

Monitoring: Meters & Alerts

- Review any single monitoring configuration (called meters) as time graph. The graph shows the response time (minimum, maximum and average) of the service for the time frame the user has selected.
- A histogram view of the response times of all the monitoring requests within the selected time period to analyse and to find bottle-necks.
- Repeat any test request made by Spatineo Monitor any time.
- Set response time and error amount thresholds manually, or based on previous monitoring results for a service (called indicators).
- Set alerts to be triggered when indicators pass given limits. Alerts are sent as an SMS or as an email to user-specified numbers/addresses. Alerts can be configured to react to the average response time of the monitoring requests during the last hour, percentage of error responses or timeouts during the last hour or both. Separate warning and error thresholds can be set.
- Write problem-solving related notes for the sent alerts.
- Preview of the offering content (WMS layers).
- Create, suspend and re-activate meters.
- Publish service notifications and basic availability data of your services at your own website using embeddable Spatineo widgets.

User Settings

- Change the password.
- Change the language. Supported languages are currently English, French, German and Finnish.