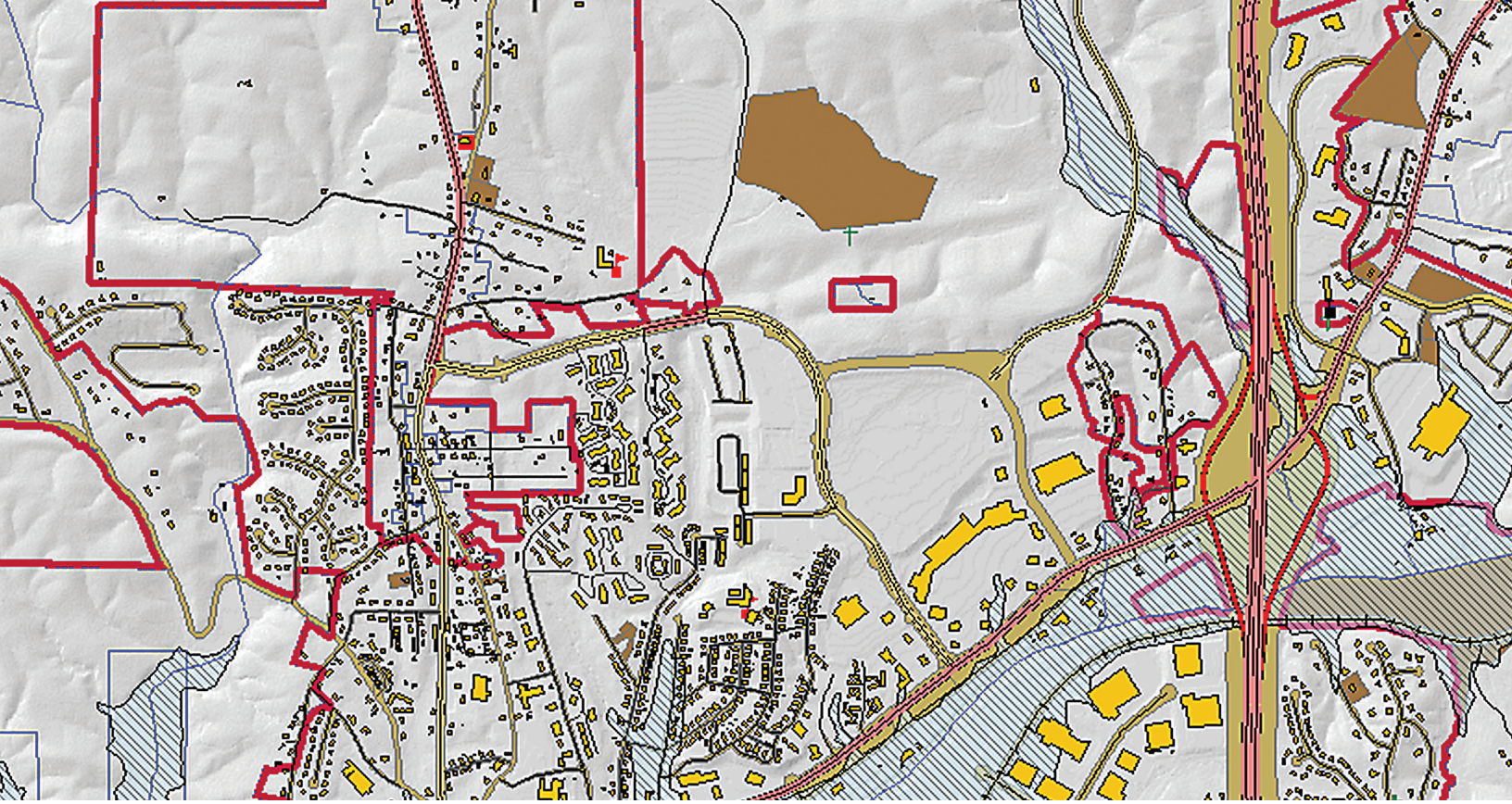
OCTAVE

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# Octave GeoMedia Data Infrastructure

## Serve secure or licensed information using standards-based web services



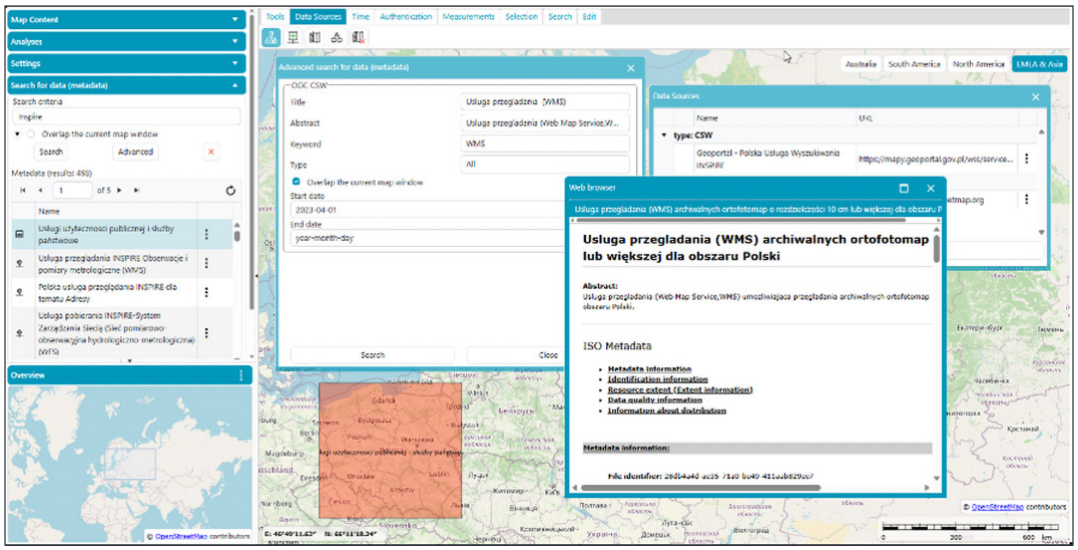


# Octave GeoMedia Data Infrastructure

Octave GeoMedia Data Infrastructure (formerly Geospatial SDI) is an interoperable, scalable component of a spatial data infrastructure (SDI). It catalogs and delivers enterprise geospatial data over the web. Designed for data providers that need to manage and serve secure or licensed information using standards-based web services, GeoMedia Data Infrastructure offers powerful tools for controlled access to standards-compliant services and data published by those services, as well as tools for monitoring and reporting service performance.

The product adheres to Open Geospatial Consortium (OGC) and International Standards Organization (ISO) standards for web services and metadata compliance. In addition, the services are Infrastructure for Spatial Information in the European Community (INSPIRE) ready, which means they have been adjusted to follow the current INSPIRE Technical Guidance and allow the deployment of INSPIRE services.

With GeoMedia Data Infrastructure, you can easily extend solutions based on Octave GeoMedia WebMap, Octave Alto Data Management (formerly ERDAS APOLLO) or any other vendor's OGC-compliant product to ensure the full set of services required for the implementation of a custom, secure SDI is available.




Create, edit, import, export, manage and store geospatial metadata records with the flagship SDI service - Catalog Service for the Web (CSW).

# Secure access to OGC-compliant web services

OGC Web Services have become the standard for building and using SDIs. But OGC standards do not define secure access, which limits their ability to publish protected or licensed data. Addressing this gap is essential for applying OGC interfaces to secure SDI delivery.

For providers that need to manage and serve secure or licensed information using standards-based web services, GeoMedia Data Infrastructure provides comprehensive web service support for secured and monitored OGC-compliant services including WMS, WFS, WCS and WMTS. GeoMedia Data Infrastructure lets administrators configure user permissions at several levels: service instance, dataset, feature class for WFS, layer for WMS or spatial area. In addition, a limited-time access permission may be granted to the user for a specified period and IP address.

# INSPIRE-ready implementation

The current GeoMedia Data Infrastructure implementation follows INSPIRE Technical Guidance requirements and is INSPIRE-ready and compatible. The INSPIRE Directive creates a shared spatial data infrastructure for public authorities across Europe. With GeoMedia Data Infrastructure, customers can set up INSPIRE service instances out of the box.

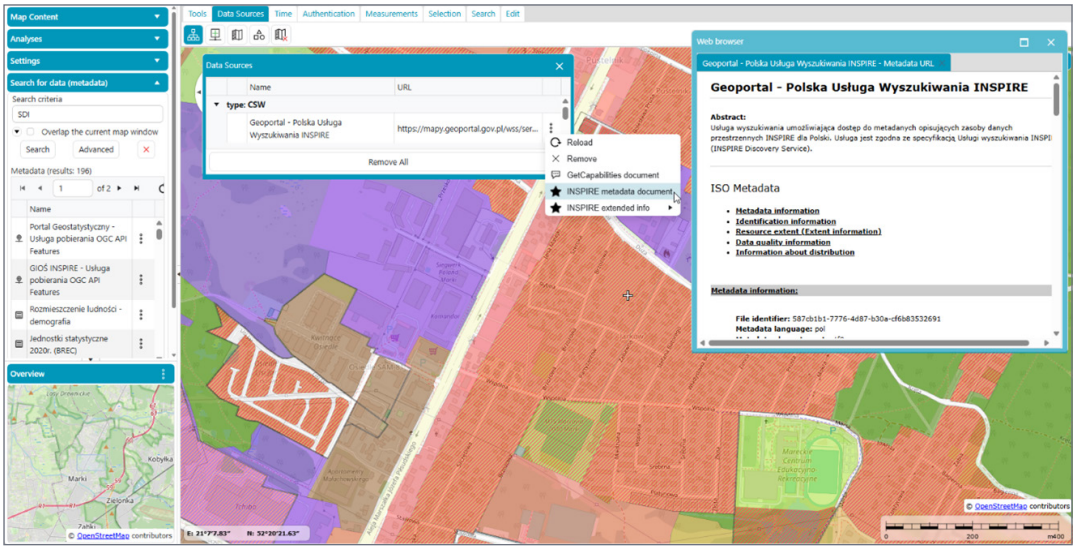
# Compatible with any OGC-compliant client

Secure access control notwithstanding, GeoMedia Data Infrastructure is designed to enable universal communication via OGC-standard interfaces. At its simplest, GeoMedia Data Infrastructure can authenticate users by IP address or range. This keeps it compatible with any OGC-compliant client while still enforcing secure access.

Users can also add vendor-specific parameters (VSPs) to feature a username and password, which can appear in the HTTP header. GeoMedia Data Infrastructure can interpret and adjust the IP address if needed. The additional information provided by the VSP query is compatible with most OGC-compliant clients, including all products in the GeoMedia family.

# Easy answers for who, what, when and where

GeoMedia Data Infrastructure extends the services suite offered in GeoMedia WebMap with the standards-based CSW service. This type of service is the primary tool for the discovery, access, maintenance and organization of catalogs of geospatial metadata that describe data and related resources available within enterprise or public SDIs.




Combining GeoMedia Portal and GeoMedia Data Infrastructure provides a robust tool to manage and consume geospatial datasets and services, and recognizes the need for interoperable, accessible and harmonized datasets.

# Compatible with any façade architecture

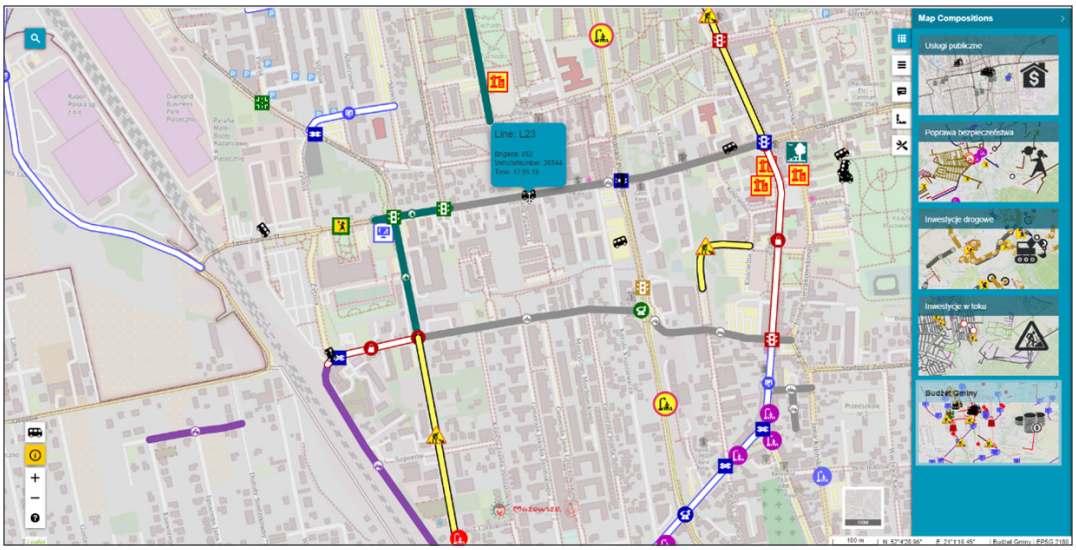
GeoMedia Data Infrastructure functions as a façade, providing a proxy over existing WMS, WMTS, WFS and WCS services. This approach is also called a proxy OGC Web Service (proxy OWS). It acts as an intermediate component that manages communication with OGC web services. The service user (client) communicates directly with the façade, which filters the request based on user rights (and/or other criteria) before passing it to the appropriate data services. The results can be served directly to the client or manipulated before return. This façade architecture also supports the use of web services from other providers. In addition, a façade can improve security when it is placed in the DMZ and allowed exclusive access to connect to the original service behind the firewall.

# Quality of administration, configuration and service control

A web-based console lets administrators create and configure server engines, web services and web applications in one location. Web service instances for any type of service can be created, configured and removed. GeoMedia Data Infrastructure also enables management and monitoring of published services. Advanced features include user event logging and measurement of service performance.

# Ease of integration

GeoMedia Data Infrastructure uses an open interface and ensures easy integration with other Octave geospatial solutions as well as third-party external services. There's no need to modify standard web services — vendor-specific OGC parameters or IP-based rules handle the required integration.



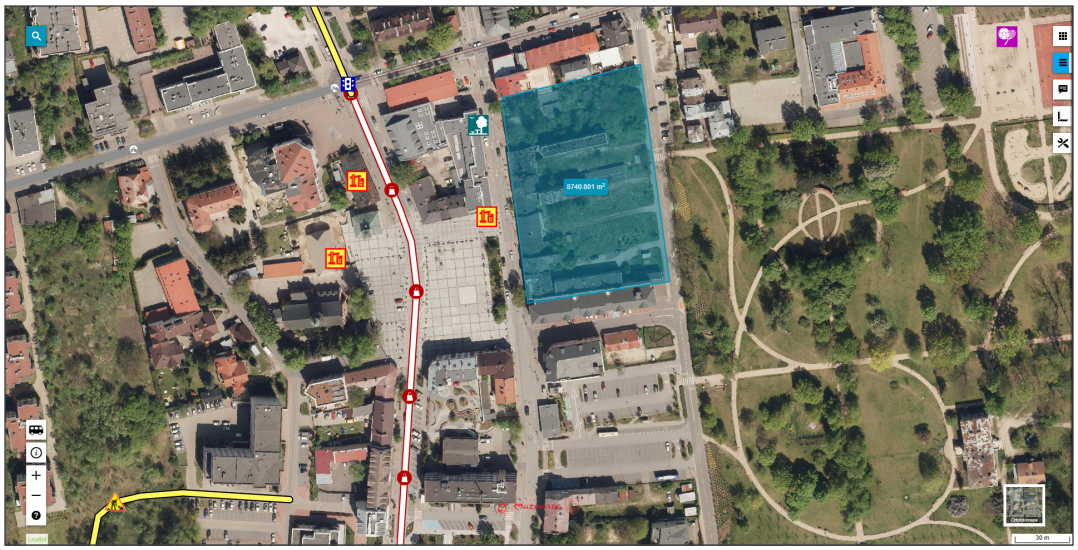

City officials and residents of Piaseczno, Poland can view standard map-based information, data relating to local community life and activities, and other business information in a public web portal.

# Integration with the wider IT system environment

Often, data providers own their administrative databases, such as those used for e-commerce transactions. GeoMedia Data Infrastructure includes adapters that allow it to connect to existing administrative databases, avoiding the need to create and maintain redundant information.

# Full, best-in-class SDI solution offering

An SDI requires both server-side and client-side capabilities. Octave's strategy is to offer flexible, best-in-class components. You can deploy them as a full infrastructure, as standalone modules or alongside third-party or open-source tools. GeoMedia Data Infrastructure is part of Octave's comprehensive SDI application and can be used in conjunction with Octave GeoMedia Portal for finding, viewing and querying geospatial data published with standard SDI web services.



Shared commune information system: The implemented system enables budget control and tracking of new investments carried out by the Piaseczno Commune.

# Connected solution

GeoMedia Data Infrastructure extends compliance for any vendor's OGC-compliant product to assure users possess the full set of services required for implementation of a custom, secure SDI.

| Product and interaction |
| --- |
| Provides OGC (CSW, ISO, AP)-compliant discovery of catalog records on top of Alto Data Management web services |
| Extends the services suite offered in GeoMedia WebMap with the standards-based CSW service |
| Extends the services suite offered in GeoMedia WebMap with tools for controlled access to standards-compliant services and implementation of a custom SDI |
| Extends the services suite offered in Alto Data Management with tools for controlled access to standards-compliant services and implementation of a custom SDI |

## About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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