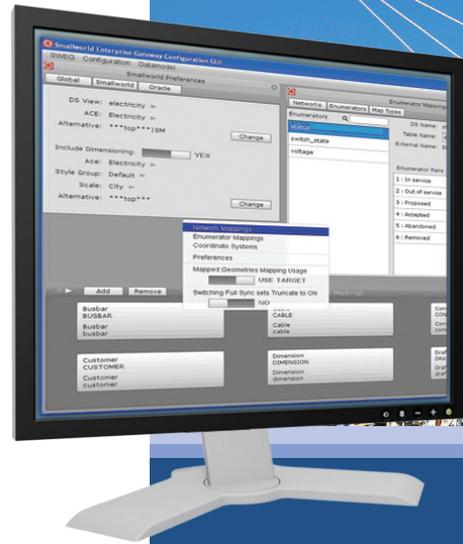


Smallworld™ Enterprise Gateway



Access Smallworld network data from business applications on Oracle®

Smallworld™ Enterprise Gateway provides an advanced, very comprehensive, high-performance, robust and easy to operate solution to make the quality of the Smallworld version managed data available on the Oracle database technology. It enables a wide range of usage including viewing, reporting and data-warehouse applications, and a set of operational applications. Smallworld Enterprise Gateway consists of a Java® application with a configuration user interface, and some Magik components, connecting to Oracle® and Oracle Spatial. It enables easy configuration and control, and high-speed operations.

Smallworld Enterprise Gateway is an essential component of Smallworld Core Spatial Technology and the Smallworld applications suite. Together this solution provides a well-proven portfolio of powerful industry solutions to manage complex infrastructure networks for utilities and telecommunications businesses around the globe, and it enables a wide range of partner and customer solutions. The Smallworld portfolio is designed to scale up to very large and complex infrastructure networks, to ensure the proven quality of data, and to tightly integrate domain specific applications with an advanced version management of network data. Many of the Smallworld customers in addition also operate a range of business applications on Oracle and Oracle Spatial, to support many other business processes.

Key Benefits

Enterprise-wide access to all network data

- Leverage the value of the Smallworld version managed data for a wide range of business processes
- Combine this rich set of quality data with other network related data, and to share these with many other users
- Enables viewing, reporting, analysis and data-warehouse, and many operational applications on Smallworld data models in Oracle

Improve IT operations and reduce overall cost

- High-speed operation ensures network data is always up-to-date for other processes
- Configuration requires only low efforts. The process runs as scheduled batch operations, it is robust and ensures short downtimes
- Scalable up to very large enterprises
- Easy adaptation to data model changes evolving over time

Performance

- Engineered to deliver the best possible performance
- Multi-threaded batch processing for fast throughput
- Throughput exceeding 4 Gbyte/h per parallel export
- Scalable to enable easy addition of future functionality

Ease of use

- Simple and full-featured GUI for configuring the synchronization process
- Setting up and configuring Smallworld Enterprise Gateway is an easy process
- No programming knowledge is necessary for basic setup

Advanced data model

- Supports a wide range of Smallworld geometries, including points, oriented or not, lines, areas and texts
- Meta-data export to additional tables enable non-Oracle functions, including multiple worlds
- Captures and exports custom drawing methods
- Supports a wide range of joins with no special input required from the user
- Full network topology can be transferred

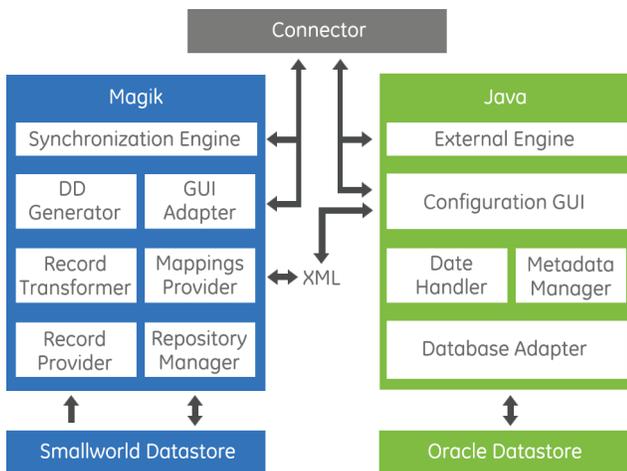


Configuration

The configuration GUI provides an easy to use environment for controlling the Oracle data model, including the mapping of database objects, to create or update the Oracle schema, setting of enumerators and coordinate systems, and other preferences.

Performance

The architecture has been engineered to deliver the best possible performance, using Java and Oracle multi-threading batch processing for fast throughput, exceeding 4 GByte/h per parallel export.



Smallworld Enterprise Gateway system architecture

Ease of Use

The user interface has been designed to set up and configure Smallworld Enterprise Gateway quickly and simply. No programming knowledge is necessary for basic setup.

Scalable

Smallworld Enterprise Gateway has been designed to enable the easy addition of future functionality.

Error handling

Smallworld Enterprise Gateway deals with degenerate input and software faults. It provides administrators with meaningful error-handling feedback. Errors during the update process are logged, and the process will continue to operate as much of the planned task as possible. An administrator can evaluate and resolve these errors offline. Corrected data is available for the next update runs, limiting the re-run frequency and time.

Data model support

Smallworld Enterprise Gateway provides comprehensive support for a wide range of geometries, including points, oriented or not, lines, areas and texts. Meta-data tables support multiple worlds in Oracle. It allows having geometries from two different coordinate systems stored in the same column of an Oracle table. In order to support complex dimension objects, Smallworld Enterprise Gateway captures the results of respective custom drawing methods and exports these to Oracle, to ensure the same graphical representation of dimensions in both worlds.

Smallworld Enterprise Gateway supports a wide range of joins. When defining the mapping configuration, they are treated like any other fields with no special input required from the user. When the Oracle data model is created, all required join properties (constraints, foreign keys, intermediate tables) are taken care of. Full network topology can be transferred into Oracle Topology. This can be specified per individual Manifold.

Data model evolution

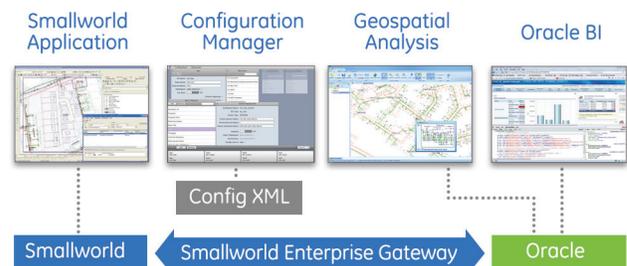
Upon data model changes, the user interface will show exactly which fields, tables, and relations in the Smallworld data model have changed. It gives the administrator the option to automatically propagate the data model changes, and to update the data in Oracle.

GeoSpatial Analysis

The Smallworld Enterprise Gateway is bundled with Smallworld GeoSpatial Analysis Professional, which enables easy visualization and evaluation of source and destination models of the synchronization process.

Smallworld Portfolio

The Smallworld portfolio supports customers operating in a hybrid Smallworld and Oracle landscape. Smallworld GeoSpatial Server provides web-services to access Smallworld network data, and enables SOA-based solutions. Smallworld GeoSpatial Analysis combines network data with geospatial and alphanumeric data from other sources to business objects, for QVP, reporting and analysis tasks. The Smallworld Enterprise Gateway application supports IT architectures, where physical records of network data are needed in an Oracle database.



Typical Smallworld configuration

Supported platforms and operating systems

- Smallworld Core Spatial Technology 4.1 and later
- Oracle® 10g and Oracle® 11g
- Microsoft® Windows® XP and Windows 7

For more information please visit GEDigitalEnergy.com

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