

Twister Data Server

Data Sheet

Overview

Twister Data Server provides any organization a powerful solution to easily access and federate multiple data sources, regardless of location, structure, or complexity, and use that information immediately for analysis and reporting.

Twister Data Server collects information from multiple back-end data sources and makes it available to client tools using open and standard interfaces. The client tool may access the information via web services or as a relational data set.

Twister Data Server communicates with back-end systems and data sources via both industry standard and vendor proprietary data access protocols. It is easily extensible – new or unsupported data sources can be quickly added by using *Twister Data Server's* Query Component API.



Security

Secured Client Access

- Supports encrypted JDBC connections using Twister Data Server's JDBC client driver.
- SSL over HTTP (HTTPS) for web-based access.

Authentication

- Pluggable authentication mechanism using Java Authentication and Authorization Service (JAAS). Login modules for LDAP, Sun Access Manager and Tomcat Security Realm are provided.
- Support for Single Sign-On (SSO) is enabled when using the Sun Access Manager module.
- Support for other security mechanisms can easily be added by providing a suitable JAAS module.

Authorization

- Role-based Access Control (RBAC) – allows control over who can execute a given stored procedure; thereby providing a layer of security on top of the underlying target data sources.

Cross Domain (High-to-Low)

Secured Data Access

- Instances of Twister Data Server can communicate with each other across firewalls or data guards to provide data access from diverse security domains.

Features

Open Interfaces

- Relational (Tabular) View - allows third-party tools to submit queries and retrieve results via a JDBC or ODBC compliant interface.
- Web Services - allows third-party web services clients in an SOA environment to submit queries and retrieve results via either a SOAP 1.1 compliant interface or a RESTful interface.

Access to Multiple (Heterogeneous) Data Sources

- Support for standard data access and communication protocols – JDBC, HTTP and SOAP.
- Support for proprietary protocols – MarkLogic's XCC/J.

Federated Queries

- Execute native queries against target data sources securely.
- Transform results into a unified view for client consumption.
- Correlate multiple result sets from disparate data sources.
- Expose stored procedures for data abstraction and secured access.

Metadata Repository

- Embedded database holds stored procedures and connection pools configuration properties.

Administration

- Web-based admin console allows for easy management of stored procedures and connection pools configuration.
- Metadata Export/Import – repository metadata can be exported from a Twister Data Server instance and imported into another instance.
- Tailor Twister Data Server's system properties to meet your deployment environment and performance needs – configure system ports, number of available connections, and number of threads for example.

Scalability

- Twister Data Server can be deployed as a standalone server or as a node in a clustered environment to meet increasing load requirements.
 - Repository metadata is automatically replicated across all participating nodes.
 - Load balancing is supported for HTTP-based connections (RESTful interface).

Extensible API

- Query Component API – developers can extend the reach of Twister Data Server by providing query components for data sources not currently supported.

Technical Specifications

- Multi-threaded, secured, 100% Java application for accessing data from disparate data sources, and delivering federated results via relational (tabular) views or web services.
- Integrates easily with third-party tools (e.g., MS Excel, Centrifuge, Google Maps, Portal applications) via open interfaces, including JDBC 2.0, ODBC 2.x, SOAP 1.1, and XML over HTTP (RESTful).
- Supports numerous data sources using standard and proprietary communication protocols including JDBC (Relational Databases), HTTP/S (Search Engines), SOAP 1.1 (Web Services), and XCC/J (MarkLogic XML Database).
- Query Component API allows for integration and query processing of other data sources not supported out-of-the-box.
- Pluggable authentication and authorization architecture allows integration with standards-based and proprietary security mechanisms for user authentication and data access.
- Scalable to meet increasing load demands, delivering results in seconds.

Java Platform

- Java Standard Edition 5.0 and 6.0 (32/64-bit JVM, Sun JRE recommended on all platforms)

Operating Systems

- Windows Server (32/64-bit editions)
- Solaris 10 (SPARC 32/64-bit, x86)
- Linux (kernel 2.6 or higher)

Browsers

- Internet Explorer 6.x and 7.0 (preferred)
- Firefox 2.0