Data Integration using Integration Gateway

SAP Mobile Platform 3.0 SP02

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Introduction to Integration Gateway

Integration Gateway is a service that runs within SAP® Mobile Platform Server, to provide the ability to run mobile applications that connect to various SAP and non-SAP (OData and non-OData) datasources. To build the services, the Gateway Productivity Accelerator includes tools, the Eclipse-based Toolkit for Integration Gateway, for modeling and generating components that are deployed through Integration Gateway.

Integration Gateway includes:

- Runtime environment, for connecting to various datasources (both SAP and non-SAP) and fetching runtime data
- A Web-based central user interface (UI), Gateway Management Cockpit, for managing services

Integration Gateway allows you to connect to different back ends, fetch data at runtime, and convert it into OData models to expose data as an OData service using:

- Java Database Connectivity (JDBC)
- Java Persistence API (JPA)
- Simple Object Access Protocol (SOAP)
- OData Channel (ODC)

The data model developer uses the Toolkit for Integration Gateway provided with Gateway Productivity Accelerator to model and generate services. The data model developer harmonizes different data models, structures, values, and so on, into a single OData model to be provisioned as an OData service.

The application developer can use the OData services exposed by Integration Gateway to develop mobile applications that use customer data and business information from various datasources. The application may combine data from these sources (Web services, JDBC content, JPA models, and so on), executing processes that cross enterprise system boundaries.

Enabling Models as OData Services

The Toolkit for Integration Gateway allows you to expose OData services based on database tables by mapping the model definition to the corresponding tables. Define an OData model to match the table properties, then bind the OData model to a datasource using Toolkit for Integration Gateway. The resulting OData services can be consumed by any client of SAP Mobile Platform and makes the OData service available for consumption.

For information on developing mobile applications by using the OData services exposed by Integration Gateway, see:

- *Integration Gateway*
- *GWPA Developer Guide* for SAP NetWeaver Gateway Productivity Accelerator at *https://help.hana.ondemand.com/gateway_gwpa/frameset.htm*. The tasks referenced below refer to sections in *Service Implementation > Binding Multiple Data sources from SAP and Non SAP Stacks*.

For information on creating the security roles required to deploy projects to SAP Mobile Platform Server, see *SAP Mobile Platform 3.0 > SAP Mobile Platform Server > Administrator > Security Administration > Security Profiles, Roles, and Authentication in SAP Mobile Platform > Role Mapping > Integration Gateway Roles*.

Prerequisites

- Install SAP Mobile Platform Server.
- Install Toolkit for Integration Gateway. See *SAP NetWeaver Gateway Productivity Accelerator (Developer Edition)* at *https://tools.hana.ondemand.com/#gateway*.

Enabling your data model as an OData service includes:

1. Creating a service implementation project, which is an Eclipse project with a predefined project structure, which generates and stores all the artifacts needed for OData service provisioning. When you create the service implementation project, you can also define the OData model.
   See *Creating a Service Implementation Project* in the *GWPA Developer Guide*.
2. Selecting the datasource to be configured with the service implementation project by specifying the OData references and the datasources to bind with the entity set.
   See *Selecting a Datasource* in the *GWPA Developer Guide*.
3. (Optional) Mapping the source and target fields of non-matching structures for operations-based (SOAP) structures.
   See *Working in the Mapping Editor* in the *GWPA Developer Guide*.
4. Generating the runtime artifacts and deploying the project to SAP Mobile Platform Server.

See *Generating and Deploying Service Implementation Project* in the *GWPA Developer Guide*.

Managing Services in Gateway Management Cockpit

A service, with the exception of SOAP, is automatically registered when the service is deployed from the Toolkit. Use Gateway Management Cockpit to assign the registered service to a destination and activate it.

For information about using Gateway Management Cockpit, see:

- *Administrator > Administrator Overview > Administrator Overview for Integration Gateway*. To review these tasks, click the *Gateway Management Cockpit* link.

Managing services consists of:

- Creating a destination in Gateway Management Cockpit.
  See *Gateway Management Cockpit > Creating a Destination on Gateway Management Cockpit*.
- Assigning destinations to a service in Gateway Management Cockpit.
  See *Gateway Management Cockpit > Assigning and Removing Destinations* .
- (For SOAP services only) Registering a service in Gateway Management Cockpit.
  See *Gateway Management Cockpit > Registering an SAP Service in Gateway Management Cockpit* .