

CUSTOMER

Integration Gateway



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1 Enabling Database Content as OData Services

Integration Gateway allows you to expose OData services that are based on database tables by mapping the model definition to the corresponding tables. Use Toolkit for Integration Gateway to define an OData Model which should match the table properties, then bind the OData model to a JDBC datasource. There should be one-to-one mapping between the OData model and the table properties. OData JDBC processor is used to connect to the database via JDBC connectivity which fetches data at runtime.

OData Feature	Status
Create	Supported
Read	Supported
Update	Supported
Delete	Supported
Query	Supported
\$filter	Supported
Function imports	Not supported
Deep Insert	Not supported
Associations	Not supported
Navigation	Not supported
System query operations: \$orderby, \$skip, \$top, \$select, \$expand, \$format, \$select, \$inlinecount	Not supported

For details of the tasks performed using Toolkit for Integration Gateway, see the SAP NetWeaver Gateway Productivity Accelerator documentation on <https://help.hana.ondemand.com>. The relevant content is located in [SAP NetWeaver Gateway Productivity Accelerator](#) > [GWPA Development Guide](#) > [Service Implementation](#) > [Binding Multiple Data sources from SAP and Non SAP Stacks](#).

1. To register the service, use Toolkit for Integration Gateway:
 - a) Create a service implementation project. See [Creating a Service Implementation Project](#).
 - b) Select the JDBC datasource to bind with an entity set. See [Selecting a Datasource](#).
 - c) Generate and deploy the service implementation project. See [Generating and Deploying Service Implementation Project](#).
2. Log in to Gateway Management Cockpit. You should see the registered service in the [Registered Services](#) screen.
3. Assign an existing destination to the service or entity sets. See [Assigning and Removing Destinations in the Gateway Management Cockpit PDF](#) on <http://help.sap.com/mobile-platform/>. Otherwise, create a new destination (see [Creating a Destination on Gateway Management Cockpit in the Gateway Management Cockpit PDF](#)) and then assign it.

2 Enabling JPA Models as OData Services

Integration Gateway allows you to expose OData services by using JPA models as input that is already in sync with the underlying database. Use Toolkit for Integration Gateway to define an OData model which should match the JPA model properties. The OData JPA processor fetches data at runtime.

OData Features	Status
Create	Supported
Read	Supported
Update	Supported
Delete	Supported
Query	Supported
All system query operations	Supported
\$link	Not supported
\$value	Not supported
Custom query options	Not supported

i Note

The JPA model must be active on the SAP Mobile Platform Server. The JPA JAR must be packaged as a P2 feature in a P2 update site and enabled as a custom feature on the server. For more information on enabling custom features on the SAP Mobile Platform server, see [▶ SAP Mobile Platform 3.0 ▶ SAP Mobile Platform Server ▶ Administrator ▶ Server Administration ▶ Managing SAP Mobile Platform Server Features ▶](#).

For details of the tasks performed using Toolkit for Integration Gateway, see the SAP NetWeaver Gateway Productivity Accelerator documentation on <https://help.hana.ondemand.com>. The relevant content is located in [▶ SAP NetWeaver Gateway Productivity Accelerator ▶ GWPA Development Guide ▶ Service Implementation ▶ Binding Multiple Data sources from SAP and Non SAP Stacks ▶](#).

1. To register the service using Toolkit for Integration Gateway:
 - a) Create a service implementation project. See [Creating a Service Implementation Project](#).
 - b) Select the JPA datasource to bind with an entity set. See [Selecting a Datasource](#).
 - c) Generate and deploy the service implementation project. See [Generating and Deploying Service Implementation Project](#).
2. Log in to Gateway Management Cockpit. You should see the registered service in the [Registered Services](#) screen.
3. Assign an existing destination to the service or entity sets. See [Assigning and Removing Destinations in the Gateway Management Cockpit PDF](#) on <http://help.sap.com/mobile-platform/>. Otherwise, create a new destination (see [Creating a Destination on Gateway Management Cockpit in the Gateway Management Cockpit PDF](#)) and then assign it.

3 Enabling Web Services as OData Services

Integration Gateway transforms Web services that are exposed via SOAP protocol as OData services. OData SOAP Processor fetches runtime data from Web services. Integration Gateway also provides Custom Processor, a plug-in mechanism which you can use to provide your own logic before the data is sent to the Web service. You can use the Custom Processor plug-in in complex scenarios, such as querying data using filters.

OData Features	Status
Create	Supported
Read	Supported
Update	Supported
Delete	Supported
\$select	Supported
Complex types	Supported
\$filter, \$top, \$skip (via Custom Processor)	Supported
\$link	Not supported
Navigation	Not supported
Deep insert	Not supported

For details of the tasks performed using Toolkit for Integration Gateway, see the SAP NetWeaver Gateway Productivity Accelerator documentation on <https://help.hana.ondemand.com>. The relevant content is located in [SAP NetWeaver Gateway Productivity Accelerator](#) > [GWPA Development Guide](#) > [Service Implementation](#) > [Binding Multiple Data sources from SAP and Non SAP Stacks](#).

1. To register the service, use Toolkit for Integration Gateway:
 - a) Create a service implementation project. See [Creating a Service Implementation Project](#).
 - b) Select the SOAP datasource to bind with an entity set. See [Selecting Datasource](#).
 - c) Define mappings to enable create, read, update and delete operations. See [Define Mappings for SOAP](#).
 - d) To enable a query request (\$filter, \$skip, \$top), use the Custom Processor plug-in to define your own logic. See [Creating Custom Logic for SOAP Query Request](#).
 - e) Generate and deploy the service implementation project. See [Generating and Deploying Service Implementation Project](#).
2. Log in to Gateway Management Cockpit. You should see the registered service in the [Registered Services](#) screen.

4 Enabling SAP Back-End Content as OData Services

Integration Gateway provisions SAP back-end content as OData services using the OData Channel (ODC). ODC allows you to expose OData services by defining object models and registering a corresponding runtime data provider class. There are two ODC application components: the business data provider and the metadata provider. An ODC data provider implements a single interface that is very close to the OData Protocol. OData Channel applications obtain access to common framework services, for example, logging or transaction handling, using a set of agents called “Common Service Exposure”. These agents wrap existing framework services in a way that OData Channel applications can easily consume.

OData Feature	Status
Create	Supported
Read	Supported
Update	Supported
Delete	Supported
\$select	Supported
System query operations	Supported

For details of the tasks performed using Toolkit for Integration Gateway, see the SAP NetWeaver Gateway Productivity Accelerator documentation on <https://help.hana.ondemand.com>. The relevant content is located in [SAP NetWeaver Gateway Productivity Accelerator](#) > [GWPA Development Guide](#) > [Service Implementation](#) > [Binding Multiple Data sources from SAP and Non SAP Stacks](#).

i Note

Register the SAP service in the Gateway Management Cockpit before you use Toolkit for Integration Gateway. See Registering an SAP Service in Gateway Management Cockpit in the Gateway Management Cockpit.pdf on <http://help.sap.com/mobile-platform/>.

1. To register the service, use Toolkit for Integration Gateway:
 - a) Create a service implementation project. See Creating a Service Implementation Project.
 - b) Select the OData Channel (ODC) datasource to bind with an entity set. See Selecting a Datasource.
 - c) Generate and deploy the service implementation project. See Generating and Deploying Service Implementation Project.
2. Log in to Gateway Management Cockpit. You should see the registered service in the [Registered Services](#) screen.

5 Reference Scenario - ESPM

The Enterprise Sales and Procurement Model (ESPM) is a simple business model scenario for developing a retail business. It is based on the Enterprise Procurement Model (EPM). In this scenario, the datasource is a JPA model for ESPM Java.

Prerequisites

- Access to Gateway Management Cockpit for managing the services.
 - A security profile for the namespace 'sap'. See Creating a Security Profile at <http://help.sap.com/mobile-platform> ► *SAP Mobile Platform 3.0* ► *Administrator* ► *Application Administrator* ► *Creating a Security Profile* ►.
1. Log in to Gateway Management Cockpit, you should see "EspmService" under *Registered Services*.
 2. Configure the JPA destination for the ESPM service:
 - a) Select the *DESTINATIONS* tab.
 - b) Click *Create a New Destination...* and enter:

Field	Description
<Destination Name>	A destination name of your choice for Espmservice, for example, ESPMDestination
<Destination Type>	<i>JPA</i>
<Presistence Unit>	com.sap.espm.model
<Authentication Type>	<i>Basic Authentication</i>
<Username>	gomobile
<Password>	secret

- c) Click *Save*.
3. Assign the destination *ESPMDestination* for the service or for entity sets. See Assigning and Removing Destinations in the Gateway Management Cockpit PDF on <http://help.sap.com/mobile-platform/>.
 4. Activate the *Espmservice* service:
 - a) Go to the *SERVICES* tab, and verify that *ESPMDestination* is the default destination for Espmservice.
 - b) Select the *Espmservice* row and click *Activate/Deactivate* to activate the Espmservice.



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