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OpenText™ Documentum™ Content Management for Salesforce®

Configuration Guide

This document explains how you can configure Salesforce® and OpenText Documentum CM for Salesforce on Content Server.

EESADC250400-CGD-EN-01

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Configuration Guide
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Open Text Corporation

275 Frank Tompa Drive, Waterloo, Ontario, Canada, N2L 0A1

Tel: +1-519-888-7111
Toll Free Canada/USA: 1-800-499-6544 International: +800-4996-5440
Fax: +1-519-888-0677
Support: https://support.opentext.com
For more information, visit https://www.opentext.com

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Table of Contents

1 What is OpenText Documentum CM for Salesforce? 9
1.1 Related documentation 10

2 Overview 11
2.1 Business workspaces 11
2.2 Connecting multiple Salesforce orgs with one Content Server 12

Part 1 Configuring business workspaces 15

3 Importing Content Server configuration 17
3.1 Accessing the Content Server import files 17
3.2 Preparing the import files for deployment 17
3.3 Deploying the configuration 18
3.3.1 Creating categories 18
3.3.2 Creating classifications 18
3.3.3 Creating folders 19
3.3.4 Creating workspace types 19
3.3.5 Creating document templates 19
3.3.6 Creating business object types 20
3.4 Performing tasks after the configuration import 20
3.4.1 Creating user groups 20
3.4.2 Adjusting the display of sidebar widgets 20

4 Manual configuration in Salesforce 23
4.1 Configuring business object types 23
4.2 Configuring business object properties and paths 26
4.2.1 Configuring business object properties 27
4.2.2 Configuring business property paths 29
4.2.3 Configuring role synchronization 31
4.3 Configuring business relationships 33
4.4 Configuring batch creation of workspaces 35
4.5 Configuring page layouts 37
4.6 Assigning classic page layouts 39
4.7 Assigning lightning page layouts 39
4.8 Defining general restrictions 40

5 Manual configuration on Content Server 41
5.1 Creating categories 41
5.2 Creating classifications 43
5.3 Creating folders 44
5.4 Configuring multilingual metadata languages 46
5.5 Defining workspace types 46

5.5.1 General settings of a workspace type 48
5.5.1.1 Widget icon 53
5.5.2 Advanced settings of a workspace type 53
5.5.3 Documentum settings of a workspace type 55
5.5.4 Smart View: Defining workspace type names and icons 55
5.5.5 Managing workspace types 56
5.6 Configuring Smart View for Business Workspaces 58
5.6.1 Creating a custom column 58
5.6.1.1 To create a custom column 59
5.6.2 Converting a rule-based to a business workspace-type Perspective ... 60
5.6.2.1 To convert a rule-based Perspective to a Perspective node-type Perspective 60
5.6.3 Creating a Perspective using the Perspective Manager tool 61
5.6.3.1 To create a business workspace-type Perspective 62
5.6.4 Configuring widgets for a Business Workspace 62
5.6.5 Creating an activity manager object for the Activity Feed 62
5.7 Defining document templates 64
5.7.1 Configuring document template settings 64
5.7.2 Creating a document template 65
5.7.3 Creating workspace hierarchies 66
5.7.4 Defining OpenText Documentum CM permissions for workspaces 68
5.7.5 Defining team roles and team participants 68
5.7.5.1 Handling of roles and participants 71
5.7.5.2 Role mapping in workspace hierarchies 71
5.7.6 Merging permissions and owners 72
5.7.7 Defining group replacement settings 72
5.7.8 Defining and using variables 75
5.8 Configuring Connections to Business Applications (External system) .. 76
5.9 Defining business object types 78
5.9.1 Configuring a basic business object type 79
5.9.2 Configuring the creation of business workspaces 80
5.9.3 Mapping business properties to category attributes 81
5.9.4 Assigning external document type to attachment declaration 83
5.9.5 Configuring cross-application relations 83
5.9.6 Managing business object types 84
5.10 Using scheduled bots 85
5.11 Configuring a Create or Update Documents bot 87

6 Managing attachment declarations on Content Server 89
6.1 Configuring attachment declarations 89
6.1.1 Creating an attachment declaration 90
6.1.1.1 Configuring general settings and property mapping 90

6.1.1.2 Configuring document location and classification 91
6.1.1.3 Configuring document names and records management 93
6.1.1.4 Importing and exporting attachment declaration configurations 95

7 Manual configuration on OpenText Documentum CM 97
7.1 Configuration on OpenText Documentum CM server 97
7.2 Configuration on Documentum Administrator (DA) 101
7.3 Configuration on Client Configuration 102

Part 2 Configuring user management and authentication 103

8 Basic concepts 105
8.1 Single sign-on 105
8.1.1 Directory Services are provided by Salesforce 105
8.1.2 Directory Services are provided by other source 105
8.2 User management with Salesforce 106
8.3 User management with (OTDS) 106
8.4 Setting up authentication and managing user information 108

9 Configuring OTDS 111
9.1 Configuring a resource for OpenText Documentum CM 111
9.2 Configuring access roles 112
9.3 Configuring the OAuth client 112

10 Configuring API authentication 113
10.1 Configuring the OAuth client on OTDS 16 113
10.2 Configuring Salesforce 114
10.2.1 System configuration 114
10.2.2 Name mapper configuration 116

11 Configuring user synchronization in Salesforce 117
11.1 Defining a user synchronization provider 118
11.2 Defining a user name mapping provider 122
11.3 Defining a user name mapping synchronization 124
11.4 Configuring group synchronization in Salesforce 125

12 Configuring OAuth 2.0 single sign-on 129
12.1 Configuring the connected app in Salesforce 129
12.2 Configuring the authentication handler in OTDS 130
12.3 Logging in with OAuth 134
12.3.1 Content Server initiated SSO 134
12.3.2 Salesforce initiated SSO 136

13 Configuring SAML single sign-on 139
13.1 Prerequisites 139

13.2 Defining SAML single sign-on settings in Salesforce 139
13.3 Configuring the connected app in Salesforce 140
13.4 Configuring the authentication handler in OTDS 143
13.5 Logging in with SAML 146
13.5.1 Content Server initiated SSO 147
13.5.2 Salesforce initiated SSO 148

14 Access control 149
14.1 Permissions on Content Server 149
14.2 Groups in Content Server 150
14.3 Roles in Content Server 150
14.4 Configuring permissions on Content Server 151
14.4.1 Defining general restrictions on Content Server 152
14.4.2 Defining item level permissions on Content Server 153

Part 3 Configuring user interface enhancements 155

15 Configuring Lightning components 157
15.1 Content Services Attachments 157
15.2 Content Services Files 158
15.3 Content Services Legacy Files 159
15.4 Content Services Legacy Perspective 159
15.5 Content Services Perspective 160
15.5.1 Configuring the Perspective component 160
15.5.2 Using Perspectives in Salesforce Communities 161
15.6 OpenText Content Management SOQL Predicate 162
15.7 Content Services Viewer 162
15.7.1 Configuring a quick action in Salesforce 162
15.7.2 Configuring the Viewer component 164

16 Creating a Salesforce flow for workspace integration 165
16.1 Creating a Quick Action button for Salesforce Flow 167

17 Displaying Content Server information using Canvas 169
17.1 Configuring Lightning components 169

Part 4 Logging, error handling, reporting, system configuration 173

18 Managing logs in Salesforce 175
18.1 Defining the log configuration 175
18.2 Reviewing and Exporting logs 176
18.2.1 Configuring the debug logs module names 177
18.3 Deleting logs 177

19 Managing logs on Content Server 179

19.1 Configuring logging for the Business Workspaces module 179

20 Error handling in Salesforce 181
20.1 Reviewing the errors 181

21 Reporting in Salesforce 185
21.1 Running the reports 185

22 System configuration in Salesforce 187
22.1 Defining security settings 187
22.2 Defining repository settings 189
22.3 Defining performance settings 192
22.4 Defining environment settings 196

23 Managing business processes 201
23.1 Scheduling business processes 201
23.2 Viewing the status of business processes 203

Part 5 Transporting configuration 205

24 Transporting the configuration on Content Server 207
24.1 Importing a configuration from versions between 10.5.1 to 16.2.5 207

25 Importing and exporting configuration in Salesforce 211
25.1 Exporting the configuration 211
25.2 Importing the configuration 212

26 Importing and exporting configuration in OpenText Documentum CM 213
26.1 Importing the D2-Config.zip file 213
26.2 Installing dar file 216

Part 6 Miscellaneous configuration information 219

27 Field expressions 221

28 Property value formatter initialization parameters 223
28.1 Address formatter initialization parameters 223
28.2 Currency formatter initialization parameters 224
28.3 Date formatter initialization parameters 224
28.4 DateTime formatter initialization parameters 224
28.5 String formatter initialization parameters 224
28.6 ID formatter initialization parameters 227
28.7 Time formatter initialization parameters 228

29 Known issues 229

Part 7 Standard configuration settings 233

30 Standard configuration in Salesforce 235
30.1 Business object types 235
30.2 Standard business object property configuration 235
30.2.1 Account business object type 236
30.3 Standard business relationships 237
30.4 Standard business relationships for Financial Services Cloud (FSC) objects 240

31 Standard configuration in Content Server 241
31.1 Categories 241
31.2 Classifications 243
31.3 Folder structure 244
31.4 Workspace types settings 245
31.5 Document templates 247
31.6 Business object types 249
31.7 Attachment declarations 252

Chapter 1

What is OpenText Documentum CM for Salesforce?

OpenText Documentum CM for Salesforce provides a 360-degree view for users to store and manage business critical documents and information. OpenText Documentum CM for Salesforce enriches the content management capabilities of OpenText™ Documentum™ Content Management bringing that information directly into Salesforce Sales and Service cloud and optimizing sales and customer service processes, creating a user experience like never before.

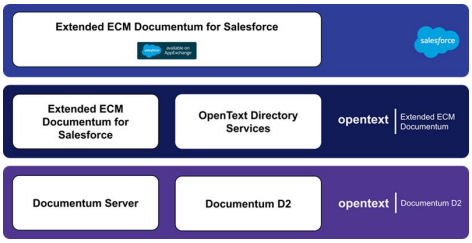


Figure 1-1: Solution components

The main systems for OpenText Documentum CM for Salesforce are OpenText Documentum CM and your Salesforce business application. OpenText Documentum CM and your business application are connected using the following components:

- OpenText Documentum CM for Salesforce components are installed in the business application system.
- OpenText Documentum CM for Salesforce components are installed on Content Server.
- Both systems are connected through Web Services.

Business workspaces

A *business workspace* in OpenText Documentum CM contains content that is relevant for a business object. From OpenText Documentum CM side, users can easily view the data of the enterprise application. From Salesforce, users can access OpenText Documentum CM items in the business workspace without leaving their application. To make full use of the OpenText Documentum CM functionality, business workspaces can be configured for OpenText Content Management.

Business relationships

OpenText Documentum CM for Salesforce provides tools to illustrate a relationship between business workspaces.

1.1 Related documentation

- Release Notes on OpenText My Support
- *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*
- *OpenText Documentum Content Management for Salesforce - User Guide (EESADC-UGD)*

Chapter 2

Overview

2.1 Business workspaces

A business workspace is a dedicated item that is created for a business object. In this business workspace, authorized users can view or share information related to this particular business object. Additional informational elements link the business workspace to the business object. Business workspaces can also be “stand-alone” with no link to a business object, although this is meant to be only a temporary status.

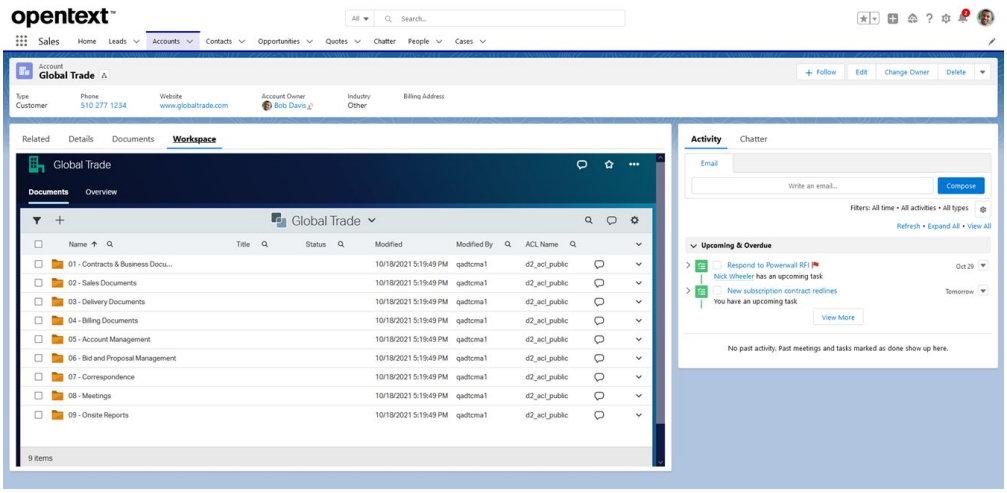


Figure 2-1: Sample business workspace in Salesforce

From Salesforce, users can access OpenText Documentum CM items in the business workspace without leaving their application.

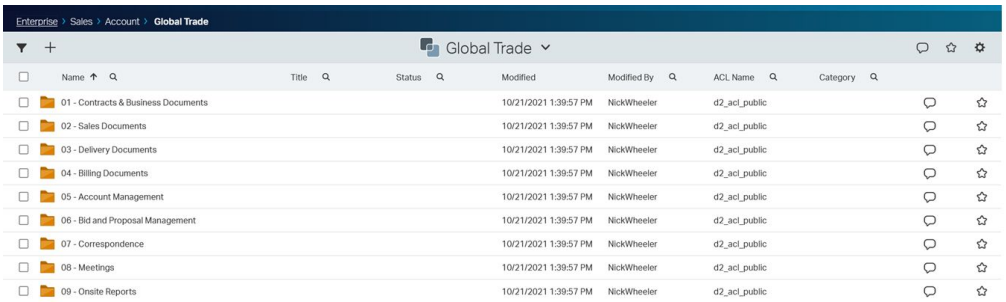


Figure 2-2: Sample business workspace folder in OpenText Documentum CM

From OpenText Documentum CM side, users can easily view the data of the enterprise application.

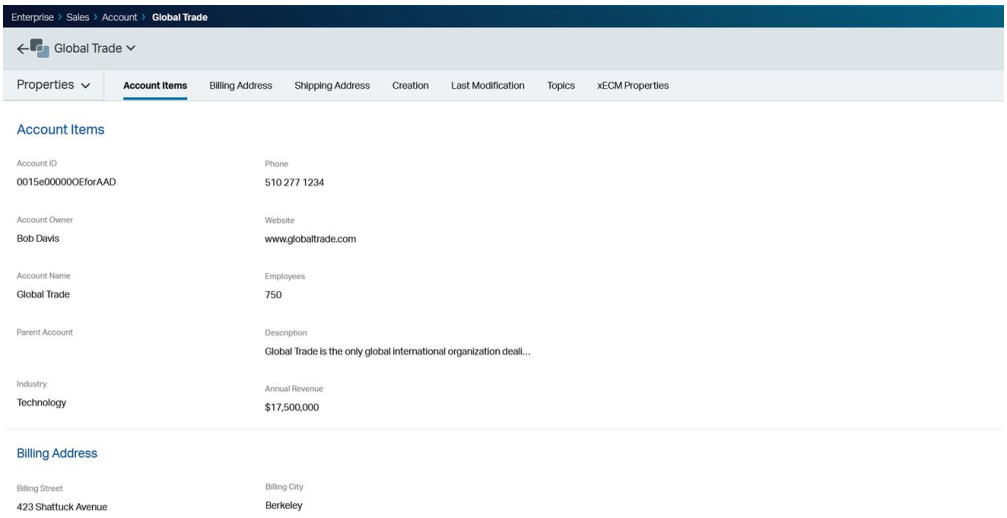


Figure 2-3: Sample attributes in OpenText Documentum CM

2.2 Connecting multiple Salesforce orgs with one Content Server

OpenText Content Management for Salesforce supports multiple Salesforce orgs connected to the same Content Server under certain conditions:

Scenario 1

In this scenario, each Salesforce org connected to Content Server is mutually exclusive of other orgs. In other words, even though you might have two orgs, each with Accounts, the Account business object type from org1 is **not** the same as the Account business object type from org2. In Content Server you define external system configurations for each org, and then define business object types, workspace types, document templates, folders, and attachment declarations for each org and possibly share categories and classifications.

The business object types, etc., names must be unique across the front-end systems. For example, you could have Account1 and Account2 business object types corresponding to accounts from org1 and org2, but you cannot have Account and Account corresponding to the different orgs. As always, the business object type, property, etc., names in the Salesforce org must match those defined in Content Server.

If you want to synchronize the same Salesforce object from multiple orgs it can be hard to keep straight which object is coming from which org and what the name is. A naming convention helps considerably here.

Scenario 2

In this scenario, you send unique Salesforce objects from each org, for example, Accounts and Opportunities from org1 and Campaigns and Leads from org2. The relationships can be maintained in Content Server only between the objects that come from the same org. In this example, Account and Opportunity relations can be maintained but not Account to Campaign relationships.

Scenario 3

In this scenario, the same Content Server workspace, for example, *Account* is shared among the Account objects from org1 and org2. This is similar to cross-application support for Salesforce and any other ERP as leading system, such as SAP. The difference is that one Salesforce org is used as leading system and the other as subordinate.

Notes

- Irrespective of whatever scenario you choose, you must define the external system for each org.
- If you use the Canvas application for viewing the workspace, you must configure Canvas individually for each Salesforce org.

Part 1

Configuring business workspaces

This part describes how to configure the systems manually. Alternatively, you can import the Solution Accelerator configuration, which creates relevant configuration in Salesforce , OpenText Documentum CM, and Content Server. For more information, see *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*.

Chapter 3

Importing Content Server configuration

This section describes the configuration in Content Server. It assumes a clean Content Server in a supported version as a starting point.

Most of the Content Server configuration is done through importing configuration files from the OpenText Content Services for Salesforce Solution Accelerator. If you prefer to perform some or all of the configuration manually, complete information is included in *OpenText Documentum Content Management for Salesforce - Configuration Guide (EESADC-CGD)*. If you are entering the configuration manually, you may skip this section and proceed to *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)* once you have entered the desired configuration.

3.1 Accessing the Content Server import files

The Solution Accelerator provides some configuration for Salesforce by default. Alternatively, you can also configure manually.

To access the files:

1. Download the files from the location specified in the Release Notes.
2. Unzip the installation package to a directory on your local machine where they will be available to the following steps.

3.2 Preparing the import files for deployment

The following files are imported using the Transport Warehouse. These files are:

- `SalesforceCategories.zip`
- `SalesforceClassifications.zip`
- `SalesforceFolders.zip`
- `SalesforceWorkspaceTypes.zip`
- `SalesforceDocumentTemplates.zip`
- `SalesforceAttachmentDeclarations.zip`
- `SalesforceBusinessObjectTypes.zip`

To import the transport package:

1. From the Content Management main menu, select **Enterprise > Transport Warehouse**.
2. Click **Add Item > Workbench** and create a workbench for each import file.

3. Click the **Transport Packages** link.
4. Click **Add Item > Transport Package** and create a transport package for each import file.
5. Unpack each transport packages to the corresponding workbench.
   a. On the function menu of the transport package, click **Unpack**.
   b. Browse for the workbench that you created for the package and select it.
   c. Click **Unpack**.

3.3 Deploying the configuration

After importing the transport packages, you deploy them to Content Server.

3.3.1 Creating categories

To create the categories:

1. From the main menu, select **Enterprise > Transport Warehouse**.
2. Click the **Salesforce Categories** workbench item to view its details.
3. Click **Deploy workbench**.
4. Verify that all objects are **Ok to deploy** and click **Deploy**.
5. Click **OK** in the confirmation dialog to deploy the categories.
6. Navigate to **Enterprise > Business Workspaces**. Click **Categories**.

3.3.2 Creating classifications

To create the classifications:

1. From the main menu, select **Enterprise > Transport Warehouse**.
2. Click the **Salesforce Classifications** workbench item to view its details.
3. Click **Deploy workbench**.
4. Verify that all objects are **Ok to deploy** and click **Deploy**.
5. Click **OK** in the confirmation dialog to deploy the classifications.
6. Navigate to **Enterprise > Business Workspaces**. Click **Classifications**, and then click the **Types** classifications folder.

3.3.3 Creating folders

To create the folders:

1. From the main menu, select **Enterprise > Transport Warehouse**.
2. Click the **Salesforce Folders** workbench item to view its details.
3. Click **Deploy workbench**.
4. Verify that all objects are **Ok to deploy** and click **Deploy**.
5. Click **OK** in the confirmation dialog to deploy the folders.
6. Navigate to **Enterprise > Workspace**.

3.3.4 Creating workspace types

To create the workspace types:

1. From the main menu, select **Enterprise > Transport Warehouse**.
2. Click the **Workspace Types** workbench item to view its details.
3. Click **Deploy workbench**.
4. Verify that all objects are **Ok to deploy** and click **Deploy**.
5. Click **OK** in the confirmation dialog to deploy the workspace types.
6. Navigate to **Enterprise > Business Workspaces > Workspace Types**.

3.3.5 Creating document templates

To create the document templates:

1. From the main menu, select **Enterprise > Transport Warehouse**.
2. Click the **Salesforce Document Templates** workbench item to view its details.
3. Click **Deploy workbench**.
4. Verify that all objects are **Ok to deploy** and click **Deploy**.
5. Click **OK** in the confirmation dialog to deploy the document templates.
6. Navigate to **Enterprise > Document Templates**.

3.3.6 Creating business object types

To create the business object types:

1. From the main menu, select **Enterprise > Transport Warehouse**.
2. Click the **Business Object Types** workbench item to view its details.
3. Click **Deploy workbench**.
4. Verify that all objects are **Ok to deploy** and click **Deploy**.
5. Click **OK** in the confirmation dialog to deploy the business object types.
6. Navigate to **Enterprise Application Integration > Business Object Types**.

3.4 Performing tasks after the configuration import

3.4.1 Creating user groups

OpenText recommends workspace permissions be assigned to user groups rather than individual users. This greatly simplifies the Administrator's task since a user's workspace permission may be added or removed simply by adding or removing them from the appropriate groups. For detailed information about user management, see "Configuring user management and authentication" on page 103.

To create groups:

1. Navigate to **Enterprise > Users & Groups**.
2. Click **Add Item** and create whatever group(s) are required.

3.4.2 Adjusting the display of sidebar widgets

Sidebar widget display has predefined width values for all attributes. If there is a need to adjust the attribute labels or values, you can do so by making changes to the style sheets.

To increase the attribute label or value display length:

1. Open the following file in a text editor: `<Content Server home>\support\otsapxecm\sidebar.css`. Default for Content Server home is `C:\OPENTEXT`.
2. For `.xecmsap_attribute_label` change width from 30% (default) to a value that works best for you.

   For `.xecmsap_attribute_value` change width from 100% (default) to a value that works best for you.
3. Save the file.

Note: For better results the label and value entries together add up to 100%

To adjust the sidebar widget location (reference from the right hand margin):

1. Open the following file in a compatible editor: `<Content Server home>\support\stype\screen.css`.
2. For `.sidebarOuter` change width from 20cm (default) to a value that works best for you.
3. Save the file.

Notes

- You need to also clear your browser cache
- If you do not want to adjust these settings alternately you can opt for short attribute label names when you define the categories and attributes.

Chapter 4

Manual configuration in Salesforce

4.1 Configuring business object types

Tip: This step is only necessary if you are not importing the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. .

You can configure multiple business object types for a single Salesforce object.

To configure a business object type:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Workspaces** > **Business Object Types**.
5. To add a new business objects type, click **Add New**.
6. On the **New Business Object Type** page, in the **Details** area, enter the following information:

Business Object Type Name
Type a unique name for the business object type.

Add Document Folder
You can specify a folder for this business object type. The files uploaded through **Content Services Attachments** are stored in this folder. If the field is empty, documents are uploaded to the root folder.

Content Services Attachments is an OpenText Lightning component to upload files directly to the business workspace in the content repository. You can also upload multiple files to the workspace in real-time. This component is available for all Salesforce objects and page layouts.

Create Update Workspace Enabled
Specify how events that would cause the creation or updation of workspace in the content repository should be processed. If you select the check box, the events are processed as normal; workspaces for this business object will be created or updated in the content repository. If the check box is cleared, the events are discarded; no workspaces for this business object will be created or updated.

Business Object Mapper Plugin Class

Select a plugin that defines the mapping between business object workspaces. You can also select a custom plugin.

You can select the `ParentBusinessObjectMapperPlugin` if you want to map the business object workspace to the parent business object workspace.

Notes

- For a custom plugin to be displayed in the list, you should create an apex class with global access modifier and extend `xecm.BusinessObjectMapperPlugin`. The apex class should define the logic to map the required business object workspace.
- If the `ParentBusinessObjectMapperPlugin` class is not available in the drop down, you must recompile all apex classes in the **Setup** > **Apex classes** page.

Business Object Mapper Init Params

If you have selected `ParentBusinessObjectMapper` plugin, type a initialization parameter. It can be a lookup field or master-detail field with parent relationship.

The value of the field should be an ID or reference to an object corresponding to a business object type in Salesforce.

Example:

Sample Values

- Account.Id for an account.
- CustomObject_r.Id or CustomObject_c for a custom object.

7. The **Cross Application Configuration** area, is used only if the Salesforce business object shares workspaces with those from another ERP system, for example SAP. Enter the following information:

Create Workspace If Missing

Controls the behavior of creating workspaces when a cross application workspace is configured and either of the following two conditions exist:

1. There is no Business object ID in the record being processed.
2. The workspace does not already exist in the repository.

If you select the check box, Salesforce will create the workspace. This preserves the existing behavior.

If you clear the check box, Salesforce will *not* create the workspace. With the first condition, the record is placed in the error queue and must be resubmitted manually once the Business object ID has been added to the record. With the second condition, the record is placed in the error queue and will automatically be periodically resubmitted until the workspace has been created in the repository.

Note: The Cross Application configuration might not support merge record scenarios since the repository will prevent changes to the SAP ID from one workspace to another. For more information about merge events, see "Defining repository settings" on page 189.

8. In the **Object Filter** area, enter an object name and define a filter expression.

Salesforce Object Name

Enter the name of the Salesforce object type. This is the name of the internal Salesforce object which holds the business objects' records. It is typically the same name that appears on the Salesforce UI, but not always, for example the internal name of `Product` is `Product2`.

Depending on the entered Salesforce object name, different fields are displayed in the **Select Field** box.

Filter criteria

You can define a filter expression using the object fields for the selected business object and operators.

- In the **Select Field** box, select the required field, and then click **Insert Selected Field**.
- In the **Select Operator** box, select an operator, and then click **Insert Selected Operator**.
- Enter a value, and then click **Check Syntax** to check if the expression entered is valid. For some valid sample expressions, see Example 4-1, "Sample expressions" on page 25.

Blank filter expressions

A blank filter expression will always match any record from the specified Salesforce object. If more than one business object type is configured for a single Salesforce object, at most one of this type may have a blank filter expression. The condition for that business object type will be evaluated last and will match any record not matched by any other filter expression, in effect becoming the default business object type for that Salesforce object. It is an error to configure two business object types with blank filter expressions for the same Salesforce object; one of them will never be evaluated and thus no business objects of that type will be created.

9. Click **Save**. When you create a new account that matches the configuration, the workspace will be created with the corresponding business object type.

Example 4-1: Sample expressions

Some valid sample expressions:

- ShippingCountry ='USA' AND (ShippingState= 'IL' AND ShippingCity = 'Chicago')

- (Phone ~'[0-9]{2}-[0-9]{2}-[0-9]{8}' AND (ShippingCity ='Hyderabad' OR ShippingCity = 'Delhi')) OR BillingPostalCode = '5000072'
- BillingState ='CA' AND BillingCountry LIKE 'US%'

Table 4-1: Standard business object type configuration for Salesforce CRM

Business Object Type Name	Salesforce Object Name
Account	Account
Asset	Asset
Campaign	Campaign
Case	Case
Contract	Contract
Lead	Lead
Opportunity	Opportunity
Order	Order
Product	Product2
Quote	Quote
Solution	Solution

Table 4-2: Standard business object type configuration for Salesforce Financial Services Cloud (FSC)

Business Object Type Name	Salesforce Object Name
Claim	Claim
Policy	InsurancePolicy

4.2 Configuring business object properties and paths

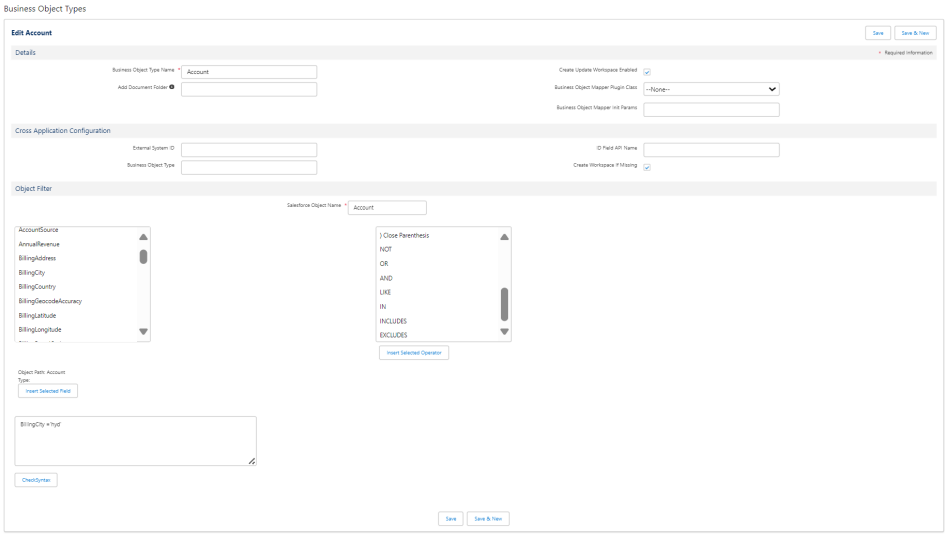
Tip: This step is only necessary if you are not importing the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. .

To add or edit the property configuration for a business object:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.

2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Workspaces** > **Business Object Types**.
5. Click **View** for the business object.

   Any **Field** properties configured on this page will be taken from the record in the specified Salesforce object (Account in this example).



Note: Business property paths which are not nested inside property groups must only return at a single record. In general, they should contain only child-to-parent relationships. For more information, see "Configuring business property paths" on page 29.

4.2.1 Configuring business object properties

Business object properties may be configured for business objects, business property paths, and business property groups.

To create a new property:

1. In the **Business Object Properties** section, click **New**.

   To edit an existing property, click **Edit**.

2. Configure the following:

Property Name
This is the name of the business property.

Property Type
This specifies where the value for the property is coming from. This is usually **Field**, other possible values are **Constant** and **Custom**.

Property Value

The interpretation of this field depends on the setting of the **Property Type** field. If the property type is **Field** this field contains the name of the field in the associated Salesforce object which contains the value. If the property type is **Constant** the contents of this field are the value. If the property type is **Custom** this field contains the name of an Apex class implementing the `IPropertyValueGenerator` interface; the class will be instantiated and called to retrieve the property value.

Property Value Generator Init Params

This is an optional developer-defined string which will be passed to the custom property value generator class when it is instantiated. This provides a way to communicate context to the class.

Formatter Initialization Parameters

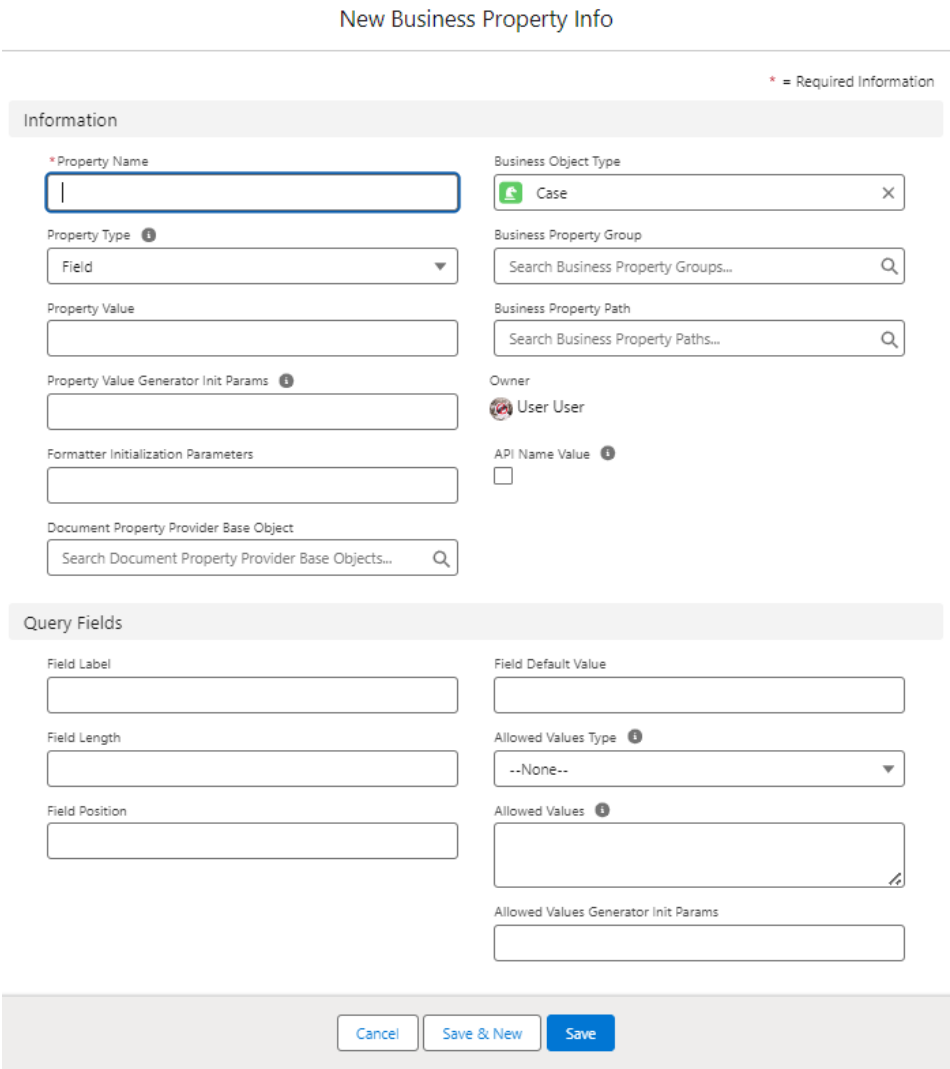
Depending on the data type of the value returned by **Field** and **Custom** property types the implementation automatically associates an appropriate formatter with the property. For more information, "Property value formatter initialization parameters" on page 223.

Business Object Type, Business Property Group, Business Property Path

These fields link the property configuration to the appropriate parent record; in general, they should not be changed.

API Name Value

In Salesforce, a picklist value can have an API label or an API name value associated to an object property field. If the check box is selected, the synchronization process for picklist fields uses the API name value of the selected picklist instead of the label value; this setting is helpful if using multi-lingual properties in OpenText Content Management. If the check box is cleared, the label value is used (Default setting).



3. Click **Save**.

4.2.2 Configuring business property paths

Business property paths specify how the implementation should traverse from one Salesforce object to another related object to find additional business properties. Business property paths may be configured for business objects, other business property paths, and business property groups:

To create a new path:

1. In the **Business Property Paths** section, click **New**.

   To edit an existing property, click **Edit**.

2. Configure the following:

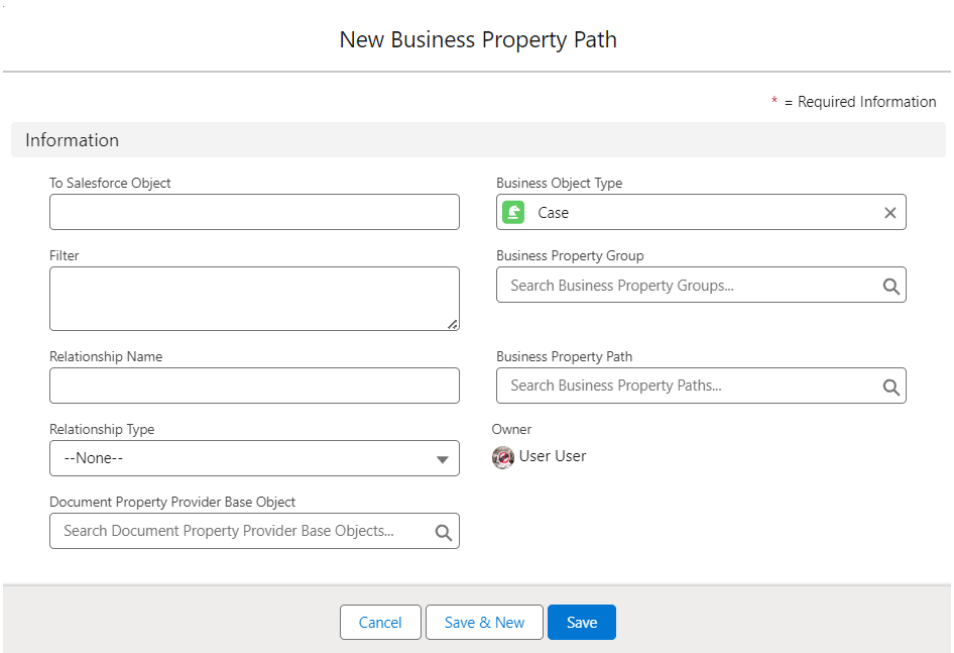
To Salesforce Object
The Salesforce object to which this path is going.

Relationship Name
The name of the Salesforce relationship on the `from` or `source` object to traverse to get to the record in the `to` or `target`object. The '`from` object is the object specified in the configuration for the path's parent business object, property path, or property group.

Relationship Type
The type of the Salesforce relationship; this will be either `Child-to-parent` or `Parent-to-child`.

Lookup relationships or relationships to master records in master-detail relationships are `Child-to-parent` relationships; relationships to detail records in master-detail relationships are `Parent-to-child` relationships.

Business Object Type, Business Property Group, Business Property Path
These fields link the property configuration to the appropriate parent record; in general, they should not be changed.



3. To specify properties or add nested paths to a property path, click the link forming the name of the path on the detail page of the parent record.

   From this page you can add properties or additional paths (nested paths) to form a path chain.

   Note: Any **Field** properties configured on this page will be taken from the record in the specified **Salesforce** object, `User` in this example.

4.2.3 Configuring role synchronization

The Salesforce collections include record owners, Account/Opportunity/Case team members, members of the record owner's Salesforce role hierarchy, Salesforce record sharing rules, or your own custom collections. You can define for each of these collections how they are synchronized.

Note: If you have created a master-detail relationship between any two business objects(Standard or Custom), the roles will be propagated from the parent object to the child object. If a parent record is updated, the child record triggers an update and adds the record to the event queue which will be eventually processed by the jobs.

To create a role synchronization mapping:

1. In the **Role Synchronization Entities** section, click **New**.

   To edit an existing entity, click **Edit**.

2. Specify the role synchronization:

   - On the **Owner Role Mapping** tab, in the **Content Services Workspace Role** field, enter a Content Services workspace role that you want to map to the record owner in Salesforce, select or clear the **Enabled** check box to enable or disable a mapping, and then click **Save**.
   - On the **Accounts/Case/Opportunities Team** tab, do the following mappings as per your requirement:

     To map the Salesforce team role to a Workspace role:

     1. Under **Team Role Mapping**, select the **Salesforce Team Role**.
     2. Enter the **Workspace Role**.
     3. Select or clear the **Enabled** check box to enable or disable the mapping
     4. Click **Save**.

     To map the Salesforce team role to a Workspace role based on the user access permissions:

     Note: This is not applicable for **Case** business object type.

     1. Under **Team Role Mapping**, click **Add New**.
     2. From the **Salesforce Team Role** list, select a Salesforce team role.
     3. Select the **Member Access** check box.
     4. In the **Workspace Role Read Only** box, add the members with Read Only access.
     5. In the **Workspace Role Read/Write** box, add the members with Read/Write access.

6. Select or clear the **Enabled** check box to enable or disable the mapping.
7. Click **Save**.

To map the Salesforce access level to a Workspace role:

1. Under **Team Member Access Mappings**, click **Add Read Only** to add a Workspace role for **Read Only** Salesforce Access Level and click **Add Read/Write** to add a Workspace role for **Read\Write** Salesforce Access Level.
2. Select or clear the **Enabled** check box to enable or disable the mapping
3. Click **Save**.

Note: When you add or delete a team member from any record, that object trigger is not invoked and hence, the workspace is not updated. You must trigger an update in the record for that object trigger to be invoked to create or update the workspace in Content Server. Alternatively, you can also create triggers on the respective Team Member object.

- On the **Hierarchy** tab, do the following:
  - For Case or Opportunities business object type, enter a **Content Services Workspace Role** that you want to map to the hierarchy role in Salesforce, and then click **Save**.
  - For Account business object type, enter a **Content Services Workspace Role**, **Opportunity Access Role**, and **Case Access Role** you want to map, and then click **Save**.

    Note: To map the Case/Opportunity Access Role, in the **Hierarchy** tab of the Case/Opportunity business object type, enter the **Content Services Workspace Role** and select the **Enabled** check box, and then click **Save**.
- On the **Sharing Rules** tab, enter a **Content Services Workspace Role** for each of the **Salesforce Access Levels** (**Read Only**, **Read/Write**) that you want to map. All users with that access level are mapped to the corresponding Content Services workspace role. Along with that, org-wide default sharing settings are taken into account when synchronizing roles. You find these under **Administration > Synchronization > OWD Synchronization**.

  Note: The sharing hierarchy does not apply to sharing rules role synchronization. To enable users to share rules, you should add the users and define their access permissions on the Sharing page of the business object type.
- On the **Custom** tab, specify your own non-standard role mappings. Enter a unique name, the plugin class name that you implemented, and desired

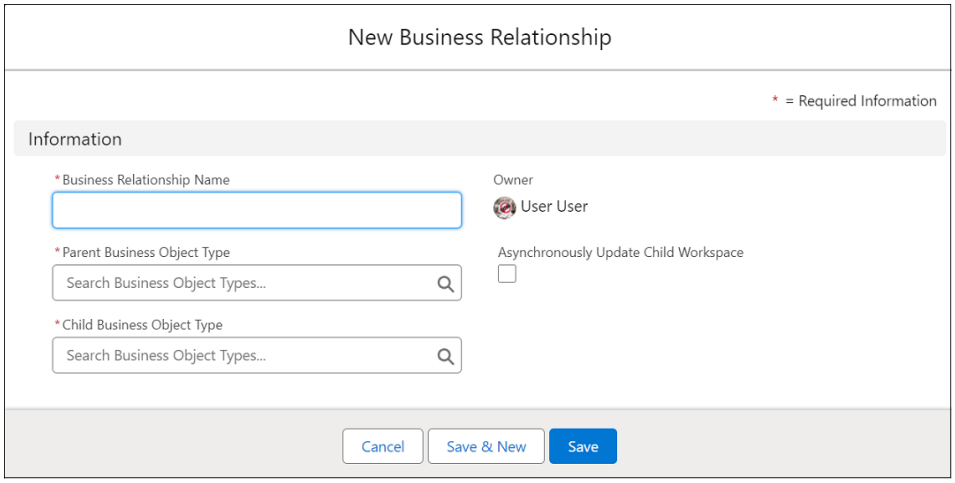
initialization parameters. For details about creating a custom plugin, refer to the *Group & Role Plugin Extensions Guide*.

4.3 Configuring business relationships

Tip: This step is only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Standard configuration in Salesforce" on page 235.

To configure a business relationship:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Workspaces** > **Business Relationships**.
5. To add a new business object relationship, click **New**.



6. Enter a unique name for the relationship. By convention these are the names of the two business objects participating in the relationship.

   Note: Relationships are ordered from parent to child.

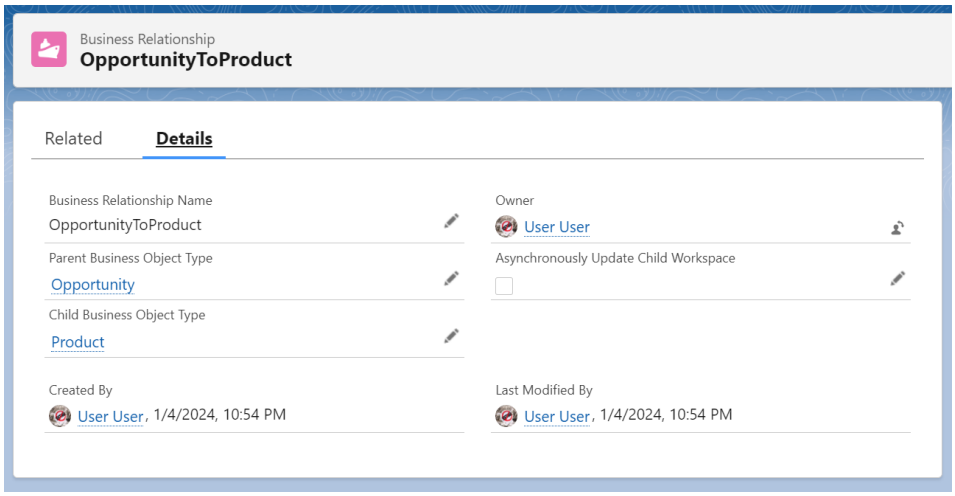
7. To synchronize child workspace records along with the parent workspace records, select the **Asynchronously Update Child Workspace** check box.

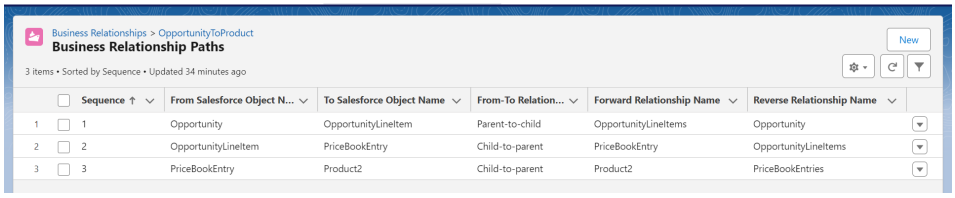
   Note: By default, only the parent workspace records are synchronized.

If you are upgrading from a lower version to 24.2 or later, you need to manually add this field to the layout to use it.

8. Click **Save**.

9. To view the details of business object relationship, click and select **View**.





This screen displays the paths making up the relationship. At database level, a relationship between two business objects is specified by one or more paths between Salesforce objects: the first of which starts at the Salesforce object of the parent business object type and the last of which ends at the Salesforce object of the child business object type.

Sequence

The sequence number indicates the order in which the paths must be followed to traverse the business object relationship through the database. No two paths for a relationship should have the same sequence number.

From Salesforce Object

Object at which the path begins.

From-To Relationship Type

The type of relationship being traversed from the `from` object to the `to` object; this is either `Parent-to-child` or `Child-to-parent`.

If the two objects are in a master-detail relationship: if the `from` object is the master the relationship type is `Parent-to-child`; conversely if the `from`object is the detail the relationship is `Child-to-parent`.

On the other hand, if the two objects are in a lookup relationship: if the `from` object is one containing the records being looked up the relationship type is `Parent-to-child`; conversely if the `from` object contains just the identifier of the record being looked up the relationship is `Child-to-parent`.

Perhaps an easier way to describe this is if from-to relationship is 1:n the relationship type is `Parent-to-child`; if the relationship is n:1 the relationship type is `Child-to-parent`.

To Salesforce Object
Object at which the path ends.

Forward Relationship
The name of the Salesforce database relationship to use when traversing in the `from-to` direction.

Reverse Relationship
The name of the Salesforce database relationship to use when traversing in the "to-from" direction.

Tip: For information about the standard configuration, see "Standard business relationships" on page 237.

4.4 Configuring batch creation of workspaces

You can configure that business workspaces are created in bulk for already existing business objects. You can define one configuration for each Salesforce business object.

To configure batch workspace creation:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Workspaces** > **Batch Workspace Creation**.
5. To create a new configuration, click **New**.
6. On the **New Batch Workspace Creation** page, in the **Details** area, enter the following:

Name
Enter a name for the configuration, for example the business object name.

Description
Enter a description.

7. In the **Object Filter** area, enter an object name and optionally define a soql query if you want to create business workspaces for only some of the business objects. If you do not define a filter, workspaces are created for all objects with the selected name.

Salesforce Object Name
Select the business object. You can only create one configuration for a business object.

Field
From the list, select a field of the object for the query. You can also search for fields. Compound type fields are not supported (for example: Address type field).

Salesforce Shield Platform Encryption

If you have enabled the Salesforce Shield Platform Encryption, data at rest in the Salesforce database is encrypted. You cannot use an encrypted field in the business object selection criteria. The underlying SOQL engine cannot search encrypted data and any conditional expression for such a field will never match.

Operator
Select an operator from the list for each field. The default is `equals`. To select more than one ID, you can use the IN operator in all ID fields in Batch Workspace Creation job and Batch Content Upload job filters. IDs can be comma separated.

Value/Function
Select **Value** or **Function** as value type. The default is **Value**. For **Value**, provide free text as value. For date/time fields, select **Function**, and select a function from the list as value.

Add condition
You can add up to 8 conditions to build a soql query.

Filter Logic
Optional. You can provide any custom logic. A soql query will be created automatically based on the filter logic provided here. By default, the query is built with AND as logical operator for all expressions. It supports AND/OR/NOT as operators.

Clear All
Click to delete all conditions and filter logic.

Get Query Count
Click to check how many objects are in the query result.

Submit Batch
Click to create the configured business workspaces.

8. In the **Workspace Creation Schedule**, schedule the creation.

   a. Select **Is Scheduled**.

b. In the **Configure Schedule** dialog box, define the schedule.

c. Click **Save**.

To remove a previous schedule, clear the **Is Scheduled** check box and save.

9. To save the workspace configuration, click **Save**.

Against each Batch Workspace Creation configuration, you have the following options:

- **View**: To view the batch workspace creation configuration details.
- **Edit**: To modify the batch workspace creation configuration details.
- **Delete**: To delete a batch workspace creation configuration.

Note: When you delete a Batch Workspace Creation configuration that has an active scheduled job, the actual job definition in Salesforce Setup also gets deleted.

Restarting scheduled jobs

If a scheduled job does not run automatically, go to the **Administration** tab, click **System Configuration** > **Environment** > **Background Jobs**, and then click **Save** to restart the job.

4.5 Configuring page layouts

Tip: This step is only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Standard configuration in Salesforce" on page 235.

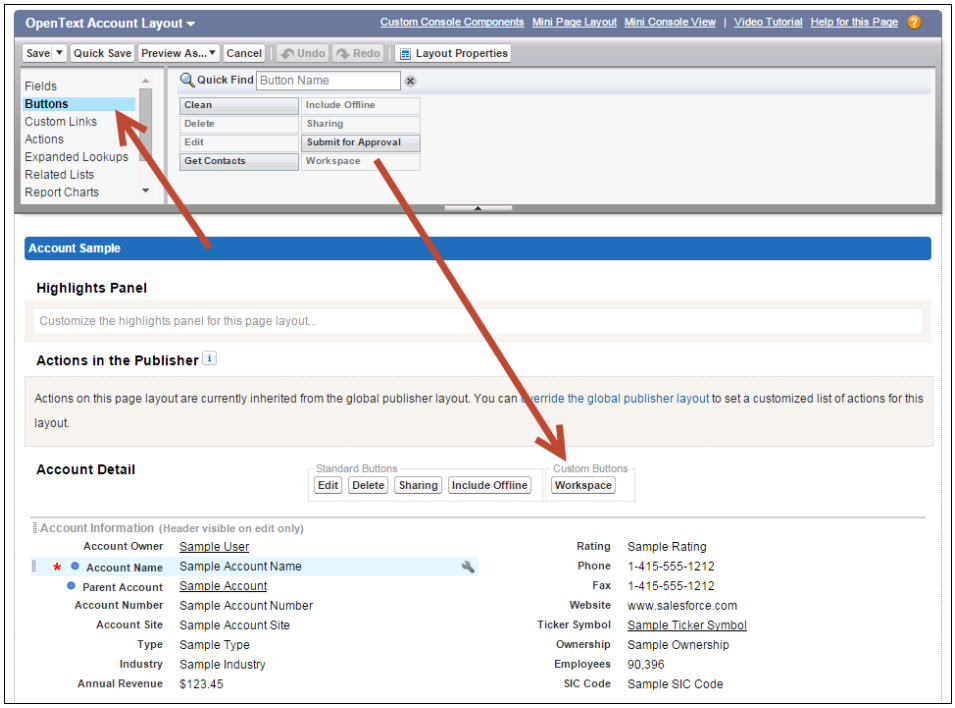
The Solution Accelerator includes page layouts for each supported Salesforce object. These layouts are modifications of the standard Salesforce layouts for those objects. You can use page layouts as samples for creating or modifying your own page layouts.

For each Salesforce object supported by the Solution Accelerator, this Solution Accelerator contains elements you can use to create or customize your own layouts. These are:

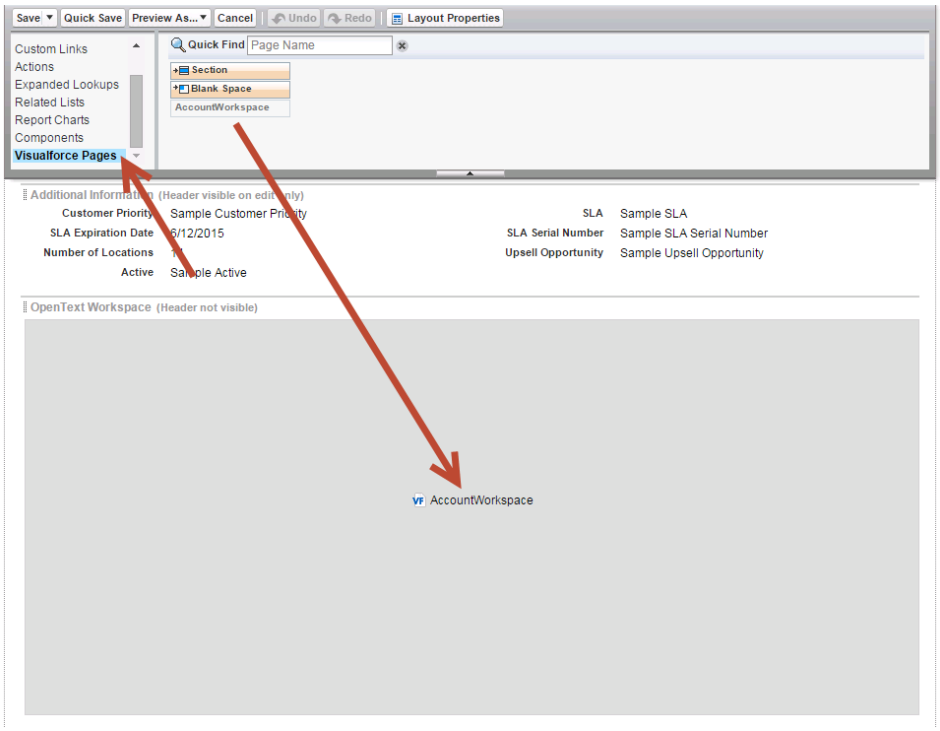
- A custom button named Workspace for displaying the business object workspace in a light-box style dialog.
- A custom Visualforce page named `*Object*Workspace`, for example `AccountWorkspace` for displaying the business object workspace for the specified object as an inline widget.

To customize your page layout:

1. In the Salesforce operations, click **Setup**.
2. In the left sidebar, navigate to **Build > Customize** and then to the business object, for example **Account**.
3. Click **Page Layouts** and create a new page layout or edit an existing layout.
4. To add the custom button, select the **Buttons** item and drag the **Workspace** button to the **Custom Buttons** area.



5. To add the inline widget, select the **Visualforce Pages** item, drag a new section onto the page, and then drag the *Object*`Workspace` page to the new section:



Note: After defining the page layouts, you must assign them.

4.6 Assigning classic page layouts

Refer to the Release Notes for further information regarding support of classic UI.

4.7 Assigning lightning page layouts

For each of the business object types, assign a page layout to the relevant profiles.

To assign the lightning page layout to an object:

1. In the Salesforce operations, click **Setup**.
2. In the search field, type **Object Manager** and select the object that you want to configure, for example **Account**.
3. Click **Page Layouts** and then click **Page Layout Assignment**.
4. Click **Edit assignment** and select the profile that you want to assign the layout.
5. Assign the respective OpenText Lightning layout, for example **Account (OpenText Lightning) Layout**.

To assign the lightning page as org default:

1. In the Salesforce operations, click **User Interface > Lightning App Builder**.

2. For the appropriate lightning page, for example **OpenText Account Lightning Page**, click **Edit**.
3. Click **Activation**.
4. Click **Assign as Org Default**.
5. Click **Close**, and then click **Save**.

4.8 Defining general restrictions

By default, every user assigned the Content Services permissions sets can create workspaces and see the logging. To be able to differentiate between users, profiles and organizations, you can create a global setting.

1. In the Salesforce operations, click **Setup**.
2. In the left sidebar, navigate to **Search Custom Settings > Global Settings > Manage**.

Chapter 5

Manual configuration on Content Server

Some of the configuration is only necessary if you do **not** import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Standard configuration in Content Server" on page 241.

5.1 Creating categories

Tip: This step is only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Standard configuration in Content Server" on page 241.

Content Server categories bundle attributes and define their type and order. By creating custom categories, you can add relevant metadata to business workspaces or documents.

Categories and attributes can be used for the following:

Workspace type configuration

- Define the location of the business workspace
- Define the workspace name
- Display information in widgets

Business object type configuration

- Map business properties from the business application to the category attributes
- Map OpenText Documentum CM attributes to category attributes.
- Trigger automatic creation of business attachments based on the value of an attribute

To create a category:

1. On the global menu, click **Enterprise > Business Workspaces**, and then click **Categories**.

2. Click **Add Item > Category**. Define the new category according to your requirements, and click **Add**.

3. Click the newly created category and add attributes to it.

   The attributes correspond to the business properties that your property provider provides. You can also add attributes that are not provided by the property provider. They can be filled manually or by another property provider in a cross-application business workspace scenario. If you do not create an attribute for a property that is delivered by the property provider, an info entry is logged in the log file.

   a. Click **Add Attribute** and select an attribute type, usually this is **Text: Field** or **Text: MultiLine**.

      Notes

      - The attribute type must be the same type as the business property provided by the property provider. OpenText recommends that the attribute field length is the same for both OpenText Content Management and the business application.

   b. Define the attribute.

      OpenText recommends that you use a name similar to the business property name. You will later map these attributes to the business properties.

   c. Click **OK** and repeat the steps for all other attributes.

      Tip: OpenText recommends that you have an attribute that you can use to uniquely identify the business workspace, for example an ID.

4. Click **Submit**.

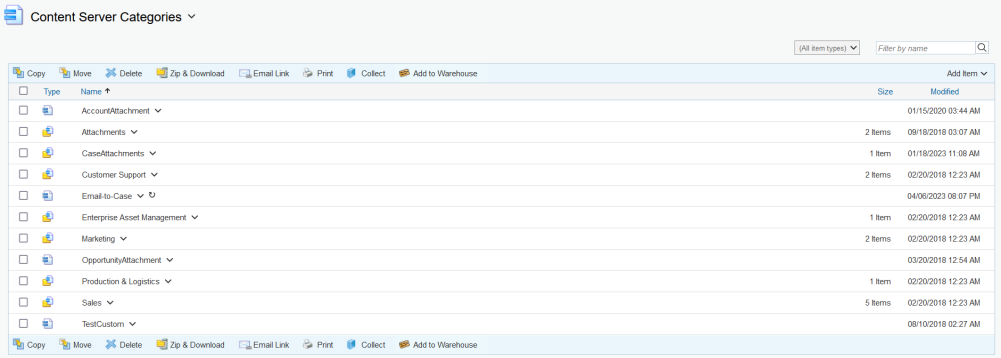


Figure 5-1: Category volume with Salesforce categories

5.2 Creating classifications

Tip: This step is only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Classifications" on page 243.

Users can only create business workspaces in a specific folder if this folder bears the same classification as the business workspace's template.

All classifications for business workspaces must be grouped in one classification tree. You must add this classification tree in the Document Template settings. For more information, see "Configuring document template settings" on page 64.

To create a classification for the folder where the business workspaces are created:

1. On the global menu, click **Enterprise > Business Workspaces**, and then click **Classifications**.
2. Open an existing classification tree or create a new one. You can name the classification tree, for example, **Workspace Types**. The classification tree must be set in the Document Template settings. For more information, see "Configuring document template settings" on page 64.
3. Click **Add Item > Classification** and define the new classification according to your requirements. Usually, you create a classification for each workspace type.

Note: The following is the standard configuration that comes with the Solution Accelerator. You can define the classifications according to your needs.

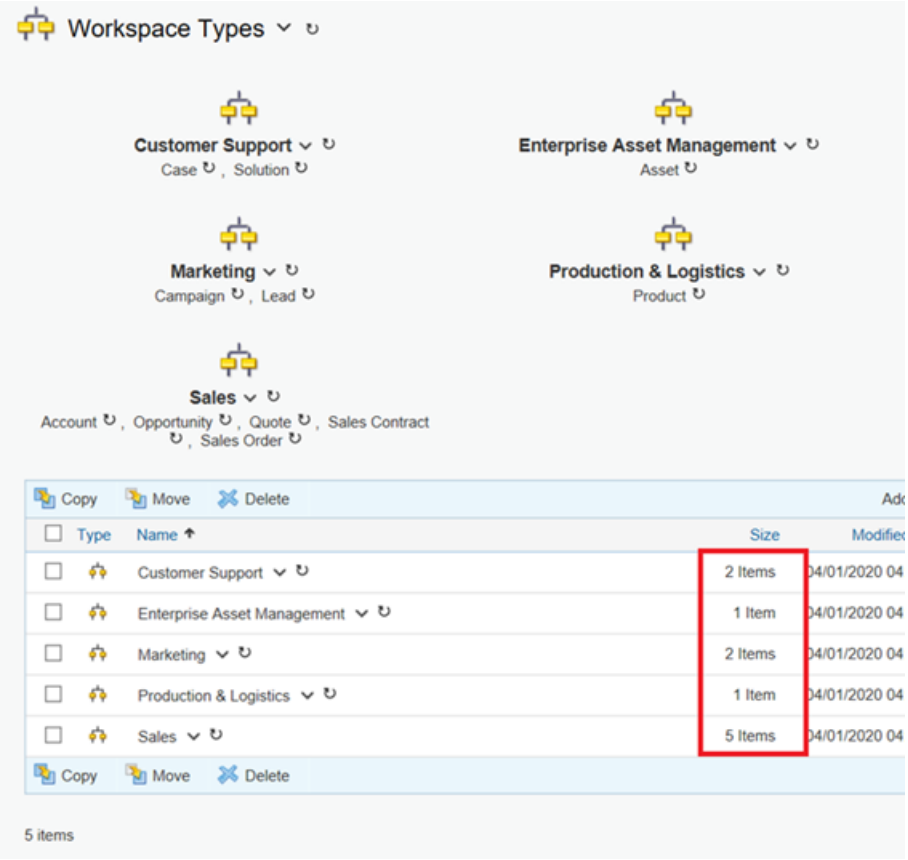


Figure 5-2: Salesforce classifications

5.3 Creating folders

Tip: This step is only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Folder structure" on page 244.

When you create business workspaces, individual business workspace folders are created in the repository. The folders which will contain the business workspaces, however, must exist; they will not be created by the repository.

To create and configure the folder:

1. Go to the location where you want to create the root folder for your business workspaces.

2. Add a new folder and configure it as required: Add a name, description. For Classic View, you can also select an icon.

3. From the **Classifications** list, select the classification that you created in "Creating classifications" on page 43.

   Important

   This classification must be the same for folder and template, which you will configure in "Defining document templates" on page 64.

When the folder is being created you may select an icon other than the default. Alternatively, once the folder has been created you may use the folder's function menu navigating to **Properties > General** to select a different icon. You may also choose to set the folder display to **Featured** to show it in the upper pane of the folder browse page.

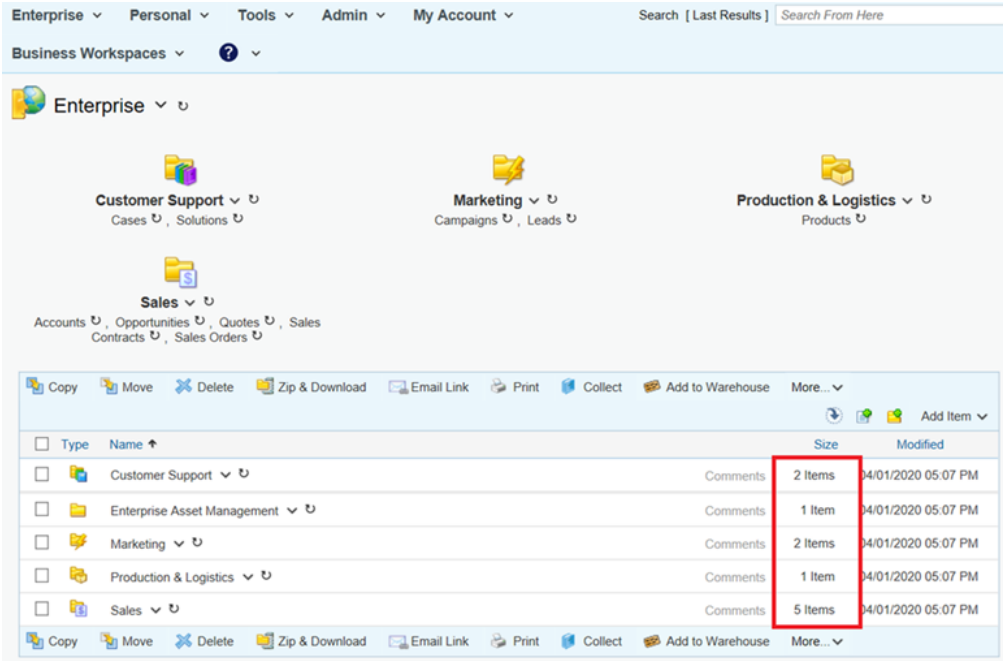


Figure 5-3: Salesforce folders in the Enterprise workspace

5.4 Configuring multilingual metadata languages

For each language that you configured in the business application, you must configure a language in Content Server.

To configure multilingual metadata languages:

1. On the **OpenText Content Management Administration** page, click **Base Settings – Feature Configuration > Multilingual Metadata**.
2. Add an entry for each language that you want to support, and enable it.

   Important

   - You can have more languages in Content Server than you have customized in the business application, but you must not have less.
   - **Restart Content Server after adding new language**

     When you add a new metadata language, you must restart your Content Server to display all links in the Enterprise Application Integration volume correctly translated.

5.5 Defining workspace types

Tip: This step is only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Workspace types settings" on page 245.

A *workspace type* provides the framework for the creation of business workspaces. It defines how business workspaces of this type will look.

What you configure in a workspace type

- Name of the business workspace, also in several languages
- Location of the business workspace in the repository
- Location of the business workspace in OpenText Documentum CM.
- Indexing and search settings
- Access policies
- **For Classic View**
  - An icon for business workspaces of this type.
  - Sidebar widgets enhance the standard user interface with metadata of the business workspace.

- **For Smart View**
  - Perspective Manager: Configure a business workspace layout for Smart View.
  - Name of the workspace type in several languages. The name of the workspace type can be displayed in the header tile of a business workspace.
  - Default icon for business workspaces of this type. Icons can be changed on each individual business workspace.

Where a workspace type is needed

A workspace type is connected to the following:

- A folder in the repository where workspaces of this type can be created
- A classification
- Business object types

To create a workspace type:

1. On the global menu, click **Enterprise > Business Workspaces**.
2. Click **Workspace Types**.
3. Click **Add Item > Workspace Type**.
4. Define the new workspace type as described in the following sections.

Tip: For information about the standard configuration, see "Workspace types settings" on page 245.

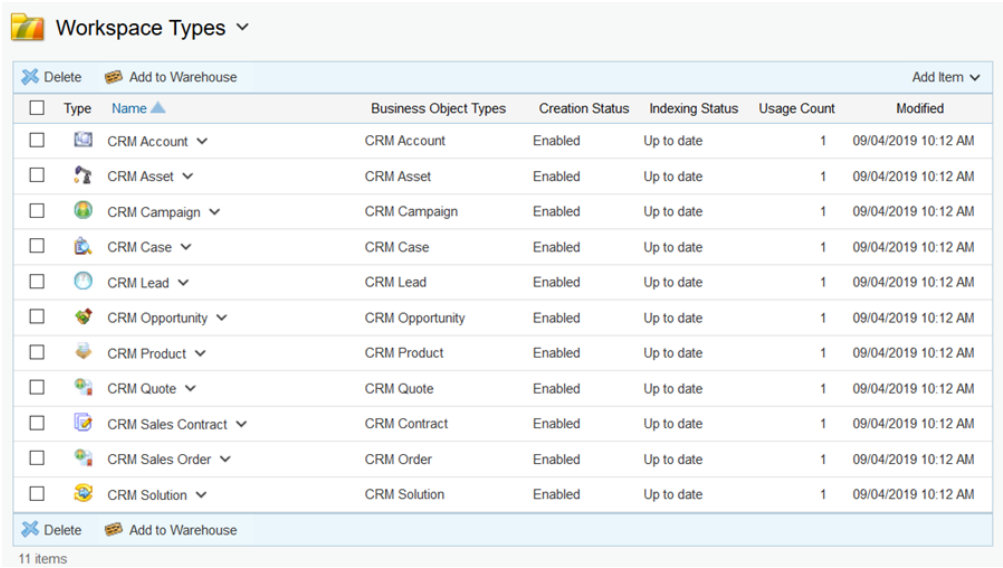


Figure 5-4: Workspace types for Salesforce

5.5.1 General settings of a workspace type

Name

Provide a name for the workspace type. This name is used in the Classic View, in Perspective Manager, and when creating workspace templates in the Smart View. This field is mandatory when creating a workspace type.

Workspace Type Names

Add a workspace type name for each language available. The workspace type name can be displayed in the header tile or in the metadata tile of a business workspace. Depending on the language users have chosen, they see the localized workspace type name. If for a language no workspace type name is specified, then the **Name** is used.

Note: To define multilingual workspace type names, add languages to the multilingual metadata. For more information, see *OpenText Content Management - Enterprise Applications Integration and Configuration Guide (EEP-CGI)*.

Tip: Users can change their preferred metadata language: **My Account > Settings > Metadata Language**.

Business Workspace Names

You can display the names of business workspaces, and you can form patterns for the workspace names from attributes, for example `Customer [91100:City]/[91100:Name] ([91100:Id:+3(4)])`. You must at least define the workspace name for the default language.

Generate names also for workspaces without business object: Select this option if you want to use the name pattern also for business workspaces that do not have a business object, which could provide the metadata for the name pattern. If you use this option, OpenText recommends that you use mandatory attributes for the name pattern. So, when creating a workspace, users must provide metadata required for the name generation.

Workspace Icon

Specify an icon, which is displayed in business workspaces of this type in the Classic View. Click **Select Icon** to browse the available icons. The icon is visible to users in the Classic View on business workspaces and their root folder. For Smart View, you use the **Widget Icon**.

Widget Icon

Select an icon that is displayed in the Smart View for business workspaces of this type. For more information, see "Widget icon" on page 53.

Perspective Manager

The Perspective Manager is a tool with which you design different layouts. If you start the Perspective Manager from this link, it opens with a predefined layout template for business workspace perspectives. You can edit an existing Perspective or create a new one. For more information, see "Creating a Perspective using the Perspective Manager tool" on page 61.

Workspace Copying

Select this option to prevent users from copying business workspaces of this type.

Workspace Creation Settings

Define the folders under the root folder where business workspaces are created and stored.

- **Location**

  Define the root folder where business workspaces of this type are created and stored. Root folder and template must have the same classification. Only business workspaces based on templates with the same classification as the location can be created in this location. For more information about the root folder, see "Creating folders" on page 44.

  Select one of the following options:

  – **OpenText Content Management Folder**

    A fixed folder. Click **Select** and browse to the folder that you created as root folder. All business workspaces are created in this folder or in subfolders.

  – **Current Location**

    The folder in which users create a business workspace. This is the default option.

  – **From Business Property**

    A business property from the external business application determines the location of the business workspace. You must enter the name of the business property manually. Enter only the name of the business property without parentheses, for example, `CUSTOMER`. You can only use a business property of type `Text` and it must contain the node ID of a folder.

    The business workspaces are then created in a folder that corresponds to the business property's value.

    Important

    The business workspace is *not* moved automatically when the value of the business property that determines the location is changed.

  – **From Category Attribute**

    A category attribute determines the location of the business workspace.

    Click **Select** and select a category. Then select an attribute. The attribute must contain the node ID of the folder.

    The business workspaces are then created in a node that corresponds to the attribute.

    Important

    The business workspace is *not* moved automatically when the attribute that determines the location is changed.

- **Sub Location Path**

  Create a subfolder structure rather than saving all business workspaces in one folder. Select **From Pattern** to enter a pattern for the subfolder creation. You can use normal text, categories and attributes, business properties, and modifiers to create subfolders, for example `[2032760:Region:(3)]/[2032760:City:+5]`.

  This option is only available for location options **OpenText Content Management Folder**, **From Category Attribute**, **From Business Property** (with the Enterprise Applications Integration), but not for option **Current Location**.

  Click **Insert Attribute** to select a category and an attribute.

  You can also use multivalue attributes. This creates a folder path in the order of the values in this multivalue attribute. Empty values may only be at the end of the multivalue attribute.

  If a sub location folder does not exist when the business workspace is created, the folder is created. You must ensure that the category attribute is never empty, for example by making it mandatory. If all attributes for a sub location are empty, the business workspace is created in the location folder. This applies to both single value and multivalue attributes.

  Important
  The business workspace is *not* moved automatically when an attribute that determines the sub location path is changed.

- **Use also for manual creation**

  Select this option if you want to use the location settings also for manual creation of business workspaces. Business workspaces are then only created in the specified location, regardless of the folder where the user started the creation. In the Classic View, after the business workspace has been created, the user is directed to the newly created business workspace. In the Smart View, users see a confirmation message. Obviously, this option does not apply if you chose **Current Location** for the workspace creation.

  Note: If you use this option in combination with a sub location path that is based on an attribute, you must be aware of the following behavior:

  When a user creates an early business workspace manually, it does not automatically have the required attributes. As a consequence, the attribute that determines the sub location path might be left empty, and the business workspace will be created in a location that is not quite wanted. You can prevent this by adding the category attribute for the sub location path to the workspace template so that the attribute is displayed in the workspace creation wizard. In addition, you make it *required*, so that the user is forced to provide a value for the attribute that determines the sub location path.

- **Directly open created workspace**

  In the Smart View, the newly created business workspace will be opened right after its creation.

- **Create workspaces with fast bulk method**

  When creating big number of business workspaces, for example for the initial load, you can use the fast bulk method. This method creates business workspaces much faster but has its restrictions:

  – **Location**

    Only folders and business workspaces are supported. If you configure **From Business Property** or **From Category Attribute**, and the business property or category attribute contains the ID of a business workspace, any workspace hierarchy configuration of the parent business workspace is ignored.

  – **Sub-items**

    A business workspace template can only contain the following items:

    - Related business workspaces
    - Folder
    - Email-Folder
    - Collection

  – **Nested workspaces**

    Composite workspaces and workspace hierarchies are not supported

  – **Node data**

    Only the following node data is attached:

    - Categories and attributes
    - Classifications
    - Create Audit entry
    - Business Workspaces Roles
    - Business Workspaces Relations
    - Custom Columns
    - Facets

    Other node data are not supported, most notably Recommender.

  – **Records Management**

    The following is supported:

    - Records Management Classifications are supported.
    - RSI

    Supplemental Markings and Security Clearance are not supported.

- **Facets and Custom Columns**

  Supported facets:

  - Date Created
  - Date Modified
  - Modifier
  - Owner
  - Subtype (Content Type)
  - Classification

  Supported system columns:

  - Created By
  - Creation Date
  - ID
  - Modified
  - Modified By
  - Name
  - Owner
  - Size
  - Type

  Supported custom columns:

  - Workspace Modify Date
  - Workspace Type Id
  - Workspace Name

- **Creation date**

  The Template Workspaces option **Apply new creation date to sub-items** is not evaluated in the `createOrUpdateWorkspaces` call. In bulk mode the created sub-items always have the actual date as create date.

- **Modified By**

  The **Modified By** attribute of a node is the user, which called the WebService call. Whereas with standard creation mode, the resulting modifier is the Admin user.

- **Reference number**

  Reference number generation is not supported.

- **Web reports**

  Web Reports will not be started when a business workspace is created.

- **Core Share**

  Content sharing with OpenText Core is not supported.

Important

Business workspaces are created in batches. If one business workspace of a batch with fast bulk method fails to be created, the whole batch call is ended and no business workspace of that batch is created.

Note: You can create cross application workspaces also with the fast bulk method.

5.5.1.1 Widget icon

The widget icon is displayed in the Smart View for business workspaces of this type. To add a workspace type icon, click **Browse**, and then select the icon.

Supported formats are `gif`, `jpeg`, `pjpeg`, `png`, `x-png`, and `svg`.

Files must not be larger than 1 MB. For best results, use a square image with the recommended size of 128x128 pixels.

You can select from sample icons, which are in the following folder on your installation: `<Install_Home>\support\otsapxecm\business_object_icons`, for example `\\mycontentserver\C\OPENTEXT\support\otsapxecm\business_object_icons`.

Notes

- If no icon is configured for the workspace type, a default is taken. Users with sufficient permissions can change the icon for an individual business workspace.
- For proper functionality of widget icons the Support Asset deployment must be enabled. Go to **OpenText Content Management Administration** > **Support Asset Administration** > **Configure Support Asset Deployment**. For details, see *OpenText Content Management Admin Help - Support Asset Administration (LLESSAM-H-AGD)*.

5.5.2 Advanced settings of a workspace type

Search Settings

Configure how the search behaves when a user searches from a business workspace that has related workspaces:

- Disable the search in related workspaces.
- Let the users decide if they want to search in related workspaces.

  This option is only available to users in Classic View. In Smart View it behaves in the same way as if **Disabled** is configured.
- Always search in related workspaces.
- **Maximum number of followed workspaces** – Define the number of search results to be displayed.

Note: The search

- only searches in the respective related workspaces (Level 1).
- also searches for the results when the same reference is found in composite child workspaces.

Indexing Settings

This is not relevant for Business Workspaces.

Side Bar Widgets

Configure side bar widgets that display metadata in the business workspace in the Classic View.

Classification

Optionally, select a classification for this particular workspace type. This classification is not added to business workspaces and not related to the classification that links storage location and template.

Records Management

Enable Records Management for the creation of business workspaces. If the workspace template does not have assigned a Records Management classification, users can select one during workspace creation.

You can view RM classification information in the business workspace properties. Changing this option immediately affects business workspaces of this type.

Roles

Adds the creator of a business workspace to the Lead role, if this role exists.

This option is enabled by default. During upgrade, it is automatically enabled for existing workspace types.

Policies Enabled (SAP integration only)

Only relevant for SAP integration. For more information, see Section 7 "Using SAP authorizations to restrict workspace access (optional)" in *OpenText Content Management for SAP Solutions - User Management and Access Control Scenarios (ERLK-CUM)*.

External Document Storage

Documents that were generated in the external business application can be stored in the business workspace.

Sub Location Path

You can create a subfolder structure. Select **From** to enter a for the subfolder creation. You can use normal text, categories and attributes, and modifiers to create subfolders, for example `[2032760:Id:(3)]/[2032760:Id:+5]`.

Click **Insert Attribute** to select a category and an attribute.

Attributes must be mapped to business properties. If a sub-location folder does not yet exist when the business workspace is created, the folder is created.

RM Classification

Define if and how an RM classification is added to the document.

- Select **None** if you do not want to add an RM classification.
- Select **From Category Attribute** if you want to use a category attribute to determine the RM classification of the external document.

- Click **Select** and select a category. Then select an attribute. The attribute must contain the node ID of the RM classification.
- Select **RM Classification** if you want to add one specific RM classification. Click **Select** and select the classification.

Business Workspace Description

Enter a default description of a business workspace. You can configure the description text based on attribute values, business properties, and static text, even in different languages. For more information, see *OpenText Documentum Content Management for SAP Solutions - Configuration Guide - Off cloud and Public cloud solution (EESPDC-CGD)*.

If the description field is left empty, users can add their own description while creating a business workspace.

Note: In the header tile in Smart View, up to three lines of the description are displayed.

5.5.3 Documentum settings of a workspace type

On the **Documentum** tab, you can define the location for workspace creation.

Before you define the location, you must ensure that the folder is available on Documentum server and the user who creates the workspace has the permissions to access the folder.

Location : The path of the location on Documentum server where the workspace has to be created. The path should include the navigation from the root cabinet to the folder where the workspace has to be created.

Example: `/Salesforce/Sales/Account`

5.5.4 Smart View: Defining workspace type names and icons

For Smart View, you can display an icon that is specific to a workspace type. You can also localize the workspace type name. While the *workspace name* defines the name of the single business workspace, the *workspace type name* can be displayed in the header tile of a business workspace. The name is then displayed according to the user's preferred metadata language.

Perspective Manager

Start the Perspective Manager from this link. It opens with a reduced set of features, which are essential for business workspaces. You can edit an existing perspective or create a new one. For more information, see "Creating a Perspective using the Perspective Manager tool" on page 61.

Workspace Type Names

Add a workspace type name for each language in the workspace type configuration.

Note: To define multilingual workspace type names, add languages to the multilingual metadata in Content Server. For more information, see "Configuring multilingual metadata languages" on page 46.

Tip: Users can change their preferred metadata language: **My Account > Settings > Metadata Language**.

Widget Icon

The widget icon is displayed in the header tile of business workspaces of this type. To add a workspace type icon, click **Browse** and select the icon.

Supported formats are `gif`, `x-png`, `jpeg`, `pjpeg`, and `png`.

Files must not be larger than 1 MB. For best results, use a square image with the recommended size of 128x128 pixels.

You can select from sample icons, which are located in the following folder on your Content Server installation: `<Content Server Home>\module\otsapxecm_16_2_0\support\business_object_icons`, for example `\\mycontentserver\C\OPENTEXT\module\otsapxecm_16_2_0\support\business_object_icons`.

Note: If no icon is configured for the workspace type, a default is taken. Users with sufficient permissions can change the icon for an individual business workspace.

5.5.5 Managing workspace types

To manage workspaces types:

1. On the global menu, click **Enterprise > Business Workspaces**, and then click **Workspace Types**.
2. To edit an existing workspace type, click the name of the workspace type, or from the function menu, select **Edit**.
3. To delete a workspace type, select it, and then click **Delete**. The perspectives folder of this workspace type is also deleted.

   You can only delete workspace types that are not referenced by a document template, or a business workspace, or a business object type. The value in the **In Use** column must be **No**.
4. To disable a workspace type, from the function menu, select **Disable Creation**. You see the current status of the workspace type in the **Creation Status** column.

   Enabled
   This workspace type is available to create new business workspaces.

   Disabled
   This workspace type is not available to create new business workspaces; however, this workspace type will be used to display business workspaces that were already created from this type.

5. You can enable Content Aviator for business workspaces. In Smart View, business users can use Content Aviator in these workspaces. For details, see Section 3 “Content Aviator” in *OpenText Content Management - Smart View User Help (CSSUI-H-UGD)*.
   To enable Content Aviator for all business workspaces of this workspace type, from the function menu, select **Enable Aviator**. You see the current status of the workspace type in the **Aviator** column.

   Prerequisites and limitations

   - The Content Aviator feature must be enabled.

   Enabled
   Content Aviator is enabled for all business workspaces of this workspace type.
   In Smart View, you cannot disable Content Aviator for single workspaces of this type. The **Enable/Disable Aviator** actions are not displayed on workspace level.

   Disabled
   Content Aviator is disabled for all business workspaces of this workspace type.
   In Smart View, you can enable or disable Content Aviator for single workspaces of this type. The **Enable/Disable Aviator** actions are displayed on workspace level.

6. To check the indexing status of the items in a business workspace, see the **Indexing Status** column:

   Re-indexing required
   This status always occurs when you change the indexing settings of the workspace type.

   You may see this status even if no workspaces or no sub-items within workspaces exist yet. When performing the test run and no documents are found for re-indexing, the status will change again to **Up to date**.

   From the function menu, select **Schedule for Re-indexing**, to start a test run or re-index items of the workspace type.

   Up to date
   All items have been passed to the index engine. However, it may still take some time until the items are fully processed and searchable.

5.6 Configuring Smart View for Business Workspaces

You have several ways to configure how a Business Workspace can appear in the Smart View.

5.6.1 Creating a custom column

You can create a custom column to display category attributes or other information in the Smart View widgets. For more information about widget configuration, see "Configuring widgets for a Business Workspace" on page 62.

The following business workspace-specific data sources can be used to create custom columns:

- Workspace Type ID
- Workspace Name <*language code*>, for example **Workspace Name en**
- Workspace Modify Date
- Workspace Type
- Workspace Template
- **Business Object Type ID**

The following custom columns have already been created in the **Facets** volume in the **Workspace Columns** folder.

- **Workspace Type ID**
- **Workspace Name** in each multilingual metadata language that is configured, for example **Workspace Name en**.

  If you added another multilingual metadata language after installation, you must create the respective column manually and prepare it for sorting and filtering.
- **Business Object Type ID**

Note: To create a custom column, you need the **Business Administration Facets and Columns** usage privilege and the **Column** object privilege.

Example: The collapsed view of the Workspaces widget displays the workspace name only. The expanded view of the same widget displays columns for workspace name, creation date, and owner and is sorted by creation date.

The workspace name is a default custom column. Creation date and owner are created as system default columns during installation.

Note: You can enable sorting by date in the Workspaces widget or the Related Workspaces widget. For this, you create a custom column for the **Workspace Modify Date** data source and configure it to be sortable so that it can be used for sorting and filtering. No further configuration is required in the widget.

For more information about how to configure widgets, see *OpenText Content Management - Widget Configuration Guide (CSAV-CWG)*.

5.6.1.1 To create a custom column

To create a custom column:

1. On the global menu, click **Enterprise** > **Business Workspaces**.
2. On the **Business Workspaces** page, click **Facets**.
3. On the **Facets** page, browse to the folder where you want to store your custom columns.
4. On the folder page, click **Add Item** > **Column**.
5. On the **Add: Column** page, add a name and, optionally, a description.
6. In the **Data Source** list, select a category attribute. Each attribute can only be used once in a custom column. If an attribute is already used as data source for a custom column, it is no longer listed.

   Tip: A custom column displays a maximum of 64 characters of data. If the data exceeds 64 characters, the text truncates and an ellipsis (...) appears to represent the missing data. Setting the column width to a value greater than 64 characters does not affect this limitation.

7. To enable sorting and filtering, select the **Sortable** check box and click **Add**.

   To only display the column in the Workspaces widget, in the Related Workspaces widget, or in the Browse view in the Classic View for on-premise installations, clear the **Sortable** check box.

8. Optional While you wait for the column to be built, to monitor the status, select **Properties** > **Specific** from the function menu.
9. Smart View: From the function menu of the custom column, select **Properties** > **Workspaces**. Then select **Used for Sorting and Filtering**. When you click **Update** the database index is created concurrently, which may take a few minutes.

   Notes

   After the database index has been created, you can use the custom column for filtering and sorting.

   - Filtering is only supported for data type `String`.
   - Sorting is not supported for `User` fields.

For more information about custom columns, see the online help.

5.6.2 Converting a rule-based to a business workspace-type Perspective

For Business Workspaces on off-cloud systems, Perspectives that were created with versions 16.2.9 or earlier, are Container Perspectives that determine their respective workspace type with a rule. Starting from version 16.2.10, Perspectives can be created as Perspectives with Type **Business Workspace**. The business workspace type is set automatically when you launch the Perspective Manager tool from the Business Workspace Type configuration page.

Starting from version 20.2, Perspectives are no longer ActiveView based. All new Perspectives use a new Perspectives node-type. Legacy ActiveView-type Perspectives must be manually converted to the new Perspectives node-type Perspectives.

Important
If you have more than one Perspective for the same business workspace type, you must follow a certain order for the conversion of these Perspectives.

5.6.2.1 To convert a rule-based Perspective to a Perspective node-type Perspective

To convert a rule-based Perspective to a Perspective node-type Perspective:

1. On the global menu, click **Enterprise** > **Business Workspaces**.
2. On the **Business Workspaces** page, click **Perspectives**.
3. Check for multiple Perspectives for the same workspace type by sorting the list of Business Workspaces Perspectives by size to see all workspace type folders with multiple Perspectives in them. If there are no workspace types with multiple perspectives, the order of migration is not relevant and you can skip the steps 4 and 5.
4. Go to **OpenText Content Management Administration** > **ActiveView Administration** > **Manage Global Perspectives**.

   Note: This page only appears if you still have legacy ActiveView-type, rule-based Perspectives in the system.

5. On the **Global Perspectives** page, in the **Container Perspectives** section, search for Perspectives with the same workspace type ID.

   Important
   Take note of the order in which these Perspectives are listed. You must convert the Perspectives in this same order.

6. On the global menu, click **Enterprise** > **Perspective Manager**.

7. On the **General** tab of the Perspective Manager, open the workspace perspective that you want to convert, click **Edit Perspective** and convert it. Stick to the order that you noted in step 5.

   a. On the **General** tab, in the **Create new perspective** area, select the **Edit existing** option and browse to the Perspective that you want to convert.

   b. In the **Type** area, select the **Workspace** option.

   c. Click the **Rules** tab, to verify the workspace type.

   d. Click the **General** tab, and in the Workspace Type list, select the same workspace type listed on the **Rules** tab.

   e. Click the **Rules** tab and delete the rule with the workspace type.

   f. On the Perspective Manager header, click **Update**.

For more information, see the online help for Perspective Manager.

5.6.3 Creating a Perspective using the Perspective Manager tool

Perspectives control how users see the layout of a business workspace in the Smart View. The Perspective Manager tool walks you through the creation, design, and configuration of a Perspective.

With Business Workspaces, the Perspective Manager tool offers a reduced set of options for Perspectives. For Business Workspaces, a new Perspective is tied to the workspace type and already contains a sample layout.

For information about how to use the Perspective Manager tool to create a Perspective for a business workspace, see *OpenText Content Management - Perspective Manager Help (CSAV-H-PPG)*.

Important

Changes in Perspectives take effect immediately. If you are unsure of your changes, OpenText recommends that you create your Perspective on a test system before implementing it on a production system.

Notes

- In each business workspace, you can have only one Node Browsing Table widget, regardless of how many tabs you have.
- When you transport Perspectives using the Transport Warehouse, you must follow a certain order to keep dependencies. For more information, see *OpenText Content Management User Help - Transport (LLESTRP-H-UGD)*.

5.6.3.1 To create a business workspace-type Perspective

For information about how to use the Perspective Manager tool to create a Perspective for a business workspace, see *OpenText Content Management - Perspective Manager Help (CSAV-H-PPG)*.

5.6.4 Configuring widgets for a Business Workspace

You can add any widget to a business workspace-type Perspective. Your system configuration determines which widgets are appropriate.

For information about how to configure widgets, see *OpenText Content Management - Widget Configuration Guide (CSAV-CWG)*.

For information about the configuration options for the different widgets, see Section 7 "Widget configuration" in *OpenText Content Management - Perspective Manager Customization Guide (CSAV-PPG)*.

5.6.5 Creating an activity manager object for the Activity Feed

You can use OpenText™ Pulse, to display an Activity Feed in the Header widget or in the standard Activity Feed widget. The Activity Feed monitors all activities related to content and status for a business workspace and its subitems. It shows, for example, when someone adds a document.

If you want to also monitor attribute changes, you must create an activity manager object. An activity manager object is linked to one category attribute. When the value of the attribute changes, it creates an activity, which is then shown in the Activity Feed widget.

Note: System administrator rights are required for this task. Please ask OpenText Professional Services for assistance.

Example: You add the category attribute **Amount** of a Sales Order to an activity manager object. When the amount changes, it is displayed in the Activity Feed.

For detailed information about the activity manager object and Pulse, see the online help for OpenText Pulse.

Notes

- Each activity manager evaluates its rules by the order in which they are listed.
- The Activity Feed message supports localization and starts with a default activity string message. Optionally, you can customize the activity string with substitution placeholders for the attribute value.

Tip: To create activity manager objects, you need the **Business Administration Facets and Columns** usage privilege and **Activity Manager** object privilege.

To enable activity monitoring with OpenText Pulse, you need access to the **OpenText Content Management Administration** pages.

To enable Pulse:

1. On the **OpenText Content Management Administration** page, select **Pulse Administration > Configure**.
2. Select **Enable Pulse**.

To enable activity monitoring for business workspaces:

1. On the **OpenText Content Management Administration** page, select **Pulse Administration > Collaboration Administration**.
2. From the **Select Object Types to Manage** list, select the **Business Workspace** object type and click the **Add Object Type** button .
3. Select the collaboration feature that you want to make available.
4. Click **Update**.

To create an activity manager object:

1. From the global menu bar, select **Enterprise > Facets Volume**.
2. Optional Create a folder for the activity manager objects.
3. Click **Add Item** and select **Activity Manager**.
4. Enter at least a name and select a category attribute as data source.
5. Click **Add**.

To create rules for the activity manager:

1. Open the **Specific** tab of the activity manager object.
2. Click the **Add a new rule before this one** button .
3. Enter a rule name and select an option from the **Rule Criteria** list, for example, **Value Changed**.
4. The **Activity String** is populated with a template string. You can edit the string and also add multilingual versions.

   The standard string looks like the following: **[ObjName] [AttrName] changed from ' [OldVal] ' to ' [NewVal] '**.

   Example: If you created an activity manager object that monitors the status of a sales order workspace, the string would then produce the following activity message: *Sales Order 123 status changed from 'pending' to 'closed'.*
5. Edit the list of **Included Object Types**. Remove object types that you do not want to monitor.

6. Click **Submit**.

5.7 Defining document templates

Tip: Most of the following steps are only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Standard configuration in Content Server" on page 241.

Configuring permissions is necessary even if you imported the Solution Accelerator configuration. For more information, see "Configuring document template settings" on page 64.

The creation of workspaces is based on Content Server *Document Templates*. A document template is a Content Server item that contains folders, documents, and other content like task lists. You can use team roles and team participants to set up a permission concept.

OpenText Documentum CM permissions are used to assign particular permissions for workspaces in OpenText Documentum CM. If left blank, default permissions of OpenText Documentum CM are considered for workspace creation. See also "Defining OpenText Documentum CM permissions for workspaces" on page 68.

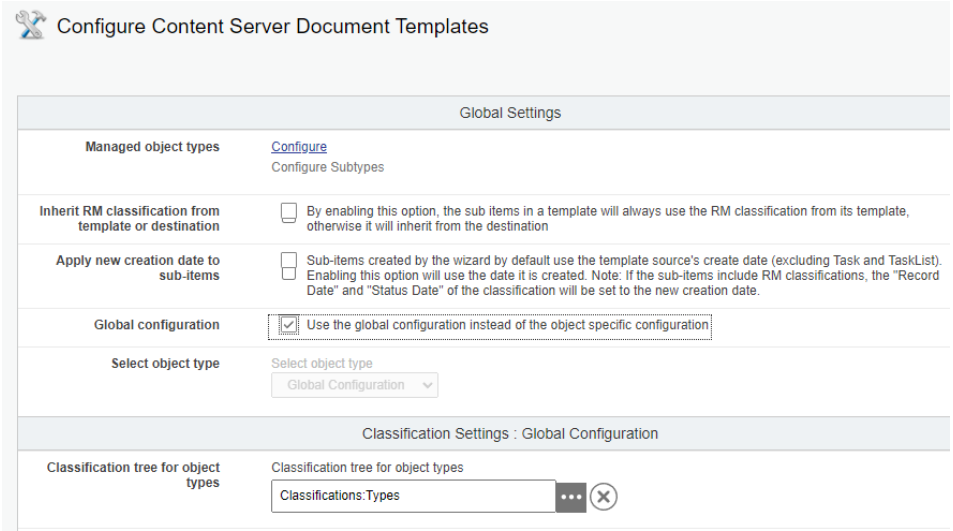
Tips

- For more information about Content Server Document Templates, see *OpenText Content Management Admin Help - Document Templates Volume Administration (LLESDTV-H-AGD)*.
- Classic View: You may also add a **Related Business Workspaces** folder to the template. This type of folder is used to display business workspaces that are related, for example a customer workspace is related to business workspaces for all its sales orders.

5.7.1 Configuring document template settings

To configure document template settings:

1. On the global menu, click **Enterprise > Document Templates**.
2. In the **Managed object types** section, click **Configure** and select at least the **Business Workspace (subtype 848)** item.
3. For the **Classification tree for document types**, select a classification tree for business workspaces that you created earlier.
4. Set the other options as required. For more information, see the online help for that page.



5.7.2 Creating a document template

To create a document template:

1. On the global menu, click **Enterprise > Document Templates**.
2. Click **Add Item > Business Workspace**.

   Note: If the **Business Workspace** option is not available, you can enable it. For more information, see "Configuring document template settings" on page 64.

   Tip: You can add a business workspace, a case or a binder. Typically, you create a template for each workspace type.

   You may define several templates for the same workspace type but with differences in their attributes. For example, you can have *Customers with a revenue larger than one million Euros* and *Customers with a revenue of less than one million Euros* represented in business workspaces based on different templates.

   Alternatively, you can copy an existing template. Select the template and click **Copy**. In the **Copy To** field, enter a location within the **Document Templates Volume**. Then configure the new template according to your requirements.

   Important
   When you copy a folder that contains a workspace template, the workspace template is *not* copied.

3. Fill the fields as required.

4. From the **Classifications** list, select the classification that you already selected for business workspace location. For more information, see "Creating folders" on page 44.

   Important
   The document template and the business workspace location must have the same classification.

5. Select a **Workspace Type** from the list.
6. Click **Add**.
7. Configure the template as required.

   In addition to the standard settings like classification and permissions, you can also configure the following:

   - Custom categories to hold metadata. For better performance, click and select **Disable Inheritance** for categories in templates. For more information, see "Creating categories" on page 41.
   - Permission handling when the document template is used to create a business workspace.
   - Replacement of groups used to restrict access to the business workspace or parts of it. For more information, see "Defining group replacement settings" on page 72.
   - Team roles and team participants for a workspace template. For more information, see "Defining team roles and team participants" on page 68.
   - Folders for related business workspaces.

8. Open the workspace template and add all relevant subfolders and documents using the **Add Item** button.

   Important
   Changes to the document template are *not* applied to existing workspaces that have already been created from the template. They apply only to business workspaces that will be created *after* you made the changes.

5.7.3 Creating workspace hierarchies

Business workspaces may reside in other business workspaces to reflect the corresponding business object hierarchy. However, such a hierarchy should not exceed 5 levels of business workspaces. To build up such a hierarchy, you must define which business workspaces are allowed to host other workspaces. The hierarchy mechanism is defined in templates.

Prerequisites You fully configured all workspaces types for what will later be parent workspaces and child workspaces.

If parent workspace template and child workspace template have differing roles, you can map roles from parent workspaces to child workspaces. The role of the child

workspace will then be replaced by the mapped role of the parent workspace with all the access rights of the child workspace role. With this mechanism, users with roles of the parent workspace can access the child workspace even if their specific role was not initially assigned to the child workspace. On the other hand, members of roles of the child workspace do not automatically gain access to the respective parent workspace. With this role mapping, you reduce the number of roles to maintain.

There are two options to create workspace hierarchies:

- Create workspace templates for parent and children and use the classification to map the child workspaces to the parent workspace. You need to manually create the child workspaces.
- Create a workspace template and use shortcuts to link the child workspaces. Here, the child workspaces are created automatically with the parent workspace.

Tip: Setting values for categories makes sense when you have two or more shortcuts to the same child workspace like in a test environment.

Example: To create a project workspace (parent) with 4 project phase workspaces (children), you would create one project workspace template with 4 shortcuts that point to the project phase workspace template. In the shortcuts, you use a category with an attribute “phase name” , for which in each shortcut you set the name of the phase, like *Initiate*, *Plan*, *Execute*, *Close*.

To map roles of the parent workspace to the child workspace:

1. In the function menu of the template, select **Properties > Workspace Hierarchies**.
2. From the **Classify ...** list, select the classification, which is assigned to the template that you want to be a child template.

   The selected classification is listed in the **Child Classifications** area. The list in the **Select Child Template** box now contains all templates that have this classification.
3. Select a template from the **Select Child Template ...** list.
4. Map the roles of the parent template to the roles of the child template: Select the appropriate role from the **Child Roles** list. You can map each role only once.
5. Click **Save**.
6. Repeat steps 3 to 5 for each template that is listed in the **Select Child Template ...** list.
7. On the **Classifications** tab of the parent workspace template, clear the **Inherit** check box.

   The **Inherit** option must be deactivated, so that the child workspace does not have the same classification as its parent and can be configured differently from its parent.

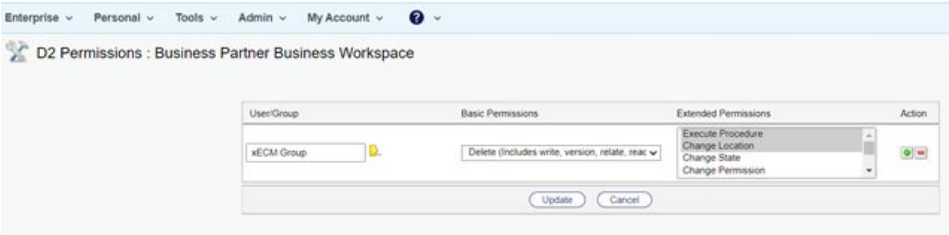
5.7.4 Defining OpenText Documentum CM permissions for workspaces

OpenText Documentum CM permissions are used to provide the permissions for the workspaces that would be created on the OpenText Documentum CM server.

To define OpenText Documentum CM permissions:

1. From the global menu, select **Enterprise > Document Templates** and find the template that you want to edit.
2. In the function menu of the template, select **D2 Permissions**.

   The OpenText Documentum CM Permissions page opens:



3. In **User/Group**, provide the user/group which will have access to workspace in OpenText Documentum CM server to that particular workspaces created through this template.
4. In **Basic Permissions**, provide the permissions for above user/Group.
5. In **Extended Permissions**, prove the extra Permissions which a user/Group can have on that workspace
6. In **Action**, you can add or delete rows for user permissions.
7. Click **Update** to save your changes.

5.7.5 Defining team roles and team participants

You can use roles and participants to control access to the business workspaces. In the template, you define which roles and participants have permissions to the template and to the generated business workspaces. When business workspaces are created from templates, all roles and participants are copied to the created workspaces except for the Template Administrator, Template Editor, and Template User roles. These three roles are used to control who can create, modify, and see templates.

You can also define participants in the *Members* side panel in Smart View.

Note: You can change participants for each business workspace separately.

- **Roles**

  You create roles and assign permissions to them. These roles become the defaults for the business workspaces that are created from the templates. When you add users or groups as *participants* to roles, they inherit the permissions of the role.

  Special roles

  – *Template Administrator*

    The Template Administrator role is added automatically to new templates for business workspaces. It has full access permissions for the template. The Template Administrator role is not copied to business workspaces that are created from the template.

  – *Template Editor*

    The Template Editor role is added automatically to new templates for business workspaces. This role has the access permissions **See**, **See Contents**, **Modify**, **Edit Attributes**, **Add Items**, and **Reserve** for the template. The Template Editor role is not copied to business workspaces that are created from the template.

  – *Template User*

    The Template User role is added automatically to new templates for business workspaces. This role has the access permissions **See** and **See Contents** for the template. The Template User role is not copied to business workspaces that are created from the template.

  – *Lead*

    You can assign one role to be the Lead role. The Lead role appears with a red flag icon. Participants of the Lead role can edit participants of all roles.

    By default, the first role that you add in addition to the Template Administrator, Template Editor, or Template User role, becomes the Lead role. However, you can set any role as the Lead using the **Set as Lead** button. You can also delete the Lead role if it is the only role in the list.

    Edit permissions

    If members of the Lead role should not have the *Edit permissions*, it is not sufficient to only remove that permission from the Lead role. You also must remove it from any other role. Otherwise, the members of the Lead role could assign themselves to that other role and gain the *Edit permissions* although they should not have it.

- **Participants**

  You can add participants to roles. Participants can be users and groups. Users and groups can be assigned to one or more roles. Each role can have multiple participants.

To define roles and permissions:

1. From the global menu, select **Enterprise > Document Templates** and find the template that you want to edit.

2. From the function menu of the workspace template, select **Roles and Permissions**.
3. Create a role:
   a. On the left side of the page in the **Role Access** section, click the **Add Role** button .
   b. On the right side of the page, in the **Add new role** section, enter a name in the **Role** box.
   c. Optional Enter a description in the **Role Description** box.
   d. Click **Add**.
4. Assign permissions to the role:
   a. On the left side of the page, click the role.
   b. On the right side of the page, enable the permissions that you want to assign to the role.
   c. Click **Update**.
5. Optional Set the role as Lead:
   a. On the left side of the page, click the role.
   b. On the right side of the page, click **Set as Lead**.
6. On the left side of the page, click **Done**.

To assign participants to roles:

1. From the functions menu of the template, select **Participants**.
2. On the left side, in the **Participants** section, click **Find & Add**.
3. On the right side of the page, find the user or group that you want to add.
4. In the **Role** menu beside the user or group, select the role that you want to assign to this user or group.
5. Click **Submit**.
6. On the left side, click **Done**.

5.7.5.1 Handling of roles and participants

If you move a business workspace, which is based on a template with roles and participants, roles and permissions are either removed, inherited, or copied. In addition, the handling of roles and participants also respects the following settings:

- **Merge with creation location** option on the **Specific** tab of the template.
- **Always inherit the permissions from target destination** option on the **Base Settings – Feature Configuration > Access Control** page.

The following handling applies when business workspaces are created and moved:

- Business workspaces are created from templates:
  - All roles and participants are copied to the created workspace, except for the special roles *Template Administrator*, *Template Editor*, and *Template User*.
  - If the new business workspace is created within a business workspace, the roles and participants that are assigned to the destination are copied to the created business workspace. This applies only if the merging of permissions is enabled.
- A business workspace is moved to a destination with roles, for example into another business workspace:
  - Inherited roles and permissions are removed.
  - Roles and participants that are assigned to the new destination are copied to the business workspace. This applies only if the **Always inherit the permissions from target destination** option is enabled.
  - Roles assigned to the business workspace directly are still there.
- A business workspace is moved to a destination without roles:
  - Inherited roles and permissions are removed.
  - The roles assigned to the business workspace directly are still there.

5.7.5.2 Role mapping in workspace hierarchies

When you create a workspace hierarchy and define which workspace types can be created within another workspace type, you can also add a role mapping. With this role mapping, you define which role of the parent workspace is mapped to the role of a child workspace. Or in other words, which roles of the parent workspace act like the role of a child workspace. You create workspace hierarchies on template level.

5.7.6 Merging permissions and owners

Permissions are defined for the template and for the folder in which the new business workspace is created. You can define if these two permission sets are merged or not.

The merging also applies to the items in the template. The permissions are merged with the permissions of the location where the business workspace is created and not where the item is created.

Note: If merging is enabled, the owner of the newly created business workspace will be the one defined for the folder in which the new business workspace is created. If merging is not enabled the owner will be the same as the owner of the template.

Example: User MMEIER creates a new workspace for a customer using the `Customer` template. For the `Customer` template, user MMEIER only has `See` access. For the folder **Customer**, where the new customer workspace is created, user MMEIER also has `Modify` access.

If the **Merge with creation location** option is selected, user MMEIER will have both `See` and `Modify` access. If the **Merge with creation location** option is not selected, user MMEIER will have only `See` access.

1. Define the required permissions for the following:
   - Folder where the workspace is to be created.
   - Template and its subitems.
2. For the template, on the **Specific** tab, select the **Merge with creation location** option.

5.7.7 Defining group replacement settings

Group replacement

When a business workspace is created from a template, you can replace the user groups, which are used to restrict access to the template or to folders within it, with generated groups. These groups will then have access to the created workspace replacing the initial template groups. In the template for a business workspace, you define how these groups are generated. The generating of groups can be based on categories and attributes, or on variables.

The group replacement always applies when one of the attributes that is used to define the group is changed:

- When the business workspace is created.
- When the attribute of a business workspace is changed later.
- When an attribute is filled manually.

If you want to remove a group, which was created by the group replacement, from the business workspace, you clear the category attribute used in the group replacement configuration.

The group replacement is triggered once a workspace is created. It is also triggered when the workspace categories are updated or cleared.

Prerequisites

- You use groups to restrict access to the template or parts of it. The groups are used for the template and for the business workspace instances when the category attribute is empty.
- You grant the groups direct access instead of adding them as participants to a role.
- If you want to use variables, you have already defined them. For more information, see "Defining and using variables" on page 75.
- If you want to use a category and an attribute, retrieve their ID.

To define group replacement settings:

1. From the function menu of the workspace template, select **Properties > Specific**.
2. Select the **Group Replacements** option.

   The **Group Replacements** section lists all groups that are granted access to the template or items within the template.
3. To remove a group, select the group name and leave the **Target Group** field empty.

   When a business workspace is created from this template, the group is removed and will not be granted access to the created workspace.
4. To generate a group, select the group name. In the **Target Group** field, add the name of the group to be generated. You can use the following replacement tags:

   - Category: `<Category CategoryID AttributeID />`

     Specifies a category attribute and is replaced by the value of the specified category attribute when creating a new business workspace.

     Note: If the category ID or the attribute ID is wrong in the configuration, you will receive an error and the business workspace is not created.

     If category ID and attribute ID are valid in the configuration and the attribute either returns no value or is not defined, the group replacement function uses the template's group to assign the group permissions inherited from the template.
   - Variable: `<Variable VariableName />`

Specifies a defined variable. For more information, see "Defining and using variables" on page 75.

The replacement tags are replaced with actual values when a workspace is created from the template.

Note: The replacement is only applied when a new workspace is created. Already existing workspaces are not affected when changing the group replacement settings.

Error handling

If you use category attributes for group replacement, OpenText recommends that you make these category attributes mandatory. However, there are mechanisms in place, which cover empty attributes:

- If the attribute is still empty when the business workspace is created, the group replacement uses the permissions of the document template.
- If no group is assigned to the document template, and the group mapping configuration is done, for example, by adding a group to a child of the document template, the default permissions of the Template group will *not* be applied on the business workspace. However, it will be applied on the child on which the group is added. Default permissions are the permissions for the template group on every node. Since the template group is added just to the child, the group replacement function does not apply anything to the whole business workspace, only to the child item.
- If a group is removed from a child folder of the business workspace, and the group mapping attribute is changed from an empty attribute to some value, groups are created respectively and the permissions are set as per document template group permissions, even for that child on which the group is removed.

Not supported scenarios

- At the same container level, usage of the same value for multiple attributes participated in the group replacement is not supported. The same value for attributes is supported across containers.
- Merge with creation location and group replacement on a template should not be enabled and used at a time. If enabled, make sure that groups involved in group replacement (source or target groups) not are present on creation location.

Permission propagation

Besides the **Group Replacement** option, you can configure group permission and access using the **Permission Propagation** option.

In the workspace template, you create rules based on category attributes that define a mapping between Content Server groups and existing groups created as template groups to propagate the respective permissions. When a business

workspace is created, the Content Server group replaces the template group at the workspace level according to the configured rules. Only the members of that group can access the workspace.

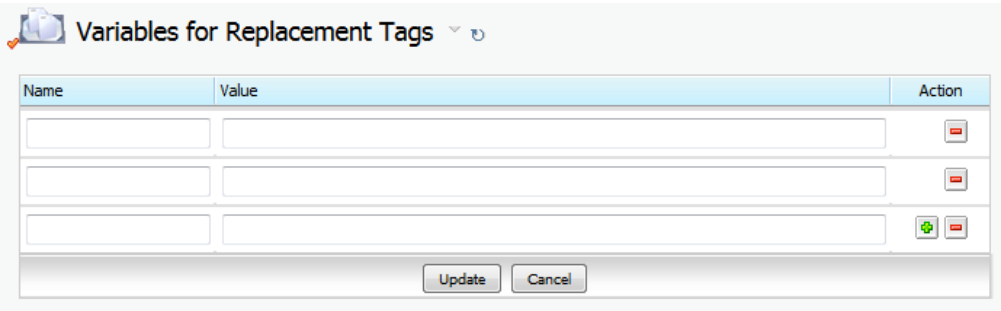
To set up the permissions using permission propagation:

1. From the function menu of the workspace template, open the **Roles and Permissions** dialog. Define the necessary template groups and edit the group permissions for each group.
2. From the function menu of the workspace template, select **Properties > Specific**.
3. Select the **Permission Propagation** option.
   a. Select a Content Server group from the selection dialog box.
   b. To edit a rule, click **Edit Rule Expression** to open the Expression Builder.
   c. From the **Template Group** list, select a permission template group.

   Note: If multiple Content Server groups are configured against a single template group, only the last rule in the list is used for replacement.

5.7.8 Defining and using variables

You can define variables, which you can use for group replacement. You can use group replacement to restrict access to the created workspace or parts of it.



To define variables:

1. On the global menu, click **Enterprise > Business Workspaces**.
2. Click **Variables for Replacement Tags**.
3. Enter the name of the variable and the value and save your changes. The name of a variable must not contain characters from regular expression, for example `[/<>]`.

4. Click the **Add variable** button to add a row. Click the **Remove variable** button to delete a row.
5. Click **Update** to save your settings.

5.8 Configuring Connections to Business Applications (External system)

To configure Salesforce as an external system on Content Server, you should add Salesforce as an external business application on Content Server.

To connect a business application:

1. On the global menu, click **Enterprise > Enterprise Application Integration**, and then click **Connections to Business Applications (External Systems)**.
2. Click **Add Item > Business Application**.
3. Specify the parameters for your business application according to the list below.
4. Click **Add**.

Business Application ID
Define the logical name of the business application. The name must be unique and cannot be longer than 32 characters. This name is used when you select the business application in the business object type configuration. This name can be, for example, the name of the business application.

Connection Type
From the list, select **Documentum Salesforce Adapter** if Documentum is installed on Content Server.

Important
If you have selected `Default WebService Adapter` or `SFWebService` as Connection Type, you can choose between the authentication methods Basic and OAuth. For the other Connection Types, you can only use the Basic authentication.

Enabled
Select this option to enable the configuration.

Tip: You can disable a configuration, for example if you created it only for testing and you do not want it to be used.

Comment
Enter a comment to give further information.

Base URL
Enter the common URL for accessing the business applications via a Web browser. You can use this base URL when configuring business object types on

OpenText Content Management. The base URL is represented by the `$BaseURL$` variable for new business object types.

Classic mode base URL

You must use the Classic mode base URL, which is the one required by the Salesforce API. The Lightning mode base URL does not work here and cannot be used.

Application Server Endpoint

Specify the URL that will be called to obtain business object information.

The Endpoint URL should have the domain name.

Business application API version

Generally, the business application API version in the Base URL can be any currently supported by business application. In the example, the 61.0 portion can be replaced with any actual business application API version. If there is a breaking API change, see the Release Notes or it will be noted here.

Schema Version

Select the interface version.

Authentication Method

If you have selected `Default WebService Adapter` or `SFWebService` as Connection Type, you can choose between the authentication methods Basic and OAuth. For the other Connection Types, you can only use the Basic authentication.

Basic

This option is selected by default. The user must enter a username and a password.

- **User Name** – enter the user that is used to access business object type information in the business application.
- **Password** – specify the password of the defined user for the specified application server endpoint.

Note: With using basic authentication, OpenText strongly recommends that you use SSL at the web server. For information about importing certificates to the keystore, see *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*.

OAuth

Select this option to configure OAuth2 authentication. You must specify a token endpoint which is the URL of an authentication server. Authenticating against this authentication server with a client ID and a client secret, you obtain an access token which can then be used to authenticate against the application server.

- **OAuth Token Endpoint** – enter the URL of the authorization server that is used to acquire an access token.

- **OAuth Client ID** – enter the API Key created in the OAuth configuration.
- **OAuth Client Secret** – enter the private key you have generated in the OAuth configuration.
- **OAuth Request Type** – some SAP systems only support the basic authentication transport. Select the option suitable for your system:
  - **Basic** – select this option to send the OAuth parameter as basic authentication header.
  - **HTTP Body** – select this option to send the OAuth parameter within the request body.
- **OAuth Scope** – specify an OAuth Scope to restrict access to the application. OAuth 2.0 authentication supports Access Token Scopes to restrict access to certain subsets of the server resources. Note that this parameter is mandatory when using Azure Active Directory for authentication.

Test Connection

Click **Test** to perform a connection check to the specified business application. After a successful check, the message **Connection test was successful** is displayed next to the button. If the **Test** button is not active, you must first save the configuration. To save the configuration, click **Apply**.

Note: You can only test the connection after you have configured the SPI service in the business application accordingly and have saved the configuration.

Business Application Name

Enter localized names for the business application if required. For each available **Language**, enter the respective **Name**.

5.9 Defining business object types

Tip: This step is only necessary if you do not import the Solution Accelerator configuration or if you want to define additional settings. For information about importing the Solution Accelerator, see Section 7 "Importing Salesforce configuration from the CRM Solution Accelerator configuration" in *OpenText Documentum Content Management for Salesforce - Installation Guide (EESADC-IGD)*. For information about the standard configuration imported with the Solution Accelerator, see "Standard configuration in Content Server" on page 241.

To create a business object type:

1. On the global menu, click **Enterprise** > **Enterprise Application Integration**.
2. Click **Business Object Types**.

3. Click the **Add Item** button and select **Business Object Type**.

You configure a business object type to use in Content Server. You select the business object type from the business application, map properties of the business object to categories and attributes in Content Server, and select a workspace template. You can map properties to OpenText Documentum CM attributes and import a folder structure.

Note: You can use *cross-application business workspaces* if you want to associate similar business object types from different business applications with one type of workspace. For this, you use one workspace type for several business object types. For example, a person is stored as a business partner in one system and as a vendor in a different business application, both roles are displayed in the same workspace type. For more information, see *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*.

5.9.1 Configuring a basic business object type

Name

Name of the business object type. This is an internal name and only visible to administrators. OpenText recommends that you use the name under which the business object is known in the business application. You can also add the name of the business application.

Business Application

Business Application: Select one of the business applications that is connected to Content Server. If a connection could be completed, you see a green checkmark and you can then select the business object type from the business application.

Business Object Type

Business Object Type: Enter the name of the business object type in the business application. If a connection to the business application is active, click **Select From Business Application** and select the required business object type from the list of all business object types that are available in . If you are not connected to , you can enter the business object type manually.

Important

You must select a business object that is *not* already used in a business object type configuration. Otherwise, you cannot save this business object type.

The business object type can be displayed to the end user, for example in the Smart View header widget. Therefore, you can edit the business object type name, also in different languages. The **Widget Configuration for Smart View** is located at the end of the configuration page.

Display URL

The URL which displays business object information on the business application server.

5.9.2 Configuring the creation of business workspaces

You can use business objects in business workspaces and thus use the metadata of the business object to enrich the business workspace. To use business objects in business workspaces, you must enable this type of usage and provide workspace type information. To use the metadata from it must be mapped to category attributes in OpenText Content Management.

Used for Business Workspace

Select this option if you want to enrich business workspaces with information from a business object. Selecting this option displays the following parameters for the configuration.

Workspace Type

Select the workspace type that you created for this business object type.

You can also create a new workspace type at this point. Click the **New Workspace Type** button and define the workspace type.

Is Default Display for Workspace Type

If you have more than one business object type associated with the same workspace type, enable this option to make this business object type the default type to be displayed.

Tip: You can later change this with an option in the function menu of a business object type.

OpenText Content Management Classic View

If you did not select any business object type for default display the following occurs in a business workspace:

- No sidebar widgets will be displayed in the newly created workspace
- No Web URL will be displayed on the **Properties > General** tab of the business workspace

Whenever you select the **Default Display ...** option for a business object type, it will be removed from other business object types that are related to the same workspace type.

Is Default Search for Workspace Type

Enable this option so that users use the search of this business object type when they create a business workspace manually in OpenText Content Management.

Whenever you select this option for a business object type, it will be removed from other business object types that are related to the same workspace type.

Workspace Template

When users create a business workspace from the business application, they cannot select the document template manually. With these options, you select the method how the document template is determined:

- **Content Server Template**: Select the document template that you created for this business object type from Content Server.
- **From Business Property**: The business property provides the ID of the template. This method is used when a dynamic template determination is needed.
- **From Workspace Template Selection**: You can use the workspace template configurations created in the Workspace Template Selection. In these configurations, you can configure rules for different business object types.

Business Object Type Names

The header widget for Smart View can display the name of the workspace type in different language. You can provide a name in each language that is installed on your repository.

You must also map business properties to category attributes. For more information, see "Mapping business properties to category attributes" on page 81.

5.9.3 Mapping business properties to category attributes

Property Mapping section

You can map simple business properties to simple attributes, and you can map business property groups to set attributes. For both, you can use different mapping methods:

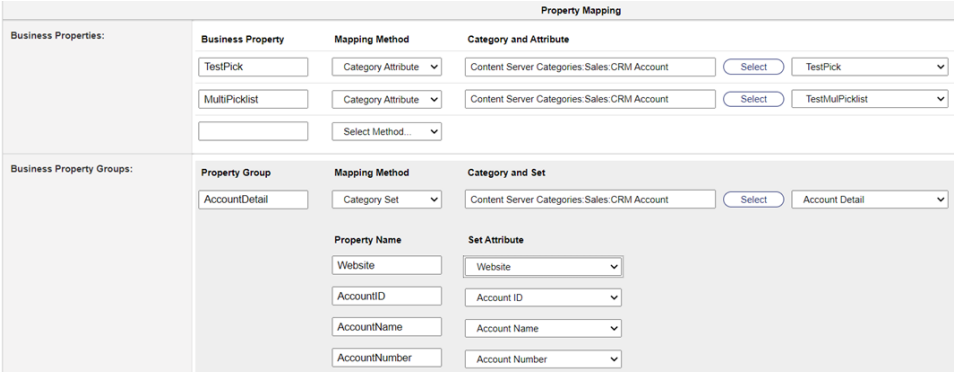
- **Business Property**: The business property is mapped to a second business property that contains the ID of the category. In the **Attribute** field, you enter the attribute name of this category.
- **Category and Attribute**: The business property is mapped to a category and an attribute. You can select the category from Content Server.

Mapping Documentum attributes

You can map business properties to Documentum attributes. Only when the current user has proper permissions and when the folder structure import is already configured, the Documentum attributes are displayed for selection.

Notes

- Map all fields of the business object type that you want to display in Content Server. Make sure that you also map all fields that are required for the determination of the workspace name and the location.
- You cannot assign a property group to a simple attribute.



Business Properties

- **Mapping Method** and **Category and Attribute**

  Business Property: Enter the exact name of the business property and the attribute name.

  Category Attribute: Select the category and its attribute from Content Server.

  Compose multiple business application properties to a single business workspace metadata

  You can combine multiple business properties as used in your business application into one workspace metadata. Including some information in one attribute, for example, such as a size indication like `60 kg` or currency information like `500 Euro`, makes the content more understandable for the user.

  To configure a mapping with multiple business properties, you can enter patterns to combine them in the **Business Property** box and map them to one category attribute. You can either map an existing category attribute or create a new one.

  For details about creating the patterns, see .Part III "Content Server configuration" in *OpenText Content Management - Enterprise Applications Integration and Configuration Guide (EEP-CGI)*.

  Example: You can combine the business properties `Net Order Value` = *500.00* and `Currency` = *EUR* to be mapped in the single category attribute `Price with Currency` = *500.00 EUR*.
  This corresponds to the field `Total Value` = *500.00 EUR*.

Business Properties Groups

- **Mapping Method** and **Category and Set**

  Business Property: Enter the exact name of the business property that determines the relevant category, and enter the set name. Then map a business property of the group to an attribute of the set.

  Category Set: Select the category and its attribute set from Content Server. Then enter the property name and select an attribute from the set.

5.9.4 Assigning external document type to attachment declaration

In this section, you define the processing of a document from external sources. Therefore, you assign an attachment declaration to the external document type that contains the processing information.

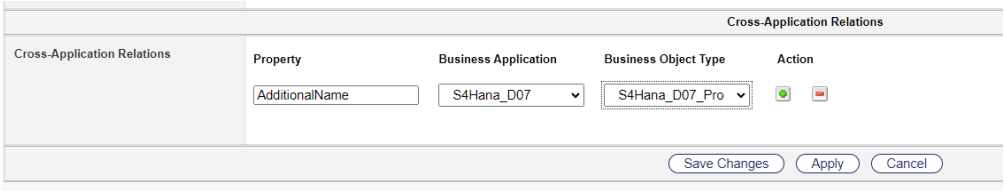
If no mapping is configured here, the document will neither be filed nor migrated to OpenText Content Management.

Assignment of External Document Type to Attachment Declaration section

- **External Document Type**: Select an external document type from the list that displays all document types configured for the business object in the business application. A document type may be specified at most once.
- **Attachment Declaration**: From the list of available attachment declarations saved in OpenText Content Management, select an attachment declaration to map to an external document type. An attachment declaration can be mapped to multiple document types.

5.9.5 Configuring cross-application relations

In this section, you can configure the automatic creation of a cross-application business workspace to create a business workspace that references business objects of two or more business applications.



Cross-Application Relations

- **Property**: Enter the property of the business object type you want to link.
- **Business Application**: From the list, select the business application of the other business object that you want to link.
- **Business Object Type**: From the list, select the corresponding business object type.

To add more cross-application relations, click the **Add New Row** icon

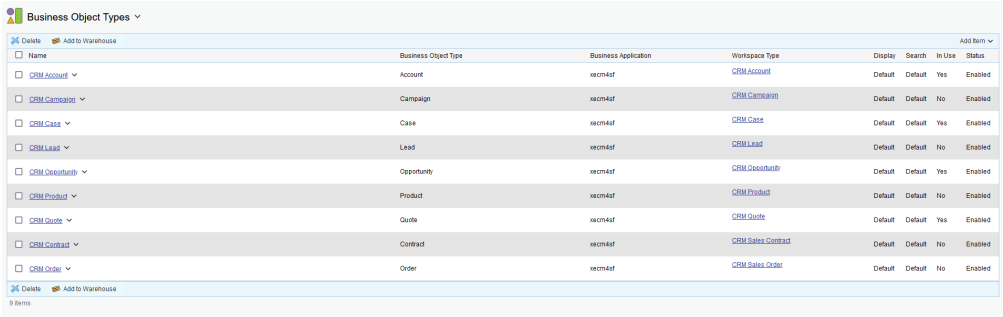
5.9.6 Managing business object types

To manage business object types:

1. On the global menu, click **Enterprise > Enterprise Application Integration**.
2. Click **Business Object Types**.

   The list of business objects types shows the following information:

   - **Name** of the business object type
   - **Business object type**'s name in the business application
   - **Business Application** as defined in OpenText Content Management.
   - **Workspace Type** connected to the business object type.
   - **Display** is set to default if you want this business object type to be the default, in case you have more than one business object type associated with the same workspace type business object type. You can make business object type the default for display with an option on the function menu.
   - **Search** is set to default if you search for a business object type from a business workspace that has more than one business object type associated. You can make business object type the default for search with an option on the function menu.
   - **In Use** indicates if this business object type is used and cannot be deleted.
   - **Status** indicates if this business object type is enabled and can be used. You can change the status with an option on the function menu. Disabled business object types cannot be opened.
3. Select the function menu option **Disable** so that this business object type cannot be used to create business workspaces, neither can it be used to add business objects to a OpenText Content Management item, regardless of whether the **Can be Added as Business Object** option is selected or not.
   The business object type will still be available to display previously created business workspaces or added business objects.
   The business object type cannot be used for the search or display of the corresponding workspace type.
4. To delete a business object type, select the business object type and click the **Delete** button .



5.10 Using scheduled bots

You must set up a scheduled bot in Content Server to pull Salesforce documents into a business workspace.

To add a Create or Update Documents scheduled bot:

1. On the global menu, click **Enterprise > Enterprise Application Integration**, and then click **Scheduled Bots**.
2. Click + **Add scheduled bot**.
3. On **Create scheduled bot** page, enter the following:
   - **Name**: Enter a name for the bot.
   - **Description**: Enter a description of the bot.
   - **Product component**: Select **Document Management**.
   - **Scheduled Bot**: Select **Create or Update Documents**.
4. Click **Create**.

You can configure the newly added bot.

To configure the Create or Update Documents bot:

1. Click the bot.
2. On the **Configuration** tab, you can configure the following:
   - **Business Application**: Select the external system from which the files, attachments, and metadata are to be synchronized.
   - **Business Object Type**: Optional. If you want to select a specific **Business Object Type**, select the appropriate name from the list, or leave **None** to process all business object types.
     - If you select a business object type, the maximum page size for that job is 9000.

  - If you do not select a business object type, the maximum page size for that job will be 3000.
- **Page Size**: Page size for retrieval of Business Objects list from the business application.
- **Block Size**: Block size for the distributed agent sub tasks.

3. On the **Advanced parameters** tab, you can configure the following:
   - **Keep History**: Specify the number of entries you want to display in the bot history.
   - **Distributed Agent Priority (0–100)**: Set the priority of the distributed agent tasks for this bot. The priority must be a value between 0 and 100. 0 means the task will be processed with lowest priority and 100 means the task will be processed with highest priority in the distributed agent system. The default is set to 80 if the field is left blank.
4. On the **Start options** tab, you can configure the **Start mode**:
   - **Manual**: Select this option to run the bot manually as required. The following happens when you select this option.
     a. The bot does not run immediately but the task is added to the distributed agent queue.
     b. The distributed agent queue assigns the task to a worker when a worker becomes available. You should give the OpenText Content Management tasks priority in a worker thread to ensure the task does not get queued behind other bots in the queue.
     c. If the task is already in the queue or is running, the new task will not be added to the queue. Because of this, OpenText recommends that you still have the bot scheduled so if the task is not added to the queue the scheduler will eventually run it and move the documents.

     Any invocation of the task will process all documents available in the Salesforce queue. If a *Run now* request is received from the repository, the documents will still be picked up the next time the Salesforce batch runs or the next time the repository schedules the task.
   - **On Schedule**: Select this option to configure a schedule for regular bot runs.
     a. In the **Repeat** area, under **On these days**, select the days you want to run the bot.
     b. Under **At these times**, in the **Hours** and **Minutes** boxes, enter the hours and minutes when you want to run the bot on the selected days.
   - **After bot**: Select this option to run the bot after a specific bot.
     a. In **Run after bot** list, select a bot after which your bot should run.
     b. If you do not want your bot to run if the previous bot created errors, select the **Do not start if the previous bot created errors** switch.

c. In the **Maximum number of errors in the previous bot**, select the number of errors. The bot does not start if the previous bot created more errors than the selected number.

5. Click **Update**.

5.11 Configuring a Create or Update Documents bot

The Create or Update Documents Job synchronizes documents from a leading application(Salesforce) to OpenText Documentum Content Management.

To create and configure the Create or Update Documents bot:

1. On the global menu, click **Enterprise > Enterprise Application Integration**, and then click **Scheduled Bots**.
2. Click + **Add scheduled bot**.
3. On **Create scheduled bot** page, enter the following:
   - **Name**: Enter a name for the bot.
   - **Description**: Enter a description of the bot.
   - **Product component**: Select **OpenText Documentum Content Management**.
   - **Scheduled Bot**: Select **Create or Update Documents**.
4. Click **Create**.
5. To configure and schedule the bot, click the bot name in the Scheduled Bots list.
6. On the **Configuration** tab, you can configure the following:
   - **Business Application**: Select an appropriate business application which has the Documentum Smartview URL configured.
   - **Business Object Type**: Select a specific Business Object type to filter the synchronization of documents (optional).
   - **Document Property Provider**: Select the document property provider coming from a leading application, to further filter the section to synchronize the documents (optional).
   - **Document Object Filter**: Construct the Document Object filter to further select the specific documents to synchronize using this job (optional).
   - **Documentum User ID**: Select a technical Documentum User ID which has access to Documentum Smartview.
   - **Page Size**: Page size for retrieval of Business Objects list from the business application.
   - **Block Size**: Block size for the distributed agent sub tasks.
7. On the **Advanced parameters** tab, you can configure the following:

- **Keep History**: Specify the number of entries you want to display in the bot history.
- **Distributed Agent Priority (0–100)**: Set the priority of the distributed agent tasks for this bot. The priority must be a value between 0 and 100. 0 means the task will be processed with lowest priority and 100 means the task will be processed with highest priority in the distributed agent system. The default is set to 80 if the field is left blank.

8. On the **Start options** tab, you can configure the **Start mode**:
   - **Manual**: Select this option to run the bot manually as required.
   - **On Schedule**: Select this option to configure a schedule for regular bot runs.
     a. In the **Repeat** area, under **On these days**, select the days you want to run the bot.
     b. Under **At these times**, in the **Hours** and **Minutes** boxes, enter the hours and minutes when you want to run the bot on the selected days.
   - **After bot**: Select this option to run the bot after a specific bot.
     a. In **Run after bot** list, select a bot after which your bot should run.
     b. If you do not want your bot to run if the previous bot created errors, select the **Do not start if the previous bot created errors** switch.
     c. In the **Maximum number of errors in the previous bot**, select the number of errors. The bot does not start if the previous bot created more errors than the selected number.
9. Click **Update**.

Chapter 6

Managing attachment declarations on Content Server

The attachment implementation on Content Server revolves around two concepts: the *document type* and the *attachment declaration*.

- **Document type** – A document type is a logical name used to categorize documents uploaded to the repository. The document types are defined as part of the business object type definition in the leading system, in our case, Salesforce. These names must be unique within a business object type, but any given name may be used in more than one business object type.
- **Attachment declaration** – An attachment declaration is a configuration record specifying how a document should be processed. It describes how document properties are mapped to categories and attributes, where the document should be stored in the repository, the document classification, and any records management attributes to be applied to the document.

The business object type configuration contains a section specifying the document types expected for that business object type and the attachment declaration to be used when a document of that type is uploaded to the repository.

6.1 Configuring attachment declarations

Documents that are originally stored in a business application as attachments can be made available in a business workspace and thus stored and archived in OpenText Content Management. For this you must define which document type you want to move to OpenText Content Management and how the business object and its business workspace are determined.

With attachment declarations, you can configure how metadata of the document attachment is retrieved from the business application.

The attachment declaration is connected to a business object type and to the document type of the business application. For more information, see *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*.

6.1.1 Creating an attachment declaration

To create an attachment declaration:

1. On the global menu, click **Enterprise > Enterprise Application Integration**.
2. Click **Attachment Declarations**.
3. Click the **Add Item** button .
4. Define the new attachment declaration as described in the following sections.

Tip: To use an attachment declaration, you assign it to a document type that is defined for a business object. On the global menu, click **Enterprise > Enterprise Application Integration > Business Object Types**. On a business object configuration page, you find the **Assignment of External Document Type to Attachment Declaration** section. For more information, see *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*.

6.1.1.1 Configuring general settings and property mapping

General section

- **Name**: Enter a unique name for the new attachment declaration object type.
- **Description**: Enter a description for the new attachment declaration object type.

Property Mapping section

During document migration or document filing, metadata from the business application is stored in the category attributes of OpenText Content Management. These categories and attributes have to be configured and mapped to the business properties of the document property provider.

- **Business Application**: Select a business application that is connected to OpenText Content Management.
- **Document Property Provider**: Click **Select From Business Application**. A list of document property providers, as defined in the business application for which properties and property groups have been defined, is displayed. Select a document property provider from this list.

  Note: If you want to transfer documents through the CMIS interface, you select `cmis:document`, provided that the connection adapter supports this document type. For more information, see *OpenText Content Management - Enterprise Applications Integration and Configuration Guide (EEP-CGI)*.

- **Business Properties**: Select a property from the list configured for the document property provider in the business application.

- **Business Property**: Enter the name of a business property as it is configured for the document property provider in the business application. The value must exactly match the value entered in the business application.
- **Mapping Method**: Select **Business Property** or **Category Attribute**.
- **Category and Attribute**: For the mapping method *Business Property*, enter the exact name of the category and the attribute name. For the mapping method *Category Attribute*, select the category and its attribute from OpenText Content Management.

Note: If you enter a business property, you should enter all fields in the business properties mapping. You cannot assign a property group to a simple attribute.

- **Business Properties Groups**: Define the business properties groups for the document property provider that you want to map:
  - **Property Group**: Select a business property group from the list configured for the document property provider in the business application.
  - **Mapping Method**: Select **Business Property** or **Category Set**.
  - **Category and Set**: For the mapping method *Business Property*, enter the exact name of the category and enter the attribute set name. For the mapping method *Category Set*, select the category and its attribute set from OpenText Content Management. Then enter the property name and select an attribute from the set.

6.1.1.2 Configuring document location and classification

Define where the document from the business application should be stored in OpenText Content Management and define the classification that is added to a document.

Document Location section

- **Root Folder**: Define where the migrated documents from the business application should be stored in OpenText Content Management. If no value is selected, the default location will be set to the Enterprise workspace volume in OpenText Content Management.
  - Select **From Smart Document Types** if you want to use a document type rule to determine the location of the root folder.

Note: The **Sub Folder** section is not displayed when **From Smart Document Types** is selected.

- Select **Content Server Folder** if you want to select a static folder. Click **Select**, and select the Content Server folder to which the documents should be migrated.

  If no folder is selected, you can click on **Insert** to select a category attribute value. A folder with that attribute value as folder name will be created in the Enterprise workspace.

  You can also append a value to the root folder name. Click **Select** to select a Content Server folder, and then click **Insert** and add a category attribute from the existing category attributes. This creates a folder in the Enterprise workspace with the name of the selected folder plus the attribute name selected.

- Select **Business Workspace** to migrate documents to the business workspace of the associated business object.

  Notes

  - The document will be migrated directly to the workspace folder. If a subfolder is configured in the **Sub Folder** section, a folder is created in the workspace folder in which the document is stored.
  - If no related business workspace exists for the associated business object, the document will not be migrated.

- Select **From Category Attribute** if you want to use a category attribute to determine the location of the root folder. The attribute must contain the node ID of the root folder. If the node ID is invalid, the document will not be migrated. You can combine text and category attributes to form a folder name pattern.

  Important

  Do not use a comma (“,”) to separate attributes.

  Do not use a colon (“:”) to separate attributes, because OpenText Content Management does not support names with colon.

- **Sub Folder**: You can create a subfolder in the root folder.

  - **None**: Only the root folder gets created during the document migration.
  - **From Pattern**: Use this field to create cascading sub folders with category attributes and text. You can select category attribute(s) by clicking **Insert**. A sub folder will be created with the name of the category attribute selected. When you select multiple category attributes, the values are appended and a folder with the resulting name is created.

    Important

    Use backward slash (“\”) to separate sub folders, because (“/”) will be considered as a part of the text.

    Do not use a comma (“,”) to separate attributes.

    Do not use a colon (“:”) to separate attributes, because OpenText Content Management does not support names with colon.

Classification section

Define the classification that is added to a document when it is migrated.

- Select **None** if you do not want to add a classification to the document.
- Select **Content Server Classification** if you want to select a specific classification. Click **Select** and select the classification.
- Select **From Category Attribute** if you want to use a category attribute to determine the classification. Click **Select** and select a category. Then select an attribute.
- Select **From Pattern** if you want to use name patterns. You can combine text and attributes to form a pattern. Click **Insert** to select the category attributes. The values received for category attributes will be appended to the form node ID information. If the node ID received from the category attribute or the pattern is invalid, the document will not be migrated. If the pattern and the name of the existing classification are valid, then the classification is attached to the document.

  Important

  Do not use a comma (“,”) to separate attributes.

  Do not use a colon (“:”) to separate attributes, because OpenText Content Management does not support names with colon.

6.1.1.3 Configuring document names and records management

Document Name section

You can display the name of the document in different languages.

Note: The name of the document received from the business application is set as name for the default language set in OpenText Content Management if the default language field is left empty.

Example: Mark has installed two language packs in Content Server, English and Spanish. He has set his preferred metadata language in OpenText Content Management to English; a document when received from the business application with name “Sales Order 1234” will be seen in OpenText Content Management with the same name. If the preferred language is set to Spanish, the document name appears as “Orden de venta 1234”.

To configure document names:

1. Add languages to the multilingual metadata in OpenText Content Management.
2. In the **Name Pattern** fields, add document name patterns for each language to the document names. You can use category attributes and text for name patterns.

Important

The pattern should not exceed 125 characters in length.

Do not use a comma (“,”) to separate attributes, because the comma is used to separate attributes from one another and from text.

Do not use a colon (“:”) to separate attributes, because OpenText Content Management does not support names with colon.

3. Click **Insert** to select a category attribute.

Tip: OpenText Content Management users can change their preferred metadata language in the global menu: **My Account > Settings > Metadata Language**.

Records Management section

You can define Records Management classification and its attributes that is added to the document during migration.

Note: This section is available only if the Records Management module is installed on Content Server.

- **RM Classification**:
  - Select **RM Classification** if you want to add a specific RM classification which is already defined in Content Server. Click **Select**, and select the classification.
  - Select **From Category Attribute** if you want to use a category attribute to determine the RM classification. Click **Select** and select a category. Then select an attribute.
  - Select **From Pattern** to select category attributes by clicking **Insert**. The values received for category attributes will be appended to the form node ID information. If the node does not exist, the document will not be migrated. If the pattern is valid and the name of existing RM Classification then the RM Classification is attached to the document.

    Important

    Do not use a comma (“,”) to separate attributes, because the comma is used to separate attributes from one another and from text.

    Do not use a colon (“:”) to separate attributes, because OpenText Content Management does not support names with colon.

- **Record Date**:
  - Select **Constant** to select a record date from the date widget for the RM classification.
  - Select **From Category Attribute** if you want to use a category attribute to determine the record date. Click **Select** and select a category. Then select an attribute.

- **Status**:
  - Select **Constant** to enter the status for the RM classification. If the status does not match an existing status for RM Classification, the document will not be migrated.
  - Select **From Category Attribute** if you want to use a category attribute to determine the status. Click **Select** and select a category. Then select an attribute.
- **Status Date**:
  - Select **Constant** to select a status date from the date widget for the RM classification.
  - Select **From Category Attribute** if you want to use a category attribute to determine the status date. Click **Select** and select a category. Then select an attribute.
- **Mark Official**:
  - Select **Constant** to click the **Mark Official** check box to mark the RM Classification for the document as official.
  - Select **From Category Attribute** if you want to use a category attribute to determine the *Mark official* state. Click **Select** and select a category. Then select an attribute.

6.1.1.4 Importing and exporting attachment declaration configurations

You can export and import attachment declaration configurations from one Content Server to another by using the Transport warehouse mechanism.

Export

On the source system with the original configuration.

To export attachment declaration configurations:

1. Click the menu for the attachment declaration to export. Select **Add to Warehouse**.
2. Click **Browse Content Server**, select a workbench, and click **Add to Warehouse**. On the next page, click **OK**.
3. Click **Enterprise > Transport Warehouse** to open the Transport Package page.

   Click the workbench to which you added the attachment declaration in the previous step. Select the item to be exported and click **Add to Transport Package**.
4. Enter a name for the new transport package and click **Add**. On the next page, click **OK**.

5. Download the transport package from the Transport package page: **Enterprise > Transport Warehouse > Transport Packages**.

Import

On the target system to which you want to transport the configuration.

To import attachment declaration configurations:

1. Copy the transport package zip file, which you downloaded from the source system, to the target system.
2. Click **Enterprise > Transport Warehouse > Transport Packages** to open the Transport package page.
3. Click **Add Item** to create a transport package. Use the zip file as **Transport Package File**. Click **Add**. On the next page, click **OK**.
4. Open the Transport Package and click **Unpack to Workbench** to extract the contents of the package to a workbench. Enter a name for a new workbench or select an existing one. Click **Unpack**. On the next page, click **OK**.
5. Open this workbench. Click **Deploy Workbench**. The objects are now imported.

Chapter 7

Manual configuration on OpenText Documentum CM

7.1 Configuration on OpenText Documentum CM server

You must modify 2 files on the OpenText Documentum CM server and run IAPI commands.

To modify the files:

1. Go to `<tomcat_path>\webapps\OTDSAuthentication\WEB-INF\classes`
2. Modify the `otdsauth.properties` file as shown in the sample below.
   - Generate the certificate by using the link given in the file.
   - Ensure you use the proper hostname and port of the respective OTDS server.

Example:

```
#Make a call to OTDS as <OTDSWS_URL>/rest/systemconfig/certificate_content
#(eg. https://otds_app_host:8443/otdsws/rest/systemconfig/certificate_content).
#Copy the content between BEGIN CERTIFICATE and END CERTIFICATE and paste it as a
single line below
certificate=MIIC2zCCAcOgAwIBAgIIS1Sppp6EMOQwDQYJKoZIhvcNAQELBQAwDzENMAs
GA1UEAwwET1REUzAeFwOyNDA5MzAwODU5MDJaFwOyNTA5MzAwODU5MDJaMA8xDTALBgNVBAMMBE9URFM
wggEiMAOGCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQCpUOmtrSzm4B/wyNNpLbmGnmiLgOO5ITFX3ot
HmvFHj9xvJd5h3KJHIE8kcAqEMsF1Gy7pc/oOFCtoblPsKOS5ozlaNw1gWvSrqMX5y3DYM26ND8p+
WzSeZa4UgNB1XEFebYmwBj2gMrtE7nPUYgOP2jzyThPcvzxc1qiA9++U47HxYq+4WmHM3zm3vk6Zdaw2
TokcNVYjXcSfpKThOkk/WPqQIp98jzkA1hGWM832AGOE14t2G9OuC4dVBydRVyWgUeu4M52LnLIyNg75v
lALNS9q5WSnFuH4OEmJnNILreL1OV8F9sn4oO4S+lT9tmOkRDC65TdRE+x9rOKjvoPpAgMBAAGjOzA5MA8
GA1UdEwEB/wQFMAMBAf8wDgYDVROPAQH/BAQDAgWgMBYGA1UdJQEB/wQMMAoGCCsGAQUFBwMBMAOGCSqGS
Ib3DQEBCwUAA4IBAQAkQyky2pK+kn9nTgbnCQouOjo6yataKOHwq5vCu3sbxOinEwutSEwAuIjNJMTUXWf
RUc8MLaHfBDXH6zOr9mbOBaXY7guQQ+UQBizygkW9N4roOjeyFF7nUjC8uiAz1zFxkEek5pxuG94VfLWAWJ
vBoIH6Ehg8jm5SvApjfqu/zVSxz3fStIjVqy6m26cO44POa5F6t+OR3qcLqdvW8IY3FxaprjhUmA1u6dzNJ
69KSa42zSPOiEXUbbIQYMMG7RkTKvgM4Qap5nhNdePOYjkO2AGhm8Qcvm1J8FFmHF/b3G4lMx4PJ5hd4V2
QMOIOqI6QCpSuC7dbGXyCNOh/NuxV
#Below is used to support multiple OTDS. Add certificate_2,certificate_3 and so on
if more OTDS need to be supported
certificate_1=

#Configure otds_app_host and otds_app_port below.
#The below REST call is used to authenticate
#username and password credential with OTDS
otds_rest_credential_url=https://xecmwinsrv54.eng-muc-test.
otxlab.net:8443/otdsws/rest/authentication/credentials

#Make this value to true if the authentication happens through OTDS but users not
synced from otds
is_hybrid=false

#Configure otds_app_host and otds_app_port below.
#The below REST call is used to authenticate OTDS ticket with the resource Id and
secretKey configured for the docbase
otds_rest_ticket_url=https://xecmwinsrv54.eng-muc-test.otxlab.net:8443/otdsws/rest/
```

```
authentication/resource/validation

#Configure otds_app_host and otds_app_port below.
#The below REST call is used to authenticate using
#Oauth2 Token obtained by passing username and password credential with OTDS
#Set this flag to true if the authentication needs to be done
#through Oauth2 and configure client_id and client_secret as well
#passauth_use_oauth2_token=false
#client_id=<client_id>
#client_secret=<client_secret>
#otds_rest_oauth2_url=http://<otds_app_host>:<otds_app_port>/otdsws/oauth2/token
#synced_user_login_name=<login_name_source>

#Configure ignore_user_auth_case to allow the OTDS users login in case-insensitive
manner.
ignore_user_auth_case = false

#Configure docbase name and its respective  resource Id and secret Key below
IN_resource_id=3f812e47-f66e-499b-bba3-72994123ec9e
IN_secretKey=rjbxF/OZTm4SCcCQTcZHZA==

#The below parameters are used to automatically refresh the certificates when
certificate roll over happens
auto_cert_refresh=false
cert_jwks_url=http://<otdsws>/oauth2/jwks
```

For more information, see *OpenText Documentum Content Management - Server Administration and Configuration Guide (EDCCS-AGD)*.

3. Navigate to `<tomcat_path>/webapps/D2-Smartview/WEB_INF/classes`.

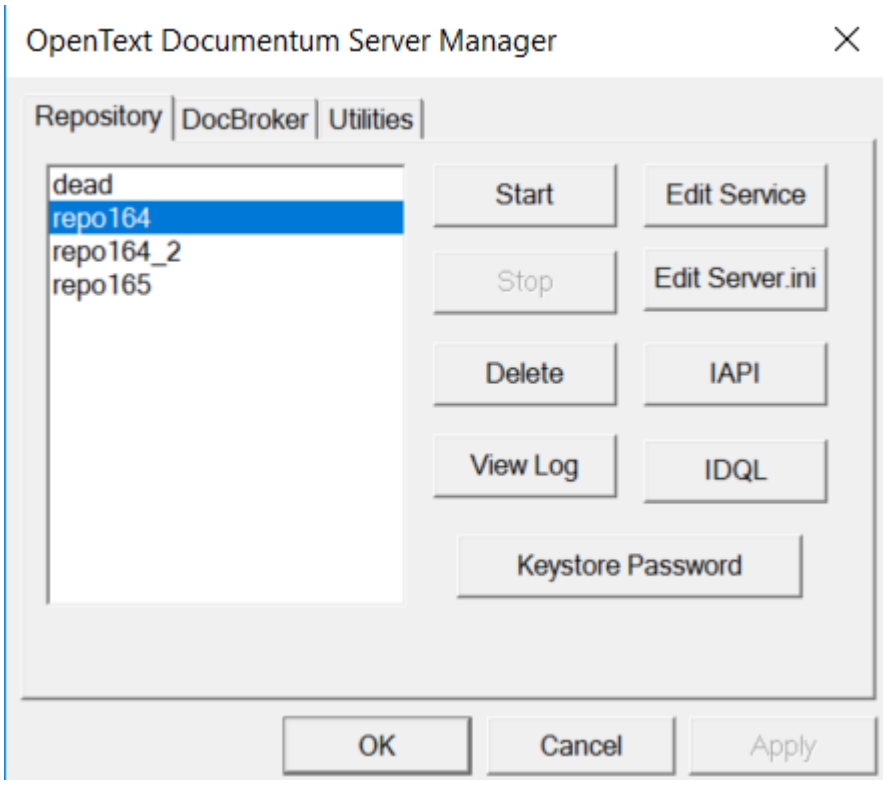
4. Modify the `rest_api_runtime.properties` file as shown in the sample below.

```
# Copyright 2019 Open Text. All Rights Reserved
#
# Sets user defined runtime properties below. Settings in this file override the
default ones defined in specific
# libraries. Please refer to file 'rest-api-runtime.properties.template' for
available runtime configurations.

# Custom config location to initialize D2 rest java configuration
rest.context.config.location=com.emc.d2.rest.context.jc,com.opentext.d2.rest.context
.jc

# Url patterns of anonymous resources.
rest.security.anonymous.url.patterns=/static/**, /ui*/**, /docs, /docs/, /d2-
configurations/**

# Authentication scheme.
#rest.security.auth.mode=basic-ct
rest.security.auth.mode=ct-otds_ticket-otds_token
rest.security.realm.name=com.documentum.rest
rest.security.otds.login.url=https://xecmwinsrv50.otxlab.net:8443/otdsws/login?
response_type=token&
client_id=dm_test_client

#otk
#rest.security.otds.login.url=https://otds.xecmdocu.cfcr-lab.bp-paas.otxlab.net/
otdsws/login?response_type=token&
client_id=dm_test_client
# Empty logout success URL so that server returns no content.
#UI takes care of honoring D2 Config for the same and not controlled via REST
rest.security.logout.success.url=

# Ensure that client token cookie is scoped at each repository level
rest.security.client.token.cookie.scoped=true

# Ensure that client token cookie is a session cookie which gets destroyed when
browser is closed
```

```
rest.security.client.token.session.cookie=true

# Specifies whether to disable the X-Frame-Options header.
# Setting this to true to allow Brava Viewer to be loaded in iframe.
rest.security.headers.x_frame_options.disabled=true

# Specifies the X-Frames-Options policy. Setting this to SAMEORIGIN to allow Brava
Viewer to be loaded in iframe.
rest.security.headers.x_frame_options.policy=SAMEORIGIN

# Size, in bytes, of the smallest response that will be compressed.
rest.compression.threshold=1024

# Enables relative URIs in response links.
rest.use.relative.url=true

# Callback handler URL after Core auth is complete
rest.d2.core.oauth2.callback.uri=/ui/core-login-cb

# Provides a facility to disallow dql execution on the configured documentum type
objects.
# It is recommended to use this property to avoid DQL related security concerns on
either documentum config
# objects (such as docbase config, serve config, bocs config etc) or the types on
which an acl can not be defined.
# This property disallows DQL execution on the configured types only for the users
who are neither having admin
# nor super user privileges.

dql.disallowed.types=dmr_content,dm_relation,dm_acs_config,dm_cont_transfer_config,d
m_network_location_map,\

dm_cache_config,dmc_mq_config,dm_bocs_config,dm_dms_config,dm_docbase_config,dm_serv
er_config,\

dm_user,dm_acl,dm_role,dm_group,dmr_containment,dm_assembly,dm_tasks_all,dmi_package
,\

dmi_queue_item,dm_format,dm_mount_point,dm_store,dm_type,dm_process,dm_workflow,dmi_
audit_attrs,\

dm_java,dm_basic,dm_public_key_certificate,dmi_type_info,dmc_java_library,dmi_change
_record,\

dm_func_expr,dm_location,dmi_dd_attr_info,dm_relation_ssa_policy,dm_aggr_domain,dmi_
change_record,\

dm_validation_descriptor,dm_client_registration,dm_replica_catalog,dmi_wf_attachment
,dmi_registry,\
                     dmc_aspect_type,dm_fulltext_index,dm_lifecycle,dmc_java_library

# Callback handler URL after digital signature authentication is complete
rest.d2.digital.sign.callback.uri=/ui/oauth2-login-cb
rest.security.headers.csp.allowed_frame_ancestors=self,
https://xecmwinsrv02.otxlab.net,https://10.145.88.83:8443,https://
xecmwinsrv50.otxlab.net,
https://otcs.xecmdocu.cfcr-lab.bp-paas.otxlab.net/,https://
saphtmlphtmlviewer.sap.com

rest.cors.enabled=false
rest.cors.exposed.headers=Location, Accept-Ranges, Content-Encoding, Content-
Disposition, Content-Length,
Content-Range, Authorization, DOCUMENTUM-CSRF-HEADER-NAME
rest.security.csrf.check.disabled.user.agents=Poco
rest.security.client.token.cookie.samesite=None
#rest.security.headers.csp.allowed_frame_ancestors=https://
xecmwinsrv50.otxlab.net,self
```

To run IAPI commands:

1. Open OpenText Documentum CM server manager from start or location: `C:\Documentum\product\<version>\install (serverMgr.exe)`.



2. Select the required repository and click **IAPI**.
3. Enter the following commands:
   - retrieve,c,dm_server_config
   - append,c,l,app_server_name
   - OTDSAuthentication
   - append,c,l,app_server_uri
   - `http://<hostname>:<port>/OTDSAuthentication/servlet/authenticate` Adapt this URL according to your OpenText Documentum CM server.
   - save,c,l
4. Restart the OpenText Documentum CM services: DocBroker, DocBase and JMS.

7.2 Configuration on Documentum Administrator (DA)

Documentum Administrator (DA) performs the following administrator tasks on the repositories of OpenText Documentum CM server.

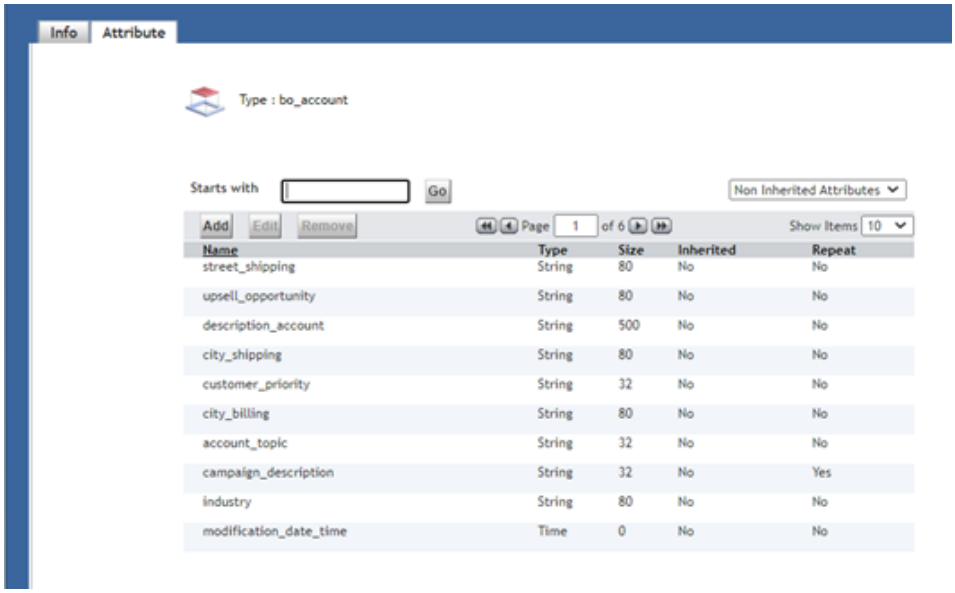
Types can be used to map a relevant business object type to an attachment declaration. You can use the Type attributes to map the Documentum with the Content Server attributes, such as, BO type and Attachment declaration attributes.

Prerequisite:

- Create the **xecm_document** custom type with super type as dm_document.

To create a Type:

1. Navigate to **Types**, and then click **File** > **New** > **Type** to create a new type.
2. Add a **Type Name**.
3. Click **Select Super Type** and select **xecm_workspace** for BO Type equivalent types and select **xecm_document** for Attachments Declarations equivalent type.
4. On the **Attribute** tab, add all attributes of your individual business object and click **Save**.



The Type is created in OpenText Documentum CM server and its attributes are used for mapping it with Content Server attributes from the business objects type configurations page.

You must create Types for all business object types and attachment declarations available in Content Server.

For these attributes to be visible in the business objects type configurations, you must map this Type should be first to a folder structure import in Client Configuration and give the necessary permissions.

7.3 Configuration on Client Configuration

Client Configuration is used for D2 Smartview configurations. At first time login, Client Configuration needs to be configured. The configurations can be imported through a ZIP file. See also "Importing and exporting configuration in OpenText Documentum CM" on page 213.

You can manually create Contexts and Folder structure import.

Contexts are present on D2-Matrix as columns and they are usually assigned with some group in OpenText Documentum CM server, which in-turn has the users' memberships.

To create a Context:

1. Click **Go to** > **Contexts**.
2. Click **New** to create a new Context.
3. Enter any **Name** and include the required groups. Add users to these groups from DA if required.
4. Click **Save**.

To create the Folder structure import:

1. Click **Go to** > **Folder structure import**.
2. Click **New** to create a new Folder structure import.
3. Provide any **Name** and **Creation Profile**.
4. As **Root folder type** enter the type created above or any Type in OpenText Documentum CM Server whose attributes will be used for Content Server attributes mapping.
5. Click **Save**.
6. Go back to the matrix and check the above created Folder structure import row pointing to the required Context.
7. Click **Tools** > **Refresh cache** and wait for few minutes for the changes to get reflected.

Part 2

Configuring user management and authentication

This part covers user management related issues such as user management, authentication and authorizations.

Chapter 8

Basic concepts

In your user management scenario, you have to deal with different user types in the involved systems, for example Salesforce users, Content Server users, and OpenText Directory Services (OTDS) users.

In OpenText Content Management for Salesforce, OTDS plays a central role, as the Content Server users are provided by OTDS.

8.1 Single sign-on

Single sign-on means that users can sign-on into one application and then access the other application(s) without being required to enter one's credentials again. This means that users can log into Content Server and then access Salesforce without re-entering credentials and *vice versa*.

True single sign-on (SSO) is limited to methods supported by both the leading system and Content Server. With Salesforce as the leading system you have several single sign-on options. Salesforce supports both OAuth 2.0 and SAML (Security Assertion Markup Language) as authentication/authorization methods.

8.1.1 Directory Services are provided by Salesforce

Directory Services holds the users that are also used to access Content Server. Salesforce can provide these users to a partition in OTDS using a *user synchronization provider*. For more information, see "Defining a user synchronization provider" on page 118.

Authentication can be provided by Salesforce. For more information, see "Configuring OAuth 2.0 single sign-on" on page 129 and "Configuring SAML single sign-on" on page 139.

8.1.2 Directory Services are provided by other source

Directory Services users can be synchronized from any supported identity provider, such as Active Directory. This scenario is not described in detail here.

These users must be mapped to Salesforce users. For this, you must define a *user name mapping provider*. For more information, see "Defining a user name mapping provider" on page 122.

8.2 User management with Salesforce

Single sign-on with Salesforce and OTDS

Salesforce can synchronize its users to a partition in OpenText. Authentication is provided by an authentication handler that accesses Salesforce.

Salesforce supports both OAuth 2.0 and SAML as authentication/authorization methods. This guide describes both methods.

For both methods you must create a *connected app* corresponding to the authentication type. The app contains the configuration necessary for Salesforce to authenticate the user and communicate with the requesting application, in our case, OTDS.

Matching Salesforce users with OTDS users from other sources

If the Directory Services users are not provided by Salesforce, but by other sources, they need to be matched with the corresponding Salesforce user using a *user name mapping provider*. For more information, see "Defining a user name mapping provider" on page 122.

8.3 User management with (OTDS)

OTDS is a repository of user information and a collection of services to manage this user information. OTDS has the only view of every user in the OpenText Content Management and is the only service aware of all of the resources and deployed components in your OpenText Content Management installation.

OTDS offers synchronization and authentication features that can help your organization save time and administrative overhead by enabling you to maintain user information for use by multiple OpenText applications in one directory. For example, you can base your Content Server user information on the user information already contained in your Salesforce system.

Salesforce can push the user information to OTDS. OTDS then pushes these users and groups to your Content Server automatically and incrementally. This synchronization of user and group data across OpenText components allows OTDS to enable single sign on and secure access to all OpenText components.

For more information, see *OpenText Directory Services - Installation and Administration Guide (OTDS-IWC)*.

OTDS basics

Identity Provider

An identity provider is a source of user and group data that can be imported into OTDS. To import this data into OTDS, you must create a synchronized user partition that represents this source.

Example: Salesforce provides the user data either as identity provider using SAML or OAuth 2.0. Alternatively, users could come from a different identity provider such as Active Directory.

Partitions

Partitions are self-contained copies of user information that allow you to organize your users into a structured hierarchy of users, groups and organizational units. A user partition in OTDS is represented by a unique name. You can have multiple user partitions in OTDS. You can also have non-synchronized user partitions with manually created users, for example for testing purposes.

Example: The user data from Salesforce is pushed into a user partition.

Resources

Resources represent multi-user systems which users can access. A resource may also maintain its own internal users and groups. OTDS can be configured to push user and group information from the identity provider to the resource. Each resource in OTDS is represented by a unique name and resource identifier. When you create a resource, OTDS automatically creates an access role allowing the user who created the resource to access it.

Example: In an OpenText Content Management for Salesforce scenario, Content Server is a resource in OTDS.

OTDS Connectors

OTDS connectors, or push connectors, are components of OTDS that update user and group data in resources so that they remain consistent with the internal user data in Directory Services. Every synchronized resource has a specific connector.

Example: An OTDS connector updates the user information in Content Server.

Access Roles

Access roles are used to control which resources users can access. You can assign access roles to users, groups, organizational units, or user partitions. An access role is a way of identifying users who have the same sign in privileges. For example, you might create an `Access to Content Server` access role to give your development group sign in privileges to Content Server.

Example: In an OpenText Content Management for Salesforce scenario, you need to create an access role for Content Server and to assign single users, groups, or partitions to this role.

Authentication and Single Sign On

OTDS Authentication Services are a set of services and components that provide authentication and single sign on (SSO) services. A user is required to sign in only once per session. After that, the single sign-on mechanism ensures that the same user is not asked to sign in to any subsequent OpenText components that use OTDS when those components are launched or visited.

Authentication Handlers

Since users will need to authenticate through a variety of mechanisms, no single authentication handler can be applied for any single user in all circumstances.

For example, a user might use Kerberos from the desktop, but the next day may use credentials-based authentication through a Web site, and the next may use SAP token-based authentication from within a SAP portal.

OTDS provides a hierarchy of authentication handlers that are sequentially evaluated until a successful authentication result is reported by one of them. Global authentication handlers are automatically created by OTDS. A local credentials-based authentication handler is provided when a user partition is created. Additional authentication handlers can also be created and applied locally to individual user partitions or globally to all user partitions. You can also prioritize the use of each authentication handler.

Example: In an OpenText Content Management for Salesforce scenario, you use the OAuth 2.0 authentication handler or the SAML 2.0 authentication handler.

8.4 Setting up authentication and managing user information

The general procedure for setting up authentication and managing user information is as follows:

1. Configuring the OpenText Content Management for Salesforce Enabler application for authentication between Salesforce and Content Server:

   a. Create and configure the OAuth client for Salesforce in OTDS.
   For details, see the procedure for creating an OAuth client in the documentation of your OTDS version, for example, Section 10.1 “Creating an OAuth client” in *OpenText Directory Services - Installation and Administration Guide (OTDS-IWC)*.

   Notes

   - The OAuth client must be part of the **otdsadmins** group.
   - For OTDS version 16.4.2 and later, you must allow impersonation for the OAuth client in the **Impersonation Settings**. For details, see the procedure in the documentation of your OTDS version, for example, Section 10.3 “Editing impersonation settings” in *OpenText Directory Services - Installation and Administration Guide (OTDS-IWC)*.

   b. Add the OAuth client ID, OAuth client secret, the OAuth Authorization URL and the OAuth Token URL to the Salesforce *System Configuration* page. For details, see “Defining security settings” on page 187.

2. If OTDS is *not* synchronizing users from a directory, then user synchronization is needed to push Salesforce users to OTDS. For details, see “Defining a user synchronization provider” on page 118.

3. Setting up single sign-on (SSO) for users between Salesforce and Content Server. For details, see “Configuring OAuth 2.0 single sign-on“ on page 129 or “Configuring SAML single sign-on“ on page 139.

4. Setting up user name mapping providers to translate Salesforce user names to Content Server user name. For details, see "Defining a user name mapping provider" on page 122.
5. Synchronize the user name mapping information for caching the user name mapping information. For details, see "Defining a user name mapping synchronization" on page 124.

Chapter 9

Configuring OTDS

Prerequisites Typically, you use the OTDS version provided with the master setup. For OAuth, patch 16.0.1 is required. If you want to use an older version, the minimum required OTDS version is 10.5.0 patch 9.

9.1 Configuring a resource for OpenText Documentum CM

An OTDS resource represents an enterprise component. You create a resource for OpenText Documentum CM.

After creating the resource you make its ID available for the respective component.

To create and configure a resource in OTDS:

1. Start OTDS Administration in a web browser. Open `http://<fully_qualified_domain_name_of_server>:<port_number>/otds-admin/` and sign in as `otadmin@otds.admin`.

2. On the OTDS Administration menu, click **Resources** and then click **Add** to create a resource for OpenText Documentum CM. For more information, see Section 5.3.1.5 "Configuring a synchronized resource for OpenText Content Management" in *OpenText Directory Services - Installation and Administration Guide (OTDS-IWC)*.

3. Define the following settings:

   - On the **General** page, enter any Display name.
   - On the **Synchronization** page, select the **User and group synchronization** check box. From the **Synchronization connector** list, select **REST (Generic)**.

     Select the **Create users and groups** and the **Modify users and groups** check boxes.
   - On the **Connection Information** page, enter the following:

     Base URL: Enter the URL as `http://<documentum_server_hostname>:9080/dmotdsrest`

     Username: Enter a name in the format: `<repo name>\Administrator`

     Password: Click **Edit password** and enter the Administrator password. Then click **Test connection** to check the connection.

4. For **User Attribute Mappings** and **Group Attribute Mappings**, keep the defaults. Click **Save** to create the resource.

5. Activate the resource by using the following link: `http://<otds_hostname>:<port>/otdsws/api/index.html?rest#/resources/activateResource_1`

6. After navigating to the link, click **Try it out** as shown below. Enter the Resource ID of the resource created, and click **Execute**.

7. Confirm that the status of execution is successful and note down the secret key.

8. Verify the activation of the resource from OTDS.

9.2 Configuring access roles

To assign resources to access roles:

1. Start OTDS Administration in a web browser. Open `http://<fully_qualified_domain_name_of_server>:<port_number>/otds-admin/` and sign in as `otadmin@otds.admin`.

2. On the OTDS Administration menu, click **Access Roles**.

3. Add the required partition to the group and include the group by using Actions.

9.3 Configuring the OAuth client

To configure the OAuth client:

1. Start OTDS Administration in a web browser. Open `http://<fully_qualified_domain_name_of_server>:<port_number>/otds-admin/` and sign in as `otadmin@otds.admin`.

2. On the OTDS Administration menu, click **OAuth Clients**.

3. Click **Add**, and on the **General** page enter the configuration as follows:

   - **Client ID**; Enter any name.
   - Description: Enter a description, for example, *OAuth Client for Documentum*
   - **Confidential**: Select the check box.
   - **Sign out URL**: Enter an URL.
   - **Sign out Method**: Select **GET**.

4. For **User Partition** and **Advanced**, keep the defaults.

5. On the **Redirect URLs** page, add the OpenText Documentum CM Smart View URL as `http://<hostname>:<port>/D2-Smartview`

6. Click **Save**.

Chapter 10

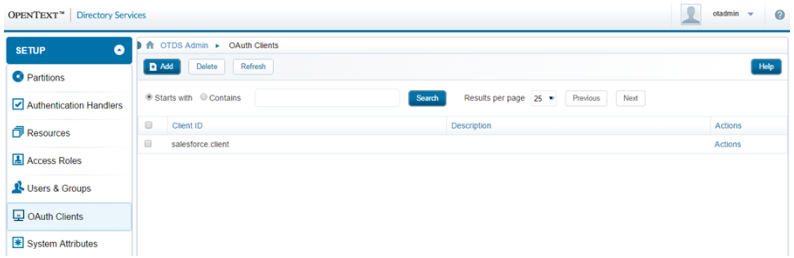
Configuring API authentication

OpenText Content Management for Salesforce uses OAuth for authorizing API users with OTDS and Content Server. OAuth authorization servers create individual *clients* for the various applications needing authorization. OTDS can function as an OAuth authorization server. The setup is as follows:

10.1 Configuring the OAuth client on OTDS 16

To configure the OAuth client on OTDS 16:

1. Log on to OTDS as an administrator.
2. On the OTDS Administration menu, click **OAuth Clients**.



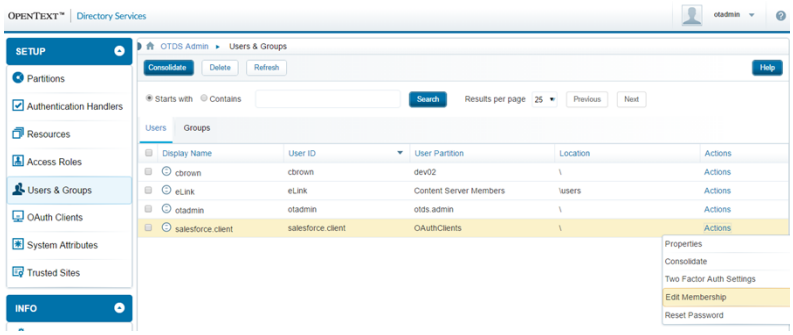
3. Add a client for Salesforce:
   - **Client ID**: Enter anything you like.
   - **Confidential**: Select the check box.
   - **Redirect URLs**: If you are not configuring Salesforce global search, you do not need to configure any redirect URLs as this client will be used only for an OAuth 2.0 client credentials grant.
4. Click **Save**. The client's *secret key* is displayed.
5. Copy the generated client secret; it must be entered into the *OAuth Client Secret* field in the Salesforce *System Configuration* page.

Retrieving secret key

It is not possible to retrieve the secret key once the dialog is dismissed. To get a new key, you can click the client's **Actions** menu and select **Properties**. Edit the properties to clear the **Confidential** check box and save the record. Do this again selecting the check box once more. When you save the record the second time, OTDS will create and display a new secret key for the client which you may copy and enter in the Salesforce system configuration.

6. Only required for OTDS version 16.4.2 and later: On the **OAuth Clients** tab, click **Actions**, and select **Impersonation Settings** to allow the client to impersonate users.

7. Click the **Users and Groups** tab, find the OAuth client, click **Actions**, and select **Edit Membership**.



8. Add the user to the **otdsadmins** group.

10.2 Configuring Salesforce

10.2.1 System configuration

There are a number of entries on the **Administration > System Configuration** page that must be filled in for the API to properly access Content Server:

Salesforce External System ID
The ID configured for this Salesforce instance in *Enterprise Application Integration > Configure Connections to External Systems*.

Salesforce Base URL
The base URL of the Salesforce instance. This URL may be copied from the browser when in the Salesforce *Sales* application.

OAuth Client ID
Client ID of the OAuth client created in OTDS for the OpenText Content Management for Salesforce Enabler application. This parameter is required for the Enabler to authenticate with OpenText services.

OAuth Client Secret
Client secret for the OAuth client created in OTDS for the OpenText Content Management for Salesforce Enabler application. For OTDS 16 this is the secret key generated by OTDS when the client was saved; for OTDS 10.5 this is the password you specified when you created the client. This parameter is required for the Enabler to authenticate with OpenText services.

OAuth Authorization URL
OAuth authorization URL endpoint for OTDS; this is always `https://<host>[:<port>]/otdsws/login`, where *<host>* and *<port>* are the host and port

number of the Tomcat instance hosting OTDS. Note that the *<port>* is optional if Tomcat is listening on the standard HTTPS port (443). This parameter is required for the Enabler to authenticate with OpenText services.

OAuth Token URL
The OAuth token URL endpoint for OTDS. This field is currently not used, but for future use is normally set to the same endpoint specified for the OAuth Authorization URL.

OTDS Administrator User Name
An OTDS administrator user name. This is not required to be `otadmin@otds.admin`, but it must be a user with administrator privileges.

OTDS Content Server Resource __NAME__ Attribute
The value of the __NAME__ attribute for the Content Server resource configured in OTDS.

OTDS REST Web Service URL
The URL of the OTDS REST web service; this is always `https://<host>:<port>/otdsws/rest/`. The trailing '/' is required.

Content Server Base URL
The base URL for Content Server; this is always `https://<host>:<port>`

Content Server CGI Path
The CGI path for Content Server; this is usually `/OTCS/cs.exe`.

Content Server Support Path
The CGI path for Content Server; this is usually `/img`.

Content Server OTDS Resource ID
The value of the resource ID for Content Server as configured in OTDS.

Content Server User Name
The name of a Content Server user. This is not required to be `otadmin@otds.admin`, but it must be a user with permissions to create and update workspaces.

Content Services Web Service URL
The URL of the content services web service; this is always `https://<host>:<port>/otsapxecm/services/ECMLink?wsdl`

Member Service URL
The URL of the member service web service in Content Web Services; this is always `https://<host>:<port>/cws/services/MemberService?wsdl`.

10.2.2 Name mapper configuration

Name mappers are used by the API to find of the Salesforce user's OTDS and Content Server user names. OpenText provides two name mapper implementations:

- **Simple name mapper** – The simple name mapper is used when the users' Salesforce information may be converted to their OTDS and Content Server user names by means of a simple transformation. This is often the case when both Salesforce and OTDS are connected to the same enterprise directory service.
- **OTDS name mapper** – The OTDS name mapper is used when the users' Salesforce information may *not* be converted to their OTDS and Content Server user names by means of a simple transformation and must instead be retrieved from OTDS. The mapper searches for the user's record in OTDS and, if found, retrieves the user's OTDS and Content Server user names from the record.

If you define more than one name mapper, you should specify the order in which they are processed. This is important because if a name mapper cannot find the user, then processing continues with the next mapper until either the user is found or no more mappers are available.

Note: The OTDS name mapper is the only standard mapper which may not find the user; the simple name mapper always finds a user.

You find the name mapper configuration using the **Administration** tab of the *Content Services by OpenText* application under **Synchronization > User Name Mapping Providers** . For details about how to create name mappers, see "Defining a user name mapping provider" on page 122.

Chapter 11

Configuring user synchronization in Salesforce

The user synchronization settings define the following:

- The user synchronization provider defines how the users are pushed to OTDS to a partition. You can schedule it. This is relevant if the OTDS users are provided by Salesforce or if you want to add Salesforce data to users already in a synchronized partition.
- The user name mapping provider defines how Salesforce users are mapped to Content Server users and OTDS users. It retrieves the correct user name from OTDS with which the users access workspaces. This is relevant in all user management scenarios. You need at least one user name mapping provider.
- The mapping between Salesforce users and Content Server users is cached in a Salesforce custom object. With user name mapping synchronization, you can schedule, how often this cache is refreshed.
- Real time synchronization can be enabled or disabled. When it is enabled, changes to user records and new user records are pushed to OTDS using the user synchronization provider.

OTDS field mapping

For the Enabler to find the OTDS user record for a Salesforce user, some unique value from the Salesforcerecord must be present in the corresponding OTDS record. Often, this is the Salesforce user's name or E-mail address. This value is the key used to look up the user's OTDS record.

The name of the OTDS field containing this key is entered into the user synchronization provider and the user name mapper provider configurations in the **OTDS Identity Attribute** or **OTDS Principal Attribute** entries respectively.

Certain OTDS fields are indexed; these include the user identification (`uid`) and `mail` fields. Other fields, notably the `oTExtraAttrn` fields, are not indexed. Resolving the OTDS record for a Salesforce user is much faster when the key is stored in an indexed field. Therefore, the key value should be stored in an indexed field whenever possible. Use the `mail` field for E-mail addresses and the `uid` field if possible for other key types (for example, Salesforce user names, or federation IDs).

If the key must be stored in an unindexed field, for example one of the `oTExtraAttrn` fields, a custom index may be created on that field. Please contact OpenText Support for assistance.

11.1 Defining a user synchronization provider

The user synchronization provider defines how the users are pushed to OTDS to a partition. You can schedule it. This is relevant if the OTDS users are provided by Salesforce or if you want to add Salesforce data to users already in a synchronized partition.

If you have only one user partition in OTDS, you can create a single user synchronization provider. If you have several user partition, you need a user synchronization provider for each partition. Typically, you create a standard user synchronization provider.

Important
In OTDS, you need a partition to which the users can be provided. For detailed information about defining the partition, see *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*.

To create a standard user synchronization provider:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Synchronization > User Synchronization Providers**.
5. Click **Add New**.
6. In the **User Synchronization Provider** section, enter the following:

Tip: For some of the fields you need the Salesforce user field names. You can retrieve the field names from **Setup > Build > Customize > Users > Fields**.

Type
Select **Standard**.

Order
If you define more than one provider, you can define the order in which they are executed. The provider with the lowest number is executed first.

This is only relevant for real time synchronization that calls the providers in the defined order. It is not relevant for the scheduled execution.

Name
Required; Type the name for the provider. The name must be unique within all providers that are configured in the *User Synchronization* tab, for example, user synchronization provider, user name mapping provider, and user name mapping synchronization providers.

Password Generation Policy

Define how the password is generated. This password is used for the created OTDS user.

- **Random**: Select to create a random password.

  Note: Passwords can be viewed under logs under the **Administration** tab **Log > Logs**. Enter `password` in the **Source** field. Passwords are shown under messages for each user name.

- **Field Expression**: Enter a field expression in the **Password Generator** field.

  `[UserName]` evaluates the value of the `username` field.

  `[UserName]/ldap` evaluates of the `username` field and appends `/ldap` at the end.

  `[title]` evaluates of the `title` column.

  For more information about field expressions in general, see "Field expressions" on page 221

  You can also provide a constant password, for example `welcome2` in the **Password Generator** field.

OTDS Partition

Partition in which the user is created in OTDS.

OTDS Identity Attribute

Required; Enter the name of the OTDS attribute that contains the data identifying the corresponding user in Salesforce. The attribute is used to identify the user uniquely in OTDS. This attribute must appear in the attribute mapping section. Its value is used to look up the user's record in OTDS. Available attributes are for example `name` or `mail`. For details, see also OTDS field mapping on page 117.

Active

Select to activate the provider.

Add User, Update User, Delete User

Select which actions to perform when pushing user records to OTDS.

Delete User check box

Be careful when you select **Delete User**. This option deletes all users that are not in Salesforce from the specified partition in OTDS when you execute the user synchronization provider.

If the **Delete User** check box is selected, all users are read from OTDS. Operation will fail if there are a large number of users in the OTDS partition. In that case, you need to clear the **Delete User** check box so that the Salesforce users can be created and updated even though no users can be deleted from OTDS.

Batch Size
Specifies the number of user records to process at a time when running the provider. This allows you to tune the processing to stay within Salesforce's transaction limits.

Is Scheduled
Select this check box to schedule the user synchronization provider. Click **Configure** and define the schedule.

7. You can filter users before synchronizing them to OTDS. If you do not define a filter, all user are synchronized.

   For example, you want to add users in department 1 to one partition and users in a second department to a different partition. The filter for the administrator users would then be `Department=1`.

Users Table (sObject)
Select the table where the user information is stored. Default is `User`.

Field
From the list, select a field of the object for the query. You can also search for fields. Compound type fields are not supported (for example: Address type field).

Salesforce Shield Platform Encryption

If you have enabled the Salesforce Shield Platform Encryption, data at rest in the Salesforce database is encrypted. You cannot use an encrypted field in the business object selection criteria. The underlying SOQL engine cannot search encrypted data and any conditional expression for such a field will never match.

Operator
Select an operator from the list for each field. The default is `equals`.

Value/Function
Select **Value** or **Function** as value type. The default is **Value**. For **Value**, provide free text as value. For date/time fields, select **Function**, and select a function from the list as value.

Add condition
You can add up to 8 conditions to build a soql query.

Filter Logic
Optional. You can provide any custom logic. A soql query will be created automatically based on the filter logic provided here. By default, the query is built with AND as logical operator for all expressions. It supports AND/OR/NOT as operators.

Clear All
Click to delete all conditions and filter logic.

Test
Click to check how many objects are in the query result.

8. You can map a Salesforce value in the user record to an OTDS attribute. The defined Salesforce value is then added as value to the OTDS attribute. To define a field-expression based mapping:

   a. In the **Attribute Mappings** section, click **Add**.
   b. In the **OTDS Attribute Name** field, enter the name of the OTDS attribute that you want to fill with a value from the Salesforce field.
   c. In the **Mapping Type** field, select **Field Expression**.
   d. In the **Salesforce Value** field, define the field expression that creates the value.

   Note: The field expression for the value assigned to the **OTDS Attribute Name** field specified above should consist of a single field. OpenText recommends that you use either `[UserName]` or `[Email]`.

   - `[UserName]` evaluates the value of the `username` field.
   - `[UserName]/ldap` evaluates of the `username` field and appends `/ldap` at the end.
   - `[title]` evaluates of the `title` column.

   For more information about field expressions in general, see "Field expressions" on page 221

   Example: To write the value of the cell phone number (field `[MobilePhone]`) to `otMobile`, enter the following:

   - OTDS attribute name: `otMobile`
   - Mapping type: Field Expression.
   - Salesforce value: `[MobilePhone]`

   Note: You can also create a custom attribute mapping. In this case, you must provide initialization parameters. For more information, contact OpenText.

9. To delete an attribute mapping, click **Delete**.
10. Click **Save**.
11. To synchronize the users, in the list of user synchronization providers, click **Execute** for the respective entry.

   Important
   If you selected **Delete User** in the settings, all users that are not in Salesforce are deleted from the specified partition in OTDS.

To test the user synchronization provider:

1. Click **Test**.

2. In the **Testing** window, you see the query results. and the attribute mapping results.
3. To add or update the first user that matches the criteria to the defined users partition in OTDS, click **Add Now**.

11.2 Defining a user name mapping provider

The user name mapping provider defines how Salesforce users are mapped to Content Server users and OTDS users. It retrieves the correct user name from OTDS with which the users access workspaces. This is relevant in all user management scenarios. You need at least one user name mapping provider.

To define a user name mapping provider:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Synchronization > User Name Mapping Providers**.
5. Click **Add New**.
6. To create a standard user name mapping provider, define the following settings:

Tip: For some of the fields you need the Salesforce user field names. You can retrieve the field names from **Setup > Build > Customize > Users > Fields**.

Type
Select **Standard**.

Order
If you define more than one name mapper, you can define the order in which they are executed. The name mapper with the lowest number is executed first.

Note: The simple name mapper will always “find” the user so it should be the last one in the mapper list. For the same reason, defining multiple simple name mappers is useless, because the first processed will succeed and the rest will not be evaluated.

Name
Required; Type the name for the provider. The name must be unique within all providers that are configured under *Administration > Synchronization*, for example, user synchronization provider, user name mapping provider, and user name mapping synchronization providers.

Class

Select the class.

SimpleUserNameMappingProvider: The simple name mapper is used when the users' Salesforce information may be converted to their OTDS and Content Server user names by means of a simple transformation. This is often the case when both Salesforce and OTDS are connected to the same enterprise directory service.

Content Server User Name Expression

Enter a field expression for creating the user's Content Server user name, for example `[UserName]`. The expression should consist of a single field. OpenText recommends that you use either `[Username]` or `[Email]`.

For more information about field expressions in general, see "Field expressions" on page 221

OTDS User Id Expression

Enter a field expression that retrieves the OTDS user ID, for example `[UserName]@salesforce`. This could also be an additional field defined for the OTDS user ID in Salesforce, for example `otdsUserName__c`.

For more information about field expressions in general, see "Field expressions" on page 221

OtdsUserNameMappingProvider: The OTDS name mapper is used when the users' Salesforce information may *not* be converted to their OTDS and Content Server user names by means of a simple transformation and must instead be retrieved from OTDS. The mapper searches for the user's record in OTDS and, if found, retrieves the user's OTDS and Content Server user names from the record.

OTDS Partition Name

Enter the name of the user partition from which the user should be retrieved.

OTDS Principal Attribute

Enter the authentication principal attribute that is defined in the authentication handler that handles the request, for example `oTExtraAttr1`. For details, see also OTDS field mapping on page 117.

Salesforce Principal Attribute (Field Expression)

Enter the field expression for the field in the Salesforce object which uniquely identifies the user. The expression should consist of a single field. OpenText recommends that you use either `[UserName]` or `[Email]`. If a user synchronization provider is defined for this partition, this is the same field specified for the value mapped to the **OTDS Identity Attribute** field in that configuration.

For more information about field expressions in general, see "Field expressions" on page 221

OTDS Content Server Resource _NAME_ Attribute
The attribute in the user's OTDS record which contains the user's Content Server user name. This attribute is defined in the OTDS resource for Content Server and was entered into the System Configuration page. It is displayed here for informational purposes, but may not be changed.

Active
Select the check box to activate the provider.

7. Click **Save**.

To test the provider:

1. Click **Test**.
2. In the **Testing** window, you see the resulting OTDS user name and Content Server names for the specified user. The user is retrieved by a query.
3. If you want to test a different user, enter it in the field and press the **TAB** key.

   Then you see the resulting names for this user.

11.3 Defining a user name mapping synchronization

The mapping between Salesforce users and Content Server users is cached in a Salesforce custom object. With user name mapping synchronization, you can schedule, how often this cache is refreshed.

Due to Salesforce limitations on the number of callouts allowed in a single transaction, OpenText Content Management for Salesforce caches the mapping between the users' Salesforce information and their OTDS information. A user's information in this table is populated the first time this information is requested from OTDS, but it is much more efficient to do an initial build of the cache before creating or updating workspaces. You may also want to refresh the cache if, for example, a large number of new users are added to Salesforce or to OTDS, or if there is some other concern the cache might be out of date. In such cases, the cache may be synchronized immediately or scheduled for synchronization at a later time.

To define a user name mapping synchronization:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Synchronization > User Name Mapping Synchronization**
5. Click **Add New**.
6. Define the following settings:

Order
If you define more than one mapping synchronization, you can define the order in which they are executed. The mapping synchronization with the lowest number is executed first.

Name
Required; Type the name for the provider. The name must be unique within all providers that are configured under *Administration* > *Synchronization*, for example, user synchronization provider, user name mapping provider, and user name mapping synchronization providers.

Batch Size
Specifies the number of user records to process at a time when running the synchronization. This allows you to tune the processing to stay within Salesforce transaction limits.

Is Scheduled
Select the check box to activate the schedule for refreshing the cache. Click **Configure** and define the schedule.

Users Table (sObject)
Select the table where the user information is stored. Default is `User`.

Filter Condition
You can use conditions to filter the users before synchronizing them to Directory Services. Default is Active = true. You may add more filter conditions and connect the with logical operators, for example isActive=true AND Department=1.

Click **Test** to check if the filter condition is valid.

7. Click **Save**.

11.4 Configuring group synchronization in Salesforce

Group synchronization specifies how global collections of users in Salesforce are synchronized to OpenText Content Management user groups in Content Server.

The Salesforce collections include user profiles, permission sets, internal/external users, public groups, or your own custom collections. You can define for each of these collections how they are synchronized.

To create group synchronization:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Group Synchronization Mapping**.
5. Specify the group synchronization:

- In the **Profile** page, in the **Salesforce Profile Name** column, select the profile names. In the **Content Services Group Name** column, enter the OpenText Content Management user groups that you want to map to each other.
- In the **Permission Set** page, in the **Salesforce Group Name** column, select the Salesforce permission sets. In the **Content Services Group Name** column, enter the OpenText Content Management user group that you want to map to each other.
- In the **Role** page, in the **Salesforce Group Name** column, select the Salesforce roles. In the **Content Services Group Name** column, enter the OpenText Content Management user group that you want to map to each other.
- In the **Internal Users** page, in the **Salesforce Group Name** column, select the Salesforce *Internal Users* group. In the **Content Services Group Name** column, enter the OpenText Content Management user group that you want to map to each other.
- In the **External Users** page, in the **Salesforce Group Name** column, select the Salesforce *External Users* group. In the **Content Services Group Name** column, enter the OpenText Content Management user group that you want to map to each other.

  Note: External users are Portal users in Salesforce. In Salesforce, a Portal User refers to a user who access Salesforce through a Customer Portal or a Partner Portal. So, the *External Users* group will be **Customer Portal Users** by default.
- In the **Public Group** page, in the **Salesforce Group Name** column, select the Salesforce public group. In the **Content Services Group Name** column, enter the OpenText Content Management user group that you want to map to each other.
- In the **Custom** page, specify your own non-standard group mappings. Enter a unique name, the plugin class name that you implemented, and desired initialization parameters. For details about creating a custom plugin, refer to the *Group & Role Plugin Extensions Guide*.
- In the **Cached Group Info** page, manage the cache that stores the mapping between the Salesforce object and the Content Services Group:
  - Click **Refresh Page**, to refresh the cache.
  - Click **Schedule**, to define a schedule for recreating the cache.
  - Click **Update Now**, to recreate the cache.
  - Click **Purge**, to clear the cache.

6. On each of the pages, you can do the following:
   - Use the **Search** box to search for a mapping. You can search by a value in the first column.

- Click the **Add** button + to add a new mapping.
- Click the **Schedule** button to schedule a Group Synchronization Process. For more information, see *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*.
- Turn on or off the **Enable** switch to enable or disable the mapping for synchronization.
- Turn on or off the **Schedule Synchronize** switch to schedule the synchronization for the mapping.
- Click the **Synchronize** button for the mapping to start the synchronization immediately.

  Notes

  – The synchronization takes place only if the **Enable** switch is turned on for the mapping.

  – During the synchronization, delta users (users present in Content Server and not in Salesforce) will be removed from the Content Server groups when they are removed from the mapped Salesforce group.
- Turn on the **Enable** switch for more than one mapping, select the check box for the mappings, and then click the **Synchronize Selected** button to start the synchronization for the selected mappings immediately.
- Select one or more mappings and click the **Delete Selected** button to delete the mappings.

7. Click **Save** to save the changes.

Chapter 12

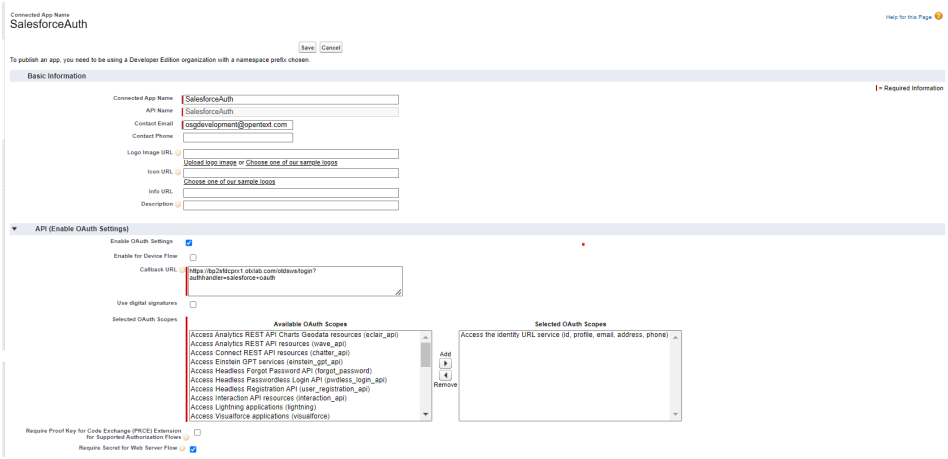
Configuring OAuth 2.0 single sign-on

12.1 Configuring the connected app in Salesforce

The OAuth client configuration for OTDS is stored in Salesforce in a connected app.

To configure the connected app:

1. In Salesforce, navigate to **Setup > Create > Apps**.
2. In the **Connected Apps** section, click **New**.
3. Create the app with at least the following settings:



Connected App Name
The actual name is not important but must be unique.

API Name
The actual name is not important but must be unique. Typically, you accept the default which is derived from the app name.

Contact Email
Salesforce will use this email address if it is necessary to contact you.

Enable OAuth Settings
Select this check box.

Callback URL
This is the OAuth `redirect_uri` to which Salesforce will redirect the user's browser after a successful authentication. The URL must use HTTPS. The URL may be entered as shown but updated with the host name and port number of your OTDS instance.

Selected OAuth Scopes
Select at least **Access your basic information (id...)** and click **Add** to add it to the list of selected OAuth scopes.

Require Proof Key for Code Exchange (PKCE) Extension for Supported Authorization Flows
Select this check box. While configuring the Enabler **API OAuth setting** for SSO, you should disable this check box. SSO works only if this check box is disabled.

4. Click **Save**.

5. On the summary page, copy the following values:

   - Consumer Key (OAuth `client_id`)
   - Consumer Secret (OAuth `client_secret`). Click **Click to reveal** to display the secret before copying it.

   You will need the values when you configure the OTDS authentication handler.

12.2 Configuring the authentication handler in OTDS

OTDS uses an *authentication handler* to authenticate a user. For this scenario, you configure an OAuth 2.0 authentication handler in OTDS.

To configure the authentication provider:

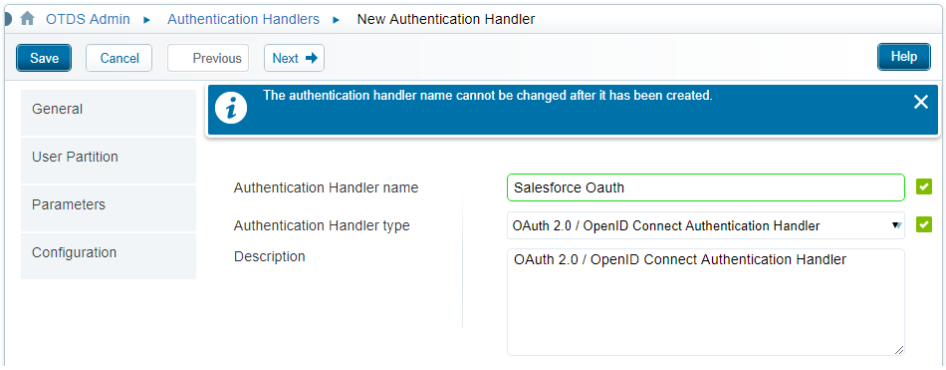
1. Start OTDS Administration in a web browser. Open `http://<fully_qualified_domain_name_of_server>:<port_number>/otds-admin/` and sign in as `otadmin@otds.admin`.

2. On the OTDS Administration menu, click **Authentication Handlers**.

3. Click **Add**.

4. In the **New Authentication Handler** wizard, on the **General** page, set the following:

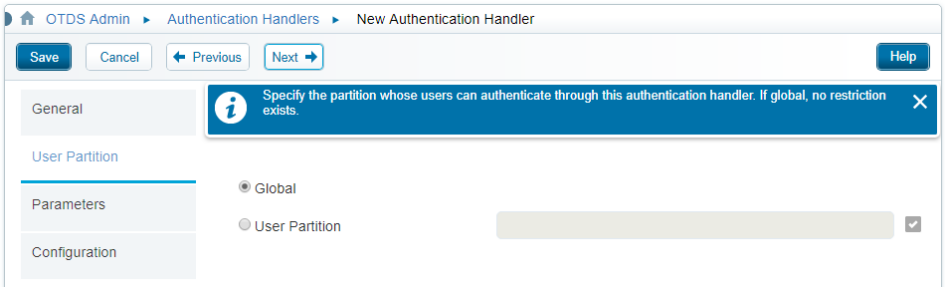
   - **Authentication Handler name**: Enter an appropriate name, for example, the name of the system against which you want to authenticate and the authentication type.
   - **Authentication Handler type**: Select **OAuth 2.0 / OpenID Connect Authentication Handler**
   - **Description**: Enter any description you want; by default, this is the name of the authentication handler type.



5. Click **Next**.

6. On the **User Partition** page, configure which partitions the handler should search for matching users:

   - **Global**: You must select this option if users for this handler are in more than one partition.
   - **User Partition**: You may select this option if all users for this handler are in a single partition; enter the partition name in the text box.



7. Click **Next**.

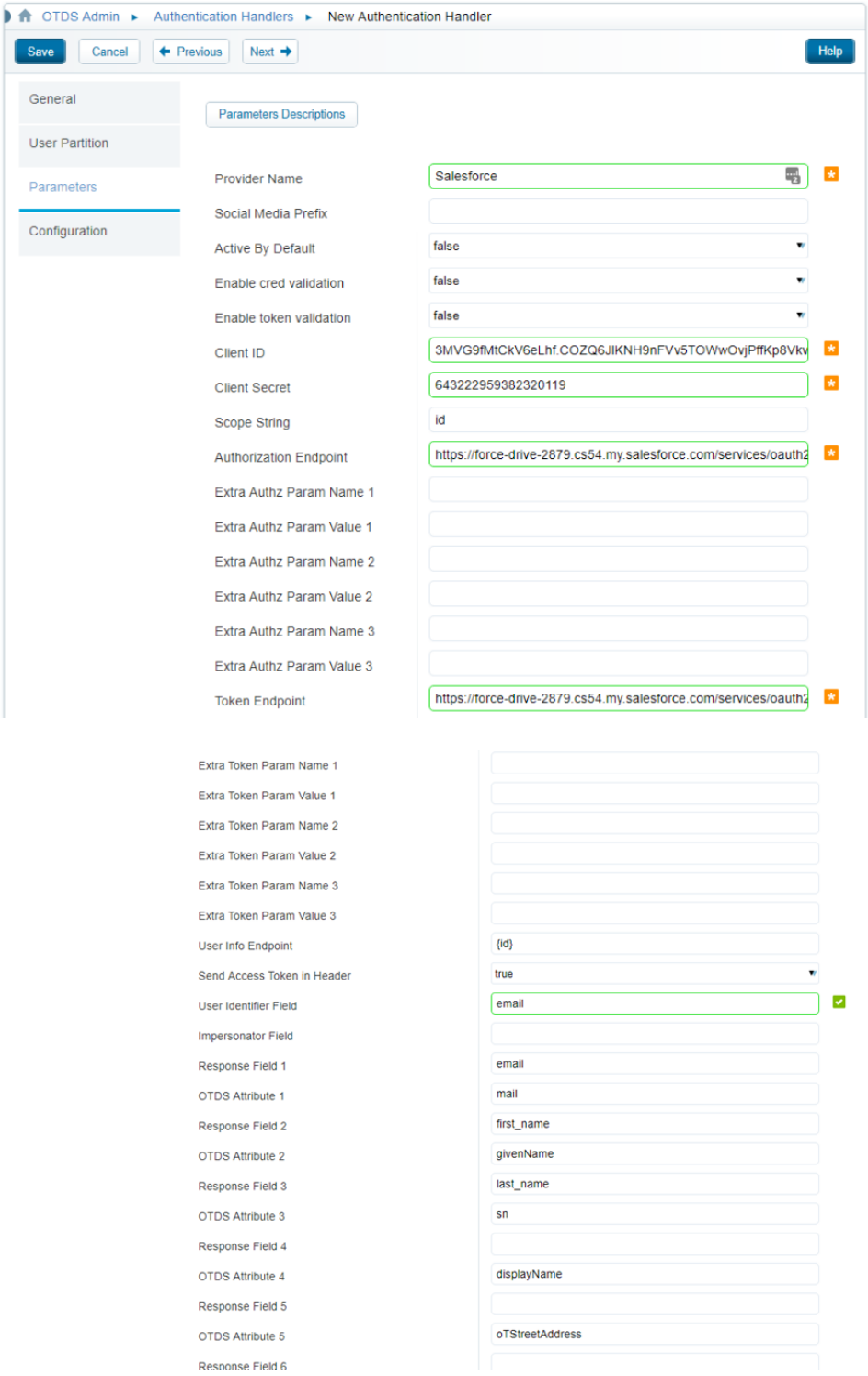
8. On the **Parameters** page, set the following parameters:

   Note: If a field is not mentioned below, do not modify it.

   - **Provider Name**: Enter the name of the authentication provider, for example, `Salesforce`.
   - **Social Media Prefix**: Leave blank.
   - **Client ID**: The OAuth `client_id` (Customer Key) copied from the Salesforce connected app created above.
   - **Client Secret**: The OAuth `client_secret` (Customer Secret) copied from the Salesforce connected app created above.
   - **Scope String**: Leave as `id`.

- **Authorization Endpoint**: The OAuth authorization endpoint for Salesforce; enter `https://<custom-domain>.my.salesforce.com/services/oauth2/authorize`.
- **Token Endpoint**: The OAuth token endpoint for Salesforce; enter `https://<custom-domain>.my.salesforce.com/services/oauth2/token`.
- **User Info Endpoint**: The Salesforce REST API method for retrieving a user record from the Force.com Identity Service; enter `{id}`.
- **User Identifier Field**: The field in the user's record returned from the Force.com Identity Service which contains the key for identifying the user in OTDS. This is usually `user_id` but could also be `username` or `email`.

  This is a field from the information returned to OTDS by the Salesforce Identity Service; it specifies which information OTDS will use to look up the Salesforce user's OTDS record. `email` is the user's E-mail address from his Salesforce user record, for example, `admin@mycompany.com`; `user_id` is the user's internal Salesforce ID, for example, `00537000000Ujvj`; `username` is the user's Salesforce user login name, for example, `jsmith@mycompany.com`. The value in this field will be used to search the authentication principal attribute of the OTDS records to find the user's OTDS record.
- **Response Field 1**: The field in the Salesforce identity service record holding the user's E-mail address; enter `email`.
- **Response Field 2**: The field in the Salesforce identity service record holding the users's first name; enter `first_name`.
- **Response Field 3**: The field in the Salesforce identity service record holding the users's last name; enter `last_name`.


OTDS Admin ▸ Authentication Handlers ▸ New Authentication Handler
Save
Cancel
Previous
Next
Help
General
User Partition
Parameters
Configuration
Parameters Descriptions
Provider Name
Salesforce
Social Media Prefix
Active By Default
false
Enable cred validation
false
Enable token validation
false
Client ID
3MVG9fMtCkV6eLhf.COZQ6JIKNH9nFVv5TOWwOvjPffKp8Vky
Client Secret
643222959382320119
Scope String
id
Authorization Endpoint
https://force-drive-2879.cs54.my.salesforce.com/services/oauth2
Extra Authz Param Name 1
Extra Authz Param Value 1
Extra Authz Param Name 2
Extra Authz Param Value 2
Extra Authz Param Name 3
Extra Authz Param Value 3
Token Endpoint
https://force-drive-2879.cs54.my.salesforce.com/services/oauth2
Extra Token Param Name 1
Extra Token Param Value 1
Extra Token Param Name 2
Extra Token Param Value 2
Extra Token Param Name 3
Extra Token Param Value 3
User Info Endpoint
{id}
Send Access Token in Header
true
User Identifier Field
email
Impersonator Field
Response Field 1
email
OTDS Attribute 1
mail
Response Field 2
first_name
OTDS Attribute 2
givenName
Response Field 3
last_name
OTDS Attribute 3
sn
Response Field 4
OTDS Attribute 4
displayName
Response Field 5
OTDS Attribute 5
oTStreetAddress
Response Field 6

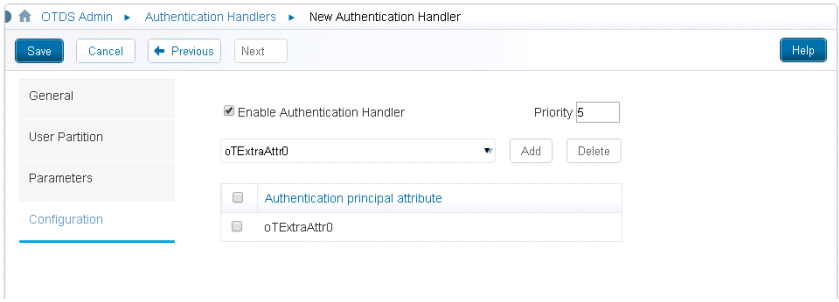
Click **Next**.

9. On the **Configuration** page, set the following parameters:

   - Select **Enable Authentication Handler**.
   - Set **Priority** to a value between `1` and `10`. This setting defines the order in which authentication handlers are processed.
   - From the list box, select the attribute that uniquely identifies the user's Salesforce record in OTDS.

     Click **Add** to add the attribute to the **Authentication principal attribute** list.

     This must be the OTDS attribute which contains the value specified on the *Parameters* page for the **User Identifier Field**. This is often one of the `oTExtraAttr0-9` attributes. If this is a non-synchronized partition with users added by a user synchronization provider, it is the same field specified as the **OTDS identity attribute**.



10. Click **Save**.

12.3 Logging in with OAuth

Before attempting OAuth single sign-on, the user attribute specified in the authentication handler must be set with each user's Salesforce record key.

Note: If the Salesforce user ID is being used as the key, the key value *must* be the 18-digit form of the user ID, not the 15-digit form.

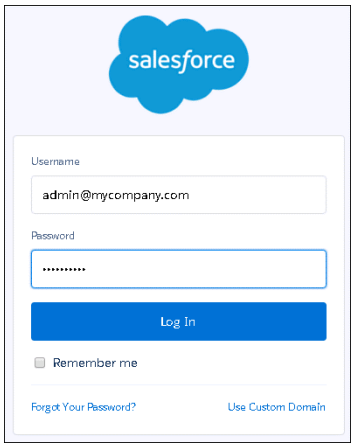
12.3.1 Content Server initiated SSO

To log on to Content Server using SSO:

1. To log on to Content Server using SSO, access Content Server as usual to display the standard Content Server login page.
2. On the Content Server login page, do not enter your user name and password. Instead, click *More* and select *Salesforce* as the sign in authority.

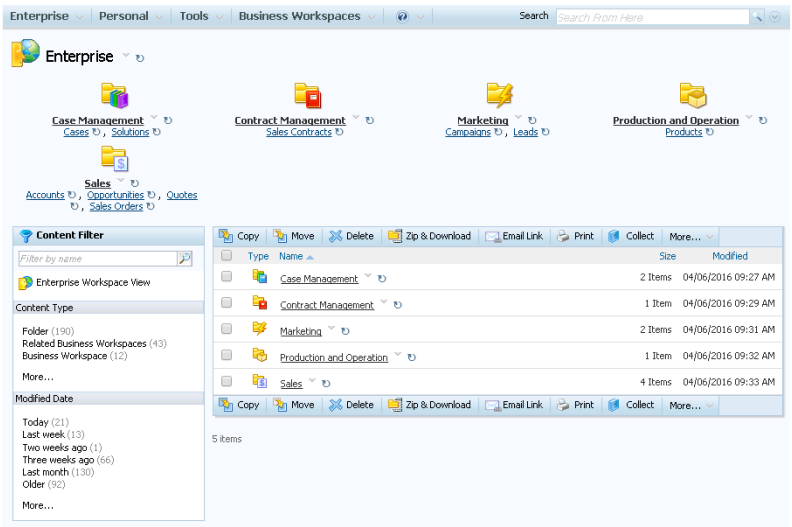
   Note: The name to select is the name of the sign in authority that you provide when creating the authentication handler.

   You are redirected to the Salesforce login page.



3. Log in with your Salesforce user name and password. Once you have been successfully authenticated, you will be redirected to Content Server.

   In the lower left-hand corner of the screen you see that you are logged in with your Content Server user.



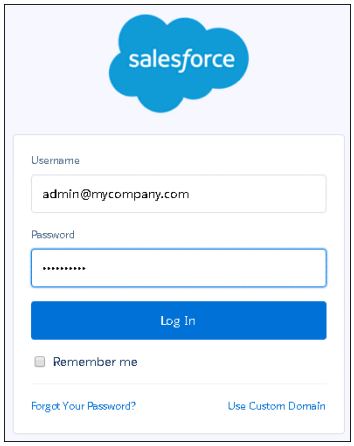
When you access your Salesforce URL, you see that you are logged in with the Salesforce user.

Note: If you are returned to OTDS/Content Server or you are once again prompted to enter your credentials so your accounts may be linked, OAuth SSO was not configured properly. This usually indicates the value from the Salesforce user record does not match the value in the authentication principal attribute of the user's OTDS record. If the key value between the two systems is the Salesforce user ID, the problem is often the ID is in 15-digit form rather than 18-digit form.

12.3.2 Salesforce initiated SSO

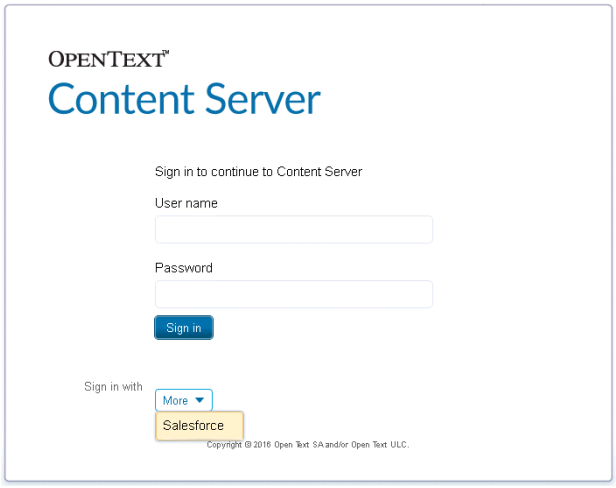
To log on to Salesforce using SSO:

1. To log on to Salesforce using SSO, access your Salesforce URL to display the standard Salesforce login page.



2. Log on with your Salesforce user name and password. Your normal Salesforce landing page will be shown.

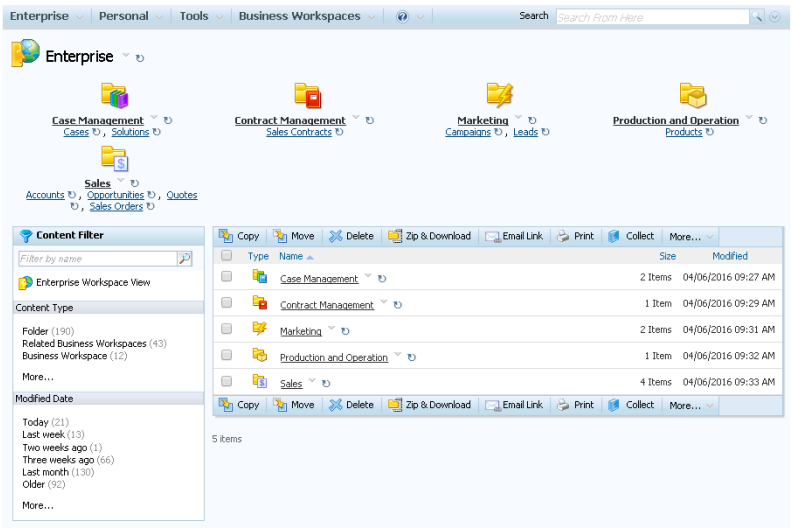
3. Access Content Server as usual to display the standard Content Server login page.



4. Do not enter your Content Server user name and password on this page. Instead, click *More* and select *Salesforce* as the sign in authority.

Note: The name to select is the name of the sign in authority that you provide when creating the authentication handler.

You are redirected to your Content Server landing page. In the lower left-hand corner of the screen you see that you are logged in with your Content Server user.



Chapter 13

Configuring SAML single sign-on

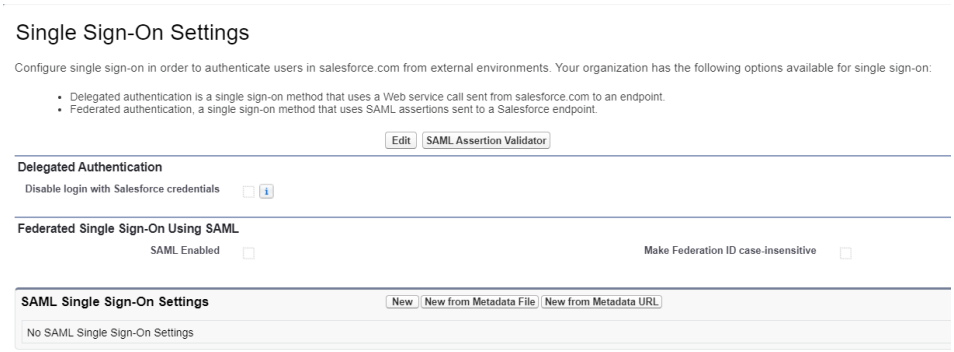
13.1 Prerequisites

For Salesforce to function as a SAML identity provider (IdP), your organization must be configured with a domain. To configure your domain, you may go to **Setup > My Domain**. For more information, see Salesforce documentation.

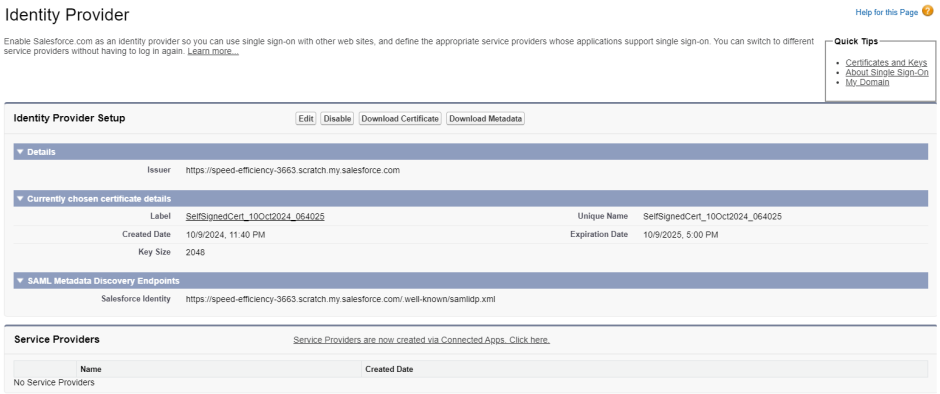
13.2 Defining SAML single sign-on settings in Salesforce

To define single sign-on settings:

1. In Salesforce, navigate to **Setup**.
2. In the navigation pane, under **Settings**, click **Identity** > **Single Sign-On Settings**.
3. To enable SAML SSO, click **Edit**. Select the **SAML Enabled** check box and click **Save**.



4. When you configured your domain, Salesforce automatically created the SAML identity provider. Navigate to **Setup > Identity Provider**.



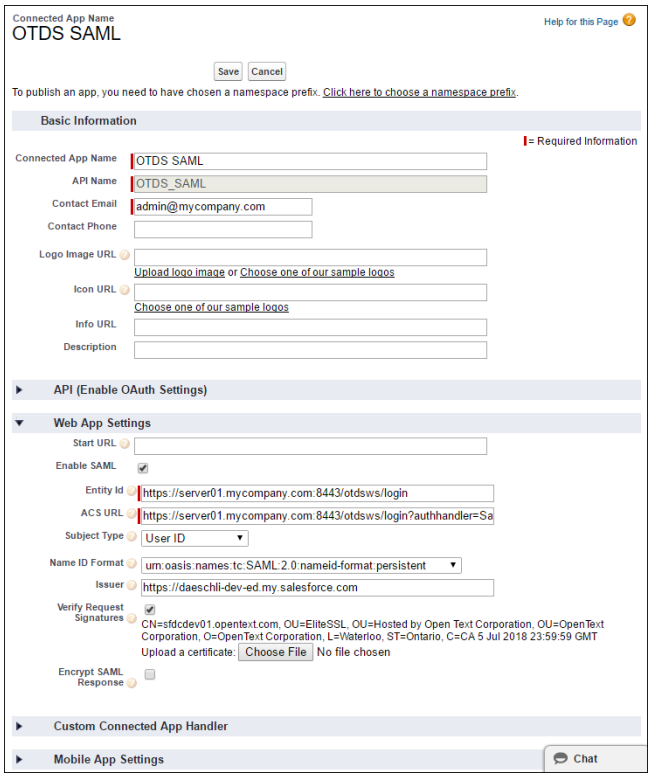
5. Salesforce provides a self-signed certificate when the identity provider is created. If you have a production certificate issued by a certificate authority, click **Edit** and upload your certificate to Salesforce.

13.3 Configuring the connected app in Salesforce

The SAML service provider for OTDS is represented in Salesforce by a connected app.

To configure the connected app:

1. In Salesforce, navigate to **Setup > Create > Apps**.
2. In the **Connected Apps** section, click **New**.
3. Create the app with at least the following settings:



Connected App Name
The actual name is not important but must be unique.

API Name
The actual name is not important but must be unique. Typically, you accept the default which is derived from the app name.

Contact Email
Salesforce will use this email address if it is necessary to contact you.

Start URL
Leave blank.

Enable SAML
Select this check box.

Entity Id
The name by which the service provider identifies itself. For OTDS this is `https://<otds-server:port>/otdsws/login`.

ACS URL
The URL of the assertion consumer service. For Salesforce, this is `https://<otds-server:port>/otdsws/login?authhandler=<authentication-handler-name>`

Subject Type
Set this to the attribute in the user object which holds the common value between the user's Salesforce record and OTDS record. Ideally, this would be the Salesforce internal user ID; other choices include the user name, the federation ID, a custom field, or a computed persistent value.

Name ID Format
The format of the value in the **Subject Type** field:

- For the user ID:
  `urn:oasis:names:tc:SAML:2.0:nameid-format:persistent`
- For the email address:
  `urn:oasis:names:tc:SAML:2.0:nameid-format:emailAddress`
- For other choices:
  `urn:oasis:names:tc:SAML:2.0:nameid-format:unspecified` and
  `urn:oasis:names:tc:SAML:2.0:nameid-format:transient`

Issuer
Leave blank; Salesforce will set this to your organization's *My Domain*.

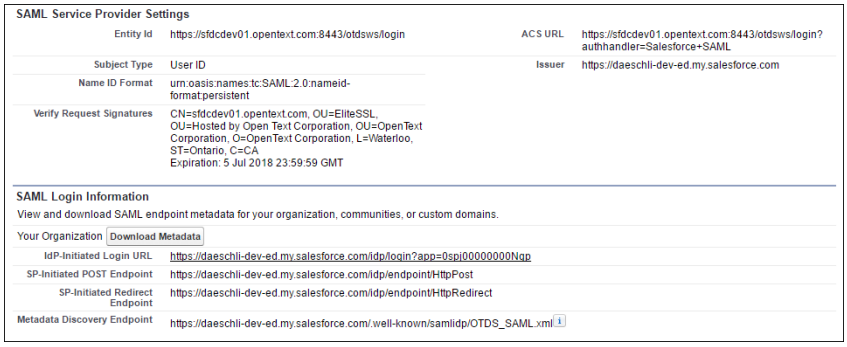
Verify Request Signatures
Select this check box if the service provider signs its requests; it should be selected for OTDS.

Encrypt SAML Responses
If the **Verify Request Signatures** check box is selected, then click **Choose File** and upload the certificate the service provider uses to sign the requests.

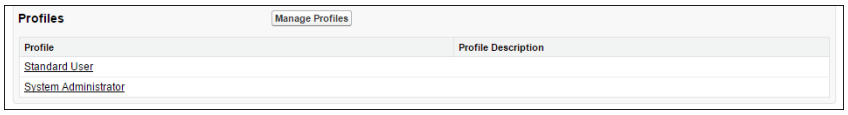
Once you have created and saved the connected app, you need its metadata URL to configure the OTDS authentication handler.

To retrieve the metadata URL and to assign profiles:

1. Navigate to **Setup > Create > Apps** and click **Manage** for the connected app that you just created.
2. From the **SAML Login Information** section, copy the **Metadata Discovery Endpoint** URL. You will need this when you configure the OTDS authentication handler.



3. Click **Manage Profiles** and select the profiles of the users you wish to allow to logon using SAML authentication.



4. Click **Save** to assign the profiles to the app.

13.4 Configuring the authentication handler in OTDS

OTDS uses an *authentication handler* to authenticate a user. For this scenario, you configure a SAML 2.0 authentication handler.

To configure the authentication handler:

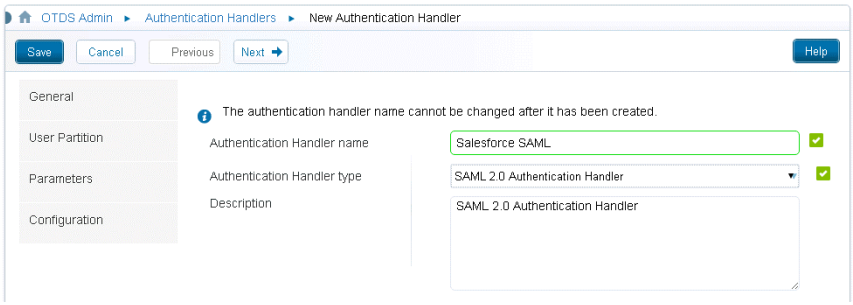
1. Start OTDS Administration in a web browser. Open `http://<fully_qualified_domain_name_of_server>:<port_number>/otds-admin/` and sign in as `otadmin@otds.admin`.

2. On the OTDS Administration menu, click **Authentication Handlers**.

3. Click **Add**.

4. In the **New Authentication Handler** wizard, on the **General** page, set the following:

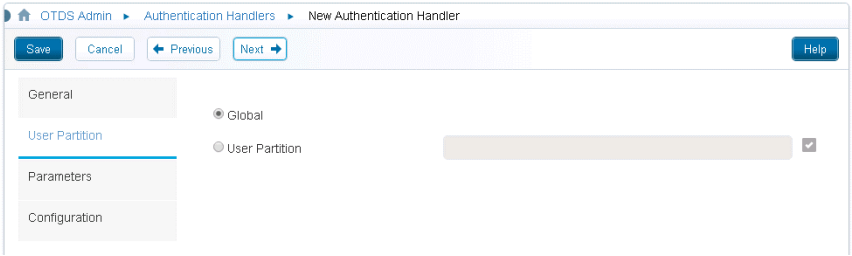
   - **Authentication Handler name**: Enter an appropriate name, for example, the name of the system against which you want to authenticate and the authentication type.
   - **Authentication Handler type**: Select **SAML 2.0 Authentication Handler**
   - **Description**: Enter any description you want; by default, this is the name of the authentication handler type.



5. Click **Next**.

6. On the **User Partition** page, configure which partitions the handler should search for matching users:

- **Global**: You must select this option if users for this handler are in more than one partition.
- **User Partition**: You may select this option if all users for this handler are in a single partition; enter the partition name in the text box.



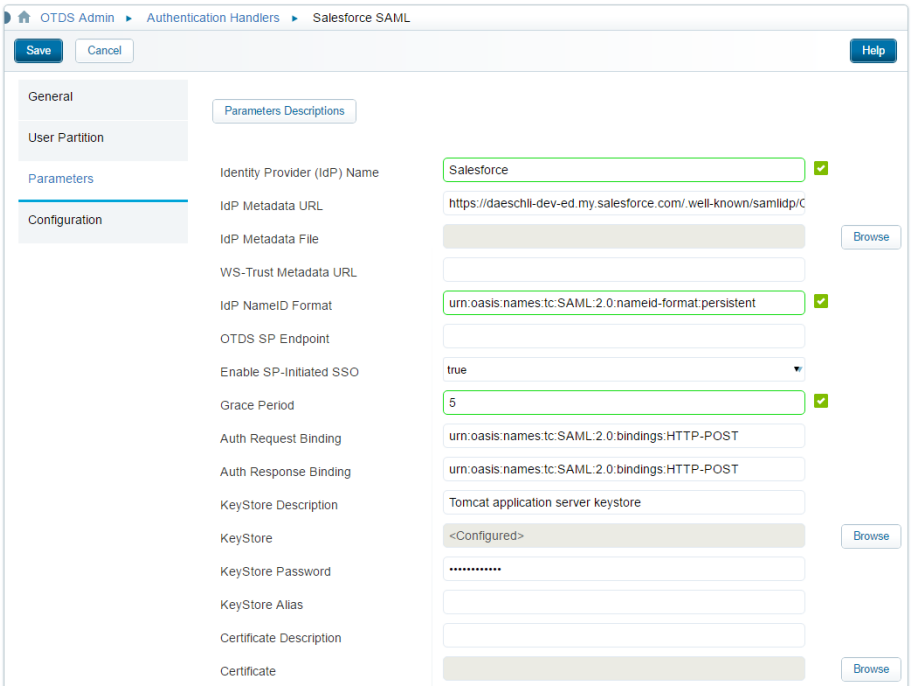
7. Click **Next**.
8. On the **Parameters** page, set the following parameters:

Notes

- Specify either the keystore information (keystore, password, and alias) or the certificate and private key information (certificate, private key, private key password) but not both.
- If a field is not mentioned below, do not modify it.

- **Identity Provider (IdP) Name**: Enter the name of the identity provider, for example, Salesforce.
- **IdP Metadata URL**: Enter the Salesforce Identity URL copied from the Salesforce connected app management page as described in "Configuring the connected app in Salesforce" on page 140.
- **IdP NameID Format**: The name ID format of the user key from the identity provider. This should match the format specified in the Salesforce connected app.
- **KeyStore Description**: Optional; enter a description of your certificate keystore.
- **KeyStore**: Click **Browse** to select the keystore containing your certificate. The keystore must be in `PKCS#12` format.
- **KeyStore Password**: Enter the password for the keystore.
- **KeyStore Alias**: Enter the alias of the certificate in the keystore.
- **Certificate Description**: Optional; enter a description of your certificate if used.
- **Certificate**: The certificate for OTDS to use for signing authentication requests. The certificate must be a X.509 (PEM) certificate. This entry is required only if the IdP requires signed authentication requests, or sends encrypted assertions, or encrypts the NameID.

- **Private Key Description**: Optional; enter a description of your private key.
- **Private Key**: Required if and only if a certificate is specified. This is the private key for the certificate and must be a `PKCS#8 DER` encoded private key.
- **Private Key Password**: Password for the private key.



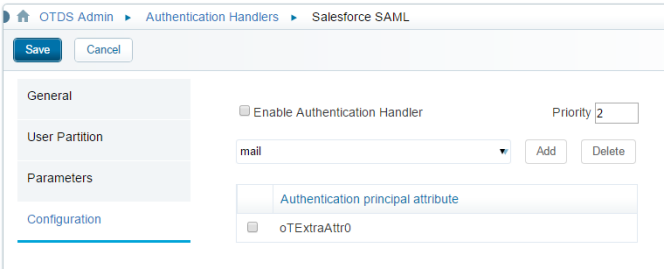
Click **Next**.

9. On the **Configuration** page, set the following parameters:

   - Select **Enable Authentication Handler**.
   - Set **Priority** to a value between `1` and `10`. This setting defines the order in which authentication handlers are processed.
   - From the list box, select the attribute that uniquely identifies the user's Salesforce record in OTDS.

     Click **Add** to add the attribute to the **Authentication principal attribute** list.

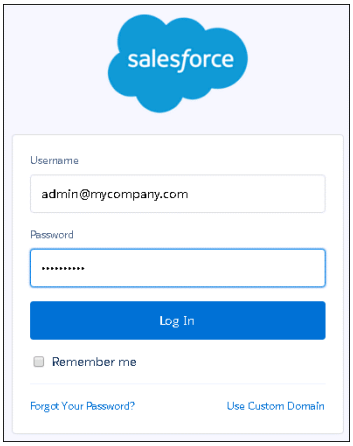
     This must be the OTDS attribute that contains the value specified on the *Parameters* page for the **User Identifier Field**. This is often one of the `oTExtraAttr0-9` attributes. If this is a non-synchronized partition with users added by a user synchronization provider, it is the same field specified as the **OTDS identity attribute**.



10. Click **Save**.

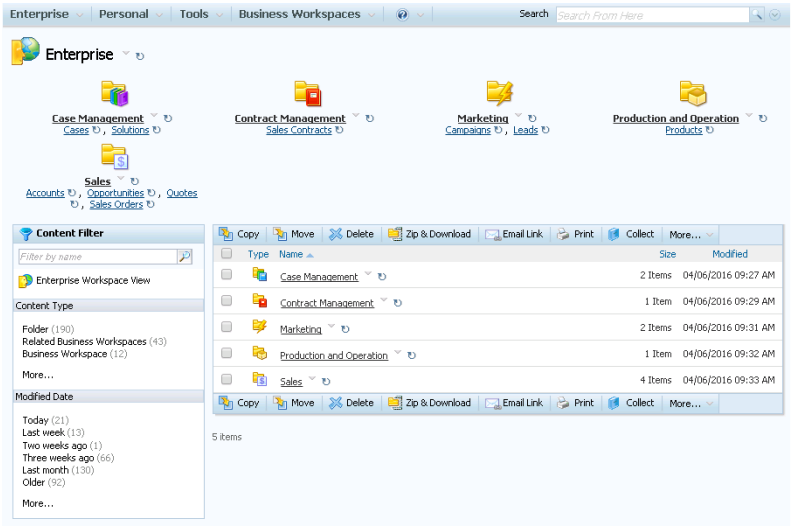
13.5 Logging in with SAML

When users are logged in to Salesforce already, they can access Content Server without giving their credentials again. When users are not logged in to Salesforce and want to log on to Content Server, they are redirected to the Salesforce login page.



The users log in with their Salesforce user name and password. Once they have been successfully authenticated they will be redirected back to Content Server.

In the lower left-hand corner of the screen the users see that they are logged in with their Content Server user.



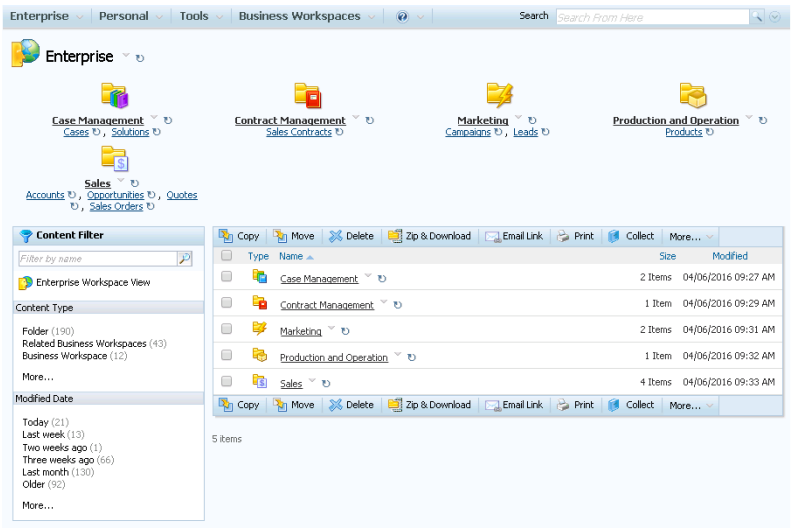
When they access the Salesforce URL they see that they are logged in with the Salesforce user.

13.5.1 Content Server initiated SSO

To log on to Content Server using SAML SSO:

1. To log on to Content Server using SAML SSO, access Content Server as usual. You are redirected to the Salesforce login page.
2. Log in with your Salesforce user name and password. Once you have been successfully authenticated, you will be redirected to the Content Server landing page.

   In the lower left-hand corner of the screen you see that you are logged in with your Content Server user.



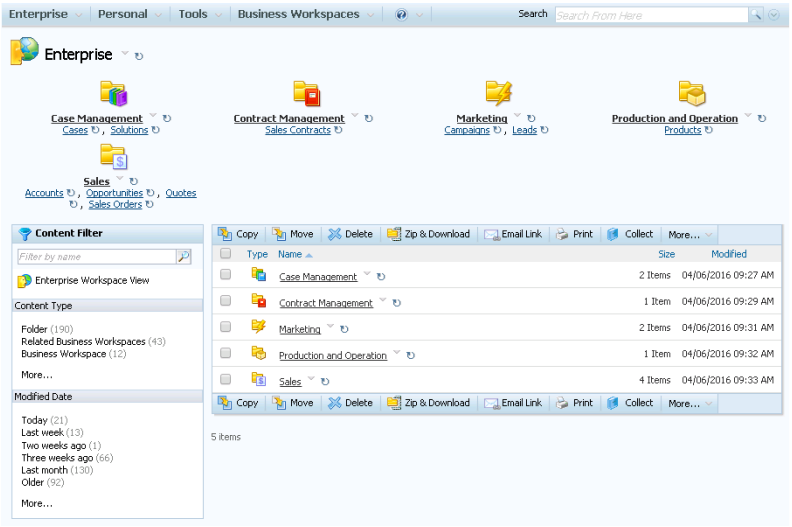
When you access your Salesforce URL, you see that you are logged in with the Salesforce user.

13.5.2 Salesforce initiated SSO

To log on to Salesforce using SAML SSO:

1. To log on to Salesforce using SAML SSO, access your Salesforce URL to display the standard Salesforce login page.
2. Log on with your Salesforce user name and password. Your normal Salesforce landing page will be shown.
3. Access Content Server as usual. You are redirected to the Content Server landing page.

   In the lower left-hand corner of the screen you see that you are logged in with your Content Server user.



Chapter 14

Access control

14.1 Permissions on Content Server

Permission levels

Permissions on Content Server can either apply to the whole Content Server system or to individual Content Server items such as folders and documents:

- System wide privileges: Object privileges define who can create items of a specific type; usage privileges define who can perform specific actions.

  For more information, see "Defining general restrictions on Content Server" on page 152.

- Permissions on item level: Content Server permissions define access to each item, typically using groups. Permissions can be inherited. Permissions are relevant for business workspace templates, business workspaces and all items within a business workspace. For more information, see "Defining item level permissions on Content Server" on page 153.

Who can access a business workspace?

To access a specific workspace and items within it, the user must be assigned all relevant permissions and privileges, typically using groups. If applicable the user must also be assigned the relevant business policies.

- **General object and usage privileges**

  Object privileges define who can create business workspaces; usage privileges define who can perform specific actions on business workspaces and business objects.

- **Item level permissions**

  When a business workspace is created, the initial item levels are inherited from the template.

  – **Merging of permissions**

    In addition, you can define that the template permissions are merged with those defined for the folder in which the workspace is created. If merging is enabled, access is granted with the permissions defined for the template or for the folder in which the business workspace is created. If merging is not enabled, access is granted with the permissions defined in the template.

    The merging also applies to the items in the template. The permissions are merged with the permissions of the location where the business workspace is created and not where the item is created.

    Example: An example for the usage of this is when departments work mostly independently of each other but use the same templates. In this case, the template only contains the general permissions for example for management or read access for other

departments and the actual modify rights are given via the permissions on a department folder.

– **Group replacements**

  You can use groups to restrict access to folders of a business workspace. For this, you can make use of a replacement mechanism that replaces the group defined in the template with a specific group when the business workspace is created. The assigned group name can depend on attribute values of the business workspace.

14.2 Groups in Content Server

In Content Server, every user is a member of at least one group and may be a member of many groups. Groups can also contain other groups. A group within a group is known as a subgroup.

The main purposes of creating users and groups are:

- To grant system privileges to users. System privileges include a user's ability to sign in, the kinds of items the user can create, and the privilege to create other users and groups.
- To control user's access permissions. Access permissions define whether the user or group can see or modify a given item. It is best practice to only assign access to business workspaces and any other items in Content Server via groups. Assigning and removing the access for a user is then simply by removing the user from a group instead of changing it on all items the user has access to on individual basis.
- To assign work through Workflow steps and Tasks.
- To set up default notification for new users.

Organizing users into groups also simplifies the administration of access control and work processes because specific changes can be applied to many users at a time.

For OpenText Content Management for Salesforce, users can be added to groups manually.

14.3 Roles in Content Server

Business workspaces use both the standard Content Server permissions model and a flexible role model that allows you to configure permissions for standard template workspaces actors before the business workspace, binder, case, or contract is created and before anyone is assigned to it.

In the flexible role model, you create template roles and assign permissions to them. These roles become the defaults for the business workspaces, binders, cases and contracts that are created from the templates. When you add *Participants* (Content Server users or groups) to roles, they inherit the roles' permissions.

14.4 Configuring permissions on Content Server

Configure the following:

- **General object privileges**

  For more information, see "Defining general restrictions on Content Server" on page 152.

- **Item level permissions**

  – Configure permissions for the folders in which the business workspaces will be created.

  – Configure permissions for the templates from which the business workspaces are created. You define the permissions for the folders and for all items within the folders. Permissions are inherited. For more information about defining permissions for templates, see "Defining item level permissions on Content Server" on page 153.

    When creating the template, also consider the following:

    ○ **Merging of permissions**

      You can define that the template permissions are merged with those defined for the folder in which the workspace is created. If merging is enabled, the user has either permissions defined for the template *and* for the folder in which the business workspace is created. If merging is not enabled, the user has only the permissions that are defined for the template.

      The merging also applies to the items in the template. The permissions are merged with the permissions of the location where the business workspaces is created and not where the item is created.

    ○ **Group replacements**

      You can use groups to restrict access to folders of a workspace. For this, you can make use of a replacement mechanism that replaces the group defined in the template with a specific group when the workspace is created. For more information, see "Defining group replacement settings" on page 72.

      Prerequisite for this is that you also create the groups accordingly and add the users to the groups.

14.4.1 Defining general restrictions on Content Server

On OpenText Content Management, you can define the following general restrictions:

- **Object Privileges**

  You can restrict access to specific item types. For OpenText Content Management for Salesforce, the following object types are relevant:

  – Business Workspace

  – Related Business Workspaces

- **Usage privileges**

  On OpenText Content Management, you can define usage privileges. You can define who can perform defined actions on business workspaces and business objects. The following usages are provided for OpenText Content Management for Salesforce:

  The following usages are provided under the Business Workspaces usage type:

  – **Move Business Workspaces**: Move a business workspace to a different folder.

  – **Edit attributes relevant for group mapping**: This restriction is relevant if you use group replacement in the template. It restricts the editing of attributes used to define groups that have access to a business workspace.

  – **Access Business Workspaces (Mandatory for Licensing)**: This privilege is necessary to access a business workspace. It is also the basis for license measurement.

  The following usages under the OpenText Content Management usage type are relevant:

  – **Change Reference**: This restriction applies to early created business workspaces that are later connected with a business object. Only users with this privilege can later change the reference to the business object.

To define general restrictions:

1. Go to the **OpenText Content Management Administration** page.
2. In the **System Administration** section, click **Administer Usage Privileges** or **Administer Object Privileges**.
3. Define the required restrictions according to the online help.

   Online Help Path: **Database Administration - Managing Usage Privileges** or **Database Administration - Managing Object Privileges**.
4. Save your entries.

14.4.2 Defining item level permissions on Content Server

Content Server permissions define access to each item, typically using groups. Permissions can be inherited. You can define if permissions defined on different levels are merged. For more information, see "Merging permissions and owners" on page 72.

There are two different ways to define access:

- Define roles and participants for business workspaces and grant them access. For more information, see "Defining team roles and team participants" on page 68.
- Define direct access for users and groups.

  You can either add groups manually or use generated groups.

  Within the business workspace, you can use generated groups to restrict access to specific folders. In the template, you define which groups have access to the template. With the group replacement mechanism, you can define that these groups are replaced with other groups when a business workspace is created from the template. For more information, see "Defining group replacement settings" on page 72.

Part 3

Configuring user interface enhancements

This part describes how to implement different enhancement to the user interface.

Chapter 15

Configuring Lightning components

Several custom Lightning components are provided by default. Lightning components can be reused on multiple Salesforce Lightning pages and provide a more seamless integration.

15.1 Content Services Attachments

You can use this component to add documents directly to an OpenText workspace or a defined location within the workspace in OpenText Content Management while in Salesforce, completely bypassing the Salesforce Files, and Notes and Attachment functionalities.

To configure the component:

1. In the Applications list, click **Accounts**.
2. Click the Account Name.
3. Click the **Setup** button and then click **Edit Page**.
4. Select an existing tab and click **Add Tab** on the right pane, for example, *OpenText Attachments*. You can also edit an existing tab.
5. Drag and drop **Content Services Attachments** from the **Custom** list of components.
6. Configure the provided parameters:

Display Name
Optionally, enter a preferred name for the component to be displayed.

Show Document Destination
Select this check box to display the location where the document will be placed in the workspace.

Icon Category
Search and select any appropriate icon category (Action, Custom, Doctype, Standard, or Utility) from the Salesforce Lightning Design system website that matches the appropriate *Icon Name* parameter. For more details, see: https://www.lightningdesignsystem.com/icons.

Icon Name
Select any valid icon name from the Salesforce Lightning Design system website for the specified *Icon Category*. For more details, see: https://www.lightningdesignsystem.com/icons. For example, *emoji*, *edit*, or *diamond* from Salesforce utility icons would work.

Show List of Files
Select this check box to show the files and folders within the workspace location specified in the **Add Document Folder** parameter. If cleared, no files or folders will be shown to the user, so that the component can only serve as a "drop box" or upload component that allows adding documents to a location only. This option is available for backwards compatibility when the component was named *File Upload*.

Show Count of Files
Select this check box to show the number of files in the folder. If the folder has more than 6 documents, it will display 6+.

Allow Adding Content
Select this check box to allow users to add files to the folder. If cleared, the content will be read-only accessible.

Add Document Folder
Specify the folder within the workspace to which content will be added. If the folder is not available, the component will create the folder.

At the business object type definition level there is another **Add Document Folder** setting that defines behavior for specific Salesforce objects. If both values are left blank, content will be added to the root or base node of the workspace.

7. Click **Save** and **Back**.

15.2 Content Services Files

You can use this component to display the OpenText Content Management folder browse UI in Salesforce.

Legacy components

This component replaces the existing **Content Services Legacy Files**. Legacy components will keep working but have been deprecated. OpenText recommends that you migrate to the new components: They provide you with clickjack protection and also allow the OpenText Content Management UI to resize properly on the Salesforce page.

To configure the component:

1. In the Applications list, click **Accounts**.
2. Click the Account Name.
3. Click the **Setup** button and then click **Edit Page**.
4. Select an existing tab and click **Add Tab** on the right pane, for example, *Documents*. You can also edit an existing tab.
5. Drag and drop **Content Services Files** from the **Custom** list of components. You can also edit an existing tab.

6. Configure the provided parameters:

Height
Optionally, enter a value for the height of the component. Default is 400px.

View Mode
Select *Folder Browse* (default) or *Full page* as view mode.

This setting only applies if the *Enable Business Workspace widget* check box is selected on the *System Configuration* tab of OpenText Content Management for Salesforce. Otherwise, *Folder Browse* is always used as view mode.

Record Id
This field is applicable only for Experience cloud.

Enter a Record Id that should be assigned to the component. Record Id should be in the following format:

```
{!recordId}
```

Note: The Experience Builder cannot display the component if its Record Id is not formed in the above format.

7. Click **Save** and **Back**. You can see the result on the tab that you created in the first step.

15.3 Content Services Legacy Files

This component is replaced by the **Content Services Files** component, see "Content Services Files" on page 158. Legacy components will keep working but have been deprecated. OpenText recommends that you migrate to the new components. They provide you with clickjack protection and also allow the OpenText Content Management UI to resize properly on the Salesforce page.

15.4 Content Services Legacy Perspective

This component is replaced by the **Content Services Perspective** component, see "Content Services Perspective" on page 160. Legacy components will keep working but have been deprecated. OpenText recommends that you migrate to the new components: They provide you with clickjack protection and also allow the OpenText Content Management UI to resize properly on the Salesforce page.

15.5 Content Services Perspective

You can use this component to display the OpenText Content Management Perspective UI in Salesforce.

Legacy components

This component replaces the existing **Content Services Legacy Perspective** (formerly named *Content Services Perspective*). Legacy components will keep working but have been deprecated. OpenText recommends that you migrate to the new components: They provide you with clickjack protection and also allow the OpenText Content Management UI to resize properly on the Salesforce page.

15.5.1 Configuring the Perspective component

You can use regular or dynamic parameters for the Content Services Perspective Lightning component. To use dynamic parameter values, this component must be included on a tab of a business object, not as a standalone page. This will give the component a context and enables it to gather dynamic information from the business object.

To configure the component:

1. In the Applications list, click **Accounts**.
2. Click the Account Name.
3. Click the **Setup** button and then click **Edit Page**.
4. Select an existing tab and click **Add Tab** on the right pane, for example, *Perspective*. You can also edit an existing tab.
5. Drag and drop **Content Services Perspective** from the **Custom** list of components. You can also edit an existing tab.
6. Configure the provided parameters:

Perspective Type
Select one of the types from the list.

Workspace Node Id
Enter any valid Node Id to be displayed. Leave value blank to dynamically replace with the External Id Field Name value. It is common to use a fixed value Id for setup and testing during configuration.

Remove Repository Page Header
Clear this check box to show the repository page header.

Remove Salesforce Page Header
Clear this check box to show the Salesforce page header.

Height

Optionally, enter a value for the height of the component. Default is 400px.

Origin Parameter

You can enter dynamic values for **Origin Parameter 1** to **Origin Parameter 4**. Dynamic parameter values must have the format `[<field name>]` or `[<parent object>.<field name>]` to extract dynamic parameter values from the base objects or their parents. It is not allowed to specify any parent-to-child relationships because this can lead to multiple values. Note that the letters inside the brackets [] are case insensitive.

Example: If the Perspective Lightning component is on the **Opportunity** tab and you want to set a parameter value to the opportunity name, you can specify `[name]` or `[Name]` as the parameter value. You can also get attribute values from the business object's parent. For example, you can specify `[Account.Name]` to get the name of the account, which is a parent of opportunity. You can also specify `[Account Owner.Name]` to get the opportunity's account's user name (User is parent of Account, which is parent of Opportunity).

Tip: If you enter anything other than `[<field name>]` as parameter value, it will be treated as a regular value.

If you enter a wrong field name or parent name for a dynamic value, the component is unable to gather the data. In the above scenario, the default workspace perspective will be loaded with an error message in the logs (Canvas perspective dynamic parameters may have invalid name).

7. Click **Save**.

15.5.2 Using Perspectives in Salesforce Communities

To get the Content Services Perspective component to work in Salesforce Communities, you must add your Community URL in OpenText Content Management and OpenText Directory Services (OTDS).

To add your Community URL in Content Server:

1. Log on to OpenText Content Management as administrator.
2. Go to **OpenText Content Management Administration** > **Base Settings—Security Configuration** >**Security Parameters**.
3. On the **Configure Security Parameters** page, go to the **Trusted Relationships** section.
4. In the **Referring Websites** and **Cross-Domain** boxes, add your Community URL.

   If your community URL is in the format `https://<site>.force.com/*` and if you already added `*.force.com` earlier, you can ignore this step.
5. Click **Save Changes**.

To add your Community URL in OTDS:

1. Log on to OTDS as administrator.
2. On the OTDS Administration menu, click **Trusted Sites**.
3. In the **Trusted Sites** section, add your Community URL. You must enter the URL for each community that you want to use through OpenText Content Management.
4. **Save** your changes.

15.6 OpenText Content Management SOQL Predicate

The OpenText Content Management SOQL Predicate component is available in the Salesforce App builder. This component is only used internally by the OpenText Content Management for Salesforce application and is not meant to be used or configured by customers.

15.7 Content Services Viewer

You can use this component to preview the external data (OpenText Content Management documents) to Salesforce users.

You can use the component on any Lightning object record page. This can be done by using **Edit Page** and adding the component. Configure the properties and you have a general viewer. Using APEX code, you can dynamically pass the Workspace Node ID to the viewer.

15.7.1 Configuring a quick action in Salesforce

As an administrator, you first must create a quick action button to preview a document from a Business Content record page.

To create a quick action button:

1. In Salesforce, go to **Setup** > **External Objects**.
2. Click **Business Content**, and then click **Buttons, Links, and Actions**.
3. Click **New Action**.
4. In the **Action Type** list, select **Lightning Component**.
5. In the **Lightning Component** list, select the appropriate Lightning component from the following options:
   - **xecm:ContentViewerActionDefault** – This option will use the value of the `Content Viewer Query String` property configured in the OpenText Content Management for Salesforce system configuration. See "Defining repository settings" on page 189.
     URL: `/app/nodes/{nodeid}`

- **xecm:ContentViewerActionStandard** – This option will use the Content Server standard viewer URL, which is sometimes called simply the Content viewer.
  URL: `?func=doc.Fetch&nodeid={nodeid}`
- **xecm:ContentViewerActionAdvanced** – This option will use the Content Server advanced viewer URL, which is sometimes called *Intelligent viewer* or *Brava! viewer*.
  URL: `?func=brava.bravaviewer&nodeid={nodeid}`

6. As **Height**, enter `400px`.
7. As **Label**, specify the freely definable name of the action, for example, **Standard**. This label is displayed in the Salesforce user interface as button name.
8. Click **Save**.
9. If you want to configure different preview components on the record page, you must create a quick action button for each.

When a user later clicks the **Standard** button, a modal window is displayed showing the document. The document preview uses the OpenText file preview functionality.

You can add the quick action button to the Business Content page layout.

To configure the Business Content page layout:

1. Click **Page Layouts**, and then click the **Business Content Layout**.
2. From **Mobile & Lightning Actions**, drag the quick action buttons to the **Salesforce Mobile and Lightning Experience Actions** section at the position where you want it to appear.
3. Click **Save**.

15.7.2 Configuring the Viewer component

You can use the component on any Lightning object record page. This can be done by using **Edit Page** and adding the component. Configure the properties and you have a general viewer. Using APEX code, you can dynamically pass the Workspace Node Id to the viewer

To configure the component:

1. Create a new tab on the page, for example, *Preview*, and drop **Content Services Viewer** from the **Custom – Managed** list of components. You can also edit an existing tab.

2. Configure the provided parameters:

   Workspace Node Id
   Enter any valid Content Server Node Id to be displayed by the viewer. Leave value blank to dynamically replace with the `External Id Field Name` value. It is common to use a fixed value Id for setup and testing during configuration.

   External Id Field Name
   Salesforce object API field name storing the Content Server Node Id value. The Id value will by dynamically retrieved when the associated Salesforce object is viewed. The default field name if not specified is `ExternalId`.

   Height
   Height value (Default: 400px).

   Viewer Type
   Users can select a preview type option (*Default*, *Standard*, or *Advanced*.) based on requirement. For details about the options, see step 5.

3. Click **Save** and **Back**.

   You can see the result on the external object record page:

Chapter 16

Creating a Salesforce flow for workspace integration

The Salesforce flow is a simple but powerful workflow engines, which enable you to drag and drop the action building blocks to create your own processes. A Salesforce administrator can add the OpenText Content Management Workspace Flow components(**Content Services Files** and **Content Services Perspective**) in a custom flow process in Salesforce Flow Builder.

Example: You added the **Content Services Files** component to a custom flow process that is attached to the Account business object. When the flow starts for a specific account, the user assigned to the flow can use the **Content Services Files** component to view the documents stored in the workspaces linked to Account business object.

To create a flow:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the Salesforce menu, select **Setup**.
3. In the **Quick Find** box, search flows.
4. Under **Process Automation**, click **Flows**.
5. Click **New Flow**.
6. On the **New Flow** page, select **Screen Flow** and click **Create**.
7. On the **Flow Builder** page, click the **Add Element** icon .
8. To add a screen component to the flow, under **Interaction**, click **Screen**.
9. On the **New Screen** page, in the **Screen Properties** area, in the **Label** and **API Name**, enter a label and API name.
10. If the flow does not already contain a **Record Variable** that can supply the Salesforce object ID of the record for the **Content Services Files** or **Content Services Perspective** to launch the workspace, do the following:
    a. On the left pane, click the **Fields** tab.
    b. In the **Record Variable** box, click and select **New Resource**.
    c. On the **New Resource** page, provide the following details:

    API Name
    Enter the `recordId`.

    Data Type
    Click **Record**.

Object
Click the business object for which the flow will be used.

Available for input
Select this check box.

d. Click **Done**.

e. To add other fields, select the field, enter the details, and then click **Finish**.

11. Click the **Components** tab.

12. To add a custom component, under **Custom**, click **Content Services Files** or **Content Services Perspective** and drag the component to the appropriate location on the screen. In the right pane, provide the following details:

API Name
Enter a name for the component

Record Id
select the `record Id` you created in Step 10 c or select an existing **Record Variable** in the flow that supplies the Salesforce object ID of the record for **Content Services Files** or **Content Services Perspective** to launch the workspace.

Note: Ensure that the **Record Id** value is `{!recordId.Id}`

13. Click **Done**.

14. Optional If the flow requires it, you can add **Create records** and **Update records** elements to the flow. To add Update records element to the flow, do the following:

a. Click the **Add Element** icon .

b. Under **Data**, click **Update Records**.

c. In the **New Update Records** area, in the **Label** and **API Name** fields, enter a label and name.

d. In the **Select Record(s) to Update** area, in the **Record or Record Collection** box, click the search icon and select the same recordId you created in Step 10 c or an existing record variable in the flow that supplies the object ID of the record.

e. Click **Done**.

15. Click **Save** to save the flow.

16.1 Creating a Quick Action button for Salesforce Flow

To access Salesforce flow in the **Record Details** page, you can create a **Quick Action** button for the Salesforce Flow and drag and drop it in Salesforce Mobile and Lightning Experience Actions.

To create the Quick Action button for Flow:

1. Log on to Salesforce as a user assigned the OpenText Content Services Admin Permission Set.
2. From the Salesforce menu, select **Setup**.
3. Search and click **Object Manager**.
4. For **Business Object Type**, click and click **Edit**.
5. In the navigation tree, click **Buttons, Links, and Actions**.
6. Click **New Action**.
7. In the **Action Type** list, click **Flow**.
8. In the **Flow** list, select the flow.
9. In the **Name** and **Label** fields, enter a name and label respectively.
10. Click **Save**.
11. In the navigation tree, click **Page Layouts**.
12. For **Business Object Type Layout**, click and click **Edit**.
13. Click **Mobile & Lightning Actions**.
14. Drag and drop the new quick action button you created to **Salesforce Mobile and Lightning Experience Actions**.

    Note: If you could not drag and drop the button to **Salesforce Mobile and Lightning Experience Actions**, click **Override to customize** icon.

15. Click **Save**.

Chapter 17

Displaying Content Server information using Canvas

OpenText Content Management for Salesforce provides Salesforce Canvas technology for displaying the Content Server folder browse and Perspective UIs in Salesforce. These Salesforce Canvas technology apps are Lightning components, so they can be reused on multiple Salesforce Lightning pages and provide a more seamless integration.

This part describes how to install and configure the Lightning components Content Services Perspective and Content Services Files.

Note: These components replace the existing **Content Services Legacy Files** (formerly named *Extended ECM Folder Browse*) and **Content Services Legacy Perspective** (formerly named *Content Services Perspective*). Legacy components will keep working but have been deprecated. OpenText recommends that you migrate to the new components: They provide you with clickjack protection and also allow the Content Server UI to resize properly on the Salesforce page.

17.1 Configuring Lightning components

To use the Lightning components Content Services Perspective and Content Services Files, you must follow the configuration steps in the order described here:

1. Creating a Canvas application in Salesforce.
2. Configuring permissions for the Canvas application.
3. Configuring the OpenText Content Management for Salesforce Admin page.

In the following, these steps are described in detail:

To create a Canvas app:

1. In Salesforce, go to **Setup > App Manager > New Connected Apps**.
2. On the **New Connected App** page, enter the following:

Basic Information

Enter a **Connected App Name**. You will need this name for later configurations.

API (Enable OAuth Settings)

- **Enable OAuth Settings**: Select the check box.

- **Callback URL**: Enter a generic URL, for example: `https://localhost/callback`
  This URL is not used.
- **Selected OAuth Scopes**: Add **Access and manage your data (api)** to the **Selected OAuth Scopes**.

Canvas App Settings

- **Canvas**: Select the check box.
- **Canvas App URL**: Enter the URL for the Canvas app with the following syntax: `https://<hostname>/OTCS/cs.exe/xecmsf/canvas`.

  Note: If Salesforce communicates through a proxy to Content Server, you must provide the proxy URL instead of the Content Server hostname.
- **Access Method**: Select **Signed Request (POST)**.
- **Locations**: Add **Lightning Component** and **Visualforce Page** to the **Selected** locations

3. Click **Save**.

To configure permissions for the Canvas app:

1. In Salesforce, go to **Setup > Connected Apps > Manage Connected Apps**.
2. Click **Edit** for the connected app that you just created.
3. On the **Connected App Edit** page, in the **OAuth policies** section, go to **Permitted Users**, and select **Admin approved users are pre-authorized**.
4. Click **Save**.
5. Go to **Setup > Manage Users > Profiles**, and then select and edit a profile.
6. On the **Profile Edit** page, in the **Connected App Access** section, select the connected app that you created.
7. Click **Save**.

To configure the OpenText Content Management for Salesforce Admin page:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **System Configuration** > **Repository** > **General Settings**.

5. **Canvas App Name**: Select the Canvas App Name that you used when creating the Connected App.

   Note: Only apps that are added in the Manage Connected Apps page are available in the list.

6. Click **Save**.

Part 4

Logging, error handling, reporting, system configuration

This part describes logging in Salesforce and on Content Server as well as error handling, system configuration and reporting in Salesforce.

It also includes administrative tasks like the system configuration and scheduling processes in Salesforce.

Customer feedback and reviews

To write a review for the application on Salesforce AppExchange, click the **Write a review** button on the Administration screen. Once you submitted your review, this option will be disabled. You can write a review after 9 months again.

Chapter 18

Managing logs in Salesforce

18.1 Defining the log configuration

You can define different settings for the various modules. The name of the log setting is generated automatically from the modules that are logged.

To define the log configuration:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Logs** > **Configuration**.
5. On the **Log Configuration** page, click **New**.

   To edit an existing setting, click for the setting and then click **Edit**.
6. In the **Log Configuration** window, define logging settings.

   Log Module
   To add one or more modules to the log, select them and move them to the **Chosen** area using the arrow.

   Source
   If you want to write the logs only for a specific class, enter it here.

   Log Level
   Select a log level. The first level in the list is the lowest level. Every level includes the above levels in the list, for example the `Debug` level includes `Info`, `Warn`, and `Error` messages.

   Retention
   Enter the retention period value.

   Example: If you want to retain the log messages for 10 days, enter 10 in the **Retention** box and select **Days** in the **Retention Unit** list.

   Retention Unit
   In the list box, select a measuring unit, for example **Days**.
7. Click **Save** to close the dialog box.

18.2 Reviewing and Exporting logs

To review and export logs:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Logs** > **Debug Logs**.
5. Define a filter:

   Module
   To add on or more modules, select them and move them to the **Selected** area using the arrow.

   Source
   If you want to review the logs only for a specific source name, enter it here. You can enter wildcard characters for this filter, for example an asterisk`*`. As escape character, you can use a backslash `\`.

   Log Level
   Select a log level. The first level in the list is the lowest level. Every level includes the above levels in the list, for example the `Debug` level includes `Info`, `Warn`, and `Error` messages.

   Message
   Enter the message text for which you are looking. You can enter wildcard characters for this filter, for example an asterisk`*`. As escape character, you can use a backslash `\`.

   Note: You cannot use wildcard characters at the beginning of the message filter.

   Created Date From
   Select a start date and time from which the logs should be displayed.

   Created Date To
   Select an end date and time to which the logs should be displayed.

6. To review the logs, click **Search**.

   The log messages are displayed. To sort the messages, click the column name.

   If a message is not displayed completely, click the link to review the details.

   Note: Only the first 2000 log entries are displayed.

7. To export or download the logs entries, click **Export**.

   A CSV file with the log entries is downloaded. Only the first 2000 entries are included in the CSV file. Therefore, OpenText recommends that you refine your search to filter the log entries before you export them.

18.2.1 Configuring the debug logs module names

To configure the debug logs module names:

1. From the Salesforce menu, select **Setup** and enter the **Object Manager**.
2. Click **Log Configuration**, and go to the **Fields & Relationships** section.
3. Click **Log Module**, and navigate to the **Values** section.
4. Click **New**.
5. Enter the debug logs module name.
6. Click **Save**.

18.3 Deleting logs

You can delete the logs manually or schedule a job to run at certain intervals.

To execute the purge job once:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Log** > **Debug Logs**.
5. On the **Debug Logs** tab, in the **Log Messages** section, click one of the following:
   - **Purge Expired**: Deletes all expired logs.
   - **Purge All**: Deletes all logs regardless of the retention time that is defined for the logs.
6. Optional In the **Records Per Page** list, click the number of records that should be displayed in a page.

To schedule the purge job:

Prerequisite:

- You must have at least one record in Log Configuration.

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. In the navigation tree on the left, click **Environment** > **Background Jobs**.
4. Review the settings and click **Save**.

The purge job is scheduled. Click **Process Management** to see the details of the job.

Chapter 19

Managing logs on Content Server

19.1 Configuring logging for the Business Workspaces module

You can configure the level of details that should be logged for the Business Workspaces module. The messages are written in the `thread*.log` files of Content Server. The Business Workspaces module does not produce a separate general log file. For more information about logging in OpenText Content Management, see the online help.

Notes

- To use logging in general, you must enable it: On the **OpenText Content Management Administration** page, click **Base Settings - Server Configuration > Log Settings**, and select log levels, for example, **2 – INFO** for Thread Logs.
- Changing the log level settings does not require a restart of the Content Server services. You set the logging for the current Content Service instance not for other instances of the Content Server.

Chapter 20

Error handling in Salesforce

20.1 Reviewing the errors

You can review any errors that occur during batch processing, which includes errors during creating or updating a workspace as well as errors during uploading a document. You can then decide to delete or resubmit records.

For details, see the following procedures:

- "To display all errors:" on page 181
- "To display only filtered errors:" on page 181
- "To resubmit or delete records:" on page 182

To display all errors:

1. Log on to Salesforce as a user assigned the **OpenText Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Logs** > **Error Handler**.

By default, in the **Error Details** area, all "hard" errors from the database are displayed. These are errors that need the administrator to take action to resolve them. You can enter filter criteria to restrict the errors that are displayed.

To display only filtered errors:

1. On the **Error Handler** tab, in the **Filter Options** section, enter your filter criteria:

   Business Object Type
   Specify the business object type of the business object whose workspace is being created or updated or that is associated with the document being uploaded.

   Business Object Id
   Specify the ID of the business object whose workspace is being created or updated or that is associated with the document being uploaded.

   Error Message
   Specify the error message of the records to be displayed. You may use the asterisk (*) wildcard character to match zero or more instances of any character.

Start Date
Select the start date and time of the records to be displayed. If no date is selected, records are queried from the earliest. If a date is selected and the time is omitted, the time defaults to 12:00 AM. The date should be formatted according to your default locale; the time should be selected according to your default locale as a 12-hour clock. For example, for the United States, a value looks like this:*08/15/2017 08:15 AM*

End Date
Select the ending date and time of the records to be displayed. If no date is selected, records are queried to the latest. If a date is selected and the time is omitted, the time defaults to 12:59 PM. The date should be formatted according to your default locale; the time should be selected according to your default locale as a 12-hour clock. For example, for the United States, a value looks like this: *08/15/2017 04:45 PM*

Document Type
For document upload errors, specify the document type of the attachment being uploaded.

Document Id
For document upload errors, specify the ID of the attachment being uploaded.

Source
Enter either `Workspace` or `Document` depending on whether the error occurred during the process of creating or updating a workspace, or during uploading a document.

Display soft errors
By default, soft errors are suppressed in the query results. If you select this check box, soft errors are included in the results.

Certain errors are considered “soft” in that they are artifacts of internal Salesforce processing, for example, a record temporarily locked by another user. These errors are recoverable without additional action by the administrator. “Hard” errors, in contrast, do need the administrator to take action to resolve them.

2. Click **Search**, to display the selected errors in the **Error Details** area. If you want to remove the filter criteria entered, click **Clear**.

You can select records from **Error Details** area to specify how the records should be processed. Records can be resubmitted to the process, or be deleted.

To resubmit or delete records:

- In the **Error Details** area, you have the following options:
  - Click **Resubmit All** to resubmit all records meeting the filter criteria, regardless of whether they are on the current page or selected.
  - Click **Resubmit Selected** to resubmit only the selected records.

- Click **Delete All** to delete all records meeting the filter criteria, regardless of whether they are on the current page or selected.
- Click **Delete Selected** to delete only the selected records.
- Click **Refresh** to reload all records. This action adds new records and delete old records.

Selection and navigation

You can select records either by using the check box in the header bar to select all records on the page, or by using the check box on the record line to select individual records. Selections are not preserved across pages unless the **Allow selections across multiple pages** check box is selected.

You can navigate the result pages by using the **First**, **Previous**, **Next** and **Last** buttons.

Chapter 21

Reporting in Salesforce

You can run different reports for the configuration.

21.1 Running the reports

The product includes two reports: a configuration report to list the current configuration of the system and a diagnostic report to check for configuration errors. You can either run the report to display it on the screen or download it.

Configuration report

The configuration report is helpful in showing all the system's configurations in one view. It can also be helpful in identifying misconfigurations, detailing mappings, and self-documenting the integration.

Diagnostic report

The diagnostic report validates the extension package and system's configurations, including the machine access to all required services. If any configurations fail, the recommendations provided are helpful in identifying and resolving issues. Once issues are resolved, rerun the report to verify the corrections.

Note: If you are unable to open or work in an Org, OpenText recommends that you run a diagnostic report to validate if the feature is enabled and supported by your extension package. It also verifies if the users are synchronized.

To access the reports:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Reports**.
5. Click **Diagnostic Report** or **Configuration Report** to run and display the respective report.
6. Optional Click **Download** to download the report in .CSV format.

Chapter 22

System configuration in Salesforce

You can edit the system configuration settings. These settings are split in different groups based on their functionality.

22.1 Defining security settings

To define security settings:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **System Configuration** > **Security**. You have the following sections:

   OAuth Configuration

   - **OAuth Client ID**

     Client ID of the OAuth client created in OTDS for the OpenText Content Management for Salesforce Enabler application. This parameter is required for the Enabler to authenticate with OpenText services.

   - **OAuth Client Secret**

     Client secret for the OAuth client created in OTDS for the OpenText Content Management for Salesforce Enabler application. For OTDS 16 this is the secret key generated by OTDS when the client was saved; for OTDS 10.5 this is the password you specified when you created the client. This parameter is required for the Enabler to authenticate with OpenText services.

   - **OAuth Authorization URL**

     OAuth authorization URL endpoint for OTDS; this is always `https://<host>[:<port>]/otdsws/login`, where *<host>* and *<port>* are the host and port number of the Tomcat instance hosting OTDS. Note that the *<port>* is optional if Tomcat is listening on the standard HTTPS port (443). This parameter is required for the Enabler to authenticate with OpenText services.

   - **OAuth Token URL**

     The OAuth token URL endpoint for OTDS. This field is currently not used, but for future use is normally set to the same endpoint specified for the OAuth Authorization URL.

Proxy Configuration

- **Proxy Authentication User Name/Password**

  Proxy user name and password; required if the reverse proxy between Salesforce and the OpenText services requires authentication. All messages from OpenText Content Management for Salesforce will then contain the standard HTTP/1.1 *Proxy-Authorization* header field. This header contains the proxy user name and password formatted according to the *Basic* authentication scheme. See the documentation of your proxy server for instructions on how to configure it to use the header for authentication.

SSL Configuration

- **Two-way SSL Authentication Certificate Name**

  Certificate name for two-way SSL authentication. Some installations utilize two-way SSL authentication using certificates to authenticate the messages from the OpenText Content Management for Salesforce Enabler to their network. To use this feature, you must proceed as follows:

  1. In Salesforce, go to **Setup** > **Certificate and Key Management**, and either generate a self-signed certificate or upload a certificate from a recognized certificate authority.
  2. Enter the certificate name here in the system configuration. All messages from OpenText Content Management for Salesforce will then include the certificate identified by that name.
  3. Add the certificate to the system authenticating the messages from Salesforce. See the documentation for your web server (for example, Apache Tomcat, Microsoft IIS) for instructions on how to configure it for two-way SSL authentication.

5. Click **Save**.

You can use the following options on the page:

- **Save**: To save the configuration changes.

  The values that you provided are validated and an error message is displayed if any value is not valid. However, only the mandatory fields are validated.
- **Cancel**: To revert all unsaved changes to their original values.
- **Delete**: To delete the settings from the configuration.

22.2 Defining repository settings

To define repository settings:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **System Configuration** > **Repository** > **General Settings**.

   a. In the **General Settings** area, you have the following options:

   - **Repository Type**

     The repository type is populated automatically based on extension package installed on the Salesforce org, that is, **Content Server** when the extension package is OpenText Content Management for Salesforce.

     Based on the Repository Type, you will receive a notification when the latest version extension package is available. You can click the link in the notification to navigate to the App Exchange and download the latest version extension package.

   - **String to prepend for Merged Workspaces**

     When a related business object is merged into master business object and child of related business object will also be merged along with respective parent related business objects. A prefix is added to the name of the merged business object's related business workspace in Content Server. By default, the prefix is Merged_, but you can specify a different prefix in this setting. You can use the following special characters as the prefix:

     .!@#$^*()_,

     If the merge string doesn't have any special character at the end of the string, a space character is added as the prefix to the child workspace.

   - **Canvas App Name**

     Select the Canvas App Name that you used when creating the Connected App.

     Note: Only apps that are added in the Manage Connected Apps page are available in the list.

   b. In the **Aviator Settings** area, you have the following option:

   Aviator Chat Records Threshold
   Maximum number of Aviator chat table records retained per user. The default value is 20. If the chat table records exceed the value that you entered, then the old records are replaced with the new ones.

5. In the navigation tree on the left, click **System Configuration** > **Repository** > **Content Server**.

   a. You have the following options in the **Connection Settings** area:

      - **Business Application ID**

        Business application ID for Salesforce as configured in Content Server.

      - **Base URL**

        The value is usually of the form: *`http(s)://hostname:port`*.

        Note: This is the URL for accessing Content Server from the user's workstation.

      - **CGI Path**

        Directory of the CGI path. This is usually `/OTCS/cs.exe`.

      - **Support Path**

        Directory of the support path. This is usually `/img`.

      - **Theme Path**

        Directory of the theme path where you can add your custom theme. Default is `<CS Install>\support\salesforceinterface\salesforcethemes\<custom directory>`.

   b. You have the following options in the **Additional Information** area:

      Content Viewer Query String

      You can select one of the following viewers to view the content of the file that opens when you click the link. The file link is created when you set LINK as value for the *Content Migration Action* parameter. The query string is populated automatically based on the selected viewer. The `{nodeid}` within the query string is used as a placeholder, so that the correct node id will be replaced when the file link is created.

Brava!	To use Brava! viewer to view the content. Query string – `?func=brava.bravaviewer&nodeid={nodeid}`
Content Server	To use the default content document viewer configured in Content Server Query string – `?func=doc.Fetch&nodeid={nodeid}`
Custom	To use a custom viewer. You can define the query string in the box.
Smart View	To use Smart View as the viewer. Smart View is selected by default. Query string – `/app/nodes/{nodeid}`

Documentum	To use the native Documentum viewer. Query string – `?func=xsapdcm.DocumentHandler&nodeid={nodeid}`

Technical User

User name for Salesforce to use when accessing Content Server. The user must have permissions to create, update, and view workspaces as well as permission to impersonate other users.

Attachment Temporary Location

Note: You can ignore this step if you have configured for Documentum repository.

Specify the folder for Content Server to use to temporarily store uploaded files before processing.

Matching upload directory, if configured

While copying documents from Salesforce to Content Server, documents are temporarily cached on the Content Server machine prior to committal. If you configure the optional *Upload Directory* on Content Server in the *Configure Server Parameters* section, you must ensure that the folder is the same as specified here. Otherwise, a "File Not Found" error will occur. In addition, ensure the file path has proper operating system access credentials for the temporary location. A "File Not Found" error will occur if proper CRUD permissions are not applied.

c. You have the following options in the **OTDS Settings** area:

- **REST API URL**

  URL of the Directory Services REST API call. The value is usually of the form: *`http(s)://hostname:port/otdsws/rest/`*. Note that this URL is used by Salesforce when accessing the REST API calls.

- **Resource Name**

  Resource name of Content Server in Directory Services. For information about retrieving the resource name, see "Configuring a resource for OpenText Documentum CM" on page 111. You also need to enter the ID in Content Server.

- **Resource Attribute__NAME__**

  `_NAME_` attribute configured for the Content Server resource in OTDS. This specifies the attribute in the OTDS user records that contains the users' Content Server user names. For example: `oTExternalId1`.

  Click **Get Resources** after entering the REST API URL to retrieve the resource name, attribute name, and partition details from OTDS.

6. Optional To check the connection with Content Server, click **Check Connection**. This action validates whether the connection can be established with Content Server by validating the values in the connection related fields.

7. Click **Save**.

You can use the following options on the page:

- **Save**: To save the configuration changes.

  The values that you provided are validated and an error message is displayed if any value is not valid. However, only the mandatory fields are validated.
- **Cancel**: To revert all unsaved changes to their original values.
- **Delete**: To delete the settings from the configuration.

22.3 Defining performance settings

To define performance settings:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.

2. From the application list, select **Content Services by OpenText**.

3. Click the **Administration** tab.

4. In the navigation tree on the left, click **System Configuration** > **Performance** > **Workspace Processing**. You have the following options:

   - **Workspace Cache Enabled**

     Select to enable the Workspace Cache. If cleared, the workspace node ID will not be retrieved and the system cannot perform the subsequent steps, such as content migration or chatter pulse.

     Note: Select this check box for the Merge Events to work when you have multiple business object types for same objects.
   - **Workspace Metadata Batch Job Enabled**

     Select to enable the Workspace Metadata Batch Job. If cleared, events for business objects will be queued, but workspace metadata will not be retrieved or sent to Content Server.
   - **Workspace Metadata Batch Max Records**

     Specify the maximum number of records in each batch processed by the Workspace Metadata Batch Job. The value should not exceed 1000. Setting this too high may result in Salesforce stopping the job because it exhausts its memory quota.

     Note: If you configured the batch size as 1000 and receive an `APEX CPU limit exceeds` error or the `Governor limit exceeds` error, then decrease the batch size to 500.

- **Workspace Metadata Batch Job Resubmit Delay (min)**

  Specify the minimum number of minutes before resubmitting the Workspace Metadata Batch Job to process additional queued workspace events. Each time the job is submitted, it will process all events in the queue at the time the job is submitted. As events are continually added to the queue, the job must be resubmitted to process additional records. A longer submit delay allows events to be processed more efficiently but means a longer wait for the workspaces to be updated. See the *Batch Job Polling Interval (hours)* option below for more information on the resubmit delay.

- **Workspace Update Batch Job Enabled**

  Select to enable the Workspace Update Batch Job (default). If cleared, metadata for business workspaces will be retrieved but not sent to Content Server.

- **Workspace Update Batch Max Records**

  Specify the maximum number of workspaces to update in each batch processed by the Workspace Update Batch Job. The value should not exceed 1000. Setting this too high may result in Salesforce stopping the job because it exhausts its memory quota.

  Note: If you configured the batch size as 1000 and receive an `APEX CPU limit exceeds` error or the `Governor limit exceeds` error, then decrease the batch size to 500.

- **Workspace Update Batch Job Resubmit Delay (min)**

  Specify the minimum number of minutes before resubmitting the Workspace Update Batch Job to process additional workspace metadata. Each time the job is submitted it will process all metadata in the queue at the time the job is submitted. As metadata is continually added to the queue, the job must be resubmitted to process additional records. A longer submit delay allows metadata to be processed more efficiently but means a longer wait for the workspaces to be updated. See the *Batch Job Polling Interval (hours)* option below for more information on the resubmit delay.

- **Workspace Update Message Max Records**

  Specify the maximum number of workspaces to update in a single call to Content Server. Setting this too high will result in a time out in the call to update the workspaces in Content Server.

5. In the navigation tree on the left, click **System Configuration** > **Performance** > **Content Processing**. You have the following options:

   - **Native Attachment Enabled**

     Select to enable the processing of attachments and content migration. If the check box is cleared, content migration does not happen.

- **Legacy Attachment Enabled**

  Select to enable processing of legacy attachments. If the check box is cleared, no legacy attachments are queued or processed.

- **File Attachment Enabled**

  Select to enable processing of file attachments. If the check box is cleared, no file attachments are queued or processed.

- **Content Migration Action**

  You can define what should by default happen after a successful migration of a Salesforce document to Content Server. This org-wide setting applies to all business object workspaces as long as no specific *Content Synchronization* rule is configured on business object type level. For details about these specific rules, see *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*. Enter one of the following actions:

  – **COPY** – Creates a copy of the Salesforce document in the associated workspace in Content Server. It leaves the Salesforce document untouched.

  – **MOVE** – Creates a copy of the Salesforce document in the associated workspace in Content Server and then deletes the document from Salesforce.

  – **LINK** – Creates a copy of the Salesforce document in the associated workspace in Content Server and replaces the document in Salesforce with a URL link pointing to the document in Content Server. To configure the viewer that is used, refer to the *Content Viewer Query String* parameter.

  Notes

  – **Chatter associated documents**

    You can upload or share a file via Chatter feeds and comments. After migration, the MOVE action removes these files from Salesforce while the LINK action replaces the files with links and the user can click on them to view the migrated files in the repository.

    If a file is only uploaded by a user to Salesforce for their personal use or stored in a library and it is not associated with any business object to start with, then the file will not be removed or replaced by a link. If such a file is associated with a business object by means of sharing at a later time, the file is migrated to the repository but will not be removed or replaced by a link.

    You can share files from Chatter feeds and comments by selecting existing files from Salesforce. In this scenario, the shared files will be replaced by links pointing to shortcuts to the original documents on the repository. After migration the shared files become shortcuts on the repository. BecauseContent Server repository only allows for one unique shortcut name per folder, the original document name is

appended with the original document node id as the name of the shortcut to avoid name collisions.

For any Salesforce file that is versioned, each version is migrated at a time. If the MOVE or LINK action is used, the file is not removed or replaced by a link until all its versions are migrated to the repository.

– **Email associated documents**

The Email object in Salesforce is read-only, so any content attached to it cannot be removed without having side effects. For email attachments, the action specified in the *Content Migration Action* has no effect and the default action is always COPY. When users open an email in Salesforce, they still see the original document attached to the email in the Salesforce Email Attachment and Email objects.

- **Content Metadata Task Size**

  Specify the number of attachment records to process in each batch of the job.

- **Content Delay Queue Task Size**

  Specify the number of attachment records to process in each batch of the job.

- **Conditional Content Synchronization Task Size**

  Specify the number of attachment records to process in each batch of the job.

- **Content Sync Rule Mismatch Queue Retention Period (days)**

  Specify for how long content remains in the Content Sync Rule Mismatch Queue. For more information, see *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*.

- **Trigger Content Server Scheduled Job**

  Select to trigger the Content Server scheduled job after uploading a document to Salesforce. .

- **Content Server Scheduled Job Name**

  Enter the name of the scheduled job. Only if the *Trigger Content Server Scheduled Job* check box is selected and this name is available in Content Server, then the scheduled job is triggered to pull documents to Content Server after they have been uploaded to Salesforce.

6. In the navigation tree on the left, click **System Configuration** > **Performance** > **Pulse-Chatter Processing**. You have the following options:

   - **Default Chatter User**

     Enter a default Salesforce user. For the creation of corresponding Chatter comments from Pulse, the Content Server user name is used to look up the corresponding Salesforce user name. If the lookup fails, this default Salesforce user is used instead. If the default Chatter user is left blank, the system user configured for Salesforce in the Content Server Business Application page will be used instead.

- **Feed Metadata Task Size**

  Specify the number of items to process in each task of the job that creates entries in the feed metadata queue for every Chatter post.

- **Feed Intermediate Task Size**

  Specify the number of items to process in each task of the job that confirms the workspace and moves the data to the feed update queue.

- **Feed Update Task Size**

  Specify the number of items to process in each task of the job that calls Content Server to create a Pulse entry.

- **Feed Mentions Enabled**

  Select to pass the user mapping information to Content Server so that Content Server can create or edit Pulse comments with mentions. If cleared, no mention will be done on Content Server side and only the regular text for a Pulse comment is displayed.

7. Click **Save**.

You can use the following options on the page:

- **Save**: To save the configuration changes.

  The values that you provided are validated and an error message is displayed if any value is not valid. However, only the mandatory fields are validated.

- **Cancel**: To revert all unsaved changes to their original values.
- **Delete**: To delete the settings from the configuration.

22.4 Defining environment settings

To define environment settings:

1. Log on to Salesforce as a user assigned the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **System Configuration** > **Environment** > **Web Services**. You have the following options:

   - **Content Services Web Service URL**

     URL of the **Content Services** web service. The value is usually of the form: `http(s)://hostname:port/otsapxecm/services/ECMLink`.

     This URL is used by Salesforce when accessing the web service.

- **Member Service URL**

  URL of the Member web service. The value is usually of the form: `http(s)://hostname:port/cws/services/MemberService`.

- **Admin Service URL**

  URL of the Admin web service. The value is usually of the form: `http(s)://hostname:port/cws/services/AdminService`.

Note: The Web Services page is enabled only when you configure the **Repository Type** setting as **Content Server**.

5. In the navigation tree on the left, click **System Configuration** > **Environment** > **Workspace Settings**.

   a. In the **Workspace Configuration** section, you have the following options:

      - **Cross Application Workspace**

        Select if any workspaces for this system will be sharing workspaces created by another OpenText Content Management system, for example OpenText Content Management for SAP.

      - **Global Workspace Create/Update**

        Select to enable workspace creation or updates (default). If cleared, any events that would normally cause a workspace update are ignored. This provides a quick way to disable the processing in case of emergency or for troubleshooting purposes.

      - **Auto Create Workspace**

        Select to enable the auto-creation of workspaces on Content Server (default). When a user accesses a business object in Salesforce for which there is no workspace, it is created automatically without further user interaction. If the check box is cleared, the user must save the business object to create the workspace.

   b. In the **Workspace Widget** section, you have the following options:

      - **Show Workspace Widget Load Time**

        Select to see the load time statistics on Salesforce pages. The details of the timing taken in Salesforce and Content Server to load the folder browse widget from within Salesforce are shown in the widget.

      - **Business Workspace widget**

        By default, the check box is cleared and OpenText Content Management for Salesforce uses the legacy Folder Browse widget to view Content Server workspaces. Select to use the Create Complete folder browse widget instead.

        Note: Selecting the check box will cause widget display errors when using the *ECM Legacy Files* and *ECM Files* Lightning component on older Content Server systems.

6. In the navigation tree on the left, click **System Configuration** > **Environment** > **Background Jobs**. In the **Background Jobs Settings** section, you have the following options:

   - **Batch Job Blackout Start (hh:mm 24hr)**
     Batch Job Blackout End (hh:mm 24hr)

     Specify the starting and ending times of the job blackout period. No jobs will be started during this interval and any jobs already running will be terminated at the beginning of the interval. This is an optional setting and may be left blank unless needed.

   - **Max Future Processes Threshold**

     Maximum number of pending Salesforce future method calls. If an update to a business workspace would normally be processed using the *future* method, the method will be changed to *queue* if there are at least the specified number of future method calls outstanding.

   - **Max Future Method Records Threshold**

     Maximum number of business object records allowed in a single future method. If more records than this number are in the call, the method will be changed to *queue*.

   - **Master Schedule Interval (min)**

     This setting controls the time when different batches are run. Specify how often the scheduler should check for another scheduled task. Scheduled tasks are placed in a queue when they reach their scheduled times. The master scheduler verifies that the previous task has completed and then starts the next task from the queue.

   - **Scheduler Interval (min)**

     This setting controls the time when different business processes are run by the process scheduler, see "Managing business processes" on page 201. Specify how often each business process checks its own scheduling configuration and determines whether to run or not.

7. In the navigation tree on the left, click **System Configuration** > **Environment** > **Synchronization Settings**. You have the following sections:

   - **User Synchronization**

     Select or clear the **Real-Time User Synchronization** check box to enable or disable real time synchronization. By default, real time synchronization is enabled.

   - **Group Synchronization**

     Select to enable group synchronization. If the **Group Synchronization** check box is cleared, no global collections of users in Salesforce are synchronized to user groups in Content Server.

   - **Enforce Salesforce-Based Group Membership**

     When the flag is ON (Strict mode): The user and group list in the repository will exactly mirror the leading application. Any users or relationships

unavailable in the leading application will be removed from the repository. Additions and deletions will be synced to ensure a full match. Any users in the target Content repository group who are not part of the Salesforce group will be removed. This includes manually added users or the users synced from other sources.

When the flag is OFF (Additive mode): Only new users and relationships from the leading application will be added to the repository. No users or groups will be removed from the repository, even if they no longer exist in the leading application. Existing entities in the repository system remain unchanged.

8. Click **Save**.

Chapter 23

Managing business processes

23.1 Scheduling business processes

You can use the process scheduler to configure business processes to run at scheduled times. You can run any number of processes at a time.

To schedule a process:

1. Log on to Salesforce as a user who is assigned with the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Process Scheduler**. You have the following options:
   a. Select a business process from the list:
      - **Chatter/Pulse Synchronization Process**: This process runs the synchronization of Chatter and Pulse comments.
      - **Content Synchronization Process**: This process helps to migrate the content from Salesforce to the repository. This process manages the movement and processing of content across multiple queues, such as Content Input Queue, Content Sync Rule Engine, Content Delay Queue, Content Object Filter Queue, Content Recovery Queue, Content Metadata Queue, and Content Update Queue. This process queues all jobs or tasks related to content migration in Salesforce. Then the background jobs pick up the records and migrate the documents. The tasks are executed in the following order and you can see the status of each job in **Setup > Apex Jobs**.
        1. ContentRecoveryQueueTask
        2. ContentSyncRuleEngineTask
        3. ContentMetadataTask
        4. ContentDelayQueueTask
        5. ContentObjectFilterQueueTask

        You configure these rules under **Administration > Files and Attachments > Content Synchronization Rules**; see also *OpenText Content Management for Salesforce - Configuration Guide (EESA-CGD)*.
      - **Notification Job Process**: This process helps to invoke custom notifications in the following scenarios:

- **The Subscription is about to expire**: It checks the subscription tenure and sends a notification message to the bell icon(notifications area) and the registered email address 30 days prior to the expiry of the subscription. The notification message contains a link to log a ticket with OpenText Support to renew the subscription.
- **A new version of enabler or extension package is available**: This process checks the installed enabler and extension packages and compares them with the latest versions available on AppExchange. If the user is using an older version enabler and/or extension package, a notification message is sent to the bell icon when a new version of enabler and/or extension package is available. The notification message contains a link to the latest version package on AppExchange.

This process runs every 7 days, by default, but a business administrator can change the frequency of the process, if required.

- **Workspace Synchronization Process**: This process collects metadata from the Event Queue and Event Update Queue sequentially for creating workspaces in the repository.

  Note: You must run the **Batch Workspace Creation** before you run this process.

- **Monitoring Scheduled Jobs Agent Process**: This process helps to monitor the Enabler scheduled jobs. It checks whether the jobs are running or not. If they have stopped, then this process re-invokes the jobs.
- **Purge Expired Log Process**: This process purges the log records which are past their retention period.
- **Resubmit Error Queue Process**: This process submits the records with recoverable errors or selected records with unrecoverable errors from the main error queue for reprocessing. It also moves the recoverable errors from the transient queue to the main error queue.
- **Group Synchronization Process**: This process synchronizes the global collection of users in Salesforce with the corresponding user groups in the repository. This ensures that the user groups are aligned in both the systems. This process handles all entities, such as Profile, Permission Set, Role, Internal Users, External Users, and Public Groups.

b. Optional **Description**: A description of the selected process is populated by default. However, you can modify it as required.

Note: Description cannot be more than 255 characters in length.

c. Enter a schedule:

- To run the process at a regular interval, select **Delay**, and enter the delay in minutes, hours or days.

- To run the process once at a specified date and time, select **One Time**, and enter a date and time.

d. **Next Scheduled Run (Approx)**: A read-only setting that calculates and displays the next scheduled run time.

- Based on the **Scheduler Interval (min)** settings, the process scheduler runs the next scheduled jobs.
- If the next scheduler jobs fall in the blackout period and the blackout period ends before the scheduled interval, then the process scheduler ignores the blackout period.
- If the next scheduler jobs fall in the blackout period, the process scheduler waits till the blackout period is finished and then runs the next scheduled jobs.

5. Click **Save** to save the scheduling configuration. You can also run the business process once now without any scheduling by clicking **Run Now**.

Note: You cannot run a business process between the starting and ending times of the Batch Job Blackout period. For more information, see "Defining environment settings" on page 196.

23.2 Viewing the status of business processes

You can use the Process Management page to view the status of the scheduled business processes and the number of errors that have occurred while running the process.

To manage a process:

1. Log on to Salesforce as a user who is assigned with the **OpenText Content Services Admin Permission Set**.
2. From the application list, select **Content Services by OpenText**.
3. Click the **Administration** tab.
4. Click **Process Management**.

Note: The information on the number of jobs processed and the total number of jobs is not available because the information is not received from Salesforce as of now.

Part 5

Transporting configuration

Chapter 24

Transporting the configuration on Content Server

You can use Content Server Transport Warehouse to transport one Business Workspaces configuration from one Content Server installation to another, for example if you are using development, test and productive systems.

- Categories, classifications and folders
- Workspace types and variables for group replacement
- Workspace templates including workspace hierarchies, if available
- Unique names and unique name groups
- Business object types

For more information about the Transport Warehouse, see the OpenText Content Management online help.

24.1 Importing a configuration from versions between 10.5.1 to 16.2.5

In previous versions, OpenText Content Management for Salesforce used a custom transport mechanism, which was gradually replaced by Transport Warehouse. You can still import transport files from versions prior to 16.2.6 but you cannot export configurations anymore.

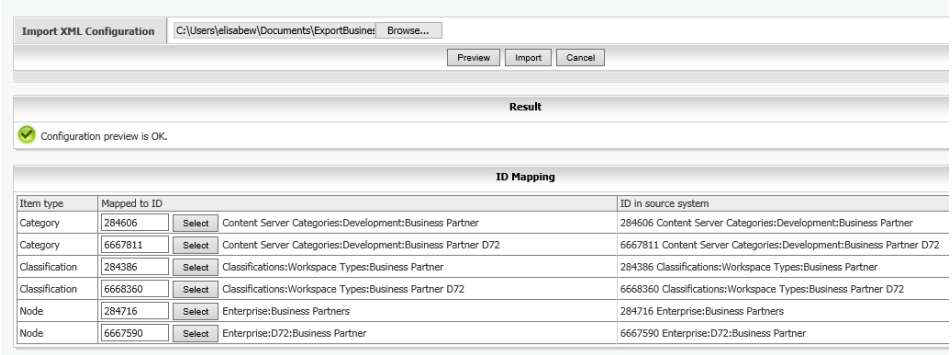
What does the configuration import do?

- The import evaluates nodes like folders, classifications and categories as they are used in the configuration of business object type, workspace type and unique names by the name they had in the source system. If a node with the same name exists in the target system, it is used, otherwise a warning is issued. If more than one node with the same path is found, the first one is used and a warning is issued. You can change the node on the preview page.
- The import checks the usage of categories with attributes and attribute sets for location and sub location path in workspace type and external document storage, RM Classification, classification and multilingual names. If it is not correct a warning is issued. Additionally, if the category does not contain the used attributes or attribute sets a warning is issued.
- If the transport file contains names for multilingual names in languages that are not enabled in the target system, a warning is issued. The name is imported, but it cannot be seen in the workspace type configuration as long as the language is not enabled. If you change the workspace type before the language has been enabled, this name is removed from the configuration.

- To find out whether a workspace type in the transport file must be created or updated, workspace types are searched by their name given in the transport file. If no business object type can be found, a new type is created. If there is no name for a workspace type in the transport file, but the workspace type is associated to a business object type in the target system, this workspace type is used.
- To find out whether a business object type in the transport file must be created or updated, business object types are searched by their name, and also by the combination of business object type/business application. If no business object type can be found that way, a new type is created. If different types are found, the import is rejected with the message **Different Object Types found ...**.
- If workspace types are used in the Related Items sidebar widget and they are not exported to the same file, these workspace types are also searched by their names. You can change the found type on the preview page. This is also done if only business object types are exported and imported but not their associated workspace types.

To import a Business Workspaces configuration:

1. On the **OpenText Content Management Administration** page, click **Business Workspaces > Import Configuration**.
2. On the following page, click **Import Configuration**.
3. Select the transport file from your local file system.
4. Click **Preview**. The transport file is checked and you can preview everything that is going to be imported and where. Errors and warnings are also displayed.



ID Mapping

Contains all node IDs that have been found in the transport file, for example for classifications, or for categories that are used for the location or the workspace name. If the target system contains nodes with the same name as the source system, they are prefilled with that suggestion. You can change the node.

Important

Categories and attributes used for group replacement are not handled as dependency of template transport items.

Users import the template via the transport workbench and need to manually update the attribute and category IDs to get the problem solved.

Workspace Types, Business Object Types, Unique Names, Variable Definitions

If workspace types, business object types, unique names, and variable definitions are part of the export, they are listed in these sections. You can see what data is being imported if workspace types or business object types are created or updated.

5. Resolve the inconsistencies in the mapping:
   a. Click **Select** to map another node. These settings are buffered and used when you refresh the preview or start the import. Alternatively, edit the transport file and save it.
   b. Click **Preview** to read the new changes into the preview.
6. When you are satisfied with the import preview, click **Import**.

   A result page informs you in detail about what has been imported.

Chapter 25

Importing and exporting configuration in Salesforce

In the Salesforce system, you can use the export and import functionality to transport the Salesforce object configuration and the system configuration from one system to another.

25.1 Exporting the configuration

When you want to move the configuration from one system to another system, you can export it to a file and import it in the other system.

The configuration file contains the following for each supported Salesforce object:

- Triggers on the objects
- VisualForce pages to display the business workspace widget
- Buttons for viewing each business workspace in a light box
- OpenText sample page layouts containing the business workspace widget and light box button
- Property provider and related business workspaces configuration records for the sample configuration.

If you select the **include system configuration** check box, it also contains the system configuration.

To export the configuration:

1. From the Salesforce App Launcher, select **Content Services by OpenText**.
2. Click the **Administration** tab.
3. In the navigation tree on the left, click **Import/Export**.
4. In the **Configuration Export/Import** section, click **Export XML Configuration**, enter a name, and click **Export**.

   Note: Select the **Include system configuration** to export the system configuration. This is relevant if you want to import the system configuration in another system.

25.2 Importing the configuration

You can use an exported configuration file to import the configuration to your system. The `sa_configuration_crm_<version>` configuration file contains the following for each supported Salesforce object:

- Triggers on the objects
- VisualForce and Lightning pages to display the business workspace widget
- Buttons for viewing each business workspace in a 'light box'
- OpenText sample page layouts containing the business workspace widget and light box button
- Property provider and related business workspaces configuration records for the sample configuration.

Alternatively, you can configure manually. For more information, see "Manual configuration in Salesforce" on page 23.

To import the configuration:

1. Copy the `sa_configuration_crm_<version>` file to your local client.
2. From the Salesforce App Launcher, select **OpenText Content Management** (classic UI) or **Content Services by OpenText** (Lightning UI).
3. Click the **Administration** tab.
4. In the navigation tree on the left, click **Import/Export**.
5. In the **Configuration Export/Import** section, click **Import XML Configuration**.
6. Browse for the configuration, select the import file, and click **Load File**.
7. In the **Import Options** area, choose from the following options:
   - To import the system configuration: In the **System Configurations** area, select the **Include System Configuration** check box. This is relevant if you exported the configuration from another system with the system configuration included and want to import it to the current system.
   - To import only specific Salesforce business objects: In the **Business Objects** area, clear the check boxes for business objects that you do not want to import. By default, all business objects are selected.
8. Click **Import**.

Chapter 26

Importing and exporting configuration in OpenText Documentum CM

For the configurations related to OpenText Content Management for Salesforce, you must import two files:

1. Importing the `Salesforce_Documentum_CRM_D2Objects_21.4.zip` file for all the configurations including import folder structure, property pages, and the Access Salesforce menu.
2. Installing the `Salesforce_Documentum_CRM_DA_Types.dar` file for importing types in the repository of the OpenText Documentum CM server.

26.1 Importing the D2-Config.zip file

The `Salesforce_Documentum_CRM_D2objects_21.4.zip` import file contains all the configurations related to D2 Smartview, for example, its landing page, and default available menus. You specifically need the folder structure imports, property pages, and the Access Salesforce menu.

To import the configuration:

1. Access Client Configuration using the URL: `http://<hostname>:<port>/D2-Config`
2. Click **File** > **Import configuration**.
3. Select the `Salesforce_Documentum_CRM_D2objects_21.4.zip` file and then select the **Full import without actual config reset** check box.
4. Click **OK**.

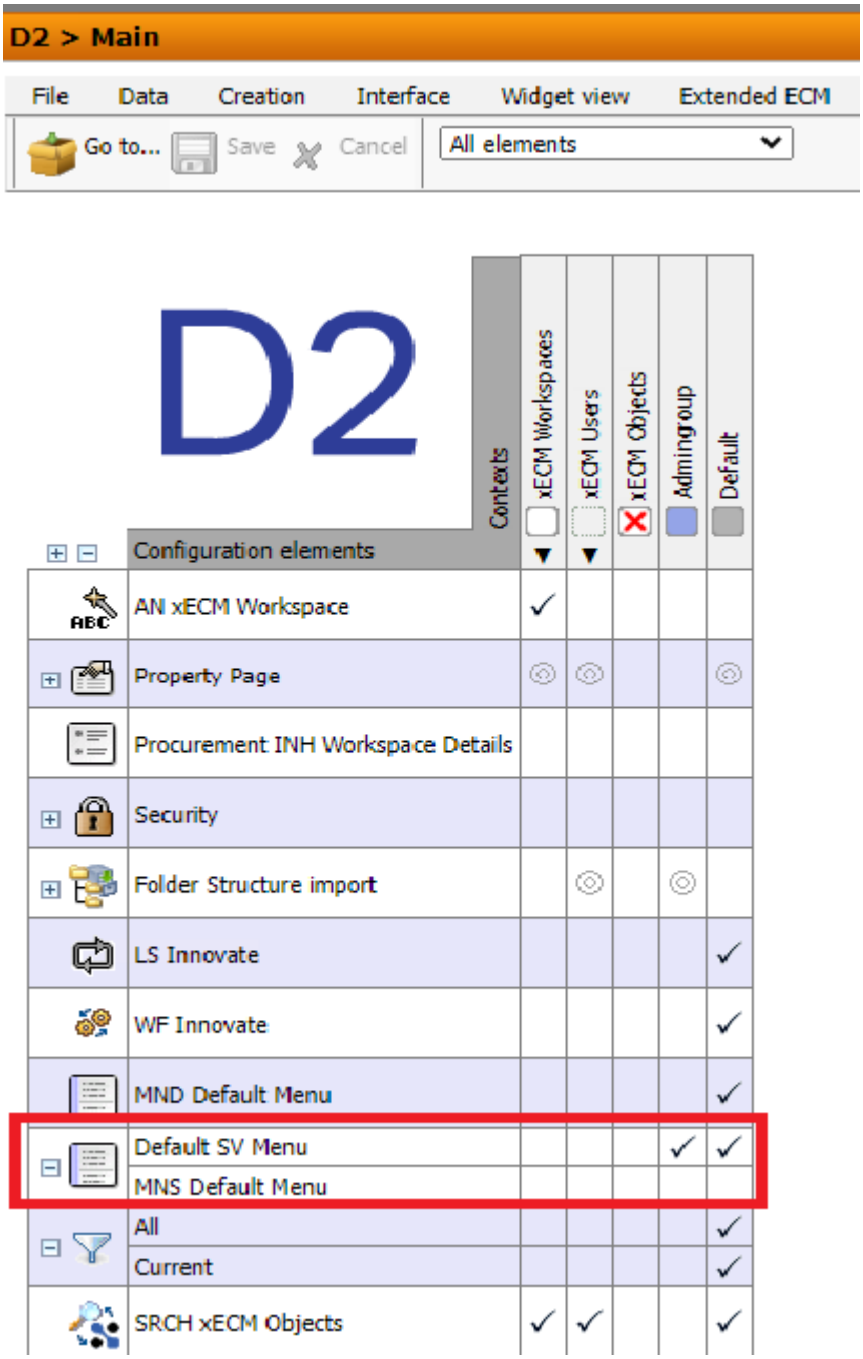
The folder structure imports are used to map the Type attributes of OpenText Documentum CM to Content Server attributes. The property pages are used to display the metadata for workspaces in D2 Smartview.

The import also consists of an *Access Salesforce* menu which is accessible only when a workspace of type xecm_workspace is selected. On clicking this menu, the Salesforce view of that workspace opens. As a prerequisite, the administer must modify the Salesforce URL according to their org from D2-Config. This is a one time task.

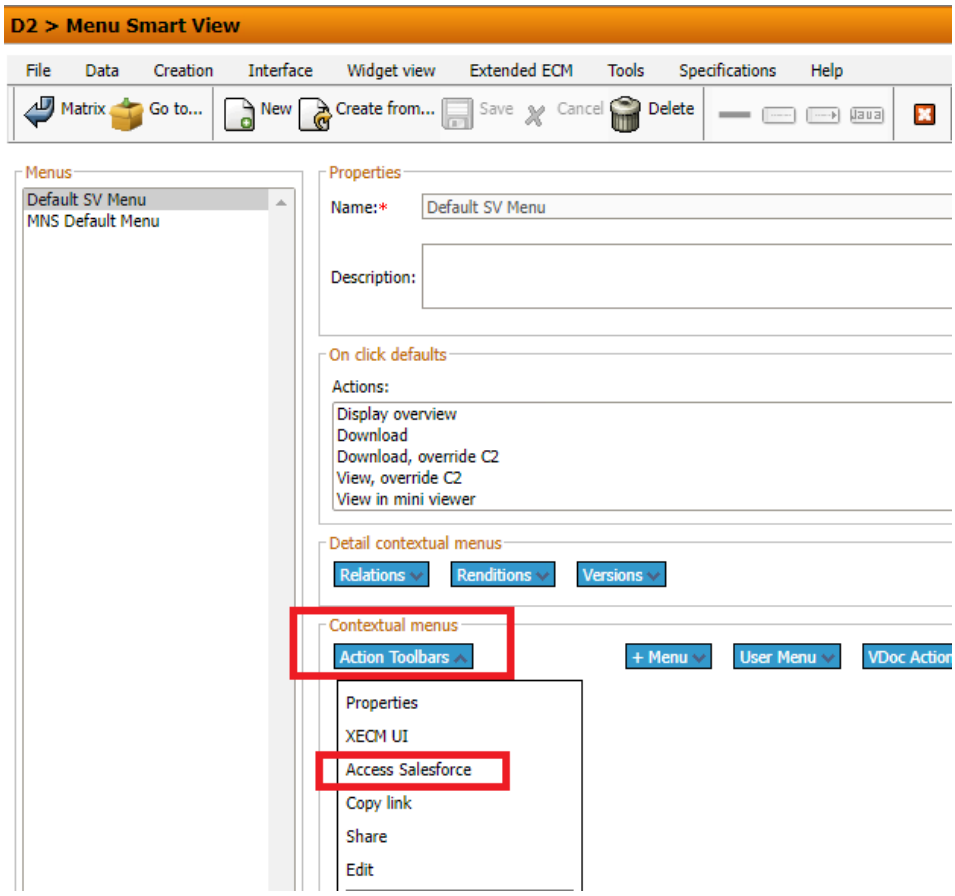
To modify the Salesforce URL:

1. Access D2-Config using the URL : `http://<hostname>:<port>/D2-Config`
2. On the menu bar, from the list, select **All elements**.
3. From the matrix, open the **Default SV Menu** property.

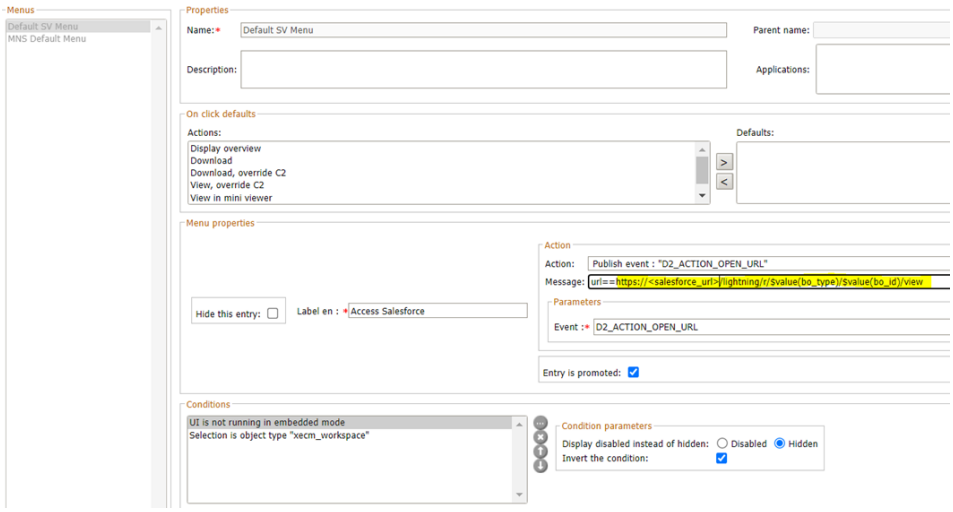
Tip: If you have already configured something in this section, you might not find the **Default SV Menu** in the **Configuration elements** column. Expand the **Menu Smart View** to find it.



4. In the **Contextual menus** section, from the **Action Toolbars** list, select **Access Salesforce.**



5. Under **Menu properties**, modify the Salesforce URL in the **Message** field.



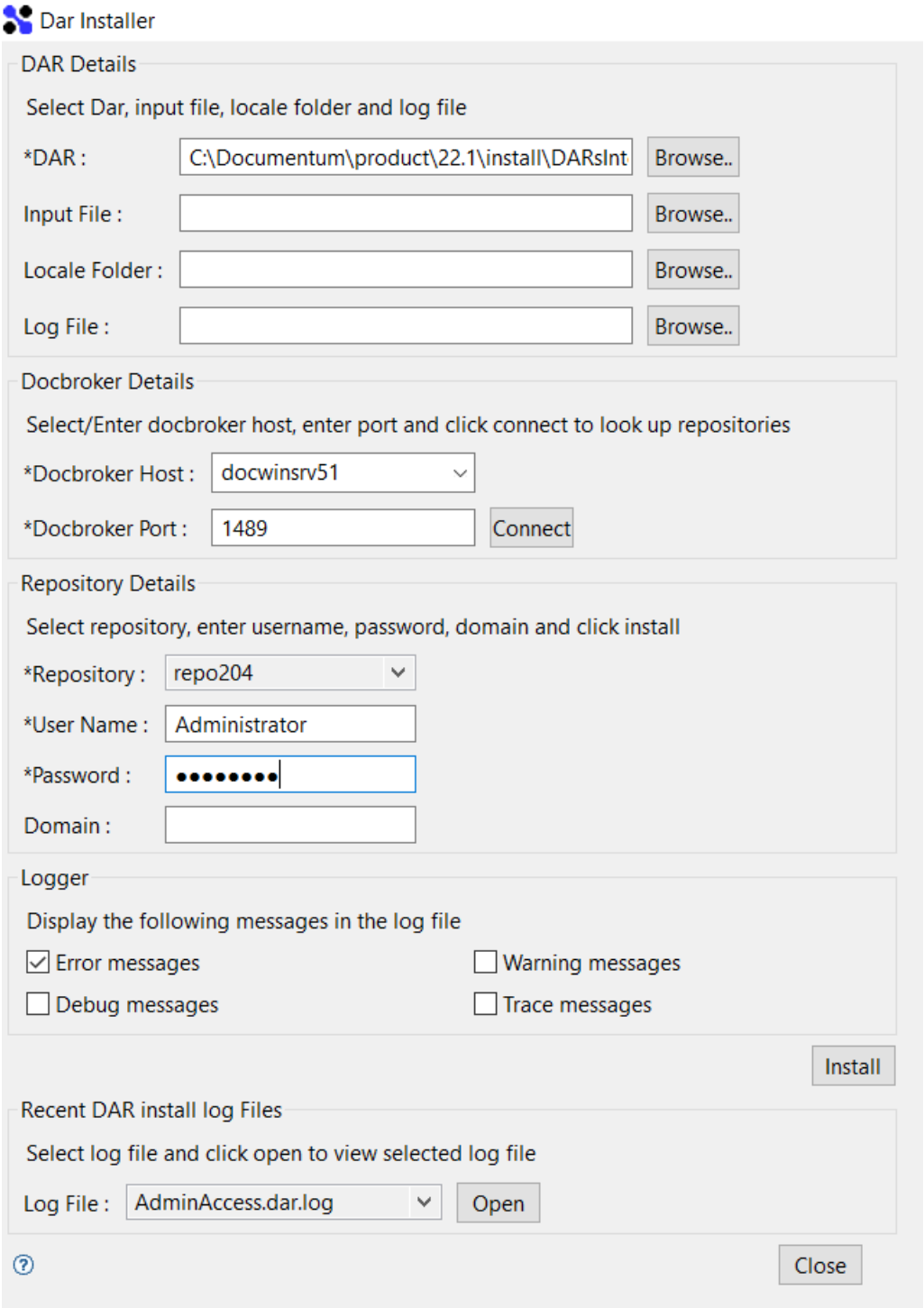
6. Click **Save** and then click **Tools** > **Refresh cache**.

26.2 Installing dar file

You install the `Salesforce_Documentum_CRM_DA_Types.dar` file using composer headless of the OpenText Documentum CM server to import the required types into the repository.

To install .dar files:

1. Login to the OpenText Documentum CM system.
2. Navigate to `<Documentum_Home>/products/install/<version>/composer/ComposerHeadless/`
3. Double click `dardeployer.exe` to open the application used to install dar files.
4. Enter the required details as shown:


Dar Installer
DAR Details
Select Dar, input file, locale folder and log file
*DAR :
C:\Documentum\product\22.1\install\DARsInt
Browse..
Input File :
Browse..
Locale Folder :
Browse..
Log File :
Browse..
Docbroker Details
Select/Enter docbroker host, enter port and click connect to look up repositories
*Docbroker Host :
docwinsrv51
*Docbroker Port :
1489
Connect
Repository Details
Select repository, enter username, password, domain and click install
*Repository :
repo204
*User Name :
Administrator
*Password :
Domain :
Logger
Display the following messages in the log file
Error messages
Warning messages
Debug messages
Trace messages
Install
Recent DAR install log Files
Select log file and click open to view selected log file
Log File :
AdminAccess.dar.log
Open
Close

5. Click **Install** to import the types into the repository.

Part 6

Miscellaneous configuration information

This part describes miscellaneous configuration information.

Chapter 27

Field expressions

A *field expression* is an expression that consists of constants, field names, and operations.

Constant values are copied directly into the result, field expressions are replaced with the possibly modified contents of the corresponding field from the queried table or view. The general form of a field expression is as follows:

```
[field_name+offset(max_length)]
```

or

```
[field_name-offset(max_length)]
```

`field_name` is the field from the table. `+offset` or `-offset` is an optional number of characters to skip; if offset is positive the offset is forward from the beginning of the string; if offset is negative the offset is backward from the end of the string. `(max_length)` is the maximum number of characters to extract; a positive max length extracts the following characters; a negative max length extracts the preceding characters. If not set, `offset` defaults to 0, and `max_length` defaults to the entire value.

Example: The zipcode field contains the value 20500-0001. You can alter the field as follows:

Expression	Result value
[zipcode]	20500-0001
[zipcode+6]	0001
[zipcode-4]	0001
[zipcode(5)]	20500
[zipcode+5(1)	-
[zipcode-4(-1)	-
[zipcode-5(-5)	20500
[zipcode-5(-)	20500
Zipcode: [zipcode(5)]	Zipcode: 20500

Chapter 28

Property value formatter initialization parameters

Property values are automatically associated with a value formatter based on the value's data type. The OpenText Content Management implementation provides the ability for initialization parameters to be passed to the formatter to change the resulting string. Unfortunately, due to limitations in the Salesforce Apex libraries only a few of the formatters can be modified. These are documented below.

28.1 Address formatter initialization parameters

A Salesforce address is composed of nine separate parts. Each part has been assigned a code. The codes in the initialization parameter are replaced with the corresponding address part. Anything in the parameter which is not a code is placed into the result as a literal. The character sequence '\n' represents the line break literal. The codes are as follows:

Address part	Code
City (Locality)	{CTY}
Country name	{CNM}
Country code	{CCD}
Latitude	{LAT}
Longitude	{LON}
Postal (ZIP) code	{PCD}
State (Province) name	{SNM}
State (Province) code	{SCD}
Street address	{STR}

In addition to the above codes the formatter recognizes certain aliases for standard country address formats. These country aliases are as follows:

Alias	Country	Expanded definition
{CA}	Canada	{STR}\n{CTY} {SCD} {PCD} \n{CNM}
{DE}	Germany	{STR}\n{PCD} {CTY} \n{CNM}
{FR}	France	{STR}\n{PCD} {CTY} \n{CNM}
{GB}	United Kingdom	{STR}\n{CTY}\n{PCD} \n{CNM}

Alias	Country	Expanded definition
{US}	United States	{STR}\n{CTY} {SCD} {PCD} \n{CNM}

If no initialization parameters are specified, the formatter default is {US}.

28.2 Currency formatter initialization parameters

If no parameter is specified, the default is the currency value with currency. If the target field is not a text field but a numeric field, you must configure that the currency is not provided. In this case set the following parameter: `includeCurrencySymbol=false`.

28.3 Date formatter initialization parameters

The supported `Date` formatter initialization parameters are the same as those for the date parts of the Java **SimpleDateFormat** class. If no parameter is specified the default is the ISO 8601 date value, for example, `yyyymmdd` which is the format expected by Content Server date category attributes.

28.4 DateTime formatter initialization parameters

The supported `DateTime` formatter initialization parameters are the same as those for the Java **SimpleDateFormat** class. If no parameter is specified the default is the ISO 8601 date-time value, for example, `yyyymmdd'T'HH:m:ssXXX` which is the format expected by Content Server date+time category attributes. Note that there is a limitation in Content Server that time values must be sent in the server time; Content Server does not recognize the time zone indicator. This causes a problem since the `DateTime` formatter currently formats the data as UTC.

28.5 String formatter initialization parameters

You may need to modify the value from the Salesforce field before sending it to Content Server as a property value. For this purpose, you can initialize the *String* formatter with functions that modify the value.

The following functions are supported:

Command	Description
abbreviate(maxWidth)	Returns an abbreviated version of the string, of the specified length and with ellipses appended if the current string is longer than the specified length; otherwise, returns the original string without ellipses.

Command	Description
abbreviate(maxWidth, offset)	Returns an abbreviated version of the string, starting at the specified character offset and of the specified length. The returned string has ellipses appended at the start and the end if characters have been removed at these locations.
capitalize()	Returns the current string with the first letter changed to title case.
center(size)	Returns a version of the current string of the specified size padded with spaces on the left and right, so that it appears in the center. If the specified size is smaller than the current string size, the entire string is returned without added spaces.
center(size, paddingString)	Returns a version of the current string of the specified size padded with the specified string on the left and right, so that it appears in the center. If the specified size is smaller than the current string size, the entire string is returned without padding.
deleteWhitespace()	Returns a version of the current String with all white space characters removed.
normalizeSpace()	Returns the current String with leading, trailing, and repeating white space characters removed.
leftPad(length)	Adds spaces to the left of the string to make it *length* characters long
leftPad(length, padChar)	Adds *padChars'* to the left of the string to make it *length* characters long
remove(substring)	Removes all occurrences of *substring* from the string
removeEnd(substring)	Removes the specified substring only if it occurs at the end of the String.
removeEndIgnoreCase(substring)	Removes the specified substring only if it occurs at the end of the String using a case-insensitive match.
removeStart(substring)	Removes the specified substring only if it occurs at the beginning of the String.
removeStartIgnoreCase(substring)	Removes the specified substring only if it occurs at the beginning of the String using a case-insensitive match.
replace(target, replacement)	Replaces all instances of *target* with *replacement* in the string

Command	Description
replaceAll(regExp, replacement)	Replaces each substring of a string that matches the regular expression *regExp* with the replacement sequence *replacement*.
replaceFirst(regExp, replacement)	Replaces the first substring of a string that matches the regular expression regExp with the replacement sequence replacement.
reverse()	Returns a String with all the characters reversed.
rightPad(length)	Adds spaces to the right of the string to make it *length* characters long
rightPad(length, padChar)	Adds *padChars'* to the right of the string to make it *length* characters long
stripHtmlTags()	Removes HTML markup and returns plain text.
substring(startIndex)	Extracts the substring beginning with the character at the specified zero-based *startIndex* and extending to the end of the string
substring(startIndex, endIndex)	Extracts the substring beginning with the character at the specified zero-based *startIndex* and extending to the character at *endIndex - 1*
substringAfter(separator)	Returns the substring that occurs after the first occurrence of the specified separator.
substringAfterLast(separator)	Returns the substring that occurs after the last occurrence of the specified separator.
substringBefore(separator)	Returns the substring that occurs before the first occurrence of the specified separator.
substringBeforeLast(separator)	Returns the substring that occurs before the last occurrence of the specified separator.
substringBetween(open, close)	Returns the substring that occurs between the two specified strings.
toLowerCase()	Converts all characters in the string to lowercase using the rules of the default (English US) locale.
toLowerCase(locale)	Converts all characters in the string to lowercase using the rules of the specified locale.
toUpperCase()	Converts all characters in the string to uppercase using the rules of the default (English US) locale.

Command	Description
toUpperCase(locale)	Converts all characters in the string to the uppercase using the rules of the specified locale.
trim	Removes leading/trailing spaces
uncapitalize()	Returns the current string with the first letter in lowercase.

The character/string arguments must be enclosed in single quotes. Embedded single quotes should be doubled.

Functions may be chained in the initialization parameter, for example, `trim().remove(':').leftPad(10)`. This parameter indicates the value should first have leading/trailing spaces removed, then have any ':' characters removed, and finally padded on the left with spaces to ensure the result is at least ten characters long.

Here are some more examples:

Property field	Init parameters	Input	Output
Account.AccountNumber	leftPad(10, '0')	123	0000000123
Account.Name	rightPad(22, ' ').substring(0, 22).rightPad(23, '…').replace(' …', ' ').trim()	• Acme Financial • Acme Financial Chicago United States	• Acme Financial • Acme Financial Chicago...
Account.AccountNumber	replace('0', ' ').trim().replace(' ', '0').remove('-')	0000012300-0000	12300

28.6 ID formatter initialization parameters

You may need to modify the value from the Salesforce field before sending it to Content Server as a property value. You can initialize the *ID* formatter with functions that modify the value. The functions that are supported are same as the String formatter initialization parameters.

28.7 Time formatter initialization parameters

The supported `Time` formatter initialization parameters are the same as those for the time parts of the Java **SimpleDateFormat** class. If no parameter is specified the default is the ISO 8601 time value, i.e. `HH:mm:ss` which is the format expected by Content Server time category attributes.

Chapter 29

Known issues

This chapter lists all known issues.

XECMSFDC-1780	Content Services attachments can be configured from any Salesforce object in OpenText Content Management for Salesforce, but the attachments will not show up in the Salesforce page until the object has a workspace created in the repository.
XECMSFDC-1799	When creating a new Salesforce Community from the OpenText Innovate Customer Service Community Template, you need to temporarily disable the Apex Trigger `xecmContentDocumentLinkTrigger`. Once installed in your system, enable the Apex Trigger again once the Community is created. If the trigger is not disabled, the installation will fail. This trigger is important for file/attachment migration and turning off/on should be done quickly, preferable when no attachment jobs are running or about to run.
XECMSFDC-1896	In Chrome Incognito mode, the Content Services Perspective Lightning component does not show or work properly in the Salesforce user interface. The Content Services Perspective Lightning component needs third party cookies to function properly. The problem is being evaluated for a solution.
XECMSFDC-2053	Comments no longer update from chatter once a comment is deleted from Content Server.
XECMSFDC-2146	Chatter can format and style comments within Salesforce. When synchronizing formatted Salesforce comments to Pulse the formatting will be lost in Pulse.
XECMSFDC-2148	Chatter and Pulse integration: If a username in Content Server has a space in it, then @mentions will treat it as a regular text instead of @mentions.
XECMSFDC-2574	Salesforce user credentials are displayed in the logs when Debug mode is enabled in Content Server network logs. The credentials are displayed ONLY when Debug level is selected in Content Server. Due to the way Content Server logs integrations to leading systems, there is no way to correct this issue. OpenText recommends that you do not leave Debug mode on in production or sensitive development systems and turn off as soon as possible to avoid potential security problems.
XECMSFDC-2626	Whenever changing names and login IDs in Content Server, ensure the Salesforce administrator has resynchronized the users in OpenText Content Management for Salesforce to Content Server. Failure to do this resynch can cause a mismatch of users between Content Server and Salesforce and erratic behavior between the systems. One such issue is the Pulse to Chatter synchronization functionality will cause the Pulse Default User in Content Server configuration to be used as the posting username of Pulse comments in workspaces.

XECMSFDC-2652	The Email object in Salesforce is read-only, so any content attached to it cannot be removed without having side effects. For email attachments, the action specified in the *Content Migration Action* has no effect and the default action is always COPY. When users open an email in Salesforce, they still see the original document attached to the email in the Salesforce Email Attachment and Email objects.
XECMSFDC-2653	A new Lightning component called OpenText Content Management SOQL Predicate is available in the Salesforce App builder. This component is only used internally by OpenText Content Management for Salesforce and is not meant to be used or configured by customers.
XECMSFDC-3717	As part of installation, the OpenText Content Management for Salesforce Enabler app includes a custom partition into the Salesforce platform cache on the target Salesforce org. OpenText Content Management for Salesforce uses the features to store application variable data to enhance performance and reduce unnecessary queries against Salesforce. If the target Salesforce org has no platform cache enabled, the installer will still install the custom partition, but the OpenText Content Management for Salesforce Enabler app application ignores it until enabled. Thus, it should not be an issue whether the target Salesforce org has platform cache enabled or not. However, recently Salesforce is having issues with the platform cache feature on many Salesforce orgs. OpenText is actively working on this issue and looking for a resolution. Check the link provided for more details: https://success.salesforce.com/issues_view?id=a1p3A0000001C9dQAE An alternative is to use a Salesforce org that is not affected by the issue. To check, if the Salesforce org is affected, do a search for "Platform Cache" on the Setup; then click **Platform Cache**. If Salesforce throws an error screen message, then the Salesforce org has an issue with the platform cache. You will need to open a case with Salesforce directly, as there is nothing OpenText can do to fix the issue.
XECMSFDC-3718	For manual entry of a date on the job scheduling screen in Salesforce, only the US date format is supported.
XECMSFDC-3719	If the Platform Encryption feature in Salesforce is enabled, then the batch creation of workspaces cannot be used with search criteria that is in encrypted data fields.
XECMSFDC-3720	Solution Accelerator will fail to install if the Assets, Quotes, and Chatter are not enabled on the Salesforce org. Enable these features to successfully install the Solution Accelerator. These features can be disabled after install if desired.
XECMSFDC-3721	The Enabler's platform cache partition must be allocated adequately, or the Enabler Auto Create Workspace configuration setting may not work properly. The recommendation is 2 MB platform cache for a typical installation, but this value may vary based on concurrent users and creation requests.

XECMSFDC-3722	There is a limit of 10 contacts shown in the list when doing a content sharing with OpenText Core within the Folder Browse widget. The contacts from the Salesforce object takes precedence if the user exists in both Salesforce and OpenText Core.
XECMSFDC-3724	When the workspaces are in Content Server prior to being generated from Salesforce (“Early Workspace Creation”) and the user attempts to bind Salesforce and workspace together, the binding will fail if the object has duplicate property names. As a workaround, in Salesforce provide unique field label names to the properties that are duplicate. For example, the Account business object type defines the ShippingAddress and BillingAddress groups. Both groups contain properties named Street, City, Country, etc. If you want to use early workspace creation for Account objects, set the property field labels to ShippingStreet, ShippingCity, BillingStreet, BillingCity, etc.
XECMSFDC-3726	Pulse to Chatter synchronization does not support to following delete operations from Salesforce or Pulse scenarios: • Deleting a feed item • Deleting a feed comment • Deleting a workspace • Deleting attachment to existing feed item • Deleting attachment to existing feed comment • Deleting file to existing feed item • Deleting file to existing feed comment • Updating comment body of feed item • Updating comment body of feed comment
XECMSFDC-3727	Pulse to Chatter synchronization does not support the following document versioning when adding documents to a comment: • Versioning of existing feed document, which is related to feed item • Versioning of existing feed document, which is related to comment
XECMSFDC-3728	Pulse to Chatter synchronization does not support the following @mentions scenarios: • @mentions in feed item • @mentions in feed comment Pulse to Chatter synchronization does not support Salesforce HTML text formatting for comments and feeds
XECMSFDC-3729	The System Configuration Settings Diagnosis section of the Diagnostic Report may not display OTDS and Content Server configuration settings, if the Repository Type configuration has not been made under System configuration > Repository > General settings.

XECMSFDC-3743	After applying the appropriate OTDS patch, you must set the `SameSiteCookieVal` system configuration entry in OTDS: **Missing otds.as.SameSiteCookieVal = None** Without the flag set, on the Content Services Perspective component (for example, Canvas Perspective), the user will be challenged for a Content Server login. On this Content Server login screen, regardless of the login method chosen (via Salesforce or using correct Content Server credentials), the user will be repeatedly redirected to Content Server login. If single sign-on is turned on by default, the user may not see this login challenge, but the user will not see the Workspace Perspective either.
XECMSFDC-3744	For Content Server applications using Microsoft IIS application servers, users may get an error message ("HTTP Error 404.15 – Not Found: The request filtering module is configured to deny a request where the query string is too long"), when adding documents or working with the widget integration on Salesforce. The solution is to adjust the maximum query string length to 3072 or higher in the Content Server application in IIS Manager under Edit Request Filtering Settings.
XECMSFDC-3748	Slow display of the Business Workspace or Folder Browse widget, especially as more and more users are added to the system synchronization. Contact OpenText Support for assistance on creating indexes if `oTExtraAttrn` fields are used.
XECMSFDC-4560	In some cases, a scheduled job does not run automatically or stops running. In this case, go to the **Administration** tab, click **System Configuration** > **Environment** > **Background Jobs**, and then click **Save** to restart the job.

Part 7

Standard configuration settings

This part lists the standard configuration that is delivered with the Solution Accelerator and also recommended for manual configuration.

Chapter 30

Standard configuration in Salesforce

30.1 Business object types

Table 30-1: Standard business object type configuration for Salesforce CRM

Business Object Type Name	Salesforce Object Name
Account	Account
Asset	Asset
Campaign	Campaign
Case	Case
Contract	Contract
Lead	Lead
Opportunity	Opportunity
Order	Order
Product	Product2
Quote	Quote
Solution	Solution

Table 30-2: Standard business object type configuration for Salesforce Financial Services Cloud (FSC)

Business Object Type Name	Salesforce Object Name
Claim	Claim
Policy	InsurancePolicy

30.2 Standard business object property configuration

Note: The following does not list all business object property configuration applied with the Solution Accelerator, but only illustrates how the business object property can be configured. As the configuration is quite complex, OpenText recommends that you apply the Solution Accelerator instead of configuring manually.

30.2.1 Account business object type

Table 30-3: Group AccountDetail

Property Name	Property Type	Property Value
AccountName	Field	Name
Industry	Field	Industry
Website	Field	Website
AccountID	Field	ID
Phone	Field	Phone
AccountNumber	Field	Account Number
ParentAccount	Field	Parent Account
AccountOwner	Field	Account Owner

Table 30-4: Group: ShippingAddress

Property Name	Property Type	Property Value
Street	Field	Shipping Street
City	Field	Shipping City
StateProvince	Field	Shipping State
ZipPostalCode	Field	Shipping Postal Code
Country	Field	Shipping Country

Table 30-5: Group: BillingAddress

Property Name	Property Type	Property Value
Street	Field	Billing Street
City	Field	Billing City
StateProvince	Field	Billing State
ZipPostalCode	Field	Billing Postal Code
Country	Field	Billing Country

Table 30-6: Group: Creation

Property Name	Property Type	Property Value
CreationDateTime	Field	Created Date
CreatedBy	Field	Name

Table 30-7: Group: LastModification

Property Name	Property Type	Property Value
ModificationDateTime	Field	Last Modified Date
LastModifiedBy	Field	Name

30.3 Standard business relationships

Table 30-8: AccountToCase

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Account	Case	Parent-to-child	Cases	Account

Table 30-9: AccountToContract

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Account	Contract	Parent-to-child	Contracts	Account

Table 30-10: AccountToOpportunity

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Account	Opportunity	Parent-to-child	Opportunities	Account

Table 30-11: AccountToOrder

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Account	Order	Parent-to-child	Orders	Account

Table 30-12: CampaignToLead

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Campaign	CampaignMember	Parent-to-child	CampaignMembers	Campaign
CampaignMember	Lead	Child-to-parent	Lead	CampaignMembers

Table 30-13: CampaignToOpportunity

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Campaign	Opportunity	Parent-to-child	Opportunities	Campaign

Table 30-14: CaseToProduct

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Case	Asset	Child-to-parent	Asset	Cases
Asset	Product2	Child-to-parent	Product2	Assets

Table 30-15: CaseToSolution

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Case	CaseSolution	Parent-to-child	CaseSolutions	Case
CaseSolution	Solution	Child-to-parent	Solution	CaseSolutions

Table 30-16: ContractToOrder

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Contract	Order	Parent-to-child	Orders	Contract

Table 30-17: OpportunityToProduct

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Opportunity	Order	Parent-to-child	Orders	Opportunity

Table 30-18: OpportunityToOpportunityLineItem

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Opportunity	OpportunityLine Item	Parent-to-child	OpportunityLine Items	Opportunity
OpportunityLine Item	PriceBookEntry	Child-to-parent	PriceBookEntry	OpportunityLine Items
PriceBookEntry	Product2	Child-to-parent	Product2	PriceBookEntries

Table 30-19: OpportunityToQuote

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Opportunity	Quote	Parent-to-child	Quotes	Opportunity

Table 30-20: OrderToProduct

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Order	OrderItem	Parent-to-child	OrderItems	Order
OrderItem	PriceBookEntry	Child-to-parent	PriceBookEntry	OrderItems
PriceBookEntry	Product2	Child-to-parent	Product2	PriceBookEntries

Table 30-21: QuoteToProduct

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Quote	QuoteLineItem	Parent-to-child	QuoteLineItems	Quote
QuoteLineItem	PriceBookEntry	Child-to-parent	PriceBookEntry	QuoteLineItems
PriceBookEntry	Product2	Child-to-parent	Product2	PriceBookEntries

Table 30-22: Product2Asset

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Product2	Asset	Parent-to-child	Assets	Product2

Table 30-23: OpportunityToOrder

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Opportunity	Order	Parent-to-child	Orders	Opportunity

Table 30-24: AssetToCase

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Asset	Case	Parent-to-child	Cases	Asset

Table 30-25: AccountToAsset

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Account	Asset	Parent-to-child	Assets	Account

30.4 Standard business relationships for Financial Services Cloud (FSC) objects

Table 30-26: PolicyToClaim

From Object	To Object	Relationship Type	Forward Name	Reverse Name
InsurancePolicy	Claim	Parent-to-child	Claims	PolicyNumber

Table 30-27: CaseToClaim

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Case	Claim	Parent-to-child	Claims	Case

Table 30-28: AccountToPolicy

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Account	InsurancePolicy	Parent-to-child	InsurancePolicies	NameInsured

Table 30-29: AccountToClaim

From Object	To Object	Relationship Type	Forward Name	Reverse Name
Account	Claim	Parent-to-child	Claims	Account

Chapter 31

Standard configuration in Content Server

31.1 Categories

Note: The following does not list all standard categories applied with the Solution Accelerator, but only illustrates how the categories and properties can be configured. As the configuration is quite complex, OpenText recommends that you apply the Solution Accelerator instead of configuring manually.

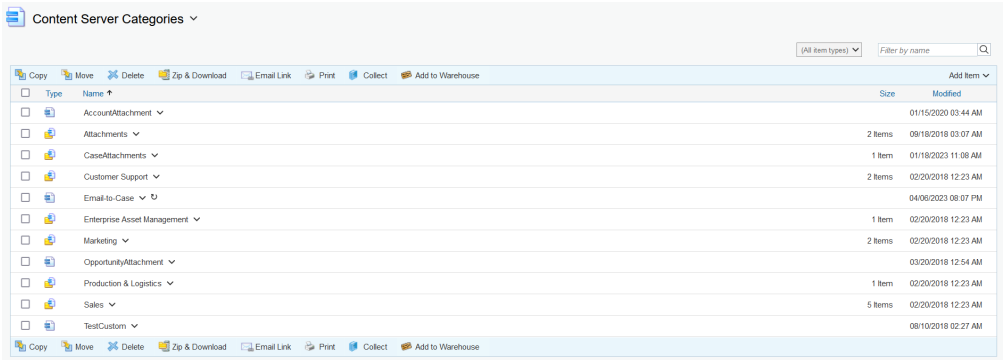


Figure 31-1: Category volume with Salesforce categories

Table 31-1: Standard settings for SDFC Account: Sets

Type	Set	Rows (Default is 1 (Locked))
Set	Account Detail	
Set	Billing Address	
Set	Shipping Address	
Set	Creation	
Set	Last Modification	
Set	Topics	1(20 max)
Set	Email-to-Case	

Table 31-2: Standard settings for the Account Detail Set

Type (Default isText: Field)	Name	Rows	Length (Does not apply or default of 32)	Display (Does not apply or default of 32)	Include Time (Does not apply or default of No)
	Account ID				
	Account Owner		80	80	
	Account Name		80	80	
	Parent Account		80	80	
	Account Number		20	20	
	Industry		80	80	
	Phone				
	Website		120	120	

Table 31-3: Standard settings for the Email-to-Case Set

Type (Default is**Text: Field**)	Name	Rows	Length (Does not apply or default of **32**)	Display (Does not apply or default of **32**)	Include Time (Does not apply or default of **No**)
	Subject		250	250	
Date	Received Date				
	Parent Case Id				
	From Address		100	100	
	To Address		100	100	
	CC Address		100	100	
	BCC Address		100	100	

31.2 Classifications

Note: The following is the standard configuration that comes with the Solution Accelerator. You can define the classifications according to your needs.

- Add a new classification tree item named **Types**.
- Inside **Types** add a new classification item named **Workspace Types**.
- Inside **Workspace Types** add the following classifications:

Account	Asset	Campaign	Case
Lead	Opportunity	Product	Quote
Sales Contract	Sales Order	Solution	

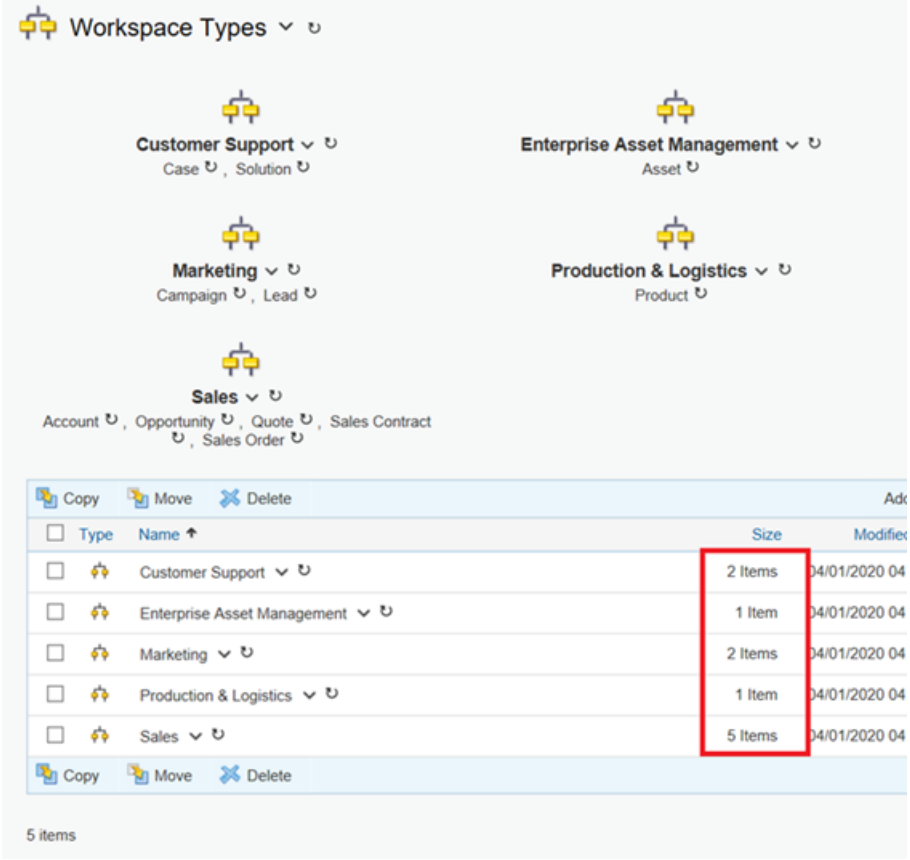


Figure 31-2: Salesforce classifications

31.3 Folder structure

- Case Management
  - Cases
  - Solutions
  - Claims (if FSC Solution Accelerator is installed)
  - Policies (if FSC Solution Accelerator is installed)
- Enterprise Asset Management
  - Assets
- Marketing
  - Campaigns
  - Leads
- Production & Logistics
  - Products
- Sales
  - Accounts
  - Opportunities
  - Quotes
  - Sales Contracts
  - Sales Orders

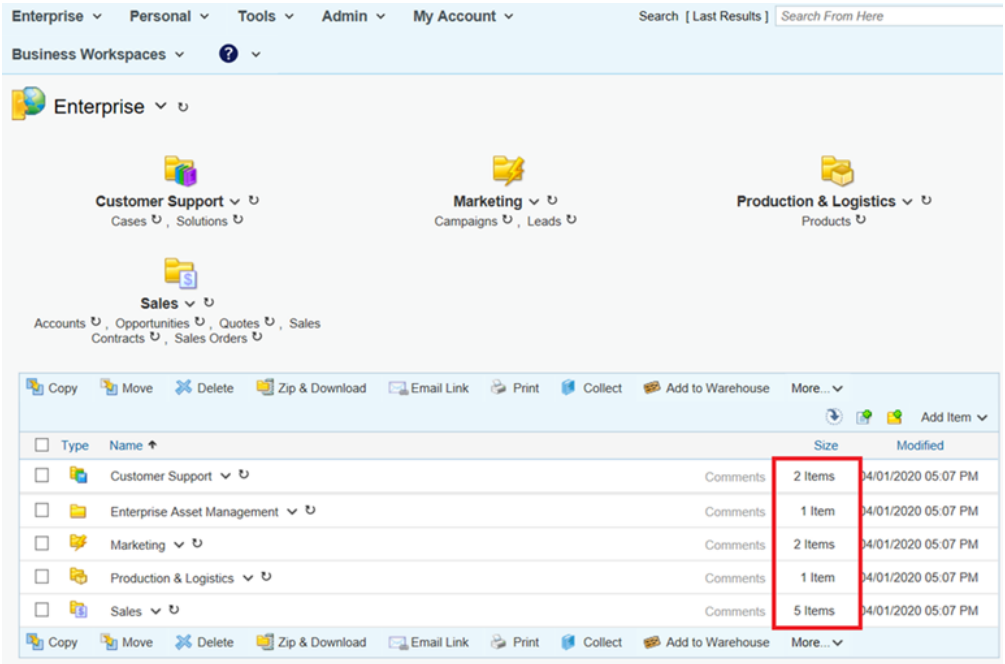


Figure 31-3: Salesforce folders in the Enterprise workspace

31.4 Workspace types settings

Note: The following does not list all standard categories applied with the Solution Accelerator, but only illustrates how the workspace types can be configured.

Workspace Types

Delete | Add to Warehouse | Add Item

Type	Name	Business Object Types	Creation Status	Indexing Status	Usage Count	Modified
	CRM Account	CRM Account	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Asset	CRM Asset	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Campaign	CRM Campaign	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Case	CRM Case	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Lead	CRM Lead	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Opportunity	CRM Opportunity	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Product	CRM Product	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Quote	CRM Quote	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Sales Contract	CRM Contract	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Sales Order	CRM Order	Enabled	Up to date	1	09/04/2019 10:12 AM
	CRM Solution	CRM Solution	Enabled	Up to date	1	09/04/2019 10:12 AM

Delete | Add to Warehouse

11 items

Figure 31-4: Workspace types for Salesforce

Table 31-4: CRM Account: Workspace widget layout

Widget Type	Widget Title
Workspace Reference	Salesforce Account
Attributes	Account Data
Documentum D2	Documents
Related Items	Opportunities
Related Items	Orders
Related Items	Contracts
Related Items	Cases
Recent Changes	Recent Changes

Table 31-5: Workspace location, classification, and name pattern

Location folder	Enterprise:Sales:Accounts
Classification	Classifications:Types:Workspace Types:CRM Types:Account
Workspace name	[SFDC Account:Account Detail.Account Name] **Note:** Categories are relative to **Content Server Categories:Salesforce**

Location (for workspace on Documentum tab)	/<Path in_DA> for example: /Sales/Accounts

Table 31-6: Attributes widget detailed configuration

Category	Attribute
SFDC Account	Account Detail.Account ID
SFDC Account	Account Detail.Account Name
SFDC Account	Account Detail.Phone
SFDC Account	Account Detail.Account Number
SFDC Account	Account Detail.Industry

Note: Categories are relative to **Content Server Categories:Salesforce**

Table 31-7: Related Items widgets detailed configuration

Widget Title	Show Parent	Show Child	Show Workspace Types
Opportunities		√	CRM Opportunity
Orders		√	CRM Sales Order
Contracts		√	CRM Sales Contracts
Cases		√	CRM Case

31.5 Document templates

Notes

- The following does not list all standard document templates applied with the Solution Accelerator, but only illustrates how the document templates can be configured.
- If you want to specifically provide permissions to workspaces on Documentum, you can use D2 Permissions from the Document template Function menu. If this is left blank, the default permissions of Documentum are assigned to the workspaces.

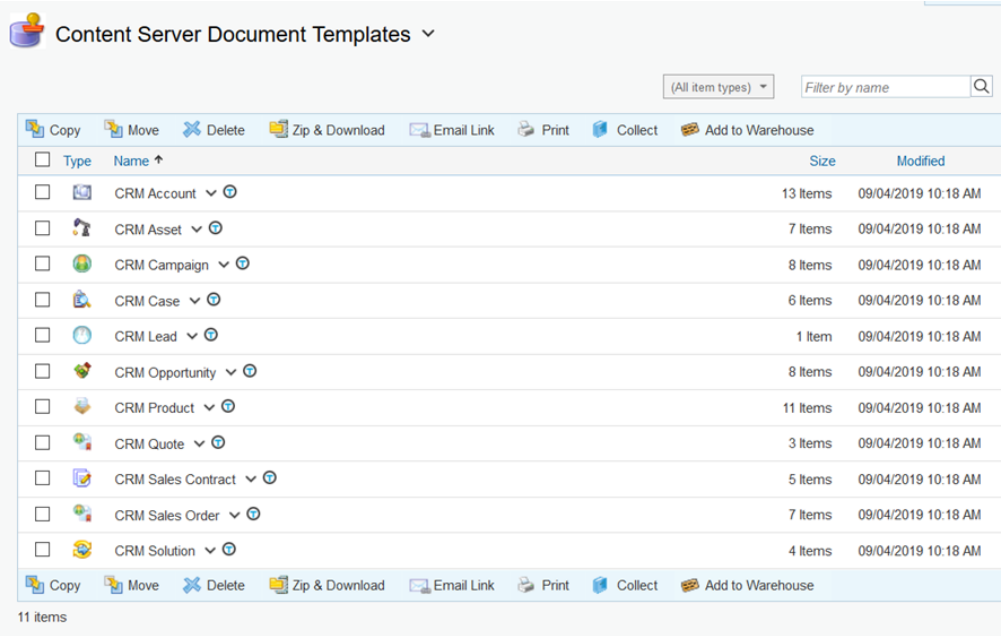


Figure 31-5: Document templates for Salesforce

Table 31-8: Workspace document templates

Template Name	Workspace Type	Classifications	Categories
CRM Account	CRM Account	Account	SFDC Account
CRM Asset	CRM Asset	Asset	SFDC Asset
CRM Campaign	CRM Campaign	Campaign	SFDC Campaign
CRM Case	CRM Case	Case	SFDC Case
CRM Lead	CRM Lead	Lead	SFDC Lead
CRM Opportunity	CRM Opportunity	Opportunity	SFDC Opportunity
CRM Product	CRM Product	Product	SFDC Product
CRM Quote	CRM Quote	Quote	SFDC Quote
CRM Sales Contract	CRM Sales Contract	Sales Contract	SFDC Contract
CRM Sales Order	CRM Sales Order	Sales Order	SFDC Order
CRM Solution	CRM Solution	Solution	SFDC Solution

Note: Classifications are relative to **Classifications:Types:Workspace Types:CRM Types**

Categories are relative to **Content Server Categories:Salesforce**

Inheritance should be turned off for these items

Table 31-9: Folders for the CRM Account document template

Name
01 – Contracts & Business Documents
02 – Sales Documents
03 – Delivery Documents
04 – Billing Documents
05 – Account Management
06 – Bid and Proposal Management
07 – Correspondence
08 – Meetings
09 – Onsite Reports

Table 31-10: Related Business Workspaces for the CRM Account document template

Name	Show Parent	Show Child	Workspace Type
10 – Customer Contracts		√	CRM Sales Contract
11 – Sales Orders		√	CRM Sales Order
12 – Opportunities		√	CRM Opportunity
13 - Cases		√	CRM Case

31.6 Business object types

Note: The following does not list all standard business object types applied with the Solution Accelerator, but only illustrates how the business object types can be configured.

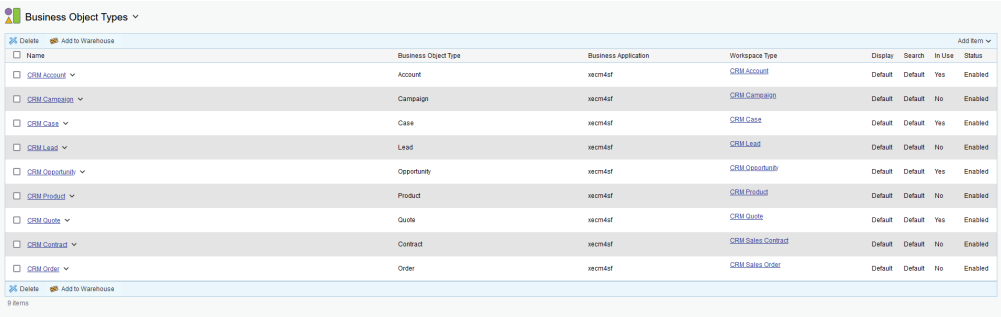


Figure 31-6: Business object types for Salesforce

Table 31-11: SFDC Account business object type

Configuration Name	Configuration Value
Name	SFDC Account
External System	<External system name configured before>
Business Object Type	Account
Workspace Type	CRM Account
Display URL	https://*yourdomain*.salesforce.com/ $BorObjectId$
Workspace Template	Content Server Document Templates:CRM Account
D2 Folder Structure import (under Documentum tab)	Select from list

Table 31-12: Property mapping for the SDFC Account business object type

Property Group		Mapping Method	Category	Set
AccountDetail		Category Set	SFDC Account	Account Detail
	Property Name	**Set Attribute**	**D2 Attribute**	
	AccountNumber	Account Number	accountnumber	
	AccountOwner	Account Owner	accountowner	
	Industry	Industry	industry	
	ParentAccount	Parent Account	parentaccount	
	Phone	Phone	phone	
	Website	Website	website	
	AccountID	Account ID	accountid	
	AccountName	Account Name	accountname	
BillingAddress		Category Set	SFDC Account	Billing Address
	Property Name	**Set Attribute**	**D2 Attribute**	
	City	City	city	
	Country	Country	country	
	StateProvince	State/Province	stateprovince	
	Street	Street	ctreet	

Property Group		Mapping Method	Category	Set
	ZipPostalCode	ZIP/Postal Code	zippostalcode	
Creation		Category Set	SFDC Account	Creation
	Property Name	**Set Attribute**	**D2 Attribute**	
	CreatedBy	Created By	createdby	
	CreationDateTime	Creation Date/Time	creationdatetime	
LastModification		Category Set	SFDC Account	Last Modification
	Property Name	**Set Attribute**	**D2 Attribute**	
	LastModifiedBy	Last Modified By	lastmodifiedby	
	ModificationDateTime	Modification Date/Time	modificationdatetime	
ShippingAddress		Category Set	SFDC Account	Shipping Address
	Property Name	**Set Attribute**	**D2 Attribute**	
	City	City	city	
	Country	Country	country	
	StateProvince	State/Province	stateprovince	
	Street	Street	street	
	ZipPostalCode	ZIP/Postal Code	zippostalcode	

Note: Categories are relative to **Content Server Categories:Salesforce**

31.7 Attachment declarations

Table 31-13: Attachment declaration configuration for file attachment

Configuration Name		Configuration Value
General		
Name		File Attachment
Description		Attachment Declaration for Salesforce File Attachments
Property Mapping		
Business Application		xecm4sf (DSF)
Document Property Provider		FileAttachment
Business Properties		
Business Property	**Mapping Method**	**Category and Attribute**
-	-	-
Business Properties Groups		See "Property mapping for Attachment declaration" on page 253
Document Location		
Document Location		
Root Folder	Business Workspace	
Sub Folder	From Pattern	Notes and Attachments
Classification		
Document Classification		Select a classification
Document Name		
Document Names		-
Language		en
Name Pattern		Enter a pattern
Records Management		
Records Management Attributes		-
RM Classification		-
Record Date		-
Status		-
Status Date		-
Mark Official		-

Table 31-14: Property mapping for Attachment declaration

Property Group	Mapping Method	Category and Attribute	Set
AttachmentDetail	Category Set	Content Server Categories:Attachments: CRM File Attachment	Attachment Detail
Property Name	**Set Attribute**	**D2 Attribute**	
ContentID	ID	id	
ContentSize	File Size	filesize	
FileExtension	File Extension	fileextension	
FileType	File Type	filetype	
ReasonForChange	Reason for Change	reasonforchange	
VersionNumber	Version Number	versionnumber	
OwnedBy	Owned By	ownedby	
ContentModification	Category Set	Content Server Categories: Attachments:CROM File Attachment	Content Modification
Property Name	**Set Attribute**	**D2 Attribute**	
ModifiedBy	Modified By	modifiedby	
ModificationDateTime	Modification Date/Time	modificationdate	
Creation	Category Set	Content Server Categories:Attachments: CRM File Attachment	Creation
Property Name	**Set Attribute**	**D2 Attribute**	
CreatedBy	Created By	createdby	
CreationDateTime	Creation Date/Time	creationdatetime	
LastModification	Category Set	Content Server Categories:Attachments: CRM File Attachment	Last Modification

Property Group		Mapping Method	Category and Attribute	Set
	Property Name	**Set Attribute**	**D2 Attribute**	
	LastModifiedBy	Last Modified By	lastmodifiedby	
	ModificationDateTime	Modification Date/Time	modificationdatetime	