

caDSR NCI

webMethods OneData MDR Installation Instructions

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# webMethods OneData MDR Installation Instructions

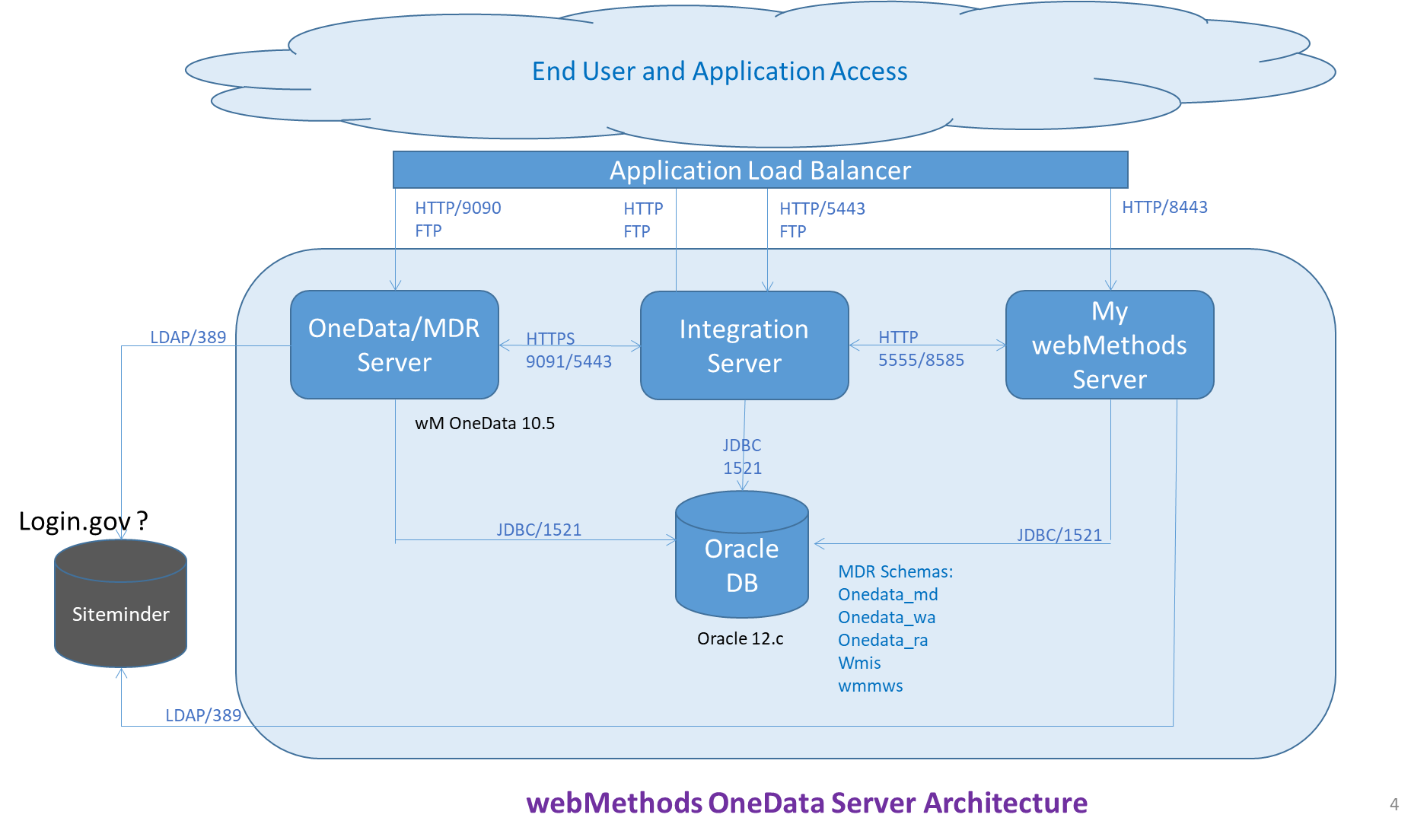
# Background

Software AG’s webMethods OneData is a Commercial Off the Shelf (COTS) application for Master Data Management and Metadata Repository (MDR) platforms. OneData MDR is used by NCI as the next generation caDSR platform.

OneData solutions include:

* Metadata registry based on the ISO 11179 standard that promotes standardization, understanding and re-use of data components within and across organizations
* Hierarchy management tools that include hierarchy creation wizards, versioning, a configurable business rules engine, workflow approvals, collaboration, and security
* Multi-domain [MDM](https://www.softwareag.com/resources/MDM) tools with a “drop-in” modeling strategy that lets you use your organization’s pre-existing data modeling tools and subject domain expertise
* Reference data management tools that enable you to model and harmonize reference data, easily creating and enriching code sets against third-party validation sources
* Customer data management capabilities designed to support the complete Customer Data Interchange (CDI) process flow and allow the merging of multiple source systems into a hub where data can be consolidated, cleansed, verified and geo-coded

## NCI Architecture



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Dev** | **QA** | **Stage** | **Prod** |  | **Notes** |
| **OneData Server**  (2 CPU / 4GB Ram) | ncias-d2288-c | ncias-q2316-c | ncias-s2446-c | TBD | CentOS 7 | [saguser@ncias-d2288-c ~]$ sudo systemctl status sag1spm105  [saguser@ncias-d2288-c ~]$ sudo systemctl status sag1ode105 |
| **OneData Integration Server**  (2 CPU / 8GB Ram) | ncias-d2289-c | ncias-q2317-c | ncias-s2447-c | TBD | CentOS 7 | [saguser@ncias-d2289-c ~]$ sudo systemctl status sag1spm105  [saguser@ncias-d2289-c ~]$ sudo systemctl status sagis105 |
| **OneData WebMethods Server**  (2 CPU / 4GB Ram) | ncias-d2290-c | ncias-q2318-c | ncias-s2448-c | TBD | CentOS 7 | [saguser@ncias-d2290-c ~]$ sudo systemctl status sagspm105  [saguser@ncias-d2290-c ~]$ sudo systemctl status sagmws105\_default  [saguser@ncias-d2290-c ~]$ sudo systemctl status sagcce105 |
| **OneData WebMethods Designer** | ncias-d2344-c | n/a | n/a | n/a | Windows | Only on Dev tier to work on APIs. Currently only Brad and Deepali will need access.  Required elevated rights/permissions to install the Designer application. |
| **OneData  DB Server**  (2 CPU / 8GB Ram) | ncidb-d324-c | ncidb-q333-c | ncidb-s349-c | TBD | RHEL 7 | Oracle |
|  |  |  |  |  |  |  |

Not identified here are the ALB’s. There is one for each Tier. Let me know if you need anything further.

# Prerequisites

## Database

We will need 5 Schemas

* onedata\_md
* onedata\_wa
* onedata\_ra
* wmis
* wmmws

The schemas will require the following Grants:

GRANT CREATE VIEW TO &user;

GRANT CREATE MATERIALIZED VIEW TO &user;

GRANT CREATE TABLE TO &user;

GRANT ALTER SESSION TO &user;

GRANT CREATE CLUSTER TO &user;

GRANT CREATE SESSION TO &user;

GRANT CREATE SYNONYM TO &user;

GRANT CREATE SEQUENCE TO &user;

GRANT CREATE DATABASE LINK TO &user;

GRANT CREATE TYPE TO &user;

GRANT CREATE TABLE TO &user;

GRANT CREATE CLUSTER TO &user;

GRANT CREATE TRIGGER TO &user;

GRANT CREATE OPERATOR TO &user;

GRANT CREATE INDEXTYPE TO &user;

GRANT CREATE PROCEDURE TO &user;

GRANT GLOBAL QUERY REWRITE TO &user;

GRANT CREATE JOB TO &user;

ALTER USER &user QUOTA UNLIMITED ON <tablespace>;

ALTER USER &user QUOTA UNLIMITED ON <indexspace>;

## Linux

The software will require:

User/group: saguser

Filesystems:

/local/softwareag

/local/softwareagSUM

These file systems must have owner and group set to the user created above.

The file system and user/groups names are configurable. The entries here are only a recommendation.

# Copy Software

Please copy the following software to the appropriate hosts in the saguser home directory.

## OneData

dbInstall.sh

od105fixes

OneDataSoftwareInstall

OneData.zip

setenv.sh

SoftwareAGInstaller20191015-LinuxX86.bin

SoftwareAGUpdateManagerInstaller20191101(LinuxX86).bin

## Integration Server

dbInstall.sh

setenv.sh

DeployerInstall

Deployer.zip

IntegrationServer.zip

is105fixes

ISInstall

SoftwareAGInstaller20191015-LinuxX86.bin

SoftwareAGUpdateManagerInstaller20191101(LinuxX86).bin

## My webMethods Server

IntegrationServer.zip

MWSInstall

SoftwareAGInstaller20191015-LinuxX86.bin

SoftwareAGUpdateManagerInstaller20191101(LinuxX86).bin

This environment will be called MWS from here in this manual.

# Installation

Before we can begin the installation, we will need to modify a few files on each server to update them with the correct database server information, database usernames and passwords and hostnames.

Each file listed below will have a section to modify. Please update each parameter in the section with the correct information. If you don’t have the information please retrieve it before you continue further. For passwords entered in the .sh files that contain a $ please precede them with a \.

**Note: Unless otherwise noted all command will be from the sagusers home directory /local/home/saguser**

## OneData

Please modify these files before continuing

setenv.sh

OneDataSoftwareInstall – for this file the special characters will need to them URL encodes i.e ( : = %3A. $ = %24, ; = %3B, = = %3D, etc. )

Once these files have been update you can install the software. Please type

./SoftwareAGInstaller20191015-LinuxX86.bin -readImage OneData.zip -readScript OneDataSoftwareInstall –console

The above command will silently install the software

Once the software is installed we will install the OneData database components

Please type

./dbInstall.sh

The above command will install the One Data database components and will tell you if they were successfully installed or contains an error. If there is an error the script will tell you what file to look at.

## Integration Server

Please modify these files before continuing

setenv.sh – Please modify the Passwords, DBHOST and DBPORT, SID. For this file, if a password contains a $ it must have a \ before it.

ISInstall – For this file please modify IntegrationServerDBURL.Name, IntegrationServerDBUser.Name, IntegrationServerDBUserPass.Name, HostName, and integrationServer.LicenseFile.text. For this file the special characters will need to them URL encodes i.e ( : = %3A. $ = %24, ; = %3B. = = %3D, etc. ). Please make sure you update the LicenseFile.text line with the appropriate license key for the tier you are installing on.

DeployerInstall – please modify the HostName and InstallDir.

Once these files have been update you can install the software. Please type

./SoftwareAGInstaller20191015-LinuxX86.bin -readImage IntegrationServer.zip -readScript ISInstall – console

The above command will silently install the Integration Server software

./SoftwareAGInstaller20191015-LinuxX86.bin -readImage Deployer.zip -readScript DeployerInstall –console

The above command will silently install the Deployer software

Once the software is installed we will install the IntegrationServer and My webMethods Server database components

Please type

./dbInstall.sh

The above command will install the Integration Server and My webMethods Server database components and will tell you if they were successfully installed or contains an error. If there is an error the script will tell you what file to look at.

## My webMethods Server

Please modify these files before continuing

MWSInstall – Please change the following parameters: mwsDBPwdField, HostName, mwsDBURLField for this file the special characters will need to them URL encodes i.e ( : = %3A. $ = %24, ; = %3B. = = %3D, etc. )

Once these files have been update you can install the software. Please type

./SoftwareAGInstaller20191015-LinuxX86.bin -readImage IntegrationServer.zip -readScript MWSInstall – console

The above command will silently install the MWS software.

## Software AG Update Manager

On each machine please run the following command to install Software AG’s Update Manager.

From the home directory of saguser

./SoftwareAGUpdateManagerInstaller20191101\(LinuxX86\).bin --accept-license -d /local/softwareagSUM

# Post Installation

After the installation is complete, you will need to have an operations person execute a script to install the RC\_SCRIPTS for auto start.

## One Data

Have an ops person run the following script as root:

/local/softwareag/bin/afterInstallAsRoot.sh

After completion have them run:

/local/softwareag/common/bin/daemon.sh -L

This will check to make sure the scripts were installed in system it should return

/usr/lib/systemd/system/sag1ode105.service /local/softwareag/profiles/ODE/bin/sagode105

/usr/lib/systemd/system/sag1spm105.service /local/softwareag/profiles/SPM/bin/sagspm105

If any of these are missing please run the appropriate next script for the missing service as root:

sagode105

/local/softwareag/common/bin/daemon.sh -f /local/softwareag/profiles/ODE/bin/sagode105

sagspm105

/local/softwareag/common/bin/daemon.sh -f /local/softwareag/profiles/SPM/bin/sagspm105

## Integration Server

Have an ops person run the following script as root:

/local/softwareag/bin/afterInstallAsRoot.sh

After completion have them run:

/local/softwareag/common/bin/daemon.sh -L

This will check to make sure the scripts were installed in system it should return

/usr/lib/systemd/system/sag1is105\_default.service /local/softwareag/profiles/IS\_default/bin/sagis105

/usr/lib/systemd/system/sag1spm105.service /local/softwareag/profiles/SPM/bin/sagspm105

If any of these are missing please run the appropriate next script for the missing service as root:

sagis105\_default

/local/softwareag/common/bin/daemon.sh -f /local/softwareag/profiles/IS\_default/bin/sagis105

sagspm105

/local/softwareag/common/bin/daemon.sh -f /local/softwareag/profiles/SPM/bin/sagspm105

## My webMethods Server

Have an ops person run the following script as root:

/local/softwareag/bin/afterInstallAsRoot.sh

After completion have them run:

/local/softwareag/common/bin/daemon.sh -L

This will check to make sure the scripts were installed in system it should return

/usr/lib/systemd/system/sagmws105\_default.service /local/softwareag/profiles/MWS\_default/bin/sagode105

/usr/lib/systemd/system/sag1spm105.service /local/softwareag/profiles/SPM/bin/sagspm105

If any of these are missing please run the appropriate next script for the missing service as root:

sagmws105\_default

/local/softwareag/common/bin/daemon.sh -f /local/softwareag/profiles/MWS\_default/bin/sagmws105

sagspm105

/local/softwareag/common/bin/daemon.sh -f /local/softwareag/profiles/SPM/bin/sagspm105

# Configuration

## OneData

### Installing MDR

1. In the work area (STG) data schema, execute the following database scripts located in the folder, Software AG\_directory /OneData/scripts. Execute the following scripts in the order listed:

02.stgprd.ddl.sql

03.stg.triggers.sql

04.stg.sequences.sql

06.stgprd.initial.sql

07.stgprd.contacts.sql

08.stgprd.glossary.sql

09.stg.template11179.sql

12.stg.MetaMap.sql

1. In the release area (PRD) data schema, execute the following database scripts located in the folder, Software AG directory/OneData/scripts. Execute the following scripts in the order listed

02.stgprd.ddl.sql

05.prd.triggers.sequences.sql

06.stgprd.initial.sql

07.stgprd.contacts.sql

08.stgprd.glossary.sql

1. Create a new user, as follows:

In a new installation, MDR installs an empty repository in which there are no existing users. Therefore, you must create a new user.

* 1. Open a browser window and use the url <hostname>:9090
  2. Log in with the user id system and password of changeit It will prompt you to change the password. Set this password to meet your security posture.
  3. On the Menu toolbar, click **Administer > Security > Users**.
  4. Click **Add New User**.
  5. Create a user and assign the ADMIN role to this user.

For information about creating users and assigning roles, see *Administering webMethods OneData*.

1. Log on OneData with the user account that you just created.
2. Define the maximum size for file aachments. This value should match the size of the metadata XML files you import.
   1. On the Menu toolbar, click **Administer > System > System Properties**.
   2. Set the value of **Maximum size of file attachment (bytes)** property to 104800000 bytes.
   3. Click Save

### Modify Configuration Values

1. At the OS level change directories to /local/softwareag/profiles/ODE/bin/onedata/config
2. vi onedata.properties
3. Look for the parameter onedata.datamanager.displaygrid.enableViewEditCOLevelTreeHierarchy
4. Change the value from true to false
5. Save the change.
6. Navigate to /local/software/profiles/ODE/workspace/webapps/onedata/WEB-INF/classes and open Owasp.CsrfGuard.properties file.
7. Look for property org.owasp.csrfguard.JavascriptServlet.refererMatchDomain
8. Change the value from true to false.
9. Save the change.
10. Restart the application.

## Integration Server

### Change Administrator Password

1. Log into the Integration Server Admin page if you are not all ready using Administrator/manage
2. Click on Security🡪User Management in the left hand menu.
3. Under Users, select Administrator from the drop down and click on Change Password.
4. Set the password to match your security posture.
5. Click on Save Password

### Set SAML connection

1. Log into the Integration Server Admin page if you are not all ready.
2. Click on Settings 🡪Resource in the left hand menu.
3. Click the link Edit Settings.
4. Change the hostname and port for MWS SAML Resolver URL to that of were MWS is installed.
5. Click Save Changes.

### Disable WmCloud Package

1. Log into the Integration Server Admin page if you are not all ready.
2. Click on Packages 🡪 Management in the left hand menu.
3. Find WmCloudStreamsDeployer, click on the Yes link under Enable.
4. Find WmCloud, click on the Yes link under Enable.

### Install WmOneData Package

1. Copy the following file /local/softwareag/OneData/IntegrationServer/WmOneData.zip on the OneData server to /local/softwareag/IntegrationServer/instances/default/replicate/inbound on the IntegrationServer. The file must be owned by saguser
2. Log into the Integration Server Admin page if you are not all ready.
3. Click on Packages 🡪 Management.
4. Click on Install Inbound Releases.
5. If WmOneData.zip is not in the drop down. Please select it.
6. Click Install release.
7. You should get a message similar to WmOneData package installed and activated. Package has been moved to archive area as WmOneData.zip\_20191127095848.

## My webMethods Server

### Change Administrator Password

1. Log into the MWS Admin Portal if you are not all ready with Administrator/manage
2. Click on Applications 🡪Administration 🡪 System Wide 🡪 User Management 🡪 Users
3. Click the Administrator link
4. Enter a new Password
5. Click Save.

# Define Welcome Email for new user configurations

There's a property called onedata.notification.sendWelcomeMailOnUserCreation that determines whether welcome email need to be send out during user creation.  
  
It's values are -   
#true : Default. Will send out welcome email during user creation.  
  
#false : Will not send out welcome email during user creation.

# Apply fixes to Environment

## Integration Server

As the user saguser from /local/softwareagSUM/bin

./UpdateManagerCMD.sh

Enter [N]?: **Press Enter**

Enter option: [1]: **Select 1 and press enter** (Manage fixes)

Enter option: [1]: **Select 2 and press enter** (Install fixes from image)

Image file name (full path): **/local/home/saguser/is105fixes press enter**

Create Script (Y or N): [N]? **Select N and press enter**

Enter: [ N ]? **Press enter**

Product directory (full path): [/local/softwareag] ? **Enter /local/softwareag and Press Enter**

Install Support Patch (Y or N): [N]? **Select N and press Enter**

Enter: [ N ]? **Press enter**

**Press Enter again**

Enter: [N]: **Press 1 and Enter this will select all the fixes**

Enter: [N]:? **Press Enter**

Enter: [ N ]? **Press Enter**

Enter C to cancel or any other key to continue:? **Press Enter**

Enter: [X]? **Press X and Enter to exit application**

## One Data Server

On the One Data Server repeat the above steps and change the image file from /local/home/saguser/is105fixes to /local/home/saguser/od105fixes

# Stopping and Restarting OneData Platform

Please stop all components in this order

1. Integration Server
2. MWS Server
3. OneData Server

Start the components in the following order

1. OneData Server
2. MWS Server
3. Integration Server

# Appendix A

## Installing Out of the Box (OOTB) MDR package metadata file

Note that this procedure was used to install the Development and Quality Assurance tiers at NCI. For configuration of Stage and Production, the custom NCI metadata configuration will be promoted from the lower tiers.

1. Import the MDR package metadata file, as follows:
   1. On the Menu toolbar, click **Administer > Metadata > Import Metadata**.
   2. Click **Add Profile**.
   3. Enter the Profile Name of National Cancer Institute
   4. Under **Repository and Project**, in **Select Project**, select the project in which to enable the MDR package.
   5. **Note:** When MDR is installed in an empty repository, the only project available is Standard Project and it is selected by default. If there is more than one project, you can choose the project.
   6. Download the MDR\_TEMPLATE\_METADATA.xml file from the < *Software AG\_directory* >/OneData/METADATA folder to your workstation.
   7. Under **Metadata File.** Select the file you just downloaded to your workstation. Click **Load**.
   8. Save the profile after the selected objects are listed by object type on the screen.
   9. On the Import Metadata Profile screen, select the check box corresponding to the new profile and click **Import**. OneData opens the profile for editing.
   10. Click **Import** and **OK** to execute the import. It runs as an asynchronous task in thebackground.
   11. **Tip:** OneData displays a job log token ID. Note this ID to verify the job execution as described in the next step.
2. To verify the import process result using the job log token:
   1. On the Menu toolbar, click **Administer > Job Center**.
   2. Select the **Job Type** as Transfer Metadata and enter the job log token in **Job Log Id**.
   3. Click **Next** to verify the import execution results.
3. Verify that columns are listed in the correct order, as follows:
   1. On the Menu toolbar, click **Define > Objects** and select the *99. Base Objects* folder.
   2. Select the object indicated in the following table, and verify the column order on the **Column Order** tab, as indicated.

|  |  |  |
| --- | --- | --- |
| **Sub Folder** | **Select Object** | **Verify that the column...** |
| None (top-level) | Administered Item | Internal Item Id (ITEM\_ID) is before Version (VER\_NR). |
| *Classification*  *Scheme related*  *entities* | Classification  Scheme Item | Internal Item ID (ITEM\_ID) is before Ver (VER\_NR). |

1. In the Navigation toolbar, navigate back to the folder, *99. Base Objects*.
2. In the *Sub-type specific children* folder, select the object, Value Meanings.
3. Click the **Structure** tab and then click **Show Structure**.
4. Verify that CONC\_DOM\_ITEM\_ID is before CONC\_DOM\_VER\_NR. If not, click the **Column Order** tab and adjust the column order.

**Note:** The caption for both columns is the same. Verify that the column order is correct from the **Structure** tab.

1. In the Navigation toolbar, navigate to the folder, *99. Base Objects > Administered Items Sub-types.*
   1. For each of the objects listed in the table below, use the following steps to define the primary key constraint in order of ITEM\_ID, VER\_NR. By default, the primary key constraint is defined as VER\_NR, ITEM\_ID.

|  |  |
| --- | --- |
| Object | Constraint Name |
| Classification Scheme | XPKCLSFCTN\_SCHM |
| Conceptual Domain | XPKCONC\_DOM |
| Context | XPKCNTXT |

* 1. Select the object in the table and click the **Structure** tab.
  2. On the Command toolbar, click **Edit Constraints**.
  3. In the **Primary Key Constraint** area, click the **Delete** icon corresponding to the primary key constraint.
  4. Click **Add new Primary Key Constraint**.
  5. In **Constraint Name**, type the constraint name for the column as indicated in the table at the beginning of this step.
  6. Use the arrows to move ITEM\_ID and VER\_NR from the **Available Columns** pane to the **Selected Columns** pane. Verify that the columns are in order of ITEM\_ID, then VER\_NR.
  7. Click **Save**.
  8. In the Navigation toolbar, return to the *99. Base Objects > Administered Items Subtypes* and repeat the previous steps until every object has the correct constraint definition.

1. In the Navigation toolbar, navigate to the folder *99. Base Objects > Classification Scheme related entities*.
   1. Select the object, Classification Scheme Item.
   2. On the **Structure** tab, click **Edit Constraints**.
   3. In **Foreign Key Constraints**, select the check box corresponding to the related table, VW\_CLSFCTN\_SCHM (Classification Schemes). Click **Inactivate**.
   4. Click **Add new Foreign Key constraint** and create a foreign key with the following properties:

|  |  |
| --- | --- |
| **Field** | **Definition** |
| **Related Table Name** | Classification Scheme (CLSFCTN\_SCHM) |
| **Constraint Name** | CLSFCTN\_SCHM |
| **Related Column Description** | VER\_NR |
| Selected **Columns** | CLSFCTN\_SCHM\_ID,  CLSFCTN\_SCHM\_VER\_NR |
| Columns from Re**lated Table** | ITEM\_ID, VER\_NR |

* 1. Click **Save**.

1. In the Navigation toolbar, navigate to the folder *99. Base Objects > Sub-type specific children*.
   1. Select the object, Permissible Values.
   2. Click the **Structure** tab and click **Edit Constraints**.
   3. Select the foreign key to the related table VW\_VAL\_MEAN (View Value Meaning) and click **Inactivate**.
   4. Create a foreign key to the table Value Meaning (VAL\_MEAN) with the values:

* Source column: VAL\_MEAN\_ID.
* Related table column: VAL\_MEAN\_ID.
* Related column description: VAL\_MEAN\_DESC.

### Adding Object Class Relationships to Administered Items

After installing the OneData MDR package, add the Object Class Relationship to Administered Items.

**To add Object Class relationship to Administered Items**

1. On the Menu toolbar, click **Define > Objects** and select the folder, 99. Base Objects.
2. Select the folder, Sub-type specific children.
3. Click **Add Object**.
4. Click **Update Schema**.
5. Update the table schema as follows:
   1. In **Tables Available**, select OBJ\_CLS\_REL and click **Get Table Structure**.
   2. Click **Next** and edit the definition to provide the following values.

|  |  |
| --- | --- |
| **Field** | **Value** |
| **Name** | Object Class Relationship |
| **Owner/Steward** | admin |
| **Object Type** | Data Object |
| **Mode** | Nova |

c. Click **Save**.

1. Select the new object Object Class Relationship and update the object owner as follows:
2. Click the **Structure** tab.
3. Click the **Edit** icon for each column and verify that **Owner** is set as *admin*. Save the changes, if any.
4. Add a foreign key constraint between Object Class Relationship and Object Class:
5. In the Command toolbar, click **Edit Constraints**.
6. Click **Add new Foreign Key Constraint**.
7. Enter the following values.

|  |  |
| --- | --- |
| **Field** | **Value** |
| **Constraint Name** | FK\_OBJ\_CLS\_PRMRY\_REL |
| **XML Element Name** | FK\_OBJ\_CLS\_PRMRY\_REL |
| **Related Table Name** | Select OBJECT CLASS (STG - OBJ\_CLS). |
| **Related Column Description** | Click the **Select a Value** icon and define the following:   * In **Single Column Related Description**, set **Select Related Description** as ITEM\_ID. * In **Multiple Column Related Description**, set **Select Table** as *Administered Item - FK\_AI\_OBJ\_CLS#ITEM\_ID;VER\_NR*. * In **Available Columns**, select *Item Long Name (Administered Item - FK\_AI\_OBJ\_CLS#ITEM\_ID; VER\_NR)* and move it to **Selected Columns**. * Click **Set Values**. |

1. In **Available Columns**, select PRMRY\_ITEM\_ID and PRMRY\_VER\_NR and move them to **Selected Columns**. Click **Save** to save the foreign key constraint.
2. Add a second foreign key constraint between Object Class Relationship and Object Classes.
   1. Click **Add new Foreign Key Constraint** and enter the following values.

|  |  |
| --- | --- |
| **Field** | **Value** |
| **Constraint Name** | FK\_OBJ\_CLS\_SCNDRY\_REL |
| **XML Element Name** | FK\_OBJ\_CLS\_SCNDRY\_REL |
| **Related Table Name** | Select OBJECT CLASSES (STG- VW\_OBJ\_CLS) |
| **Related Column Description** | Click the **Select a Value** icon and define the following:   * In **Single Column Related Description**, select **Select Related Description** as ITEM\_NM. * In **Multiple Column Related Description**, set **Select Table** as *Object Classes*. * In **Available Columns**, select *Object Class Name (Object Classes)* and move it to **Selected Columns**. * Click **Set Values**. |

* 1. In **Available Columns**, select SCNDRY\_ITEM\_ID and SCNDRY\_VER\_NR and move them to **Selected Columns**. Click **Save** to save the foreign key constraint.

1. On the Menu toolbar, click **Define > Objects** and select the Administered Items conceptual object.
2. Click **Structure** tab.
3. Select the options **Object Class Relationship (Object Class Relationship)** and **Classification Scheme Item (Classification Scheme Item)**, and click **Save**.