



Getting Started with SAP NetWeaver AS ABAP and SAP BW on SAP ASE

Provided as Virtual Appliance by the SAP Cloud Appliance Library

Version 1.1

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1. Overview

This guide provides information you need to use SAP NetWeaver AS ABAP and SAP BW on SAP ASE.

In addition it provides the configuration steps for the development scenario and hints to transport development objects.

2. Solution Information

This solution comprises an SAP server image and a Windows frontend image which can be instantiated using the management console of the CAL.

The solution is based on SAP products which you can buy and install using the Software Download Center on the SAP Service Marketplace <https://support.sap.com/swdc>.

Content

Backend

OS: SUSE Linux Enterprise Server 11, patch level 2

Main Component: SAP Adaptive Server Enterprise

Stack-no. of Main Component: 15.7.0.122

Main Component SAP NetWeaver Application Server ABAP 7.4

Stack-no. of Main Component: 7.40 SP8

Main Component: SAP HANA Cloud Connector

Stack-no. of Main Component: 2.4.3

Frontend

OS: Microsoft Windows Server 2008 R2, AWS AMI

Main Component: SAP JVM 8

Stack-no. of Main Component: 8.1.000

Main Component: SAP GUI for Windows 7.40

Stack-no. of Main Component: 7.40 patch level 0

SAP development tools for Eclipse

including Component: ABAP Development Tools for Eclipse 2.31.5

including Component: BW Modeling Tools 1.5.3 0

including Component: SAPUI5 Tools 1.22.9

System Parameters

These parameters are set during the activation of the solution instance from SAP Cloud Appliance Library.

Parameter ID	Parameter Value	Note
SID	NPL	System ID of the SAP system
Instance Number	00	Instance number of the central instance of the SAP System
DB SID	NPL	System ID of the database of the SAP system

3. Using SAP Cloud Appliance Library

Prerequisites

Cloud Provider Configurations

Prerequisite for using the SAP Cloud Appliance Library is a valid cloud provider account providing the cloud computing services to run your virtual appliances. If you already have an active cloud provider account you can directly proceed with the next section. Otherwise, navigate to the cloud provider home page and sign up.

For more information about the supported cloud providers, see the [FAQ page](#).

 *CAL and the Developer Edition are free of charge. But the cloud service provider (AWS) charges you for its services. We recommend strongly setting up a [billing alert](#).*

Configurations in SAP Cloud Appliance Library

Open the SAP Cloud Appliance Library in your Web browser using the following link:
<https://cal.sap.com>

The next steps how to configure your solution in SAP Cloud Appliance Library are:

1. In the *Solutions* tab page, find for your solution and choose *Try Now*.
2. In the *Accounts* tab page, create an SAP Cloud Appliance Library account. As the user who has created the account, you become an account owner and can assign other users to your account.
3. In the *Solutions* tab page, activate your solution by choosing *Activate*.
4. Select the activated solution and create a solution instance from it.

 Please be aware that creating your instances in the public zone of your cloud computing platform is convenient but less secure. Thus, please ensure to open only port 22 (SSH) when working with Linux-based solutions and port 3389 (RDP) when working with Windows based solutions. In addition, we also recommend that you limit the access to your instances by defining a specific IP range in the *Access Points* settings, using [CIDR notation](#). The more complex but secure alternative is to set up a virtual private cloud (VPC) with VPN access, which is described in [this tutorial on SCN](#).

The list below describes the ports opened for the security group formed by the server components of your solution instance:

Protocol	Port	Description
SSH	22	Used for SSH connection to Linux-based servers
RDP	3389	Used for RDP connection to Windows based servers



For more information about these configuration steps, see the official documentation of SAP Cloud Appliance Library (choose *Support* → *Documentation* and choose  (expand all) button to see all documents in the structure). You can also use the context help in SAP Cloud Appliance Library by choosing the *Help* panel from the right side.

Working with your Solution Instances

You can find the solution instances you created on the *Instances* tab page of the SAP Cloud Appliance Library. For more information, see the [Working with Solution Instances](#) document from the official documentation of SAP Cloud Appliance Library.

Access to backend servers on Operating System level

Depending on the overall requirements your solution may consist out of one or more servers running either on a Linux OS and/or on a Windows OS.

SAP NetWeaver AS ABAP and SAP BW on SAP ASE: Access to Linux OS

If you need OS access, you can use SSH connectivity. Use the default user **root** and the **private key** which can be downloaded when your instance is created in SAP Cloud Appliance Library.

Parameter ID	Parameter Value	Note
OS User Name	root	The default Operating System administrator user.
OS Password	<none>	Use the private key (downloaded during the activation of the SAP instance in SAP Cloud Appliance Library) for logging on with the root user.

SAP NetWeaver AS ABAP and SAP BW on SAP ASE: Access to Windows

If you need OS access, you can use RDP connectivity.

Microsoft Windows: Start the *Remote Desktop Connection* using the Start Menu (All Programs > Accessories) or executing mstsc.exe.

Apple Mac OS X: Use the free [Microsoft Remote Desktop](#) app available in the Mac App Store to connect to your frontend.

Linux: Use your preferred RDP client.

Parameter ID	Parameter Value	Note
OS User Name	Administrator	The default OS administrator user for Windows.
OS Password	<none>	The master password is used for accessing the system. It is provided by the user during the creation of the solution instance in SAP Cloud Appliance Library.

4. Installing Client Software

The SAP NetWeaver AS ABAP and SAP BW on SAP ASE solution comes with a Windows Terminal server containing a preconfigured SAPGUI for Windows, the ABAP development tools for Eclipse and Firefox. You can connect to the frontend server (see below) and start working.

You can also access your backend instance using a local SAP GUI and Eclipse installation with the ADT plugins or a standard browser. <http://scn.sap.com/community/ui-technology> can serve as an entry point helping you to understand the front end requirements of NetWeaver based SAP solutions.

5. Connecting to your Solution

Procedure

In SAP Cloud Appliance Library, choose *Instances* to display the list of available instances. Then choose the *Connect* operation for your instance and follow the instructions.

Alternatively you can manually configure a connection in the following way:

1. Choose the name of the running SAP NetWeaver AS ABAP and SAP BW on SAP ASE instance.
The system opens the *Instance* dialog box with the properties of the solution instance. The *IP Addresses* area displays the access details of the solution instance.
2. Copy the IP address of the running instance.
3. Use SAP Logon New functionality and enter the details of the new system, then start a SAP GUI connection.

Parameter ID	Parameter Value	Note
IP address of the instance	x.x.x.x	To be retrieved from SAP Cloud Appliance Library when viewing the details of the solution instance.
SID	NPL	System ID of SAP NetWeaver AS ABAP and SAP BW on SAP ASE.
CI Instance Number	00	The instance number of the central instance (CI)
CS Instance Number	01	The instance number of the central services (CS) instance.
Password		The master password is used for accessing the system. It is provided by the user during the creation of the solution instance in SAP Cloud Appliance Library.
Username ABAP	DDIC, SAP*, DEVELOPER, BWDEVELOPER	These are the standard users which you can use to access the system. Use master password .
Username SAP ASE	SAPSSO SA SAP Schema User	These are the standard users which you can use to access the Database System. Use master password .
Clients	000,001	These are the standard clients available in a newly installed SAP system.

6. Licenses

The validity period of the temporary license is 90 days (3 months) from the moment the solution instance is created by SAP Cloud Appliance Library. Install a valid license as soon as possible.

Installing the MiniSAP License

The MiniSAP license key is also valid for 90 days but can be renewed as long as you adhere to the terms and conditions of the [developer license agreement](#) of the SAP Developer Center and the solution-specific terms and conditions.

Proceed as follows to install the MiniSAP License.

1. Logon to AS ABAP via SAP GUI with user SAP* in tenant 000. Use the **master password**.

2. Start transaction SLICENSE – you will need the hardware key displayed in this transaction.
3. In parallel go to <http://www.sap.com/minisap> to get your MiniSAP license
As system ID choose NPL - SAP NetWeaver 7.x (Sybase ASE).
As hardware key use the hardware key shown in transaction SLICENSE.
4. You will receive a mail with the license key. Store the key on your remote desktop.
5. In the transaction SLICENSE choose *Install new License* and select the license key of step 4.
This changes the installation number from INITIAL to DEMOSYSTEM.
6. After the license installation call transaction SECSTORE and run a check for all entries using F8. This is needed to enable RFC after the change of the installation number.

The developer access keys for the users DEVELOPER and BWDEVELOPER for the installation number DEMOSYSTEM are already configured and you can start developing in the customer name range (Z*, Y*).

Extending the ASE License

The developer edition comes with an ASE license valid until November 1st 2015. Currently there is no process in place to extend it. We will provide you with the necessary information in time.

7. Development

7.1. Using SAP development tools for Eclipse

The SAP development tools for Eclipse are already installed on your frontend instance containing the ABAP Development Tools, the SAPUI5 Tools, and the BW Modeling Tools.

In the *ABAP* and the *BW Modeling* perspective you find pre-configured ABAP development and BW modeling projects with the following parameters:

Project	System	Client	User	Password
NPL_001_developer_en	NPL	001	developer	master password
NPL_001_bwdeveloper_en	NPL	001	bwdeveloper	master password

If you have already changed the password for the developer users you will be asked to enter the new one after having selected one of the projects.

Start now with your first tests using the Eclipse tools.

For detailed information about SAP development tools for Eclipse, we recommend to use the documentation available within Eclipse by opening the *Help* menu > *Help Contents*.

7.2. Tutorials and Demo Scenarios

To explore the different development options and sample applications available for this developer edition you can consult or try out the following guides and tutorials with pre-configured scenarios:

- [ABAP for SAP HANA Reference Scenario](#)
- Business Warehouse Scenarios
 - [SAP BW Feature Content](#)
(more details can be found directly in the system in transaction RSFC)
 - [SAP Demo Scenario ITeLO Company](#)

More tutorials and guides are available on the [SAP Community Network](#) (SCN).

7.3. Transport of Copies

The system has been set up in a way that allows you to import and export ABAP objects as transport of copies. This section describes an export/import scenario.

7.3.1. Export

To export objects with a transport of copies you have to execute the following procedure:

1. In transaction SE01 choose *Create* (F6).
2. Mark Transport of Copies and choose Enter.
3. Enter a description.
4. As transport target enter **DMY** and choose *Save*.
5. Add the objects you need into the request. You may enter them either directly or via the menu *Request/Task* → *Object List* → *Include Objects...*
6. Release the request.
7. Connect to your backend instance on OS level as described in the [previous chapter](#).
8. You will find your transport files in the directories:
 - a. /usr/sap/trans/data
 - b. /usr/sap/trans/cofiles
 - c. For the file transfer you can use sFTP or SCP clients like WinSCP with user *root* and the private key file of your backend instance or you can directly import the existing PuTTY connection profile.

7.3.2. Import

To import transports into the system you have to execute the following procedure:

1. Connect to your backend instance on OS level as described in the [previous chapter](#)
2. Copy your transport files to:
 - a. /usr/sap/trans/data
 - b. /usr/sap/trans/cofiles
 - c. For the file transfer you can use sFTP or SCP clients like WinSCP (see above).
3. Ensure that user *npladm* has sufficient rights for accessing your transport files (e.g. use the *chown npladm:sapsys <file>* command), otherwise the import will fail.
4. In transaction *STMS* open the *Import Overview* (F5) and double click on *NPL*
5. In the menu select *Extras* → *Other Requests* → *Add*.
6. Use the F4 help to select your transport request.
7. Choose *Enter* and answer the question if you want to attach the request to the NPL import queue with yes.
8. Mark the request in the import queue and select **Ctrl+F11** (Import Request).
9. In the popup select for Execution “Synchronous” (for smaller request) and mark all import options.
10. Choose *Enter* and *Yes* to import your request.

For further information concerning the Transport Management System go to the [SAP Help Portal](#).

7.4. Additional Information for Business Warehouse

Unfortunately we are only able to provide the ABAP backend to you, but of course all Data Warehousing options are enabled. If you need to some (very restricted) Reporting you can use transaction *RSRT* and the included *BEx Web 7.0*. Due to license restrictions of Microsoft Office the use of *BEx Analyzer* is not possible.

8. Security Aspects

This section provides an overview of the security-relevant information that applies to the deliverables of this solution package.

Access Ports

Protocol	Port Number	Note
SSH	22	This is the value for the solution instance which is used to connect via PuTTY, WinSCP or other SSH clients.
RDP	3389	This is the value for the solution instance which is used to connect via RDP
Custom TCP	3200	SAP Dispatcher, used by SAP GUI
Custom TCP	3300	SAP Gateway, used for CPIC and RFC communication
Custom TCP	3601	Message Server, used for logon load balancing
HTTPS	8443	SAP HANA Cloud Connector Administration
HTTP	50000	This is the port value used to connect to an SAP application server using http
HTTPS	50001	This is the port value used to connect to the SAP application server using https
Custom TCP	50013 50113	Administrative channel(s) for low-level access to the instances to allow features such as start and stop of the instance service.
Custom TCP	50014 50114	Secured administrative channel(s) for low-level access to the instances to allow features such as start and stop of the instance service.

9. Troubleshooting

For more information about how to use the SAP Cloud Appliance Library, you can read the official documentation of the product by choosing the following navigation from SAP Cloud Appliance Library: *Links* → *Documentation*. If you cannot find the needed information in the documentation, you can open a normal support ticket within the SAP Cloud Appliance Library (BC-VCM-CAL) component and your ticket will be processed by the SAP Cloud Appliance Library Operators.

If you have AWS related problems, you can report them directly to AWS support or alternatively on the BC-OP-LNX-AWS component in SAP Service Marketplace.

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