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Getting Started with SAP BW/4HANA 1.0



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1 Solution Information

This guide provides general information you need to use the Developer Edition of the solution **SAP BW/4HANA 1.0**.

Material Numbers

You get access to a system that has been built up using the following media:

Number	Description
51051159	SAP Kernel 7.45 for BW/4HANA (PL 200)
51051238	SAP HANA Platf. Ed. 1.0 SPS12 (SAP HANA DB 1.00.122.01)
51051143	BW/4HANA 1.0

Components

The solution comprises the following component versions:

Name	Release	Support Package Stack
SAP_BASIS	7.50	4
SAP_ABA	7.5A	4
SAP_GWFND	7.50	4
SAP_UI	7.50	4
ST-PI	7.40	3
DW4CORE	1.00	1

The front end comprises the following component versions[Developer Edition only]:

Component	Version
SAP GUI for Windows 7.40	740.2.5.1110
HANA Studio	2.3.8
SAP Development Tools for Eclipse: ABAP Development Tools	2.64.3
SAP Development Tools for Eclipse: BW Modeling Tools	1.15.1
SAP Development Tools for Eclipse: SAPUI5 Tools	1.38.7
SAP BusinessObjects DesignStudio	1.6

Sizing Information

Follow the sizing guidelines to determine the hardware requirements of the solution such as network bandwidth, physical memory, CPU power, and I/O capacity by choosing this quick link: <http://service.sap.com/sizing> -> Sizing -> Sizing Guidelines

You can use also the search function in the [Quick Sizer](#) tool to find your required sizing guidelines.

OS Compatibility Information

Check the [Product Availability Matrix](#) (PAM) to determine the operating system requirements for running the SAP system in question. For your information, you can see the details of the OS environment on which this solution has been built up.

Name	Value
OS Kernel Version	3.0.101-0.68-default
OS Version	11
OS Platform	linuxx86_64
OS Release	SUSE Linux Enterprise Server 11 (x86_64)
GLIBC Version	2.11.3
OS Type	SUSELinux
OS Patch Level	3
Architecture	x86_64

SAP Host Agent Information

It is highly recommended to have the latest version of SAP Host Agent. More information can be found in the related SAP Notes "[1031096 - Installing Package SAPHOSTAGENT](#)", "[1473974 - Using the SAP Host Agent Auto Upgrade Feature](#)".

Application Server ABAP Details

Name	Value	Description
SID	A4H	System ID of the SAP system
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	<master password>	The password set during instance creation.

Name	Value	Description
Username	DDIC SAP* DEVELOPER BWREMOTE	These are the standard users which you can use to access the ABAP server. BWREMOTE User is a system user for the BW/4 internal data load processes. Logon with this user is not possible. The password for BWREMOTE has been set to icecream.
Clients	000 001	000: Administration 001: BW/4HANA Client

Database Server Details

Name	Value	Description
SID	HDB	System ID of the SAP system
DB SID	HDB	System ID of the database of the SAP system
DB Type	HDB	Type of the database
Instance Number	02	Instance number of the central instance of the SAP HANA System
Username	SYSTEM SAPA4H DBACOCKPIT DBMS_USER	These are the standard users which you can use to access the database server. DBMS_USER is used to create DBMS User from ABAP (see NW documentation). Please change password in transaction DBCO to <master password> for connection DBMS_USER after setup. After that change DBMS User tab is available in transaction SU01.
Password	<master password>	The password set during instance creation.

OS Users and Groups

Name	Description
hdbadm	SAP system administrator
hdbadm	SAP database administrator
sapsys	Group containing all <SID>adm users (should be a group in a central user storage like LDAP, NIS, or Active Directory)

Windows Frontend Users

Name	Value	Description
Username	Administrator	The default OS administrator user for Windows.
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.

2 Licenses

Developer License Agreement

This solution could be used for development purpose under the perpetual Developer License Agreement. Note that you are allowed to install only “Minisap” license keys that can be renewed as long as you adhere to the Terms and Conditions of the Developer License Agreement.

License Keys Installation

Once you create the solution instance in SAP Cloud Appliance Library, the SAP system will generate a temporary license key that is sufficient for exploration purpose. Note that valid license is required to use the solution instance after the expiration of the pre-installed temporary license. For this solution you have to request and install the following license keys:

- HDB - SAP HANA Platform Edition (64GB)
- A4H – - SAP NetWeaver AS ABAP and BW/4HANA

For more information about how to request and install “Minisap” license keys, see [this SCN blog](#).

3 Security Aspects

Be aware that creating your instances in the public zone of your cloud computing platform is convenient but less secure. Ensure that only port 22 (SSH) is opened 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:

To access back-end servers on the operating system (OS) level, use the following information:

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

You must change the initial user passwords provided by SAP when you log onto the system for the first time.

Note that when using **HANA based appliances**, HANA systems are not installed individually but **cloned from a template system**. As a consequence of this cloning process, the existing root keys are cloned. For more information, see this [SAP Note 2134846 - HANA encryption key handling during system cloning](#).

4 Solution Provisioning in SAP Cloud Appliance Library

If you have a user in SAP Cloud Appliance Library, you need to meet the following prerequisites before starting to use the SAP Cloud Appliance library:


- Cloud Provider Configurations

You have a valid account in one of the cloud providers supported by SAP Cloud Appliance Library. If you already have an active cloud provider account, you can proceed directly 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](#).

- Navigate to SAP Cloud Appliance Library

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

For more information about how to use solutions in SAP Cloud Appliance Library, see the official documentation of SAP Cloud Appliance Library (choose [Support](#) → [Documentation](#) link 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.

5 Connecting to Your Frontend Instance

Remote Desktop Client

For connecting to your frontend instance you need an RDP client for your local operating system:

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: You can use open source RDP clients like [Remmina](#).

The RDP with SAP GUI for Windows, SAP Business Objects Design Studio and the Eclipse Modeling Tools is only available in the solution based on the developer edition.

5.1 Connecting with RDP

You can find the <IP Address> of your frontend instance by clicking on the instance name in your SAP Cloud Appliance Library account. Take the IP of the frontend instance and use the OS user “Administrator” with your master password to log in with your remote desktop client.

5.2 Using SAP GUI for Windows

SAP GUI for Windows is already installed on your frontend instance with a pre-configured system connection for SAP Logon. If you want to create an additional entry, proceed with the following steps:

- Start the SAP Logon.
- Choose new entry → User defined.
- In the System wizard, specify the following parameters:

Parameter ID	Parameter Value	Note
Application Server	vhcala4hcs	The IP address of the instance from SAP Cloud Appliance Library
Instance Number	00	ABAP instance number used by the appliance.
System-ID	A4H	ABAP system id used by the appliance
User Name	Client 000: SAP*, DDIC Client 001: SAP*, DDIC, DEVELOPER	Default users

Parameter ID	Parameter Value	Note
Password	<master password>	The password of SAP*, DDIC, DEVELOPER and BWREMOTE users are the same.

For out-of-the-box ABAP development, ABAP for HANA features and the pre-configured Fiori demo applications we recommend to use the user DEVELOPER in client 001. For the pre-configured BW demo scenarios and BW development we recommend to use the user BWDEVELOPER in client 001.

5.3 Using SAP HANA Studio

The pre-installed SAP HANA Studio on your frontend instance also contains the ABAP Development Tools, the SAPUI5 Tools, and the BW Modeling Tools. In the Systems view of the HANA Development perspective you find a pre-configured connection to your HANA system, using the following parameters:

Parameter ID	Parameter Value	Note
Hostname	vhcalhdbdb	The IP address of the instance from the SAP Cloud Appliance Library
Instance Number	02	HANA instance number used for the appliance.
User Name	SYSTEM	For the connection to the DB use SYSTEM user
Password	<master password>	The password is the same as the master password provided during instance creation in the SAP Cloud Appliance Library.

The system ID of the database is HDB. It is recognized automatically via the host name.

Moreover, in the ABAP and the BW Modeling perspective in Eclipse you find a pre-configured ABAP development and BW/4HANA modeling projects with the following parameters:

A4H_001_developer_en: SID A4H, client 001, user: developer/<master password>

BW_A4H_001_bwdeveloper_en: SID A4H, client 001, user: developer/<master password>

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

6 Connecting to Your Backend Instance

6.1 Connecting to Your Backend on OS Level

In case you want to access your backend instance on OS level (not recommended unless you know what you are doing), you need an SSH client for your local environment, e.g. [PuTTY for Windows](#).

The following steps describe how to connect to your backend instance using PuTTY, but are similar for alternative SSH clients:

- Click on the instance name in your CAL account, to retrieve the IP of your backend instance and download the instance key pair (maybe you already downloaded the key pair during instance creation).
- Extract the private key of the key pair by using a tool like puttygen.exe.
- Open PuTTY and enter the IP of your backend instance.
- Navigate to the SSH > Auth node and enter your private key file.
- Navigate to the Connection > Data node and enter root as auto-login username.
- Save these session settings and hit the Open button.

Now you can log in to your backend instance on OS level (SLES) for monitoring, troubleshooting, or accessing files on the server.

The following tables list all important users on OS level:

Parameter ID	Parameter Value	Note
OS User Name	root	The default OS Administrator user for Linux SUSE.
OS Password	<none>	Use the private key (downloaded during the activation of the instance in SAP Cloud Appliance Library) for login with the root user.

The administration users for HANA and ABAP on operating system level are defined as follows:

Parameter ID	Parameter Value	Note
HANA administrator name	hdbadm	Additional user for HANA lifecycle management – start/stop, administration, functions, recovery
HANA administrator password	<master password>	The password is the same as the master password provided during instance creation in the SAP Cloud Appliance Library.
ABAP administrator name	a4hadm	Additional user for ABAP lifecycle management – start/stop, administration, functions, recovery

Parameter ID	Parameter Value	Note
ABAP administrator password	<master password>	The password is the same as the master password provided during instance creation in the SAP Cloud Appliance Library.

Additional users on operating system level are:

Parameter ID	Parameter Value	Note
SAP System Administrator	sapadm	
SAP System Administrator password	<master password>	The password is the same as the master password provided during instance creation in the SAP Cloud Appliance Library.
SAP System Administrator	daaadm	
SAP System Administrator password	<master password>	The password is the same as the master password provided during instance creation in the SAP Cloud Appliance Library.

6.2 Manually starting and stopping the system

The system (ABAP server and database) is automatically started when you activate an instance in CAL. The system (ABAP server and database) is automatically stopped, when you suspend the instance in CAL. There might be nevertheless situations where you want to start or stop the ABAP server or the database manually. The next sections describe how to do this.

6.2.1 ABAP System

To check the status of the ABAP system logon as root on operating system level and execute:

```
su - a4hadm
sapcontrol -nr 00 -function GetProcessList
```

For stopping the ABAP system logon as root on operating system level and execute:

```
su - a4hadm
stopsap r3
exit
```

For starting the ABAP system logon as root on operating system level and execute (database must run):

```
su - a4hadm
startsap r3
exit
```

6.2.2 SAP HANA Database

To check the status of the database logon as root on operating system level and execute:

```
su - hdbadm
sapcontrol -nr 02 -function GetProcessList
```

For stopping the database logon as root on operating system level and execute (make sure the ABAP system has been stopped before):

```
su - hdbadm
HDB stop
exit
```

For starting the database logon as root on operating system level and execute:

```
su - hdbadm
HDB start
exit
```

6.3 Transport of Copies

To enable transporting please go to transaction STMS to setup the transport management system. Use your own password.

6.3.1 Export

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

- In transaction SE01 choose Create (F6).
- Mark Transport of Copies and choose Enter.
- Enter a description.
- As transport target enter DMY and choose Save.
- Add the objects you need into the request. You may enter them either directly or via the menu Request/Task → Object List → Include Objects...
- Release the request.

You will find your transport files in the directories:

```
/usr/sap/trans/data
```




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