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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

## 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.
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	000: Administration

Name	Value	Description
	001	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)

## 2 Licenses

### Free Trial License Agreement

This solution could be used as a trial for the configured free period. Note that you are not allowed to install license keys under the Free Trial License Agreement.

### SAP Product License Agreement

To use the instances created from this solution under your own SAP Product License Agreements, you have to unlock the solution in SAP Cloud Appliance Library. The prerequisites are that you own the required SAP Product licenses and that you purchase the SAP Cloud Appliance Library subscription package. For more information, see [Unlocking Solutions](#).

### 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:

To check the Product and the Version for your solution, go to the SAP License Keys application:

<https://launchpad.support.sap.com/#/licensekey>

And add a new system to see the list of products and versions.

SID	Product	Version	DB	OS	Comment
HDB	SAP HANA, platform edition	1.0	n/a	Linux	Recommended quantity is a minimum of 128 GB Main Memory depending on your usage (data to uploaded to SAP BW/4HANA Server)
A4H	SAP BW/4HANA	1.0	SAP HANA	Linux	

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

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## 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](#).

For more information about security vulnerabilities, see this [community page](#).

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## 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 Backend Instance

## 5.1 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.

## 5.2 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.

### 5.2.1 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
```

## 5.2.2 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
```

## 5.3 Transport of Copies

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

### 5.3.1 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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