

# **Getting Started with SAP HANA Customer Activity Repository rapid-deployment solution V2.10 – Fully-Activated Appliance in SAP Cloud Appliance Library**



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# 1 Overview

This quick guide provides information you need for setting up the SAP HANA Customer Activity Repository rapid-deployment solution V2.10 system in the Cloud environment.

The pre-assembled system is delivered through a virtual appliance format that is specifically optimized for Cloud deployment. The virtual appliance already contains a pre-installed system landscape and required software components (for example, SAP Customer Activity Repository Applications Bundle 1.0 SP01), as well as the database (SAP HANA). The content of SAP HANA Customer Activity Repository rapid-deployment solution V2.10 is activated, and the appliance contains sample data and pre-built analytics. This system can be used to evaluate the SAP HANA Customer Activity Repository rapid-deployment solution V2.10, based on the pre-configuration of SAP Rapid-Deployment Solution.

This document does not provide a general overview and explanation of SAP Rapid-Deployment solutions. For more information about the SAP Rapid-Deployment concepts, see the related documentation on <http://service.sap.com/solutionpackages>.

This document is intended for the following project roles, which already have a sound knowledge of SAP Rapid Deployment solution, including tools and documentations.

- System administrators and SAP NetWeaver consultants: System setup and preparation including troubleshooting

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## 2 Solution Information

SAP HANA Customer Activity Repository rapid-deployment solution V2.10 – Fully-Activated Appliance:

This virtual appliance can be used to learn about the scope of the SAP HANA Customer Activity Repository rapid-deployment solution based on SAP Customer Activity Repository Applications Bundle 1.0 SP01.

The appliance provides a 'fully-activated system' that can be used to understand the solution and the scope of the rapid-deployment solution.

In the fully-activated system all the required software components are installed and the required SAP Notes are applied. In addition business processes are configured and also test data are applied.

SAP Customer Activity Repository is a foundation that collects data on customer activities across all interaction channels that was previously spread over multiple applications in diverse formats and provides a foundation for advanced consumer analytics and cross-channel process support. It is the center piece of the future retail solution portfolio where all Retail business solutions can take root in a common foundation with a harmonized data model. SAP Customer Activity Repository stores data in in-memory at the most granular level of detail allowing embedded science layer to execute advanced statistical algorithms and pattern predictions. For an overview of this Rapid-Deployment solution, refer to the *Customer Presentation* available under [More Information – V2.10](#) in the SAP Service Marketplace at <http://service.sap.com/rds-car>.

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## 3 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.

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## 4 Installing Client Software

### 4.1 SAP HANA Client Software

You have to install the SAP HANA studio to connect to your SAP HANA instance. The client is needed for building client applications.

You need the *SAPCAR* tool to be able to decompress the SAP HANA Studio archive. For more information about *SAPCAR* and how to get it, see [SAP Note 212876](#).

For unpacking archives use `SAPCAR -xvf <name of the *.SAR file>`

#### 4.1.1 HDB Studio and HDB Client

The software package containing the SAP HANA Studio has the name "Revision 93 for SAP HANA STUDIO 2". It contains the SAP HANA Administration and Modeling tool.

The software package containing the SAP HANA Client has the name "Revision 93 for SAP HANA CLIENT 1.00". It contains SDK's for JDBC, ODBC, ODBO and Python DB API, so you can build client applications.

You can download the SAP HANA Studio and Client for all available operating systems from the SAP Service Marketplace by using the following procedure:

1. On your browser enter the following URL for the SAP Service Marketplace:  
<https://support.sap.com/swdc>, Choose *Support Packages and Patches* (link in the navigation pane on left hand side), and then choose *A-Z* (button in the middle).
2. In the *A - Z Index* field, enter letter H.
3. Go to the path: *SAP HANA PLATFORM EDITION -> SAP HANA PLATFORM EDIT. 1.0 -> Entry by Component -> HANA client -> SAP HANA CLIENT 1.00*  
or *SAP HANA PLATFORM EDITION -> SAP HANA PLATFORM EDIT. 1.0 -> Entry by Component -> HANA studio -> SAP HANA STUDIO 2*
4. Download the archive of SAP HANA SP9 according to your OS.
5. Unpack the files with *SAPCAR* and run the `hdbsetup.exe` installer.

### 4.2 ABAP Client Software

Ensure that you have installed the latest and appropriate SAP frontend components.

To download the SAP frontend components, go to the SAP Software Download Center (SWDC) on the SAP Service Marketplace:

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## 4.2.1 SAP GUI

Ensure that you have installed the latest version of SAP GUI and of the SAP Scripting Engine. On the navigation level SAP Frontend Components, you can select the SAP frontend components depending on your requirements.

<https://support.sap.com/swdc>, then choose *Support Packages and Patches* → *Browse our Download Catalog* → *SAP Frontend Components*

## 4.3 SAP Lumira Client Tools (optional)

For the usage and adoption of the SAP Lumira reports of the SAP HANA Customer Activity Repository rapid-deployment solution V2.10, you must install SAP Lumira 1.22 on your local windows environment.

To download SAP Lumira 1.22, go to the SAP Software Download Center (SWDC) on SAP Service Marketplace: <https://support.sap.com/swdc>

*Installation and Upgrades* → *Browse Our Download Catalog* → *Analytics Solutions* → *SAP LUMIRA* → *SAP LUMIRA 1.0*



You can find trial license of lumira client tools following the procedure

1. Go to service market place license key page: <https://support.sap.com/licensekey>
2. Under Related Links, find and open link for: *Analytics Solutions from SAP - [Temporary License Key](#)*

# 5 Connecting to Your Solution

## 5.1 Release and Support Package level

[Main Component]: SAP High Performance Analytic Appliance 1.0

[Stack-no. of Main Component]: SPS09 -1.00.93

[Localized Country]: All

[Language]: All

[Main Component]: SAP NetWeaver 7.40

[Stack-no. of Main Component]: SP09

[Localized Country]: All

[Language]: All

[Main Component]: SAP Customer Activity Repository Applications Bundle 1.0

[Stack-no. of Main Component]: SP01

[Localized Country]: All

[Language]: All

## 5.2 Connecting to the SAP Customer Activity Repository

### 5.2.1 Mapping hostnames to IP address



Your Amazon VPC setup needs to have a DHCP Option Set which defines a domain-name *<Domain Name>*. If this is not the case create the DHCP Option set terminate your CAL instance and create a new one. This is necessary as *<Domain Name>* is used in the CAL instance creation process.

When creating a CAL instance the solution is deployed to a server with the predefined virtual host names *vhcalhdbdb*, *vhcala4hci* and *vhcala4hcs* and to a second server with the virtual host name *bihost*. You are also provided *<IP Addresses>* with which you can access the servers. You can find the *<IP Address>* of the respective servers by clicking on the name of your instance in the SAP Cloud Appliance Library. ABAP application server *A4H* and BI platform server *BIHOST* reaches the SAP HANA server *HDB* with the help of an entry for *vhcalhdbdb* in its local */etc/hosts* file.



Regarding *<IP Address>*: By default, it will be provided two IP addresses to each of instance of Netweaver and BI platform. Internal IP address and external IP address. You can use internal IP address or external IP address according to different scenario.

You still need to publish a mapping between the server names and the IP address in your network. You could do this within your Domain Name Service (DNS) setup or adjust the hosts file on the client.

The following steps describe how to adjust the hosts file on the client:

- Open the "hosts" file of your operating system as administrator:
  - For Windows operating system: Open the start menu, type `notepad c:\windows\system32\drivers\etc\hosts` and hit Ctrl Shift Enter.
  - For Linux operating system: `/etc/hosts`

2. Enter the following lines in the hosts file and save it:

```
# Netweaver and HDB
<IP Address Netweaver/HDB server> vhcala4hci          vhcala4hci.<Domain Name>
<IP Address Netweaver/HDB server> vhcalthdbdb        vhcalthdbdb.<Domain Name>
```



The predefined local domain name is `dummy.nodomain`. If you do not want to change the default settings, you can map the hosts name to IP addresses as the following:

**# Netweaver and HDB**

```
<IP Address Netweaver/HDB server> vhcala4hci vhcala4hci.dummy.nodomain vhcalthdbdb
vhcalthdbdb.dummy.nodomain
```



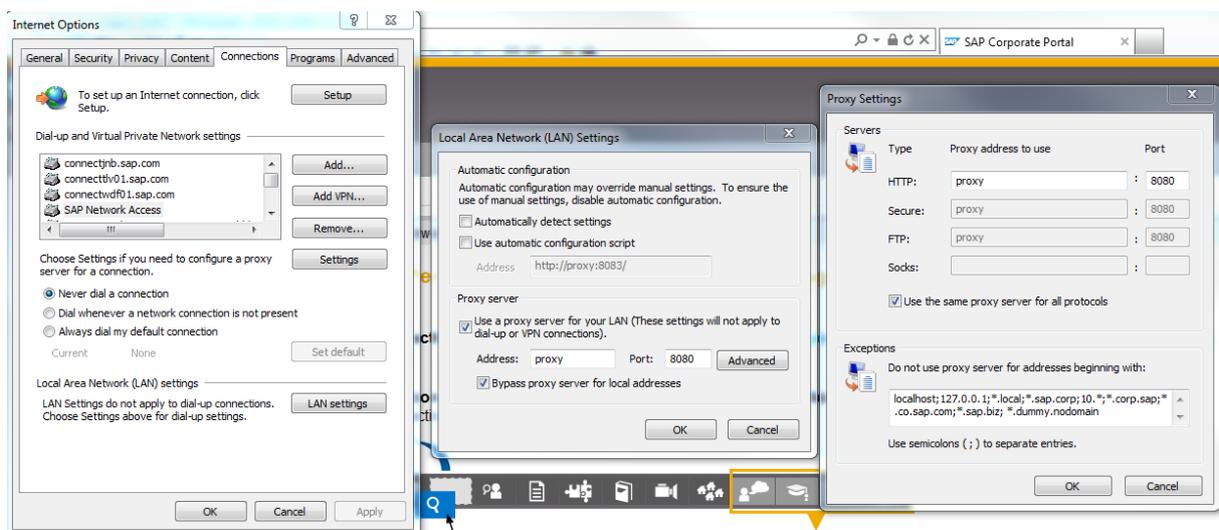
Working with the `dummy.nodomain` might require changes in your web browser in case there is a web proxy in place. You need to set the Proxy Server as the following:

Address	<your proxy server> for example proxy
Port	<your proxy port> for example 8080

In addition, you need to add the following to the Exceptions field:

```
;*.*.dummy.nodomain
```

See screenshots as an example:



Applications with a gray background don't have a ribbon

## 5.2.2 Connecting to SAP HANA via SAP HANA Studio

1. Start the installed SAP HANA Studio.
2. Open the *Navigator* view and right click with the mouse in this view and then choose *Add System...*
3. In the *System* wizard, specify the following parameters:

...

Parameter ID	Parameter Value	Note
Hostname	<IP Address>	The IP address of the SAP HANA instance from the SAP Cloud Appliance Library
Instance Number	02	SAP HANA instance number used for the appliance.
User Name	SYSTEM	For the connection to the DB use <i>SYSTEM</i> 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.

### 5.2.2.1 Using transactions DBACOCKPIT and DB59 for monitoring of SAP HANA

#### Purpose

Update DB Connection information to allow log on to SAP HANA.

#### Actions

1. Call transaction DBCO.
2. Click the *Edit* button, then push the button "New Entries" and enter a new set of connections settings:  
DB Connection: A4H  
DBMS: HDB  
User Name: SAPNWABAHDB  
DB Password: use the master password you provided when creating the solution instance  
Conn. info: hdbhost:30215
3. Push the Save button, go back to entry screen of DBCO (F3 or push the green arrow Back), then push Save again
4. Now call transaction DBACOCKPIT, navigate to System Landscape, System Configuration and push the "Add" button.  
In the field System, enter HDB  
Flag option "Database Connection" in section Remote Database, enter HDB in the input field and push the Save button followed by the "Edit" button. After double-clicking on the navigation entry System Landscape -> System Configuration, you will see the freshly created configuration.
5. Now you can perform a test of the new connection by selecting the respective line with the new entry and clicking the *Connection Test* button. On the next screen, mark the server line and click the *Check*

*Selected Servers* button. Go back to the DBACOCKPIT entry screen and make the successfully tested connection the new Default System by selecting the entry and pushing the button “Default System”

## Result

The application server is able to establish database connection.

All lights are displayed in green. In case of a red light please ensure that you have the right connection and the correct Master Password.

## 5.2.3 Connecting to ABAP via SAP GUI

1. Start the SAP Logon
2. Choose new entry → User defined.
3. In the *System* wizard, specify the following parameters:

...

Parameter ID	Parameter Value	Note
Application Server	<IP Address>	The IP address of the <i>ERP</i> 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 Client 192: SAP*, DDIC, BPINST	Default users
Password	Client 000: SAP*, DDIC Client 001: SAP*, DDIC Client 192: SAP*, DDIC Client 192: BPINST  <i>It is recommended that you change the password for all three users directly after creation of the instance!</i>	<Master Password> <Master Password> <i>Appliance</i> <i>Welcome!</i>

## 5.2.4 Connecting to Fiori Launchpad via web browser

### Procedure

1. Start the web browser.
2. Open URL:  
https://vhcala4hci.dummy.nodomain:44301/sap/bc/ui5\_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html
3. In the *Fiori Launchpad start screen*, specify the following parameters and click *Log On*.

---

Parameter ID	Parameter Value	Note
User	<i>BPINST</i>	Default user
Password	<i>Welcome1</i>	Default password
Client	192	Default client

## 6 Security Aspects

This section provides an overview of the security-relevant information.

Since the Master Password you provided during instance creation in the SAP Cloud Appliance Library are same for all users. To mitigate the potential security risks (for example, OS users can obtain the password of the solution while the initial provisioning is in process) we recommend changing the password of the following users:

- SYSTEM – this is a DB user.  
The procedure can be executed from SAP HANA Studio:
  1. Start the installed SAP HANA Studio.
  2. From the *Navigator* view right click with the mouse on SAP HANA instance SID (user SYSTEM).
  3. Select *SQL editor*.
  4. In the editor, enter the following string:
    - ALTER USER system PASSWORD <new\_password>.
  5. Choose *Execute*.
  6. Switch on OS to a4hadm user and execute the following command:  
"/usr/sap/A4H/hdbclient/hdbuserstore set default vhcaldbhd:30215 SYSTEM <new\_password>"
  7. Change password also in properties of the HDB system in the SAP HANA Studio. From the Navigator view right click with the mouse on SAP HANA instance SID. Select Properties → Database User Logon and change the password.
- SAPNWABAHDB – this is a DB user.

As the user is used for the ABAP server connection to the database you should stop the ABAP system during the password change procedure:

1. As the user is used for the ABAP server connection to the database you should stop the ABAP system during the password change procedure. On operating system level execute:

```
su - a4hadm
cd /usr/sap/A4H
stopsap r3
exit
```

2. Start the installed SAP HANA Studio.
3. Open the *Navigator* view and right click with the mouse in this view and then choose *Add System...*
4. In the *System* wizard, specify the following parameters:

Parameter ID	Parameter Value	Note
Hostname	<IP Address>	The IP address of the instance from the SAP Cloud Appliance Library
Instance Number	02	SAP HANA instance number used for the

		appliance.
User Name	SAPNWABAHDB	User used for ABAP DB connections
Password	<Master Password>	The password is the same as the master password provided during instance creation in the SAP Cloud Appliance Library.

5. From the *Navigator* view right click with the mouse on SAP HANA instance SID (User SAPNWABAHDB).
6. Select *SQL editor*.
7. In the editor, enter the following string:
  - ALTER USER SAPNWABAHDB PASSWORD <new\_password>.
8. Choose *Execute*.
9. Switch on OS to a4hadm user and execute the following command:
 

```
"/usr/sap/A4H/hdbclient/hdbuserstore set default vhcaldhdb:30215
SAPNWABAHDB <new_password>"
```
10. Change password also in Properties of the HDB system in the SAP HANA Studio. From the *Navigator* view right click with the mouse on SAP HANA instance SID. Select Properties → Database User Logon and change the password.

11. Restart the ABAP system: On operating system level execute:

```
su - a4hadm
cd /usr/sap/A4H
startsap r3
exit
```

- hdbadm – this is an OS user.

To change the password you have to logon with the root user to the Linux OS and change the password of the *hdbadm* user. For more information, see Error! Reference source not found..Error! reference source not found..

In the Linux console you have to execute the following command: `passwd hdbadm` and then enter the new password.

- a4hadm – this is an OS user.

To change the password you have to logon with the root user to the Linux OS and change the password of the *a4hadm* user. For more information, see Error! Reference source not found..Error! reference source not found..

In the Linux console you have to execute the following command: `passwd a4hadm` and then enter the new password.

- SAP\*, DDIC, BPINST – these are ABAP users.

The default password for all three users is the <Master Password> provided during the instance creation via CAL. To change the password insert user and password in the SAP GUI login screen and press the button *new password*.

- BPINST – Fiori Launchpad user, ABAP user and DB user.

The default password for this user is the *Welcome1* provided during the instance creation via CAL.

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## 7 Evaluate Business Content and Processes for Pre-Deployed Scenarios

On the Service Market Place pages for SAP HANA Customer Activity Repository rapid-deployment solution <http://service.sap.com/rds-car> you have access to the *Solution Scope* and to the pages for each included rapid-deployment Solution.

The *Service Market Place page* provides links to SAP Note and Configuration Guide: Getting Started. You can download the package of the rapid-deployment solutions where you can access the configuration guides for the solution installation and also the Business Process Documentation (test scripts) for business content evaluation.



Use the Business Process Documentation (BPD) of the rapid-deployment solutions to evaluate the processes in the system.

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# 8 Licenses

## 8.1 ABAP License

SAP NetWeaver comes with a temporary license that is valid for 3 months from the activation of the instance in the SAP Cloud Appliance Library.

To install a permanent license proceed as follows:

1. Logon to ABAP via SAP GUI with user SAP\* in tenant 000.
2. Start transaction SLICENSE
3. Get your license from the service market place at <http://www.service.sap.com/licensekey>

Use the following data for the license request form:

- System ID: A4H
- System type: Test System
- Product: SAP NetWeaver
- Product Version: SAP NetWeaver 7.4
- Technical Usage: Application Server ABAP
- Database: SAP HANA database
- Operating system: Linux

4. Click "Install new License" and select the downloaded license from step 3.

## 8.2 SAP HANA License

The SAP HANA database comes with a temporary license that is valid for 3 months from the activation of the instance in the SAP Cloud Appliance Library.

To install another license use:

1. Start the installed SAP HANA Studio.
2. From the *Navigator* view right click with the mouse on SAP HANA instance SID.
3. Select *Properties*.
4. From the *Properties* dialog box, select the *License* tab strip

## 9 Additional Information

### 9.1 OS Access to the Solution Instances

If you need OS access, you must use SSH connectivity. Use the default user root and the private key for the instances, downloaded while your landscaped instance is activated from SAP Cloud Appliance Library.

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 logging with root user.

The administration users for Netweaver are defined as follows:

Parameter ID	Parameter Value	Note
SAP HANA administrator name	a4hadm	Additional user on OS to perform administrative tasks on SAP system.
SAP HANA administrator password	<i>Abcd1234</i>	The password is the same as the master password provided during instance creation in the SAP Cloud Appliance Library.

The administration users for SAP HANA are defined as follows:

Parameter ID	Parameter Value	Note
SAP HANA administrator name	hdbadm	Additional user for HANA lifecycle management – start/stop, administration, functions, recovery
SAP HANA administrator password	<i>Abcd1234</i>	

#### Parameter Summary

This section gives an overview over all relevant system parameters.

Parameter Description	Parameter Value	Note
-----------------------	-----------------	------

Master Password	<Master Password>	You specify the master password during instance creation in the SAP Cloud Appliance Library.
Server domain	<Domain Name>	Domain name as specified in your VPC DHCP Option Set
Private key	<Private Key File>	The private key file is provided during instance creation in the SAP Cloud Appliance Library. To be used for SSH access to the host.
Server IP Address	<IP Address>	The IP address of your instance from the SAP Cloud Appliance Library
Host name	vhcala4hci	Predefined name of the host on which SAP HANA and ABAP are running.
Root user / password	root / <Private Key File>	Default OS Administrator user for Linux SUSE.
HDB System ID	HDB	-
HDB Instance Number	02	-
DB User / Password	SYSTEM / <Master Password> SAPNWABAHDB / <Master Password> BPINST / Welcome1	-
HDB Administrator OS level / Password	hdbadm / Abcd1234	-
ABAP System ID	A4H	-
ABAP Instance number	00	-
ABAP Client/ User / Password	000 / SAP* / <Master Password> 000 / DDIC / <Master Password> 001 / SAP* / <Master Password> 001 / DDIC / <Master Password> 192 / SAP* / Appliance 192 / DDIC / Appliance 192 / BPINST / Welcome1	-
ABAP Administrator OS level / Password	a4hadm / Abcd1234	-
Fiori Launchpad User / Password	BPINST / Welcome1	-

A background image of dandelion seeds blowing in the wind against a clear blue sky. The seeds are in various stages of dispersal, with some still attached to their stems and others floating away. The lighting is soft, suggesting a bright but slightly hazy day.

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