

Reading Sample

This sample chapter discusses some of the criteria for choosing a cloud provider before looking at some specific providers. It also briefly walks through the SAP BW/4HANA cloud deployment steps.



"SAP BW/4HANA in the Cloud"



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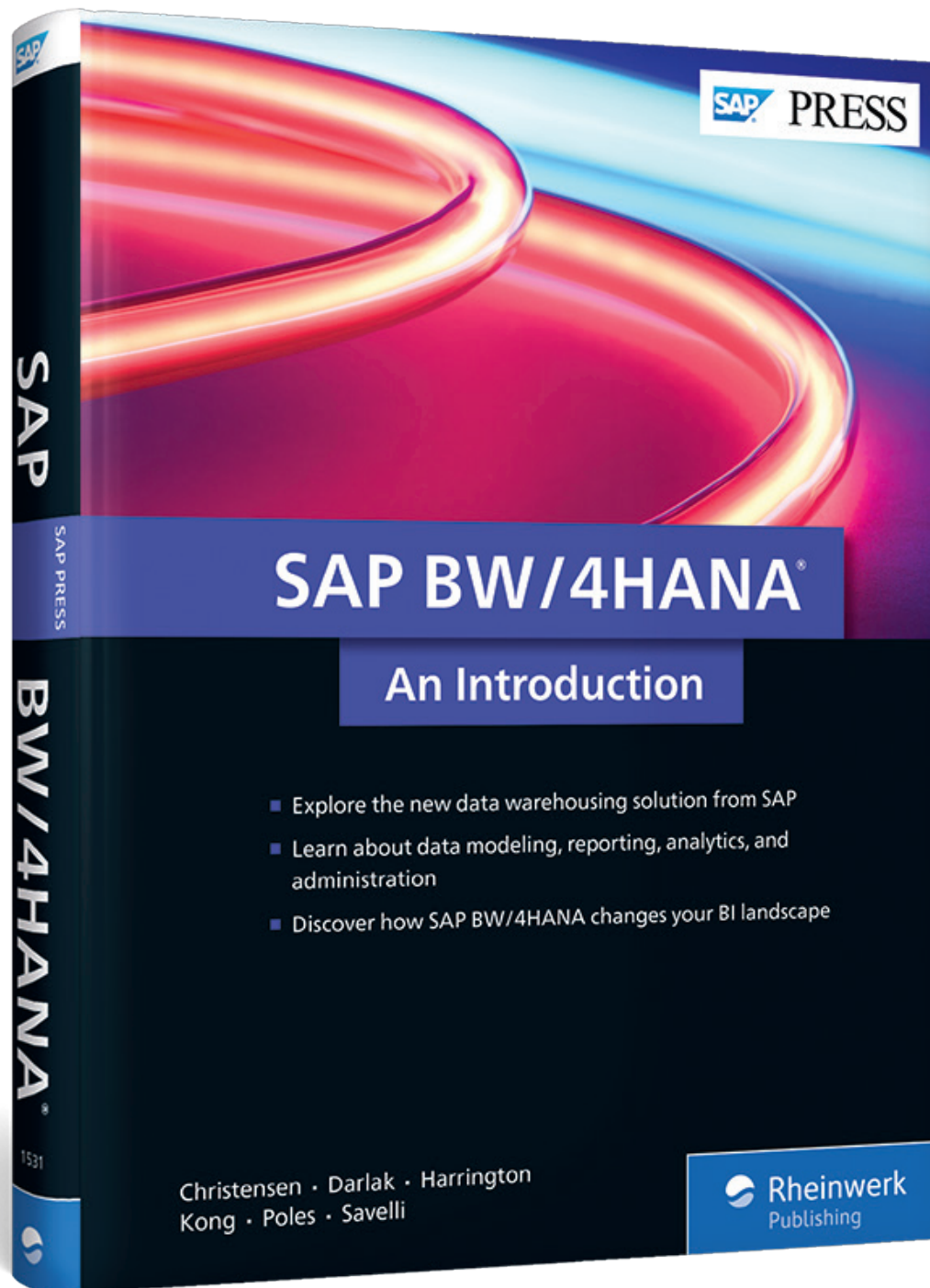
SAP BW/4HANA: An Introduction

427 Pages, 2017, \$69.95

ISBN 978-1-4932-1531-7



www.sap-press.com/4377



Chapter 4

SAP BW/4HANA in the Cloud

With the rise of cloud deployments, it's important to consider whether to deploy SAP BW/4HANA on-premise or in the cloud. In this chapter, we'll discuss the latter option.

SAP designed SAP BW/4HANA for deployment in the cloud. As of April 2017, there aren't a lot of differences between SAP BW 7.5 powered by SAP HANA and SAP BW/4HANA, but some of the developments that SAP has promised around data integration will provide flexibility to help integrate SAP BW/4HANA in cloud systems. You can deploy SAP BW/4HANA on the following cloud offerings, among others:

- SAP HANA Enterprise Cloud
- Amazon Web Services (AWS)
- Microsoft Azure
- Virtustream by Dell EMC

Many of the providers offer infrastructure as a service (IaaS); hence, installing the SAP system still must be performed as described in Chapter 3.

In this chapter, we'll begin by discussing some of the criteria for choosing a cloud provider before looking at some specific providers. We'll end the chapter by briefly walking through the SAP BW/4HANA cloud deployment steps.

4.1 Choosing a Cloud Provider

Choosing a cloud provider is generally a separate process from SAP BW/4HANA system deployment. This section will cover some of the main selection criteria. However, before considering specific selection criteria, it's important for a company to define a cloud strategy.

Defining a company strategy for the cloud is recommended to avoid costly projects and later redeployments caused by changes in requirements and partners.

Several cloud providers offer cloud and datacenter strategy workshops that can provide initial strategy input and answer questions related to the specific provider.

The workshops normally include the following elements:

- An analysis of your business drivers, priorities, investment objectives, and technology enablers
- Enabling a high-level IT strategy that supports your specific business objectives, such as market differentiation, innovation, and cost-savings
- Determining the appropriate action plan for your organization to meet the outlined goals and priorities

The strategy should include a long-term vision of where the company wants to go with cloud deployments and a roadmap for how to get there.

We generally recommend starting small and growing the cloud footprint, and most deployments we've been involved in have been hybrid cloud deployments that make use of both on-premise and cloud.

With the cloud strategy in place, a more specific selection process to find a primary cloud provider follows. From what we've seen in the marketplace, most companies might have a primary and a secondary cloud provider, depending on the size of the company and the offerings provided. Now, in the following subsections, let's look at the primary cloud provider selection criteria:

- Performance
- Technology and certification
- Service level
- Ecosystem and community
- Security
- Cost
- Preferred providers

4.1.1 Performance

Performance is always a main concern when moving to a cloud provider. Performance is multifaceted: Both agility in deploying a new system and the technical performance of the hardware used plays a role in the overall performance rating. Performance issues include the geographical distance of the application and data to the end user, network performance within the cloud provider and to the end users, and disk I/O access speed

between the compute and storage subsystems. Services and research reports such as CloudSleuth and CloudHarmony have attempted to measure the performance of cloud providers from various locations and for different application use cases.

4.1.2 Technology and Certification

Some cloud providers have focused their offerings on specific applications. Because we're looking at deploying SAP BW/4HANA, it's important to verify that the provider has experience with and is SAP-certified for SAP HANA deployments.

In addition to the certification, it's also important to look at the tools and APIs provided for managing the cloud platform.

4.1.3 Service-Level Agreements and Reliability

Cloud providers offer guarantees for levels of service; the guarantee is only an indication of the consequences when the service fails, however, and you should compare the consequences with the service-level agreement (SLA) before reading too much into the numbers provided. A high SLA does not mean much unless there's a significant penalty when the service is down unexpectedly. We recommend talking with existing customers and using comparison services such as CloudSleuth and CloudHarmony.

4.1.4 Ecosystem and Community

Cloud providers all offer tools and APIs to build and manage applications. If you've started building tools on one provider's APIs, it can be costly to rebuild on another provider's APIs.

Amazon, Virtustream, and Azure allow customers to implement in-house clouds using their tools and APIs. This allows for hybrid cloud deployments, with some systems in the cloud and others on-premise.

4.1.5 Security and Compliance

Two of the biggest barriers for companies considering cloud computing continue to be security and compliance. The real concern for enterprises is not truly security threats themselves, but rather the company's inability to achieve compliance with security-related standards. Many cloud providers have security and compliance standards that exceed what companies have been able to build internally, so this concern

should be reviewed and an appropriate provider selected that meets or exceeds the standards you want.

4.1.6 Costs

Normally cloud providers are compared on costs, but this isn't always easy; costing models among cloud providers vary quite a bit. Some providers charge for the capacity you signed up for and other for the capacity you actually use. Providers offer VMs that vary widely in memory capacity, CPU clock speed, and other features. Also, the units provided to customers are often virtualized, creating further confusion as to what the customer is getting and how it might be impacted by shared infrastructure on the same cloud.

One way to measure the cost performance of different cloud providers is to conduct an experiment with the same application or prototype on multiple providers and compare the results. For SAP BW/4HANA, SAP has done this work and certified Azure and Amazon for certain SAP HANA sizes that you can expect to be very similar in performance.

4.1.7 Preferred Providers

Most companies have a list of preferred vendors that they work with, rather than send out requests to all possible vendors that could provide a service. Existing hardware and software providers like HP, IBM, Microsoft, and Dell EMC have cloud offerings that provide a similar setup as Amazon AWS. The most flexible one seems to be Azure, but also Dell EMC's Virtustream cloud has proven to be flexible specifically for SAP applications for which their tools exceed the capabilities of other providers.

It can sometimes be beneficial to work with providers that you have a long-term relationship with. However, it's important that a provider choice not made because of personal relationships or because it feels "safe" to choose one of the legacy companies.

Final Selection

When making a final selection, compare all the dimensions of the cloud offering. Once a cloud provider has been selected, it becomes easier to use that provider for subsequent systems because it's already set up and hence requires less effort to integrate into the network, security, and processes. Many large companies will have

more than one provider to ensure that they can get the right costs and have flexibility to move workload between providers if needed.

4.2 Cloud Providers

In this section, we'll cover some of the cloud provider offerings for SAP BW/4HANA. Certified IaaS details can be found on the SAP HANA certification website at <http://global.sap.com/community/ebook/2014-09-02-hana-hardware/enEN/iaas.html>. Some additional options are available from cloud providers that are certified as TDI solutions.

4.2.1 SAP HANA Enterprise Cloud

SAP HANA Enterprise Cloud offers a platform as a service (PaaS) option. SAP can provide services up to the SAP Basis layer, allowing companies to just make use of the application. More details on SAP HANA enterprise cloud can be found at <https://www.sap.com/product/technology-platform/hana-enterprise-cloud.html#>.

We recommend contacting your SAP account executive to discuss the details of SAP HANA Enterprise Cloud. The following are some aspects to keep in mind when considering SAP HANA Enterprise Cloud to serve as your cloud provider for SAP BW/4HANA:

- **Deployment**
SAP provides systems through IaaS providers such as HP, IBM, and Virtustream. It can take a few days to get a system deployed, depending on the provider.
- **Licensing**
SAP HANA Enterprise Cloud uses *bring your own license* (BYOL) for SAP ABAP-based systems.
- **Supported SAP HANA scenarios**
SAP supports most SAP software, including SAP BW/4HANA, for deployment via SAP HANA Enterprise Cloud. For specific scenarios, discuss your options with SAP.
- **Pricing and sizing**
SAP doesn't have a public price list for SAP HANA Enterprise Cloud.
- **Regions available**
SAP HANA Enterprise clouds is available where SAPs providers operate; there is no official list of available areas.

4.2.2 Amazon Web Services

AWS provides a set of standard certified options for deploying SAP BW/4HANA on an IaaS platform. AWS worked closely with SAP to launch SAP BW/4HANA and had some of the first deployments running live when SAP BW/4HANA was announced in September 2016. Deploying SAP BW/4HANA on AWS generally takes less than a couple of hours to get a system provisioned, and then you can start development.

An overview of the SAP BW/4HANA options on AWS can be found at <https://aws.amazon.com/sap/solutions/bw4hana/>. We will cover the main details in this section.

SAP HANA on AWS can be deployed on either the SUSE Linux Enterprise Server (SLES) or the Red Hat Enterprise Linux (RHEL) operating system. Certain SAP HANA scenarios are supported on a multinode cluster, providing up to 4 TB of total memory; see SAP Note 1964437 for additional details. The following are some aspects to keep in mind when considering AWS to serve as your cloud provider for SAP BW/4HANA:

■ Deployment

AWS Quick Start reference deployment for SAP HANA provides an automated process for deploying SAP HANA on AWS. This Quick Start option allows you to deploy single-node and multinode SAP HANA systems on AWS in less than one hour. The quick start reference can be found at <http://docs.aws.amazon.com/quickstart/latest/sap-hana/welcome.html>.

■ Licensing

SAP BW/4HANA on AWS uses a BYOL model for the SAP HANA license and SAP BW/4HANA license.

SLES and RHEL operating system licenses are provided by AWS, and their relevant license fees are combined with the base hourly fee of the corresponding Amazon Elastic Compute Cloud (EC2) instance type.

■ Supported SAP HANA scenarios

The SAP HANA scenarios listed in Table 4.1 are supported by SAP for production on AWS.

Supported Scenarios on AWS
SAP BW/4HANA
SAP Business Warehouse and SAP Business Planning and Consolidation (SAP BPC) on SAP HANA
Native SAP HANA applications

Table 4.1 Supported SAP HANA Scenarios on AWS

Supported Scenarios on AWS
Data marts and analytics
SAP S/4HANA
SAP Business Suite (SAP ERP, SAP CRM, etc.) powered by SAP HANA
SAP HANA Live/sidecar
SAP Business One, version for SAP HANA

Table 4.1 Supported SAP HANA Scenarios on AWS (Cont.)

For additional information about supported SAP HANA scenarios, including SAP BW/4HANA, see SAP Note 1964437.

■ Pricing and sizing

Scale-out/OLAP workloads like SAP BW/4HANA, data marts, analytics, SAP BW, and SAP Business Planning and Consolidation (SAP BPC) are supported on multinode/scale-out configurations providing up to 14 TB of memory when using the x1.32xlarge instance type. AWS provides two options for deploying SAP BW/4HANA: co-deployment of SAP HANA and the SAP BW/4HANA application, and a distributed deployment in which the SAP BW/4HANA application runs on separate VMs. The co-deployed option is the most efficient, because the network traffic is always internal to the VM between the application and the SAP HANA database.

When the size of SAP HANA requires all the resources on the VM, we recommend distributing the SAP BW/4HANA application to a separate VM.

Table 4.2 and Table 4.3 provide estimates of sample SAP BW/4HANA configurations on AWS. To estimate the pricing for a multinode/scale-out SAP BW/4HANA cluster, multiply the cost of a single SAP BW/4HANA node configuration by the number of nodes required. For additional information about estimating AWS infrastructure pricing for SAP solutions, see the SAP on AWS Pricing Guide at <https://d0.awsstatic.com/enterprise-marketing/SAP/sap-on-aws-pricing-guide.pdf>.

Amazon EC2 offers both on-demand instances and reserved instances. We normally recommend using reserved instances unless for a temporary system, because the discounts are substantial.

■ Regions available

SAP HANA Infrastructure Services on AWS is currently available in all AWS regions except for Beijing.

EC2 Instance Type	vCPU	Memory (GB)	Supported for Production
r3.2xlarge	8	61	No
r3.4xlarge	16	122	No
r3.8xlarge	32	244	Yes
r4.16xlarge	64	488	Coming soon
x1.16xlarge	64	976	Yes
x1.32xlarge	128	1,952	Yes

Table 4.2 AWS Size Options for SAP BW/4HANA and SAP HANA Co-deployed

SAP HANA System				SAP NetWeaver AS System		
EC2 Instance Type	vCPU	Memory (GB)	Supported for production	EC2 Instance Type	vCPU	Memory (GB)
r3.4xlarge	16	122	No	r4.large	2	15.25
r3.8xlarge	32	244	Yes	r4.xlarge	4	30.50
r4.16xlarge	64	488	Coming soon	r4.2xlarge	8	61.00
r1.16xlarge	64	976	Yes	r4.2xlarge	8	61.00
x1.32xlarge	128	1952	Yes	r4.2xlarge	8	61.00

Table 4.3 1 Amazon EC2 Instance for the SAP HANA DB and 1 Amazon EC2 Instance for the SAP NetWeaver AS

4.2.3 Microsoft Azure

Microsoft Azure provides SAP HANA systems in different sizes, like AWS; Azure has a set of standard certified sizes and deployment options available, ranging from smaller systems to larger systems.

More details about the Microsoft Azure SAP HANA option and architecture is available on Microsoft’s website at <https://docs.microsoft.com/en-us/azure/virtual-machines/workloads/sap/hana-overview-architecture>.

The following are some aspects to keep in mind when considering Microsoft Azure to serve as your cloud provider for SAP BW/4HANA:

Deployment

Microsoft Azure’s deployment can be handled on standard provided VMs or in its large instance stamp infrastructure. SAP HANA on standard GS5 VMs is limited in size to 448 GB for production use; smaller sizes are available for nonproduction use. SAP Note 1928533 (SAP Applications on Azure: Supported Products and Azure VM Types) describes the details of SAP deployments on Azure, including SAP HANA VMs. The large instance option includes sizes up to 2 TB for SAP BW/4HANA and can be configured as scale-out. SAP Note 2316233 (SAP HANA on Microsoft Azure [Large Instances]) describes the large instances on Azure. Note that the large instances don’t run on VMs but instead are installed on bare metal; hence, a failure or shut-down of the system won’t automatically fail over to another server.

The architecture of the large instances is depicted in Figure 4.1. The large instances run on certified hardware within Azure and on bare metal.

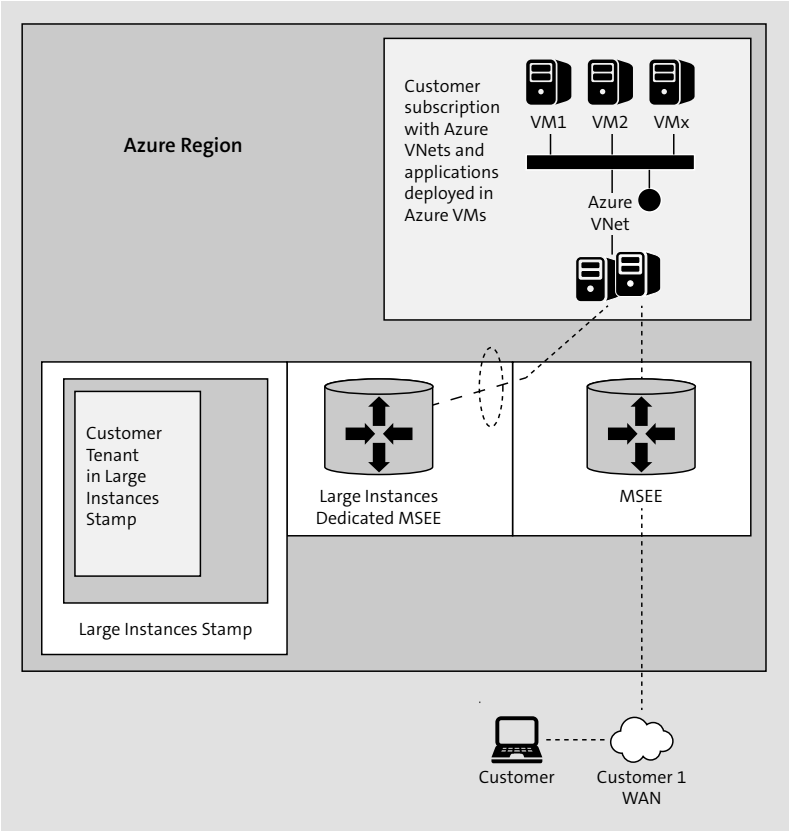


Figure 4.1 Azure Large SAP HANA Instance Architecture

Microsoft has a specific SLA for large instances, with 99.999 percent uptime. With 99.99 percent uptime, a 10 percent service credit is provided; with 99.9 percent uptime, a 25 percent credit is provided. The details are available on the Azure web-site at https://azure.microsoft.com/support/legal/sla/sap-hana-large/v1_0/.

- **Licensing**
Azure provides IaaS; hence, it's required that licenses are purchased for the SAP HANA database and SAP BW/4HANA from SAP.
- **Supported SAP HANA scenarios**
Azure supports most SAP software on their platforms, including SAP BW/4HANA, in both scale-up and scale-out approaches.
- **Pricing and sizing**
Azure pricing is competitive with AWS, and pricing can be negotiated for large instances.
- **Regions available**
SAP HANA is available in all Azure regions with large instance stamp infrastructure.

4.2.4 Other Providers

The list of other providers is long. Some of the big ones are IBM, Huawei, Virtustream, and HP, and as of April 2017 Google has been certified to run SAP HANA via Google Cloud. Most providers offer services, sizing, and pricing similar to those noted previously and provide certification via the SAP TDI certification. In addition, some providers have been certified for standard size deployments, which allows for easy sizing and deployment without additional TDI certification work. These providers can be found in the certified SAP HANA listing on SAP's website (see Table 4.4).

Vendor	Instance Type	RAM	Clustering	Scenarios/Limitations
Amazon Web Services	cr1.8xlarge	244 GB	No	OLAP/OLTP
Amazon Web Services	m4.10xlarge	160 GB	No	Sap Business One, SLES 11 SP 4
Amazon Web Services	m4.16xlarge	256 GB	No	SAP Business One, SLES 11 SP 4
Amazon Web Services	r3.8xlarge	244 GB	Yes	OLAP/OLTP

Table 4.4 Certified IaaS Platforms as of May 2017

Vendor	Instance Type	RAM	Clustering	Scenarios/Limitations
Amazon Web Services	r4.16xlarge	488 GB	No	OLAP/OLTP, SLES 12 SP 1
Amazon Web Services	x1.16xlarge	976 GB	Yes	OLAP/OLTP, RHEL 6.7, RHEL 7.2, SLES 12 SP 1
Amazon Web Services	x1.16xlarge	976 GB	No	SAP Business One, SLES 11 SP 4
Amazon Web Services	x1.32xlarge	1952 GB	Yes	OLAP/OLTP, RHEL 6.7, RHEL 7.2, SLES 12 SP 1
Google Cloud Platform	n1-highmem-32	208 GB	No	OLAP, SLES 12 SP 1
Huawei Technologies Co.	h2.2xlarge	512 GB	No	OLAP, SLES 11 SP 3
Huawei Technologies Co.	h3.xlarge	480 GB	Yes	OLAP, SLES 11 SP 3
IBM Bluemix	Bl.S1.H1000	1 TB	No	OLAP/OLTP, RHEL 6.7
IBM Bluemix	Bl.S1.H2000	2 TB	No	OLTP, RHEL 6.7
IBM Bluemix	Bl.S1.H512	512 GB	No	OLAP/OLTP, RHEL 6.7
Microsoft Azure	GS5	448 GB	No	OLAP

Table 4.4 Certified IaaS Platforms as of May 2017 (Cont.)

The certification list changes frequently, so always check if your provider is certified and ask for details about the certification process (TDI or certified hardware).

4.3 SAP BW/4HANA Cloud Deployment Steps

SAP provides three options for free trials of SAP BW/4HANA:

- SAP BW/4HANA XL Edition
- SAP BW/4HANA 1.0 Developer Edition
- SAP BW/4HANA 1.0

In this section, we'll walk through deploying the SAP BW/4HANA 1.0 Developer Edition on AWS. The estimated cost for AWS for this instance is \$1.40 per hour when active or \$25.30 per month when suspended—the software cost is a free trial from SAP.

The deployments are available in the SAP Cloud Appliance Library, as shown in Figure 4.2. You can access SAP Cloud Appliance Library at <https://cal.sap.com/>.

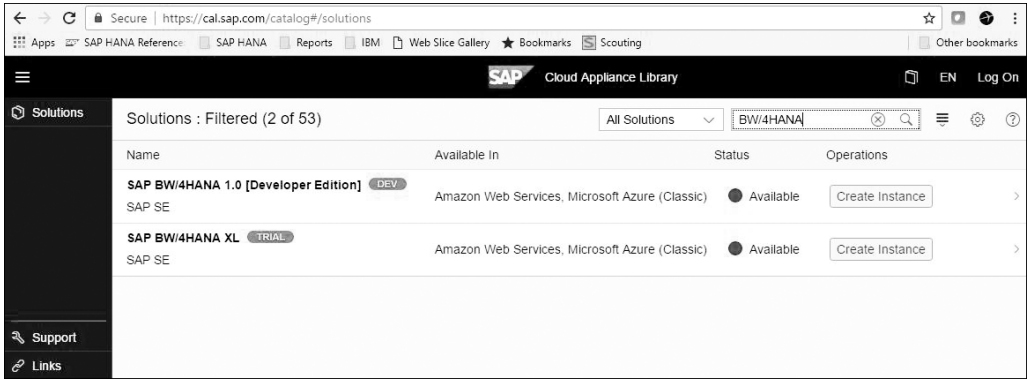


Figure 4.2 SAP Cloud Appliance Library SAP BW/4HANA Options

The deployment guides are updated frequently, so we recommend reviewing the latest documentation before deploying a system from the SAP Cloud Appliance Library.

4.3.1 Setting Up the Cloud Provider Account

The setup described in this section is specific to AWS, but similar steps are required for other providers. The first step is to set up an AWS account if you don't already have one. SAP recommends using a separate account to set up SAP Cloud Appliance Library instances and not use the root account used for other AWS instances. This example will go through the setup of a separate account.

To set up an account, go to <https://aws.amazon.com/> (see Figure 4.3).

The signup process includes quick steps such as adding contact information and billing information; it should only take a few minutes.

Once you've completed the signup process, you should be able to launch the management console (see Figure 4.4), from which you can manage your AWS instances and access the learning materials that AWS provides.

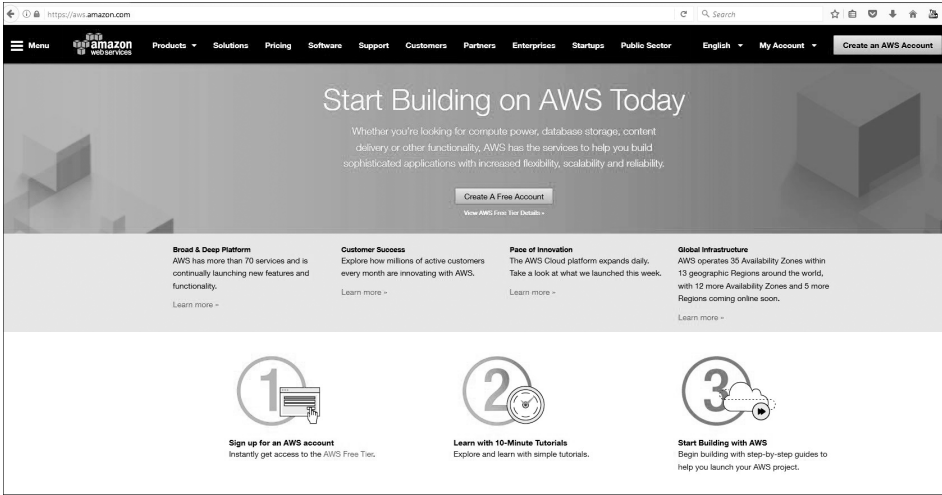


Figure 4.3 Creating New AWS Account

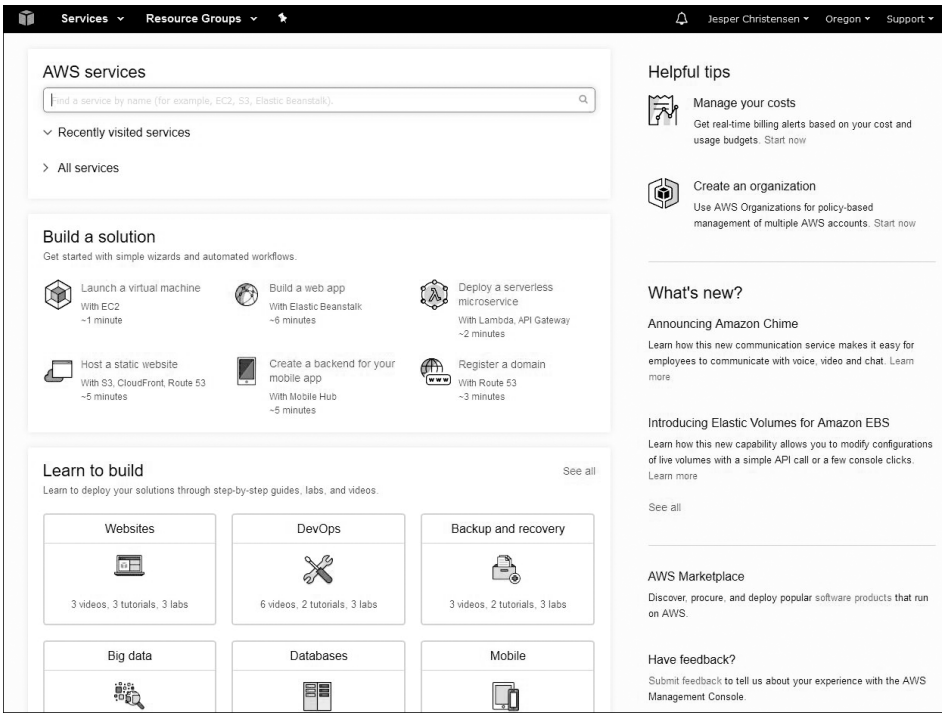


Figure 4.4 AWS Management Console

Click **Services** in the top-left corner (see Figure 4.4) and access the identity and access management (IAM) console, then create a user group so that you can grant only the required access for the SAP Cloud Appliance Library (see Figure 4.5).

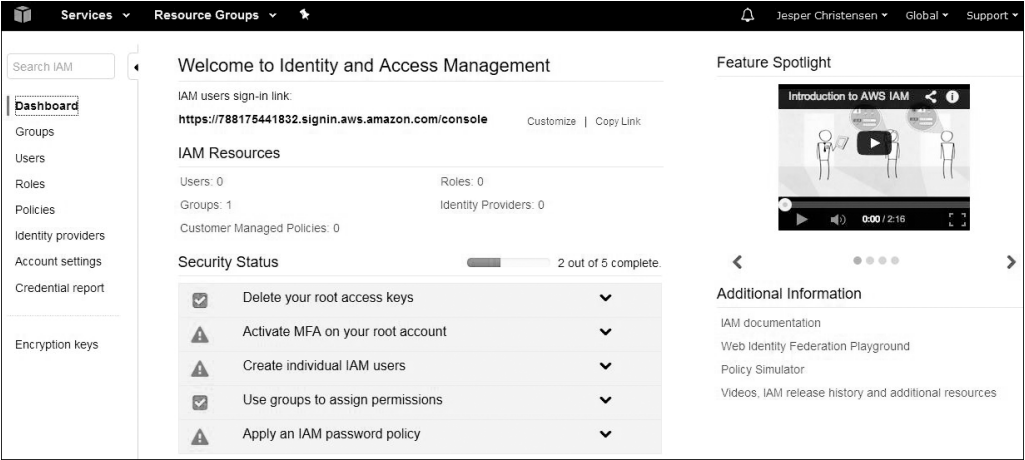


Figure 4.5 AWS IAM Console

Your IAM users for SAP Cloud Appliance Library require the following roles (see Figure 4.6):

- AmazonEC2FullAccess
- AmazonVPCFullAccess
- ReadOnlyAccess
- AWSAccountUsageReportAccess

Next, create a user that can be assigned to the user group. Make sure to select the **Programmatic Access** user option to generate an access and secret key pair (see Figure 4.7).

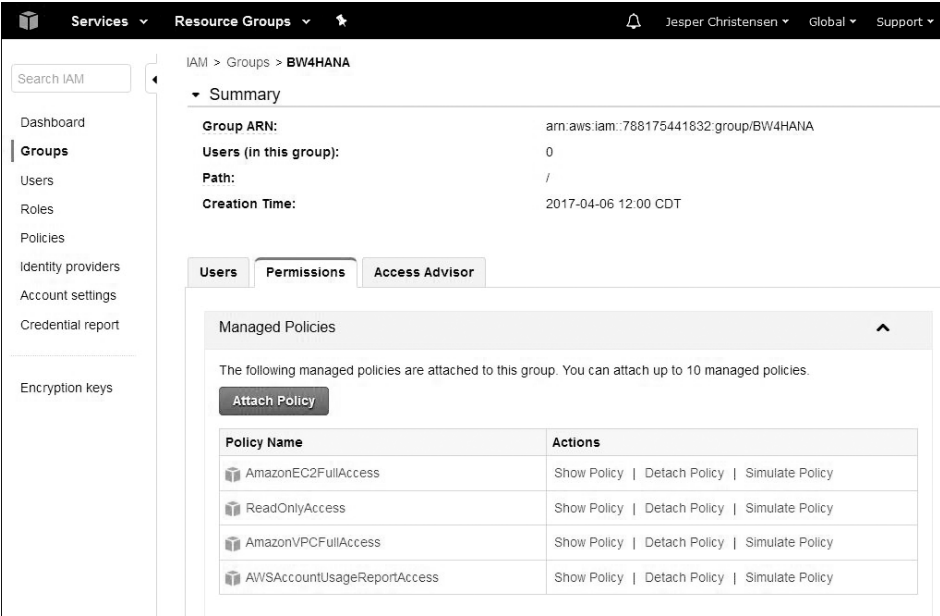


Figure 4.6 IAM User Group with Required Roles Assigned

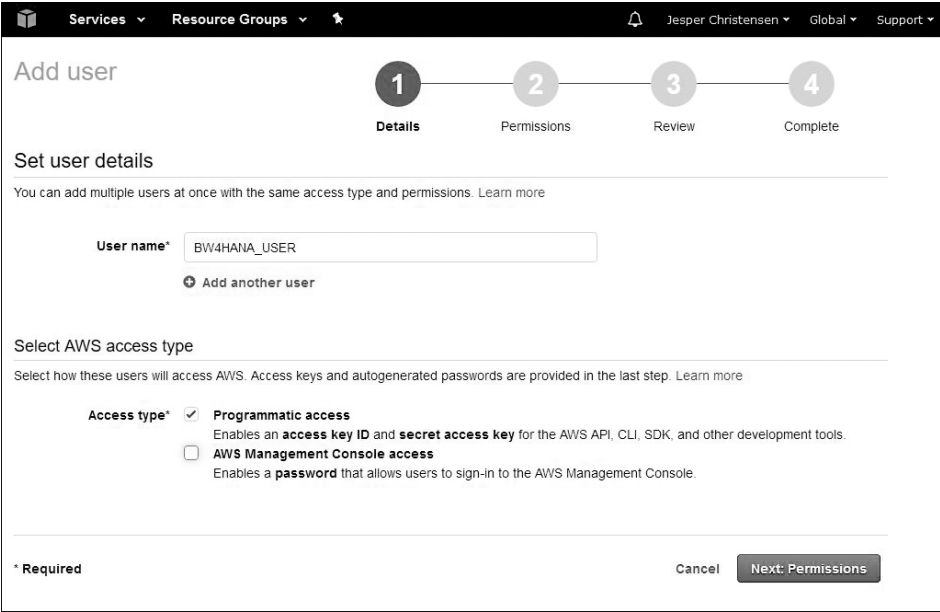


Figure 4.7 AWS User Creation

On the next screen, assign the user to the user group and click **Next** (see Figure 4.8).

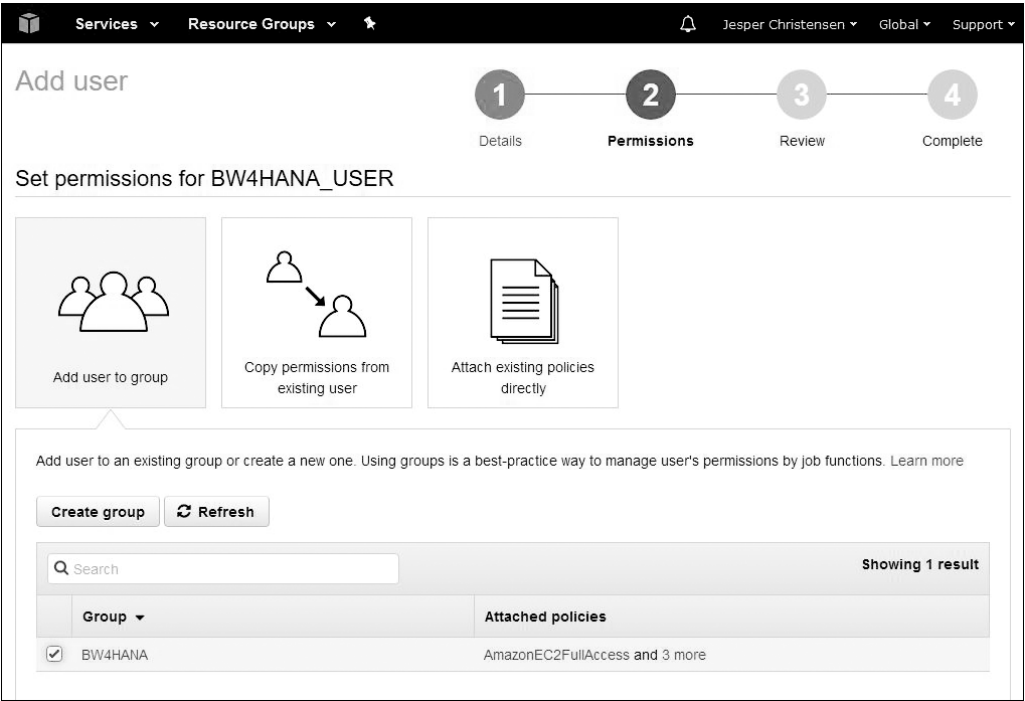


Figure 4.8 Assign User to User Group

A screen will show the user and the access key and secret key pair.
Now, you’re ready to deploy an SAP BW/4HANA system from the SAP Cloud Appliance Library.

4.3.2 Selecting Your Deployment

Select the SAP BW/4HANA 1.0 Developer Edition in the SAP Cloud Appliance Library. Once selected, you should see the deployment options (see Figure 4.9).

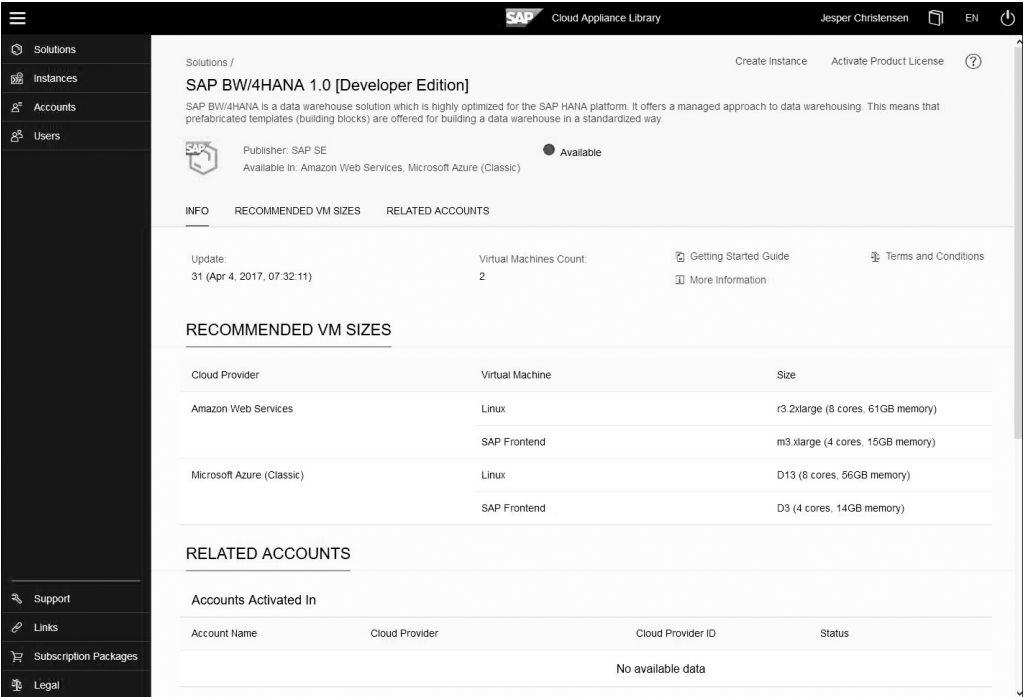


Figure 4.9 SAP BW/4HANA 1.0 Developer Edition Deployment Options

- You’ll see that the deployment uses two VMs on AWS (see Figure 4.9):
- One Linux r3.xlarge (eight cores, 61 GB memory)
 - One SAP frontend m3.xlarge (four cores, 15 GB memory); starting instance

We recommend reviewing the Getting Started guide before continuing, because some steps might change. The Getting Started guide can be found on the main page of the SAP Cloud Appliance Library.

Once you’re ready, click the **Create Instance** button in the upper-right corner.
Enter the **Name** and **Description** and select a **Cloud Provider** (see Figure 4.10). Here, we’ve selected AWS, but you can also use Azure.

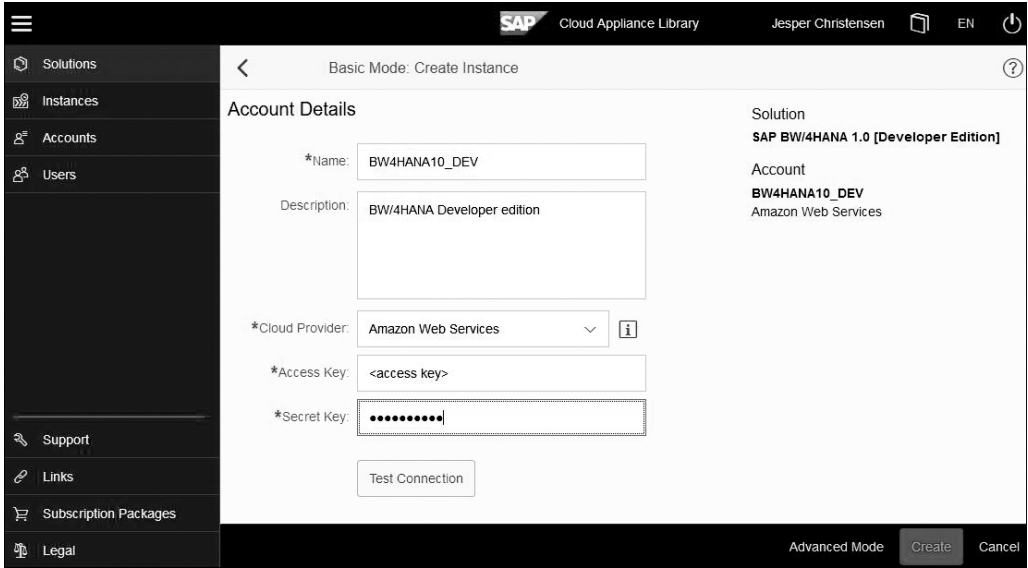


Figure 4.10 Naming Instance and Selecting Cloud Provider

Test the connection by clicking the **Test Connection** button (see Figure 4.10); you will be able to enter an instance **Name** and a master **Password**. Then, click **Create** in the bottom-right corner (see Figure 4.11).

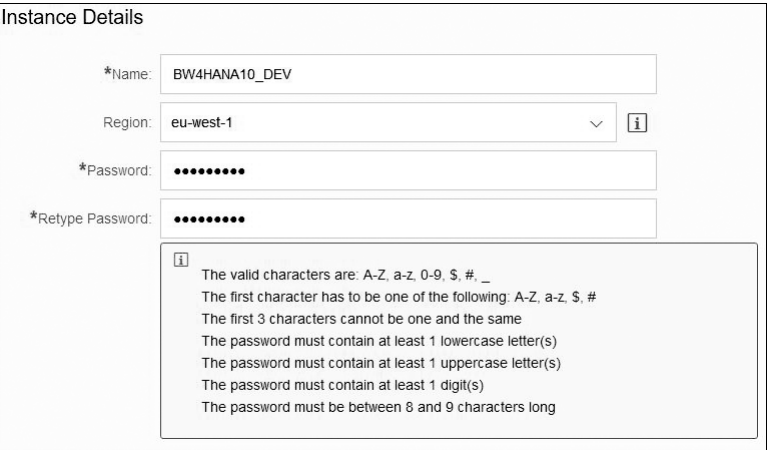


Figure 4.11 Name Instance and Password

A private key will be generated; download it for later use.

SAP will also display the restrictions that are enforced for the trial version and will note that the setup can take around one hour (see Figure 4.12). If you just created the AWS account, there might be a verification in progress for the account before the instance will be created.

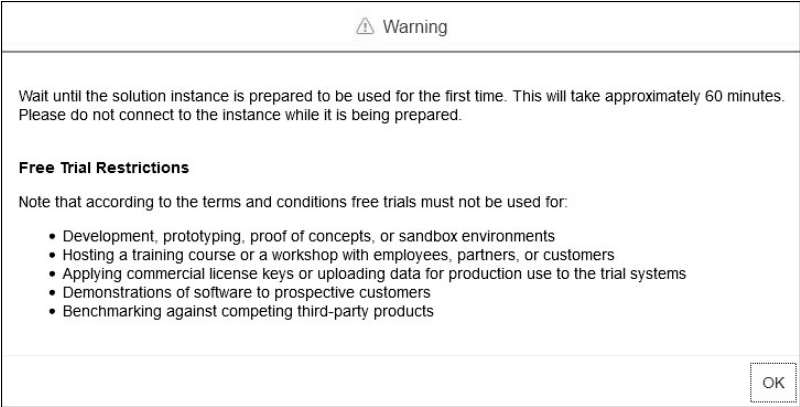


Figure 4.12 Instance Preparation on AWS

4.3.3 Logging On to the Instance

Once your instance has started, you can access it from SAP Cloud Appliance Library using your local SAP GUI, or via the remote desktop VM, which is part of the appliance deployment, using the **Connect** button at the top right (see Figure 4.13).

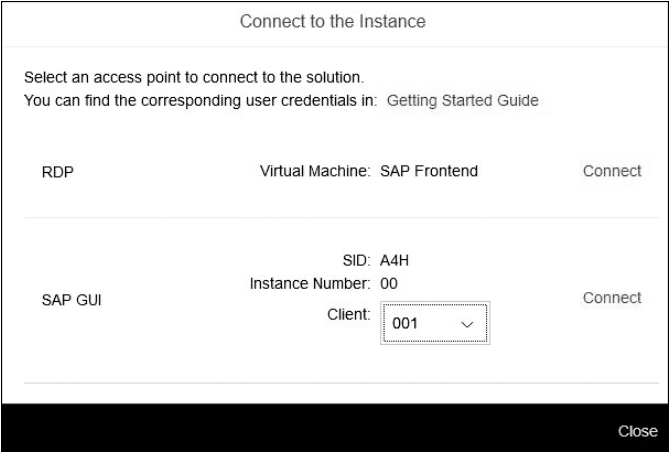


Figure 4.13 Connecting to Client 001 via SAP GUI

The user details are all included in the Getting Started guide, and the password is the master password created when setting up the instance.

The remote desktop protocol (RDP) provided with the SAP BW/4HANA 1.0 Developer Edition includes the components in Table 4.5.

Component	Version
SAP GUI for Windows 7.40	740.2.5.1110
SAP 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 Design Studio	1.6

Table 4.5 Components Installed on RDP VM

4.3.4 Managing Instances

The SAP Cloud Appliance Library interface shown in Figure 4.14 provides a few ways to manage your cloud appliance:

- **Connect**
Provides easy access to RDP and SAP GUI
- **Start**
Starts the instance
- **Suspend**
Stops the instance
- **Reboot**
Reboots the instance
- **Terminate**
Stops the instance and discards it
- **Backup**
Creates a backup of the instance
- **Create Solution**
Creates a new instance based on the current instance



Figure 4.14 Options for Managing SAP Cloud Appliance Library Instance

It's also important to note that security is managed for the SAP Cloud Appliance Library instance from the **Security** section of the page. Only certain ports are open by default when the instance is created (see Figure 4.15). We recommend reviewing this information and closing ports that aren't used.

Access Points					
Virtual Machine	Service	Port Range	IP Range	Type	Enabled
SAP Frontend	RDP	3389	0.0.0.0/0	Default	<input checked="" type="checkbox"/>
Linux	SSH	22	0.0.0.0/0	Default	<input checked="" type="checkbox"/>
Linux	SAP GUI	3200	0.0.0.0/0	Default	<input checked="" type="checkbox"/>
Linux	HANA SQL	30216	0.0.0.0/0	Default	<input checked="" type="checkbox"/>
Linux	RFC	3300	0.0.0.0/0	Default	<input checked="" type="checkbox"/>
Linux	HANA DB	30215	0.0.0.0/0	Default	<input checked="" type="checkbox"/>
Linux	TCP	50000-50001	0.0.0.0/0	Default	<input checked="" type="checkbox"/>

Figure 4.15 Ports Opened by Default in the Instance

In addition, you can set up schedules for when the instance will be running, and a default auto-stop feature will stop the instance from running after eight hours. These elements can all be managed from within the **Schedule** settings (see Figure 4.16).

SCHEDULE

Set up the schedule of the solution instance, when to suspend it, and when to terminate it.

Time Zone:

(GMT-05:00) Central Time(US&Canada)

Scheduling Options

☐ Activate and suspend by schedule

☒ Suspend on an exact date

☐ Manually Activate and Suspend

Suspend Date:

Apr 6, 2017

16:50:42

Termination Date

☐ Set the termination date of the solution instance

Figure 4.16 Schedule Options in the Instance

Most of these are basic management options; further options are available from within the AWS console.

4.3.5 Renewing Licenses

The licenses provided with the SAP BW/4HANA system are temporary, but it’s possible to renew the licenses with a MiniSAP license key (see Figure 4.17). This option is described in detail at <https://wiki.scn.sap.com/wiki/pages/viewpage.action?pageId=451058309>.

https://go.support.sap.com/minisap/#/minisap

SAP License Keys for Preview, Evaluation and Developer Versions

This page allows you to generate license keys for use of SAP software under the terms of the SAP Developer License Agreement.

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Select the entry for your SAP software in the list, fill in the required fields and accept the License Agreement. Then select Generate to generate the license key.

Available SAP Systems for Windows & Linux

System	Description
<input type="radio"/> A4H - SAP NetWeaver AS ABAP and BW/4HANA (Linux / SAP HANA)	SAP NetWeaver AS ABAP 7.4, 7.5 and above / SAP BW/4HANA 1.0 and above (Linux / SAP HANA)
<input type="radio"/> AS1 - SAP ASE Evaluation Edition	SAP ASE Evaluation Edition
<input type="radio"/> C73 - EhP1 for SAP NW 7.3 (Windows / MaxDB) Process Orchestration	SCN Process Orchestration Blog
<input type="radio"/> C73 - EhP1 for SAP NW 7.3 (Linux / MaxDB) Process Orchestration	SCN Process Orchestration Blog
<input type="radio"/> CES - SAP NetWeaver 7.3 CE (Linux / Sybase ASE)	
<input type="radio"/> HDB - SAP HANA Platform Edition (64GB)	SAP HANA Platform Edition (64GB)
<input type="radio"/> HDB - SAP HANA, smart data streaming	SAP HANA, smart data streaming
<input type="radio"/> HDB - SAP HANA, remote data sync	SAP HANA, remote data sync
<input type="radio"/> HDB - SAP HANA, dynamic tiering	SAP HANA, dynamic tiering
<input type="radio"/> HXE - SAP HANA, express edition (32GB)	SAP HANA, express edition (32GB)
<input type="radio"/> IQ1 - SAP IQ Evaluation Edition	SAP IQ Evaluation Edition
<input type="radio"/> J2E - J2EE-Engine 6.40-7.10 (Windows / MaxDB)	SAP NetWeaver Sneak Preview Java Edition from SDN
<input type="radio"/> NPL - SAP NetWeaver 7.x (MaxDB)	Technology Preview SAP NetWeaver Gateway 2.0

Reset

Figure 4.17 MiniSAP License Renewal

Renewing the license provides an additional 90 day extension beyond the expiration date.

4.4 Summary

It’s clear that many companies look to the cloud for both cost savings and simplification of their IT organizations. SAP BW/4HANA is built for cloud, and many of the new features being included in SAP BW/4HANA in the future can be used with other cloud deployments for big data, data streaming, and analytics.

If you don’t have a cloud strategy it may still make sense to consider deploying a sandbox system on one of the cloud providers to gain experience with cloud deployments. Later, you might decide to move your SAP BW/4HANA system fully to a cloud provider.

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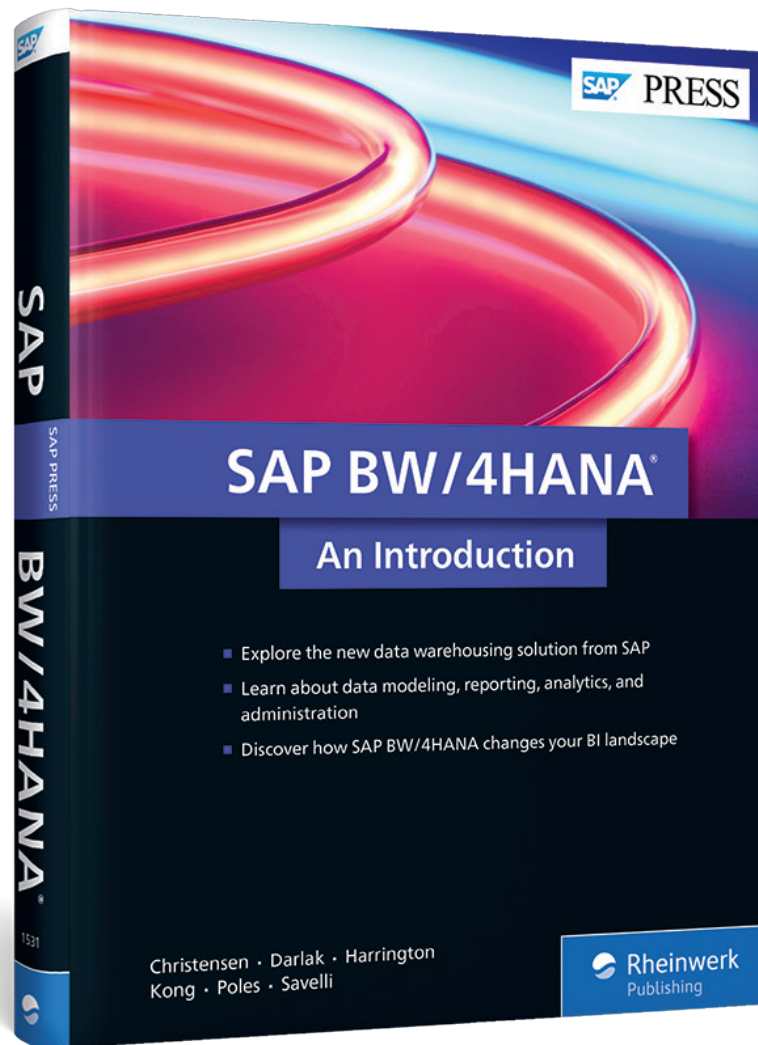
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SAP BW/4HANA: An Introduction

427 Pages, 2017, \$69.95

ISBN 978-1-4932-1531-7

 www.sap-press.com/4377



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