How-To Library

Informatica

Installing and Configuring PowerCenter 10.2 in the AWS Cloud

Abstract

You can use all the features of an on-premises PowerCenter® installation on an Amazon EC2 instance. This article describes how to install and set up PowerCenter with an Amazon EC2 instance to install Informatica services.

Supported Versions

- PowerCenter 10.2.0 HF1 - 10.2.0 HF2

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Overview

PowerCenter is a data integration product that transforms fragmented, raw data from any source, at any latency into complete, actionable information. You can integrate data from on-premises data sources, cloud data sources, or Amazon Web Services (AWS) with PowerCenter.

With PowerCenter on AWS, you can deliver business value quickly. You can run the exact same data integration environment in the AWS cloud or on-premises seamlessly according to your requirements with the same experience. You can update AWS infrastructure resources based on your need. You can work with mappings, workflows, and metadata across on-premises and AWS cloud environments.

Use an Amazon Elastic Compute Cloud (EC2) web service to enable resizable computing resources in the AWS cloud. You can use Amazon EC2 to launch scalable virtual servers on AWS, allowing for vertical scaling of the hardware resources needed for the virtual servers.

You can create an instance, which is a virtual server in the AWS cloud. Each instance type offers different compute, memory, and storage capabilities. You can select an instance type based on the requirements of the application or software that you plan to run on your instance.

Migrating PowerCenter on-premises to Amazon EC2 begins with choosing the right AWS resources and extend to optimizing another PowerCenter environment. You can use an Amazon EC2 instance with any supported operating system for the migration of PowerCenter on-premises.

The process of migrating PowerCenter briefly includes the following steps:

1. Prepare the target cloud environment, such as an AWS EC2 instance, Amazon RDS, and EFS.
2. Install Informatica services on AWS.

3. Restore the domain and repository from on-premises to Amazon RDS.
4. Synchronize the PowerCenter folders from an on-premises server to an Amazon EC2 instance.

You can install PowerCenter on Amazon EC2 with the conventional installation where you configure AWS infrastructure settings or with the Amazon Marketplace. AWS Marketplace is an online store that helps customers find, buy, and immediately use the software and services they need to build products and run their businesses.

This article describes how you can manually copy over the on-premises PowerCenter infrastructure onto the AWS cloud with a conventional install of an instance and also with Amazon Marketplace.

Installation Methods

To install PowerCenter on the AWS cloud, use one of the following installation methods:

- Marketplace deployment
- Conventional installation

Deployment Prerequisites

Before you deploy PowerCenter in the AWS cloud, verify that you have performed the following steps:

- Complete all the network prerequisites.
- Verify the user permissions.

Network Prerequisites

Before you deploy PowerCenter in the AWS cloud, verify that you have completed the following network prerequisites for PowerCenter.

Existing VPC Deployment

- Ensure that the VPC has the DNS resolution enabled.
- For the public subnet 1 or the public subnet 2, ensure that you attach the subnet to a route table attached to an internet gateway along with a local route to the VPC CIDR. Verify that you have set the Public IP assign property to yes for the subnet.
- For the database subnets, enter atleast two subnets from different availability zones for a successful deployment. You must also attach the subnet to a route table with a local route to the VPC CIDR.

New VPC Deployment

- For the availability zone, ensure that selected availability zone has sufficient capacity to create a new subnet, route table, and internet gateway.
- Ensure that the VPC creation has not exceeded the supported limit.

User Permissions

Before you deploy PowerCenter in the AWS cloud, verify that you have the required user permissions to launch PowerCenter on the AWS marketplace.

Configure the following minimum required policies for the IAM user to launch PowerCenter on the AWS marketplace:

```
rds:CreateDB*
rds:DeleteDB*
rds:DescribeDB*
ec2:*Vpc*
ec2:*Subnet*
ec2:*Gateway*
```

```
ec2:*Route*
ec2:*Address*
ec2:*SecurityGroup*
ec2:*NetworkAcl*
ec2:RunInstances
ec2:StopInstances
ec2:StartInstances
ec2:TerminateInstances
ec2:Describe*
```

Database Instance Class Type Prerequisites

The database instance type determines the hardware of the host, Amazon Relational Database Service (Amazon RDS). Each instance type offers different compute, memory, and storage capabilities. Select an instance type based on the requirements of the application or software that you plan to run on your instance.

Before you deploy PowerCenter in the AWS cloud, verify that you have the required database instance types to launch PowerCenter on the AWS marketplace.

For Oracle, the supported database instance class type is t2.large. For Microsoft SQL Server, the supported database instance class type is m4.xlarge. If your region does not contain these supported instance types, the PowerCenter deployment in the AWS cloud might fail.

For more information about the Amazon RDS instance types, see the *Amazon RDS documentation*.

PowerCenter Deployment in the AWS Cloud with the Amazon Marketplace

You can deploy PowerCenter in the AWS cloud with the Amazon Marketplace. With the Amazon Marketplace, you can ensure automatic and quick deployment of all the infrastructure to run in the AWS cloud.

To deploy PowerCenter in the AWS cloud with the Amazon Marketplace, perform the following steps:

1. Configure PowerCenter in Amazon Marketplace on Windows or UNIX.
2. Deploy PowerCenter with AWS CloudFormation.

Supported Configurations

The following configurations are available to deploy PowerCenter in AWS cloud:

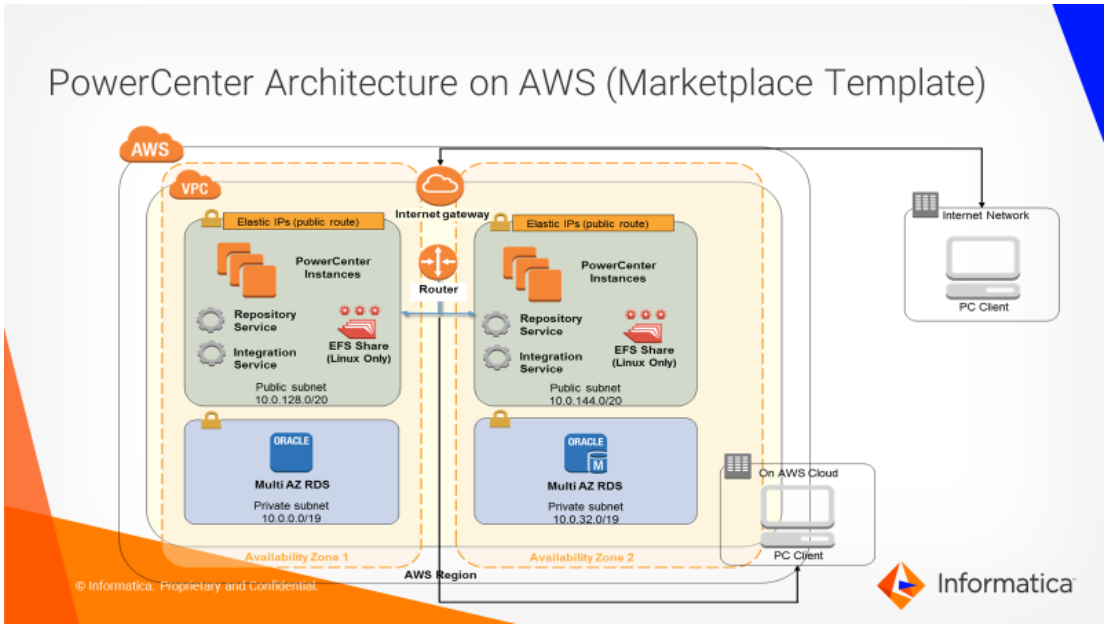
- PowerCenter versions: 10.2 HotFix 1, and 10.2 HotFix 2.
- Operating systems: Windows Server 2012 R2 and Red Hat Enterprise Linux 7.6
- Repository: Oracle RDS 12cR1 and 11gR2 and Microsoft SQL Server 2016. License included and BYOL.
- Informatica license type: Bring Your Own License (BYOL).

  Note: For the BYOL options, the license field requires a publicly accessible S3 URL from where you can download the key file. For instance, https://s3.amazonaws.com/sample-bucket/pc1020hf2-license.key
- Provisioning time: Approximately 90 minutes.
- Configuration: Up to 16 nodes in the Informatica domain.
- EC2 instance types:
  m5.large, m5.xlarge, m5.2xlarge, m5.4xlarge, c5.xlarge, c5.2xlarge, c5.4xlarge, r5.large, r5.xlarge, r5.2xlarge, and r5.4xlarge.

Note: Ensure that you have permissions to deploy AWS infrastructure. For more information about the latest supported configurations, see the PowerCenter listing on the AWS Marketplace.

PowerCenter on AWS Architecture Diagram

The following diagram shows the PowerCenter on AWS architecture with the Amazon Marketplace:



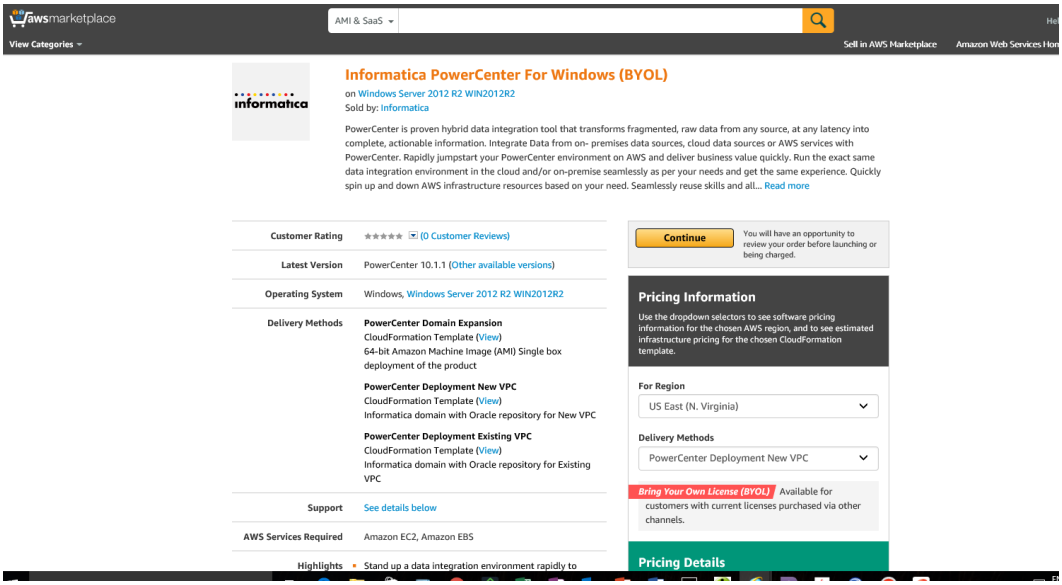
Step 1. Configure PowerCenter in Amazon Marketplace on Windows or UNIX

You can configure PowerCenter in Amazon Marketplace for Windows or UNIX as a Bring Your Own License (BYOL) listing. Supported PowerCenter versions are 10.2 HotFix 1 and 10.2 HotFix 2.

1. Log in to the AWS Marketplace page to configure PowerCenter for Windows or for Red Hat Linux (BYOL) based on the operating system that you want to use.

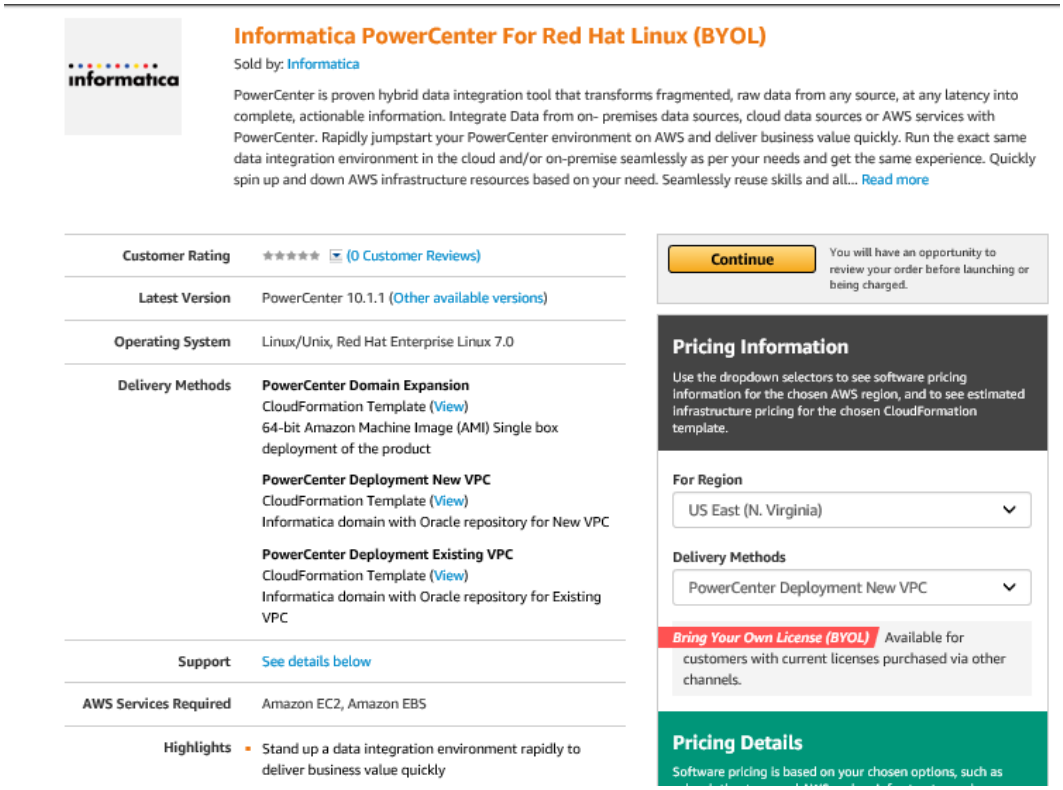
   For Windows, navigate to the following AWS Marketplace link:

   `https://aws.amazon.com/marketplace/pp/B01MCY4NR2/`



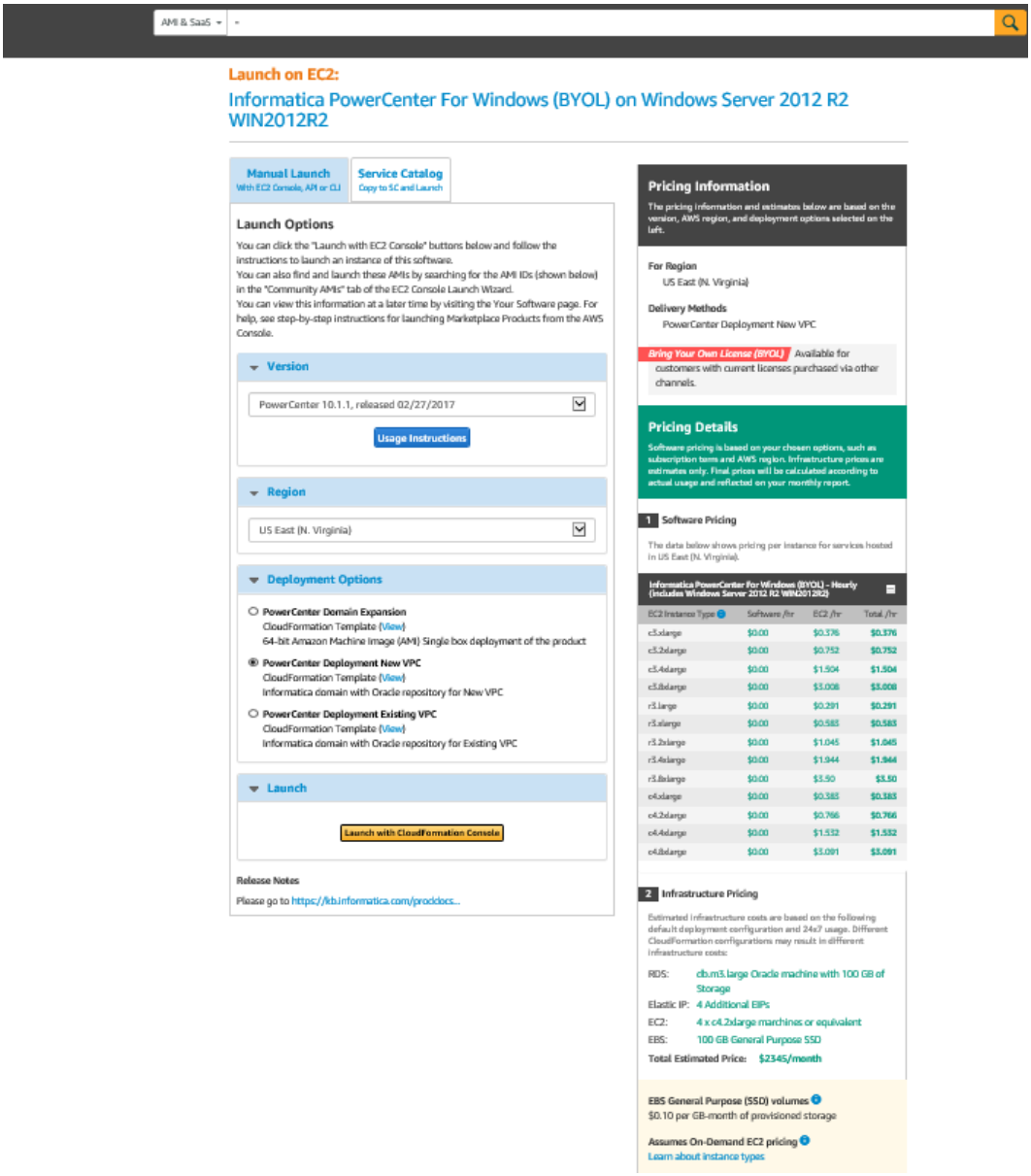
   For Linux, navigate to the following AWS Marketplace link:

   `https://aws.amazon.com/marketplace/pp/B01M4NP0P2`



2. On the **Pricing Information** pane on the right, specify the appropriate AWS region and delivery method from the list.
3. Click **Continue**.

4. On the **Launch on EC2** page under **Manual Launch**, review the PowerCenter version, region, and deployment options from the list.



5. On the **Launch** pane, click **Launch with CloudFormation Console**.

   The **CloudFormation** home page appears.

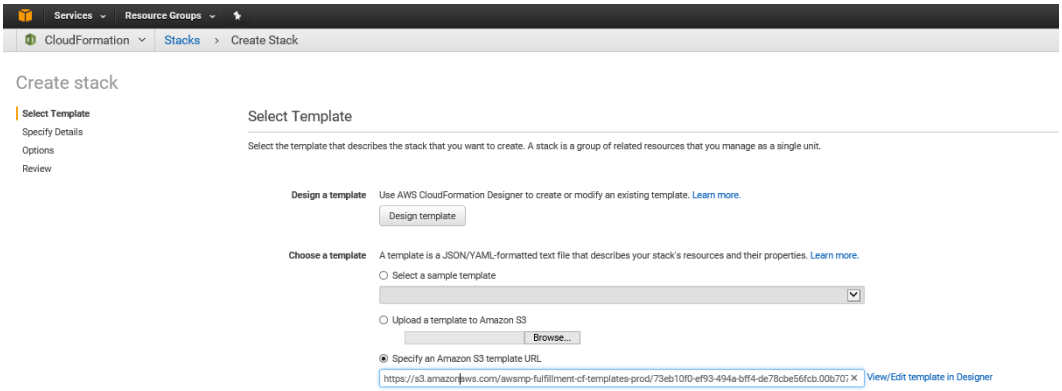
Step 2. How to Configure PowerCenter Deployment with AWS CloudFormation

You can deploy PowerCenter with AWS CloudFormation in a new Virtual Private Cloud (VPC), an existing VPC, or with domain expansion.

Deploy PowerCenter into a New VPC

You can create an end-to-end deployment that builds a new VPC with public and private subnets, and then deploys PowerCenter into that infrastructure.

1. The **CloudFormation** home page opens the **Create Stack** pane on the left. Stack is a logical representation of AWS deployment. In the **Select Template** section, you can design or choose a template. In the **Choose a template** section, ensure that the default Amazon S3 template URL is selected.



2. Click **Next**.
3. To create a stack instance in the **Specify Details** section, enter the **stack name** or retain the default name. In the **Parameters** section, enter appropriate values for Network Configuration, Amazon EC2 Configuration, Amazon RDS Configuration, and Informatica PowerCenter Configuration.

   The following table describes the parameters for the Network Configuration:

Parameters	Description
Availability Zones	Specify two availability zones to deploy PowerCenter in the logical order to specify. Ensure that the selected availability zone has sufficient capacity to create a new subnet, route table, and internet gateway.
VPC CIDR	Enter CIDR block for the VPC. When you create a VPC, you must specify a range of IPv4 addresses for the VPC in the form of a Classless Inter-Domain Routing (CIDR) block. You can also optionally assign an IPv6 CIDR block to your VPC, and assign IPv6 CIDR blocks to your subnets. Ensure that you have not reached the VPC limit on the account. Default is 10.0.0.0/16.
Private Subnet 1 CIDR	Enter CIDR block for the private subnet located in Availability Zone 1. Default is 10.0.0.0/19.
Private Subnet 2 CIDR	Enter CIDR block for the private subnet located in Availability Zone 2. Default is 10.0.32.0/19.
Public Subnet 1 CIDR	Enter CIDR block for the public subnet located in Availability Zone 1. Default is 10.0.128.0/20.

Parameters	Description
Public Subnet 2 CIDR	Enter CIDR block for the public subnet located in Availability Zone 2. Default is 10.0.144.0/20.
Allowed Remote Access CIDR	Enter the permitted CIDR IP range to access the Informatica domain. Recommended to use a constrained CIDR range to reduce the potential of inbound attacks from unknown IP addresses. For example, if your IPv4 address is 203.0.113.25, specify 203.0.113.25/32 to list this single IPv4 address in CIDR notation. If your organization allocates addresses from a range, specify the entire range, such as 203.0.113.0/24.

The following table describes the parameters for Amazon EC2 Configuration:

Parameter	Description
Key Pair Name	Select the public or private key pair to securely connect to your instance after the instance launches. When you created an AWS account, this is the key pair that you created in your preferred region.
Informatica Domain Instance Type	Select the EC2 instance type for the instance that hosts the Informatica domain. Default is c5.xlarge.
Number of Instances	Enter the number of PowerCenter nodes you want to provision. You can choose from 1, 2, or up to 16 nodes (in multiples of 2) to be part of the domain. Each node runs on a single EC2 instance. Default is 1.
Enable Elastic IP Addressing	Select No if you do not want to assign Elastic IP addresses to instances. Default is Yes.
Create Elastic File System	Linux configuration to create shared storage for your instances with Amazon EFS if it is available in the specified region.

The following table describes the parameters for Amazon RDS Configuration:

Parameter	Description
Database Type	Enter the type of database to use in Amazon RDS. Supported types are Oracle and Microsoft SQL Server. Default is SQLServer-Standard-Edition-2016-License-Included.
Database Name	Enter the database name for the RDS instance. Default is InfaDB.
Database Username	Enter the user name for the Amazon RDS database account (2-30 characters).

Parameter	Description
Database Password	Enter the password for the Amazon RDS database account (8-30 characters). You can use alphanumeric characters and underscore. Start the password with an alphabetic character.
Confirm Password	Re-enter the password you specified for the Database Password parameter.

The following table describes the parameters for Informatica PowerCenter Configuration:

Parameter	Description
Informatica Domain Name	Enter the name for the Informatica domain. Default is InfaDomain.
Informatica Node Prefix	Enter the prefix for the nodes in the Informatica domain. The node number gets added to the string, such as Infa1 and Infa2. Default is Infa.
Informatica Administrator Username	Enter the user name of the administrator account for Informatica PowerCenter. Default is Administrator.
Informatica Administrator Password	Enter the administrator password for accessing PowerCenter. The string is 8-30 characters long, with at least one special character, one number, one uppercase character, and one lowercase character. You cannot specify double quotes ("), ampersands (&), and dollar signs ($).
Confirm Password	Re-enter the password you specified for the Informatica Administrator Password parameter.
Encryption Key Phrase	Enter the base word for generating an encryption key for the Informatica domain. Ensure that the string is 8-20 characters long, with at least one uppercase letter, one lowercase letter, and one number, and without containing any spaces.
Informatica License Key	Required. If you have an existing PowerCenter license, specify the public URL to the S3 bucket where you have stored the license key file.

4. Click **Next**.
5. On the **Options** page, you can optionally specify tags (key-value pairs) for resources in your stack. Or, you can go to **Advanced**, and set **Rollback on failure** to **No** to view the logs if there is a failure.
6. Click **Next**.
7. In the **Review** section, you can review all the parameters you entered and confirm the template settings.

   You can also check cost and billing details.
8. To deploy the stack, click **Create**.

   Amazon AWS begins to create the stack. Amazon AWS displays the CloudFormation dashboard.
9. Monitor the status of the stack. When the status is **CREATE_COMPLETE**, the deployment is complete.
10. You can use the URL displayed on the **Resources** tab for the stack to view the created resources for the database and VM details. You can also view log info on the **Events** tab and parameters information on the **Parameters** tab.

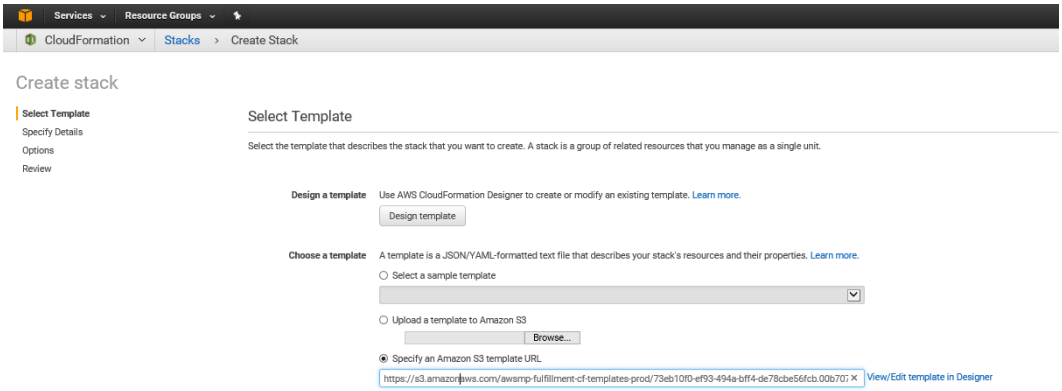
11. Use the following URL syntax to connect to the Administrator tool: `http://<<PowerCenter Domain Node Public IP address>>:6008/administrator`

    For example, `http://52.53.54.55:6008/administrator`

Deploy PowerCenter into an Existing VPC

You can provision PowerCenter components into an existing infrastructure.

1. The **CloudFormation** home page opens the **Create Stack** pane on the left. Stack is a logical representation of AWS deployment. In the **Select Template** section, you can design or choose a template. In the **Choose a template** section, ensure that the default Amazon S3 template URL is selected.



2. Click **Next**.
3. To create a stack instance in the **Specify Details** section, enter the **stack name** or retain the default name. In the **Parameters** section, enter appropriate values for Network Configuration, Amazon EC2 Configuration, Amazon RDS Configuration, and Informatica PowerCenter Configuration.

   The following table describes the parameters for Network Configuration:

Parameters	Description
VPC ID	Enter the ID of your existing VPC to deploy PowerCenter such as, vpc-0343606e. Ensure that the VPC has DNS resolution enabled.
Public Subnet 1 ID	Enter the publicly accessible subnet ID located in Availability Zone 1 for the Informatica domain. Attach the subnet to a route table attached to an internet gateway along with a local route to the VPC CIDR. Verify that you have set the Public IP assign property to yes for the subnet.
Public Subnet 2 ID	Enter the publicly accessible subnet ID located in Availability Zone 2 for the Informatica domain. Attach the subnet to a route table attached to an internet gateway along with a local route to the VPC CIDR. Verify that you have set the Public IP assign property to yes for the subnet.

Parameters	Description
Informatica Database Subnets	Enter the IDs of two private subnets in the selected VPC. Ensure that there are different availability zones in the selected VPC, such as us-west-1b and us-west-1c. Attach the subnet to a route table with a local route to the VPC CIDR.
Allowed Remote Access CIDR	Enter the permitted CIDR IP range to access the Informatica domain. Recommended to use a constrained CIDR range to reduce the potential of inbound attacks from unknown IP addresses. For example, if your IPv4 address is 203.0.113.25, specify 203.0.113.25/32 to list this single IPv4 address in CIDR notation. If your organization allocates addresses from a range, specify the entire range, such as 203.0.113.0/24.

Note: Ensure that all the network configurations specified are under the same VPC.

The following table describes the parameters for Amazon EC2 Configuration:

Parameter	Description
Key Pair Name	Select the public or private key pair to securely connect to your instance after the instance launches. When you created an AWS account, this is the key pair that you created in your preferred region.
Informatica Domain Instance Type	Select the EC2 instance type for the instance that hosts the Informatica domain. Default is c5.xlarge.
Number of Instances	Enter the number of PowerCenter nodes you want to provision. You can choose from 1, 2, or up to 16 nodes (in multiples of 2) to be part of the domain. Each node runs on a single EC2 instance. Default is 1.
Enable Elastic IP Addressing	Select No if you do not want to assign Elastic IP addresses to instances. Default is Yes.
Create Elastic File System	Linux configuration to create shared storage for your instances with Amazon EFS if it is available in the specified region.

The following table describes the parameters for Amazon RDS Configuration:

Parameter	Description
Database Type	Enter the type of database to use in Amazon RDS. Supported types are Oracle and Microsoft SQL Server. Default is SQLServer-Standard-Edition-2016-License-Included
Database Name	Enter the database name for the RDS instance. Default is InfaDB.
Database Username	Enter the user name for the Amazon RDS database account (2-30 characters).

Parameter	Description
Database Password	Enter the password for the Amazon RDS database account (8-30 characters). You can use alphanumeric characters and underscore. Start the password with an alphabetic character.
Confirm Password	Re-enter the password you specified for the Database Password parameter.

The following table describes the parameters for Informatica PowerCenter Configuration:

Parameter	Description
Informatica Domain Name	Enter the name for the Informatica domain. Default is InfaDomain.
Informatica Node Prefix	Enter the prefix for the nodes in the Informatica domain. The node number gets added to the string, such as Infa1 and Infa2. Default is Infa.
Informatica Administrator Username	Enter the user name of the administrator account for Informatica PowerCenter. Default is Administrator.
Informatica Administrator Password	Enter the administrator password for accessing PowerCenter. The string is 8-30 characters long, with at least one special character, one number, one uppercase character, and one lowercase character. You cannot specify double quotes ("), ampersands (&), and dollar signs ($).
Confirm Password	Re-enter the password you specified for the Informatica Administrator Password parameter.
Encryption Key Phrase	Enter the base word for generating an encryption key for the Informatica domain. Ensure that the string is 8-20 characters long, with at least one uppercase letter, one lowercase letter, and one number, and without containing any spaces.
Informatica License Key	Required. If you have an existing PowerCenter license, specify the public URL to the S3 bucket where you have stored the license key file.

4. Click **Next**.
5. On the **Options** page, you can optionally specify tags (key-value pairs) for resources in your stack. Or, you can go to **Advanced**, and set **Rollback on failure** to **No** to view the logs if there is a failure.
6. Click **Next**.
7. In the **Review** section, you can review all the parameters you entered and confirm the template settings.

   You can also check cost and billing details.
8. To deploy the stack, click **Create**.

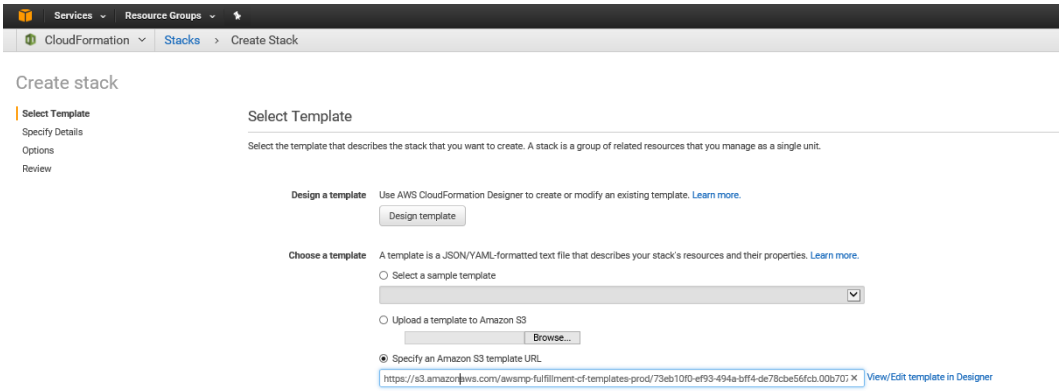
   Amazon AWS begins to create the stack. Amazon AWS displays the CloudFormation dashboard.
9. Monitor the status of the stack. When the status is **CREATE_COMPLETE**, the deployment is complete.
10. You can use the URL displayed on the **Resources** tab for the stack to view the created resources for the database and VM details. You can also view log info on the **Events** tab and parameters information on the **Parameters** tab.
11. Use the following URL syntax to connect to the Administrator tool: `http://<<PowerCenter Domain Node Public IP address>>:6008/administrator`

    For example, `http://52.53.54.55:6008/administrator`

Deploy PowerCenter with a Domain Expansion

You can add nodes to an existing PowerCenter deployment with a domain expansion. PowerCenter uses RDS as a repository database and requires a shared file system to be manually attached for the grid functionality to work.

1. The **CloudFormation** home page opens the **Create Stack** pane on the left. Stack is a logical representation of AWS deployment. In the **Select Template** section, you can design or choose a template. In the **Choose a template** section, ensure that the default Amazon S3 template URL is selected.



2. Click **Next**.
3. To create a stack instance in the **Specify Details** section, enter the **stack name** or retain the default name. In the **Parameters** section, enter appropriate values for Network Configuration, Amazon EC2 Configuration, Amazon RDS Configuration, and Informatica PowerCenter Configuration.

   The following table describes the parameters for Network Configuration:

Parameters	Description
Public Subnet ID	Select the publicly accessible subnet ID located in Availability Zone for the Informatica domain. It is the same as the subnet for the Informatica Master Node.
Security Group	Select a security group that belongs to the public subnet.

   Note: Ensure that all the network configurations specified are under the same VPC.

   The following table describes the parameters for Amazon EC2 Configuration:

Parameter	Description
Key Pair Name	Select the public or private key pair to securely connect to your instance after the instance launches. When you created an AWS account, this is the key pair that you created in your preferred region.
Informatica Domain Instance Type	Select the EC2 instance type for the instance that hosts the Informatica domain. Default is c5.xlarge.

Parameter	Description
Enable Elastic IP Addressing	Select No if you do not want to assign Elastic IP addresses to instances. Default is Yes.
Create Elastic File System	Linux configuration to create shared storage for your instances with Amazon EFS if it is available in the specified region.

The following table describes the parameters for Amazon RDS Configuration:

Parameter	Description
RDS Database Service Name	Enter the database name of the RDS instance on which the Informatica domain is deployed.
RDS Endpoint Address	Enter the RDS endpoint address of the Informatica domain database.
RDS Database Port	Enter the RDS database port of the Informatica domain database.
Database Username	Enter the user name for the Amazon RDS database account (2-30 characters).
Database Password	Enter the password for the Amazon RDS database account (8-30 characters). You can use alphanumeric characters and underscore. Start the password with an alphabetic character.
Confirm Password	Re-enter the password you specified for the Database Password parameter.

The following table describes the parameters for Informatica PowerCenter Configuration:

Parameter	Description
Informatica Domain Name	Enter the name for the Informatica domain. Default is InfaDomain.
Informatica Administrator Username	Enter the user name of the administrator account for Informatica PowerCenter. Default is Administrator.
Informatica Administrator Password	Enter the administrator password for accessing PowerCenter. The string is 8-30 characters long, with at least one special character, one number, one uppercase character, and one lowercase character. You cannot specify double quotes ("), ampersands (&), and dollar signs ($).
Confirm Password	Re-enter the password you specified for the Informatica Administrator Password parameter.
Informatica Master Node Name	Enter the name of the Informatica master node.
Master Node Private IP Address	Enter the private IP address of the Informatica master node.

Parameter	Description
New Node Name	Enter a name for the new node to add to the Informatica domain.
Encryption Key Phrase	Enter the base word for generating an encryption key for the Informatica domain. Ensure that the string is 8-20 characters long, with at least one uppercase letter, one lowercase letter, and one number, and without containing any spaces.

4. Click **Next**.
5. On the **Options** page, you can optionally specify tags (key-value pairs) for resources in your stack. Or, you can go to **Advanced**, and set **Rollback on failure** to **No** to view the logs if there is a failure.
6. Click **Next**.
7. In the **Review** section, you can review all the parameters you entered and confirm the template settings.

   You can also check cost and billing details.
8. To deploy the stack, click **Create**.

   Amazon AWS begins to create the stack. Amazon AWS displays the CloudFormation dashboard.
9. Monitor the status of the stack. When the status is **CREATE_COMPLETE**, the deployment is complete.
10. You can use the URL displayed on the **Resources** tab for the stack to view the created resources for the database and VM details. You can also view log info on the **Events** tab and parameters information on the **Parameters** tab.
11. Use the following URL syntax to connect to the Administrator tool: `http://<<PowerCenter Domain Node Public IP address>>:6008/administrator`

    For example, `http://52.53.54.55:6008/administrator`

Prerequisites for Conventional Installation of PowerCenter

Before you install PowerCenter on AWS, verify that you have performed the following steps:

1. Create VPC and security groups.
2. Configure Amazon EC2.
3. Configure Amazon RDS.

Step 1. Create VPC and Security Groups

Before you can move PowerCenter to the AWS cloud, you must configure a virtual private cloud (VPC) and set up security groups. Use Amazon VPC to launch AWS resources into a virtual network that you define. Security groups act as a firewall for associated instances, controlling both inbound and outbound traffic at the instance level.

1. Log in to the following AWS console with your AWS account:

   https://aws.amazon.com/console/
2. On the **AWS services** page under **Networking & Content Delivery**, select **VPC**.
3. Under **Resources**, select **Start VPC Wizard** and follow the instructions to set up the VPC.
4. On the **VPC Dashboards** under **Security** on the left panel, select **Security Groups**.
5. Select **Create Security Group**.
6. Enter the required information and specify the VPC that you created in step 3.

Step 2. Configure Amazon EC2

You can prepare an AWS account and launch an instance. An instance is a virtual server in the AWS cloud. You launch an instance from an Amazon Machine Image (AMI) or through conventional installation of an Amazon EC2 instance.

To install Amazon EC2 instance with the conventional installation method:

1. Log in to the AWS console with your AWS account.
2. On the **AWS services** page under **Compute**, select **EC2**.
3. In the **Create Instance** section, select **Launch Instance**.

   You can then launch a virtual server known as Amazon EC2.

Step 3. Configure Amazon RDS

Amazon Relational Database Service (RDS) makes it to easy to set up, operate, and scale a relational database in the AWS cloud. You can use Amazon RDS for configuring Oracle repository and domain databases. The repository database holds all the metadata about objects, and the domain database manages the service-oriented architecture (SOA) namespace. You can configure an Amazon RDS account for restoring repositories in the AWS cloud.

1. Log in to the following RDS page:

   https://aws.amazon.com/rds/
2. In the **Start Using Amazon RDS** section, select **Get Started with Amazon RDS**.

   For more information about accessing the appropriate Amazon RDS series, you can access the following link: https://aws.amazon.com/rds/details/
3. On the **AWS services** page under **Database**, select **RDS**.
4. On the **RDS Dashboard** under **Instances** on the left panel, select the appropriate instances.
5. Select the appropriate disk space, IOPS, and database type.

   For more information about the database types and version support requirements, see the Product Availability Matrix on the Informatica Network:

   https://network.informatica.com/community/informatica-network/product-availability-matrices/overview

Conventional Installation or Migration of PowerCenter on the AWS Cloud

You can install PowerCenter on AWS cloud with the required instance types. Manual configuration is required for AWS infrastructure settings, such as network settings, Amazon EC2, and Oracle RDS configurations.

To complete a conventional installation of PowerCenter on the AWS Cloud, perform the following steps:

1. Migrate or copy Informatica services and license to the AWS cloud.
2. Install database client on the Amazon EC2 machine.
3. Create users for repositories and domain in Amazon RDS.
4. Assign privileges to the database users from the command line.

You can then migrate on-premises PowerCenter domain to AWS if it is not a fresh installation on AWS cloud. You can create the Informatica services in the AWS cloud and access the domain in the AWS cloud from the PowerCenter clients.

Step 1. Migrate or Copy Informatica Services and License to the AWS Cloud

You can install PowerCenter services on an Amazon EC2 instance. Before you install the PowerCenter services, copy the binaries to a shared folder on the Amazon EC2 instance. You can set up all the services like an on-premises installation.

1. Use the secure copy command (SCP command or Winscp) to copy the PowerCenter server installer, license, repository backup files, and sitekey from on-premises or from some other storage location in S3 or from another installer location to the AWS EC2 instance with the following command:

   ```
   scp -i <key>.pem <contents to copy> ec2-user@<ec2-instance-name/IP>:/home/ec2-user/
   ```

2. Extract the installer and complete the steps to install PowerCenter.

For more information about installing Informatica tools and setting up application services, see the *Informatica Installation and Configuration Guide*.

Step 2. Install Database Client on the Amazon EC2 Machine

Based on the database used, you need to download and install the associated database client on the Amazon EC2 machine.

To download and install the Oracle client on the Amazon EC2 instance, go to the following link:

http://www.oracle.com/technetwork/topics/linuxx86-64soft-092277.html

Step 3. Create Users for Repositories and Domain in Amazon RDS

You need to set environment variables and create the users for repositories and domain in Amazon RDS.

1. In the Amazon EC2 instance where you install PowerCenter in the AWS cloud, set the following environment variables:

   ```
   export LD_LIBRARY_PATH=/u01/app/oracle/product/11.2.0/xe/lib
   export ORACLE_HOME=/u01/app/oracle/product/11.2.0/xe/
   export PATH ${ORACLE_HOME}/bin:${PATH}
   ```

2. To create an Oracle user, enter the following syntax in sqlplus database utility:

   ```
   -bash-4.2$ sqlplus / as sysdba
   ```

Step 4. Assign Privileges to the Database Users from the Command Line

Relational database users need to create repositories with certain privileges in the command line.

To create users and to assign privileges, enter the following syntax in the command line:

```
create user &username identified by &username default tablespace
users temporary tablespace temp;
grant connect, resource, create table, create view, unlimited tablespace
to &username;
```

Migrate of On-Premises PowerCenter Domain to AWS

You can migrate an on-premises PowerCenter domain to AWS cloud.

Step 1. Back Up the On-premises Domain

If you are migrating PowerCenter from on-premises, you must back up the domain, PowerCenter repository, and the sitekey file before you can restore it in the AWS cloud.

1. Back up the existing domain.

   Enter the following command in the command line:

   ```
   infasetup backupDomain -da DBHost:1521 -du user -dp dbpsswd -dt oracle -ds <DBServiceName> -
   bf <fileLocation> -dn <Domain_Name>
   ```

2. Back up the existing PowerCenter repository with the following commands:

   ```
   pmrep connect -r <Repository> -n <Username> -x <Password>
   -d <Domain>
   pmrep backup -o <Filename> -f
   ```

3. Back up the sitekey file that is present under the following directory:

   ```
   $INFA_HOME/isp/config/keys
   ```

Step 2. Restore Domain in the AWS Cloud

To install PowerCenter from on-premises, you must restore the sitekey file and domain in the AWS cloud and define the gateway node before you install services in the AWS cloud.

1. Copy sitekey file from the on-premises to the following directory in the AWS cloud:

   ```
   $INFA_HOME/isp/config/keys
   ```

2. Restore the domain using backup file created on-premises with the following command:

   ```
   infasetup restoreDomain -da DBhost:1521 -du dbuser -dp dbpswd -dt Oracle -bf <file Location>
   -ds <DBserviceName>
   ```

3. Define Gateway Node with the following command:

   ```
   infasetup defineGatewayNode -da DBHost:1521 -du DBUser -dp DBPswd -dt oracle -ds
   DBServiceName -dn Domain -nn node01 -na NodeHost:6005 -ld $INFA_HOME/logs/ -rf
   $INFA_HOME/isp/bin/nodeoptions.xinml
   ```

Step 3. Create the Informatica Services in the AWS Cloud

You can create Informatica services, such as the PowerCenter Repository Service and the Integration Service in the AWS cloud.

1. Start the Informatica domain.

   Enter the command with the infaservice startup command in the installer location: `<INFA_HOME>/tomcat/bin`

2. Add license with the following command in the command line:

   ```
   $INFA_HOME/isp/bin/infacmd add License -lf<absolutepath>/license.key -dn $domainName -un
   Administrator -pd Administrator -ln License_Name
   ```

3. Create the PowerCenter Repository Service with the `infacmd isp createRepositoryService` command.

   For example:

   ```
   infacmd isp createRepositoryService -dn $domainName -un Administrator -pd Administrator -
   sn $pcrsName
   ```

```
-nn node01 -so codepage='UTF-8 encoding of Unicode" ConnectString=$SID
DBPassword=<dbpswd> DBUser=<dbUser>
DatabaseType=oracle -ln License_Name
```

4. When you migrate PowerCenter from on-premises, restore the repository contents from the backup file with the `pmrep restore` command in the following format:

```
pmrep restore
[-u <domain_user_name>]
[-s <domain_user_security_domain>]
[-p <domain_password> |
-P <domain_password_environment_variable>]
-i <input_file_name>
[-g (create global repository)]
[-y (enable object versioning)]
[-b (skip workflow and session logs)]
[-j (skip deployment group history)]
[-q (skip MX data)]
[-f (skip task statistics)]
[-a (as new repository)]
[-e (exit if domain name in the binary file is different from current domain name)]
```

   For example, `pmrep restore -u admin -p admin -i C:\license_check.rep`

   When you perform a fresh installation of Informatica in the AWS cloud and create a new repository, use the `pmrep create` command in the following format:

```
pmrep create
-u [<domain_user_name>]
[-s <domain_user_security_domain]
[-p <domain_password> |
-P <domain_password_environment_variable>]
[-g (create global repository)]
[-v (enable object versioning)]
```

5. Create the PowerCenter Integration Service with the `infacmd isp createIntegrationService` command.

   For example:

```
infacmd isp createIntegrationService -dn $domainName -un Administrator -pd Administrator
-sn $pcisName
-so DataMovementMode='ASCII' -nn node01 -rs $pcrsName -ru Administrator -rp
Administrator -ln License_Name
-po codepage_id=4 \$PMRootDir='$INFA_HOME/server/infa_shared'\
$PMSourceFileDir='<DirPath>'
\$PMTargetFileDir='<DirPath>'
```

Access Domain in the AWS Cloud from PowerCenter Clients

Developers and operators can reside in different geographic regions but they can connect to the domain in the AWS cloud.

1. In the EC2 console in AWS, select the master gateway instance.
2. From the description pane, copy the Public IP or DNS.
3. To access the Administrator tool in a browser, enter the Public IP or DNS followed by the Administrator tool port number.

   Use the following format:

   `http://<Public_DNS_or_IP>:<Administrator_tool_port>`

   Default Administrator tool port number is 6008.
4. Enter the domain server IP address in the client host file.

   Ensure that the private IP maps to the host name.

   On Windows, the client host file is in the following location:

```
C:\Windows\System32\drivers\etc
```

On Linux, the client host file is in the following location:

```
/etc/hosts
```

5. Save and close the file.
6. Log in to the PowerCenter clients and connect to the domain.

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