

# Cluster Deployment Process for EETeamJ1

## Prepare the Environment

To deploy our Cluster using Ambari there are few Pre-requisite which needs to be followed before starting Ambari installation:

- [Set up Password-less SSH](#)
- [Set up Service User Accounts](#)
- [Enable NTP on the Cluster](#)
- [Check DNS](#)
- [Configure iptables](#)
- [Disable SELinux, PackageKit and Check umask Value](#)

## Set Up Password-less SSH

To have Ambari Server automatically install Ambari Agents on all your cluster hosts, you must set up password-less SSH connections between the Ambari Server host and all other hosts in the cluster. The Ambari Server host uses SSH public key authentication to remotely access and install the Ambari Agent.

**Note :** You can choose to [manually install the Agents](#) on each cluster host. In this case, you do not need to generate and distribute SSH keys.

1. Generate public and private SSH keys on the Ambari Server host.

```
ssh-keygen
```

2. Copy the SSH Public Key (id\_rsa.pub) to the root account on your target hosts.

```
.ssh/id_rsa
```

```
.ssh/id_rsa.pub
```

3. Add the SSH Public Key to the authorized\_keys file on your target hosts.

```
cat id_rsa.pub >> authorized_keys
```

4. Depending on your version of SSH, you may need to set permissions on the .ssh directory (to 700) and the authorized\_keys file in that directory (to 600) on the target hosts.

```
chmod 700 ~/.ssh
```

```
chmod 600 ~/.ssh/authorized_keys
```

5. From the Ambari Server, make sure you can connect to each host in the cluster using SSH, without having to enter a password.

```
ssh root@<remote.target.host> where <remote.target.host> has the value of each host name in your cluster.
```

6. If the following warning message displays during your first connection: Are you sure you want to continue connecting (yes/no)? Enter Yes.
7. Retain a copy of the SSH Private Key on the machine from which you will run the web-based Ambari Install Wizard.

**Note :** It is possible to use a non-root SSH account, if that account can execute sudo without entering a password.

## Enable NTP on the Cluster and on the Browser Host

The clocks of all the nodes in your cluster and the machine that runs the browser through which you access the Ambari Web interface must be able to synchronize with each other.

To check that the NTP service will be automatically started upon boot, run the following command on each host:

Run the following command on all servers

```
apt-get install ntp
```

## Check DNS

All hosts in your system must be configured for both forward and reverse DNS.

If you are unable to configure DNS in this way, you should edit the /etc/hosts file on every host in your cluster to contain the IP address and Fully Qualified Domain Name of each of your hosts. The following instructions are provided as an overview and cover a basic network setup for generic

Linux hosts. Different versions and flavors of Linux might require slightly different commands and procedures. Please refer to the documentation for the operating system(s) deployed in your environment

### *Edit the Host File*

1. Using a text editor, open the hosts file on every host in your cluster. For example:

```
vi /etc/hosts
```

2. Add a line for each host in your cluster. The line should consist of the IP address and the FQDN. For example:

```
1.2.3.4 <fully.qualified.domain.name>
```

### **Important**

Do not remove the following two lines from your hosts file. Removing or editing the following lines may cause various programs that require network functionality to fail.

```
127.0.0.1 localhost.localdomain localhost  
::1 localhost6.localdomain6 localhost6
```

### Configuring iptables

For Ambari to communicate during setup with the hosts it deploys to and manages, certain ports must be open and available. The easiest way to do this is to temporarily disable iptables, as follows:

```
# sudo ufw disable
```

Note: You can restart iptables after setup is complete. If the security protocols in your environment prevent disabling iptables, you can proceed with iptables enabled, if all required ports are open and available.

Ambari checks whether iptables is running during the Ambari Server setup process. If iptables is running, a warning displays, reminding you to check that required ports are open and available. The Host Confirm step in the Cluster Install Wizard also issues a warning for each host that has iptables running.

Disable SELinux and PackageKit and check the umask Value

You must disable SELinux for the Ambari setup to function. On each host in your cluster,  
setenforce 0

Note : PackageKit is not enabled by default on SLES or Ubuntu systems. Unless you have specifically enabled PackageKit, you may skip this step for a SLES or Ubuntu installation host.

UMASK (User Mask or User file creation MASK) sets the default permissions or base permissions granted when a new file or folder is created on a Linux machine. Most Linux distros set 022 as the default umask value. A umask value of 022 grants read, write, execute permissions of 755 for new files or folders. A umask value of 027 grants read, write, execute permissions of 750 for new files or folders. Ambari supports a umask value of 022 or 027. For example, to set the umask value to 022, run the following command as root on all hosts, vi /etc/profile then, append the following line: umask 022.

Just check the current umask value with umask command. If its set to 022 no need to change anything.

```
root@impetus-i0161:~# umask  
0022
```

### Check the Maximum Open File Descriptors

The recommended maximum number of open file descriptors is 10000, or more. To check the current value set for the maximum number of open file descriptors, execute the following shell commands on each host:

```
ulimit -Sn  
ulimit -Hn
```

If the output is not greater than 10000, run the following command to set it to a suitable default:  
ulimit -n 10000

### [Ubuntu 14](#)

On a server host that has Internet access, use a command line editor to perform the following steps:

1. Log in to your host as `root`.

Download the Ambari repository file to a directory on your installation host.

```
wget -nv http://public-repo-1.hortonworks.com/ambari/ubuntu14/2.x/updates/2.2.2.0/ambari.list -O /etc/apt/sources.list.d/ambari.list
```

```
apt-key adv --recv-keys --keyserver keyserver.ubuntu.com B9733A7A07513CAD
```

```
apt-get update
```

**Important :** Do not modify the `ambari.list` file name. This file is expected to be available on the Ambari Server host during Agent registration.

1. Confirm that Ambari packages downloaded successfully by checking the package name list.

```
apt-cache showpkg ambari-server
```

```
apt-cache showpkg ambari-agent
```

```
apt-cache showpkg ambari-metrics-assembly
```

You should see the Ambari packages in the list.

2. Install the Ambari bits. This also installs the default PostgreSQL Ambari database.

```
apt-get install ambari-server
```

**Note :** When deploying HDP on a cluster having limited or no Internet access, you should provide access to the bits using an alternative method.

For more information about setting up local repositories, see [Using a Local Repository](#).

Ambari Server by default uses an embedded PostgreSQL database. When you install the Ambari Server, the PostgreSQL packages and dependencies must be available for install. These packages are typically available as part of your Operating System repositories. Please confirm you have the appropriate repositories available for the `postgresql-server` packages.

## Install Ambari Server

Before starting the Ambari Server, you must set up the Ambari Server. Setup configures Ambari to talk to the Ambari database, installs the JDK and allows you to customize the user account the Ambari Server daemon will run as. The `ambari-server setup` command manages the setup process. Run the following command on the Ambari server host to start the setup process. You may also append Setup Options to the command.

`ambari-server setup`

```
root@impetus-i0161:/etc/apt# ambari-server setup
```

Using python /usr/bin/python2.7

Setup ambari-server

Checking SELinux...

WARNING: Could not run /usr/sbin/sestatus: OK

By default, Ambari Server runs under root. Accept the default (n) at the Customize user account for `ambari-server` daemon prompt, to proceed as root. If you want to create a different user to run the Ambari Server, or to assign a previously created user, select y at the Customize user account for `ambari-server` daemon prompt, then provide a user name

Customize user account for `ambari-server` daemon [y/n] (n)? y

Enter user account for `ambari-server` daemon (root):

Adjusting `ambari-server` permissions and ownership...

Checking firewall status...

Checking JDK...

[1] Oracle JDK 1.8 + Java Cryptography Extension (JCE) Policy Files 8

[2] Oracle JDK 1.7 + Java Cryptography Extension (JCE) Policy Files 7

[3] Custom JDK

```
=====
```

Enter choice (1): 1

To download the Oracle JDK and the Java Cryptography Extension (JCE) Policy Files you must accept the license terms found at <http://www.oracle.com/technetwork/java/javase/terms/license/index.html> and not accepting will cancel the Ambari Server setup and you must install the JDK and JCE files manually.

Do you accept the Oracle Binary Code License Agreement [y/n] (y)? y

Downloading JDK from <http://public-repo-1.hortonworks.com/ARTIFACTS/jdk-8u40-linux-x64.tar.gz> to /var/lib/ambari-server/resources/jdk-8u40-linux-x64.tar.gz

jdk-8u40-linux-x64.tar.gz... 100% (165.2 MB of 165.2 MB)

Successfully downloaded JDK distribution to /var/lib/ambari-server/resources/jdk-8u40-linux-x64.tar.gz

Installing JDK to /usr/jdk64/

Successfully installed JDK to /usr/jdk64/

Downloading JCE Policy archive from [http://public-repo-1.hortonworks.com/ARTIFACTS/jce\\_policy-8.zip](http://public-repo-1.hortonworks.com/ARTIFACTS/jce_policy-8.zip) to /var/lib/ambari-server/resources/jce\_policy-8.zip

Successfully downloaded JCE Policy archive to /var/lib/ambari-server/resources/jce\_policy-8.zip

Installing JCE policy...

Completing setup...

Configuring database...

Enter advanced database configuration [y/n] (n)? y

Configuring database...

---

Choose one of the following options:

- [1] - PostgreSQL (Embedded)
  - [2] - Oracle
  - [3] - MySQL
  - [4] - PostgreSQL
  - [5] - Microsoft SQL Server (Tech Preview)
  - [6] - SQL Anywhere
- 

Enter choice (4): 1

Database name (ambari):

Postgres schema (ambari):

Username (ambari):

Enter Database Password (bigdata):

Default properties detected. Using built-in database.

Configuring ambari database...

Checking PostgreSQL...

About to start PostgreSQL

Configuring local database...

Connecting to local database...done.

Configuring PostgreSQL...

Extracting system views...

.....

Adjusting ambari-server permissions and ownership...

Ambari Server 'setup' completed successfully.

Before starting ambari we need to edit few files for postgres to start successfully

Edit the file /etc/postgresql/9.3/main/pg\_hba.conf to use MD5 authentication with the postgres user:

```
local all postgres md5
# "local" is for Unix domain socket connections only
local all all peer
# IPv4 local connections:
host all all 0.0.0.0/0 md5
# IPv6 local connections:
host all all ::1/128 md5
# Allow replication connections from localhost, by a user with the
```

vi /etc/postgresql/9.4/main/postgresql.conf

Edit the above file and ensure the listen address is equal to '\*'

```
listen_addresses = '*' # what IP address(es) to listen on;
```

After the above changes restart postgres

```
# service postgresql restart
```

Now let's start the cluster deployment process

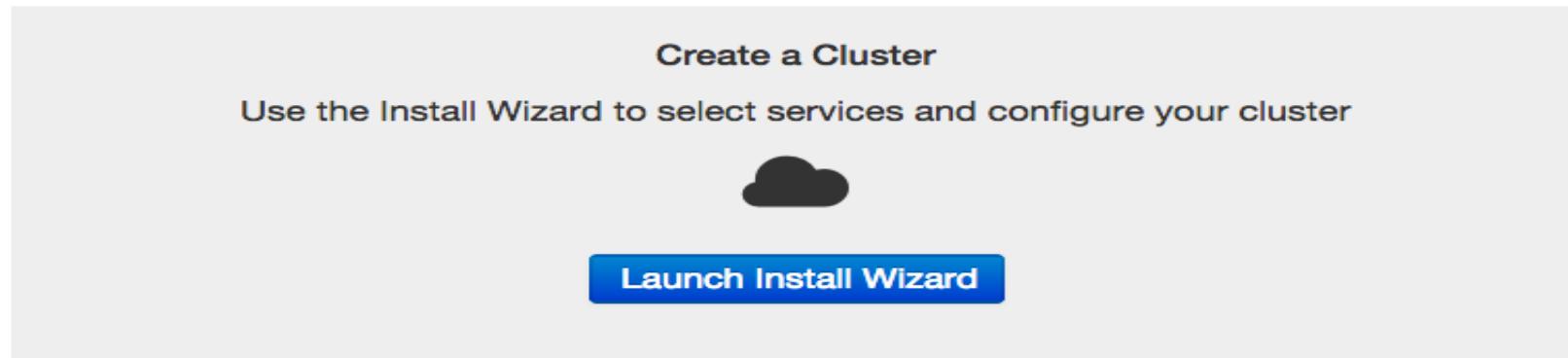
**Ambari provides an end-to-end management and monitoring solution for your HDP cluster. Using the Ambari Web UI and REST APIs, you can deploy, operate, manage configuration changes, and monitor services for all nodes in your cluster from a central point.**

After starting the Ambari service, open Ambari Web using a web browser and log In to Apache Ambari

- Point your browser to <http://172.26.60.16:8080> , where ambari server is installed
- Log in to the Ambari Server using the default user name/password: admin/admin.
- From the Ambari Welcome page, choose Launch Install Wizard.

## Welcome to Apache Ambari

Provision a cluster, manage who can access the cluster, and customize views for Ambari users.



**Manage Users + Groups**  
Manage the users and groups that can access Ambari



**Users**    **Groups**

**Deploy Views**  
Create view instances and grant permissions



**Views**

## 1. Give an name to the cluster

The screenshot shows the 'Get Started' step of the Ambari Cluster Install Wizard. The left sidebar lists the steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, Customize Services, Review, Install, Start and Test, and Summary. The main panel displays the 'Get Started' title and a brief description: 'This wizard will walk you through the cluster installation process. First, start by naming your new cluster.' A text input field contains the cluster name 'EETeamJ1'. A green 'Next →' button is at the bottom right.

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Choose What I Share

Search the web and Windows Google ... Inbox - s... Misc Sof... Notepad Word 20... Comput... Multi Pu... root@... VMware ... Comma... Xmanag... 10:12 PM 5/27/2016

Select HDP stack version and manually enter the path of our local repository for Ubuntu 14 (<http://172.26.60.16/hdp>)

The screenshot shows the Ambari Cluster Install Wizard in Mozilla Firefox. The user is at Step 1, 'Stacks'. The left sidebar lists steps: 'Install Options', 'Confirm Hosts', 'Choose Services', 'Assign Masters' (disabled), 'Review', 'Install, Start and Test', and 'Summary'. The main area shows 'Stacks' with 'HDP 2.4' selected. A note says: 'Customize the repository Base URLs for downloading the Stack software packages. If your hosts do not have access to the internet, you will have to create a local mirror of the Stack repository that is accessible by all hosts and use those Base URLs here.' An important message states: 'Important: When using local mirror repositories, you only need to provide Base URLs for the Operating System you are installing for your Stack. Uncheck all other repositories.' A table lists repository URLs for various OSes:

OS	Name	Base URL
debian7	HDP-2.4	<a href="http://public-repo-1.hortonworks.com/HDP/debian7/x/updates/2.4">http://public-repo-1.hortonworks.com/HDP/debian7/x/updates/2.4</a>
	HDP-UTILS-1.1.0.20	<a href="http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/d">http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/d</a>
redhat6	HDP-2.4	<a href="http://public-repo-1.hortonworks.com/HDP/centos6/x/updates/2.4">http://public-repo-1.hortonworks.com/HDP/centos6/x/updates/2.4</a>
	HDP-UTILS-1.1.0.20	<a href="http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/c">http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/c</a>
redhat7	HDP-2.4	<a href="http://public-repo-1.hortonworks.com/HDP/centos7/x/updates/2.4">http://public-repo-1.hortonworks.com/HDP/centos7/x/updates/2.4</a>
	HDP-UTILS-1.1.0.20	<a href="http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/c">http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/c</a>
suse11	HDP-2.4	<a href="http://public-repo-1.hortonworks.com/HDP/suse11sp3/x/updates/">http://public-repo-1.hortonworks.com/HDP/suse11sp3/x/updates/</a>
	HDP-UTILS-1.1.0.20	<a href="http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/s">http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/s</a>
ubuntu12	HDP-2.4	<a href="http://public-repo-1.hortonworks.com/HDP/ubuntu12/x/updates/2">http://public-repo-1.hortonworks.com/HDP/ubuntu12/x/updates/2</a>
	HDP-UTILS-1.1.0.20	<a href="http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/u">http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/u</a>
ubuntu14	HDP-2.4	<a href="http://172.26.60.16/hdp/HDP/ubuntu14/x/updates/2.4.2.0/">http://172.26.60.16/hdp/HDP/ubuntu14/x/updates/2.4.2.0/</a>
	HDP-UTILS-1.1.0.20	<a href="http://172.26.60.16/hdp/HDP-UTILS-1.1.0.20/repos/ubuntu14/">http://172.26.60.16/hdp/HDP-UTILS-1.1.0.20/repos/ubuntu14/</a>

A checkbox 'Skip Repository Base URL validation (Advanced)' is available. At the bottom, a note says: 'Firefox automatically sends some data to Mozilla so that we can improve your experience.' and 'Choose What I Share'.

Enter the hostnames ( FQDN) of all box which will be part of our cluster and ftp or copy the id\_rsa key for root which was created during the creation of password less ssh.

The screenshot shows the 'Ambari - Cluster Install Wizard - Mozilla Firefox' window. The title bar says 'Index of /hdp/HDP-UTILS... x Ambari - Cluster insta... x'. The address bar shows '172.26.60.16:8080/#/installer/step2'. The page header has a logo and 'admin' dropdown. The left sidebar menu includes 'Get Started', 'Select Stack', 'Install Options' (which is selected), 'Confirm Hosts', 'Choose Services', 'Assign Masters', 'Assign Slaves and Clients', 'Customize Services', 'Review', 'Install, Start and Test', and 'Summary'. The main content area is titled 'Install Options' and contains a text input field for hosts and an SSH key input field. The 'Target Hosts' section lists four hosts: 'impetus-i0161.impetus.co.in', 'impetus-i0163.impetus.co.in', 'impetus-i0203.impetus.co.in', and 'impetus-i0095.impetus.co.in'. The 'Host Registration Information' section has two radio button options: one for 'Provide your SSH Private Key' (selected) and one for 'Perform manual registration'. The 'SSH User Account' field is set to 'root'. At the bottom are 'Back' and 'Register and Confirm' buttons.

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Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS-2.3.0.2200.1218 | Ambari - Cluster Insta... +

172.26.60.16:8080/#installer/step3

Ambari admin

CLUSTER INSTALL WIZARD

- Get Started
- Select Stack
- Install Options
- Confirm Hosts**
- Choose Services
- Assign Masters
- Assign Slaves and Clients
- Customize Services
- Review
- Install, Start and Test
- Summary

## Confirm Hosts

Registering your hosts.  
Please confirm the host list and remove any hosts that you do not want to include in the cluster.

Show: All (4)   Installing (4)   Registering (0)   Success (0)   Fail (0)				
<input type="checkbox"/>	Host	Progress	Status	Action
<input type="checkbox"/>	impetus-i0161.impetus.co.in	<div style="width: 100%;">██████████</div>	Installing	<input type="button" value="Remove"/>
<input type="checkbox"/>	impetus-i0163.impetus.co.in	<div style="width: 100%;">██████████</div>	Installing	<input type="button" value="Remove"/>
<input type="checkbox"/>	impetus-i0203.impetus.co.in	<div style="width: 100%;">██████████</div>	Installing	<input type="button" value="Remove"/>
<input type="checkbox"/>	impetus-i0095.impetus.co.in	<div style="width: 100%;">██████████</div>	Installing	<input type="button" value="Remove"/>

Show: 25 1 - 4 of 4

[← Back](#) [Next →](#)

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javascript:void(null);

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Choose What I Share x

Search the web and Windows Google ... File Expl... Adobe R... temp - ... Word 20... Comput... Multi Pu... root@i... VMware ... Comma... Xmanag... 10:54 PM 5/27/2016

You might get issue multiple time for any one host or all... Check the error by clicking on the failed link and try to resolve errors mentioned.

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS-2.3.0/ | Ambari - Cluster Insta... | +

172.26.60.16:8080/#/installer/step3

Ambari

admin ▾

CLUSTER INSTALL WIZARD

Get Started

Select Stack

Install Options

**Confirm Hosts**

Choose Services

Assign Masters

Assign Slaves and Clients

Customize Services

Review

Install, Start and Test

Summary

## Confirm Hosts

Registering your hosts.  
Please confirm the host list and remove any hosts that you do not want to include in the cluster.

<input type="checkbox"/> Host	Progress	Status	Action
<input type="checkbox"/> impetus-i0161.impetus.co.in		Failed	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0163.impetus.co.in		Success	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0203.impetus.co.in		Failed	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i095.impetus.co.in		Failed	<input type="button" value="Remove"/>

Show: All (4) | [Installing \(0\)](#) | [Registering \(0\)](#) | [Success \(1\)](#) | [Fail \(3\)](#)

Show: 25 | 1 - 4 of 4

Some warnings were encountered while performing checks against the 1 registered hosts above [Click here to see the warnings.](#)

[Back](#) [Next →](#)

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Choose What I Share x

Search the web and Windows Google C... Inbox - S... Adobe Re... temp - N... Word 2013 Compute... Multi Pu... root@im... VMware ... Command... Xmanager... 11:07 PM 5/27/2016

If you get this error “Transparent Huge Pages Issue” then you can ignore this on Ubuntu 14 and continue.

The screenshot shows the Ambari Cluster Install Wizard interface. The main menu on the left includes 'Get Started', 'Select Stack', 'Install Options', 'Confirm Hosts' (which is selected), 'Choose Services', 'Assign Masters', 'Assign Slaves and Clients', 'Customize Services', 'Review', 'Install, Start and Test', and 'Summary'. The central area displays a 'Host Checks' dialog box. The dialog states: 'Host Checks found 1 issues on 3 hosts.' It provides instructions to 'Rerun Checks' after resolution and notes that the HostCleanup script (Python 2.6 or greater) is required for each host. Two yellow notes mention issues with Firewall and Transparent Huge Page support. Below these are sections for 'Transparent Huge Pages Issues (1)', 'JDK Issues (0)', 'Disk Issues (0)', 'Repository Issues (0)', 'Firewall Issues (0)', 'Process Issues (0)', and 'Package Issues (0)'. A 'Show Report' link is available. At the bottom of the dialog are 'C Rerun Checks' and 'Close' buttons. The background shows a table of host status (Failed, Success, Failed, Failed) and a summary of host counts (0 failing, 0 registering, 1 success, 3 failed). The bottom of the screen shows the Windows taskbar with various application icons and the date/time (11:09 PM 5/27/2016).

Host Checks

Host Checks found 1 issues on 3 hosts.

After manually resolving the issues, click **Rerun Checks**.

To manually resolve issues on **each host** run the HostCleanup script (Python 2.6 or greater is required):

```
python /usr/lib/python2.6/site-packages/ambari_agent/HostCleanup.py  
--silent --skip=users
```

**Note:** Clean up of Firewall and Transparent Huge Page issues are not supported by the HostCleanup script.

**Note:** To clean up in interactive mode, remove `--silent` option. To clean up all resources, including `users`, remove `--skip=users` option. Use `--help` for a list of available options.

Hosts All Hosts Show Report

- Transparent Huge Pages Issues (1)
- JDK Issues (0)
- Disk Issues (0)
- Repository Issues (0)
- Firewall Issues (0)
- Process Issues (0)
- Package Issues (0)

C Rerun Checks Close

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Search the web and Windows Google Chrome... Inbox - S... Adobe Reader... temp - N... Word 2013 Compute... Multi Pu... root@im... VMware... Command... Xmanager... 11:09 PM 5/27/2016

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS-2.3.0/ | Ambari - Cluster Insta... +

172.26.60.16:8080/#installer/step3

Ambari admin

## CLUSTER INSTALL WIZARD

Get Started  
Select Stack  
Install Options  
**Confirm Hosts**  
Choose Services  
Assign Masters  
Assign Slaves and Clients  
Customize Services  
Review  
Install, Start and Test  
Summary

## Confirm Hosts

Registering your hosts.  
Please confirm the host list and remove any hosts that you do not want to include in the cluster.

<input type="checkbox"/> Host	Progress	Status	Action
<input type="checkbox"/> impetus-i0161.impetus.co.in	<div style="width: 100%;">Success</div>	Success	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0163.impetus.co.in	<div style="width: 100%;">Success</div>	Success	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0203.impetus.co.in	<div style="width: 100%;">Success</div>	Success	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0095.impetus.co.in	<div style="width: 100%;">Success</div>	Success	<input type="button" value="Remove"/>

Show: All (4) | [Installing \(0\)](#) | [Registering \(0\)](#) | [Success \(4\)](#) | [Fail \(0\)](#)

Show: 25 1 - 4 of 4

Some warnings were encountered while performing checks against the 4 registered hosts above [Click here to see the warnings.](#)

[← Back](#) [Next →](#)

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## Choose Services

Based on the Stack chosen during Select Stack, you are presented with the choice of Services to install into the cluster. HDP Stack comprises many services. You may choose to install any other available services now, or to add services later. The install wizard selects all available services for installation by default. Choose or clear individual checkboxes to define a set of services to install now. I selected the following service based on our case study.

After selecting the services to install now, choose Next.

The screenshot shows the 'Choose Services' step of the Ambari Cluster Install Wizard. The left sidebar lists steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services (which is selected and highlighted in dark grey), Assign Masters, Assign Slaves and Clients, Customize Services, Review, Install, Start and Test, and Summary. The main content area has a header 'Choose which services you want to install on your cluster.' Below it is a table with columns: Service, Version, and Description. Services listed with checked checkboxes include: HDFS (2.7.1.2.4, Apache Hadoop Distributed File System), YARN + MapReduce2 (2.7.1.2.4, Apache Hadoop NextGen MapReduce (YARN)), Tez (0.7.0.2.4, Tez is the next generation Hadoop Query Processing framework written on top of YARN), Hive (1.2.1.2.4, Data warehouse system for ad-hoc queries & analysis of large datasets and table & storage management service), HBase (1.1.2.2.4, A Non-relational distributed database, plus Phoenix, a high performance SQL layer for low latency applications), Pig (0.15.0.2.4, Scripting platform for analyzing large datasets), Sqoop (1.4.6.2.4, Tool for transferring bulk data between Apache Hadoop and structured data stores such as relational databases), Oozie (4.2.0.2.4, System for workflow coordination and execution of Apache Hadoop jobs. This also includes the installation of the optional Oozie Web Console which relies on and will install the ExtJS Library), ZooKeeper (3.4.6.2.4, Centralized service which provides highly reliable distributed coordination), Falcon (0.6.1.2.4, Data management and processing platform), Storm (0.10.0.2.4, Apache Hadoop Stream processing framework), Flume (1.5.2.2.4, A distributed service for collecting, aggregating, and moving large amounts of streaming data into HDFS), Accumulo (1.7.0.2.4, Robust, scalable, high performance distributed key/value store), Ambari Metrics (0.1.0, A system for metrics collection that provides storage and retrieval capability for metrics collected from the cluster), Atlas (0.5.0.2.4, Atlas Metadata and Governance platform), and Kafka (0.9.0.2.4, A high-throughput distributed messaging system). Services listed without checked checkboxes include: Multi P... (Multi Platform support), root@im... (Root access via SSH), VMware... (VMware integration), Command... (Command-line interface), and Xmanager... (Xmanager integration).

Service	Version	Description
HDFS	2.7.1.2.4	Apache Hadoop Distributed File System
YARN + MapReduce2	2.7.1.2.4	Apache Hadoop NextGen MapReduce (YARN)
Tez	0.7.0.2.4	Tez is the next generation Hadoop Query Processing framework written on top of YARN.
Hive	1.2.1.2.4	Data warehouse system for ad-hoc queries & analysis of large datasets and table & storage management service
HBase	1.1.2.2.4	A Non-relational distributed database, plus Phoenix, a high performance SQL layer for low latency applications.
Pig	0.15.0.2.4	Scripting platform for analyzing large datasets
Sqoop	1.4.6.2.4	Tool for transferring bulk data between Apache Hadoop and structured data stores such as relational databases
Oozie	4.2.0.2.4	System for workflow coordination and execution of Apache Hadoop jobs. This also includes the installation of the optional Oozie Web Console which relies on and will install the ExtJS Library.
ZooKeeper	3.4.6.2.4	Centralized service which provides highly reliable distributed coordination
Falcon	0.6.1.2.4	Data management and processing platform
Storm	0.10.0.2.4	Apache Hadoop Stream processing framework
Flume	1.5.2.2.4	A distributed service for collecting, aggregating, and moving large amounts of streaming data into HDFS
Accumulo	1.7.0.2.4	Robust, scalable, high performance distributed key/value store.
Ambari Metrics	0.1.0	A system for metrics collection that provides storage and retrieval capability for metrics collected from the cluster
Atlas	0.5.0.2.4	Atlas Metadata and Governance platform
Kafka	0.9.0.2.4	A high-throughput distributed messaging system

The screenshot shows the Ambari Cluster Installation Wizard Step 4: Assign Masters. The page displays a list of services and their current master component assignments. Services listed include Sqoop, Oozie, ZooKeeper, Falcon, Storm, Flume, Accumulo, Ambari Metrics, Atlas, Kafka, Knox, Mahout, Slider, SmartSense, and Spark. Most services have their checkboxes checked, except for Ambari Metrics which is unchecked. The page includes a search bar, back and next buttons, and a toolbar at the top.

Service	Version	Description
Sqoop	1.4.6.2.4	Tool for transferring bulk data between Apache Hadoop and structured data stores such as relational databases
Oozie	4.2.0.2.4	System for workflow coordination and execution of Apache Hadoop jobs. This also includes the installation of the optional Oozie Web Console which relies on and will install the ExtJS Library.
ZooKeeper	3.4.6.2.4	Centralized service which provides highly reliable distributed coordination
Falcon	0.6.1.2.4	Data management and processing platform
Storm	0.10.0.2.4	Apache Hadoop Stream processing framework
Flume	1.5.2.2.4	A distributed service for collecting, aggregating, and moving large amounts of streaming data into HDFS
Accumulo	1.7.0.2.4	Robust, scalable, high performance distributed key/value store.
Ambari Metrics	0.1.0	A system for metrics collection that provides storage and retrieval capability for metrics collected from the cluster
Atlas	0.5.0.2.4	Atlas Metadata and Governance platform
Kafka	0.9.0.2.4	A high-throughput distributed messaging system
Knox	0.6.0.2.4	Provides a single point of authentication and access for Apache Hadoop services in a cluster
Mahout	0.9.0.2.4	Project of the Apache Software Foundation to produce free implementations of distributed or otherwise scalable machine learning algorithms focused primarily in the areas of collaborative filtering, clustering and classification
Slider	0.80.0.2.4	A framework for deploying, managing and monitoring existing distributed applications on YARN.
SmartSense	1.2.2.0-460	SmartSense - Hortonworks SmartSense Tool (HST) helps quickly gather configuration, metrics, logs from common HDP services that aids to quickly troubleshoot support cases and receive cluster-specific recommendations.
Spark	1.6.x.2.4	Apache Spark is a fast and general engine for large-scale data processing.

## Assign Masters

The Ambari install wizard assigns the master components for selected services to appropriate hosts in your cluster and displays the assignments in Assign Masters. The left column shows services and current hosts. The right column shows current master component assignments by host, indicating the number of CPU cores and amount of RAM installed on each host.

1. To change the host assignment for a service, select a host name from the drop-down menu for that service.
2. To remove a ZooKeeper instance, click the green minus icon next to the host address you want to remove.
3. When you are satisfied with the assignments, choose **Next**.
4. I moved some components to other server from default ones so that one server is not loaded with more components.

Ambari - Cluster Installation - Hadoop HDFS

Index of /hdp/HDP-UTILS-2.3.0.2.4.2.0-1200 | Ambari - Cluster Insta... | +

172.26.60.16 8080/#/installer/step5

**Get Started**

- [Select Stack](#)
- [Install Options](#)
- [Confirm Hosts](#)
- [Choose Services](#)
- Assign Masters**
- [Assign Slaves and Clients](#)
- [Customize Services](#)
- [Review](#)
- [Install, Start and Test](#)
- [Summary](#)

Assign master components to hosts you want to run them on.  
\* HiveServer2 and WebHCat Server will be hosted on the same host.

SNameNode:	impetus-i0161.impetus.co.in (7.7 GB, 4 cores)
NameNode:	impetus-i0095.impetus.co.in (7.7 GB, 4 cores)
History Server:	impetus-i0161.impetus.co.in (7.7 GB, 4 cores)
App Timeline Server:	impetus-i0163.impetus.co.in (7.7 GB, 4 cores)
ResourceManager:	impetus-i0161.impetus.co.in (7.7 GB, 4 cores)
Hive Metastore:	impetus-i0161.impetus.co.in (7.7 GB, 4 cores)
WebHCat Server:	impetus-i0161.impetus.co.in (7.7 GB, 4 cores)
HiveServer2:	impetus-i0161.impetus.co.in (7.7 GB, 4 cores)
Oozie Server:	impetus-i0163.impetus.co.in (7.7 GB, 4 cores)
ZooKeeper Server:	impetus-i0161.impetus.co.in (7.7 GB, 4 cores)
ZooKeeper Server:	impetus-i0163.impetus.co.in (7.7 GB, 4 cores)
ZooKeeper Server:	impetus-i0095.impetus.co.in (7.7 GB, 4 cores)
Metrics Collector:	impetus-i0163.impetus.co.in (7.7 GB, 4 cores)
Spark History Server:	impetus-i0095.impetus.co.in (7.7 GB, 4 cores)
Grafana:	impetus-i0095.impetus.co.in (7.7 GB, 4 cores)
SmartSense HST Server:	impetus-i0095.impetus.co.in (7.7 GB, 4 cores)

12:14 AM 5/28/2016

## Assign Slaves and Clients

The Ambari installation wizard assigns the slave components (DataNodes, NodeManagers, and RegionServers) to appropriate hosts in your cluster. It also attempts to select hosts for installing the appropriate set of clients.

1. Use **all** or **none** to select all of the hosts in the column or none of the hosts, respectively.
2. If a host has an asterisk next to it, that host is also running one or more master components. Hover your mouse over the asterisk to see which master components are on that host.
3. Fine-tune your selections by using the checkboxes next to specific hosts.
4. When you are satisfied with your assignments, choose Next.

The screenshot shows the Ambari Cluster Install Wizard interface. On the left, a sidebar lists steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients (which is highlighted), Customize Services, Review, Install, Start and Test, and Summary. The main panel title is "Assign Slaves and Clients". It contains a brief description: "Assign slave and client components to hosts you want to run them on. Hosts that are assigned master components are shown with \*." Below this, it says "'Client' will install HDFS Client, MapReduce2 Client, YARN Client, Tez Client, HCat Client, Hive Client, Pig Client, Oozie Client, ZooKeeper Client, Slider Client and Spark Client." A table lists four hosts: impetus-i0161.impetus.co.in\*, impetus-i0163.impetus.co.in\*, impetus-i0095.impetus.co.in\*, and impetus-i0203.impetus.co.in. For each host, checkboxes are provided for various components: DataNode, NFSGateway, NodeManager, Flume, Spark Thrift Server, and Client. The checkboxes for DataNode, NodeManager, Flume, and Spark Thrift Server are checked for the first three hosts, while Client is checked for the fourth. At the bottom of the table are buttons for "Show:" (set to 25), navigation arrows (1 - 4 of 4), and "Next →". At the very bottom of the page, there is a footer note: "Licensed under the Apache License, Version 2.0. See third-party tools/resources that Ambari uses and their respective authors."

## Customize Services

The Customize Services step presents you with a set of tabs that let you review and modify your HDP cluster setup. The wizard attempts to set reasonable defaults for each of the options. You are **strongly encouraged** to review these settings as your requirements might be slightly different.

Browse through each service tab and by hovering your cursor over each of the properties, you can see a brief description of what the property does. The number of service tabs shown depends on the services you decided to install in your cluster. **Any tab that requires input shows a red badge with the number of properties that need attention.** Select each service tab that displays a red badge number and enter the appropriate information.

### Directories

The choice of directories where HDP will store information is critical. Ambari will attempt to choose reasonable defaults based on the mount points available in your environment but you are **strongly encouraged** to review the default directory settings recommended by Ambari. In particular, confirm directories such as /tmp and /var are **not** being used for HDFS NameNode directories and DataNode directories under the **HDFS** tab.

### Passwords

You must provide database passwords for the Hive and Oozie services and the Master Secret for Knox. Using Hive as an example, choose the **Hive** tab and expand the Advanced section. In Database Password field marked in red, provide a password, then retype to confirm it.

### Note

By default, Ambari will install a new MySQL instance for the Hive Metastore and install a Derby instance for Oozie. If you plan to use existing databases for MySQL, Oracle or PostgreSQL, modify these options before proceeding. Refer to Using Non-Default Databases for more information on using existing databases.

### Important

Using the **Microsoft SQL Server** or **SQL Anywhere** database options are not supported.

### Service Account Users and Groups

The service account users and groups are available under the **Misc** tab. These are the **operating system accounts the service components will run as**. If these users do not exist on your hosts, Ambari will automatically create the users and groups locally on the hosts. If these users already exist, Ambari will use those accounts.

Depending on how your environment is configured, you might not allow groupmod or usermod operations. If this is the case, you **must** be sure all users and groups are already created and **be sure to** select the "Skip group modifications" option on the **Misc** tab. This tells Ambari to not modify group membership for the service users.

Refer to the Ambari Reference Guide Customizing HDP Services for more information on the service account users and groups that are needed for HDP.

After you complete Customizing Services, choose **Next**.

The screenshot shows the Ambari Cluster Install Wizard in Mozilla Firefox, specifically the 'Customize Services' step for the HDFS service. The left sidebar lists steps: 'Install Options', 'Confirm Hosts', 'Choose Services', 'Assign Masters', 'Assign Slaves and Clients', 'Customize Services' (which is selected), 'Review', 'Install, Start and Test', and 'Summary'. The main content area has tabs for 'HDFS', 'MapReduce2', 'YARN', 'Tez', 'Hive', 'Pig', 'Oozie', 'ZooKeeper', 'Flume', 'Ambari Metrics', and 'Slider'. Below these tabs are 'SmartSense' and 'Spark' buttons. A 'Manage Config Groups' button is also present. The 'Advanced' tab is selected under 'Settings'. The 'NameNode' section contains fields for 'NameNode directories' (set to '/hadoop/hdfs/namenode') and 'NameNode Java heap size' (set to 1GB). It also includes sliders for 'NameNode Server threads' (set to 100) and 'Minimum replicated blocks %' (set to 100%). The 'DataNode' section contains fields for 'DataNode directories' (set to '/hadoop/hdfs/data') and 'DataNode failed disk tolerance' (set to 0). It also includes sliders for 'DataNode maximum Java heap size' (set to 1GB) and 'DataNode max data transfer threads' (set to 4096). A yellow warning bar at the bottom states: 'Attention: Some configurations need your attention before you can proceed.' and 'Show me priorities with issues'.

Gave Hive Database password as hive/hive

The screenshot shows the Ambari Cluster Install Wizard in Mozilla Firefox. The title bar says "Ambari - Cluster Install Wizard - Mozilla Firefox". The address bar shows "Index of /hdp/HDP-UTILS-2.3.0.2.0-1200" and "Ambari - Cluster Insta...". The user is logged in as "admin".

The left sidebar lists the steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, and Customize Services (which is selected). Below these are Review, Install, Start and Test, and Summary.

The main content area is titled "Customize Services" and contains the message: "We have come up with recommended configurations for the services you selected. Customize them as you see fit." Below this is a navigation bar with tabs: HDFS, MapReduce2, YARN, Tez, Hive (selected), Pig, Oozie (with a red exclamation mark), ZooKeeper, Flume, Ambari Metrics (with a red exclamation mark), Slider, SmartSense, Spark, and Misc.

Under the "Hive" tab, there is a "Group" dropdown set to "Default (4)", a "Manage Config Groups" button, and a "Filter..." button. There are two tabs: "Settings" (selected) and "Advanced". A section for "Hive Metastore" shows a "Database Password" field containing "\*\*\*\*" and a lock icon.

A yellow warning box at the bottom states: "Attention: Some configurations need your attention before you can proceed. Showing properties with issues. [Show all properties](#)".

At the bottom are "Back" and "Next" buttons. The footer includes a note about Apache License 2.0 and third-party tools, and the Windows taskbar at the bottom shows various open applications like Google Chrome, Microsoft Word, and Adobe Reader.

Gave oozie database password as oozie/oozie

The screenshot shows the Ambari Cluster Install Wizard interface. The left sidebar lists steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, and Customize Services (which is selected). The main panel title is "Customize Services". It displays a message: "We have come up with recommended configurations for the services you selected. Customize them as you see fit." Below this is a service selection bar with tabs: HDFS, MapReduce2, YARN, Tez, Hive, Pig, Oozie, ZooKeeper, Flume, Ambari Metrics (with a red notification badge), Slider, SmartSense, Spark, and Misc. The "Oozie" tab is selected. A "Group" dropdown is set to "Default (4)" and a "Manage Config Groups" button is available. A "Filter..." dropdown is also present. Under the "Oozie Server" section, there is a "Database Password" field containing "\*\*\*\*\*" and another field with "\*\*\*\*\*" and a lock icon. A yellow warning box at the bottom states: "Attention: Some configurations need your attention before you can proceed." and "Showing properties with issues [Show all properties](#)". Navigation buttons "Back" and "Next" are at the bottom.

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Search the web and Windows Google... inbox... Xmana... Adobe... temp... Word 2... Comp... Multi P... root@i... Xmana... mhtml... C:\Win... Bash... 5:42 PM 5/30/2016

Gave Grafana Admin password as grafana/grafana

The screenshot shows the Ambari Cluster Install Wizard in Mozilla Firefox. The title bar says "Ambari - Cluster Install Wizard - Mozilla Firefox". The address bar shows "Index of /hdp/HDP-UTILS-2.3.0.2.6.0-1210" and "Ambari - Cluster Insta...". The user is logged in as "admin".

The left sidebar lists the steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, and Customize Services. "Customize Services" is currently selected.

The main content area is titled "Customize Services" and contains the message: "We have come up with recommended configurations for the services you selected. Customize them as you see fit." Below this is a navigation bar with tabs: HDFS, MapReduce2, YARN, Tez, Hive, Pig, Oozie, ZooKeeper, Flume, Ambari Metrics, Slider, SmartSense, Spark, and Misc. The "Ambari Metrics" tab is selected.

Below the tabs is a configuration group section with a "Group" dropdown set to "Default (4)", a "Manage Config Groups" button, and a "Filter..." dropdown. A "General" configuration group is expanded, showing a "Grafana Admin Password" field with two redacted entries. At the bottom of this section is a green status bar with the message: "All configurations have been addressed." and a "Show all properties" link.

At the bottom of the main content area are "Back" and "Next" buttons. The status bar at the bottom of the browser window shows "5:44 PM 5/30/2016".

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Search the web and Windows Google... Inbox... Xmana... Adobe... temp... Word 2... Comp... Multi P... root@i... Xmana... mhtml... C:\Win... Bash... 5:44 PM 5/30/2016

Ambari - Cluster Install Wizard - Mozilla Firefox  
Index of /hdp/HDP-UTILS-2.3.0.2.3.0-1222... x Ambari - Cluster Insta... x +

172.26.60.16:8080/#/installer/step7

Ambari

admin

CLUSTER INSTALL WIZARD

- Get Started
- Select Stack
- Install Options
- Confirm Hosts
- Choose Services
- Assign Masters
- Assign Slaves and Clients
- Customize Services**
- Review
- Install, Start and Test
- Summary

Customize Services

We have come up with recommended configurations for the services you selected. Customize them as you see fit.

**Warning**

Derby is not recommended for production use. With Derby, Oozie Server HA and concurrent connection support will not be available.

Cancel Proceed Anyway

Grafana Admin Password

Back Next

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Search the web and Windows

Google... Inbox... Xmana... Adobe... temp... Word 2... Comp... Multi P... root@i... Xmana... mhtml... C:\Win... Bash... 5:46 PM 5/30/2016

If you get the above warning then go back to customize service and select Oozie → under Oozie server details Select “existing PostgreSQL database” and then create a oozie database on the server where it is pointing out. In this case we use impetus-i0161

Ambri - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS-... x Ambri - Cluster Insta... x +

172.26.60.16:8080/#installer/step7

Select Stack  
Install Options  
Confirm Hosts  
Choose Services  
Assign Masters  
Assign Slaves and Clients  
**Customize Services**  
Review  
Install, Start and Test  
Summary

We have come up with recommended configurations for the services you selected. Customize them as you see fit.

HDFS MapReduce2 YARN Tez Hive Pig Oozie ZooKeeper Flume Ambari Metrics Slider SmartSense  
Spark Misc

Group Default (4) Manage Config Groups Filter...

**Oozie Server**

Oozie Server host: impetus-i0161.impetus.co.in

Oozie Database:  
 New Derby Database  
 Existing MySQL Database  
 Existing PostgreSQL Database  
 Existing Oracle Database  
 Existing SQL Anywhere Database

Be sure you have run:  
ambari-server setup --jdbc-db=postgres --jdbc-driver=/path/to/postgres/postgresql.jar on the Ambari Server host to make the JDBC driver available and to enable testing the database connection.

Database Host: impetus-i0161.impetus.co.in  

Database Name: oozie  

Database Username: oozie  

Database Password:   

JDBC Driver Class: org.postgresql.Driver  

Database URL: jdbc:postgresql://impetus-i0161.impetus.co.in:5432/oozie  

**Test Connection** **Connection Failed** 

Oozie Data Dir: /hadoop/oozie/data 

Windows Search the web and Windows Google... Inbox ... File Exp... Adobe... temp - ... Word 2... Comp... Multi P... root@i... Xmana... mhtml... C\Win... Shash... 6:13 PM 5/30/2016

Now follow the below process to create a psql database for oozie. Run the following command at a terminal prompt on impetus-i0161

PostgreSQL setup for use with Oozie:

Execute the following command:

```
# ambari-server setup --jdbc-db=postgres --jdbc-driver=/usr/lib/ambari-server/postgresql-9.3-1101-jdbc4.jar
```

Create a user for Oozie and grant it permissions using the PostgreSQL database admin utility:

```
# sudo su - postgres

postgres@impetus-i0161:~$ echo "CREATE DATABASE oozie" | psql -U postgres
postgres@impetus-i0161:~$ echo "CREATE USER oozie WITH PASSWORD 'oozie';" | psql -U postgres
postgres@impetus-i0161:~$ echo "GRANT ALL PRIVILEGES ON DATABASE oozie TO oozie;" | psql -U postgres
```

To test this connection run the below command on terminal. It should prompt for oozie password and should connect to database.

```
postgres@impetus-i0161:~$ psql -h impetus-i0161.impetus.co.in -d oozie -U oozie -p 5432
```

## Test it again on ambari GUI

The screenshot shows the Ambari Cluster Installation interface at step 7, titled "Customize Services". The left sidebar lists steps: Choose Services, Assign Masters, Assign Slaves and Clients, Customize Services (selected), Review, Install, Start and Test, and Summary.

The main panel displays the "Oozie Server" configuration. It includes fields for "Oozie Server host" (imetus-i0161.impetus.co.in), "Oozie Database" (Existing PostgreSQL Database selected), and "Database Host" (imetus-i0161.impetus.co.in). A note at the top right of the form area states: "Be sure you have run: ambari-server setup --jdbc-db=postgres --jdbc-driver=/path/to/postgres/postgresql.jar on the Ambari Server host to make the JDBC driver available and to enable testing the database connection." Below this note, the "Test Connection" button is highlighted in blue, and the "Connection OK" status is indicated by a green checkmark icon.

At the bottom of the configuration panel, there are two expandable sections: "Advanced oozie-env" and "Advanced oozie-log4j".

The taskbar at the bottom of the screen shows various open applications including Google Chrome, File Explorer, Adobe Reader, Notepad, Word 2010, and Xmanager.

## After Review click on Deploy

The screenshot shows the Ambari Cluster Install Wizard in the 'Review' step. The left sidebar lists the steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, Customize Services, Review (which is highlighted), Install, Start and Test, and Summary. The main content area is titled 'Review' and contains a message: 'Please review the configuration before installation'. It lists several repositories and services:

- redhat7 (HDP-2.4):  
http://public-repo-1.hortonworks.com/HDP/centos7/2.x/updates/2.4.2.0
- redhat7 (HDP-UTILS-1.1.0.20):  
http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/centos7
- suse11 (HDP-2.4):  
http://public-repo-1.hortonworks.com/HDP/suse11sp3/2.x/updates/2.4.2.0
- suse11 (HDP-UTILS-1.1.0.20):  
http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/suse11sp3
- ubuntu12 (HDP-2.4):  
http://public-repo-1.hortonworks.com/HDP/ubuntu12/2.x/updates/2.4.2.0
- ubuntu12 (HDP-UTILS-1.1.0.20):  
http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/ubuntu12
- ubuntu14 (HDP-2.4):  
http://172.26.60.16/hdp/HDP/ubuntu14/2.x/updates/2.4.2.0/
- ubuntu14 (HDP-UTILS-1.1.0.20):  
http://172.26.60.16/hdp/HDP-UTILS-1.1.0.20/repos/ubuntu14/

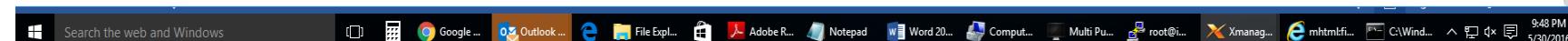
Services:

**HDFS**

- DataNode : 1 host
- NameNode : imoetus-i0095.imoetus.co.in

Buttons at the bottom include 'Back', 'Print', and 'Deploy'.

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Ambari - Cluster Install Wizard - Review

Index of /hdp/HDP-UTILS-2.3.0.2.3.0-1222 - Ambari - Cluster Insta... +

172.26.60.16:8080/#/installer/step8

Ambari admin

CLUSTER INSTALL WIZARD

- Get Started
- Select Stack
- Install Options
- Confirm Hosts
- Choose Services
- Assign Masters
- Assign Slaves and Clients
- Customize Services
- Review**
- Install, Start and Test
- Summary

## Review

Please review the configuration before installation

**Services:**

**HDFS**

- DataNode : 1 host
- NameNode : impetus-i0095.impetus.co.in
- NFSGateway : 1 host
- SNameNode : impetus-i0161.impetus.co.in

**YARN + MapReduce2**

- App Timeline Server : impetus-i0163.impetus.co.in
- NodeManager : 1 host
- ResourceManager : impetus-i0161.impetus.co.in

**Tez**

- Clients : 1 host

**Hive**

- Metastore : impetus-i0161.impetus.co.in
- HiveServer2 : impetus-i0161.impetus.co.in
- WebHCat Server : impetus-i0161.impetus.co.in
- Database : MySQL (New MySQL Database)

**Pig**

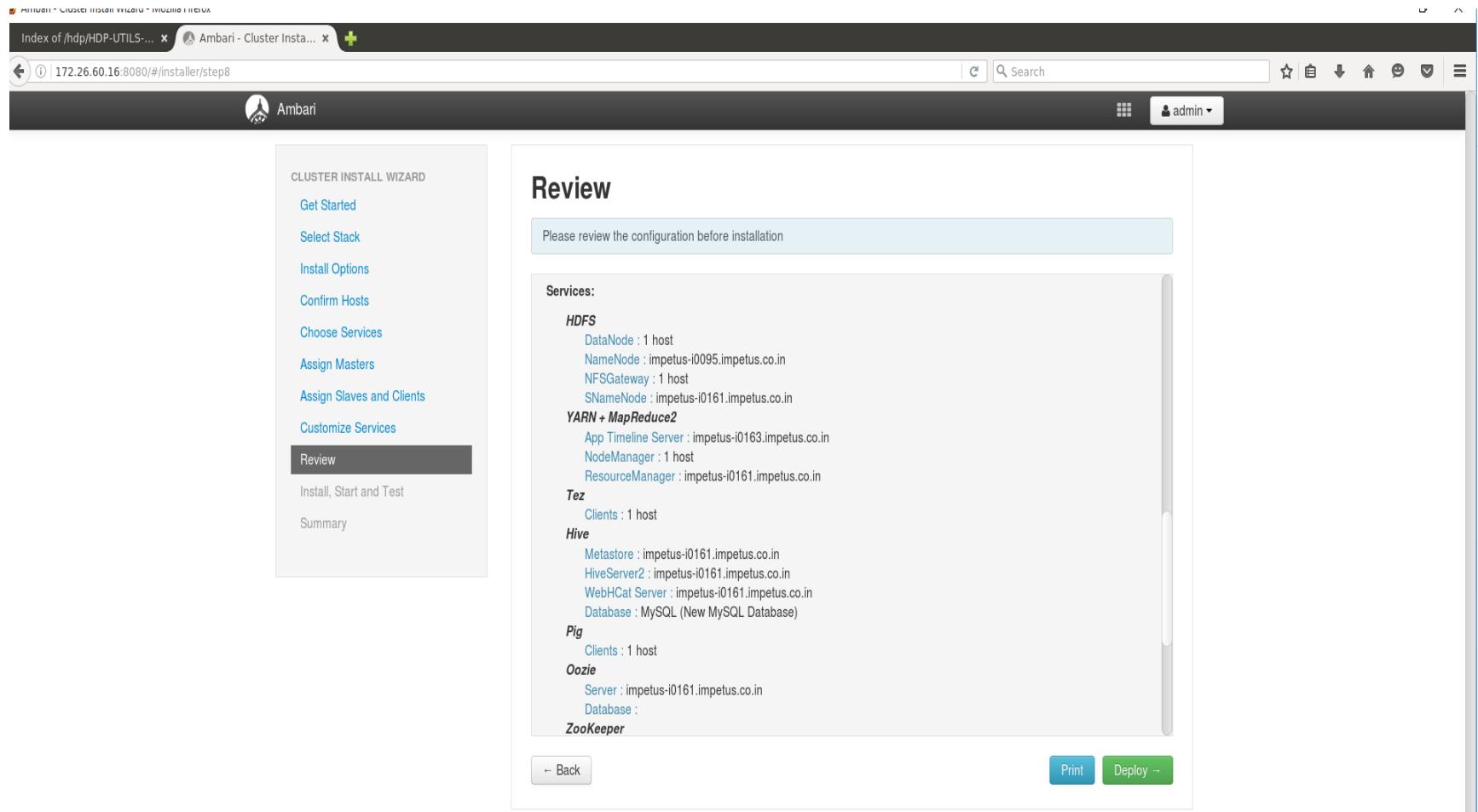
- Clients : 1 host

**Oozie**

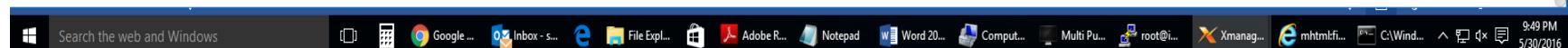
- Server : impetus-i0161.impetus.co.in
- Database :

**ZooKeeper**

← Back Print Deploy →



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Index of /hdp/HDP-UTILS-2.3.0.2.3.0-1222/ | Ambari - Cluster Insta...

Ambari - Cluster Install Wizard - Review

172.26.60.16:8080/#/installer/step8

Ambari

admin

## Review

Please review the configuration before installation

**Metastore** : impetus-i0161.impetus.co.in  
**HiveServer2** : impetus-i0161.impetus.co.in  
**WebHCat Server** : impetus-i0161.impetus.co.in  
**Database** : MySQL (New MySQL Database)

**Pig**  
Clients : 1 host

**Oozie**  
Server : impetus-i0161.impetus.co.in  
Database :

**ZooKeeper**  
Server : 3 hosts

**Flume**  
Flume : 1 host

**Ambari Metrics**  
Metrics Collector : impetus-i0163.impetus.co.in  
Grafana : impetus-i0095.impetus.co.in

**Slider**  
Clients : 1 host

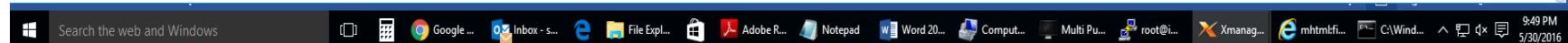
**SmartSense**  
HST Server : impetus-i0095.impetus.co.in

**Spark**  
History Server : impetus-i0095.impetus.co.in  
Thrift Server : 1 host

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## Deployment in progress

The screenshot shows the Ambari Cluster Install Wizard interface. The left sidebar lists the steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, Customize Services, Review, **Install, Start and Test**, and Summary. The main panel title is "Install, Start and Test". A message box says "Please wait while the selected services are installed and started." Below it is a progress bar at 4% overall. A table shows the status of four hosts: impetus-i0161.impetus.co.in (4% Installing HDFS Client), impetus-i0163.impetus.co.in (5% Installing App Timeline Server), impetus-i0203.impetus.co.in (4% Installing DataNode), and impetus-i0095.impetus.co.in (4% Installing HDFS Client). At the bottom right of the main panel is a "Next →" button. The bottom of the screen shows the Windows taskbar with various pinned icons and the date/time: 9:51 PM 5/30/2016.

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Ambri - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS-... x Ambri - Cluster Insta... +

← i | 172.26.60.16:8080/#installer/step9

Ambari admin

CLUSTER INSTALL WIZARD

- Get Started
- Select Stack
- Install Options
- Confirm Hosts
- Choose Services
- Assign Masters
- Assign Slaves and Clients
- Customize Services
- Review
- Install, Start and Test**
- Summary

## Install, Start and Test

Please wait while the selected services are installed and started.

16 % overall

Host	Status	Message
impetus-i0161.impetus.co.in	15%	Installing Metrics Monitor
impetus-i0163.impetus.co.in	20%	Installing Metrics Collector
impetus-i0203.impetus.co.in	16%	Installing Metrics Monitor
impetus-i0095.impetus.co.in	14%	Installing Grafana

4 of 4 hosts showing - Show All

Show: 25 1 - 4 of 4 Next →

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Search the web and Windows Google ... File Expl... Notepad Word 20... Compute... Multi Pu... root@i... Xmanag... mhtmlfi... EETeamJ... 10:35 PM 5/30/2016

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hdp/HDP-UTILS-2.3.0.2.6.0.16-1 | Ambari - Cluster Insta... | +

172.26.60.16:8080/#/installer/step9

Ambari admin

CLUSTER INSTALL WIZARD

- Get Started
- Select Stack
- Install Options
- Confirm Hosts
- Choose Services
- Assign Masters
- Assign Slaves and Clients
- Customize Services
- Review
- Install, Start and Test**
- Summary

## Install, Start and Test

Please wait while the selected services are installed and started.

100 % overall

Host	Status	Message
impetus-i0161.impetus.co.in	100%	Warnings encountered
impetus-i0163.impetus.co.in	100%	Failures encountered
impetus-i0203.impetus.co.in	100%	Warnings encountered
impetus-i0095.impetus.co.in	100%	Warnings encountered

4 of 4 hosts showing - Show All

Show: 25 1 - 4 of 4

Failed to install/start the services.

Next →

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Click on the failure and resolve the issue. In my case installation of one of the component has failed due to timeout. So I just re-tried again.

The screenshot shows a Firefox browser window titled "Ambari - Cluster Install Wizard - Mozilla Firefox". The address bar displays "Index of /hdp/HDP-UTILS-2.3.0.2.0-1200" and "Ambari - Cluster Insta...". The main content area is a modal dialog titled "impetus-i0163.impetus.co.in". The dialog lists several tasks under the heading "Tasks":

- ✓ App Timeline Server Install
- ✓ HDFS Client Install
- ✓ History Server Install
- ✓ SmartSense HST Agent Install
- ❗ Metrics Collector Install
- Metrics Monitor Install
- Tez Client Install
- ZooKeeper Server Install

A dropdown menu "Show:" is set to "All". At the bottom right of the dialog are "OK" and "Next →" buttons. The background of the browser shows the Ambari interface with various components and their status. A footer at the bottom of the screen includes a Windows taskbar with icons for Search, File Explorer, Adobe Reader, Notepad, Word 2013, Compute..., Multi PuT..., root@im..., Xmanager..., mhtmlfil..., and a date/time stamp "10:48 PM 5/30/2016".

Ambari - Cluster Install Wizard - Mozilla Firefox  
Index of /hd/HDP-UTILS... x Ambari - Cluster Insta... x http://172.26...steller/step9 x +

172.26.60.16:8080/#/installer/step9

Ambari

admin

CLUSTER INSTALL WIZARD

- Get Started
- Select Stack
- Install Options
- Confirm Hosts
- Choose Services
- Assign Masters
- Assign Slaves and Clients
- Customize Services
- Review
- Install, Start and Test**
- Summary

Please wait while the selected services are installed and started.

100 % overall

Host	Status	Message
impetus-i0161.impetus.co.in	100%	Success
impetus-i0163.impetus.co.in	100%	Success
impetus-i0203.impetus.co.in	100%	Success
impetus-i0095.impetus.co.in	100%	Success

4 of 4 hosts showing - [Show All](#)

Show: 25 1 - 4 of 4

Successfully installed and started the services.

Next →

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Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS-... x Ambari - Cluster Insta... x http://172.26.10.16:8080/#installer/step9 x +

172.26.10.16:8080/#installer/step10

Search admin

Ambari

CLUSTER INSTALL WIZARD

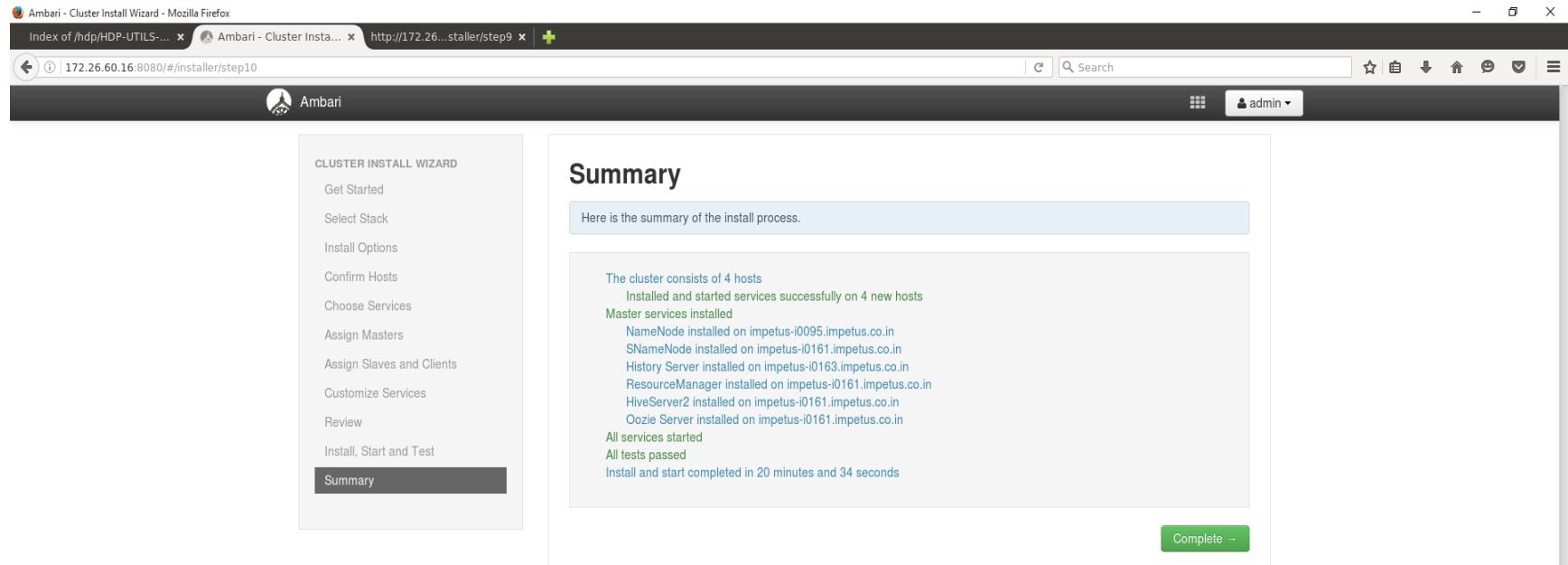
- Get Started
- Select Stack
- Install Options
- Confirm Hosts
- Choose Services
- Assign Masters
- Assign Slaves and Clients
- Customize Services
- Review
- Install, Start and Test
- Summary

**Summary**

Here is the summary of the install process.

The cluster consists of 4 hosts  
Installed and started services successfully on 4 new hosts  
Master services installed  
NameNode installed on impetus-i0095.impetus.co.in  
SNameNode installed on impetus-i0161.impetus.co.in  
History Server installed on impetus-i0163.impetus.co.in  
ResourceManager installed on impetus-i0161.impetus.co.in  
HiveServer2 installed on impetus-i0161.impetus.co.in  
Oozie Server installed on impetus-i0161.impetus.co.in  
All services started  
All tests passed  
Install and start completed in 20 minutes and 34 seconds

Complete →



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