

# **Engineering Excellence J1**

**(Hadoop Cluster Setup - Cluster Deployment)**

## **Cluster Deployment Process for EETeamJ1**

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## 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](#)
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#### 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.
2. ssh-keygen
3. Copy the SSH Public Key (id\_rsa.pub) to the root account on your target hosts.

4. .ssh/id\_rsa
5. .ssh/id\_rsa.pub
6. Add the SSH Public Key to the authorized\_keys file on your target hosts.
7. cat id\_rsa.pub >> authorized\_keys
8. 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.
9. chmod 700 ~/.ssh
10. chmod 600 ~/.ssh/authorized\_keys
11. From the Ambari Server, make sure you can connect to each host in the cluster using SSH, without having to enter a password.
12. ssh root@<remote.target.host> where <remote.target.host> has the value of each host name in your cluster.
13. If the following warning message displays during your first connection: Are you sure you want to continue connecting (yes/no)? Enter Yes.
14. 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.

## [Set up Service User Accounts](#)

Each HDP service requires a service user account. The Ambari Install wizard creates new and preserves any existing service user accounts, and uses these accounts when configuring Hadoop services. Service user account creation applies to service user accounts on the local operating system and to LDAP/AD accounts.

## [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 install and start NTP service automatically upon boot, run the following command on each host:

```
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

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

```
vi /etc/hosts
```

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
```

## Ambari Installation

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.

2. 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.

3. 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.

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.

```
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 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.

## Create a Cluster

Use the Install Wizard to select services and configure your cluster



[Launch Install Wizard](#)

## Manage Users + Groups

Manage the users and groups that can access Ambari



[Users](#)

[Groups](#)

## Deploy Views

Create view instances and grant permissions



[Views](#)

## Give an name to the cluster

The screenshot shows a Mozilla Firefox browser window with the URL [172.26.60.16:8080/#installer/step0](http://172.26.60.16:8080/#installer/step0). The page title is "Ambari". On the left, there's a sidebar titled "CLUSTER INSTALL WIZARD" with a "Get Started" button highlighted in grey. Below it are ten steps: "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 content area is titled "Get Started" and contains the text: "This wizard will walk you through the cluster installation process. First, start by naming your new cluster." Below this is a text input field with the value "EETeamJ1" and a green "Next →" button.

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Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share 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>)

Ambari - Cluster Install Wizard - Mozilla Firefox  
Index of /hdp/HDP-UTILS... x Ambari - Cluster insta... x +  
← ⓘ | 172.26.60.16:8080/#installer/step1

Install Options  
Confirm Hosts  
Choose Services  
Assign Masters  
Review  
Install, Start and Test  
Summary

Stacks  
 HDP 2.4  
 HDP 2.3  
 HDP 2.2

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.

**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.

OS	Name	Base URL
debian7	HDP-2.4	<a href="http://public-repo-1.hortonworks.com/HDP/debian7/2.x/updates/2.4">http://public-repo-1.hortonworks.com/HDP/debian7/2.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/centos6/2.x/updates/2.4">http://public-repo-1.hortonworks.com/HDP/centos6/2.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/centos7/2.x/updates/2.4">http://public-repo-1.hortonworks.com/HDP/centos7/2.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/suse11sp3/2.x/updates/">http://public-repo-1.hortonworks.com/HDP/suse11sp3/2.x/updates/</a> ⓘ
	HDP-UTILS-1.1.0.20	<a href="http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/si">http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/si</a> ⓘ
ubuntu12	HDP-2.4	<a href="http://public-repo-1.hortonworks.com/HDP/ubuntu12/2.x/updates/2">http://public-repo-1.hortonworks.com/HDP/ubuntu12/2.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/ubuntu14/2.x/updates/2.4.2.0/">http://172.26.60.16/hdp/HDP/ubuntu14/2.x/updates/2.4.2.0/</a> ⓘ <a href="#">Undo</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 href="#">Undo</a>
<input type="checkbox"/> Skip Repository Base URL validation (Advanced) ⓘ		

Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share x

Search the web and Windows Google ... File Expl... Adobe R... temp - ... Word 20... Comput... Multi Pu... root@i... VMware ... Comm... Xmanag... 10:25 PM 5/27/2016

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.

Ambari - Cluster Install Wizard - Mozilla Firefox

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

172.26.60.16:8080/#installer/step2

Ambari admin

## Install Options

Enter the list of hosts to be included in the cluster and provide your SSH key.

**Target Hosts**

Enter a list of hosts using the Fully Qualified Domain Name (FQDN), one per line. Or use Pattern Expressions

```
impetus-i0161.impetus.co.in  
impetus-i0163.impetus.co.in  
impetus-i0203.impetus.co.in  
impetus-i0095.impetus.co.in
```

**Host Registration Information**

Provide your SSH Private Key to automatically register hosts

No file selected.

```
-----BEGIN RSA PRIVATE KEY-----  
MIIEowIBAAKCAQEa1YQR006/2n0x63ZPMghHHJ1SSRevYT  
/WEISunukgATsAtmGS  
Tt4psEWYaoMcYBbmw+C
```

SSH User Account

Perform manual registration on hosts and do not use SSH

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11:02 PM 5/27/2016

Search the web and Windows Google ... Inbox - s... File Expl... Adobe R... temp - Word 20... Comput... Multi Pu... root@i... VMware ... Comma... Xmanag... 11:02 PM 5/27/2016

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hdP/HDP-UTILS... x Ambari - Cluster Insta... x +

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

Show: 25 1 - 4 of 4

[← Back](#) [Next →](#)

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javascript:void(null);

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Choose What I Share

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.

Ambri - Cluster Install Wizard - Mozilla Firefox

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

172.26.60.16:8080/#installer/step3

Search

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: 20%;"> </div>	Failed	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0163.impetus.co.in	<div style="width: 100%;"> </div>	Success	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0203.impetus.co.in	<div style="width: 20%;"> </div>	Failed	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0095.impetus.co.in	<div style="width: 20%;"> </div>	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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If you get this error " Transperent Huge Pages Issue" then you can ignore this on Ubuntu 14 and continue.

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hdp/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

**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 C... Inbox - S... Adobe Re... temp - N... Word 2013 Compute... Multi Pu... root@im... VMware ... Command... Xmanage... 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.

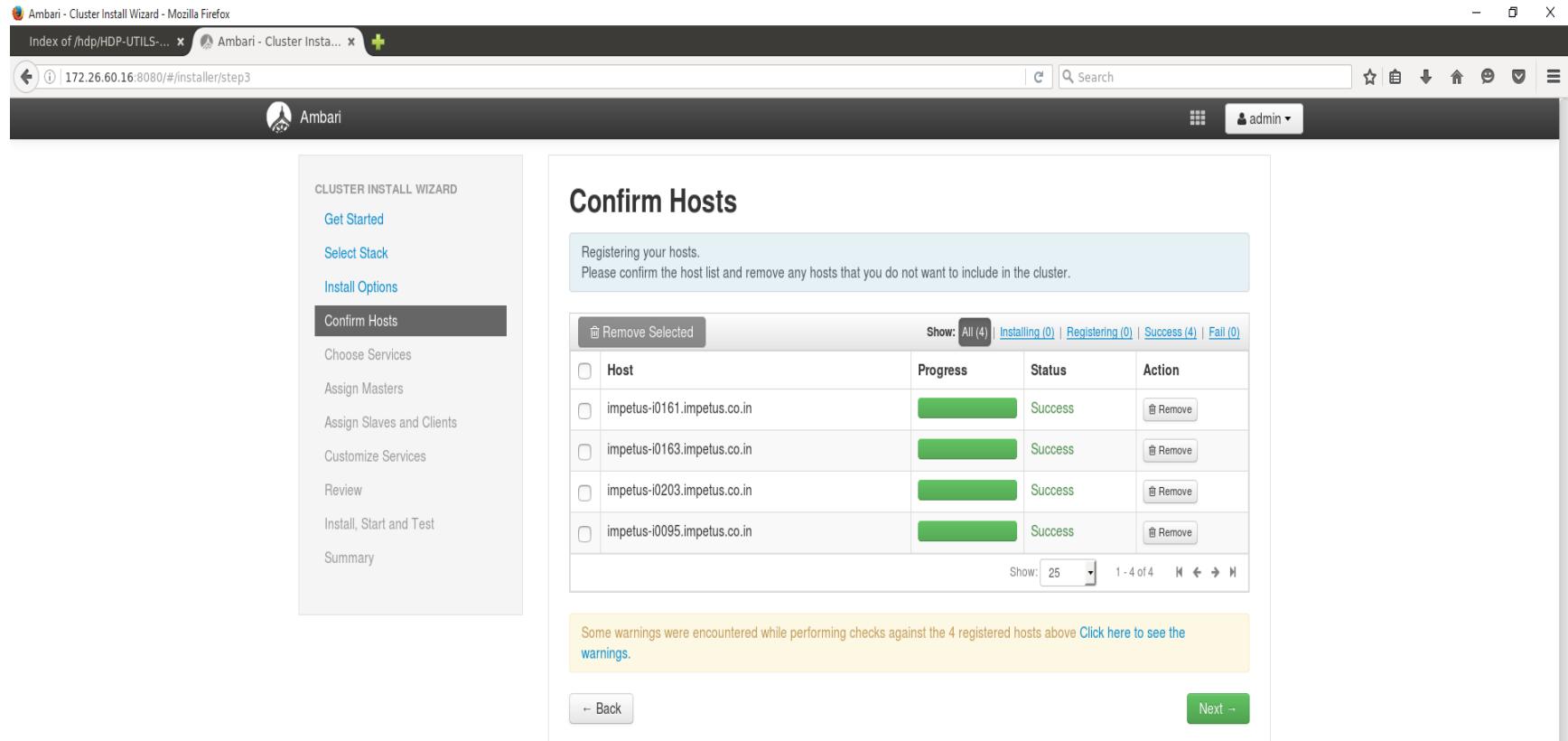
<input type="checkbox"/> Host	Progress	Status	Action
<input type="checkbox"/> impetus-i0161.impetus.co.in	<div style="width: 100%;">Success</div>	Success	<input type="button" value="Remove"/>
<input type="checkbox"/> impetus-i0163.impetus.co.in	<div style="width: 100%;">Success</div>	Success	<input type="button" 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 Ambari Cluster Install Wizard interface. The left sidebar has a navigation menu with the following items: 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 content area is titled "Choose which services you want to install on your cluster." It lists various services with their versions and descriptions. Services listed include:

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

At the bottom of the screen, the Windows taskbar is visible with icons for Search the web and Windows, Google Chrome, Adobe Reader, Notepad, Word 2013, Compute..., Multi Pu..., root@im..., VMware..., Command..., Xmanager..., and a clock showing 11:40 PM on 5/27/2016.

The screenshot shows the Ambari Cluster Installation Wizard at Step 4: Assign Masters. The interface displays a list of services and their current versions. Most services have their checkboxes checked, indicating they are selected for assignment. The Ambari Metrics service is highlighted with a green background. At the bottom, there are 'Back' and 'Next →' buttons.

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.

Index of /hdp/UTILS-... x Ambari - Cluster Insta... x +

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 'Assign Slaves and Clients' step of the Ambari Cluster Install Wizard. The left sidebar lists steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients (which is selected and highlighted in dark grey), Customize Services, Review, Install, Start and Test, and Summary. The main content area is titled 'Assign Slaves and Clients' and contains instructions: 'Assign slave and client components to hosts you want to run them on. Hosts that are assigned master components are shown with \*.' It explains that '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. Below this is a table with columns for Host, and checkboxes for various components: all | none, and all | none. The 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 present for DataNode, NFSGateway, NodeManager, Flume, Spark Thrift Server, and Client. In the table, for the first three hosts, the 'DataNode' checkbox is checked. For the fourth host, both 'DataNode' and 'Client' checkboxes are checked. At the bottom of the table are buttons for 'Show: 25', '1 - 4 of 4', and navigation arrows. Below the table are 'Back' and 'Next' buttons. The footer of the page includes a license notice: 'Licensed under the Apache License, Version 2.0. See third-party tools/resources that Ambari uses and their respective authors.' The bottom of the image shows a Windows taskbar with various application icons and the date/time: 5:32 PM 5/30/2016.

## 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' (with 1 notification), 'Pig' (with 1 notification), 'Oozie' (with 1 notification), 'ZooKeeper', 'Flume', 'Ambari Metrics' (with 1 notification), 'Slider', 'SmartSense', 'Spark', and 'Misc'. Under the 'Advanced' tab for 'NameNode', there are four sliders: 'NameNode Java heap size' set to 1GB, 'NameNode Server threads' set to 100, and 'Minimum replicated blocks %' set to 100%. Under the 'Advanced' tab for 'DataNode', there are three sliders: 'DataNode failed disk tolerance' set to 0, 'DataNode maximum Java heap size' set to 1GB, and 'DataNode max data transfer threads' set to 4096. At the bottom, a yellow warning box says: 'Attention: Some configurations need your attention before you can proceed.' with a link '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 /hd/HDP-UTILS-2.3.0.2.6.0-1222" 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, **Customize Services**, 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, a list of services is shown: HDFS, MapReduce2, YARN, Tez, **Hive**, Pig, Oozie (with a red exclamation mark), ZooKeeper, Flume, Ambari Metrics (with a red exclamation mark), Slider, SmartSense, Spark, and Misc.

Below the service list, there are buttons for "Group" (set to "Default (4)"), "Manage Config Groups", and "Filter...". There are also tabs for "Settings" (selected) and "Advanced".

A section titled "Hive Metastore" shows a "Database Password" field with two masked input fields. Below this, a yellow warning box says: "Attention: Some configurations need your attention before you can proceed. Showing properties with issues. [Show all properties](#)".

At the bottom, there are "Back" and "Next" buttons.

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## 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. The 'Customize Services' step is currently 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 warning icon), Slider, SmartSense, Spark, and Misc. The 'Oozie' tab is selected. A configuration group section shows 'Group Default (4)' and a 'Manage Config Groups' button. Under the 'Oozie Server' group, 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.' with a link 'Show all properties'. Navigation buttons at the bottom are 'Back' and 'Next →'. The status bar at the bottom shows various open windows and the date/time: 5:42 PM, 5/30/2016.

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Windows 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-hadoop2.7.1/". The user is logged in as "admin". The left sidebar lists the wizard steps: Get Started, Select Stack, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, and Customize Services. The "Customize Services" step is currently selected. The main content area is titled "Customize Services" and contains 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, Slider, SmartSense, Spark, and Misc. The "Ambari Metrics" 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. A "General" configuration group is expanded, showing the "Grafana Admin Password" field, which contains "\*\*\*\*\*" in one input field and "\*\*\*\*\*|" in another. A green status bar at the bottom indicates "All configurations have been addressed." and provides a link to "Show all properties". Navigation buttons "Back" and "Next →" are at the bottom. At the very bottom of the page, a footer states: "Licensed under the Apache License, Version 2.0. See third-party tools/resources that Ambari uses and their respective authors". The taskbar at the bottom of the browser window shows various open applications including Google Chrome, Microsoft Word, Adobe Reader, and multiple Xmanager windows.

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

172.26.60.16:8080/#/installer/step7

Search

Ambari Metrics Slider SmartSense

Filter...

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.

Grafana Admin Password

Cancel Proceed Anyway

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... Shash... 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

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS... x Ambari - 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... Xman... mhtml... C:\Win... Bash... 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

Ambari - Cluster Install Wizard - Hadoop Utilities

Index of /hdp/HDP-UTILS-2.3.0.2.3.0.0-1222 172.26.60.16:8080/#/installer/step7

Choose Services  
Assign Masters  
Assign Slaves and Clients  
**Customize Services**  
Review  
Install, Start and Test  
Summary

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 OK

Oozie Data Dir: /hadoop/oozie/data

Advanced oozie-env  
Advanced oozie-log4j

Search the web and Windows

9:29 PM 5/30/2016

## 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 selected), 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 repository URLs:

- redhat / (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/

Below this, there is a section for 'Services':

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

At the bottom are 'Back' and 'Deploy' buttons.

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Windows taskbar at the bottom:

- Search the web and Windows
- Icons for File Explorer, Google Chrome, Outlook, Adobe Reader, Notepad, Word 2010, Computer, Multi P... (partially visible)
- Terminal icon (root@i...)
- Xmanager icon
- mhtmlfile... icon
- C:\Wind... icon
- File Explorer icon
- 9:48 PM
- 5/30/2016

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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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

## 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

← Back Print Deploy →

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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** (which is currently selected), and Summary. The main panel is titled "Install, Start and Test" and displays a message: "Please wait while the selected services are installed and started." Below this is a progress bar indicating "4 % overall". A table lists four hosts and their current status:

Host	Status	Message
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
impetus-i0095.impetus.co.in	4%	Installing HDFS Client

At the bottom of the table, it says "4 of 4 hosts showing - Show All". To the right, there are buttons for "Show:" (set to 25), "1 - 4 of 4", and navigation arrows. A green "Next →" button is located at the bottom right of the main panel.

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9:51 PM  
5/30/2016

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS-2.3.0-2.ambari2.1.1.0-1222/... x Ambari - Cluster Insta... x +

(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

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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Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hd/HDP-UTILS... x Ambari - Cluster Insta... 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

## 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.

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hdP/HDP-UTILS-2.3.0-2.ambari2.1.1.0-1282/... x Ambari - Cluster insta... x +

172.26.60.16 8080/#installer/step9

Search

Ambari

admin

imperius-i0163.imperius.co.in

Tasks

Show: All

- ✓ 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

OK

Next →

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Search the web and Windows

Google C... Sent item... File Explor... Adobe Re... Notepad Word 2013 Compute... Multi PuT... root@im... Xmanag... mhtmlfil... 10:48 PM 5/30/2016

Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hdphd-UTILS... | Ambari - Cluster Insta... | http://172.26.60.16:8080/#/installer/step9 | +

172.26.60.16:8080/#/installer/step9 | 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

## 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%	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 | Next →

Successfully installed and started the services.

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Ambari - Cluster Install Wizard - Mozilla Firefox

Index of /hdp/HDP-UTILS-2.3.0.2200.1 | Ambari - Cluster Insta... | http://172.26.60.16:8080/#installer/step9 | +

172.26.60.16:8080/#installer/step10

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**

**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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