

***** AMBARI INSTALLATION *****

CREATE 3 Virtual machine (1-cluster,2-node)

On all-machine:-

set hostname

[root@localhost]# hostnamectl set-hostname cluster,node1,node2

#install enable and start httpd

yum install httpd -y

systemctl enable httpd.service

systemctl start httpd

systemctl status httpd

#set ip in host file like this

[root@silver-node1 ambari]# vi /etc/hosts

192.168.0.1 SILVER-NODE1

192.168.0.2 SILVER-NODE2

192.168.0.3 SILVER-NODE3

Make sure all node ping to each other

On cluster:-

#Create a directory in html file

cd /var/www/html/

mkdir ambari

#Copy ambari,hdp,& hdp-utils tar file in created path

untar the file

tar -xvf ambari-2.7.3.0-centos7.tar.gz

#copy repo file in yum.repos.d path

cp /var/www/html/ambari/ambari/centos7/2.7.3.0-139/ambari.repo /etc/yum.repos.d/

create repofile

createrepo 'untar filename'

Edit in ambari.repo file(writ e ambari file path in baseurl)

vi /etc/yum.repos.d/ambari.repo

VERSION_NUMBER=2.7.3.0-139

[ambari-2.7.3.0]

```
#json.url = http://public-repo-1.hortonworks.com/HDP/hdp\_urlinfo.json
name=ambari Version - ambari-2.7.3.0
baseurl=http://cluster/ambari/ambari/centos7/2.7.3.0-139
gpgcheck=0
#gpgkey=http://public-repo-1.hortonworks.com/ambari/centos7/2.x/updates/2.7.3.0/RPM-GPG-KEY/RPM-GPG-KEY-Jenkins
enabled=1
priority=1
```

Do same as above in hdp.repo file (here edit hdp path and hdp-utils path)

```
[root@silver-node1 yum.repos.d]# vi /etc/yum.repos.d/hdp.repo
#VERSION_NUMBER=3.1.0.0-78
[HDP-3.1.0.0]
name=HDP Version - HDP-3.1.0.0
baseurl=http://cluster/hdp/HDP/centos7/3.1.0.0-78
gpgcheck=0
#gpgkey=http://public-repo-1.hortonworks.com/HDP/centos7/3.x/updates/3.1.0.0/RPM-GPG-KEY/RPM-GPG-KEY-Jenkins
enabled=1
priority=1
```

```
[HDP-UTILS-1.1.0.22]
name=HDP-UTILS Version - HDP-UTILS-1.1.0.22
baseurl=http://cluster/hdp-utils/HDP-UTILS/centos7/1.1.0.22
gpgcheck=0
#gpgkey=http://public-repo-1.hortonworks.com/HDP/centos7/3.x/updates/3.1.0.0/RPM-GPG-KEY/RPM-GPG-KEY-Jenkins
enabled=1
priority=1
```

#check repolist

```
[root@cluster~]#yum repolist
```

repo id	repo name	status
HDP-3.1.0.0	HDP Version - HDP-3.1.0.0	201
HDP-UTILS-1.1.0.22	HDP-UTILS Version - HDP-UTILS-1.1.0.22	16
ambari-2.7.3.0	ambari Version - ambari-2.7.3.0	13
base/7/x86_64	CentOS-7 - Base	10,072
extras/7/x86_64	CentOS-7 - Extras	515
updates/7/x86_64	CentOS-7 - Updates	4,538
repolist: 15,355		

Copy ambari.repo file on other both node in same path

```
rsync /etc/yum.repos.d/ambari.repo root@node1:/etc/yum.repos.d/ambari.repo
rsync /etc/yum.repos.d/ambari.repo root@node2:/etc/yum.repos.d/ambari.repo
```

```
#install,setup,start&check status ambari-server
yum install ambari-sever
ambari-server setup -s
ambari-server start
ambari-server status
```

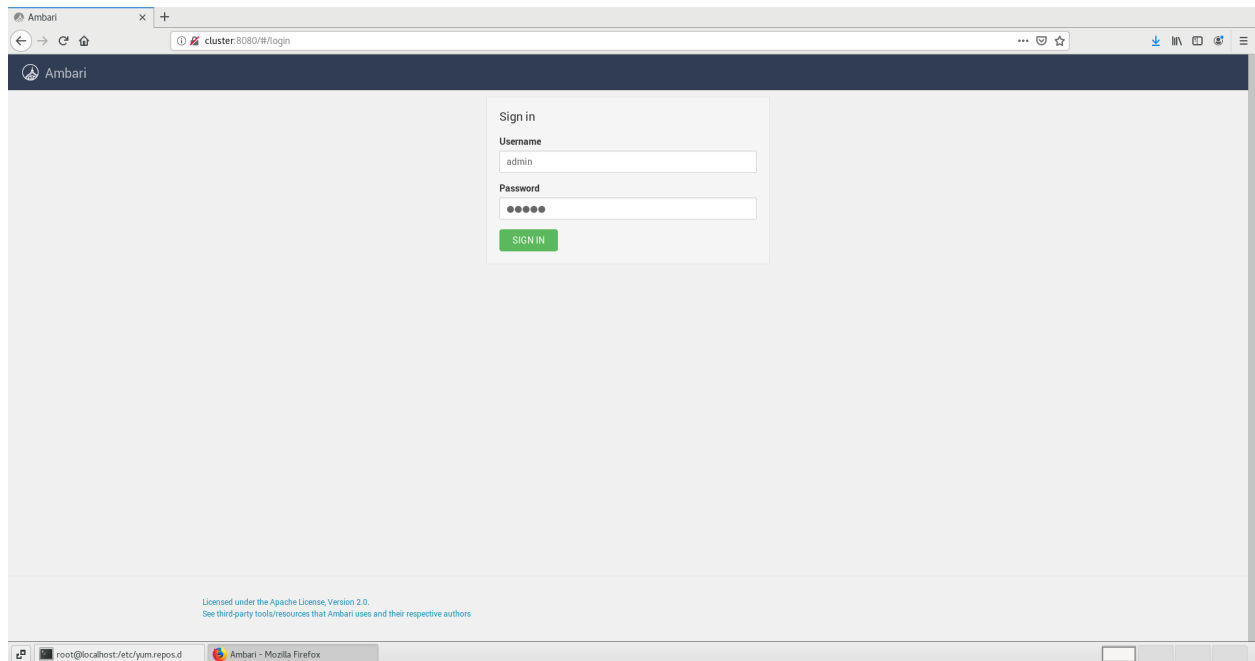
```
# Install start and check status ambari-agent    ("install on all machine")
yum install -y ambari-agent
ambari-agent start
ambari-agent status
```

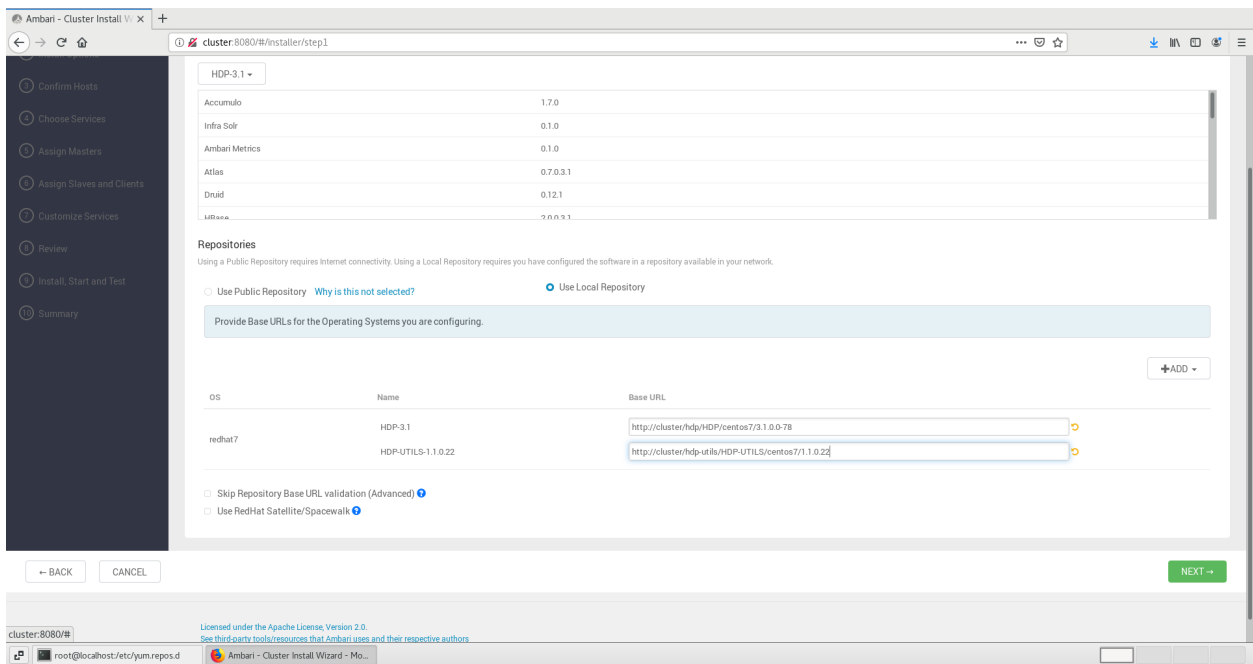
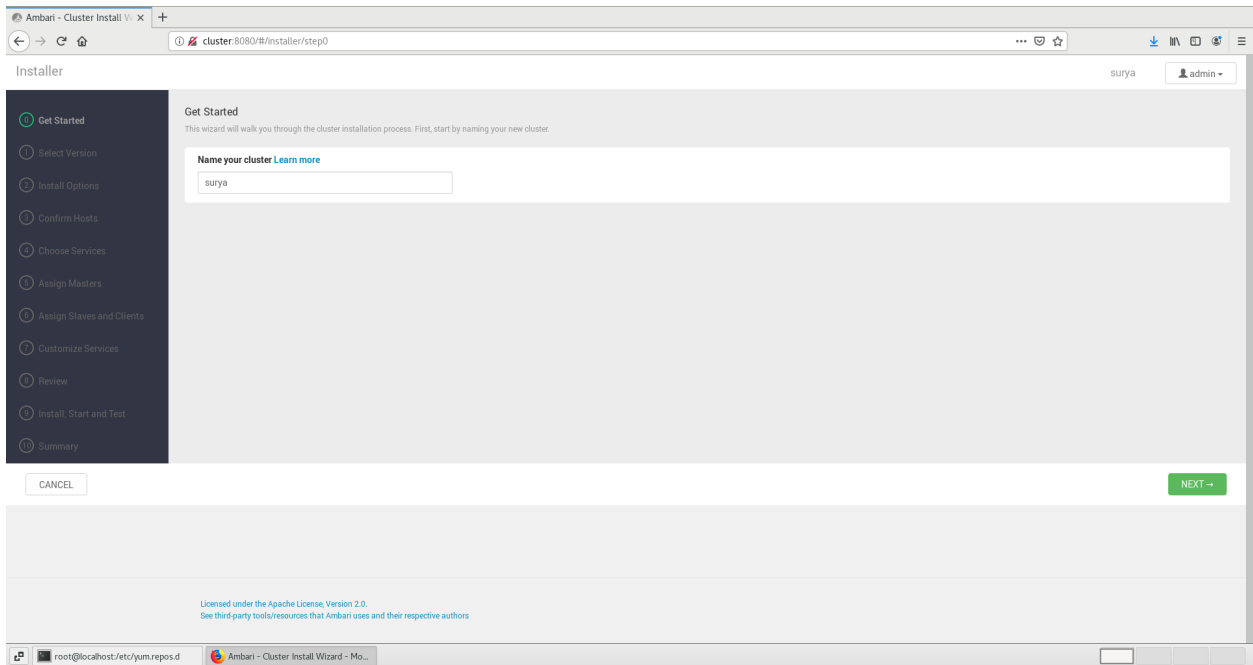
```
# Edit this file(Write in hostname='cluster hostname' on all machine )
[root@silver-node1 ambari]# vi /etc/ambari-agent/conf/ambari-agent.ini
# Licensed to the Apache Software Foundation (ASF) under one or more
# contributor license agreements. See the NOTICE file distributed with
# this work for additional information regarding copyright ownership.
# The ASF licenses this file to You under the Apache License, Version 2.0
# (the "License"); you may not use this file except in compliance with
# the License. You may obtain a copy of the License at
#
# http://www.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
# See the License for the specific
```

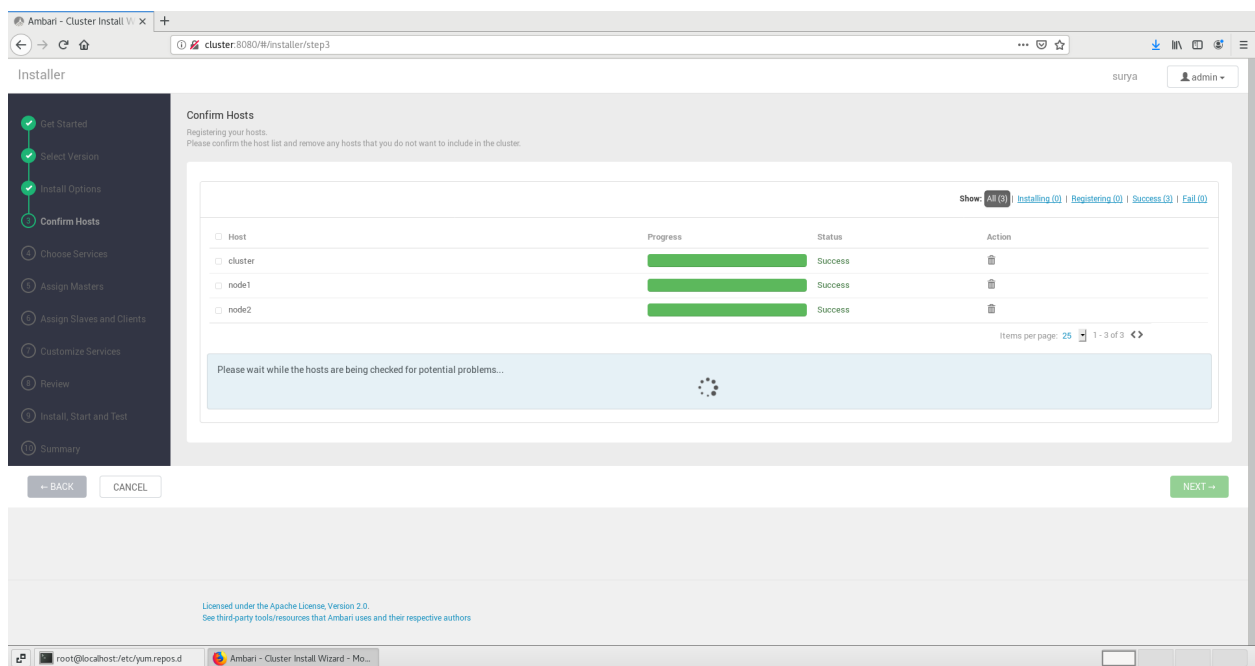
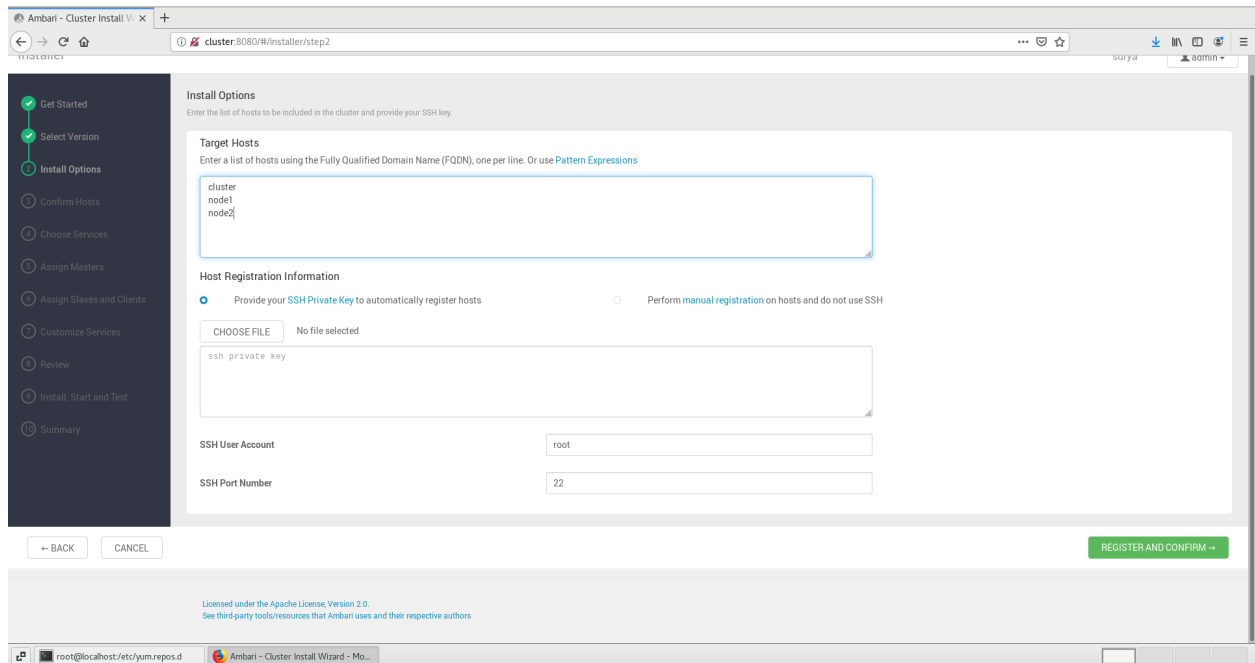
```
[server]
hostname=cluster
url_port=8440
secured_url_port=8441
connect_retry_delay=10
max_reconnect_retry_delay=30
```

```
[agent]
logdir=/var/log/ambari-agent
piddir=/var/run/ambari-agent
prefix=/var/lib/ambari-agent/data
;loglevel=(DEBUG/INFO)
loglevel=INFO
```

data_cleanup_interval=86400
data_cleanup_max_age=2592000
data_cleanup_max_size_MB = 100
ping_port=8670
cache_dir=/var/lib/ambari-agent/cache
tolerate_download_failures=true
run_as_user=root
parallel_execution=0
; 0 - don't report commands output periodically. Reduces bandwidth on big cluster
command_update_output=1
alert_reports_interval=5
command_reports_interval=5
status_commands_run_interval=20
alert_grace_period=5







Get Started

Select Version

Install Options

Confirm Hosts

Choose Services

Assign Masters

Assign Slaves and Clients

Customize Services

Review

Install, Start and Test

Summary

cluster:8080/#/installer/step4

Choose File System

Choose which file system you want to install on your cluster.

Service	Version	Description
<input checked="" type="checkbox"/> HDFS	3.1.1.3.1	Apache Hadoop Distributed File System

Choose Services

Choose which services you want to install on your cluster.

Service	Version	Description
<input checked="" type="checkbox"/> YARN + MapReduce2	3.1.0	Apache Hadoop NextGen MapReduce (YARN)
<input checked="" type="checkbox"/> Tez	0.9.0.3.1	Tez is the next generation Hadoop Query Processing framework written on top of YARN.
<input checked="" type="checkbox"/> Hive	3.0.0.3.1	Data warehouse system for ad-hoc queries & analysis of large datasets and table & storage management service
<input type="checkbox"/> HBase	2.0.0.3.1	Non-relational distributed database and centralized service for configuration management & synchronization
<input checked="" type="checkbox"/> Pig	0.16.1.3.1	Scripting platform for analyzing large datasets
<input type="checkbox"/> Sqoop	1.4.7	Tool for transferring bulk data between Apache Hadoop and structured data stores such as relational databases
<input type="checkbox"/> Oozie	4.4.0	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.
<input checked="" type="checkbox"/> ZooKeeper	3.4.9.3.1	Centralized service which provides highly reliable distributed coordination
<input type="checkbox"/> Storm	1.2.1	Apache Hadoop Stream processing framework
<input type="checkbox"/> Accumulo	1.7.0	Robust, scalable, high performance distributed key/value store.
<input type="checkbox"/> Infra Solr	0.1.0	Core shared service used by Ambari managed components.
<input checked="" type="checkbox"/> Ambari Metrics	0.1.0	A system for metrics collection that provides storage and retrieval capability for metrics collected from the cluster
<input type="checkbox"/> Atlas	0.7.0.3.1	Atlas Metadata and Governance platform
<input type="checkbox"/> Kafka	1.0.0.3.1	A high-throughput distributed messaging system

root@localhost:/etc/yum.repos.d

Ambari - Cluster Install Wizard - Mo...

Get Started

Select Version

Install Options

Confirm Hosts

Choose Services

Assign Masters

Assign Slaves and Clients

Customize Services

Review

Install, Start and Test

Summary

cluster:8080/#/installer/step5

Assign Masters

Assign master components to hosts you want to run them on.

SNameNode: node1 (5.7 GB, 4 cores)

NameNode: cluster (10.9 GB, 4 cores)

Timeline Service V1.5: node1 (5.7 GB, 4 cores)

ResourceManager: cluster (10.9 GB, 4 cores)

Timeline Service V2.0 Reader: cluster (10.9 GB, 4 cores)

YARN Registry DNS: cluster (10.9 GB, 4 cores)

History Server: node1 (5.7 GB, 4 cores)

Hive Metastore: node1 (5.7 GB, 4 cores)

HiveServer2: node1 (5.7 GB, 4 cores)

ZooKeeper Server: node2 (6.1 GB, 4 cores)

ZooKeeper Server: node1 (5.7 GB, 4 cores)

ZooKeeper Server: cluster (10.9 GB, 4 cores)

Metrics Collector: node2 (6.1 GB, 4 cores)

cluster (10.9 GB, 4 cores)

SNameNode

ResourceManager

Timeline Service V2.0 Reader

YARN Registry DNS

ZooKeeper Server

Grafana

Activity Analyzer

Activity Explorer

HST Server

node1 (5.7 GB, 4 cores)

SNameNode

Timeline Service V1.5

History Server

Hive Metastore

HiveServer2

ZooKeeper Server

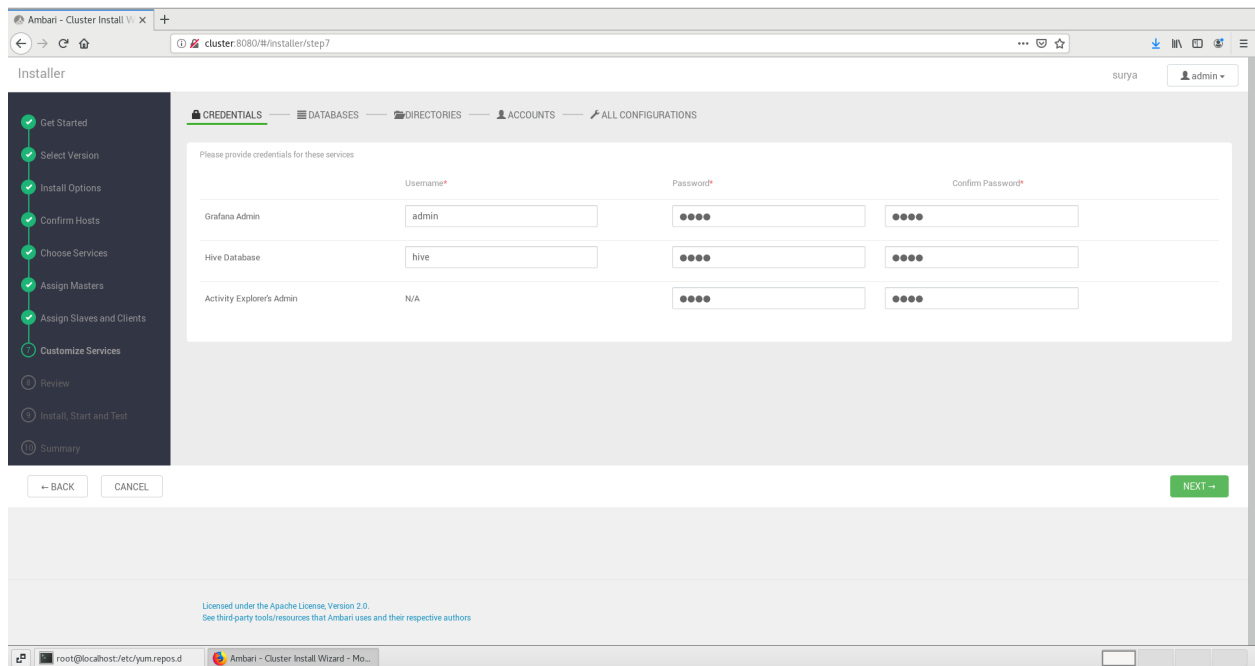
node2 (6.1 GB, 4 cores)

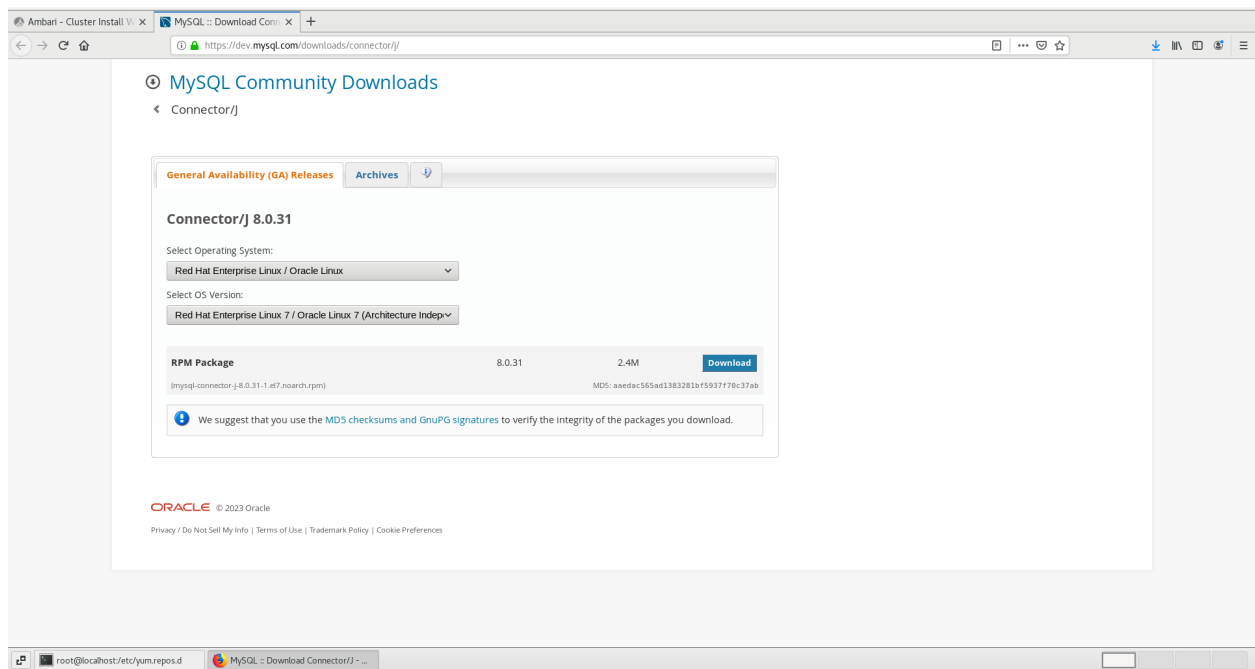
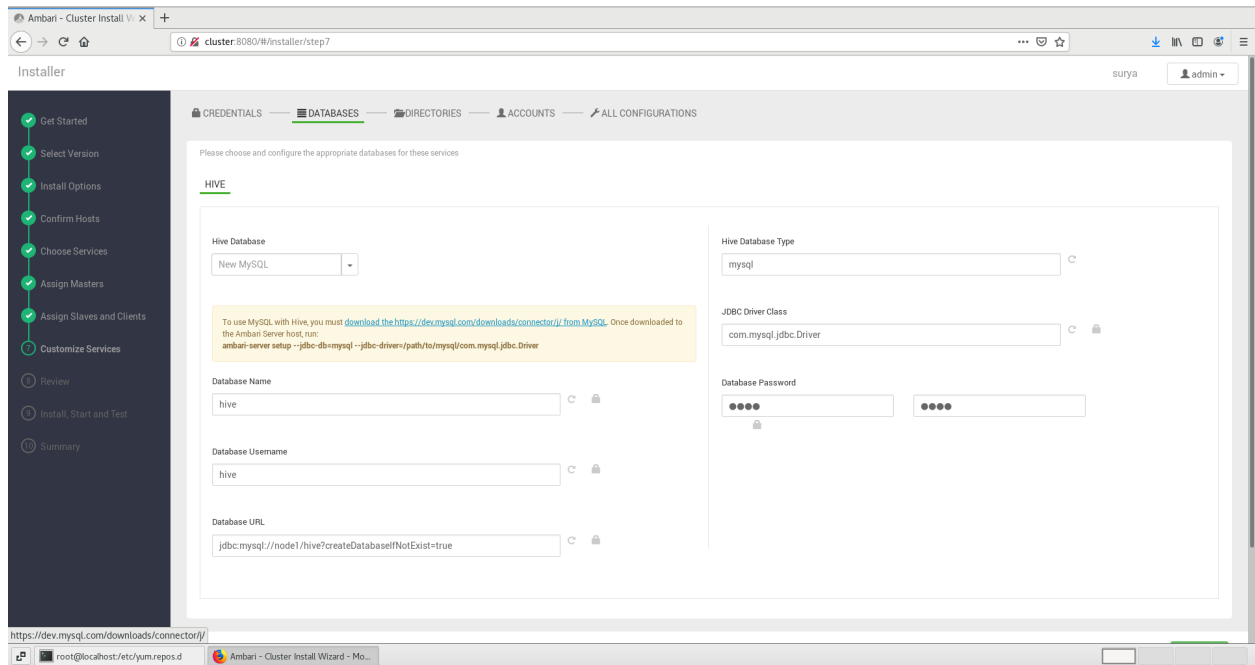
ZooKeeper Server

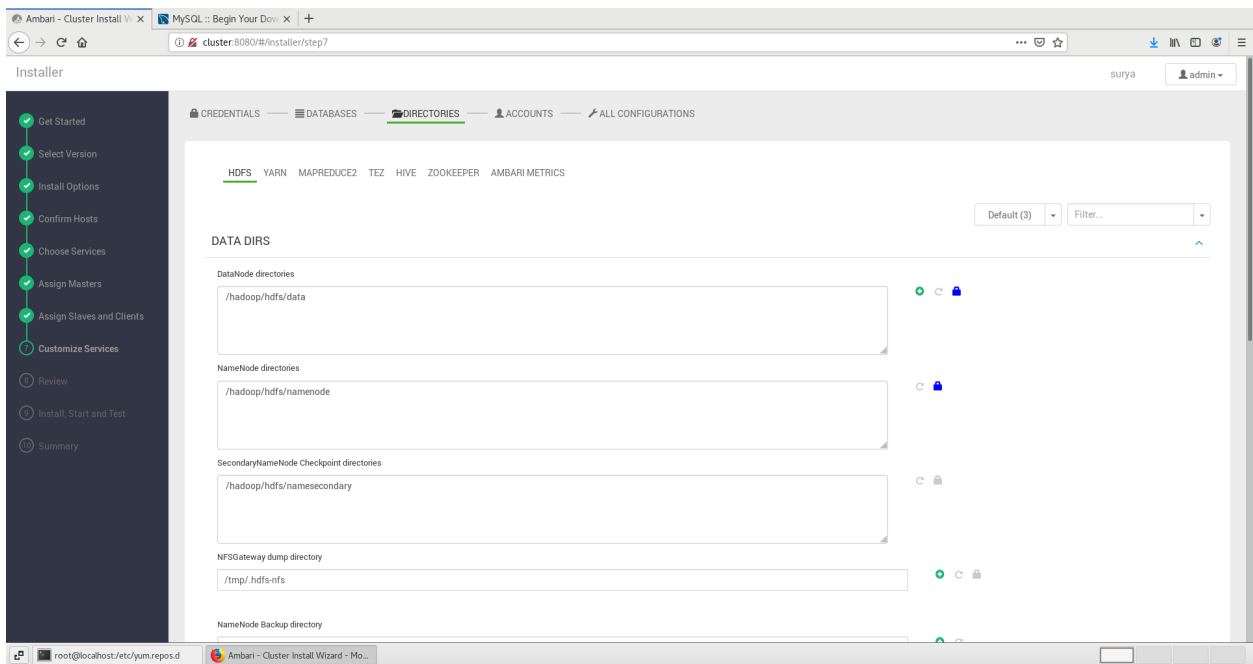
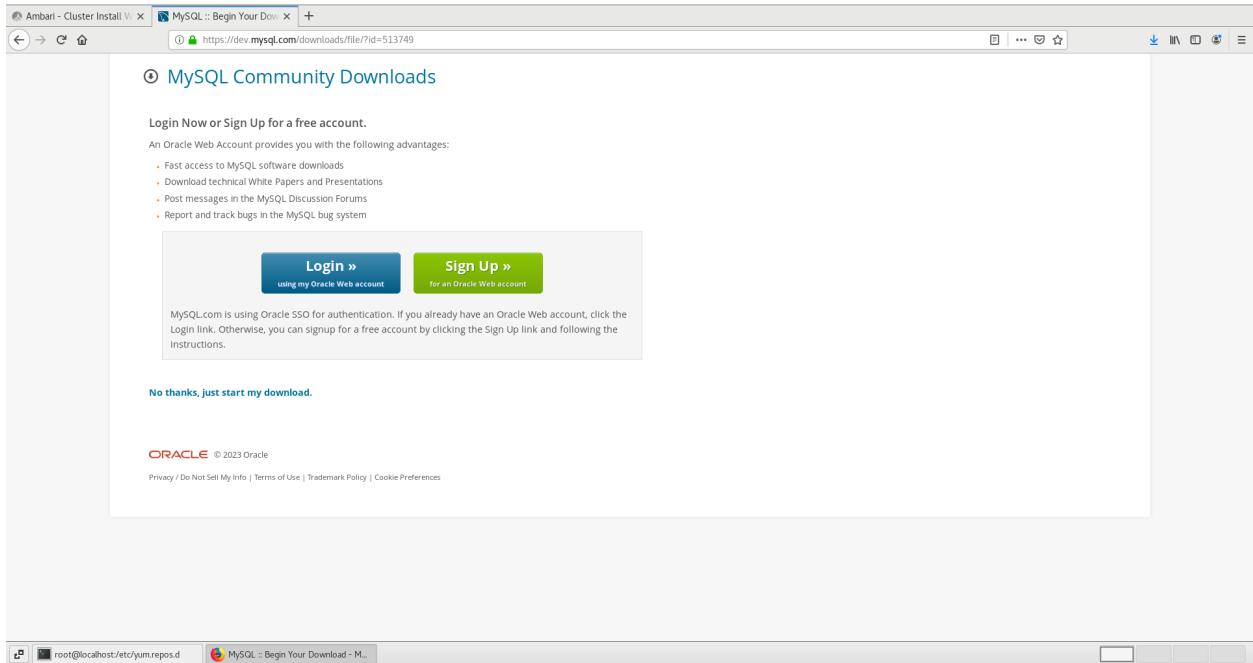
Metrics Collector

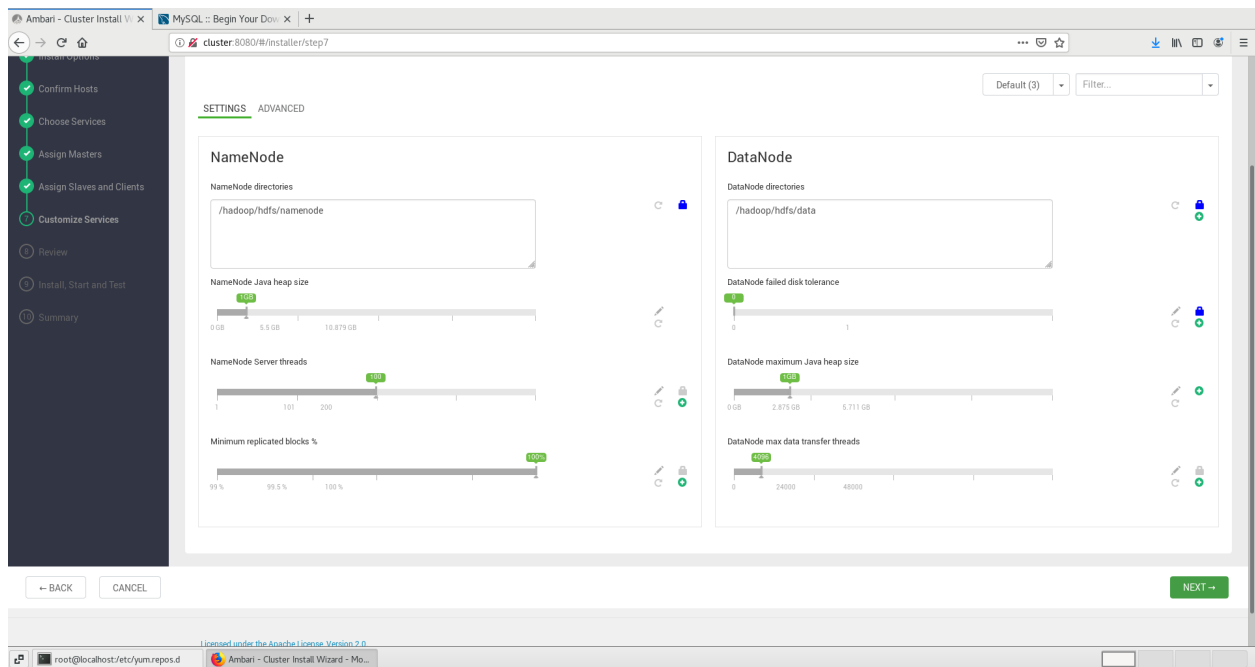
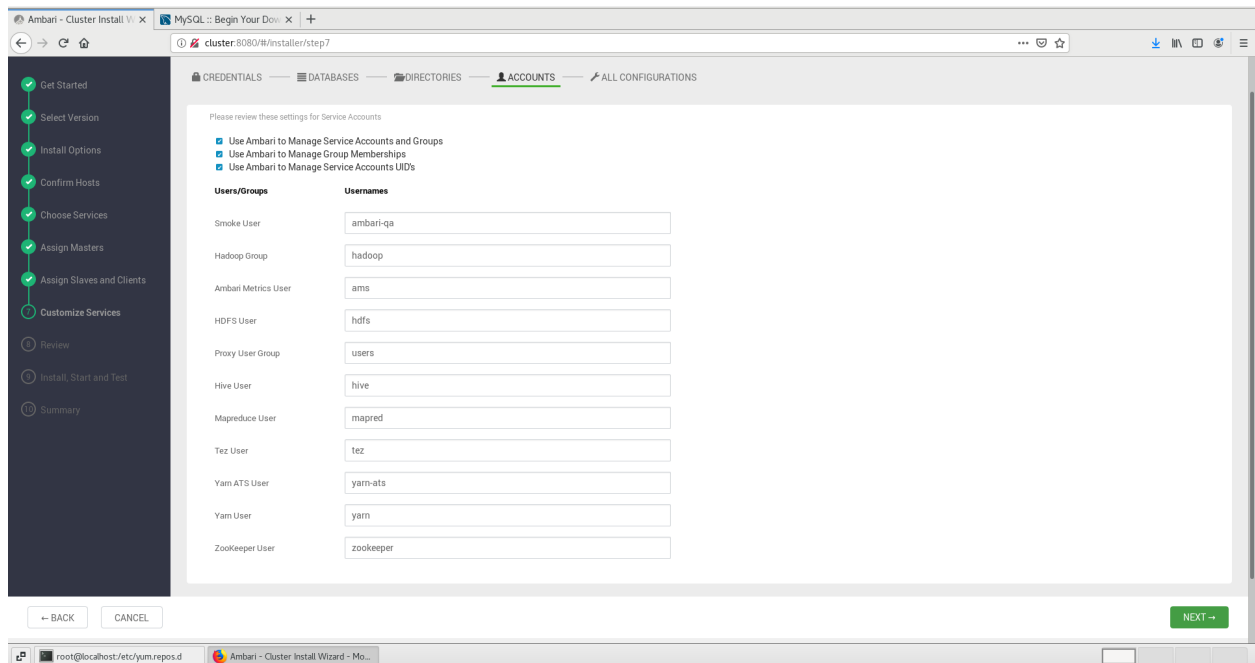
root@localhost:/etc/yum.repos.d

Ambari - Cluster Install Wizard - Mo...









cluster:8080/#/installer/step8

Installer

Review

Get Started

Select Version

Install Options

Confirm Hosts

Choose Services

Assign Masters

Assign Slaves and Clients

Customize Services

Review

Install, Start and Test

Summary

Admin Name : admin

Cluster Name : surya

Total Hosts : 3 (3 new)

Repositories:

redhat7 (HDP-3.1):

redhat7 (HDP-UTILS-1.1.0.22):

Services:

HDFS

DataNode : 3 hosts

NameNode : cluster

NFSGateway : 0 host

SNameNode : node1

YARN + MapReduce2

Timeline Service V1.5 : node1

NodeManager : 3 hosts

ResourceManager : cluster

Timeline Service V2.0 Reader : cluster

← BACK

CANCEL

GENERATE BLUEPRINT

PRINT

DEPLOY →

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root@localhost:~/etc/yum/repos.d

Ambari - Cluster Install Wizard - Mo...

Installer

23 % overall

Install, Start and Test

Get Started

Select Version

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.

Show: All (3) | In Progress (3) | Warning (0) | Success (0) | Fail (0)

Host	Status	Message
cluster	4%	Installing Activity Analyzer
node1	33%	Install complete (Waiting to start)
node2	33%	Install complete (Waiting to start)

Items per page: 25 | 1 - 3 of 3

NEXT →

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Show all

Ambari Dashboard

Ambari - hadoopcluster - Mozilla Firefox

Ambari - hadoopcluster

192.168.238.133:8080/W/main/dashboard/metrics

Dashboard / Metrics

hadoopcluster

METRICS HEATMAPS CONFIG HISTORY

METRIC ACTIONS LAST 1 HOUR

NameNode Heap n/a	HDFS Disk Usage n/a	NameNode CPU WIO n/a	DataNodes Live n/a
NameNode RPC n/a	Memory Usage No Data Available	Network Usage No Data Available	CPU Usage No Data Available
Cluster Load No Data Available	NameNode Uptime n/a	ResourceManager Heap n/a	NodeManagers Live n/a
YARN Containers			

Ambari - hadoopcluster - Mozilla Fir...

To direct input to this VM, click inside or press Ctrl+G.