# Hortonworks Data Platform

Upgrade Guide

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#### Hortonworks Data Platform: Upgrade Guide

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# **Table of Contents**

1. Upgrading HDP Manually 1	1
1.1. Supported upgrade paths 2	2
1.2. Before You Begin 2	2
1.3. Back Up Critical HDFS Metadata 2	2
1.4. Back Up Your Configuration Files	3
1.5. Stop Running HDP Services	1
1.6. Uninstall HDP on All Nodes	1
1.7. Updating the HDP Cluster Properties File	1
1.7.1. Sample Cluster Properties File	1
1.8. Installing HDP 2.4.2 and Maintaining Your Prior Data	5
1.9. Updating Hive Metastore Database Table Structures	7
1.10. Upgrade HDFS Metadata	7
1.11. Upgrade HBase	7
1.12. Upgrade Oozie 8	3
1.13. Upgrade Tez 8	3
1.14. Adding Node Label Support for YARN Applications	)
1.15. Configure Ranger Security 10	)
1.16. Using Apache Slider 11	1
1.17. Starting HDP Services 11	1
1.18. Setting up HDP 11	1
1.19. Validating Your Data 12	2
1.20. Verify that HDP Services are Working	3
1.21. Finalizing Your Upgrade 13	3
1.22. Troubleshooting 13	3

# List of Tables

1.1. Property value information	. 9
1.2. Node label configuration	10

# **1. Upgrading HDP Manually**

This chapter describes how to upgrade a Hortonworks Data Platform for Windows cluster from HDP 2.3 to HDP 2.4.2. This is an "in-place" upgrade, where your data and metadata do not need to be moved during the upgrade process. However, services must be stopped and reinstalled.

This is a new paragraph.

# The upgrade instructions in this section apply only to HDP clusters that are not configured for high availability.

All of the instructions in this section are executed at the MS-DOS command prompt.

- Before You Begin
- Back Up Critical HDFS Metadata
- Back Up Your Configuration Files
- Stop Running HDP Services
- Uninstall HDP on All Nodes
- Updating the HDP Cluster Properties File
- Installing HDP 2.3.4 and Maintaining Your Prior Data
- Updating Hive Metastore Database Table Structures
- Upgrade HDFS Metadata
- Upgrade HBase
- Upgrade Oozie
- Upgrade Tez
- Adding Node Label Support for YARN Applications
- Configure Ranger Security
- Using Apache Slider
- Starting HDP Services
- Setting up HDP
- Validating Your Data
- Verify that HDP Services are Working
- Finalizing Your Upgrade
- Troubleshooting

## **1.1. Supported upgrade paths**

- 2.3.x to 2.4.x
- 2.2.x to 2.4.x
- 2.1.x to 2.4.x

## **1.2. Before You Begin**

To prepare for upgrade, gather the following information:

- Cluster Properties: Save a copy of your existing cluster properties file (for example, c:\hdp\cluster.properties) as a starting point for configuring new HDP components.
- Files required for uninstalling HDP: Confirm that the uninstallation packages are available on each node in the cluster. The uninstallation package is in c: \HadoopInstallFiles. Without this package, the Uninstaller cannot remove HDP from the node.
- HDP data directory: Identify where user data and metadata are being stored by HDFS and MapReduce. These directories are retained during the upgrade process. The data directory is defined in the cluster properties file; for example:

```
#Data directory HDP_DATA_DIR=c:\hdp_data
```

- New HDP components: Identify the hosts for new service components (such as Falcon, Storm, Knox, and Ranger), and ensure that the hosts meet all the prerequisites for the new components.
- Hadoop user password: You must run some of the upgrade and configuration steps with the hadoop user, so you must know the password. If you do not know the password for the hadoop user, then reset the password to a known password and continue. To change the password, enter:

```
net user hadoop NewPassword
```

# **1.3. Back Up Critical HDFS Metadata**

Back up the following critical data before attempting an upgrade.

1. On the node that hosts the NameNode, open the Hadoop Command Line shortcut (or open a command window in the Hadoop directory). As the hadoop user, go to the HDFS home directory:

```
runas /user:hadoop "cmd /K cd %HDFS_DATA_DIR%"
```

2. Run the fsck command to fix any file system errors.

```
hdfs fsck / -files -blocks -locations > dfs-old-fsck-1.log
```

The console output is printed to the dfs-old-fsck-1.log file.

3. Capture the complete namespace directory tree of the file system:

```
hdfs dfs -ls -R / > dfs-old-lsr-1.log
```

4. Create a list of DataNodes in the cluster:

hdfs dfsadmin -report > dfs-old-report-1.log

5. Capture output from the fsck command:

hdfs fsck / -blocks -locations -files > fsck-old-report-1.log

Verify that there are no missing or corrupted files/replicas in the fsck command output.

- 6. Save the HDFS namespace:
  - a. Place the NameNode in safe mode, to keep HDFS from accepting any new writes:

hdfs dfsadmin -safemode enter

b. Save the namespace.

```
hdfs dfsadmin -saveNamespace
```



#### Warning

From this point on, HDFS should not accept any new writes. Stay in safe mode!

c. Finalize the namespace:

hdfs namenode -finalize

d. On the machine that hosts the NameNode, copy the following checkpoint directories into a backup directory:

```
%HDFS_DATA_DIR%\hdfs\nn\edits\current
%HDFS_DATA_DIR%\hdfs\nn\edits\image
%%HDFS_DATA_DIR%\hdfs\nn\edits\previous.checkpoint
```

# **1.4. Back Up Your Configuration Files**

Copy customized configuration files from the home directories of each of the components to a backup directory. Configuration files are in the Component Home directory, including:

- %HADOOP\_CONF\_DIR%
- %HBASE\_CONF\_DIR%
- %HCAT\_HOME%\etc
- %HIVE\_CONF\_DIR%
- %OOZIE\_HOME%\conf
- %ZOOKEEPER\_HOME%\conf

• %TEZ\_HOME%\conf

# **1.5. Stop Running HDP Services**

Stop all running services. From any node in the cluster, enter the following commands to stop the remote services and then stop the local services:

```
%HADOOP_NODE_INSTALL_ROOT%\stop_remote_hdp_services.cmd
%HADOOP_NODE_INSTALL_ROOT%\stop_local_hdp_services.cmd
```

## **1.6. Uninstall HDP on All Nodes**

At each cluster node, uninstall HDP for Windows using either of the following methods:

• From the Command line: If you have the HDP 2.3.0 MSI installer (hdp-2.3.0.0.winpkg.msi), you can uninstall HDP from the command prompt. At each node in the cluster, open the command prompt as an administrator and enter:

msiexec /lv hdp\_uninstall.log /qb /x c:\MSI\_INSTALLER\hdp-2.3.0.0-GA.winpkg.
msi HDP\_DIR=c:\hdp DESTROY\_DATA=no

• From the Control Panel: Open Programs and Features, right-click on Horton Works Data Platform for Windows and select Uninstall.

The uninstall option keeps existing data in place, maintaining the data directories for HDFS and MapReduce.

# **1.7. Updating the HDP Cluster Properties File**

To keep the same metadata and user data when upgrading, use the directory settings and database settings in the cluster properties file of your current version to form the basis of your new cluster properties file.

You should also ensure that your cluster properties file for HDP 2.3 is updated with all the relevent parameters. A sample cluster properties file is provided below, and for complete information on manually creating a cluster properties file see Defining Cluster Properties in *Installing HDP on Windows*.

#### **1.7.1. Sample Cluster Properties File**

The following snapshot illustrates a sample cluster properties file:

```
A Typical Hadoop Cluster.
#Log directory
HDP_LOG_DIR=d:\hadoop\logs
#Data directory
HDP_DATA_DIR=d:\hadoop\data
HDFS_NAMENODE_DATA_DIR=d:\hadoop\data\hdfs\nn,c:\hdpdata,d:\hdpdatann
HDFS_DATANODE_DATA_DIR=d:\hadoop\data\hdfs\dn,c:\hdpdata,d:\hdpdatadn
#Hosts
```

NAMENODE\_HOST=onprem-ranger1 SECONDARY\_NAMENODE\_HOST=onprem-ranger1 HIVE\_SERVER\_HOST=onprem-ranger1 OOZIE\_SERVER\_HOST=onprem-ranger1 WEBHCAT\_HOST=onprem-ranger1 FLUME\_HOSTS=onprem-ranger1 HBASE\_MASTER=onprem-ranger1 HBASE\_REGIONSERVERS=onprem-ranger2 SLAVE\_HOSTS=onprem-ranger2 ZOOKEEPER\_HOSTS=onprem-ranger1 KNOX\_HOST=onprem-ranger2 STORM\_SUPERVISORS=onprem-ranger2 STORM\_NIMBUS=onprem-ranger1 IS\_SLIDER= #Database host DB\_FLAVOR=mssql DB\_PORT=9433 DB\_HOSTNAME=singlehcatms7.cloudapp.net #Hive properties HIVE\_DB\_NAME=onpremranger1hive HIVE\_DB\_USERNAME=hive HIVE\_DB\_PASSWORD=hive HIVE\_DR=YES #Oozie properties OOZIE\_DB\_NAME=onpremrangerloozie OOZIE\_DB\_USERNAME=oozie OOZIE\_DB\_PASSWORD=oozie #ASV/HDFS properties DEFAULT FS=HDFS RESOURCEMANAGER\_HOST=onprem-ranger1 IS\_TEZ=yes ENABLE\_LZO=yes RANGER\_HOST=onprem-ranger1 RANGER\_ADMIN\_DB\_HOST=localhost RANGER ADMIN DB PORT=3306 RANGER\_ADMIN\_DB\_ROOT\_PASSWORD=hcattest RANGER\_ADMIN\_DB\_DBNAME = xasecure RANGER\_ADMIN\_DB\_USERNAME = xaadmin RANGER ADMIN\_DB\_PASSWORD=admin RANGER\_AUDIT\_DB\_HOST=localhost RANGER\_AUDIT\_DB\_PORT=3306 RANGER\_AUDIT\_DB\_ROOT\_PASSWORD=hcattest RANGER\_EXTERNAL\_URL=http://localhost:6080 RANGER\_AUDIT\_DB\_DBNAME = xasecure RANGER\_AUDIT\_DB\_USERNAME = xalogger RANGER\_AUDIT\_DB\_PASSWORD=xalogger RANGER\_AUTHENTICATION\_METHOD=LDAP RANGER\_LDAP\_URL=ldap://71.127.43.33:389 RANGER LDAP USERDNPATTERN=uid={0},ou=users,dc=xasecure,dc=net RANGER\_LDAP\_GROUPSEARCHBASE=ou=groups,dc=xasecure,dc=net RANGER\_LDAP\_GROUPSEARCHFILTER=(member=uid={0},ou=users,dc=xasecure,dc=net) RANGER\_LDAP\_GROUPROLEATTRIBUTE=cn RANGER\_POLICY\_ADMIN\_URL=http://localhost:6080 RANGER\_HDFS\_REPO=hadoopdev RANGER\_HIVE\_REPO=hivedev RANGER\_HBASE\_REPO=hbasedev RANGER\_KNOX\_REPO=knoxdev RANGER\_STORM\_REPO=stormdev

RANGER\_SYNC\_INTERVAL=360 RANGER\_SYNC\_LDAP\_URL=ldap://10.0.0.4:389 RANGER\_SYNC\_LDAP\_BIND\_DN=cn=Administrator, cn=users, dc=hwqe, dc=net RANGER SYNC LDAP BIND\_PASSWORD=Horton!#%works RANGER\_SYNC\_LDAP\_USER\_SEARCH\_SCOPE=sub RANGER\_SYNC\_LDAP\_USER\_OBJECT\_CLASS=person RANGER\_SYNC\_LDAP\_USER\_NAME\_ATTRIBUTE=cn RANGER\_SYNC\_LDAP\_USER\_GROUP\_NAME\_ATTRIBUTE=memberof,ismemberof RANGER\_SYNC\_LDAP\_USERNAME\_CASE\_CONVERSION=lower RANGER\_SYNC\_LDAP\_GROUPNAME\_CASE\_CONVERSION=lower AUTHSERVICEHOSTNAME=localhost AUTHSERVICEPORT=5151 RANGER\_SYNC\_LDAP\_USER\_SEARCH\_BASE=cn=users,dc=hwqe,dc=net POLICYMGR\_HTTP\_ENABLED=true REMOTELOGINENABLED=true SYNCSOURCE=LDAP

# **1.8. Installing HDP 2.4.2 and Maintaining Your Prior Data**

To install HDP on all your nodes while maintaining your prior data:

- 1. Download the HDP for Windows MSI installer.
- 2. Copy the installer and the new cluster properties file to all nodes of the cluster.
- 3. Run the following command on each node in the cluster:

```
msiexec /qb /i "c:\MSI_INSTALL\hdp-2.4.2.0.winpkg.msi"
/lv "hdp.log"
HDP_LAYOUT="c:\MSI_INSTALL\clusterproperties.txt"
HDP_DIR="c:\hdp"
HDP_USER_PASSWORD=password
DESTROY_DATA="no"
HDP="yes"
RANGER="YesorNo"
KNOX_MASTER_SECRET=password
```



#### Note

Be aware that new command line properties have been added to support optional HDP components. For more information, see Update the HDP Cluster Properties File and About the MSI Installer and HDP Public Properties.

4. Verify that you have installed HDP on all nodes of your cluster. Do NOT start any services yet.

# **1.9. Updating Hive Metastore Database Table Structures**

Hive stores metadata in a SQL Server database. After you upgrade HDP and its components, you need to update the Hive metastore database table structures to ensure they are compatible with the latest version of Hive.

To upgrade the Hive metastore, use the schematool with the following command:

```
PS C:\Windows\system32> hive.cmd --service schematool -dbType mssql -
upgradeSche
ma
```

## 1.10. Upgrade HDFS Metadata

To upgrade the HDFS Metadata, run the following steps on your NameNode:

1. Run the NameNode upgrade as the hadoop user. Note: in High Availability cluster, JournalNodes must be started before running hdfs namenode -upgrade.

runas /user:hadoop "cmd /K hdfs namenode -upgrade"

2. At each DateNode, start the datanode service:

sc start datanode

 Leave the command prompt open until the process completes. To see the status of the upgrade, open a browser window and connect to the NameNode on port 50070 (http://namenode-host:50070).

The amount of time it takes to upgrade HDFS depends upon the amount of data and number of nodes in your environment.

- 4. In the NameNode Administrative Interface, verify that the number of DataNodes matches the number of DataNodes in your environment.
- 5. Abort the command prompt using control-c to end the NameNode upgrade process.
- 6. Start the NameNode service:

sc start namenode

7. Open a browser, connect to the NameNode on port 50070 (http://namenodehost:50070), and verify that SafeMode is off.

## 1.11. Upgrade HBase

To upgrade HBase, run the following commands as the hadoop user at both the HBase Master and the RegionServers hosts:

1. Start the ZooKeeper service:

sc start zkServer

2. Upgrade HBase by running the following command:

```
%HBASE_HOME%\bin\hbase.cmd upgrade -execute
```

If the command completes successfully, you should see a completed Znode upgrade with no errors.

## 1.12. Upgrade Oozie

To upgrade Oozie, run the following commands as the hadoop user:

1. Run ooziedb.cmd:

runas /user:hadoop "%OOZIE\_HOME%\bin\ooziedb.cmd upgrade -run"

- 2. Replace your configuration: At each server and client, copy <code>oozie\conf</code> from the backup to the <code>oozie\conf</code> directory.
- 3. Replace the contents of /user/hdfs/share in HDFS. At the Oozie server host:
  - a. Back up the /user/hdfs/share folder in HDFS, and then delete it. If you have any custom files in this folder, back them up separately. Add them back after the share folder is updated.

```
mkdir c:\tmp\oozie_tmp
runas /user:hadoop "cmd /c hdfs dfs -copyToLocal /user/hdfs/share c:\tmp\
oozie_tmp\oozie_share_backup"
runas /user:hadoop "cmd /c hdfs dfs -rm -r /user/hdfs/share"
```

b. Add the latest share libraries.

```
runas /user:hadoop "cmd /c hdfs dfs -copyFromLocal
%OOZIE_HOME%\share / user/hdfs/.
```

c. Start the Oozie service:

sc start oozie

## 1.13. Upgrade Tez

If your cluster properties file specifies IS\_TEZ=yes (use Tez for Hive), perform the following steps using the Hadoop user hadoop:

1. Open the command prompt with the hadoop account:

runas /user:hadoop cmd

2. Make a Tez application directory in HDFS:

%HADOOP\_HOME%\bin\hdfs dfs -mkdir /apps/tez

3. Allow all users read and write access:

%HADOOP\_HOME%\bin\hdfs dfs -chmod -R 755 /apps/tez

4. Change the owner of the file to hadoop:

%HADOOP\_HOME%\bin\hdfs dfs -chown -R hadoop:users /apps/tez

5. Copy the Tez home directory on the local machine, into the HDFS /apps/tez directory:

%HADOOP\_HOME%\bin\hdfs dfs -put %TEZ\_HOME%\\* /apps/tez

6. Remove the Tez configuration directory from the HDFS Tez application directory:

%HADOOP\_HOME%\bin\hdfs dfs -rm -r -skipTrash /apps/tez/conf

7. Ensure that the following properties are set in the <code>%HIVE\_HOME%\conf\hive-site.xml</code> file:

Property	Default Value	Description
hive.auto.convert.join. noconditionaltask	true	Specifies whether Hive optimizes converting common JOIN statements into MAPJOIN statements. JOIN statements are converted if this property is enabled and the sum of size for n-1 of the tables/ partitions for an n-way join is smaller than the size specified with the hive.auto.convert.join. noconditionaltask.size property.
hive.auto.convert.join. noconditionaltask.size	10000000 (10 MB)	Specifies the size used to calculate whether Hive converts a JOIN statement into a MAPJOIN statement. The configuration property is ignored unless hive.auto.convert.join. noconditionaltask is enabled.
hive.optimize. reducededuplication. min.reducer	4	Specifies the minimum reducer parallelism threshold to meet before merging two MapReduce jobs. However, combining a mapreduce job with parallelism 100 with a mapreduce job with parallelism 1 may negatively impact query performance even with the reduced number of jobs. The optimization is disabled if the number of reducers is less than the specified value.
hive.tez.container.size	-1	By default, Tez uses the java options from map tasks. Use this property to override that value. Assigned value must match value specified for mapreduce.map.child.java.opts.
hive.tez.java.opts	n/a	Set to the same value as mapreduce.map.java.opts.

#### **Table 1.1. Property value information**

Adjust the settings above to your environment where appropriate; hive-default.xml.template contains examples of the properties.

8. To verify that the installation process succeeded, run smoke tests for Tez and Hive.

# **1.14. Adding Node Label Support for YARN Applications**

Node labels can be used to restrict YARN applications so that they run only on cluster nodes that have a specified node label. Node Labels are supported on Windows. To enable node label support, make the following changes. See the Linux Node Labels documentation for more information. If you do not plan to use node labels, none of these changes are needed.

1. Open the command prompt using the hadoop account:

runas /user:hadoop cmd

2. Create a top-level YARN application directory in HDFS:

%HADOOP\_HOME%\bin\hdfs dfs -mkdir /system/yarn/node-labels

- 3. Make sure permissions are set for write access from the hadoop account (rwx for all the directories in the path).
- 4. Change the owner of the file to hadoop:

%HADOOP\_HOME%\bin\hdfs dfs -chown -R hadoop:users /apps/tez

5. Add the following property values to yarn-site.xml:

#### Table 1.2. Node label configuration

Property	Value
yarn.node-labels.manager-class	org.apache.hadoop.yarn.server.resourcemanager. nodelabels.RMNodeLabelsManager
yarn.node-labels.fs-store.root-dir	/system/yarn/node-labels
yarn.node-labels.fs-store.retry-policy-spec	2000,500

6. To verify that the installation process succeeded, run smoke tests for Tez and Hive as described in Validating the Installation.

# **1.15. Configure Ranger Security**

Apache Ranger delivers a comprehensive approach to security for a Hadoop cluster. It provides central security policy administration across the core enterprise security requirements of authorization, accounting, and data protection. For more information about requirements and settings, see Minimum System Requirements and Defining Cluster Properties.

The Ranger Policy Manager and Ranger UserSync are installed in only one host (specified in the HDP Setup Ranger Host parameter); the Ranger plug-ins for corresponding components are installed wherever those components are installed.

Make sure that the MySQL database used by Ranger is set up to connect from any host in the cluster. For multiple hosts, set up the Ranger MySQL database to connect from any host in the cluster using the root password. To do this, enter:

```
grant all privileges on *.* to 'root'@'%' identified by
RootPasswordHere' ;flush privileges;
```



Note

In HDP v2.2, MySQL is the only database supported for use with Ranger.

# **1.16. Using Apache Slider**

Apache Slider lets you deploy distributed applications across a Hadoop cluster. On the Windows platform, Slider application packages are included in the Windows Installer msi for HBase and Storm. (Accumulo is available on Linux, but is not currently supported on Windows). Until more information is available, please see the Linux document Running Applications on YARN Using Slider.

# **1.17. Starting HDP Services**

The following steps describe how to start local and remote services. For more information, see Managing HDP on Windows.

1. Start local services on the Master Nodes:

%HADOOP\_NODE%\start\_local\_hdp\_services.cmd

Wait for the Master Node services to start up before continuing.

2. At any Master Node, start all slave node services:

%HADOOP\_NODE%\start\_remote\_hdp\_services.cmd

3. At the Knox Gateway:

%HADOOP\_NODE%\start\_local\_hdp\_services.cmd

4. If the Apache Hadoop REST service is disabled, run the following command to enable it:

sc config name= rest start= demand

5. If REST HDP services are not already started, start them with the following command:

sc start rest

6. Smoke test your installation as described in Validating the Installation.

# **1.18. Setting up HDP**

After starting the local and remote services, run the following commands to set up HDP:

1. Open a command prompt using the hadoop user in the Hadoop home directory:

runas /user:hadoop "cmd /K cd %HDFS\_HOME%\bin"

2. Make, and then set, ownership and permissions for the following directories:

```
hdfs dfs -mkdir -p /mapred/history/done /mapred/history/
done intermediate
hdfs dfs -chmod -R 1777 /mapred/history/done_intermediate
hdfs dfs -chmod 770 /mapred/history/done
hdfs dfs -chown -R hadoop:hadoopUsers /mapred
hdfs dfs -chmod 755 /mapred/mapred/history
hdfs dfs -mkdir /tmp
hdfs dfs -chmod 777 /tmp
hdfs dfs -mkdir /app-logs
hdfs dfs -chown hadoop:hadoopUsers /app-logs
hdfs dfs -chmod 1777 /app-logs hdfs dfs -mkdir -p /yarn /yarn/generic-
history/
hdfs dfs -chmod -R 700 /yarn
hdfs dfs -chown -R hadoop:hadoop /yarn
hdfs dfs -mkdir -p /apps/hbase/data
hdfs dfs -chown hadoop:hadoop /apps/hbase/data
hdfs dfs -chown hadoop:hadoop /apps/hbase
hdfs dfs -mkdir -p /user/hbase
hdfs dfs -chown hadoop:hadoop /user/hbase
hdfs dfs -mkdir -p /user/hive /hive/warehouse
hdfs dfs -chown hadoop:hadoop /user/hive
hdfs dfs -chmod -R 755 /user/hive
hdfs dfs -chown -R hadoop:users /hive/warehouse
hdfs dfs -chmod -R 777 /hive/warehouse
hdfs dfs -mkdir -p /user/hcat
hdfs dfs -chown -R hadoop:hadoop /user/hcat
hdfs dfs -mkdir -p /apps/webhcat
hdfs dfs -chown -R hadoop:users/apps/webhcat
hdfs dfs -chmod -R 755 /apps/webhcat
```

3. When using Tez for Hive, you must also Upgrade Tez.

# **1.19. Validating Your Data**

Verify that your data is intact by comparing the HDFS data directory tree with your previous directory tree.

1. Run the following command as the hadoop user, from the Hadoop home directory:

```
runas /user:hadoop "cmd /K cd %HDFS_HOME%\bin"
```

2. Run an lsr report on your upgraded system. Enter the following at the Hadoop command line:

```
hdfs fs -ls R / > fs-new-lsr-1.log
```

- 3. Compare the directory listing to the older HDP directories. All old directories, files and timestamps should match. There will also be some new entries in the HDP directory listing:
  - /apps/hbase is used by HBase

- /mapred/system/jobtracker should have a new timestamp
- 4. Run an fsck report on your upgraded system. From the Hadoop command line:

```
hdfs fsck / -blocks -locations -files > fsck-new-report-1.log
```

5. To check the validity of your current HDFS data, compare this fsck report to the report generated before the upgrade.

# **1.20. Verify that HDP Services are Working**

To verify that the HDP services work as expected, run the provided smoke tests as the hadoop user. (Alternately, create a smoke test user in HDFS and run the test as that user. See this Guide's Appendix.)

You can also verify HDP 2.0 services by running the following Desktop Shortcuts as the hadoop user or smoketest user:

- Hadoop Name Node status
- HBase Master status
- Hadoop YARN status

# 1.21. Finalizing Your Upgrade

When you are satisfied that HDP is successfully functioning with the data from your HDP 2.2 cluster, finalize the upgrade.



#### Warning

Once you have finalized the upgrade, you cannot revert.

1. Open a command prompt with the hadoop user in the HDFS Home directory:

runas /user:hadoop "cmd /K cd %HDFS\_HOME%\bin"

2. Finalize the upgrade:

```
hdfs dfsadmin -finalizeUpgrade
```

# **1.22. Troubleshooting**

To validate the installation, run the smoke test suite as described in Validating the Installation.

If the HBase RegionServer and Master do not start, check to see if a parenthesis in the Path variable caused a problem during setup of the services. To fix this, run the following commands from an Administrator command prompt:

```
%HBASE_HOME%\bin\hbase.cmd --service master start >
%HBASE_HOME%\bin\master. xml
%HBASE_HOME%\bin\hbase.cmd --service regionserver start >
%HBASE_HOME%\bin\hbase.cmd --service rest >
%HBASE_HOME%\bin\rest.xml
%HBASE_HOME%\bin\hbase.cmd --service thrift >
%HBASE_HOME%\bin\hbase.cmd --service t
```

Restart the HBase services.

If Flume is not starting, it could be because flumeservice.xml is missing. To fix this, navigate to %FLUME\_HOME%\bin and locate the flumeagent.xml file. If the file does not exist, locate flumeservice.xml file and rename it to flumeagent.xml. After the file is renamed, go to Windows Services and restart the Flume agent service.

To help diagnose installation issues, see log file information in File Locations, Logging, and Common HDFS Commands.