Lab 6: Using HDFS Access Control Lists

Go to browser connect to ambary server

Click Services and HDFS

Click config and advanced tab

Ensure that HDFS default configuration group is selected

Scroll-down custom hdfs-site

Add Property

Key =value dfs.namenode.acls.enabled=true

Save also restart the services hdfs ,yarn ans mapreducer

[root@golden-node4 ~]# su hdfs

[hdfs@golden-node4 root]$ hdfs dfs -mkdir /acltests1

[hdfs@golden-node4 root]$ hdfs dfs -ls /

Found 12 items

drwxr-xr-x+ - hdfs hdfs 0 2023-01-17 03:14 /acltests

drwxr-xr-x - hdfs hdfs 0 2023-01-17 09:01 /acltests1

drwxrwxrwt - yarn hadoop 0 2023-01-15 21:26 /app-logs

drwxr-xr-x - hdfs hdfs 0 2023-01-15 21:11 /apps

[hdfs@golden-node4 root]$ hdfs dfs -put /etc/passwd /acltests1

[hdfs@golden-node4 root]$ hdfs dfs -ls /acltests1

Found 1 items

-rw-r--r-- 1 hdfs hdfs 2723 2023-01-17 09:03 /acltests1/passwd

[hdfs@golden-node4 root]$ hdfs dfs -chmod 640 /acltests1/passwd

[hdfs@golden-node4 root]$ hdfs dfs -ls /acltests1

Found 1 items

-rw-r----- 1 hdfs hdfs 2723 2023-01-17 09:03 /acltests1/passwd

[hdfs@golden-node4 root]$ exit

exit

[root@golden-node4 ~]# hdfs dfs -cat /acltests1/passwd

cat: Permission denied: user=root, access=READ, inode="/acltests1/passwd":hdfs:hdfs:-rw-r-----

[root@golden-node4 ~]# su hdfs

[hdfs@golden-node4 root]$ hdfs dfs -getfacl /acltests1/passwd

# file: /acltests1/passwd

# owner: hdfs

# group: hdfs

user::rw-

group::r--

other::---

[hdfs@golden-node4 root]$ hdfs dfs -setfacl -m user:root:r-- /acltests1/passwd

[hdfs@golden-node4 root]$ hdfs dfs -getfacl /acltests1/passwd

# file: /acltests1/passwd

# owner: hdfs

# group: hdfs

user::rw-

user:root:r--

group::r--

mask::r--

other::---

[hdfs@golden-node4 root]$ hdfs dfs -ls /acltests1

Found 1 items

-rw-r-----+ 1 hdfs hdfs 2723 2023-01-17 09:03 /acltests1/passwd

[hdfs@golden-node4 root]$ exit

exit

[root@golden-node4 ~]# hdfs dfs -cat /acltests1/passwd

root:x:0:0:root:/root:/bin/bash

bin:x:1:1:bin:/bin:/sbin/nologin

daemon:x:2:2:daemon:/sbin:/sbin/nologin

adm:x:3:4:adm:/var/adm:/sbin/nologin

lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin

sync:x:5:0:sync:/sbin:/bin/sync

shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown

halt:x:7:0:halt:/sbin:/sbin/halt

mail:x:8:12:mail:/var/spool/mail:/sbin/nologin

[hdfs@golden-node4 root]$ hdfs dfs -setfacl -m group:hcat:rw- /acltests1/passwd

hdf[hdfs@golden-node4 root]$ hdfs dfs -getfacl /acltests1/passwd

# file: /acltests1/passwd

# owner: hdfs

# group: hdfs

user::rw-

user:root:r--

group::r--

group:hcat:rw-

mask::rw-

other::---

[hdfs@golden-node4 root]$ hdfs dfs -setfacl -x group:hcat /acltests1/passwd

[hdfs@golden-node4 root]$ hdfs dfs -getfacl /acltests1/passwd

# file: /acltests1/passwd

# owner: hdfs

# group: hdfs

user::rw-

user:root:r--

group::r--

mask::r--

other::---

[hdfs@golden-node4 root]$ hdfs dfs -setfacl --set user::rw-,group::rw-,other::---,user:admin:rw-,group:hcat:rw- /acltests1/passwd

[hdfs@golden-node4 root]$ hdfs dfs -getfacl /acltests1/passwd

# file: /acltests1/passwd

# owner: hdfs

# group: hdfs

user::rw-

user:admin:rw-

group::rw-

group:hcat:rw-

mask::rw-

other::---

[hdfs@golden-node4 root]$ hdfs dfs -setfacl -b /acltests1/passwd

[hdfs@golden-node4 root]$ hdfs dfs -getfacl /acltests1/passwd

# file: /acltests1/passwd

# owner: hdfs

# group: hdfs

user::rw-

group::rw-

other::---