RM:8088/tcp web page
RM:803*/tcp 內部用
NN:9870/tcp webpage
NN:8020/tcp HDFS入口
NN:9868/tcp NN內部使用
DN:9864/tcp webpage
DN:9866/tcp DN內部使用
NM:8042/tcp webpage
NM:8040/tcp 內部用

```
COMMAND   PID   USER    FD     TYPE DEVICE SIZE/OFF NODE NAME
java     5978 hadoop   253u   IPv4  54344      0t0  TCP *:9870 (LISTEN)
java     5978 hadoop   259u   IPv4  63141      0t0  TCP 192.168.35.85:8020->192.168.35.85:34890 (ESTABLISHED)
java     5978 hadoop   265u   IPv4  54352      0t0  TCP 192.168.35.85:8020 (LISTEN)
java     5978 hadoop   275u   IPv4  54744      0t0  TCP 192.168.35.85:8020->192.168.35.199:41918 (ESTABLISHED)
java     5978 hadoop   276u   IPv4  54773      0t0  TCP 192.168.35.85:8020->192.168.35.142:36844 (ESTABLISHED)
java     5978 hadoop   277u   IPv4  54775      0t0  TCP 192.168.35.85:8020->192.168.35.93:36876 (ESTABLISHED)
java     5978 hadoop   278u   IPv4  54813      0t0  TCP 192.168.35.85:8020->192.168.35.146:37876 (ESTABLISHED)
java     5978 hadoop   279u   IPv4  54820      0t0  TCP 192.168.35.85:8020->192.168.35.94:37152 (ESTABLISHED)
java     5978 hadoop   280u   IPv4  55081      0t0  TCP 192.168.35.85:8020->192.168.35.89:39476 (ESTABLISHED)
java     5978 hadoop   281u   IPv4  55083      0t0  TCP 192.168.35.85:8020->192.168.35.90:47926 (ESTABLISHED)
java     6273 hadoop   259u   IPv4  54808      0t0  TCP *:9868 (LISTEN)
java     6273 hadoop   264u   IPv4  62110      0t0  TCP 192.168.35.85:34890->192.168.35.85:8020 (ESTABLISHED)
```


In operation

DataNode on bdse142.example.org:9866

Cluster ID:	CID-861c50f1-4afa-4ca5-a5b6-575bb8324aa0
Version:	3.2.0, re97acb3bd8f3befd27418996fa5d4b50bf2e17bf

Block Pools

Namenode Address	Block Pool ID	Actor State	Last Heartbeat	Last Block Report	Last Block Report Size (Max Size)
bdse85.example.org:8020	BP-674460191-192.168.35.85-1558945568184	RUNNING	1s	3 hours	0 B (64 MB)

Volume Information

Directory	Storage Type	Capacity Used	Capacity Left	Capacity Reserved	Reserved Space for Replicas	Blocks
/home/hadoop/data/dfs/data	DISK	172 KB	453.22 GB	0 B	0 B	1

```
hadoop@bdse146:~$ lsof -nPi
COMMAND   PID    USER   FD    TYPE DEVICE SIZE/OFF NODE NAME
java      4123 hadoop  257u  IPv4  47005      0t0  TCP *:9866 (LISTEN)
java      4123 hadoop  260u  IPv4  47008      0t0  TCP 127.0.0.1:33571 (LISTEN)
java      4123 hadoop  290u  IPv4  48232      0t0  TCP *:9864 (LISTEN)
java      4123 hadoop  291u  IPv4  47022      0t0  TCP *:9867 (LISTEN)
java      4123 hadoop  303u  IPv4  47025      0t0  TCP 192.168.35.146:37876->192.168.35.85:8020 (ESTABLISHED)
java      4469 hadoop  285u  IPv4  57512      0t0  TCP *:39941 (LISTEN)
java      4469 hadoop  296u  IPv4  57252      0t0  TCP *:8040 (LISTEN)
java      4469 hadoop  306u  IPv4  57256      0t0  TCP *:13562 (LISTEN)
java      4469 hadoop  307u  IPv4  57257      0t0  TCP *:8042 (LISTEN)
java      4469 hadoop  315u  IPv4  57260      0t0  TCP 192.168.35.146:38762->192.168.35.141:8031 (ESTABLISHED)
java      4911 hadoop  259u  IPv4 224082      0t0  TCP 192.168.35.146:19888->192.168.35.140:59351 (FIN_WAIT2)
java      4911 hadoop  263u  IPv4  66407      0t0  TCP *:10033 (LISTEN)
java      4911 hadoop  274u  IPv4  66413      0t0  TCP 192.168.35.146:19888 (LISTEN)
java      4911 hadoop  282u  IPv4  66416      0t0  TCP 192.168.35.146:10020 (LISTEN)
java      4911 hadoop  293u  IPv4 223797      0t0  TCP 192.168.35.146:19888->192.168.35.140:59350 (FIN_WAIT2)
```

Jobhistoryserver:19888/tcp webpage 記錄你下過那些指令

Jobhistoryserver:10020,10033/tcp 內部用

Sparkstandalone:8080/tcp web ui

Spark:7077//tcp 對內端口

Zookeeper:2181/tcp 接受外部requests

Zookeeper:2888/tcp zookeeper 彼此溝通

Zookeeper:3888/tcp 選舉用

NN failovercontroller :8019/tcp 內部用

JournalNode 8480/tcp webUI

JournalNode 8485/tcp 內部用RPC(remote produce call)

Rstudio:8787/tcp webUI