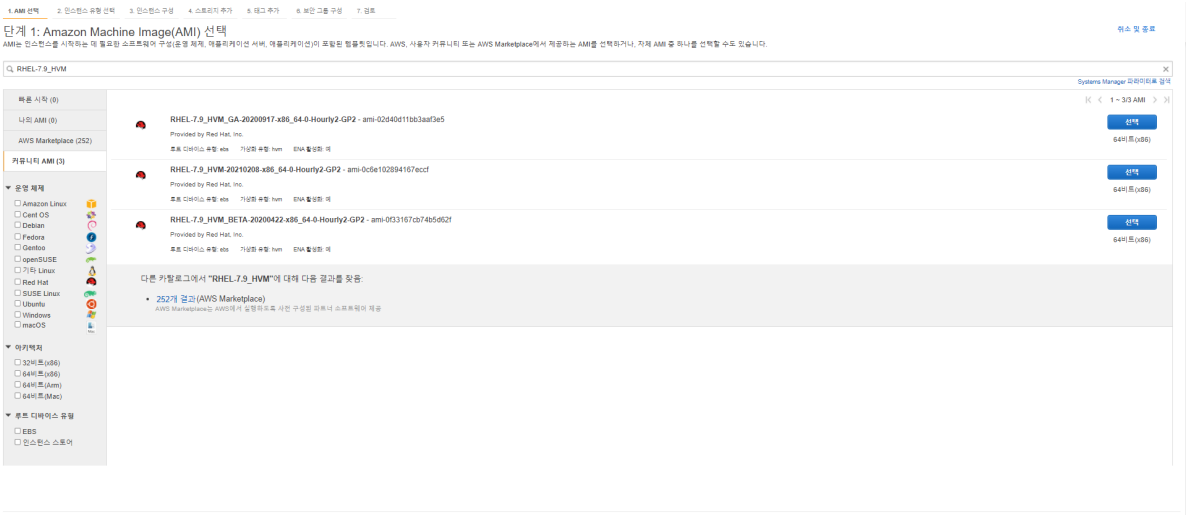
Installed_CDP (on ec2)

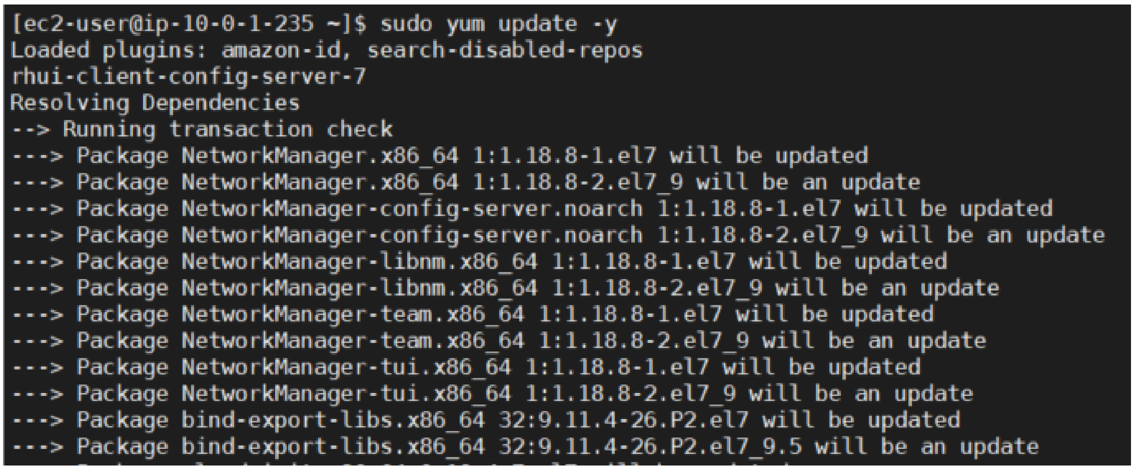
1. Instance Config

유 형	상세 내역
OS	`RHEL-7.9_HVM`
CDP_VERSION	`7.1.4`
INSTANCE	`t2.xlarge` 이상 권고 드립니다.
STORAGE	100 GB



2. Package install

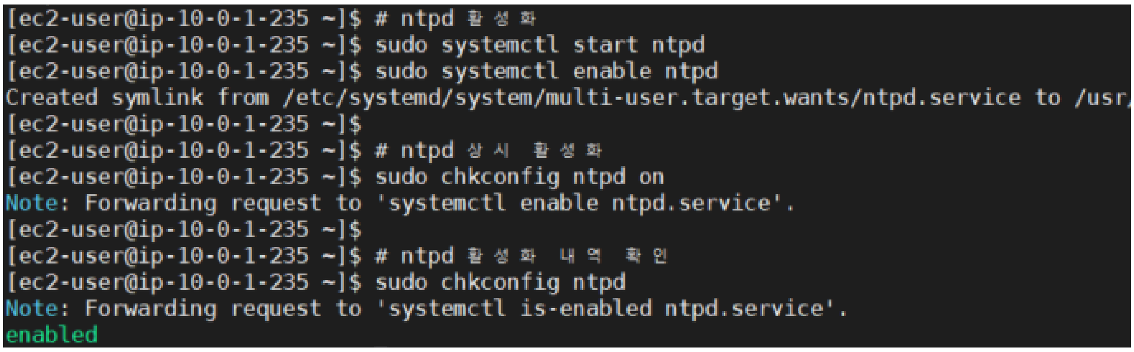
1. yum install



```
[ec2-user@ip-10-0-1-235 ~]$ sudo yum update -y
Loaded plugins: amazon-id, search-disabled-repos
rhui-client-config-server-7
Resolving Dependencies
--> Running transaction check
---> Package NetworkManager.x86_64 1:1.18.8-1.el7 will be updated
---> Package NetworkManager.x86_64 1:1.18.8-2.el7_9 will be an update
---> Package NetworkManager-config-server.noarch 1:1.18.8-1.el7 will be updated
---> Package NetworkManager-config-server.noarch 1:1.18.8-2.el7_9 will be an update
---> Package NetworkManager-libnm.x86_64 1:1.18.8-1.el7 will be updated
---> Package NetworkManager-libnm.x86_64 1:1.18.8-2.el7_9 will be an update
---> Package NetworkManager-team.x86_64 1:1.18.8-1.el7 will be updated
---> Package NetworkManager-team.x86_64 1:1.18.8-2.el7_9 will be an update
---> Package NetworkManager-tui.x86_64 1:1.18.8-1.el7 will be updated
---> Package NetworkManager-tui.x86_64 1:1.18.8-2.el7_9 will be an update
---> Package bind-export-libs.x86_64 32:9.11.4-26.P2.el7 will be updated
---> Package bind-export-libs.x86_64 32:9.11.4-26.P2.el7_9.5 will be an update
```

```
sudo yum update -y
sudo yum install wget ntp iptables-services vim -y
```

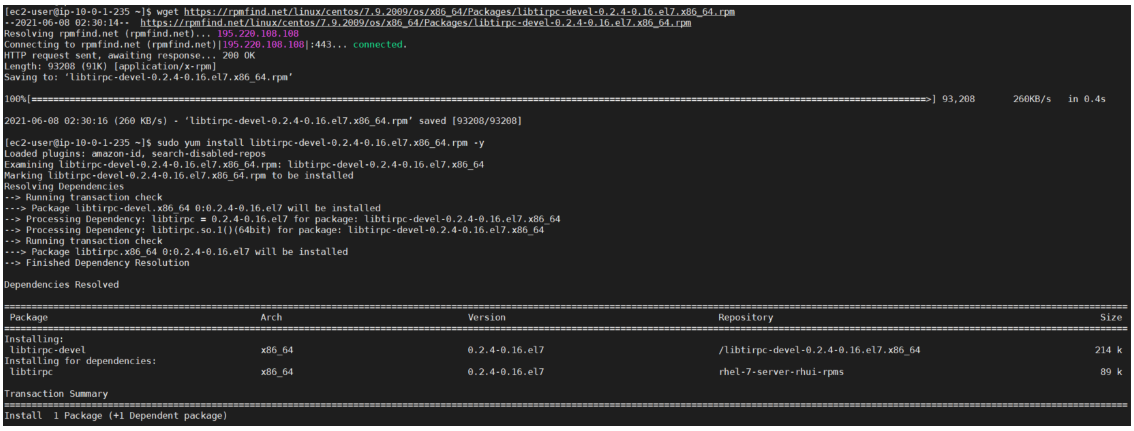
2. ntpd 활성화



```
[ec2-user@ip-10-0-1-235 ~]$ # ntpd 활성화
[ec2-user@ip-10-0-1-235 ~]$ sudo systemctl start ntpd
[ec2-user@ip-10-0-1-235 ~]$ sudo systemctl enable ntpd
Created symlink from /etc/systemd/system/multi-user.target.wants/ntpd.service to /usr/
[ec2-user@ip-10-0-1-235 ~]$
[ec2-user@ip-10-0-1-235 ~]$ # ntpd 상시 활성화
[ec2-user@ip-10-0-1-235 ~]$ sudo chkconfig ntpd on
Note: Forwarding request to 'systemctl enable ntpd.service'.
[ec2-user@ip-10-0-1-235 ~]$
[ec2-user@ip-10-0-1-235 ~]$ # ntpd 활성화 내역 확인
[ec2-user@ip-10-0-1-235 ~]$ sudo chkconfig ntpd
Note: Forwarding request to 'systemctl is-enabled ntpd.service'.
enabled
```

```
# ntpd 활성화
sudo systemctl start ntpd
sudo systemctl enable ntpd

# ntpd 상시 활성화
sudo chkconfig ntpd on

# ntpd 활성화 내역 확인
sudo chkconfig ntpd
```

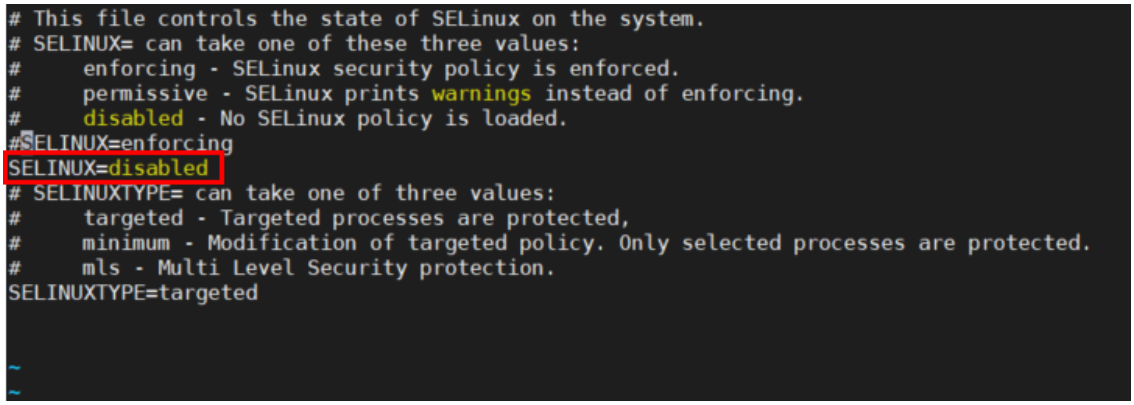
3. ntpd를 활용한 rpm download & install



```
[ec2-user@ip-10-0-1-235 ~]$ wget https://rpmfind.net/linux/centos/7.9.2009/os/x86_64/Packages/libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm
--2021-06-08 02:30:14--  https://rpmfind.net/linux/centos/7.9.2009/os/x86_64/Packages/libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm
Resolving rpmfind.net (rpmfind.net)... 195.220.108.108
Connecting to rpmfind.net (rpmfind.net)|195.220.108.108|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 93208 (91K) [application/x-rpm]
Saving to: 'libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm'

100%[==================================================================================>] 93,208      260KB/s   in 0.4s

2021-06-08 02:30:16 (260 KB/s) - 'libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm' saved [93208/93208]

[ec2-user@ip-10-0-1-235 ~]$ sudo yum install libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm -y
Loaded plugins: amazon-id, search-disabled-repos
Examining libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm: libtirpc-devel-0.2.4-0.16.el7.x86_64
Marking libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm to be installed
Resolving Dependencies
--> Running transaction check
---> Package libtirpc-devel.x86_64 0:0.2.4-0.16.el7 will be installed
--> Processing Dependency: libtirpc = 0.2.4-0.16.el7 for package: libtirpc-devel-0.2.4-0.16.el7.x86_64
--> Processing Dependency: libtirpc.so.1()(64bit) for package: libtirpc-devel-0.2.4-0.16.el7.x86_64
--> Running transaction check
---> Package libtirpc.x86_64 0:0.2.4-0.16.el7 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================================
 Package              Arch        Version            Repository                            Size
================================================================================================
Installing:
 libtirpc-devel       x86_64      0.2.4-0.16.el7     /libtirpc-devel-0.2.4-0.16.el7.x86_64  214 k
Installing for dependencies:
 libtirpc             x86_64      0.2.4-0.16.el7     rhel-7-server-rhui-rpms                 89 k

Transaction Summary
================================================================================================
Install  1 Package (+1 Dependent package)
```

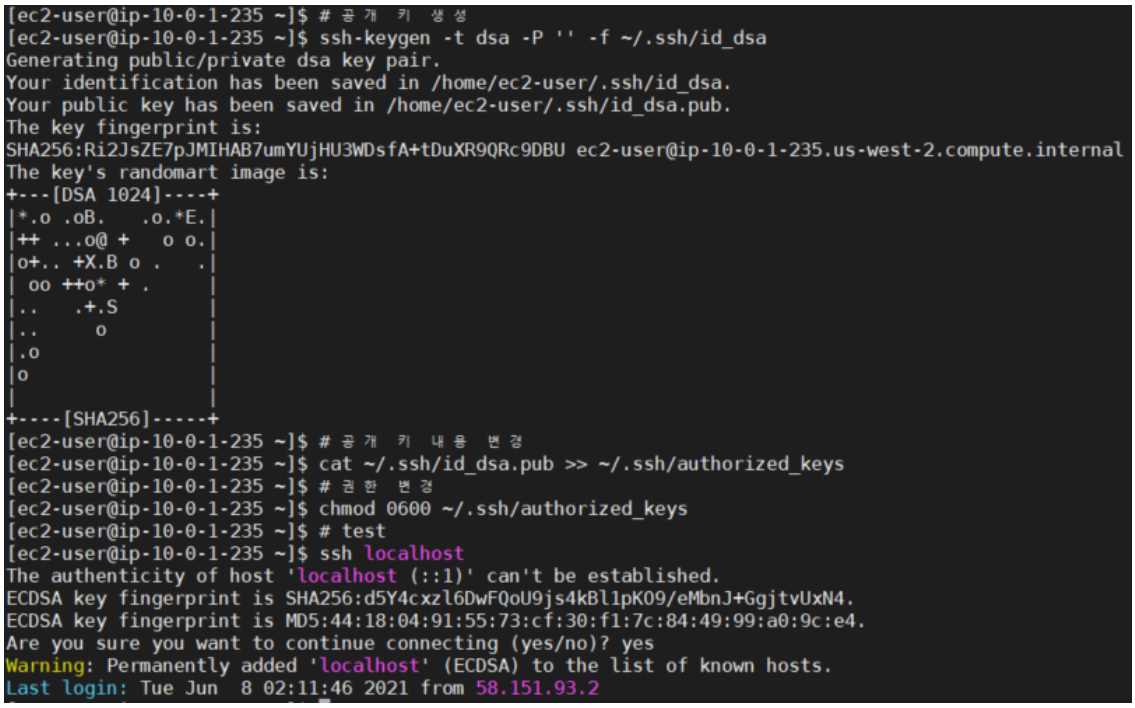
```
wget https://rpmfind.net/linux/centos/7.9.2009/os/x86_64/Packages/libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm
sudo yum install libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm -y
```

4. selinux disable




```
# vi 수정을 통한 설정 변경
sudo vi /etc/selinux/config

SELINUX=disabled

# linux 명령어 수행을 통한 값 변경
sed -i 's/SELINUX= enforcing/SELINUX=disabled/' /etc/selinux/config
```

5. key-gen



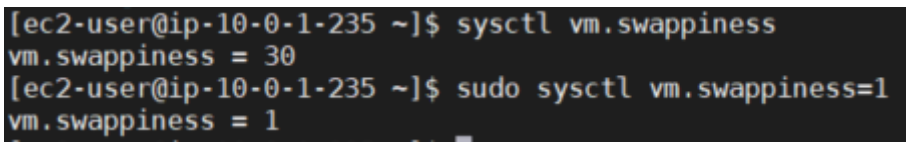
```
# 공개 키 생성
ssh-keygen -t dsa -P '' -f ~/.ssh/id_dsa
# 공개 키 내용 변경
cat ~/.ssh/id_dsa.pub >> ~/.ssh/authorized_keys
# 권한 변경
chmod 0600 ~/.ssh/authorized_keys
# test
ssh localhost
```

(Option) [Optimize performance]

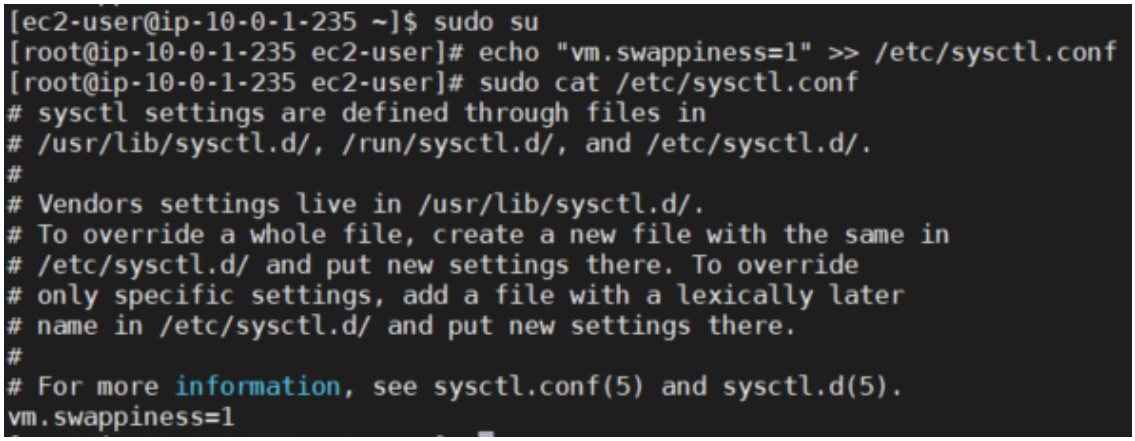
(6) ~ (8) 항목은 option 사항이므로 미 수행 하여도 설치에 문제없습니다.
[linux] vm.swappiness 설정

> 1. 개요
>
>   - swappiness
>   - vm.swappiness
>
>   스왑 활용도, 스와핑 활용도, 스와피니스
>   리눅스 커널 속성 중 하나
>   스왑메모리 활용 수준 조절
>   스왑 사용의 적극성 수준
>
> 2. 값 설명
>
>   값의 범위: 0 ~ 100 (기본값: 60)
>
> | 값 | 설명 |
> | --- | --- |
> | vm.swappiness = 0 | 스왑 사용안함[1] |
> | vm.swappiness = 1 | 스왑 사용 최소화 |
> | vm.swappiness = 60 | 기본값 |
> | vm.swappiness = 100 | 적극적으로 스왑 사용 |

6. vm.swappiness option



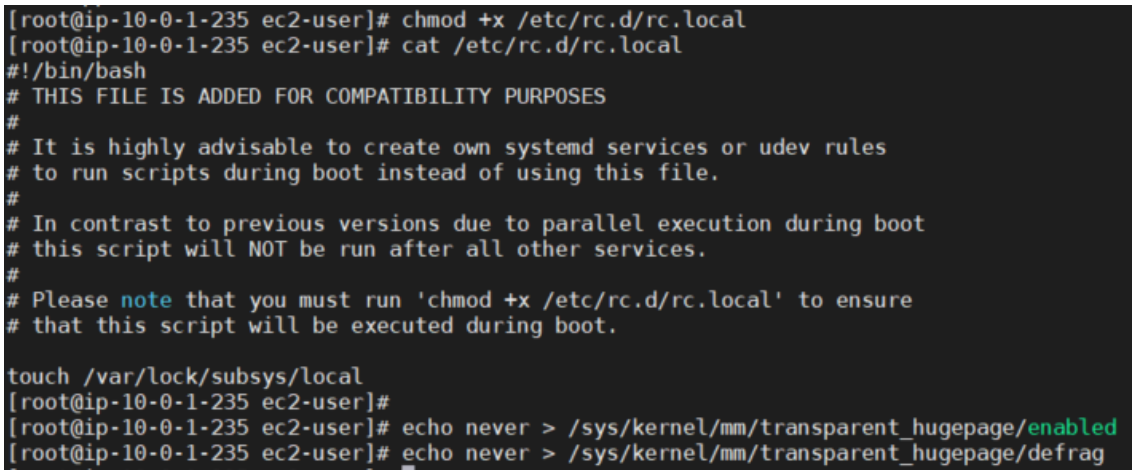

```
sysctl vm.swappiness
sudo sysctl vm.swappiness=1
```




```
sudo su
echo "vm.swappiness=1" >> /etc/sysctl.conf
cat /etc/sysctl.conf
```

7. /etc/rc.d/rc.local 수정

> **rc.local**
>
> 부팅시 자동 실행 명령어 스크립트 수행
>
> 일반적으로 서버 부팅시마다 매번 자동 실행되길 원하는 명령어는 /etc/rc.d/rc.local에 넣어 주시면됩니다.
>
> **THP(Transparent Huge Pages)**

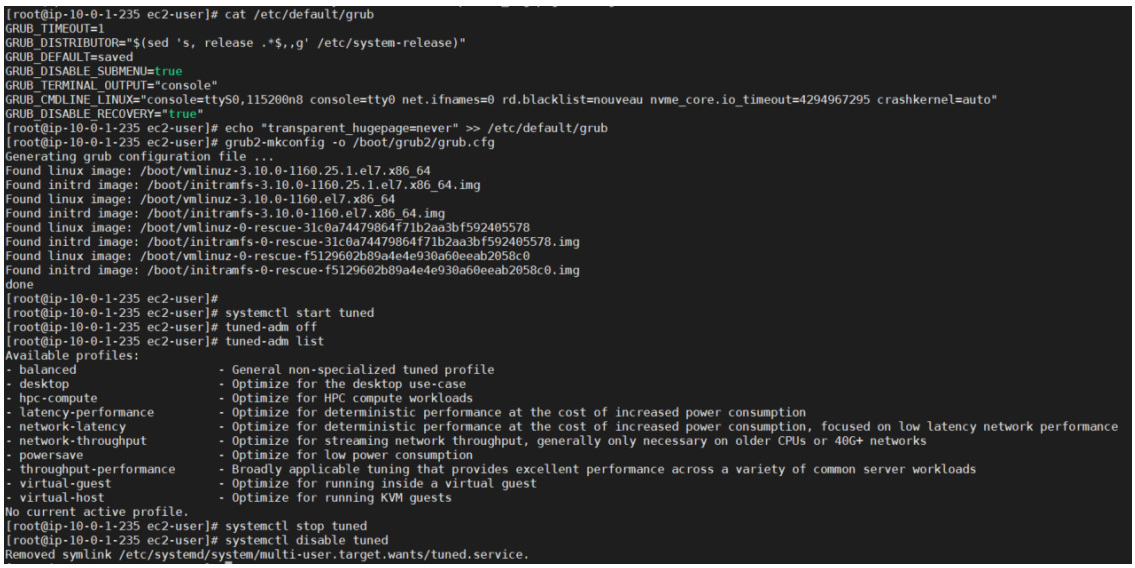



```
chmod +x /etc/rc.d/rc.local
vi /etc/rc.d/rc.local

# 하단의 내용 추가
echo never > /sys/kernel/mm/transparent_hugepage/enabled
echo never > /sys/kernel/mm/transparent_hugepage/defrag
```

THP 옵션이 활성화 확인 방법

```
cat /sys/kernel/mm/transparent_hugepage/enabled

# [always] madvise never  -> 출력된 결과에 [always] 에 대괄호가 되어있으면 THP가 활성화 된 상태입니다.
# always madvise [never]  -> 출력된 결과에 [never] 에 대괄호가 되어있으면 THP가 비활성화 된 상태입니다.
```

8. /etc/default/grub 수정



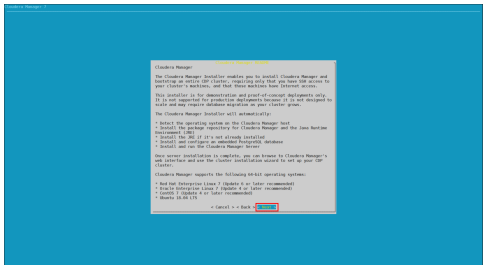
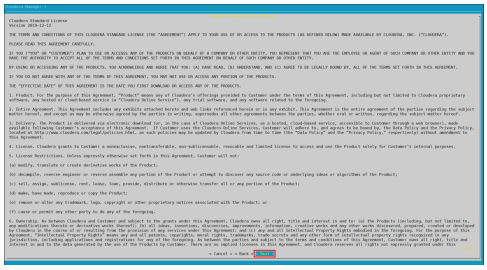
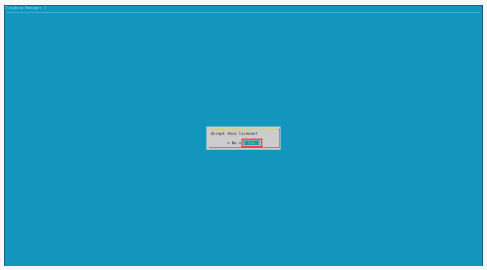
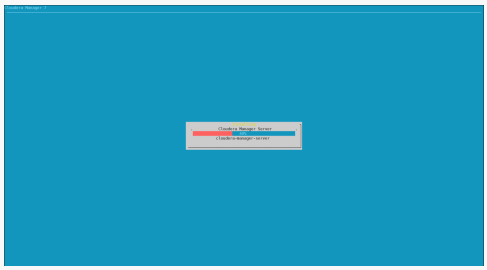

```
cat /etc/default/grub
echo "transparent_hugepage=never" >> /etc/default/grub
grub2-mkconfig -o /boot/grub2/grub.cfg

systemctl start tuned
tuned-adm off
tuned-adm list
systemctl stop tuned
systemctl disable tuned
```

9. cloudera-manager-install
    1. installer download

```
wget https://archive.cloudera.com/cm7/7.1.4/cloudera-manager-installer.bin
sudo chmod u+x cloudera-manager-installer.bin
sudo ./cloudera-manager-installer.bin
```

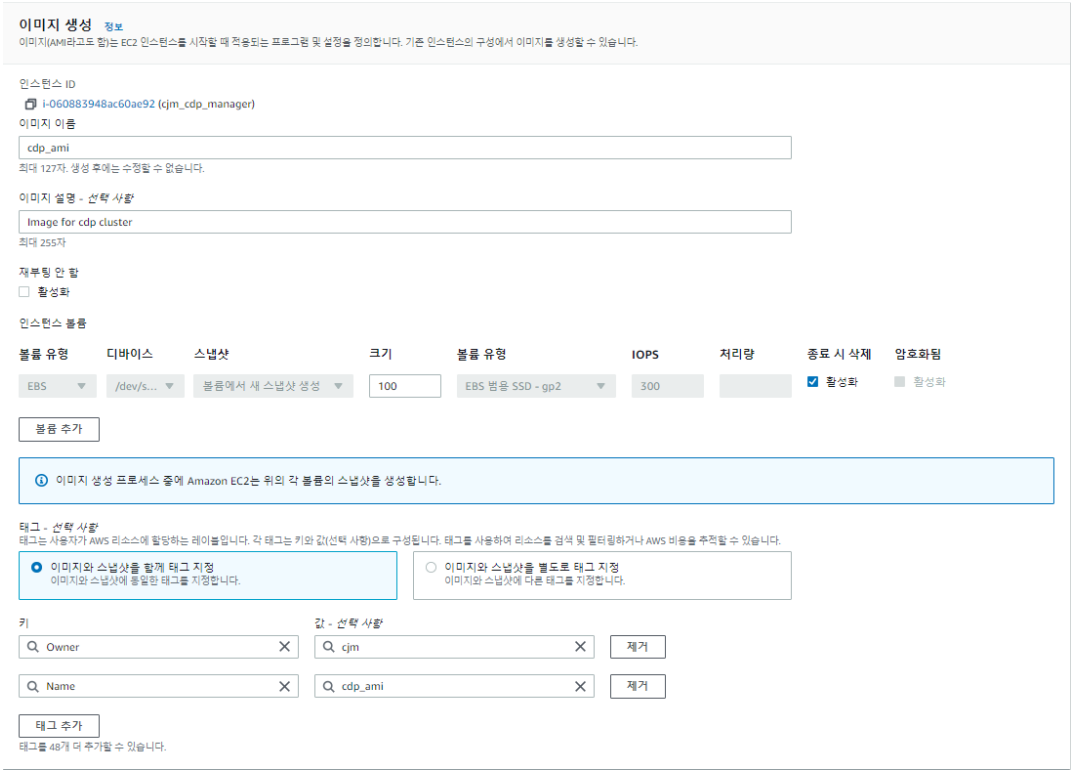
    2. install

> next next next yes
>
> 명령어 입력없이 화면에서 엔터만 반복적으로 입력시 자동으로 설치 진행
>
> 설치 완료 후 아래의 링크로 접속
>
> https://publicdns:7180

설치 이미지	
1 	2 
3 	4 

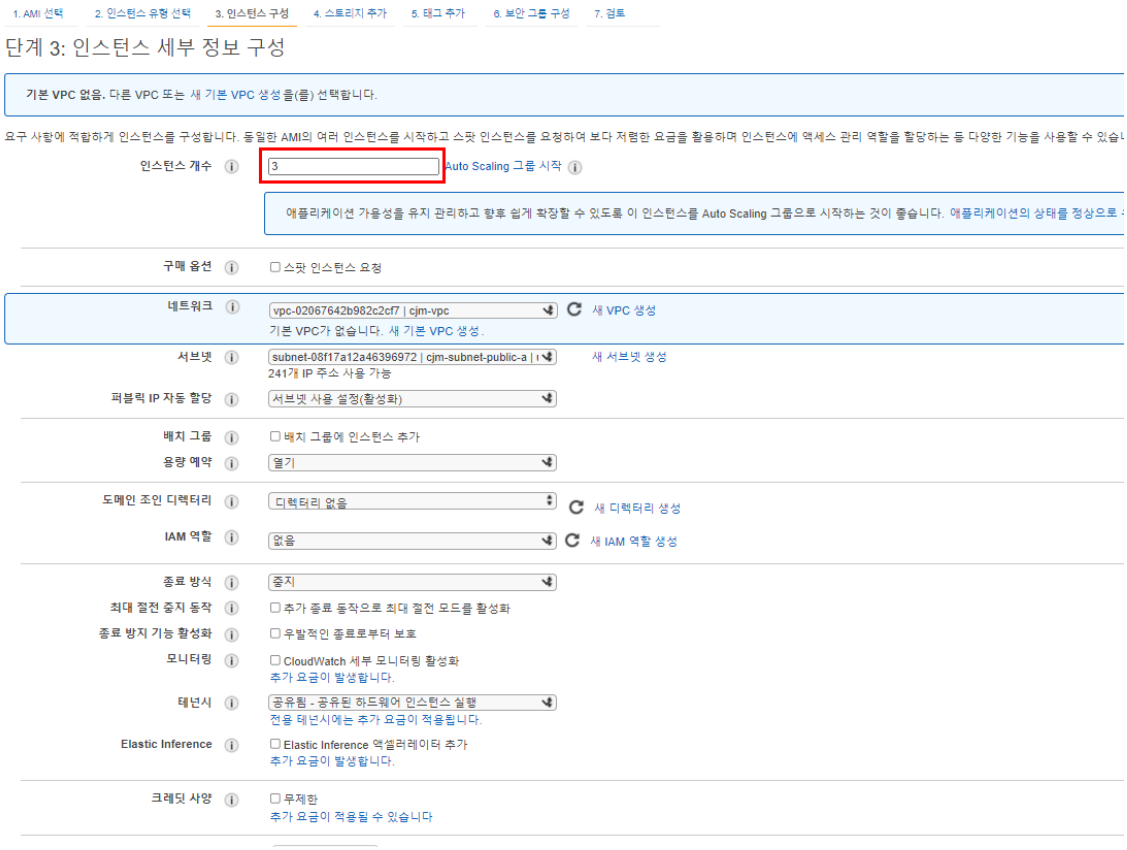
```
# 서버 부팅 시 자동실행 설정
sudo systemctl enable cloudera-scm-server.service
```

3. Multi node 설정

1. AMI 등록
   - Name : `cdp_ami`
   - Description : `Image for cdp cluster`
   - Storage : `100`
   - 

2. Data node 생성

   등록된 AMI로 3개의 Instance 생성



3. Cluster Network 설정
   - 모든 node 설정

```
sudo vi /etc/hosts


# ============================================================
127.0.0.1   localhost localhost.localdomain localhost4
localhost4.localdomain4
::1         localhost localhost.localdomain localhost6
localhost6.localdomain6


10.0.1.235   cdp-manager
10.0.1.22   cdp-node1
10.0.1.228   cdp-node2
10.0.1.112   cdp-node3
```

Cloudera 재시작

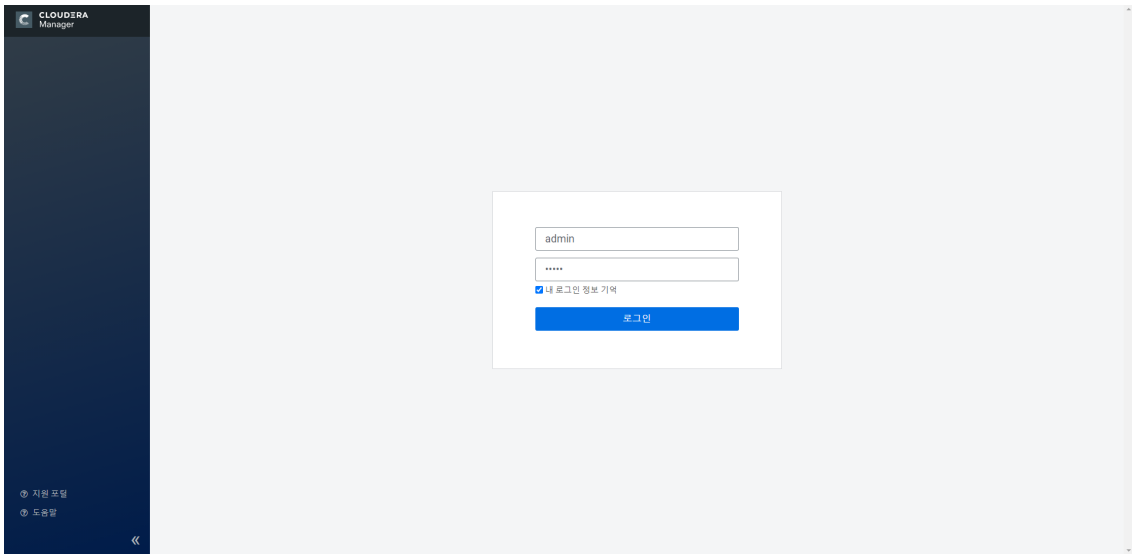
```
sudo service cloudera-scm-server restart
```

4. cloudera.manger 설정

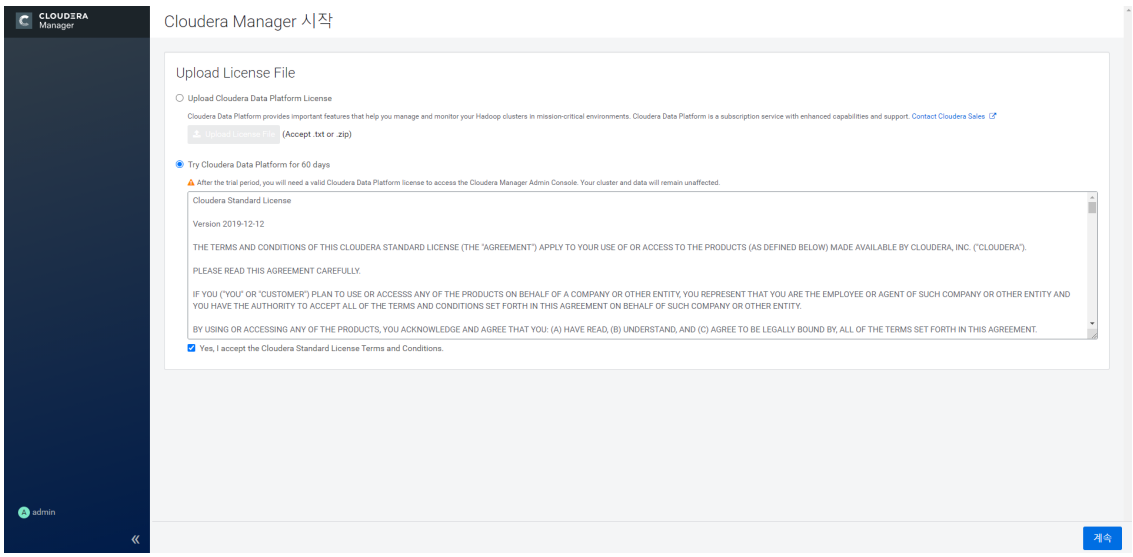
1. cloudera.manger web install

> 설치 완료 후 아래의 링크로 접속

> http://{manager_server_publicdns}:7180
>
> ID : admin
>
> PW : admin



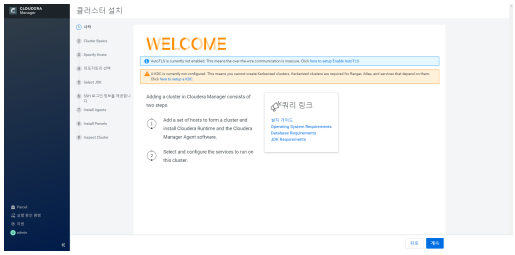
> 무료 라이센스 사용 60일



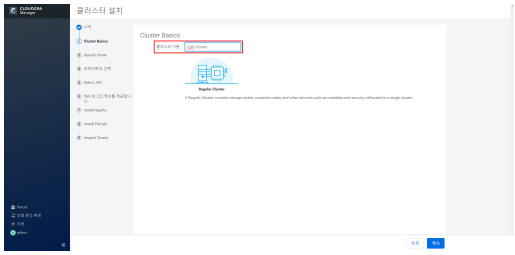
7-8 번 설치는 Issue가 있을 경우 1개 node 씩 수행

설치 이미지

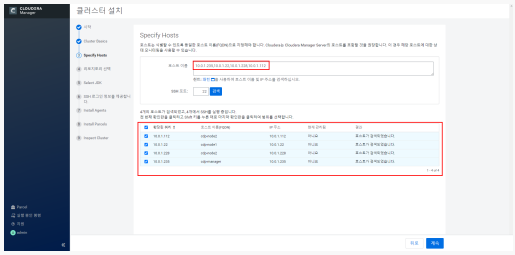
1



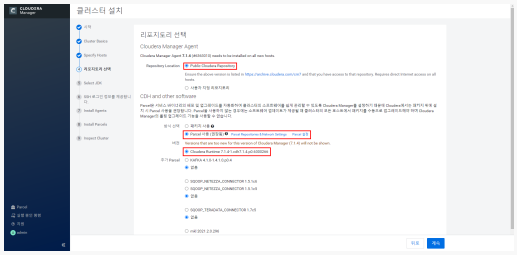
2



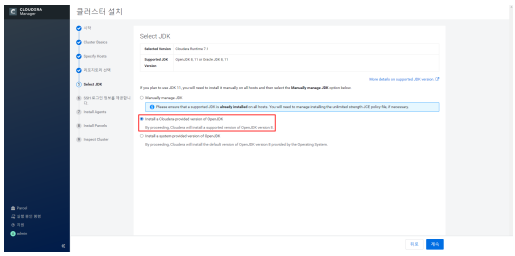
3



4

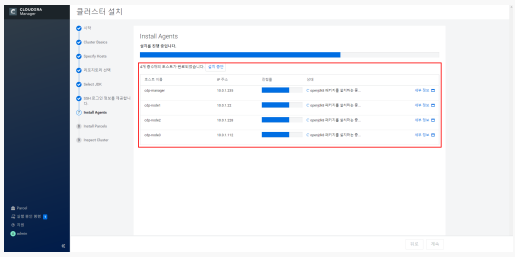


5

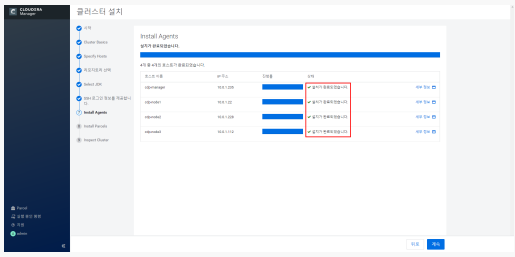


6

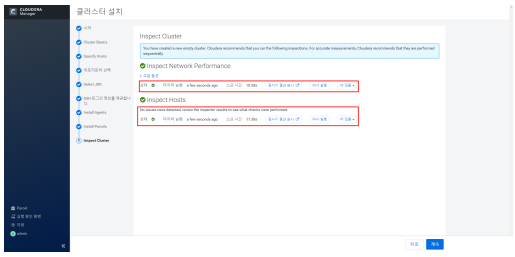
7



8



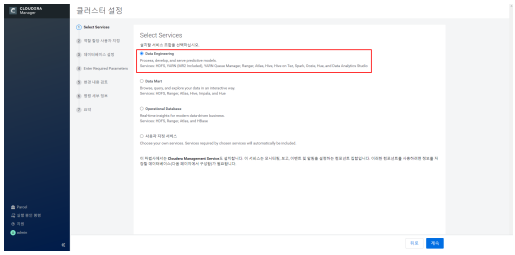
9



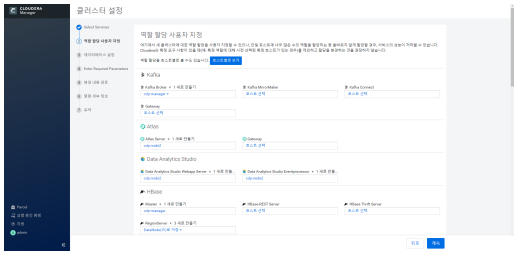
2. cloudera.manger web config
   6-7 번 설치는 Issue가 있을 경우 재수행

설치 이미지

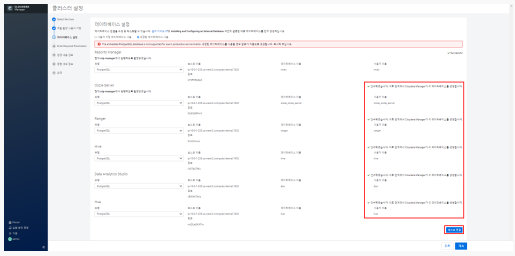
1



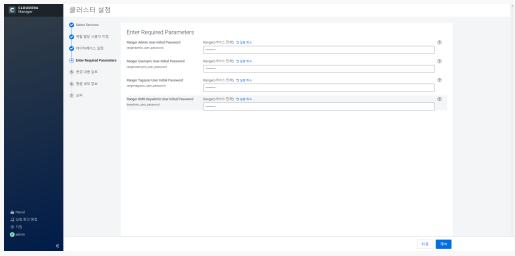
2



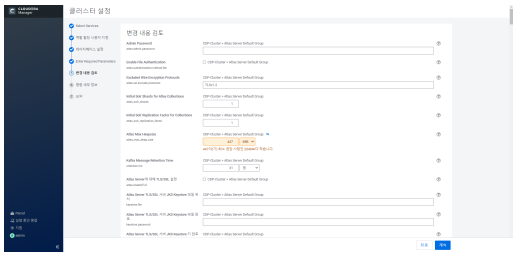
3



4



5



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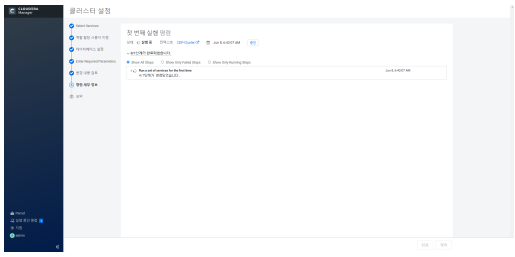
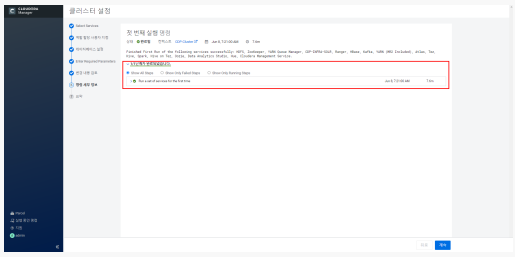
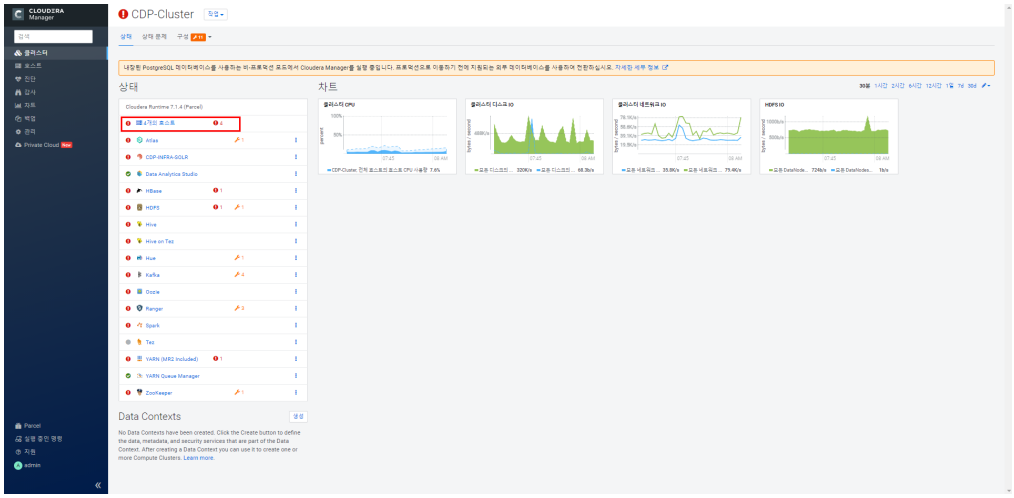
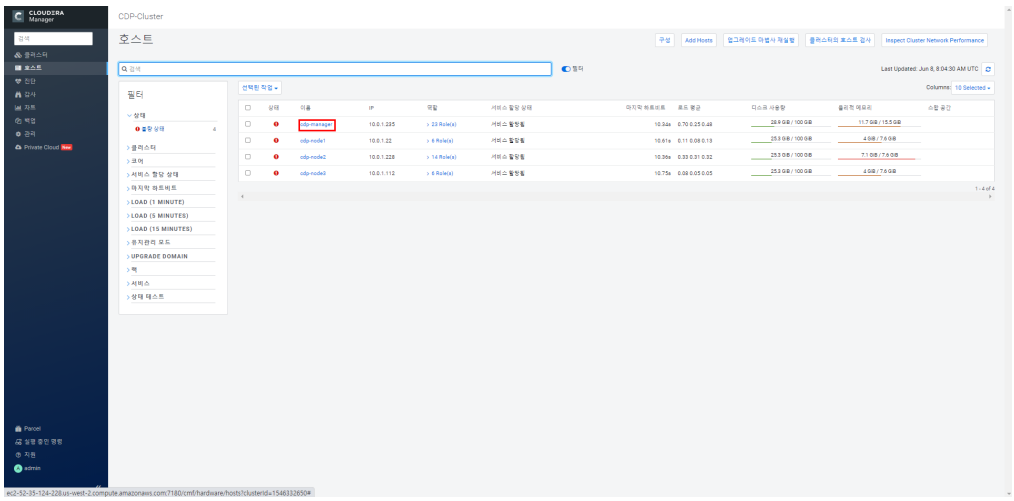


7

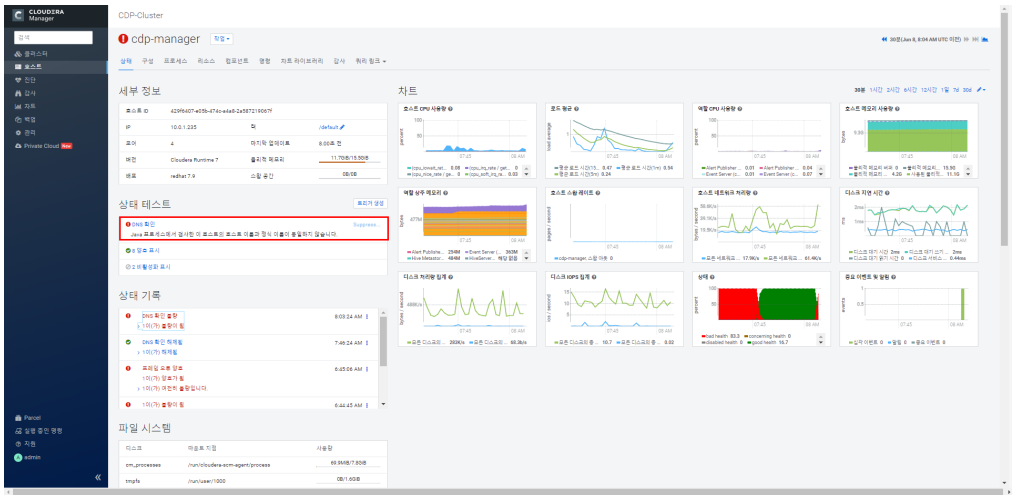


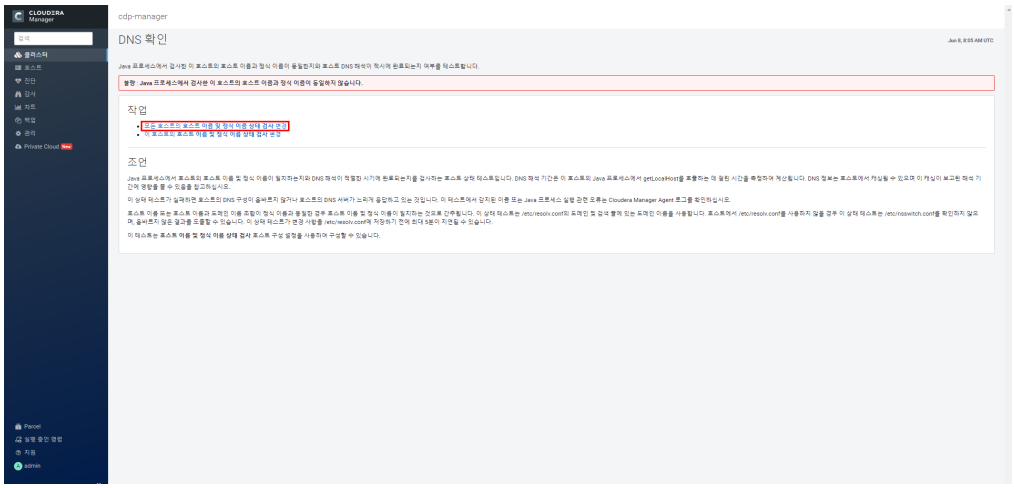
3. cloudera.manger web 설치 완료
    - 상태 체크 불량 시 해결 방법
      해당 node들은 정식 DNS가 제공된 상태가 아니기 때문에 상태 검사 시 오류가 발생
      DNS 상태 검사를 해제하면 해당 issue resolve 가능
        1. 상태 불량 host 접근

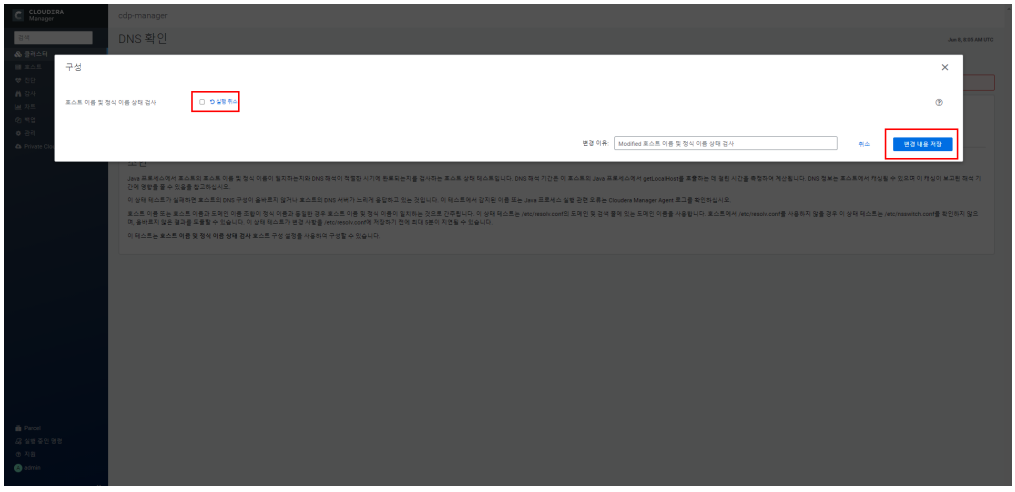



CDP-Cluster
호스트
필터

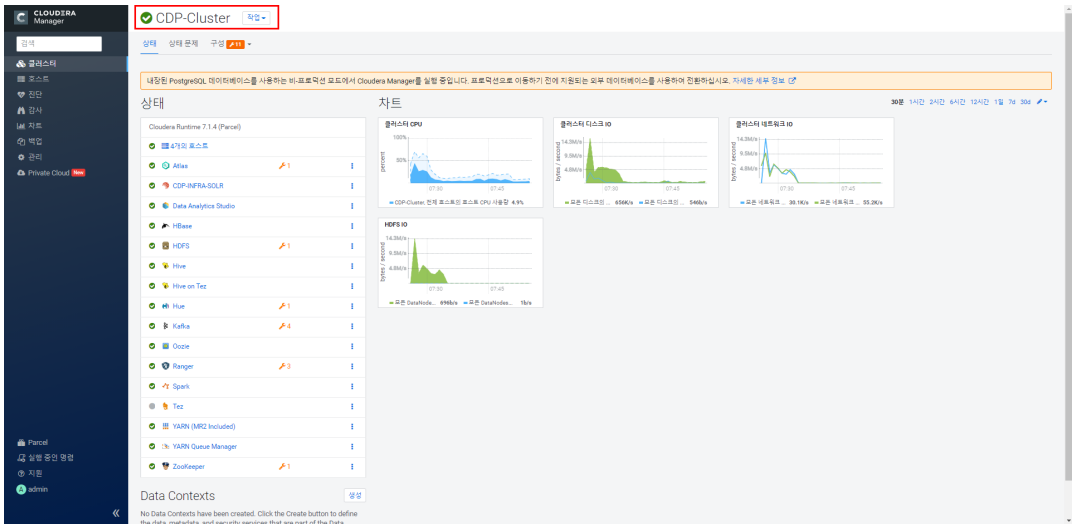
2. DNS 상태 검사 해제


CDP-Cluster
cdp-manager
세부 정보
차트
상태 테스트
상태 기록
파일 시스템


cdp-manager
DNS 확인
작업
조언


cdp-manager
DNS 확인
구성

- CDP-Cluster


CLOUDERA Manager
CDP-Cluster
작업
상태
상태 문제
구성
내장된 PostgreSQL 데이터베이스를 사용하는 비-프로덕션 모드에서 Cloudera Manager를 실행 중입니다. 프로덕션으로 이동하기 전에 지원되는 외부 데이터베이스를 사용하여 전환하십시오. 자세한 세부 정보
상태
차트
Cloudera Runtime 7.1.4 (Parcel)
Data Contexts
No Data Contexts have been created. Click the Create button to define