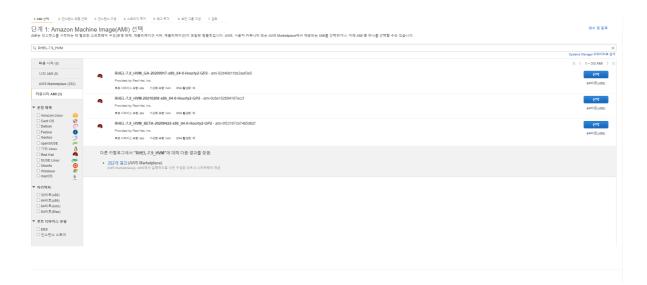
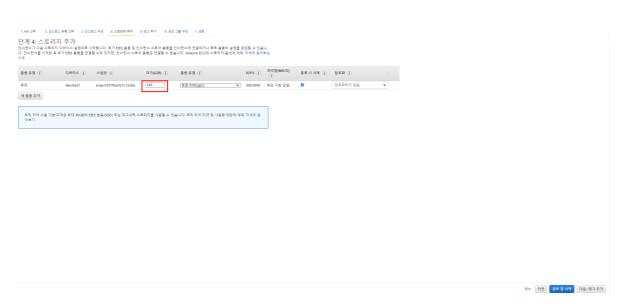
Installed_CDP (on ec2)

1. Instance Config

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





2. Package 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 활 성 화
[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'.
```

```
# 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

```
|$ wget https://rpmfind.net/conss/.9.2009/os/x86_
https://rpmfind.net/linux/centos//.9.2009/os/x86_
pmfind.net). 195-220.108.108
t (rpmfind.net)|195.220.108.108|:443... connected.
ing response... 200 OK
                                                                                      d.net/linux/centos/7.9.2009/os/x86_64/Packages/libtirpc-devel-0.2.4-0.16.el7.x86_64.rp
nux/centos/7.9.2009/os/x86_64/Packages/libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm
                  t sent, awarting responser
98 (91K) [application/x-rpm]
'libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm'
121-06-08 02:30:16 (260 KB/s) - 'libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm' saved [93208/93208]
                 p-10-0-1-235 ~|$ sudo yum install libtirpc-devel-0.2.4-0.16.el7.x86_64.rpm -y
ins: amazon-id, search-disabled-repos
lbtirpc-devel-0.2.4-0.16.el7.x86_64.rpm: libtirpc-devel-0.2.4-0.16.el7.x86_64
tirpc-devel-0.2.4-0.16.el7.x86_64.rpm to be installed
                     ig Dependency: Libtipe.so...
ransaction check
libtirpc.x86_64 0:0.2.4-0.16.el7 will be installed
Dependency Resolution
```

```
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

```
# This file controls the state of SELinux on the system.

# SELINUX= can take one of these three values:

# enforcing - SELinux security policy is enforced.

# permissive - SELinux prints warnings instead of enforcing.

# disabled - No SELinux policy is loaded.

# SELINUX=enforcing

SELINUX=disabled

# SELINUXTYPE= can take one of three values:

# targeted - Targeted processes are protected,

# minimum - Modification of targeted policy. Only selected processes are protected.

# mls - Multi Level Security protection.

SELINUXTYPE=targeted
```

```
# 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

```
[ec2-user@ip-10-0-1-235 ~]$ # 문게 된 설설
[ec2-user@ip-10-0-1-235 ~]$ ssh-keygen -t dsa -P '' -f ~/.ssh/id_dsa
Generating public/private dsa key pair.
Your identification has been saved in /home/ec2-user/.ssh/id_dsa.
Your public key has been saved in /home/ec2-user/.ssh/id_dsa.pub.
The key fingerprint is:
SHA256:Ri2JsZE7pJMIHAB7umYUjHU3WDsfA+tDuXR9QRc9DBU ec2-user@ip-10-0-1-235.us-west-2.compute.internal
The key's randomart image is:
+--[DSA 1024]---+
|*.o.oB. .o.*E.|
|++...o@ + o.o.|
| oo ++o* + . |
| ... .+.S |
| ... o |
| oo ++o* + . |
| ... +.S |
| ... o |
| co |
| co
```

```
# 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)

캆	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

```
[ec2-user@ip-10-0-1-235 ~]$ sysctl vm.swappiness
vm.swappiness = 30
[ec2-user@ip-10-0-1-235 ~]$ sudo sysctl vm.swappiness=1
vm.swappiness = 1
```

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

```
[ec2-user@ip-10-0-1-235 ~]$ sudo su
[root@ip-10-0-1-235 ec2-user]# echo "vm.swappiness=1" >> /etc/sysctl.conf
[root@ip-10-0-1-235 ec2-user]# sudo cat /etc/sysctl.conf
# sysctl settings are defined through files in
# /usr/lib/sysctl.d/, /run/sysctl.d/, and /etc/sysctl.d/.
#
Vendors settings live in /usr/lib/sysctl.d/.
# To override a whole file, create a new file with the same in
# /etc/sysctl.d/ and put new settings there. To override
# only specific settings, add a file with a lexically later
# name in /etc/sysctl.d/ and put new settings there.
#
# For more information, see sysctl.conf(5) and sysctl.d(5).
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)

```
[root@ip-10-0-1-235 ec2-user]# chmod +x /etc/rc.d/rc.local
[root@ip-10-0-1-235 ec2-user]# cat /etc/rc.d/rc.local
#!/bin/bash
# THIS FILE IS ADDED FOR COMPATIBILITY PURPOSES
#
# It is highly advisable to create own systemd services or udev rules
# to run scripts during boot instead of using this file.
#
# In contrast to previous versions due to parallel execution during boot
# this script will NOT be run after all other services.
#
# Please note that you must run 'chmod +x /etc/rc.d/rc.local' to ensure
# that this script will be executed during boot.

touch /var/lock/subsys/local
[root@ip-10-0-1-235 ec2-user]#
[root@ip-10-0-1-235 ec2-user]# echo never > /sys/kernel/mm/transparent_hugepage/enabled
[root@ip-10-0-1-235 ec2-user]# echo never > /sys/kernel/mm/transparent_hugepage/defrag
```

```
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
```

```
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
```



서버 부팅 시 자동실행 설정

sudo systemctl enable cloudera-scm-server.service

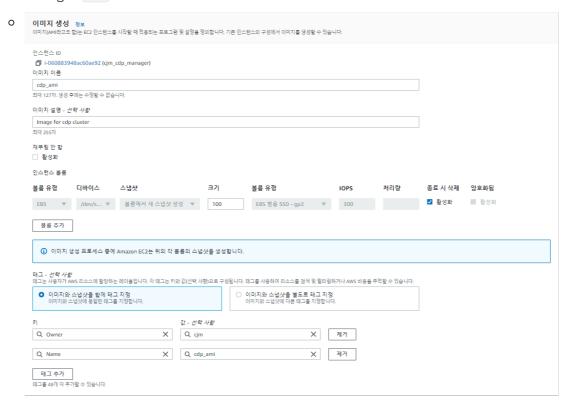
3. Multi node 설정

1. AMI 등록

Name: cdp_ami

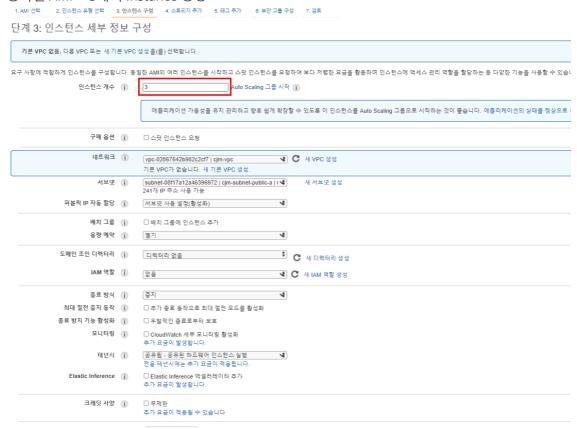
• Description: Image for cdp cluster

o Storage: 100



2. Data node 생성

등록된 AMI로 3개의 Instance 생성



3. Cluster Network 설정

o 모든 node 설정

```
Cloudera 재시작
```sh
sudo service cloudera-scm-server restart
```

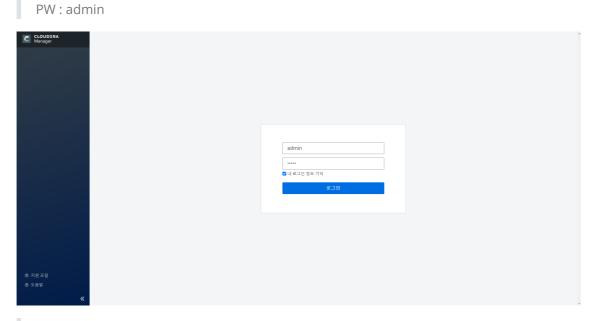
# 4. cloudera.manger 설정

1. cloudera.manger web install

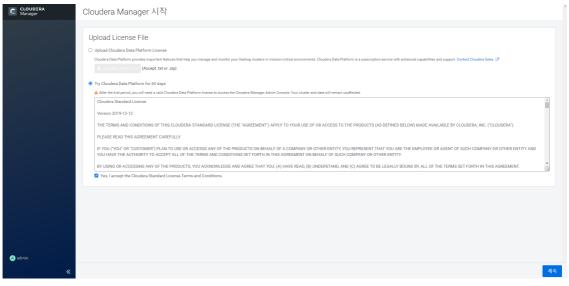
설치 완료 후 아래의 링크로 접속

http://{manager\_server\_publicdns}:7180

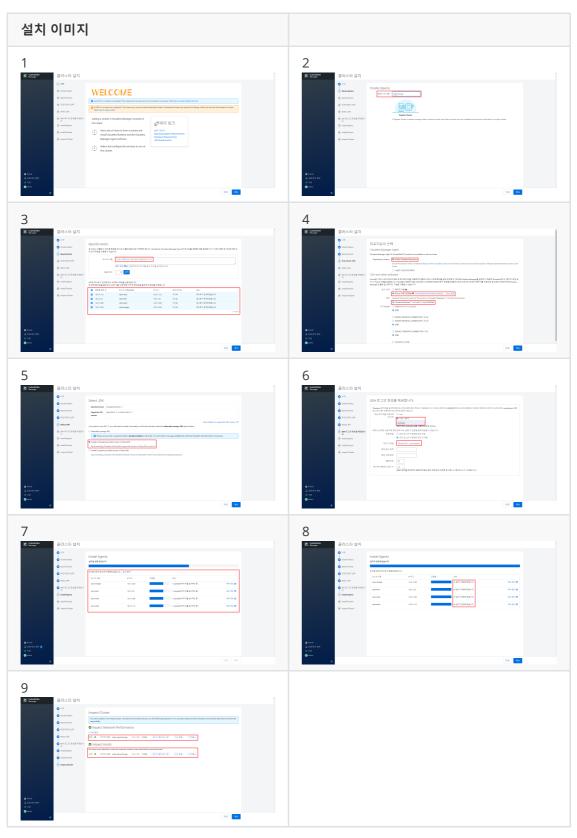
ID : admin



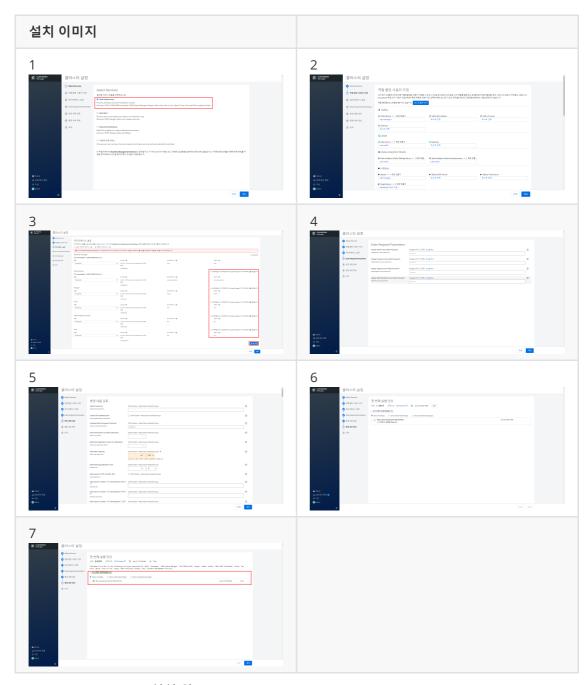
# 무료 라이센스 사용 60일



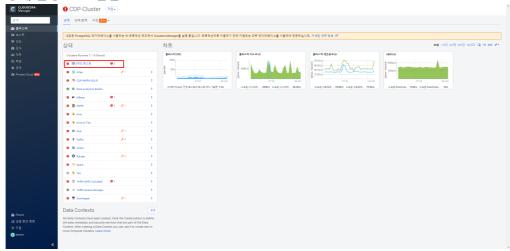
7-8 번 설치는 Issue가 있을 경우 1개 node 씩 수행

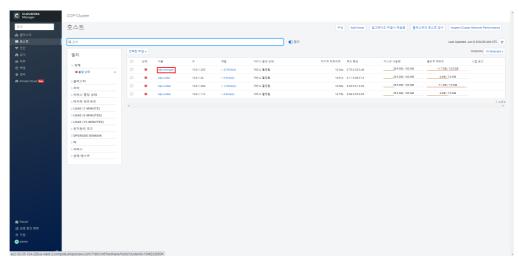


2. cloudera.manger web config 6-7 번 설치는 Issue가 있을 경우 재수행

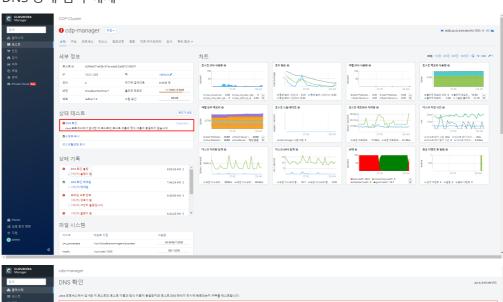


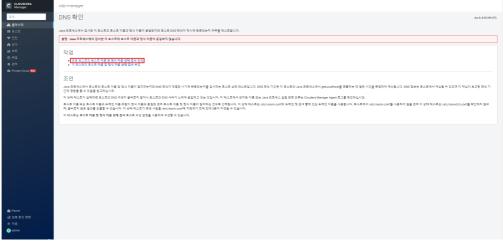
- 3. cloudera.manger web 설치 완료
  - 상태 체크 불량 시 해결 방법
     해당 node들은 정식 DNS가 제공된 상태가 아니기 때문에 상태 검사 시 오류가 발생
     DNS 상태 검사를 해제하면 해당 issue resolve 가능
    - 1. 상태 불량 host 접근





# 2. DNS 상태 검사 해제







# CDP-Cluster

