



## References

- [SAP 기본용어 정리](#)
- [ABAP 이란](#)
- [SAP ABAP 다운로드 \(sjh@cudo.co.kr // 삼선잠뽕1234!\)](#)
- [SAP GUI 설치와 라이선스 확인 방법](#)
- [SAP ABAP 설치 가이드](#)
- [Trial 설치 에러 문제, 비밀번호](#)
- [SAP 라이선스 갱신 요청 페이지 -> NPL.txt 다운](#)
- [Trouble Shooting](#)

## CentOS 7 VM 설정

- 16 core / 32GB RAM / 200G Storage
  - 메모리 16GB 권장이지만 설치하면 오류 발생 (CentOS7 기준)
- 방화벽 해제 : `systemctl stop firewalld && systemctl disable firewalld`
- 호스트 명 : `hostnamectl set-hostname vhcainplci`
- ip 확인 후 hosts 파일 수정 : `vi /etc/hosts > 192.168.1.xx vhcainplci > wq`

```
$ yum groupinstall "Development Tools" "Large System Performance" "Network File System Client" "Performance Tool" "Compatibility Library" "GNOME Desktop" "Graphical Environment"
$ yum groupinstall large-systems network-file-system-client performance compat-libraries -y

## 방화벽 해제
$ systemctl stop firewalld && systemctl disable firewalld
```

- Storage 설정은 내부에서 테스트 시 편의상 Virtual Disk 추가, 파티션 생성, xfs 파일 시스템 생성, 설치 Directory에 mount 하여 사용 가능

Position	Name	Description	SR	Size	Read Only	Priority	Active	Device Path
0	CentOS 7 (1) 0	Created by template pr...	Local storage on xcp-ng-solution3	80 GB	No	0 (Lowest)	Yes	/dev/xvda
1	New virtual disk (1)		Local storage on xcp-ng-solution3	250 GB	No	0 (Lowest)	Yes	/dev/xvdb

## SAP ABAP 설치

- SAP NetWeaver AS ABAP Developer Edition 7.52 SP04 다운로드 ([링크](#))

 <a href="#">SAP ABAP AS Part 3</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 4</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 5</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 6</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 7</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 8</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 9</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 10</a>	6-Sep-2018	7.52 SP04	1.5 GB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part 11</a>	6-Sep-2018	7.52 SP04	90.6 MB	<a href="#">SHA-256</a>	n/a
 <a href="#">SAP ABAP AS Part License</a>	21-Feb-2021	n/a	1.1 KB	<a href="#">SHA-256</a>	n/a

- SAP 계정 필요, SAP ABAP AS PART1 ~ 11 다운로드 후 SAP ABAP AS PART1 압축을 풀면 분할 파일이 전부 압축 해제
- 해제 된 파일을 설치 Directory에 파일 전송

```
[root@localhost SAP ABAP]# su root
[root@saptest SAP ABAP]# chmod +x install.sh
[root@saptest SAP ABAP]#
[root@saptest SAP ABAP]#
[root@saptest SAP ABAP]# ./install.sh
Hostname saptest assumed to be SAP compliant
Running on tested distribution centos
Error: /sbin/uuid: not executable file
The following packages can provide the missing dependencies:
  uuid
Do you want to install the packages via your manager? yes/no:
yes
```

```
$ su root
$ chmod 755 install.sh
$ ./install.sh

....

yes
```

```
Do you agree to the above license terms? yes/no:
yes

Now we need the passwords for the OS users.
Please enter a password which will be used
for all operating system users.

Please enter a password:
Please re-enter password for verification:

Now we begin with the installation.
Be patient, this will take a while ...

extracting data archives...
extracting /SAP_ABAP/server/TAR/x86_64/dbdata.tgz-*
sybase/NPL/sapdata_1/
sybase/NPL/sapdata_1/NPL_data_001.dat
```

```
Please enter a password : ## 주의 8자 이상 14자 이하의 대,소,특수문자 포함 비밀번호 설정 ##

ex) Password#000 으로 설정
```

설치 진행하게 되면 에러가 발생

```
[CInstallerCallBackImpl.cpp:259] id=ind-rel.ind-os.ind-db.assertionFailed errno=CJS-00030 CInstallerCallBackImpl::abortInstallation()
Assertion failed: Unable to generate a new password for database login 'sa'. Refer to trace file sapinst_dev.log for further information.
```

### 라이선스 반드시 갱신 필요 (Expire Date 확인)

위 다운로드에서 받은 SAP AS Part License 파일을 압축 해제 License 파일(License\SYBASE\_ASE\_TestDrive\SYBASE\_ASE\_TestDrive.lic) 을 서버에 업로드 후 해당 경로에 cp

```
cp {신규 라이선스 절대경로} /sybase/NPL/SYSAM-2_0/licenses/
```

라이선스 갱신 후 재설치

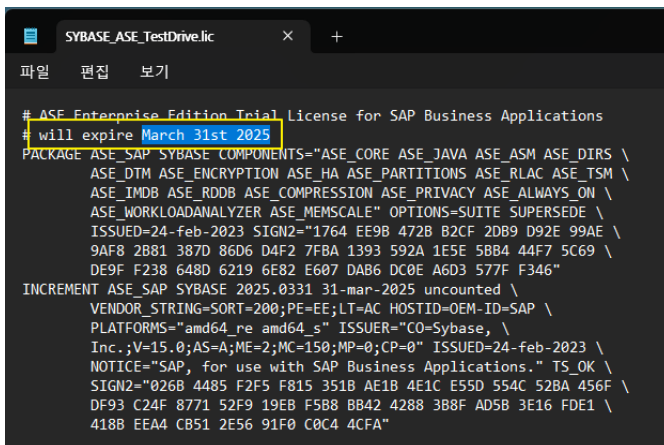
```
$ ./install.sh
```

### • SAP 서버 관련 커맨드

```
$ su - npladm  
  
## 서버 시작  
$ startsap ALL  
  
## 서버 종료  
$ stopsap ALL
```

### ※ Trouble Shooting && Tips

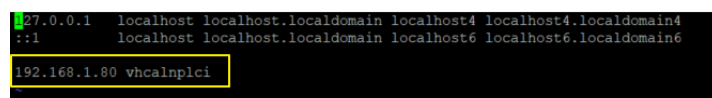
#### • License 문제



```
# ASE Enterprise Edition Trial License for SAP Business Applications  
# will expire March 31st 2025  
PACKAGE ASE_SAP SYBASE COMPONENTS="ASE_CORE ASE_JAVA ASE_ASM ASE_DIRS \  
ASE_DTM ASE_ENCRYPTION ASE_HA ASE_PARTITIONS ASE_RLAC ASE_TSM \  
ASE_IMDB ASE_RDOB ASE_COMPRESSION ASE_PRIVACY ASE_ALWAYS_ON \  
ASE_WORKLOADANALYZER ASE_MEMSCALE" OPTIONS=SUITE SUPERSEDE \  
ISSUED=24-feb-2023 SIGN2="1764 EE9B 472B B2CF 2DB9 D92E 99AE \  
9AF8 2B81 387D 86D6 D4F2 7FBA 1393 592A 1E5E 5BB4 44F7 5C69 \  
DE9F F238 648D 6219 6E82 E607 DAB6 DC0E A6D3 577F F346"  
INCREMENT ASE_SAP SYBASE 2025.0331 31-mar-2025 uncounted \  
VENDOR_STRING=SORT=200;PE=EE;LT=AC HOSTID=OEM-ID=SAP \  
PLATFORMS="amd64_re amd64_s" ISSUER="CO=Sybase, \  
Inc.;V=15.0;AS=A;ME=2;MC=150;MP=0;CP=0" ISSUED=24-feb-2023 \  
NOTICE="SAP, for use with SAP Business Applications." TS_OK \  
SIGN2="026B 4485 F2F5 F815 351B AE1B 4E1C E55D 554C 52BA 456F \  
DF93 C24F 8771 52F9 19EB F5B8 BB42 4288 3B8F AD5B 3E16 FDE1 \  
418B EEA4 CB51 2E56 91F0 C0C4 4CFA"
```

- 반드시 Expire 되지 않은 라이선스를 /sybase/NPL/SYSAM-2\_0/licenses/ 위치에 복붙

#### • Hostname 문제



```
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4  
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6  
192.168.1.80 vhcainplci
```

- vi /etc/hosts 아래 192.168.1.xx vhcainplci 라인 추가 (권장)

#### • 방화벽은 반드시 OFF 후 설치

- systemctl stop firewalld && systemctl disable firewalld

- [참고] 공식 설치 가이드 - 압축 파일 내 readme.html

## Installation Instructions and First Steps

### Step 1: Prerequisites

- Network configuration of the SAP host operating system: The officially supported setup requires a static IP address for the hostname used for the SAP installation. Using DHCP is possible for this test-drive version, but be aware of potential consequences. If our installation cannot ping the hostname specified when installing, installation and startup of the SAP system will fail. Make sure that the hostname specified during installation is assigned to the local OS and fulfills SAP requirements, most importantly it cannot exceed 13 characters length and also needs to survive reboots. We strongly recommend that you stick to **vhcalnplci** as hostname used by the SAP system and make sure that this hostname remains pingable after server restart.
- The firewall must be deactivated.

### Step 2: Server Installation and Getting a License

- Login with your preferred user. You need to have root privileges (sudo or password login).
- Extract the downloaded rar archive, e.g. by executing unrar commands in the download folder  

```
$ unrar x T0762SP04.part01.rar
```

 and optionally  

```
$ unrar x install.rar
```

 to overwrite install.sh with an executable version. Please note that we have compressed install.sh separately into install.rar in order to maintain the script's executable permissions.
- Change into the root directory of the extracted installation  

```
$ sudo ./install.sh
```

 More detailed installation instructions are provided in the following blog post: [SAP AS ABAP 7.52 SP04 Step-By-Step Installation Guide](#)
- Installation will take a while (about 20 minutes - take a coffee).

#### To get a license:

1. Start the SAP system
  1. Switch to user npladm in the console : `$ su - npladm`
  2. In SAPLogon, start the SAP system : `$ startsap`
2. Log on to the system with client 000 and user SAP\* (see table with SAP users below). Open transaction SLICENSE to ascertain your hardware key. Alternatively, you can get your hardware key by executing `$ /usr/sap/NPL/SIS/xxe/run/saplicense -get`.
3. Request the license key for your test-drive version [SAP License Keys for Preview, Evaluation, and Developer Versions](#). You can also generate a new key for your ASE database if the existing key expires.
  1. Select *NPL - SAP NetWeaver 7.x (Sybase ASE)* as System ID
  2. Enter your personal data, agree to the License Agreement, and choose *Generate*.
  3. The website automatically generates a .txt file for this system/key. Download and save this file.
4. In SLICENSE, install the license file as follows: In the tab *Digitally signed licenses*, delete the existing license, then choose *Install*.
5. The developer access key for user DEVELOPER and installation number DEMOSYSTEM is already in the system and you can start developing in the customer name range (Z\*, Y\*).  
 Please note that all the above steps must be carried out; otherwise, the prepared user key will not work.