# Installation af SAP HANA

## Oprettet en bruger på cloud.google.com

## Oprettet et nyt projekt ”Hive” som mine VM’s skal ligge i.

## Oprettet en Ubuntu maskine som bliver min bruger maskine

## Oprettet en SAP HANA maskine på SUSE Linux

* 12 vCPU
* 96Gb mem
* Bootdisk -> SUSE Linux Enterprise Server 12 SP5 for SAP x86\_64
* Network -> tildelt mit allerede oprettede interne netværk.
* Disk -> hana, 300Gb, delete disk, (kan måske nøjes med 200)
* Disk -> sapdata 100Gb
* Security -> indsat public key

Logget ind via min putty klient, hvor min privat key er defineret under connections, SSH, Auth, Credentials.

## Opdateret zypper

* Zypper update
* Zypper patch -y

## Opdateret root password

* Sudo passwd

## Opdateret TimeZone

* Timedatectl set-timezone Europe/Copenhagen

## Installeret prereq pakker

* zypper install libgcc\_s1 libstdc++6 libatomic1
* zypper install saptune

## SAPtune

* saptune solution list (for at se tilgængelige)
* saptune solution apply S4HANA-APP+DB
* saptune service enablestart
* saptune note list

## Diskhåndtering for installering af HANA

pvcreate /dev/sdc

vgcreate vg\_sap\_data /dev/sdc

lvcreate -L 395G -n lv\_sap\_data vg\_sap\_data (lavet på en 400Gb disk)

mkfs.ext4 /dev/vg\_sap\_data/lv\_sap\_data

mkdir /sap\_data

tilføje lv efter hver boot

vim /etc/fstab

/dev/vg\_sap\_data/lv\_sap\_data /sap\_data ext4 defaults 0 0

mount /dev/vg\_sap\_data/lv\_sap\_data /sap\_data

sudo chmod a+w /sap\_data

df -h

sudo lsblk

sudo mkfs.ext4 -m 0 -F -E lazy\_itable\_init=0,lazy\_journal\_init=0,discard /dev/sdb

sudo mkdir /hana && sudo mkdir /sapdata

sudo mount -o discard,defaults /dev/sdb /hana

sudo chmod a+w /hana && chmod a+w /sapdata

sudo blkid /dev/sdb -> kopier output

vim /etc/fstab (lav evt backup af fil) indsæt UUID og rediger fil som på screendump

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df -h (nu er /dev/sdb på ca 300gb med /hana )

chown root /hana

chmod -R 777 /hana

ls -ltr

Disk hana skal holde HANA + S/4

Disk sapdata skal indeholde data installations pakker

## Oprette SWAP

SAP HANA skal bruge mindst 20480MB swap plads [(SUSE help)](https://documentation.suse.com/sles/12-SP5/html/SLES-all/cha-advdisk.html)

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* mkdir -p /hana/var/lib/swap
* dd if=/dev/zero of=/hana/var/lib/swap/swapfile bs=1M count=20480
* mkswap /hana/var/lib/swap/swapfile
* chmod 0600 /hana/var/lib/swap/swapfile
* swapon /hana/var/lib/swap/swapfile

Tilføje swap permanent tilføj linje til /etc/fstab

- /hana/var/lib/swap/swapfile swap swap defaults 0 0

## Åbnet for VM så der kan logges på med pasword

* vim /etc/ssh/sshd\_config
* PasswordAuthentication ændres fra no til yes
* Service sshd restart

## Kopieret sap installationsfiler

Åbnet i stifinder til mappe hvor sap og java ligger. Trykket på ”adresse” feltet og skrevet cmd, så command-line åbner med korrect filepath.

* Scp filer til root@vm-ipaddress:/sapdata

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## Installeringen

Udpakket S/4 HANA

* S/4HANA kommer i en zip fil 51057281.zip
* Unzip 51057281.zip -d /sapdata
* Cd /sapdata/DATA\_UNITS/HDB\_SERVER\_LINUX\_X86\_64
* ./hdblcm
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## Great Succes!

## Interagerer med DB

* Skift bruger til hxeadm (ksaadm)
* Su – hxeadm
* HDB info

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* HDB start

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* HDB stop

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## Installering af S/4 HANA

For at kunne installere S/4 Hana, skal man bruge SAP SWPM (SoftWare Provisioning Manager)

Udpakning af SWPM med SAP CAR

* ./SAPCAR\_1200-70007716.EXE -tvf SWPM20SP17\_0-70003177.SAR
* Tvf (t) for test (v) for Verbose (f) file
* ./SAPCAR\_1200-70007716.EXE -xvf SWPM20SP17\_0-70003177.SAR
* Xvf (x) for execute (v) for Verbose (f) file
* ./sapinst

Nu kører SWPM og der er et link til en webgui

<https://dbhana.europe-west1-b.c.hive-415108.internal:4237/sapinst/docs/index.html>

* Som er en intern web adresse.

Ændret til en extern adresse:

<https://34.38.30.175:4237/sapinst/docs/index.html>

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blokeret i Firewall hos google

Tilføjet firewall regel på google cloud

Åbnet for port 4237

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Så er der hul igennem

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Bare følg guiden…



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## S/4HANA Screenshot

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## SAP GUI installation

Downloaded SAP GUI for Java 7.80

Udpakket filen til /GUI

* unzip GUI780Installation\_6-80007255.ZIP -d /hana/SAP\_Lib/GUI

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Hvis der skal bruges en Linux med desktop:

sudo apt update && apt upgrade -y

sudo apt-get install ubuntu-desktop -y

wget https://download.nomachine.com/download/8.11/Linux/nomachine\_8.11.3\_4\_amd64.deb

sudo apt install ./nomachine\_8.11.3\_4\_amd64.deb

åben google firewall -> create firewall roule -> tcp 4000

hvis der ikke er sat er root password skal det indstilles.

Rediger i /etc/ssh/sshd\_config

PasswordAuthentication -> yes

Adduser (hvis der ikke findes nogle)

Usermod -a -G sudo,adm ”user navn”

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* unzip GUI780Installation\_6-80007255.ZIP -d /home/saunte/Downloads/
* ./ PlatinGUI-Linux-x86\_64-Installation
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* Next, next indtil
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* Der skal åbnes for porte 3201,3202,3601,3602 i firewall, da de er forbindelses porte mellem SAP message server og WEBGUI
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## Stop og Start af systemet

For at starte SAP systemet, skal man starte med at logge på SAP HANA derefter på S/4 og starte systemerne op.

* Sudo su – ksaadm
* HDB start [Starter HANA database instansen]
* Sudo su – askadm
* Sapcontrol -nr 01 -function GetProcessList [viser status på processor]
* Sapcontrol -nr 01 -function StartSystem [Starter instans 01 S/4 HANA]

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