



accenture

DR TEST

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21.09.2022	1.0	Current draft	Ritvik Bahirwar
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14.08.2024	3.0	Lessons learnt during DR Drill	Ritvik Bahirwar

Contents

1. Planning	4
1.1. HANA Replication (ASYNC + LOGREPLAY) from Primary to DR.....	4
1.2. ASR for the SAP application servers.....	4
1.3. Root access to be given to Basis team for all QA and Production VM	4
1.4. Pre-steps to performed.....	4
1.5. Request for Firefighter ID in PRP, PWM and PBI	5
2. DR Testing Phase	6
2.1. Lock all Business users Except testing User	6
2.2. Stop all replication on PLT.....	6
2.3. Stop SAP PO	8
2.4. Stop Web dispatcher.....	9
2.5. Execute pre DR test functional report	9
2.6. Stop the Application (Tomcat and CIA) on BOBJ (isappb100)	9
2.7. Stop the Application (Tomcat and CIA) on BODS (isappds00)	10
2.8. Stop SAP Application Primary	10
2.9. Stop SAP DB on Primary.....	14
2.10. Stop the Quality System (Application + DB).....	17
2.11. Provide HANA DB Server DNS change list to Infra	22
2.12. Perform takeover to DR HANA database.....	23
2.12.1. Change the DR hostname with assigning a hostname as primary and execute a HANA hostname change.....	23
2.12.2. Run sapcontrol -nr 00 -function Stop (on DR side) to stop the DR site.	23
2.12.3. Run hdbnsutil -sr_unregister to unregister the replication DBs.	24
2.12.4. Hash out parameter global allocation limit hash out in secondary of PH2.	24
2.12.5 Hash out DR specific parameters from HANA DR (preload_column_table=true)	25
2.12.5. Run sapcontrol -nr 00 -function Start (on DR side) to start the DR site.	25
2.12.6. Run hdbnsutil -sr_state	26
2.12.7. Make Hostfile changes to accommodate new hostname	26
2.10.8. Run this at location - /hana/shared/PHx/hdblcm.....	27
2.13. Spin the application VM on DR site by ASR	29
2.14. Update DNS.....	29
2.15. Start the DR SAP application.....	29

2.16. Handover the system for testing	35
2.17. Disable batch jobs, Scot etc. Need to check with Imperial.....	35
2.18. Sanity check of the systems	36
2.19. Execute post DR test functional report.....	48
2.20. Handover the system for testing	48
2.21. Compare reports between environments and give feedback	48
2.22. Perform Setup Replication between Primary and secondary.....	48
3. Fallback DR	49
3.1 Disable the replication	49
3.1. Stop the application and DB on DR site	49
3.2. Stop the applications: BOBJ and BODS	50
3.3. Stop the VMs.....	52
3.4. Change the DNS Back.....	52
3.5. Decommission the Application VMs (Created by ASR).....	52
3.6. Start the HANA DB and Application in Primary site (Old IPs)	52
3.7. Fallback scenario:.....	54
3.8. Register the Secondary DB (Quality DB Servers)	62
3.9. Bring up the Quality APP+DB	64
3.10. Basic health check of the system.....	64
3.10. Handover the system to Imperial	75
3.11. Execute reports on production after failback	75
3.12. Compare reports between environments and give feedback	75
3.13. Unlock all users	75
3.14. Start Batch Jobs.....	75
3.15. Start PLT Replication	76
3.16. Start Web Dispatcher.....	77
3.17. Check PO	78
3.18. DR test complete.....	80

1. Planning

1.1. HANA Replication (ASYNC + LOGREPLAY) from Primary to DR

- Check the connectivity status

The screenshot shows the SAP HANA Studio interface. On the left, the 'Systems' tree view is expanded, showing various SAP systems like DH2@DH2, DH4, HD4, HDI@DH6, SYSTEMDB@DH1, SYSTEMDB@DH2, SYSTEMDB@DH6, Prod, COCKPITDB@PH6, HSA@PH6, HSJ@PH6, PH1@PH1, and PH2@PH2. The 'PH4 (ASINGH4) [Production System]' node is selected. The main right pane displays the 'System Information' tab for PH4, with a table titled 'Replication Status'. The table lists four hosts (ihdbph4 ihdbqh400) and their replication details:

HOST	SECONDARY_HOST	REPLICATION_MODE	REPLICATION_STATUS	REPLICATION_STATUS_DETAILS	PORT	VOLUME_ID	SITE_ID
ihdbph4 ihdbqh400		ASYNC	ACTIVE		30,007	3	1 E
ihdbph4 ihdbqh400		ASYNC	ACTIVE		30,001	1	1 E
ihdbph4 ihdbqh400		ASYNC	ACTIVE		30,004	5	1 E
ihdbph4 ihdbqh400		ASYNC	ACTIVE		30,003	4	1 E

1.2. ASR for the SAP application servers.

- To be performed from CMS end.

1.3. Root access to be given to Basis team for all QA and Production VM

- To be performed from CMS end.

1.4. Pre-steps to perform.

- Backup of the /etc/hosts file for all applications and HANA databases, both primary and secondary.
- Backup of certificates from /usr/sap/SID/HDB**/ihdbph*00/sec for both primary and secondary.

- Backup of the saprofile.ini and nameserver.ini files for both primary and secondary.
- Backup of the /usr/sap/PH*/SYS/global/hdb/custom/config file for both primary and secondary.

1.5. Request for Firefighter ID in PRP, PWM and PBI

- Drop an email to client requesting for firefighter IDs in PRP, PWM and PBI.

RE: FF Access request - 17191## Change logs for BD64 - 22/08/2022



Narayan, Purushottam

To Gerhard Goosen

Cc ATCI.Imperial_Basis-AO; ServiceDesk; Rashid Mahomed; D&IT SAP FireFighter; Ruth Brown



8/22/2022

Follow up. Start by Wednesday, September 14, 2022. Due by Wednesday, September 14, 2022.

Subject: FF Access request - 17191## Change logs for BD64 - 22/08/2022

Hello Rashid,

Kindly approve for the FF access in PRP system.

 Imperial <small>beyond possibility</small>		FIRE FIGHTER ACCESS REQUEST
From Date:	22-08-2022	
To Date:	23-08-2022	
Name and Surname:	Purushottam Narayan	
Incident Number:	17191## Change logs for BD64 - 22/08/2022	
System Access Required	Select System from Dropdown	
ECC Fi and Logistics (PRP):	PRP	
Extended Warehouse Management	Select from Drop Down	

- Update the template shown below accordingly for the access request.

 Imperial <small>beyond possibility</small>		FIRE FIGHTER ACCESS REQUEST
From Date:	22-08-2022	
To Date:	23-08-2022	
Name and Surname:	Purushottam Narayan	
Incident Number:	17191## Change logs for BD64 - 22/08/2022	

System Access Required	Select System from Dropdown
ECC Fi and Logistics (PRP):	PRP
Extended Warehouse Management (PWM):	Select from Drop Down
BW Prod (PBI):	Select from Drop Down
Company impacted:	D&IT
Motivation and Transactions:	BD64

2. DR Testing Phase

2.1. Lock all Business users Except testing User

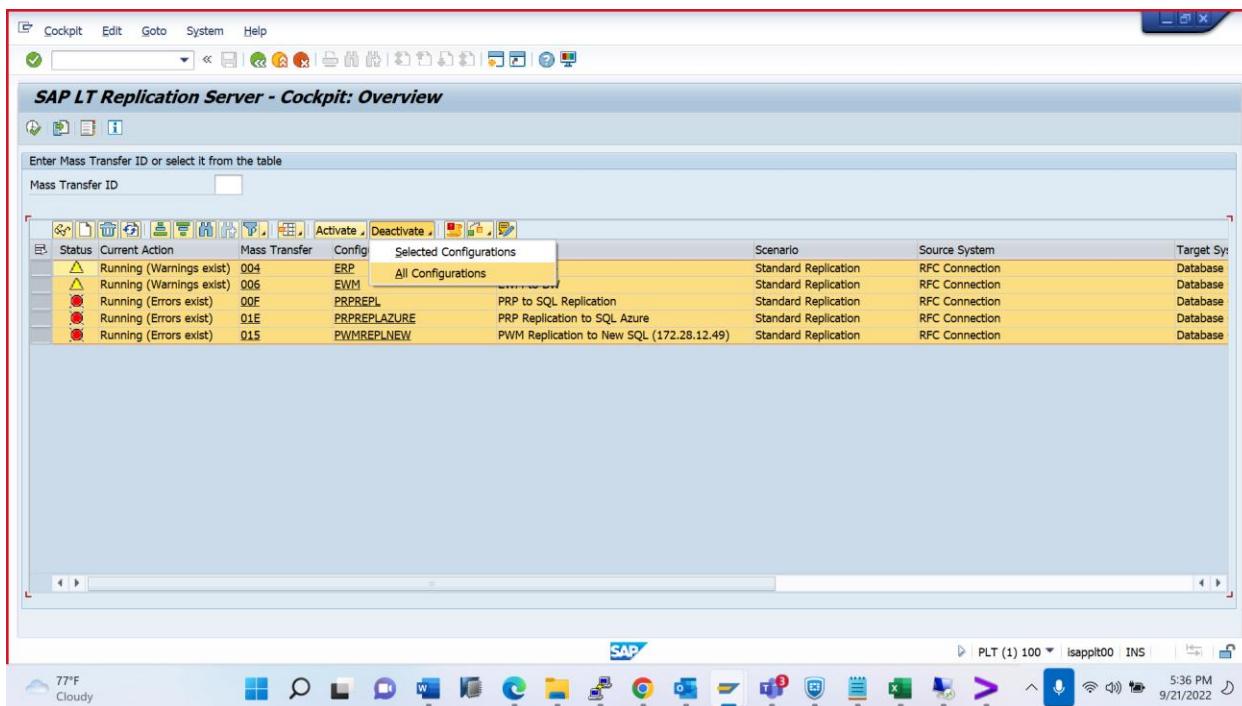
- To be performed from Imperial end.

2.2. Stop all replication on PLT

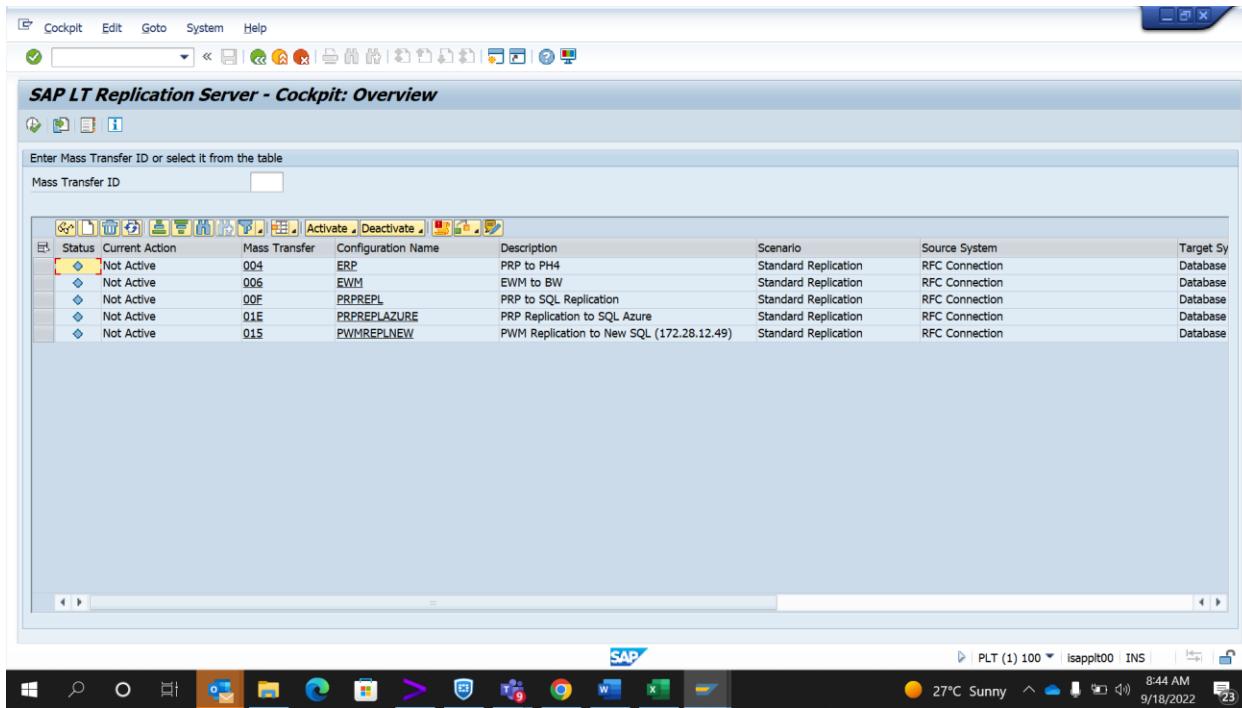
- Go to **LTRC** T-code in PLT system -> Select all replication configurations -> Click on **Deactivate** button -> Select **ALL Configurations**.

SAP LT Replication Server - Cockpit: Overview

Status	Current Action	Mass Transfer	Configuration Name	Description	Scenario	Source System	Target Sy
Running (Errors exist)	004	ERP	PRP to PH4	Standard Replication	RFC Connection	Database	
Running (Warnings exist)	006	EWM	EWM to BW	Standard Replication	RFC Connection	Database	
Running (Errors exist)	00F	PRPREPL	PRP to SQL Replication	Standard Replication	RFC Connection	Database	
Running (Errors exist)	01E	PRPREPLAZURE	PRP Replication to SQL Azure	Standard Replication	RFC Connection	Database	
Running (Warnings exist)	015	PWMREPLNEW	PWM Replication to New SQL (172.28.12.49)	Standard Replication	RFC Connection	Database	



- All the selected configurations will be stopped as shown.



2.3. Stop SAP PO

```
172.31.37.8 - PuTTY

# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Fri Sep 16 15:51:59 2022 from 172.31.246.165
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

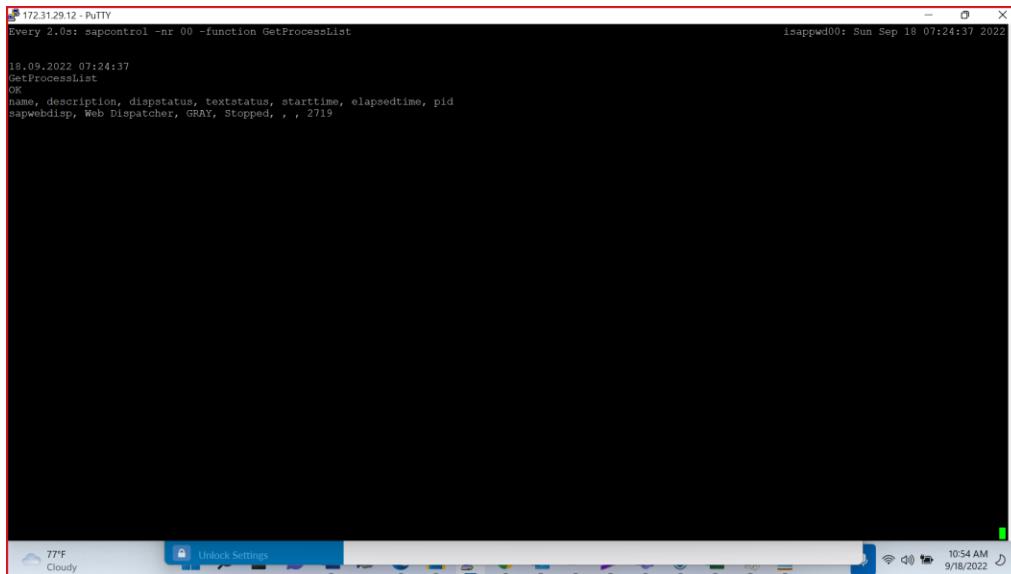
As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
arsdeep.singh@imperial.local:~$ sudo su - ppoadm
isappoo00:ppoadm 54> watch sapcontrol -nr 00 -function GetProcessList
isappoo00:ppoadm 55> watch sapcontrol -nr 01 -function GetProcessList
isappoo00:ppoadm 56> logout
arsdeep.singh@imperial.local:~$ sudo su - sybppo
isappoo00 /sysbase/PPO% showserver
F S UID PID PPID C PRI NI ADDR SZ WCHAN STIME TTY TIME CMD
0 S sysbppo 21408 21407 0 80 0 - 9627 Sys_po Jun19 ? 00:11:35 /sysbase/PPO/ASE-16_0/bin/backupserver -e/sybase/PPO/ASE-16_0/install/PPO_BS.log -n
25 -C20 -I/sysbase/PPO/interfaces -M/sybase/PPO/ASE-16_0/bin/sybmultbuf -SPP0_BS -f/sysbase/PPO/ASE-16_0/PPO_BS.cfg
0 S sysbppo 20497 20496 8 80 - 8247134 Jun19 ? 00:00:23:20 /sysbase/PPO/ASE-16_0/bin/dataserver -d/sybase/PPO/sybsystem/master.dat -e/sybase
/PPO/ASE-16_0/install/PFO.log -c/sybase/PPO/ASE-16_0/PFO.cfg -M/sybase/PPO/ASE-16_0 -N/sybase/PPO/ASE-16_0/syssam/PFO.properties -i/sybase/PPO -sPFO
isappoo00 /sysbase/PPO% stopsap
stopsap: Command not found.
isappoo00 /sysbase/PPO% kill -9 21408 20497
isappoo00 /sysbase/PPO% showserver
F S UID PID PPID C PRI NI ADDR SZ WCHAN STIME TTY TIME CMD
isappoo00 /sysbase/PPO% showserver
F S UID PID PPID C PRI NI ADDR SZ WCHAN STIME TTY TIME CMD
isappoo00 /sysbase/PPO%
```

2.4. Stop Web dispatcher



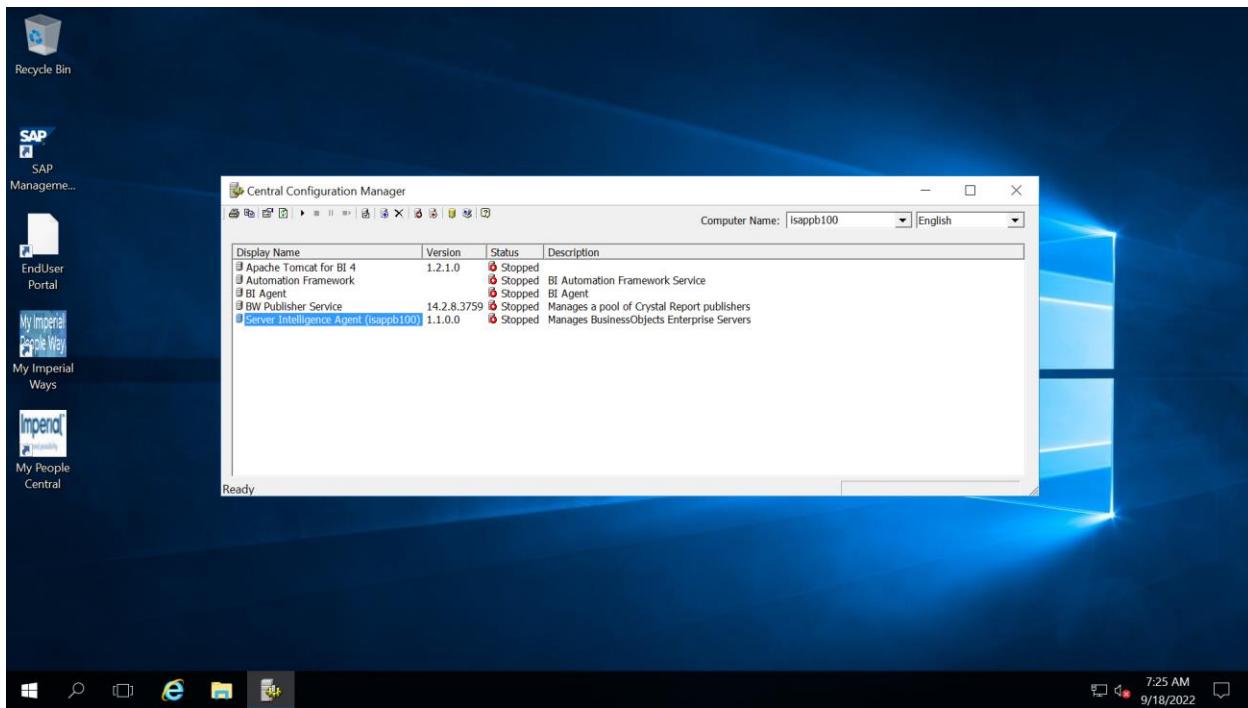
```
172.31.29.12 - PuTTY
Every 2.0s: capcontrol -mr 00 -function GetProcessList
18.09.2022 07:24:37
GetProcessList
3K
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
sapwebdisp, Web Dispatcher, GRAY, Stopped, , , 2719
```

2.5. Execute pre DR test functional report

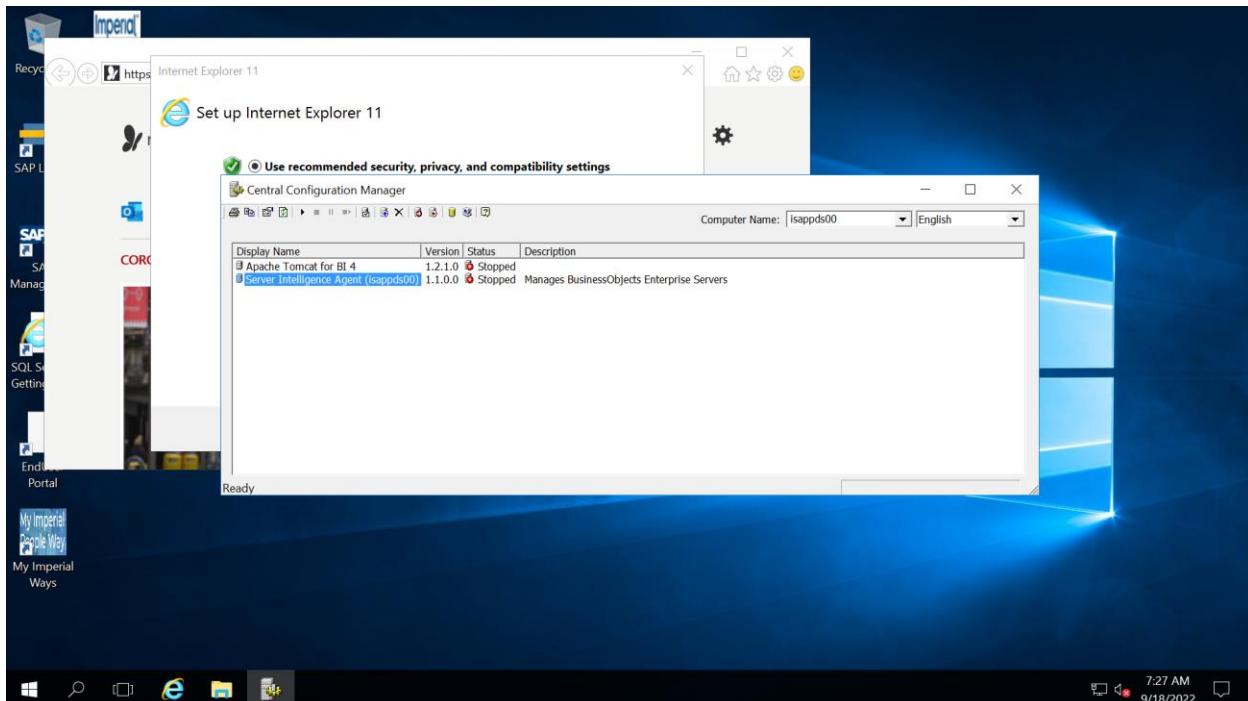
- To be performed from Imperial end.

2.6. Stop the Application (Tomcat and CIA) on BOBJ (isappb100)

PB1



2.7. Stop the Application (Tomcat and CIA) on BODS (isappds00) PDS



2.8. Stop SAP Application Primary PGW -

```
172.31.29.7 - PuTTY
- yast command for configuration management
If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
fitvik.bahirwar@imperial.local:~> sudo su -
Directory: /root
Sun Sep 18 07:28:48 SAST 2022
isappgw00: # ^C
isappgw00: # pgwadm
If "pgwadm" is not a typo you can use command-not-found to lookup the package that contains it, like this:
cnf pgwadm
isappgw00: # su - pgwadm
isappgw00:pgwadm 53> stopsap
Checking sys Database
Database is running
-----
stopping the SAP instance DVEEMGS00
Shutdown-Log is written to /home/pgwadm/stopsap_DVEEMGS00.log
-----
/usr/sap/PGW/DVEEMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Stop
Instance on host isappgw00 stopped
Waiting for cleanup of resources
-----
stopping the SAP instance ASCS01
Shutdown-Log is written to /home/pgwadm/stopsap_ASCS01.log
-----
/usr/sap/PGW/ASCS01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Stop
Instance on host isappgw00 stopped
Waiting for cleanup of resources
.
stopping database PGW ...
stop database completed successfully
Checking sys Database
Database is not available via R3trans
-----
isappgw00:pgwadm 54>
```

DR TEST

PGR-

```
| Password:  
| End of keyboard-interactive prompts from server  
Last login: Tue Sep 13 09:54:02 2022 from 172.31.246.171  
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)  
As "root" (sudo or sudo -i) use the:  
- zypper command for package management  
- yast command for configuration management  
  
If you are using extensions consider to enable the auto-update feature  
of the extension agent and restarting the service. As root execute:  
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf  
- rcwaagent restart  
  
Management and Config: https://www.suse.com/suse-in-the-cloud-basics  
Documentation: http://www.suse.com/documentation/sles-15/  
Forum: https://forums.suse.com/categories/suse-public-cloud  
  
Have a lot of fun...  
ritvik.bahirwar@imperial.local:~> sudo su - pgradm  
isappgr00:pradm 53> stopsap  
Checking sys Database  
Database is running  
-----  
stopping the SAP instance DVEBMGS00  
Shutdown-Log is written to /home/pgradm/stopsap_DVEBMGS00.log  
/usr/sap/PGR/DVEBMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Stop  
Instance on host isappgr00 stopped  
Waiting for cleanup of resources  
.....  
stopping the SAP instance ASCS01  
Shutdown-Log is written to /home/pgradm/stopsap_ASCS01.log  
/usr/sap/PGR/ASCS01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Stop  
Instance on host isappgr00 stopped  
Waiting for cleanup of resources  
. .  
stopping database PGR ...  
stop database completed successfully  
Checking sys Database  
Database is not available via R3trans  
-----  
isappgr00:pradm 54>
```

PRP-

```
login as: purushottam.narayan@imperial.local  
# WELCOME TO IMPERIAL  
# IF you are not a Valid User  
# PLEASE DONT LOGIN & LOGOUT  
# YOUR ACTIVITY IS BEING MONITORED  
#-----  
Using keyboard-interactive authentication.  
Password:  
Last login: Wed Sep 14 15:59:30 2022 from 172.31.246.170  
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)  
As "root" (sudo or sudo -i) use the:  
- zypper command for package management  
- yast command for configuration management  
  
If you are using extensions consider to enable the auto-update feature  
of the extension agent and restarting the service. As root execute:  
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf  
- rcwaagent restart  
  
Management and Config: https://www.suse.com/suse-in-the-cloud-basics  
Documentation: http://www.suse.com/documentation/sles-15/  
Forum: https://forums.suse.com/categories/suse-public-cloud  
  
Have a lot of fun...  
purushottam.narayan@imperial.local:~> sudo su - prpadm  
isapprp00:prpadm 53> sapcontrol -nr 00 -function StopSystem  
18.09.2022 07:34:08  
StopSystem  
OK  
isapprp00:prpadm 54> watch sapcontrol -nr 00 -function GetSystemInstanceList  
isapprp00:prpadm 55>
```

DR TEST

```
172.31.37.4 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetSystemInstanceList
isapprp00: Sun Sep 18 07:36:18 2022

18.09.2022 07:36:18
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isapprp00, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isapprp01, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isapprp00, 1, 50113, 50114, 1, MESSAGESERVER|ENQUE, GRAY

90°F
Cloudy
ENG IN 11:06 AM 18-09-2022 4
```

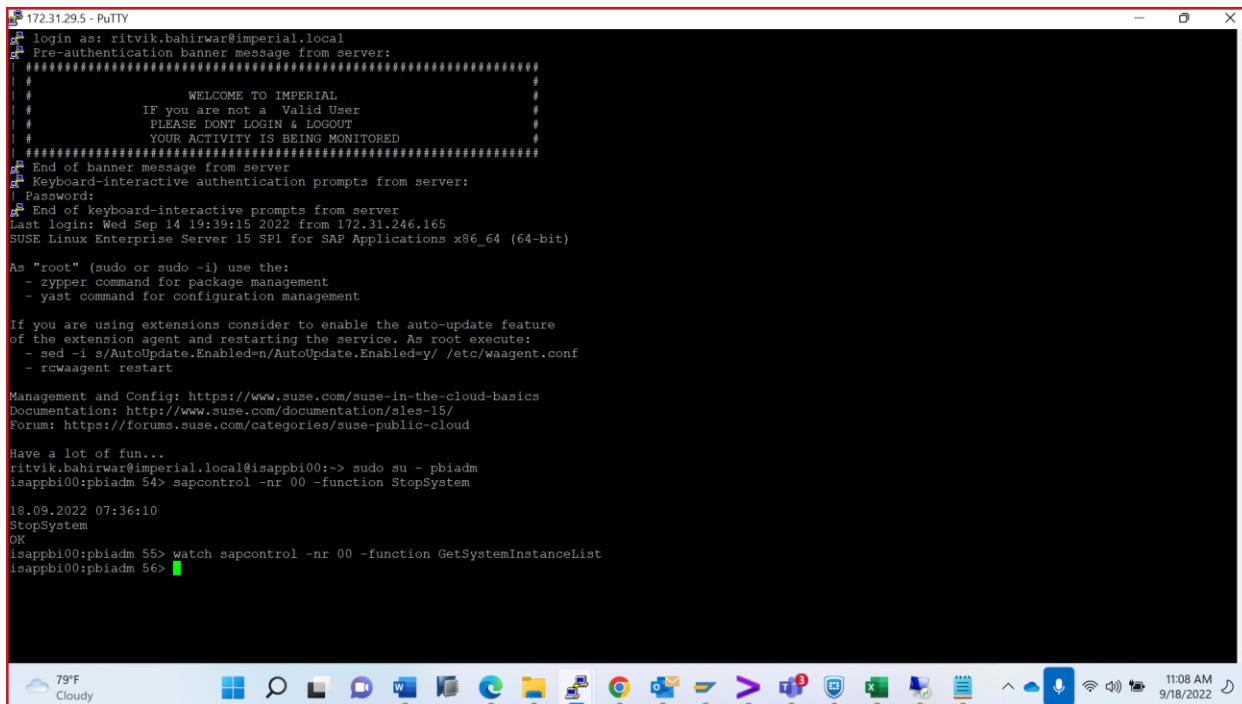
PWM-

```
172.31.37.9 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetSystemInstanceList
isappwm00: Sun Sep 18 07:36:31 2022

18.09.2022 07:36:31
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isappwm02, 2, 50213, 50214, 3, ABAP|GATEWAY|ICMAN|IGS, GREEN
isappwm01, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isappwm00, 1, 50113, 50114, 1, MESSAGESERVER|ENQUE, GRAY
isappwm00, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY

90°F
Cloudy
ENG IN 11:06 AM 18-09-2022 4
```

PBI -



```

172.31.29.5 - PuTTY
login as: ritvik.bahirwar@imperial.local
Pre-authentication banner message from server:
#####
# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
End of banner message from server
Keyboard-interactive authentication prompts from server:
Password:
End of keyboard-interactive prompts from server
Last login: Wed Sep 14 19:39:15 2022 from 172.31.246.165
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

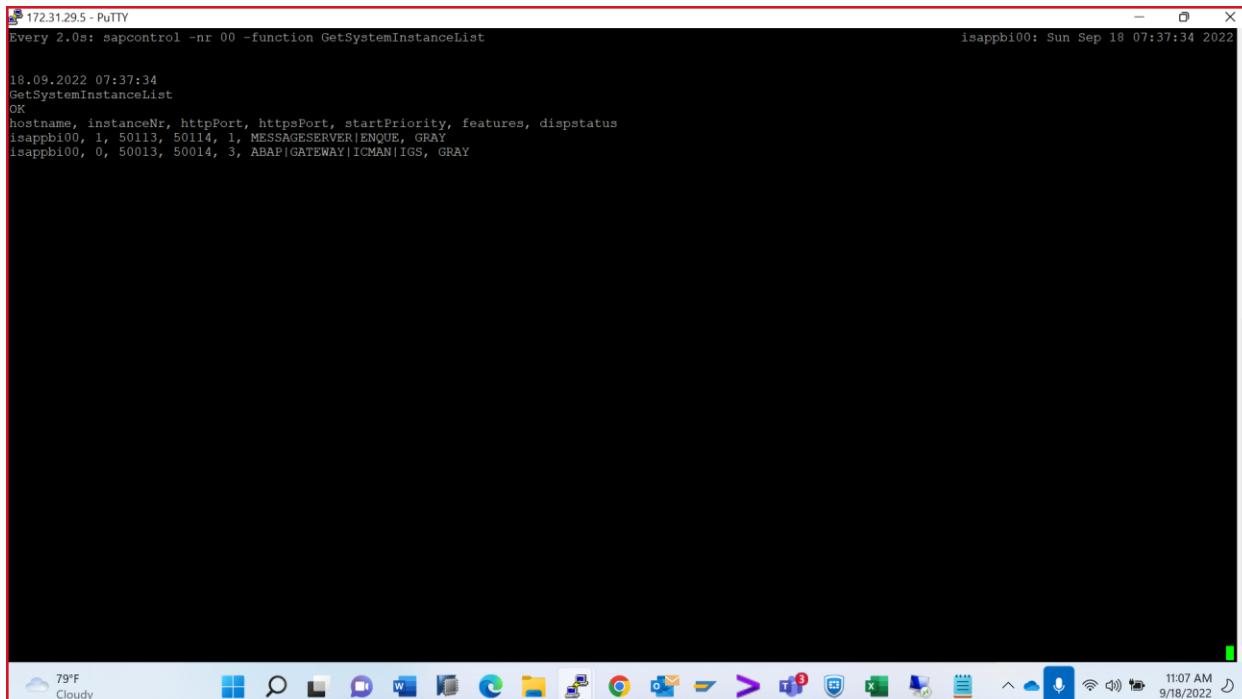
As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
ritvik.bahirwar@imperial.local@isappbi00:~> sudo su - pbiadm
isappbi00:~> sapcontrol -nr 00 -function StopSystem
18.09.2022 07:36:10
StopSystem
OK
isappbi00:pbiadm 54> watch sapcontrol -nr 00 -function GetSystemInstanceList
isappbi00:pbiadm 56>

```



```

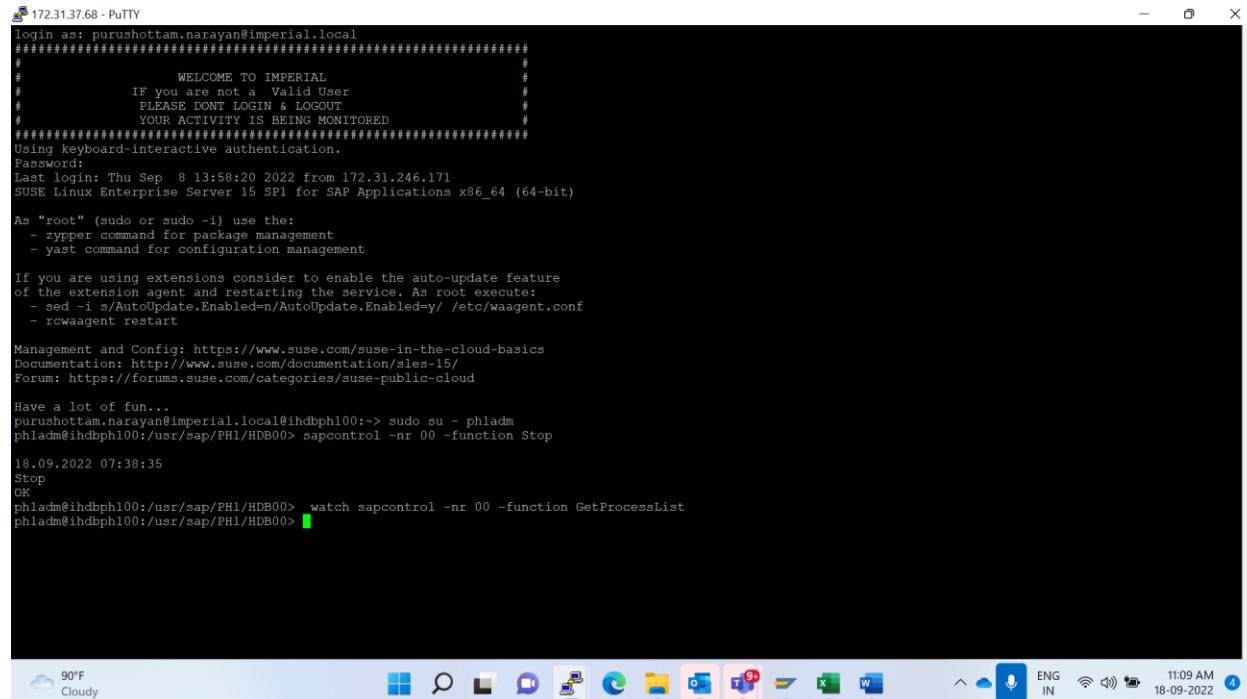
172.31.29.5 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetSystemInstanceList
isappbi00: Sun Sep 18 07:37:34 2022

18.09.2022 07:37:34
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isappbi00, 1, 50113, 50114, 1, MESSAGESERVER|ENQUE, GRAY
isappbi00, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY

```

2.9. Stop SAP DB on Primary

PH1



```

172.31.37.68 - PuTTY
login as: purushottam.narayan@imperial.local
#####
#          WELCOME TO IMPERIAL
#          IF you are not a Valid User
#          PLEASE DONT LOGIN & LOGOUT
#          YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Thu Sep  8 13:58:20 2022 from 172.31.246.171
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

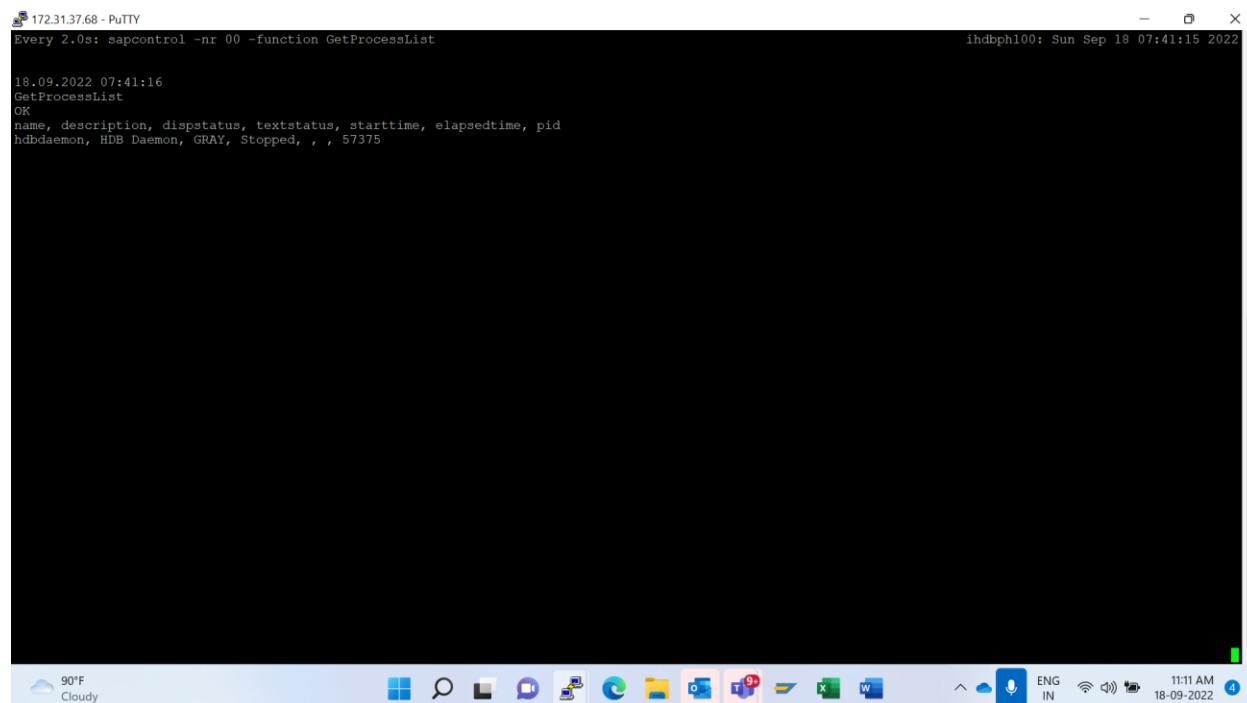
As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun..
purushottam.narayan@imperial.local@ihdbph100:~> sudo su - phladm
phladm@ihdbph100:/usr/sap/PH1/HDB00> sapcontrol -nr 00 -function Stop
18.09.2022 07:38:35
Stop
OK
phladm@ihdbph100:/usr/sap/PH1/HDB00> watch sapcontrol -nr 00 -function GetProcessList
phladm@ihdbph100:/usr/sap/PH1/HDB00>

```



```

Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbph100: Sun Sep 18 07:41:15 2022

18.09.2022 07:41:16
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , , 57375

```

PH2

```

PuTTY - 172.31.37.69 - PuTTY
login as: purushottam.narayan@imperial.local
#####
# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Wed Jul 20 12:51:02 2022 from 172.31.246.169
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local:~> sudo su - ph2adm
ph2adm@ihdbph200:/usr/sap/PH2/HDB00> sapcontrol -nr 00 -function Stop
18.09.2022 07:38:44
Stop
OK
ph2adm@ihdbph200:/usr/sap/PH2/HDB00> watch sapcontrol -nr 00 -function GetProcessList
ph2adm@ihdbph200:/usr/sap/PH2/HDB00>

```

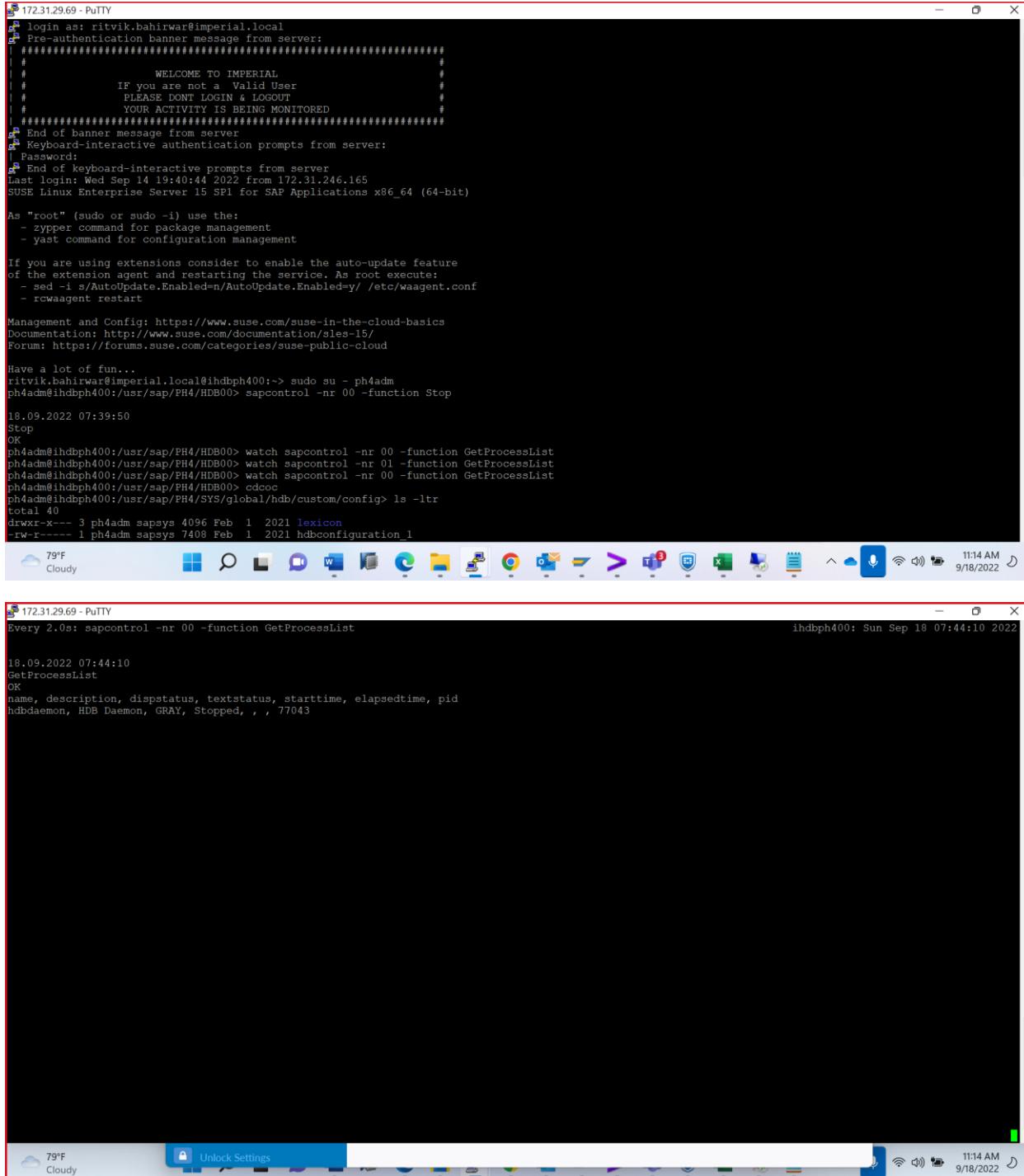


```

PuTTY - 172.31.37.69 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
18.09.2022 07:40:53
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , , 8520

```

PH4



```

172.31.29.69 - PuTTY
login as: ritvik.bahirwar@imperial.local
Pre-authentication banner message from server:
#####
# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
End of banner message from server
Keyboard-interactive authentication prompts from server:
! Password:
End of keyboard-interactive prompts from server
Last login: Wed Sep 14 19:40:44 2022 from 172.31.246.165
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
ritvik.bahirwar@imperial.local@ihdbph400:~> sudo su - ph4adm
ph4adm@ihdbph400:/usr/sap/PH4/HDB00> sapcontrol -nr 00 -function Stop
18.09.2022 07:39:50
Stop
OK
ph4adm@ihdbph400:/usr/sap/PH4/HDB00> watch sapcontrol -nr 00 -function GetProcessList
ph4adm@ihdbph400:/usr/sap/PH4/HDB00> watch sapcontrol -nr 01 -function GetProcessList
ph4adm@ihdbph400:/usr/sap/PH4/HDB00> watch sapcontrol -nr 00 -function GetProcessList
ph4adm@ihdbph400:/usr/sap/PH4/HDB00> cdcoo
ph4adm@ihdbph400:/usr/sap/PH4/SYS/global/hdb/custom/config> ls -ltr
total 40
drwxr-x--- 3 ph4adm sapsys 4096 Feb 1 2021 lexicon
-rw-r----- 1 ph4adm sapsys 7408 Feb 1 2021 hdbconfiguration_1

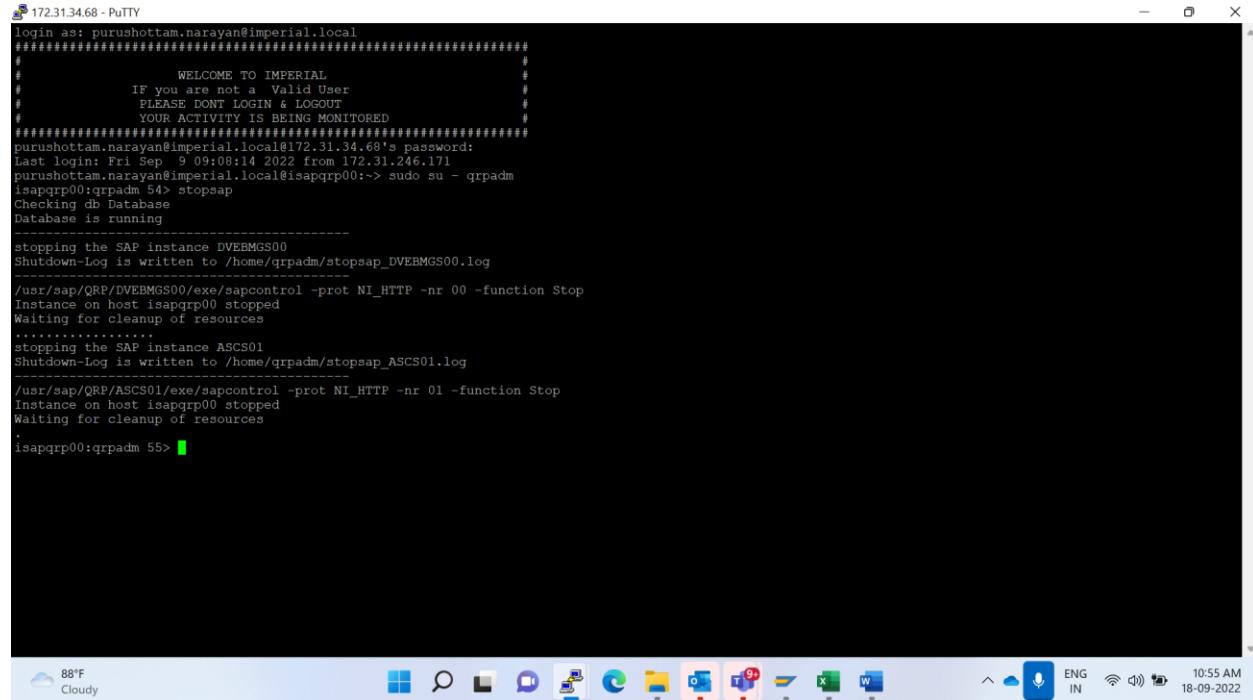
172.31.29.69 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbph400: Sun Sep 18 07:44:10 2022

18.09.2022 07:44:10
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , , 77043

```

2.10. Stop the Quality System (Application + DB)

QRP -



```
172.31.34.68 - PuTTY
login as: purushottam.narayan@imperial.local
#####
#          WELCOME TO IMPERIAL
#          IF you are not a Valid User
#          PLEASE DONT LOGIN & LOGOUT
#          YOUR ACTIVITY IS BEING MONITORED
#####
purushottam.narayan@imperial.local$ 172.31.34.68's password:
Last login: Fri Sep  9 09:08:14 2022 from 172.31.246.171
purushottam.narayan@imperial.local$ isapqrp00:~> sudo su - qrpadm
isapqrp00:qrpadm 54> stopsap
Checking db Database
Database is running
-----
stopping the SAP instance DVEBMGS00
Shutdown-Log is written to /home/qrpadm/stopsap_DVEBMGS00.log
/usr/sap/QRP/DVEBMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Stop
Instance on host isapqrp00 stopped
Waiting for cleanup of resources
-----
stopping the SAP instance ASCS01
Shutdown-Log is written to /home/qrpadm/stopsap_ASCS01.log
/usr/sap/QRP/ASCS01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Stop
Instance on host isapqrp00 stopped
Waiting for cleanup of resources
:
isapqrp00:qrpadm 55>
```

QWM-

DR TEST

```
172.31.34.70 - PuTTY
WELCOME TO IMPERIAL
IF you are not a Valid User
PLEASE DONT LOGIN & LOGOUT
YOUR ACTIVITY IS BEING MONITORED

Using keyboard-interactive authentication.
Password:
Last login: Mon Aug 29 19:51:00 2022 from 172.31.246.170
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/vaagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local@isapgwm00:~> sudo su - qwmadm
isapgwm00:qwmadm 53> stopsap
Checking db Database
Database is running
-----
stopping the SAP instance D00
Shutdown-Log is written to /home/qwmadm/stopsap_D00.log
/usr/sap/QWM/D00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Stop
Instance on host isapgwm00 stopped
Waiting for cleanup of resources
-----
stopping the SAP instance ASCS01
Shutdown-Log is written to /home/qwmadm/stopsap_ASCS01.log
/usr/sap/QWM/ASCS01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Stop
Instance on host isapgwm00 stopped
Waiting for cleanup of resources
.
isapgwm00:qwmadm 54>
```

QBI-

```
172.31.34.69 - PuTTY
WELCOME TO IMPERIAL
IF you are not a Valid User
PLEASE DONT LOGIN & LOGOUT
YOUR ACTIVITY IS BEING MONITORED

Using keyboard-interactive authentication.
Password:
Last login: Tue Feb 22 10:17:19 2022 from 172.31.246.154
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/vaagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local@isapgbi00:~> sudo su - qbiadm
isapgbi00:qbiadm 52> stopsap
Checking db Database
Database is running
-----
stopping the SAP instance DVEBMGS00
Shutdown-Log is written to /home/qbiadm/stopsap_DVEBMGS00.log
/usr/sap/QBI/DVEBMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Stop
Instance on host isapgbi00 stopped
Waiting for cleanup of resources
-----
stopping the SAP instance ASCS02
Shutdown-Log is written to /home/qbiadm/stopsap_ASCS02.log
/usr/sap/QBI/ASCS02/exe/sapcontrol -prot NI_HTTP -nr 02 -function Stop
Instance on host isapgbi00 stopped
Waiting for cleanup of resources
.
isapgbi00:qbiadm 53>
```

QH1-

DR TEST

```
172.31.34.201 - Putty
login as: purushottam.narayan@imperial.local
#####
# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Fri Sep  9 08:38:16 2022 from 172.31.246.171
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/uaagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local:~> sudo su - qhlaadm
qhlaadm@ihdbqh100:/usr/sap/QH1/HDB03> sapcontrol -nr 03 -function Stop
18.09.2022 07:26:40
Stop
OK
qhlaadm@ihdbqh100:/usr/sap/QH1/HDB03>
```

```
172.31.34.201 - Putty
Every 2.0s: sapcontrol -nr 03 -function GetProcessList
                                         ihdbqh100: Sun Sep 18 07:29:00 2022

18.09.2022 07:29:00
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , 18746

                                         10:59 AM
                                         18-09-2022
```

QH2-

DR TEST

```
172.31.34.204 - Putty
login as: purushottam.narayan@imperial.local
#####
# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Wed Sep 14 14:27:49 2022 from 172.31.246.170
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local:~> sudo su - qh2adm
qh2adm@ihdbqh200:/usr/sap/QH2/HDB03> sapcontrol -nr 03 -function Stop
18.09.2022 07:26:48
Stop
OK
qh2adm@ihdbqh200:/usr/sap/QH2/HDB03> █
```

```
172.31.34.204 - Putty
Every 2.0s: sapcontrol -nr 03 -function GetProcessList          ihdbqh200: Sun Sep 18 07:29:11 2022

18.09.2022 07:29:11
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , 7936
```

QH4-

DR TEST

```
172.31.34.203 - Putty
login as: purushottam.narayan@imperial.local
#####
# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Wed Aug 17 09:49:25 2022 from 172.31.246.167
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/uaagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local:~> sudo su - qh4adm
qh4adm@ihdbqh400:/usr/sap/QH4/HDB03> sapcontrol -nr 03 -function Stop
18.09.2022 07:26:52
Stop
OK
qh4adm@ihdbqh400:/usr/sap/QH4/HDB03> █
```

```
172.31.34.203 - Putty
Every 2.0s: sapcontrol -nr 03 -function GetProcessList          ihdbqh400: Sun Sep 18 07:29:22 2022

18.09.2022 07:29:22
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , , 9866

18.09.2022 07:29:22
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , , 9866

18.09.2022 07:29:22
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GRAY, Stopped, , , 9866
```

2.11. Provide HANA DB Server DNS change list to Infra

RE: DR Testing Plan



Saha, Aveek

To: Ghalaut, Ravi; Saha, Madhushree; Rashid Mahomed
 Cc: Shaik, Siraj A.; Gupta, Supriya; Batra, Yatin; Tandon, Anshuma; ATCI.Imperial_Basis-AO;
 Neha, Neha B.; Singh, Karambir A.; Sean Sterley; Shaun Constable; Daryl James



Wed 9/14

i Follow up. Start by Wednesday, September 14, 2022. Due by Wednesday, September 14, 2022.

Hi Ravi/Rashid,

Please append the following changes to the **DNS change-list** during DR, as these relate to the **HANA DB DR server** changes :-

Before DR

172.31.37.68	ihdbph100.imperial.local	ihdbph100
172.31.37.69	ihdbph200.imperial.local	ihdbph200
172.31.29.69	ihdbph400.imperial.local	ihdbph400
172.31.34.201	ihdbqh100.imperial.local	ihdbqh100
172.31.34.204	ihdbqh200.imperial.local	ihdbqh200
172.31.34.203	ihdbqh400.imperial.local	ihdbqh400

During DR

#172.31.37.68	ihdbph100.imperial.local	ihdbph100	(hash out)
Production HANA IP)			
#172.31.37.69	ihdbph200.imperial.local	ihdbph200	(hash out)

Before DR

172.31.37.68	ihdbph100.imperial.local	ihdbph100
172.31.37.69	ihdbph200.imperial.local	ihdbph200
172.31.29.69	ihdbph400.imperial.local	ihdbph400
172.31.34.201	ihdbqh100.imperial.local	ihdbqh100
172.31.34.204	ihdbqh200.imperial.local	ihdbqh200
172.31.34.203	ihdbqh400.imperial.local	ihdbqh400

During DR

#172.31.37.68	ihdbph100.imperial.local	ihdbph100	(hash out Production HANA IP)
#172.31.37.69	ihdbph200.imperial.local	ihdbph200	(hash out Production HANA IP)
#172.31.29.69	ihdbph400.imperial.local	ihdbph400	(hash out Production HANA IP)
172.31.34.201	ihdbqh100.imperial.local	ihdbqh100	ihdbph100.imperial.local ihdbph100 (Add Production DB host alias to Quality DB IP)
172.31.34.204	ihdbqh200.imperial.local	ihdbqh200	ihdbph200.imperial.local ihdbph200 (Add Production DB host alias to Quality DB IP)
172.31.34.203	ihdbqh400.imperial.local	ihdbqh400	ihdbph400.imperial.local ihdbph400 (Add Production DB host alias to Quality DB IP)

DR Fallback

172.31.37.68	ihdbph100.imperial.local	ihdbph100 (Revert back earlier settings)
172.31.37.69	ihdbph200.imperial.local	ihdbph200 (Revert back earlier settings)
172.31.29.69	ihdbph400.imperial.local	ihdbph400 (Revert back earlier settings)
172.31.34.201	ihdbqh100.imperial.local	ihdbqh100 (Revert back earlier settings)
172.31.34.204	ihdbqh200.imperial.local	ihdbqh200 (Revert back earlier settings)
172.31.34.203	ihdbqh400.imperial.local	ihdbqh400 (Revert back earlier settings)

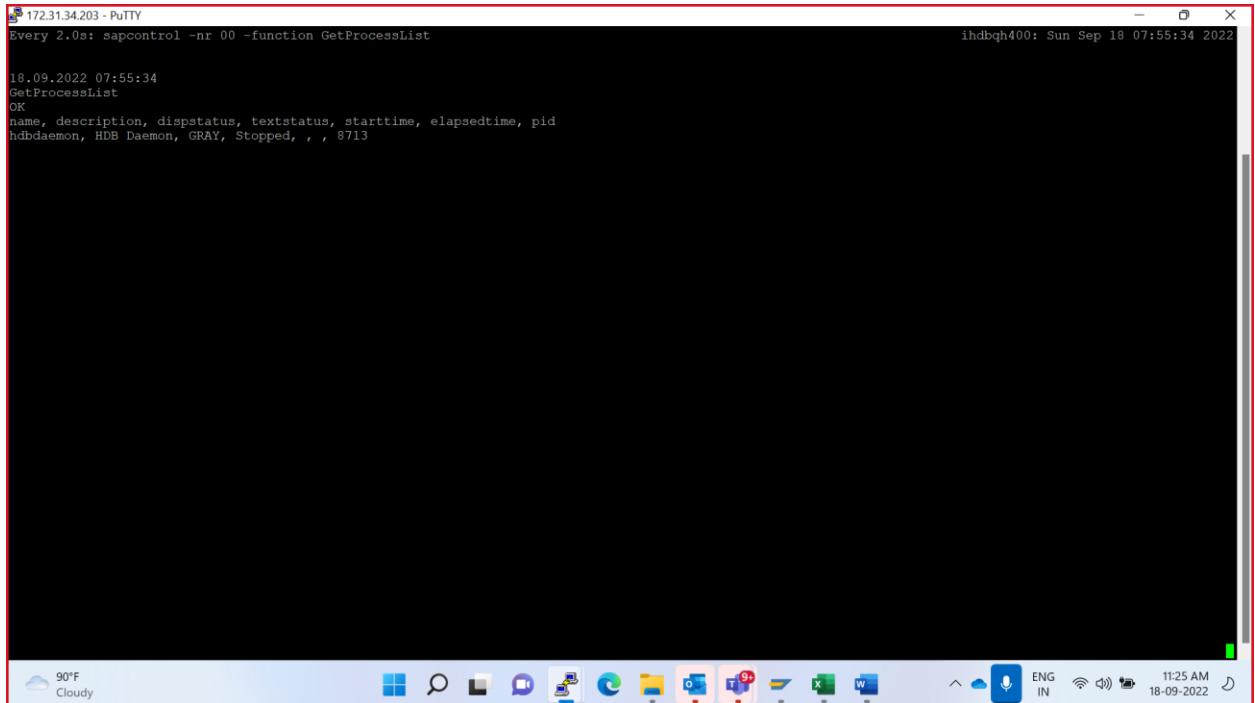
2.12. Perform takeover to DR HANA database

Failover scenario:

- ihdbqh100 → rename to → ihdbph100(PRD) on DR Site
- ihdbqh200 → rename to → ihdbph200(PRD) on DR Site
- ihdbqh400 → rename to → ihdbph400(PRD) on DR Site
- (PRD)ihdbph100 → rename to → ihdbph100dr (NEW PRD) on Primary Site
- (PRD)ihdbph200 → rename to → ihdbph200dr (NEW PRD) on Primary Site
- (PRD)ihdbph400 → rename to → ihdbph400dr (NEW PRD) on Primary Site

2.12.1. Change the DR hostname with assigning a hostname as primary and execute a HANA hostname change.

2.12.2. Run **sapcontrol -nr 00 -function Stop** (on DR side) to stop the DR site.



```
172.31.34.203 - Putty
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbqh400: Sun Sep 18 07:55:34 2022

18.09.2022 07:55:34
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbsdaemon, HDB Daemon, GRAY, Stopped, , , 8713
```

2.12.3. Run **hdbnsutil -sr_unregister** to unregister the replication DBs.

```
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> hdbnsutil -sr_unregister
unregistering site ...
nameserver ihdbqh400:30001 not responding.
nameserver is shut down, proceeding ...
Opening persistence
run as transaction master
updating topology for system replication takeover ...
mapped host ihdbqh400 to ihdbqh400
sending unregister request to primary site (1) ...
clearing local ini files ...
removing HSR entries from topology ...

#####
##### CAUTION: You must start the database in order to complete the unregistration!
#####

done.
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config>
```

2.12.4. Hash out parameter global allocation limit hash out in secondary of PH2.

```
tcp_keepalive_idle = 3600
sslclientpki = off
sslminprotocolversion = TLS10

[execution]
default_statement_concurrency_limit = 15
max_concurrency = 30
max_concurrency_hint = 30

[expensive_statement]
enable = true

[ldap]
sslminprotocolversion = TLS10

[memorymanager]
statement_memory_limit = 50
enable_sharing_allocator_for_implicit = false
global_allocation_limit = 300000

[multidb]
mode = multidb
singletenant = yes

[parallel]
num_cores = 15

[persistence]
log_backup_timeout_s = 900
enable_auto_log_backup = yes
log_mode = normal
basepath_datavolumes = /hana/data/PH2
basepath_logvolumes = /hana/log/PH2
max_gc_parallelity = 15
non_trans_cch_block_size = 16777216
internal_caching_for_main = false
use_helper_threads_for_flush = false
recovery_queue_count = 2

[resource_tracking]
enable_tracking = on
memory_tracking = on
service_thread_sampling_monitor_enabled = true
service_thread_sampling_monitor_thread_detail_enabled = true
```

DR TEST

2.12.5 Hash out DR specific parameters from HANA DR (preload_column_table=true)

```
g 172.31.34.203 - PuTTY
ssl = on
tcp_backlog = 2048

[execution]
default_statement_concurrency_limit = 12
max_concurrency_hint = 20
max_concurrency = 40

[expensive_statement]
enable = true

[memorymanager]
statement_memory_limit = 200
enable_sharing_allocator_for_implicit = true
global_allocation_limit = 250000

[parallel]
num_cores = 20

[persistence]
casepath_datavolumes = /hana/data/PH4
casepath_logvolumes = /hana/log/PH4
non_trans_cch_block_size = 16777216
max_gc_parallelity = 20
log_backup_timeout_s = 1800

[resource_tracking]
enable_tracking = on
memory_tracking = on
service_thread_sampling_monitor_enabled = true
service_thread_sampling_monitor_thread_detail_enabled = true

[system_information]
usage = production

[system_replication]
operation_mode = logreplay
reload_column_tables = false

[table_placement]
max_rows_per_partition = 1500000000
method = 2
same_num_partitions = true
-- INSERT --
```

2.12.5. Run `sapcontrol -nr 00 -function Start` (on DR side) to start the DR site.

172.31.34.203 - Putty
Every 2.0s: sapcontrol -nr 000 -function GetProcessList ihdbqh400: Sun Sep 18 08:24:24 2022

```
18.09.2022 08:24:24
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbsdaemon, HDB Daemon, GREEN, Running, 2022 09 18 08:22:27, 0:01:57, 13008
hdbservice, HDB Service, GREEN, Running, 2022 09 18 08:22:35, 0:01:49, 13196
hdccompileserver, HDB Compileserver, GREEN, Running, 2022 09 18 08:22:35, 0:01:49, 13196
hdbindexserver, HDB Indexserver, GREEN, Running, 2022 09 18 08:22:38, 0:01:46, 13254
hddbname, HDB Nameserver, GREEN, Running, 2022 09 18 08:22:28, 0:01:56, 13027
hdpreprocessor, HDB Preprocessor, GREEN, Running, 2022 09 18 08:22:35, 0:01:49, 13198
hdbscriptserver, HDB Scriptserver, GREEN, Running, 2022 09 18 08:22:38, 0:01:46, 13256
hdwebdispatcher, HDB Web Dispatcher, GREEN, Running, 2022 09 18 08:24:19, 0:00:05, 15272
hdbsengine, HDB XSEngine, GREEN, Running, 2022 09 18 08:22:38, 0:01:46, 13258
```

2.12.6. Run `hdbsnutil -sr_unregister`

```
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> hdbsnutil -sr_unregister
unregistering site ...
nameserver ihdbqh400:30001 not responding.
nameserver is shut down, proceeding ...
Opening persistence
run as transaction master
updating topology for system replication takeover ...
mapped host ihdbph400 to ihdbqh400
sending unregister request to primary site (1) ...
clearing local ini files ...
removing HSR entries from topology ...

#####
##### CAUTION: You must start the database in order to complete the unregistration!
#####

done.
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> hdbsnutil -sr_state
nameserver ihdbqh400:30001 not responding.

System Replication State
-----
online: false
mode: none
done.
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config>
```

2.12.7. Make Hostfile changes to accommodate new hostname

172.31.34.201	ihdbqh100.imperial.local	ihdbqh100	ihdbph100.imperial.local	ihdbph100
172.31.34.204	ihdbqh200.imperial.local	ihdbqh200	ihdbph200.imperial.local	ihdbph200
172.31.34.203	ihdbqh400.imperial.local	ihdbqh400	ihdbph400.imperial.local	ihdbph400

```
# hosts      This file describes a number of hostname-to-address
#           mappings for the TCP/IP subsystem.  It is mostly
#           used at boot time, when no name servers are running.
#           On small systems, this file can be used instead of a
#           "named" name server.
# Syntax:
#
# IP-Address  Full-Qualified-Hostname  Short-Hostname
#
127.0.0.1      localhost
# special IPv6 addresses
::1            localhost ipv6-localhost ipv6-loopback
fe00::0        ipv6-localnet
ff00::0          ipv6-mcastprefix
ff02::1          ipv6-allnodes
ff02::2          ipv6-allrouters
ff02::3          ipv6-allhosts

172.26.44.150 imp-mtb-dc01.imperial.local imp-mtb-dc01
172.26.44.151 imp-ss-dc01.imperial.local imp-ss-dc01
172.31.25.4   imp-azeundc01.imperial.local imp-azeundc01
172.31.26.4   imp-azzandc01.imperial.local imp-azzandc01

#Imperial_Hosts_Master_Begin_Migration
# SMTP Relay
196.46.138.240 mx01.imperial.co.za
172.31.34.203  ihdbqh400.imperial.local      ihdbqh400      ihdbph400.imperial.local ihdbph400
172.31.34.52   isappbi00.imperial.local      isappbi00

#Imperial_Hosts_Master_End_Migration

-- INSERT --
90°F
Cloudy
```

2.10.8. Run this at location - /hana/shared/PHx/hdblcm

```
./hdblcm --action=rename_system --hostmap=ihdbqh100=ihdbph100
./hdblcm --action=rename_system --hostmap=ihdbqh200=ihdbph200
./hdblcm --action=rename_system --hostmap=ihdbqh400=ihdbph400
```

```
172.31.34.203 - Putty
ihdbqh400:/hana/shared/PH4/hdblcm # ./hdblcm --action=rename_system --hostmap=ihdbqh400=ihdbph400

SAP HANA Lifecycle Management - SAP HANA 1.00.122.33.1602166441
*****
Local Host Name: ihdbqh400
System Properties:
PH4 /hana/shared/PH4 HDB_ALONE
  HDB00
    version: 1.00.122.33.1602166441
    host: ihdbqh400 (Database Worker (worker))
    plugins: afl

Index | System Usage | Description
-----+
1    | production   | System is used in a production environment
2    | test          | System is used for testing, not production
3    | development   | System is used for development, not production
4    | custom         | System usage is neither production, test nor development

Select System Usage / Enter Index [1]: 1
Index | Listen Interface | Description
-----+
1    | global          | The HANA services will listen on all network interfaces
2    | internal         | The HANA services will only listen on a specific network interface
3    | local            | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Certificate Host Name For Host 'ihdbph400' [ihdbph400]:
Enter Source System Administrator (ph4adm) Password:
Enter Target System ID [PH4]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH4]:
Enter Location of Log Volumes [/hana/log/PH4]:
Enter Location of Data Backups [/hana/shared/PH4/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH4/HDB00/backup/log]:
Change the password of the Database user [n]:
```

```
172.31.34.203 - Putty
3    | development   | System is used for development, not production
4    | custom         | System usage is neither production, test nor development

Select System Usage / Enter Index [1]: 1
Index | Listen Interface | Description
-----+
1    | global          | The HANA services will listen on all network interfaces
2    | internal         | The HANA services will only listen on a specific network interface
3    | local            | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Certificate Host Name For Host 'ihdbph400' [ihdbph400]:
Enter Source System Administrator (ph4adm) Password:
Enter Target System ID [PH4]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH4]:
Enter Location of Log Volumes [/hana/log/PH4]:
Enter Location of Data Backups [/hana/shared/PH4/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH4/HDB00/backup/log]:
Change the password of the Database user [n]:
Restart system after machine reboot? [n]:
```

Summary before execution:

```
Rename System
  Rename Parameters
    Installation Path: /hana/shared
    Source System ID: PH4
    Target System ID: PH4
    Target Instance Number: 00
    Remote Execution: ssh
    Host Name: ihdbqh400 -> ihdbph400
    System Usage: production
    Listen Interface: local
    Certificate Host Names: ihdbph400 -> ihdbph400
    Location of Data Volumes: /hana/data/PH4
    Location of Log Volumes: /hana/log/PH4
```

Note: SAP HANA System will be restarted

Do you want to continue? (y/n): y

```
172.31.34.203 - Putty
3 | local | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Certificate Host Name For Host 'ihdbph400' [ihdbph400]:
Enter Source System Administrator (ph4adm) Password:
Enter Target System ID [PH4]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH4]:
Enter Location of Log Volumes [/hana/log/PH4]:
Enter Location of Data Backups [/hana/shared/PH4/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH4/HDB00/backup/log]:
Change the password of the database user [n]:
Restart system after machine reboot? [n]:
Summary before execution:
=====
Rename System
Rename Parameters
  Installation Path: /hana/shared
  Source System ID: PH4
  Target System ID: PH4
  Target Instance Number: 00
  Remote Execution: ssh
  Host Name: ihdbqh400 -> ihdbph400
  System Usage: production
  Listen Interface: local
  Certificate Host Names: ihdbqh400 -> ihdbph400
  Location of Data Volumes: /hana/data/PH4
  Location of Log Volumes: /hana/log/PH4

Note: SAP HANA System will be restarted

Do you want to continue? (y/n): y
Executing SAP HANA System rename

Renaming system...
  Renaming instance...
  Stopping system...
    Stopping 8 processes on host 'ihdbqh400' (worker):
      Stopping on 'ihdbqh400': hdbcompileserver, hdbdaemon, hdbindexserver, hdbnameserver, hdbpreprocessor, hdbscriptserver, hdbwebdispatcher, hdbxsengine
[ 90% ] 12:18 PM 18-09-2022
```

2.13. Spin the application VM on DR site by ASR

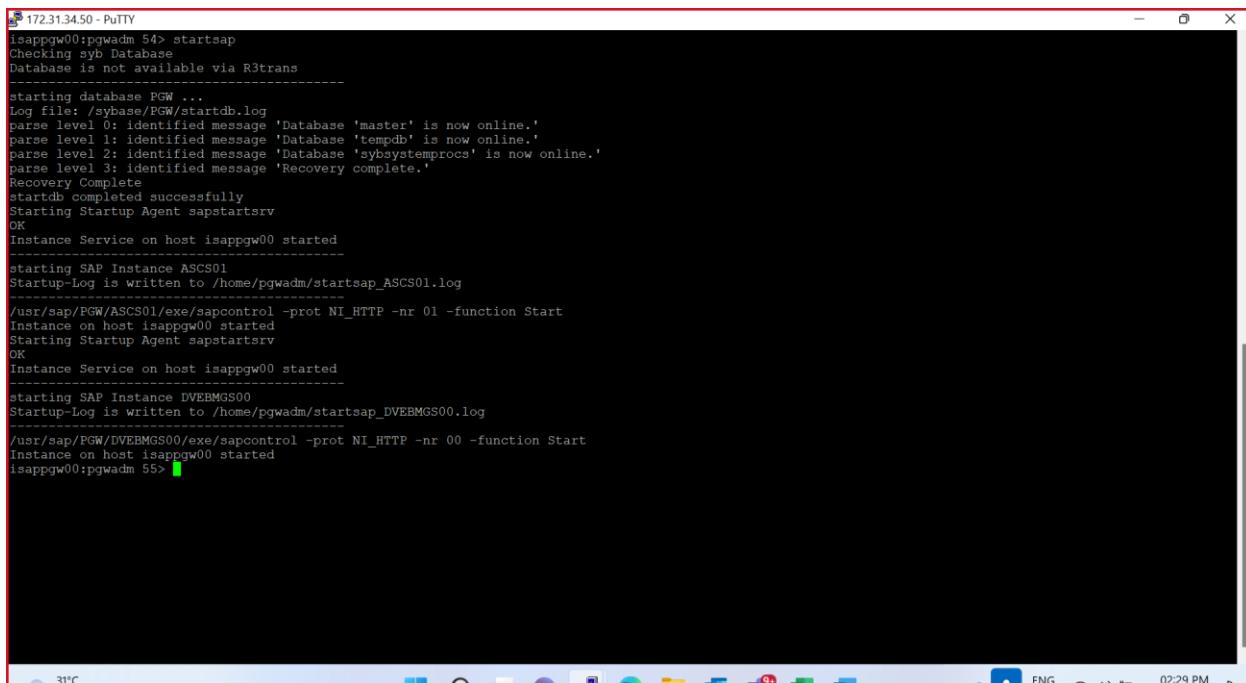
- To be performed from CMS end.

2.14. Update DNS.

- To be performed from Imperial end.

2.15. Start the DR SAP application.

PGW -



```
172.31.34.50 - PuTTY
isappgw00:pgwadm 54> startsap
Checking sys Database
Database is not available via R3trans
-----
starting database PGW ...
Log file: /sysbase/PGW/startdb.log
parse level 0: identified message 'Database 'master' is now online.'
parse level 1: identified message 'Database 'tempdb' is now online.'
parse level 2: identified message 'Database 'sybsystemprocs' is now online.'
parse level 3: identified message 'Recovery complete.'
Recovery Complete
startdb completed successfully
Starting Startup Agent sapstartsrv
OK
Instance Service on host isappgw00 started
starting SAP Instance ASCS01
Startup-Log is written to /home/pgwadm/startsap_ASCS01.log
/usr/sap/PGW/ASC01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Start
Instance on host isappgw00 started
Starting Startup Agent sapstartsrv
OK
Instance Service on host isappgw00 started
-----
starting SAP Instance DVEBMGS00
Startup-Log is written to /home/pgwadm/startsap_DVEBMGS00.log
/usr/sap/PGW/DVEBMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Start
Instance on host isappgw00 started
isappgw00:pgwadm 55>
```

PGR -

DR TEST

```
172.31.34.51 - PuTTY
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local@isappgr00:~> sudo su - pgradm
isappgr00:~$pgradm 54> startsap
Checking sys Database
Database is not available via R3trans
starting database PGR ...
Log file: /sysbase/PGR/startdb.log
parse level 0: identified message 'Database 'master' is now online.'
parse level 1: identified message 'Database 'tempdb' is now online.'
parse level 2: identified message 'Database 'sybsystemprocs' is now online.'
parse level 3: identified message 'Recovery complete.'
Recovery Complete
startdb completed successfully
Starting Startup Agent sapstartsrv
OK
Instance Service on host isappgr00 started
-----
starting SAP Instance ASCS01
Startup-Log is written to /home/pgradm/startsap_ASCS01.log
-----
/usr/sap/PGR/ASC01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Start
Instance on host isappgr00 started
Starting Startup Agent sapstartsrv
OK
Instance Service on host isappgr00 started
-----
starting SAP Instance DVEBMGS00
Startup-Log is written to /home/pgradm/startsap_DVEBMGS00.log
-----
/usr/sap/PGR/DVEBMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Start
Instance on host isappgr00 started
isappgr00:pgradm 55> █

88°F
Cloudy
ENG IN 02:34 PM
18-09-2022
```

PLT -

```
172.31.34.49 - PuTTY
^C
--- isapl00.imperial.local ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1012ms
rtt min/avg/max/mdev = 0.024/0.033/0.043/0.011 ms
isapl00:/etc # ping isapl00
PING isapl00.imperial.local (172.31.34.49) 56(84) bytes of data.
64 bytes from isapl00.imperial.local (172.31.34.49): icmp_seq=1 ttl=64 time=0.026 ms
64 bytes from isapl00.imperial.local (172.31.34.49): icmp_seq=2 ttl=64 time=0.050 ms
^C
--- isapl00.imperial.local ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1030ms
rtt min/avg/max/mdev = 0.026/0.038/0.050/0.012 ms
isapl00:/etc # sudo su - pltadm
isapl00:pltadm 53> startsap
Checking sys Database
Database is not available via R3trans
starting database PLT ...
Log file: /sysbase/PLT/startdb.log
parse level 0: identified message 'Database 'master' is now online.'
parse level 1: identified message 'Database 'tempdb' is now online.'
parse level 2: identified message 'Database 'sybsystemprocs' is now online.'
parse level 3: identified message 'Recovery complete.'
Recovery Complete
startdb completed successfully
Starting Startup Agent sapstartsrv
OK
Instance Service on host isapl00 started
-----
starting SAP Instance ASCS01
Startup-Log is written to /home/pltadm/startsap_ASCS01.log
-----
/usr/sap/PLT/ASC01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Start
Instance on host isapl00 started
Starting Startup Agent sapstartsrv
OK
Instance Service on host isapl00 started
-----
starting SAP Instance DVEBMGS00
Startup-Log is written to /home/pltadm/startsap_DVEBMGS00.log
-----
/usr/sap/PLT/DVEBMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Start
Instance on host isapl00 started
isapl00:pltadm 54> █

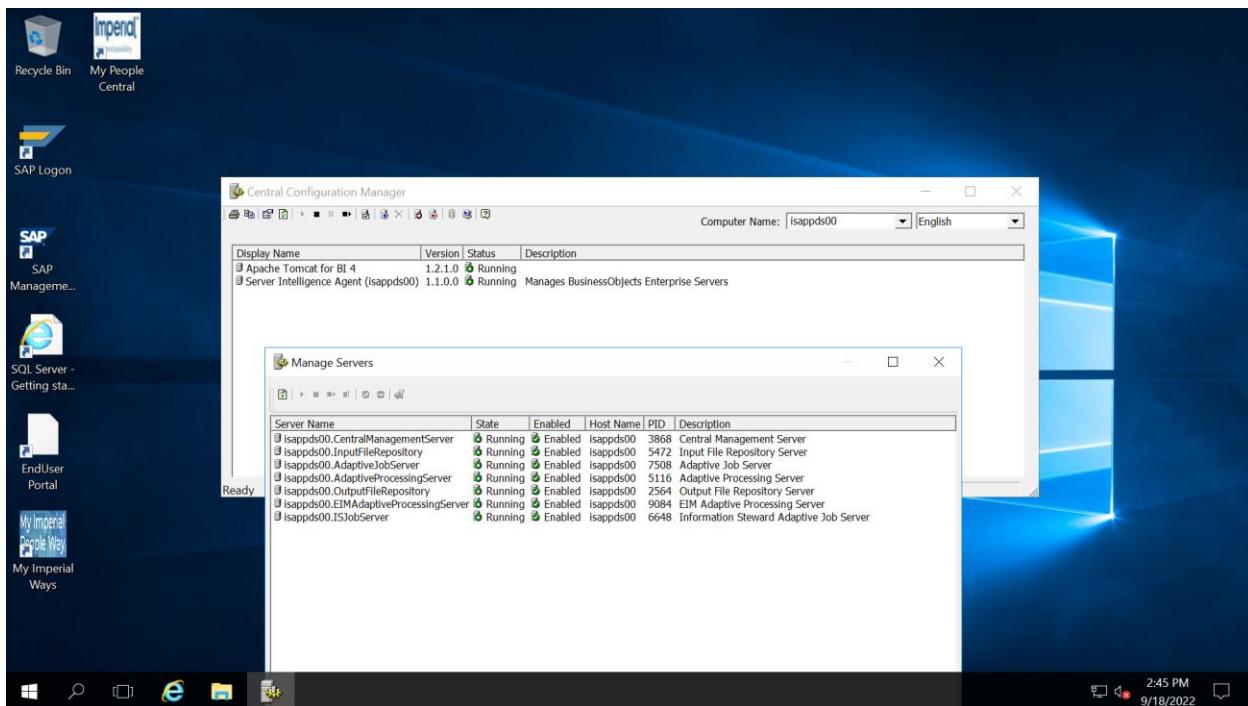
31°C
Cloudy
ENG IN 02:32 PM
18-09-2022
```

PWD -

DR TEST

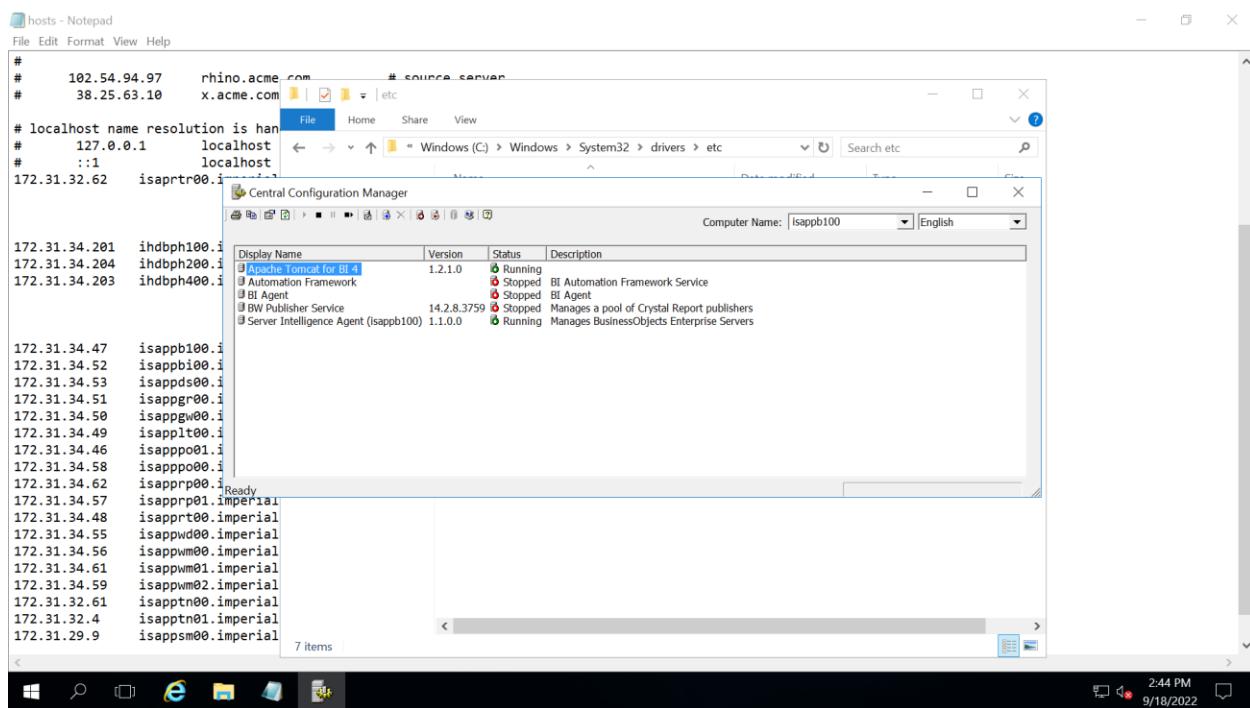
```
172.31.34.55 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
18.09.2022 11:05:29
GetProcessList
OK
name,description, dispstatus, textstatus, starttime, elapsedtime, pid
sapwebdisp, Web Dispatcher, GREEN, Running, 2022 09 18 11:05:02, 0:00:27, 23177
```

BODS-



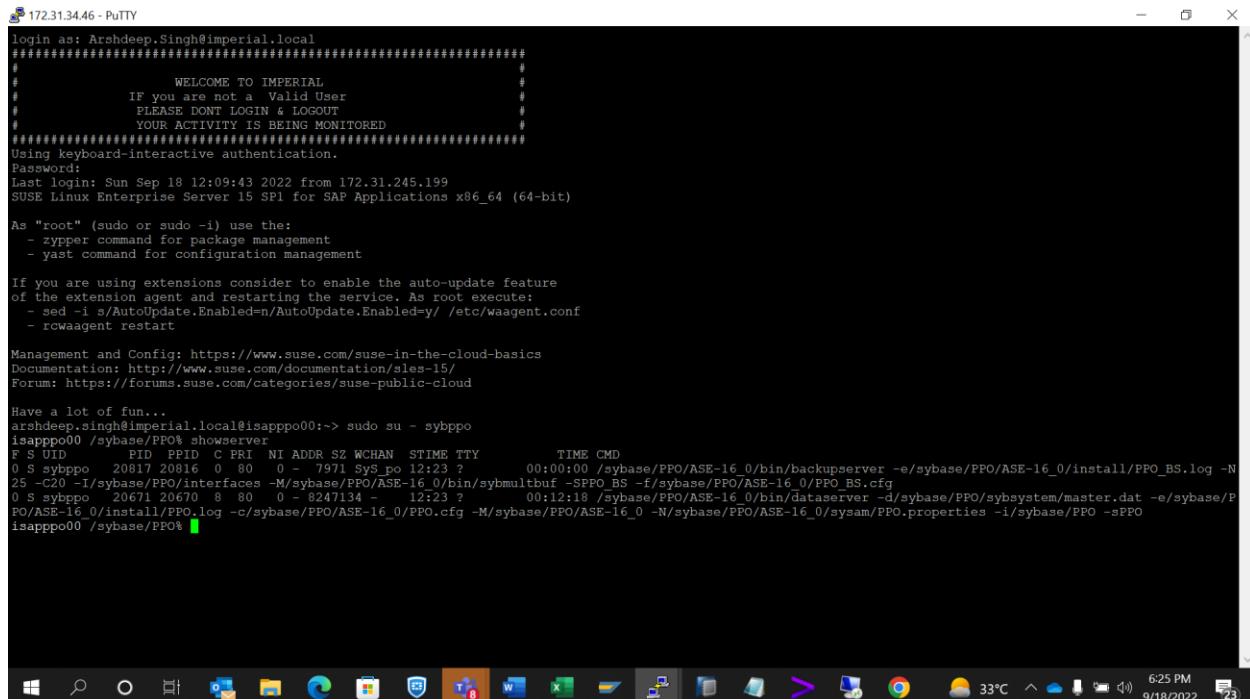
BOBJ-

DR TEST



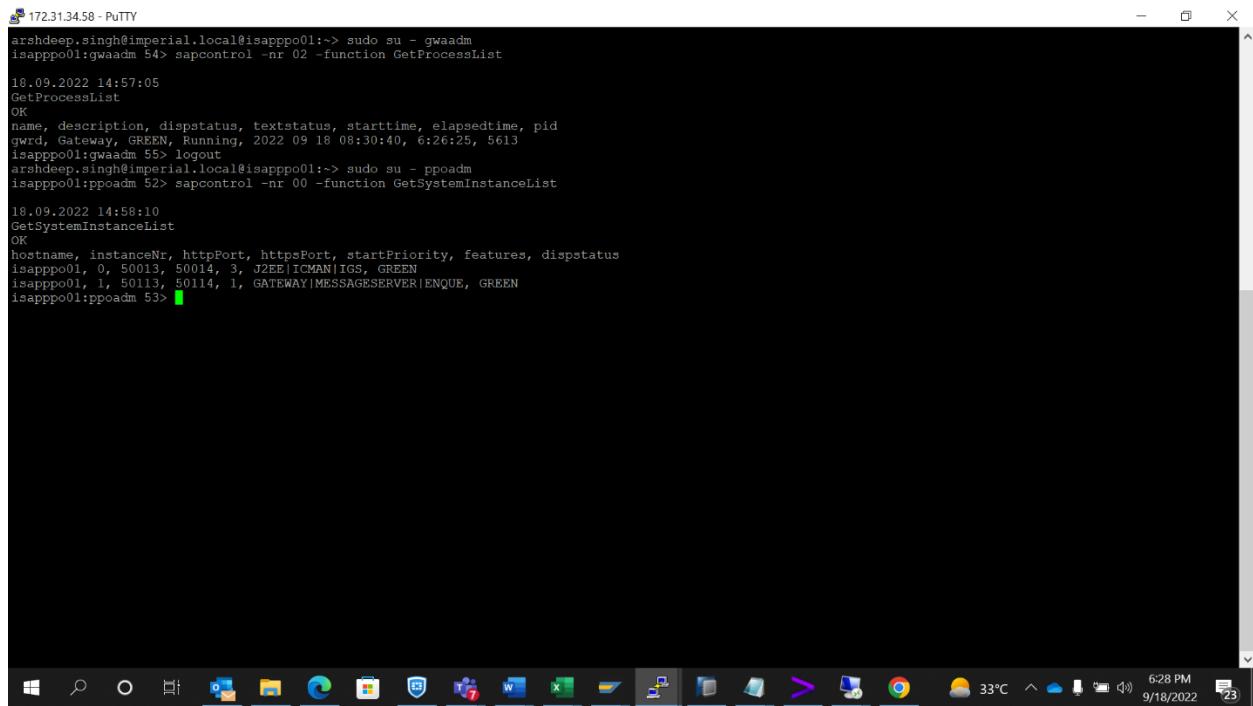
PPO-

00



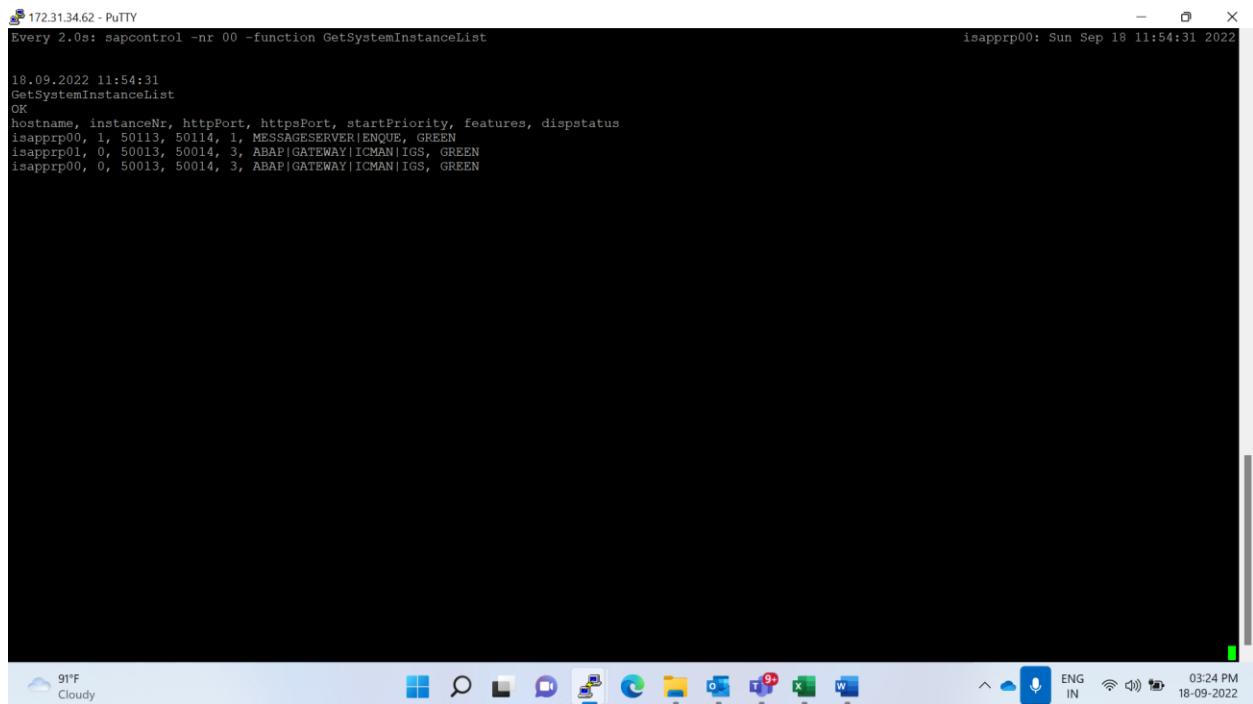
01

DR TEST



```
172.31.34.58 - PuTTY
arshdeep.singh@imperial.local@isappo01:~> sudo su - gwadm
isappool01:gwadm 5$> sapcontrol -nr 02 -function GetProcessList
18.09.2022 14:57:05
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
gwrd, Gateway, GREEN, Running, 2022 09 18 08:30:40, 6:26:25, 5613
isappool01:gwadm 5$> logout
arshdeep.singh@imperial.local@isappo01:~> sudo su - ppoadm
isappo01:ppoadm 5$> sapcontrol -nr 00 -function GetSystemInstanceList
18.09.2022 14:58:10
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isappo01, 0, 50013, 50014, 3, J2EE|ICMAN|IGS, GREEN
isappo01, 1, 50113, 50114, 1, GATEWAY|MESSAGESERVER|ENQUE, GREEN
isappo01:ppoadm 5$>
```

PRP-



```
172.31.34.62 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetSystemInstanceList
isapprp00: Sun Sep 18 11:54:31 2022

18.09.2022 11:54:31
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isapprp00, 1, 50113, 50114, 1, MESSAGESERVER|ENQUE, GREEN
isapprp01, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GREEN
isapprp02, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GREEN
```

PWM –

DR TEST

```
172.31.34.56 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetSystemInstanceList
18.09.2022 14:49:10
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isappwm00, 1, 50113, 50114, 1, MESSAGESERVER|ENQUE, GREEN
isappwm00, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GREEN
isappwm01, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GREEN
isappwm02, 2, 50213, 50214, 3, ABAP|GATEWAY|ICMAN|IGS, GREEN
isappwm00: Sun Sep 18 14:49:10 2022
6:19 PM 9/18/2022 15

Cloudy 72°F 6:19 PM 9/18/2022 15
```

PBI-

```
172.31.34.52 - PuTTY
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

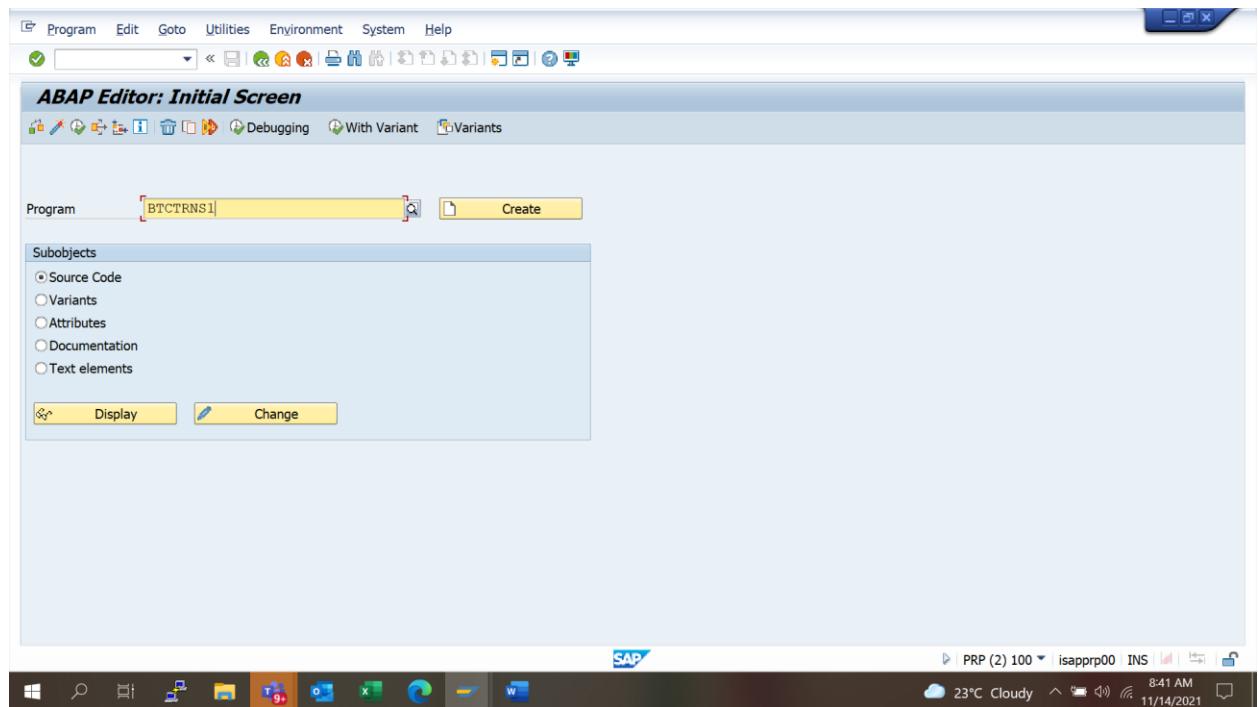
Have a lot of fun...
purushottam.narayan@imperial.local@isappbi00:~> sudo su - pbiadm
isappbi00:pbiamd 54> ping ihdbph400
PING ihdbph400.imperial.local (172.31.34.203) 56(84) bytes of data.
64 bytes from ihdbph400.imperial.local (172.31.34.203): icmp_seq=1 ttl=64 time=0.600 ms
64 bytes from ihdbph400.imperial.local (172.31.34.203): icmp_seq=2 ttl=64 time=0.581 ms
^C
--- ihdbph400.imperial.local ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1013ms
rtt min/avg/max/mdev = 0.581/0.590/0.600/0.026 ms
isappbi00:pbiamd 55> startsap
Checking db Database
Database is running
Starting Startup Agent sapstartsrv
OK
Instance Service on host isappbi00 started
-----starting SAP Instance ASCS01
Startup-Log is written to /home/pbiadm/startsap_ASCS01.log
-----/usr/sap/PBI/ASC01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Start
Instance on host isappbi00 started
Starting Startup Agent sapstartsrv
OK
Instance Service on host isappbi00 started
-----starting SAP Instance DVERBMGS00
Startup-Log is written to /home/pbiadm/startsap_DVERBMGS00.log
-----/usr/sap/PBI/DVERBMGS00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Start
Instance on host isappbi00 started
isappbi00:pbiamd 56>
```

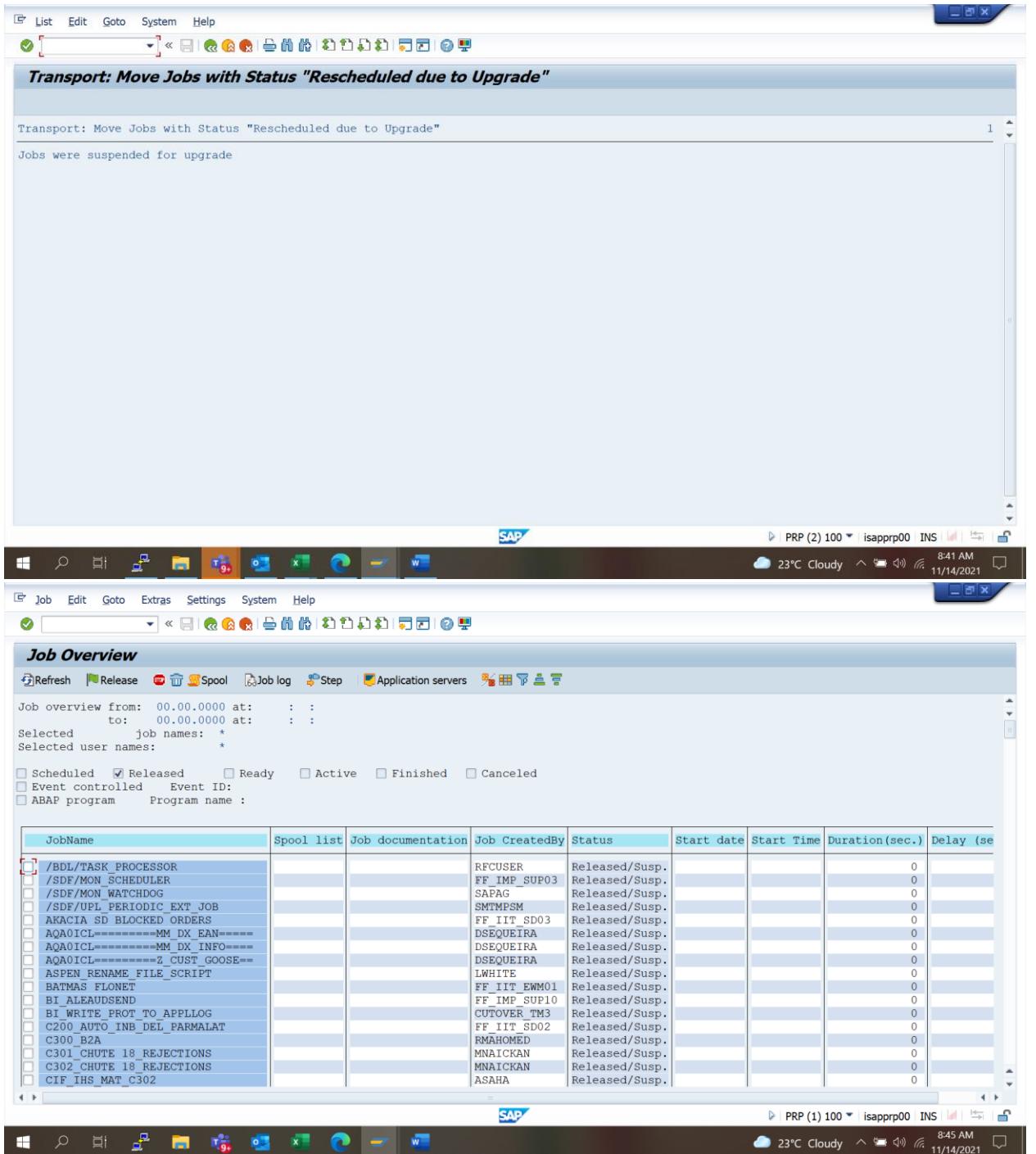
2.16. Handover the system for testing

- Post-handover functional testing is performed from Imperial side.

2.17. Disable batch jobs, Scot etc. Need to check with Imperial

- Go to t-code **SE38** -> Run **BTCTRNS1** report





- Disable SCOT.

2.18. Sanity check of the systems

- Run basic t-codes to perform health checks of the system.
ST22

List of Selected Runtime Errors

Current Date	Time	Application Server	User	Client Key Runtime Error	Exception	Canceled Program
14.11.2021	05:38:45	sappwm00_PWM_	SAPSYS	000 C COMPUTE_BCD_OVERFLOW	CX_SY_ARITHMETIC_OVERFLOW	RSDSSPNR
14.11.2021	05:51:01	isappwm01_PWM_	PKGOMO	100 C TSV_TNEW_PAGE_ALLOC_FAILED		/SCWM/SAPLHUMAN
14.11.2021	05:50:54	sappwm00_PWM_	STLADI	100 C TSV_TNEW_PAGE_ALLOC_FAILED		/SCWM/CL_LOG=====CP
14.11.2021	05:11:14	isappwm02_PWM_	SMAZIBUK02	100 C EXPORT_TOO MUCH DATA		/SCWM/SAPL03B

Runtime Error Long Text

Category: ABAP programming error
Runtime Errors: COMPUTE_BCD_OVERFLOW
Except.: CX_SY_ARITHMETIC_OVERFLOW
ABAP Program: RSDSSPNR
Application Component: BC-CCM-PRN
Date and Time: 14.11.2021 12:38:45

Short Text: Overflow during an arithmetic operation (type P) in program "RSDSSPNR".

What happened? Error in the ABAP application program.
The current ABAP program "RSDSSPNR" had to be terminated because it found a statement that could not be executed.

What can I do? Note which actions and entries caused the error to occur.
Consult your SAP administrator.
Using transaction ST22 for ABAP dump analysis, you can view, manage, and retain termination messages for longer periods.
Using Transaction ST22 for ABAP Dump Analysis, you can look

SM51

DR TEST

AS Instances of SAP System PWM

3 AS instance(s) started

Application Server Instance	Host	Instance Services	State
isappwm00_PWM_00	isappwm00	Dialog Batch Update Upd2 Spool ICM	Active
isappwm01_PWM_00	isappwm01	Dialog Batch Update Upd2 Spool ICM	Active
isappwm02_PWM_00	isappwm02	Dialog Batch Update Upd2 Spool ICM	Active

SM50

Work Processes of AS Instance isappwm00_PWM_00

Time 14.11.2021, 12:39:54

Total Number of Work Processes 114

Dialog 77 / 71 (Total/Free), Average Load = (0.070 / 0.425 / 0.142)

Update 10 / 10 (Total/Free)

Background 10 / 10 (Total/Free)

Spool 16 / 15 (Total/Free), Average Load = (1.000 / 0.933 / 0.311)

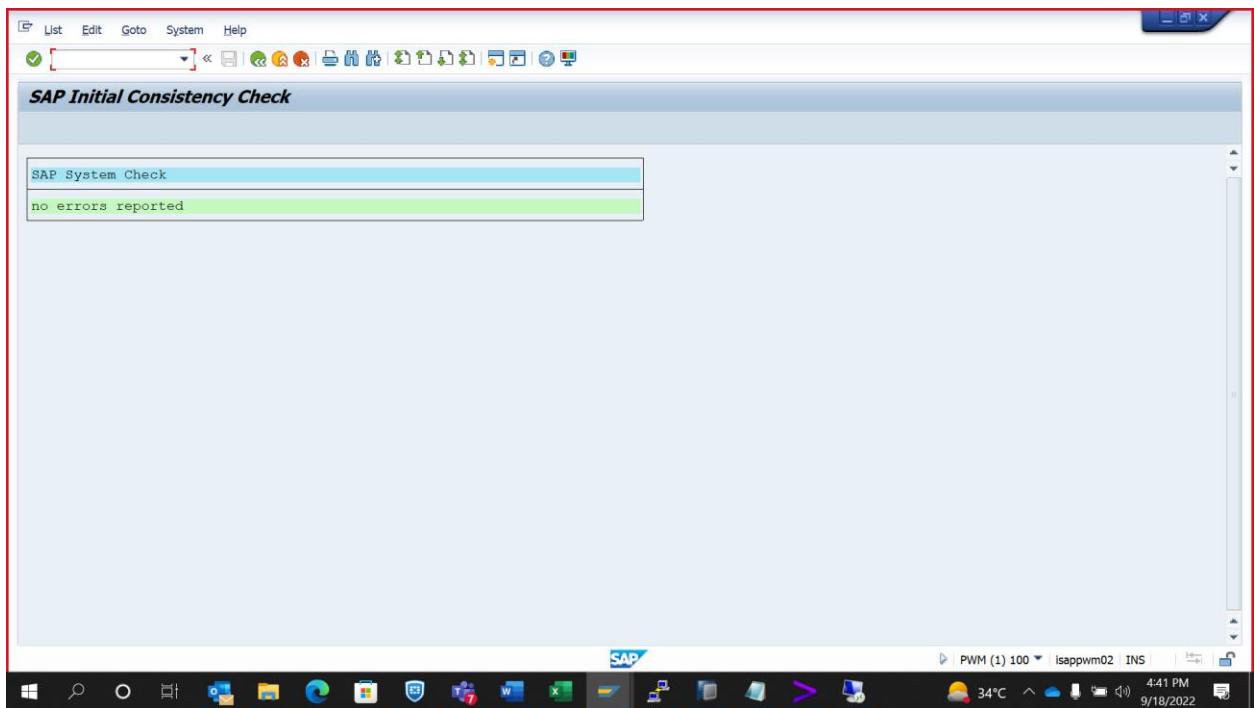
Update Task 2 1 / 1 (Total/Free)

Standby 5 / 5 (Total/Free)

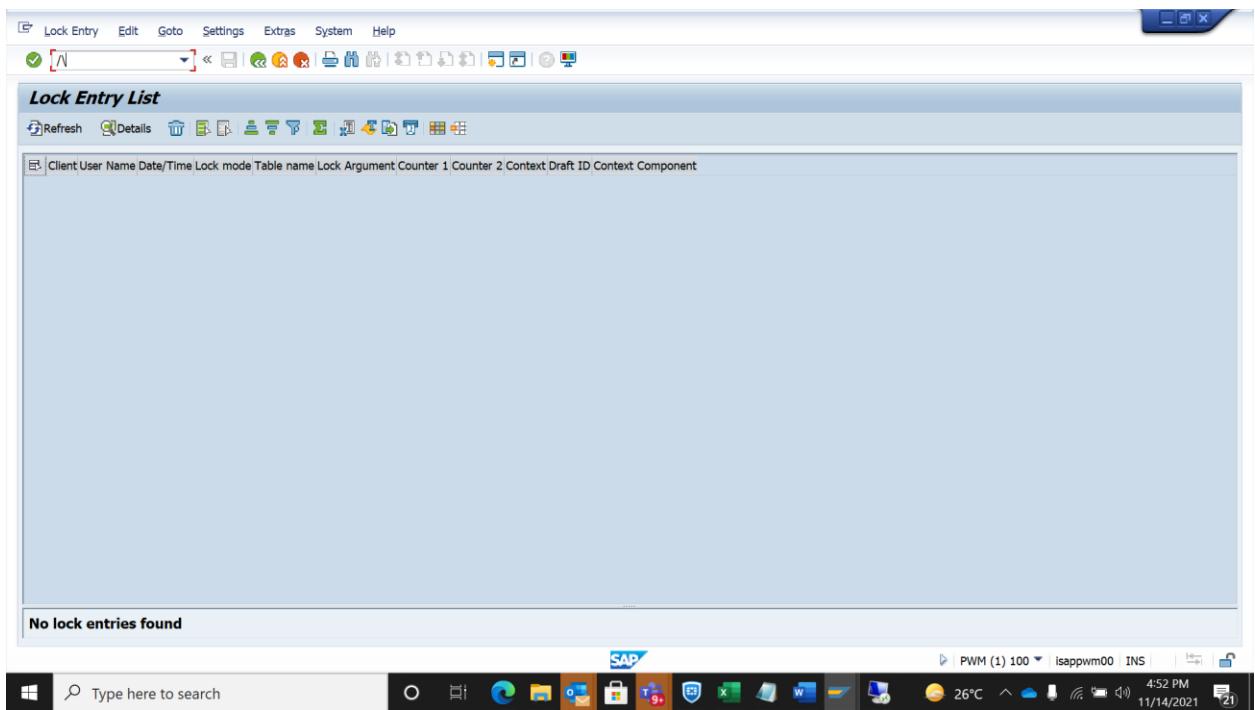
Configurable 170

Number	Type	Process ID	WP Status	"On Hold"	Failures	LockedSem.	Requ.S.	CPU Time	Time Priority	Name of Program Being Executed by the Work Process	Client/User ID
108	SPO	6,776	Running		64		0:00:03	373	High	RSPOWP00	000 SAPSYS
69	DIA	6,737	Running				0:00:03			CL_SERVER_INFO=====CP	100 ASINGH4
0	DIA	6,668	Waiting				0:00:03				
1	DIA	6,669	Waiting				0:00:02				
2	DIA	6,670	Standby				0:00:02				
3	DIA	6,671	Waiting				0:00:02				
4	DIA	6,672	Waiting				0:00:02				
5	DIA	6,673	Waiting				0:00:02				
6	DIA	6,674	Waiting				0:00:03				
7	DIA	6,675	Waiting				0:00:02				
8	DIA	6,676	Waiting				0:00:02				
9	DIA	6,677	Waiting				0:00:02				
10	DIA	6,678	Waiting				0:00:02				
11	DIA	6,679	Waiting				0:00:02				

SICK



SM12



DR TEST

SM21

Date	TIME	Instance	Type	Process No.	Cl.	User	Priority	Message ID	Message Text
14.11.2021	13:07:41	isappwm00_PWM_00	DIA	114	100	ASINGH4	■ R47		Delete session T4_U214_M0 after error Execution was canceled (Softcancel) [Warning/Session]
14.11.2021	12:58:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:56:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:54:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:52:51	isappwm00_PWM_00	SPO	111	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:50:51	isappwm00_PWM_00	SPO	111	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:48:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q10		The configuration of the work processes will be changed
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 86 switched from request type UPD to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 85 switched from request type UPD to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 84 switched from request type UPD to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 83 switched from request type UPD to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 82 switched from request type UPD to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 96 switched from request type BTC to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 95 switched from request type BTC to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 94 switched from request type BTC to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 93 switched from request type BTC to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 92 switched from request type BTC to DIA
14.11.2021	12:48:45	isappwm00_PWM_00	DP	000			○ Q0V		Work process 91 switched from request type BTC to DIA
14.11.2021	12:46:45	isappwm00_PWM_00	DIA	114			○ Q01		Start Workp. 114, 1 times since system startup, PID 12208
14.11.2021	12:46:45	isappwm00_PWM_00	DIA	115			○ Q01		Start Workp. 115, 1 times since system startup, PID 12209
14.11.2021	12:46:45	isappwm00_PWM_00	DIA	115			● ROZ		The update dispatch info was reset
14.11.2021	12:47:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:46:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:45:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)

Date	TIME	Instance	Type	Process No.	Cl.	User	Priority	Message ID	Message Text
14.11.2021	12:45:51	isappwm00_PWM_00	DP	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:44:51	isappwm00_PWM_00	SPO	112	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:43:55	isappwm00_PWM_00	DIA	070	000	SAPSYS	● ABO		Runtime error "COMPUTE_BCD_OVERFLOW" occurred.
14.11.2021	12:43:55	isappwm00_PWM_00	DIA	070	000	SAPSYS	○ AB1		> Short dump "211114 124355 isappwm00_PWM_00 SAPSYS" created.
14.11.2021	12:43:55	isappwm00_PWM_00	DIA	070	000	SAPSYS	● D01		Transaction canceled 00 671 (COMPUTE_BCD_OVERFLOW 20211114124355isappwm00_PWM_00)
14.11.2021	12:43:51	isappwm00_PWM_00	SPO	099	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:42:59	isappwm00_PWM_00	SPO	099	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:42:49	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:42:49	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:42:49	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:42:49	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HD18 Temporarily Locked Due to Connection Problem
14.11.2021	12:42:39	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:42:39	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:42:39	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:42:39	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HB47 Temporarily Locked Due to Connection Problem
14.11.2021	12:42:29	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:42:29	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:42:29	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:42:29	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HD87 Temporarily Locked Due to Connection Problem
14.11.2021	12:42:18	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:42:18	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:42:18	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:42:08	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HE08 Temporarily Locked Due to Connection Problem
14.11.2021	12:42:08	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:42:08	isappwm00_PWM_00	SPO	108	000	SAPSYS	● FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68

DR TEST

Date	TIME	Instance	Type	Process No.	Cl.	User	Priority	Message ID	Message Text
14.11.2021	12:41:07	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FAB	Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:41:07	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FA9	Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:41:07	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲	FBM	Printer HD88 Temporarily Locked Due to Connection Problem
14.11.2021	12:40:56	isappwm00_PWM_00	SPO	108	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
14.11.2021	12:40:56	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FAB	Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:40:56	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FA9	Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:40:56	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲	FBM	Printer HD85 Temporarily Locked Due to Connection Problem
14.11.2021	12:40:46	isappwm00_PWM_00	SPO	108	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
14.11.2021	12:40:46	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FAB	Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:40:46	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FA9	Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:40:46	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲	FBM	Printer HB89 Temporarily Locked Due to Connection Problem
14.11.2021	12:40:36	isappwm00_PWM_00	SPO	108	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
14.11.2021	12:40:36	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FAB	Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:40:36	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FA9	Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:40:36	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲	FBM	Printer HB84 Temporarily Locked Due to Connection Problem
14.11.2021	12:40:26	isappwm00_PWM_00	SPO	108	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
14.11.2021	12:40:26	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FAB	Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:40:26	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FA9	Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:40:26	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲	FBM	Printer HM19 Temporarily Locked Due to Connection Problem
14.11.2021	12:40:15	isappwm00_PWM_00	SPO	108	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
14.11.2021	12:40:15	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FAB	Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:40:15	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FA9	Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:40:15	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲	FBM	Printer YL04 Temporarily Locked Due to Connection Problem
14.11.2021	12:40:05	isappwm00_PWM_00	SPO	108	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
14.11.2021	12:40:05	isappwm00_PWM_00	SPO	108	000	SAPSYS	■	FAB	Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68

DR TEST

Syslog messages

Syslog of instance isappwm00_PWM_00

Date	TIME	Instance	Type	Process No.	Cl.	User	Priority	Message ID	Message Text
14.11.2021	12:40:05	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:40:05	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:40:05	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HD55 Temporarily Locked Due to Connection Problem
14.11.2021	12:39:55	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:39:55	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:39:55	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:39:55	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HE10 Temporarily Locked Due to Connection Problem
14.11.2021	12:39:45	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:39:45	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:39:45	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:39:45	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HE09 Temporarily Locked Due to Connection Problem
14.11.2021	12:39:44	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:39:34	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:39:34	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:39:34	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HD78 Temporarily Locked Due to Connection Problem
14.11.2021	12:39:24	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:39:24	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:39:24	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:39:24	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HL89 Temporarily Locked Due to Connection Problem
14.11.2021	12:39:14	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:39:14	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:39:14	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:39:14	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HD72 Temporarily Locked Due to Connection Problem
14.11.2021	12:39:04	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:39:04	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68

SAP

PWM (1) 100 | isappwm00 INS 4:55 PM 11/14/2021 21

Syslog messages

Syslog of instance isappwm00_PWM_00

Date	TIME	Instance	Type	Process No.	Cl.	User	Priority	Message ID	Message Text
14.11.2021	12:39:04	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:39:04	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:39:04	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HD73 Temporarily Locked Due to Connection Problem
14.11.2021	12:38:53	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:38:53	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:38:53	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:38:53	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HM29 Temporarily Locked Due to Connection Problem
14.11.2021	12:38:45	isappwm00_PWM_00	DIA	061	000	SAPSYS	● ABO		Runtime error "COMPUTE_BCD_OVERFLOW" occurred.
14.11.2021	12:38:45	isappwm00_PWM_00	DIA	061	000	SAPSYS	○ AB1		> Short dump "211114 123845 isappwm00_PWM_00 SAPSYS" created.
14.11.2021	12:38:45	isappwm00_PWM_00	DIA	061	000	SAPSYS	● D01		Transaction canceled 00 671 (COMPUTE_BCD_OVERFLOW 20211114123845isappwm00_PWM_00 ..
14.11.2021	12:38:43	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:38:43	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:38:43	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:38:43	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HB55 Temporarily Locked Due to Connection Problem
14.11.2021	12:38:33	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:38:33	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:38:33	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:38:33	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HD70 Temporarily Locked Due to Connection Problem
14.11.2021	12:38:23	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:38:23	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:38:23	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd
14.11.2021	12:38:23	isappwm00_PWM_00	SPO	108	000	SAPSYS	▲ FBM		Printer HE03 Temporarily Locked Due to Connection Problem
14.11.2021	12:38:12	isappwm00_PWM_00	SPO	108	000	SAPSYS	● Q01		Operating system call connect failed (error no. 115)
14.11.2021	12:38:12	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA8		Connect(2) Failed. Error -10, Rport 515, Lport 0, Computer Name 172.31.36.68
14.11.2021	12:38:12	isappwm00_PWM_00	SPO	108	000	SAPSYS	■ FA9		Unable to Establish Connection to SAPLPD or lpd

SAP

PWM (1) 100 | isappwm00 INS 4:55 PM 11/14/2021 21

- SMLG

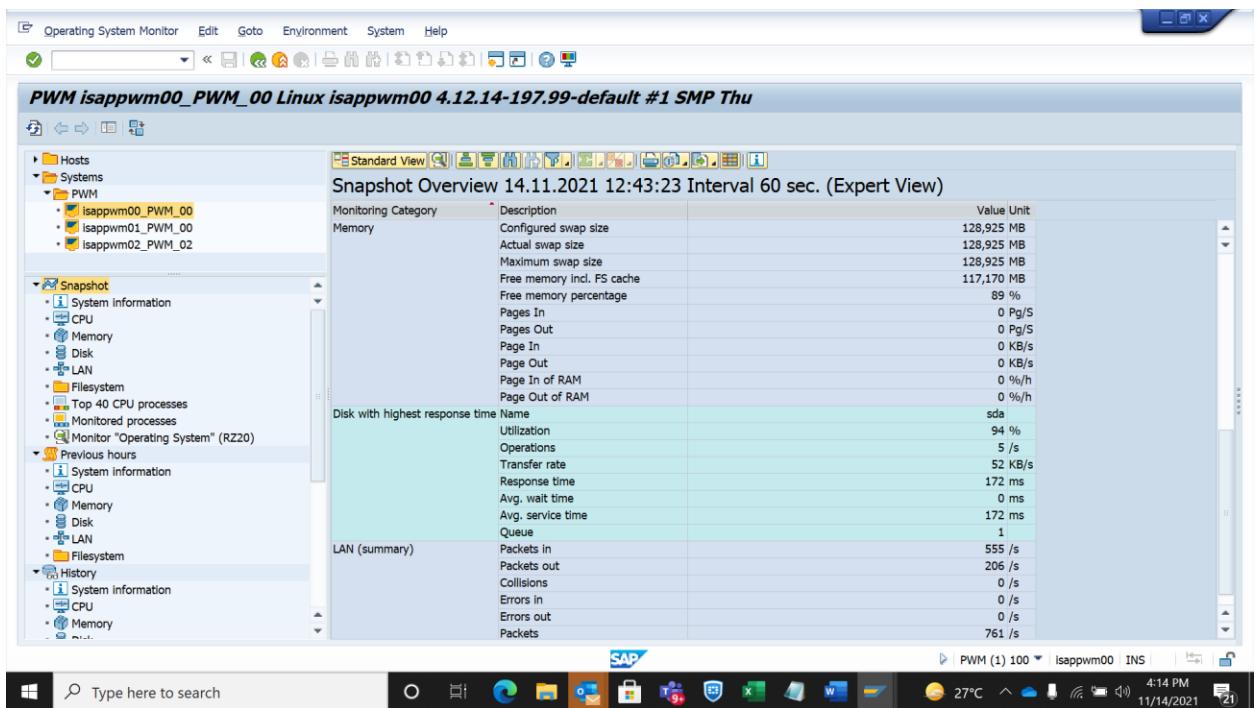
Instance	St	Resp.time (ms)	Thrshd	User	Thrshd	Sample	Quality	Dialog steps
isappwm00_PWM_00	Green	928		11		12:41:28	6	3
isappwm01_PWM_00	Green	504		2		12:41:29	318	3
isappwm02_PWM_02	Green	0		2		12:36:36	588	0
Summary				15				6

Logon Group	Current logon instan
PWM_App	isappwm02_PWM_02
SPACE	isappwm02_PWM_02

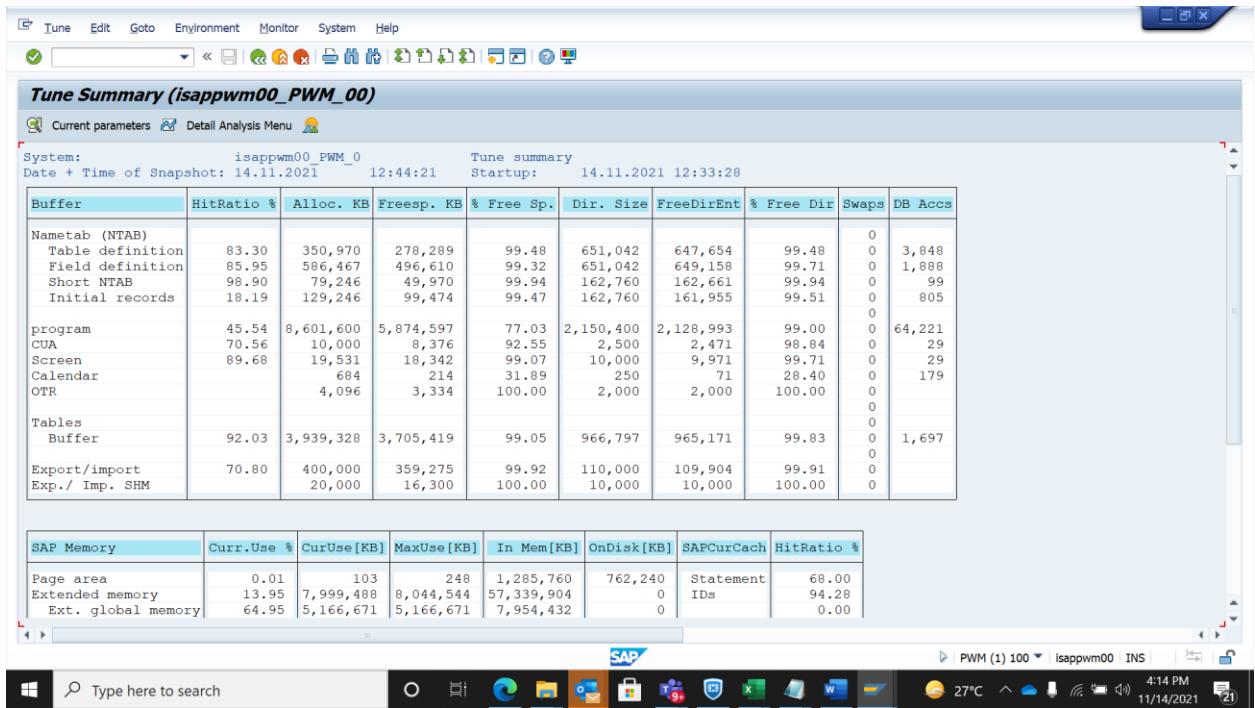
- ST06

Snapshot Overview 14.11.2021 12:43:23 Interval 60 sec. (Expert View)

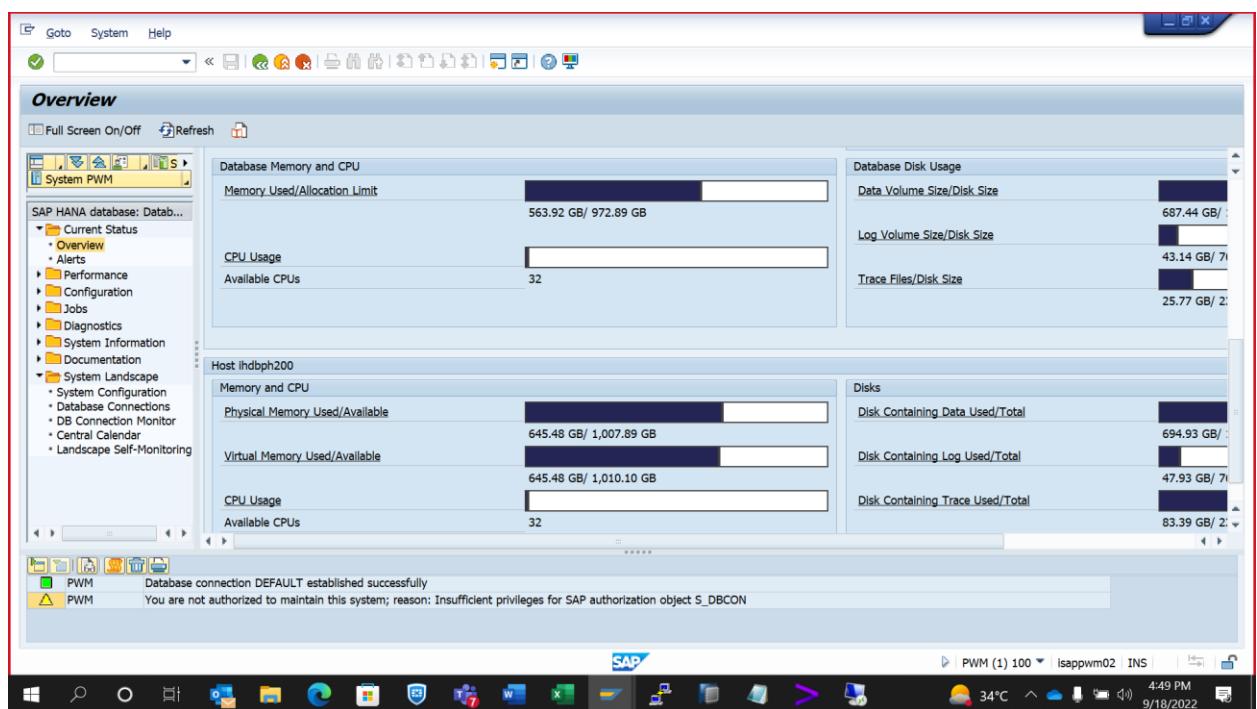
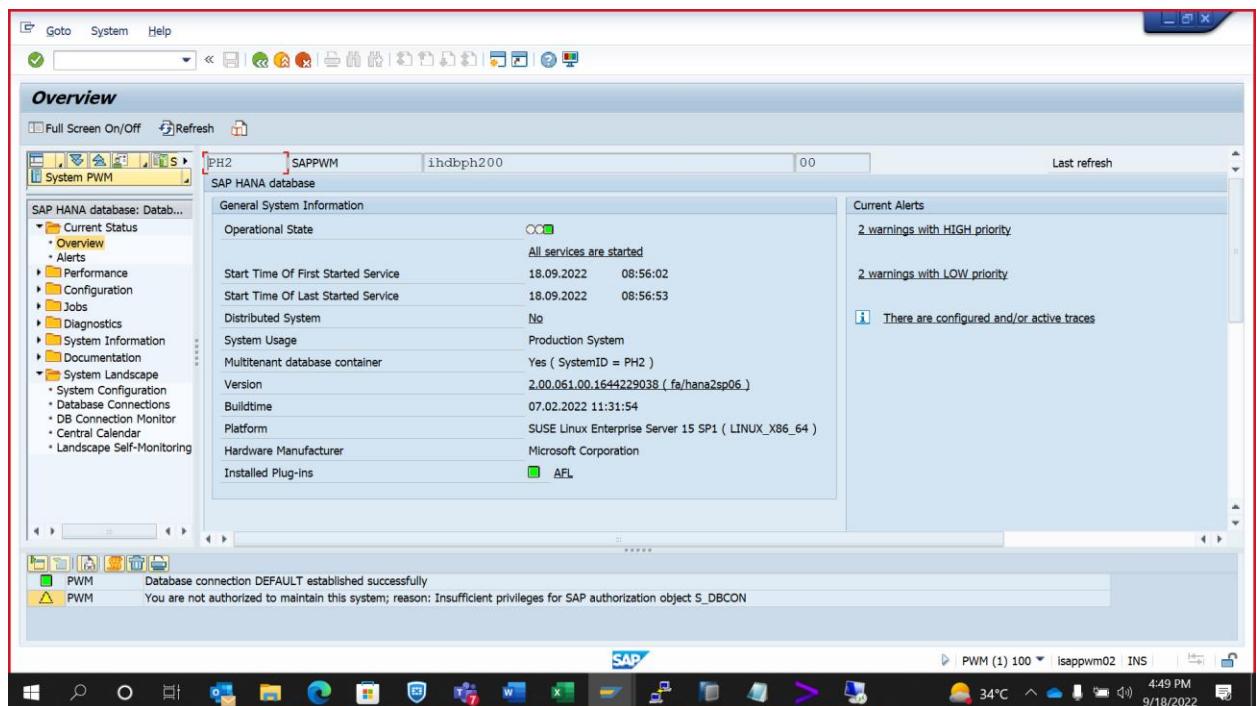
Monitoring Category	Description	Value Unit
Info	Timestamp	14.11.2021 12:43:23
	Hostname	isappwm00
	Manufacturer	Microsoft Corporation
	Model	Virtual Machine
Virtualization Configuration	Enhanced Monitoring Access	FALSE
	Enhanced Monitoring Details	Check SAP Monitoring: No Data. Refer to SAP Note 2191498.
	Solution	VIRT_METHOD_MICROSOFT
	Solution Version	AZURE: NO INFO!
	Cloud.Provider	Microsoft Azure
CPU	System calls	0 / s
	Interrupts	3,890 / s
	Average processes waiting (1 min)	0.61
	Average processes waiting (5 min)	1.74
	Average processes waiting (15 min)	2.00
	Context switches	4,733 / s
	Number of CPUs	16
	Utilization	4 %
	I/O Wait	0 %
	System Utilization	2 %
	User Utilization	2 %
	Idle	96 %
Memory	Physical memory	128,925 MB
	Free memory	114,821 MB
	Free swap size	128,925 MB
	Configured swap size	128,925 MB

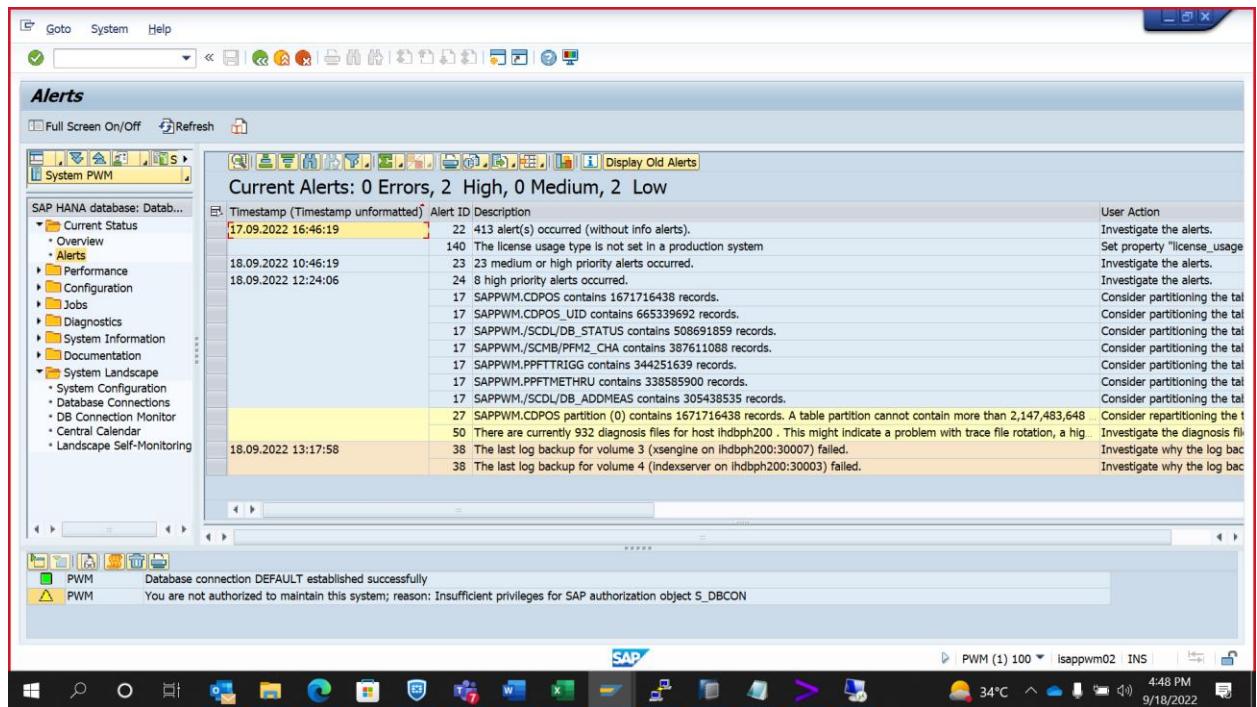
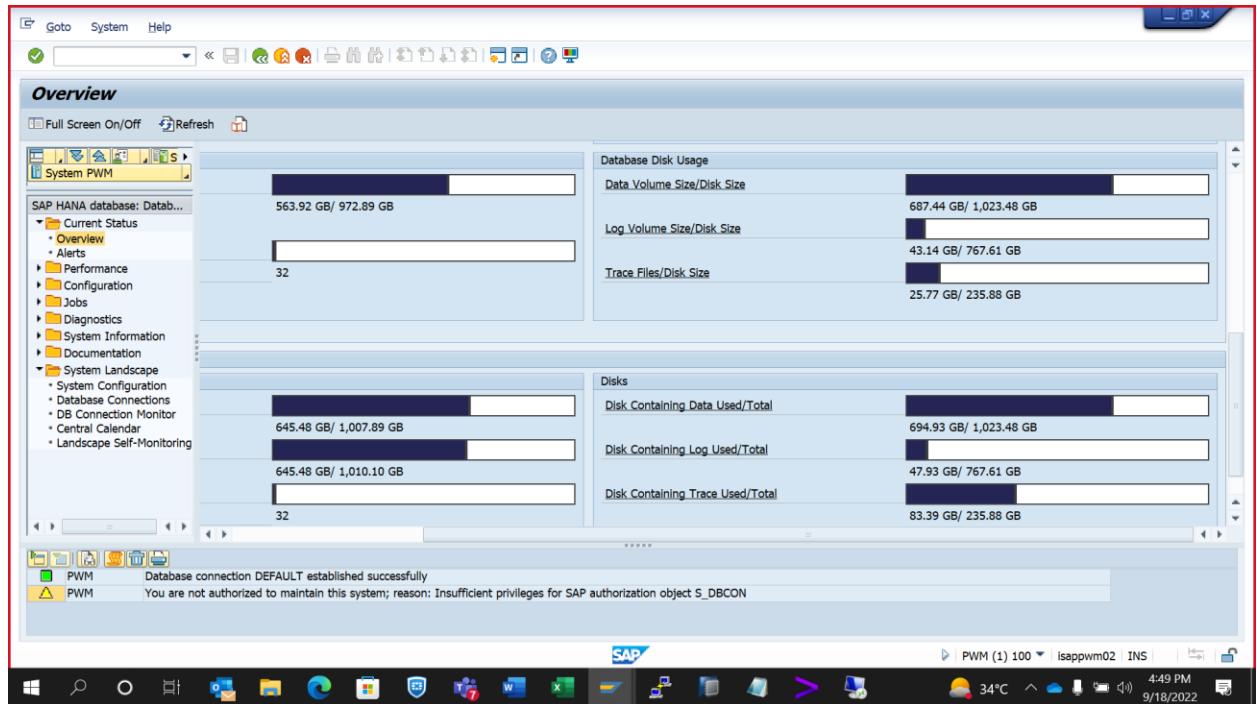


- ST02



- DBACOCKPIT





- SM37-

Job Overview

Job overview from: 00.00.0000 at: : :
to: 00.00.0000 at: : :
Selected job names: *
Selected user names: *

Scheduled Released Ready Active Finished Canceled
 Event-Driven Event ID:
 ABAP program Program name :

JobName	Spool	Job doc	Job CreatedB	Status	Start date	Start Time	Duration(sec.)	Delay (sec.)
/BDL/TASK_PROCESSOR			VODACOM	Released/Susp.			0	0
/LIME/BACKGROUND_DELETE_EXEC			CUTOVER_EWM2	Released/Susp.			0	0
/LIME/BACKGROUND_DELETE_EXEC			CUTOVER_EWM2	Released/Susp.			0	0
/SAPAPO/AMODAL_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SAPAPO/DELETE_LOCATIONS			CUTOVER_EWM2	Released/Susp.			0	0
/SAPAPO/DELETE_PRODUCTS			CUTOVER_EWM2	Released/Susp.			0	0
/SCMB/ALLEN_ALERT_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCTM/CLEANUP_PPF			CUTOVER_EWM2	Released/Susp.			0	0
/SCTM/CLEANUP_PPF			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/REPLENISHMENT			FF_IIT_EWM01	Released/Susp.			0	0
/SCWM/R_BW_COLLECTIVE_RUN			CUTOVER_B13	Released/Susp.			0	0
/SCWM/R_CAP_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/R_MS_RESULT_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/R_MS_RESULT_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/R_PDO_COMPLETE			CUTOVER_EWM2	Released/Susp.			0	0
/SDF/MON_SCHEDULER			ADROMGCOL	Released/Susp.			0	0
/SDF/MON_WATCHDOG			ADROMGCOL	Released/Susp.			0	0
A001_RECALC_BIN_CAP_ZIBO			MNAICKAN	Released/Susp.			0	0

SAP | PWM (1) 100 | isappwm00 INS | 6:21 PM 9/18/2022 33°C 23

Job Overview

Job overview from: 00.00.0000 at: : :
to: 00.00.0000 at: : :
Selected job names: *
Selected user names: *

Scheduled Released Ready Active Finished Canceled
 Event-Driven Event ID:
 ABAP program Program name :

JobName	Spool	Job doc	Job CreatedB	Status	Start date	Start Time	Duration(sec.)	Delay (sec.)
ZREPC303A			DFRASER	Released/Susp.			0	0
ZREPC303B			DFRASER	Released/Susp.			0	0
ZREPC303_C			FF_IIT_EWM03	Released/Susp.			0	0
ZREPC304			AKRULL	Released/Susp.			0	0
ZRHAUTUPD_NEW			BASIS_BATCH	Released/Susp.			0	0
Z_EWM_ICL_PRICES			BASIS_BATCH	Released/Susp.			0	0
Z_EWM_IHS_PRICES			CUTOVER_EWM2	Released/Susp.			0	0
Z_EWM_IHS_PRICES			CUTOVER_EWM2	Released/Susp.			0	0
Z_EWM_IHS_ZIHO_STOCK_TYPE_CHANGE			CUTOVER_EWM8	Released/Susp.			0	0
Z_EWM_IHS_ZIHO_STOCK_TYPE_CHANGE			CUTOVER_EWM8	Released/Susp.			0	0
Z_EWM_PROCESS_IDOC_IN_ERROR			BASIS_BATCH	Released/Susp.			0	0
Z_EWM_PROCESS_INBOUND_IDOCs			BASIS_BATCH	Released/Susp.			0	0
RDDIMPPD			LSERETSSI	Released			0	0
RDDIMPPD_CLIENT_001			DDIC	Released			0	0
RDDIMPPD_CLIENT_100			SAP*	Released			0	0
+Summary							0	0

SAP | PWM (1) 100 | isappwm00 INS | 6:22 PM 9/18/2022 33°C 23

2.19. Execute post DR test functional report

- To be performed from Imperial end.

2.20. Handover the system for testing

- Post-handover functional testing is performed from Imperial side.

2.21. Compare reports between environments and give feedback

- To be performed from Imperial end.

2.22. Perform Setup Replication between Primary and secondary

- Enable system replication on the primary site

```
./hdbnsutil -sr_state
```

```
./hdbnsutil -sr_enable --name=ihdbph*00
```

- System has been successfully enabled for system replication

```
./hdbnsutil -sr_state
```

- Stop the secondary system

Copy the files from primary to secondary

```
/usr/sap/<SID>/SYS/global/security/rsecssfs/data/SSFS_<SID>.DAT
```

```
/usr/sap/<SID>/SYS/global/security/rsecssfs/key/SSFS_<SID>.KEY
```

- Register on the secondary system

```
hdbnsutil -sr_register --force_full_replica --remoteHost=ihdbph*00 --remoteInstance=00 --  
replicationMode=async --name=EurWest --operationMode=logreplay
```

- Start the secondary system.

- Replication completed.

3. Fallback DR

3.1 Disable the replication

- The secondary system must be offline.

hdbsnutil -sr_state

- Stop the secondary system.

HDB stop

- unregister the secondary system

hdbsnutil -sr_unregister

- Start the secondary system

HDB start

- Disable system replication on the primary system.

hdbsnutil -sr_disable

3.1. Stop the application and DB on DR site

- stopsap – application

```
172.31.34.56 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetSystemInstanceList
isappwm00; Sun Sep 18 15:25:03 2022

18.09.2022 15:25:03
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isappwm00, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isappwm02, 2, 50213, 50214, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isappwm01, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isappwm00, 1, 50113, 50114, 1, MESSAGESERVER|ENQUE, GRAY
```

- sapcontrol -nr 00 -function StopSystem – DB
PH2

```

172.31.37.69 - PuTTY
login as: purushottam.narayan@imperial.local
#####
# WELCOME TO IMPERIAL
# IF you are not a Valid User
# PLEASE DONT LOGIN & LOGOUT
# YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Wed Jul 20 12:51:02 2022 from 172.31.246.169
SUSE Linux Enterprise Server 15 SP1 for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y/ /etc/waagent.conf
- rwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local$ihdbph200:> sudo su - ph2adm
ph2adm@ihdbph200:/usr/sap/PH2/HDB00> sapcontrol -nr 00 -function Stop
18.09.2022 07:38:44
Stop
OK
ph2adm@ihdbph200:/usr/sap/PH2/HDB00> watch sapcontrol -nr 00 -function GetProcessList
ph2adm@ihdbph200:/usr/sap/PH2/HDB00> █

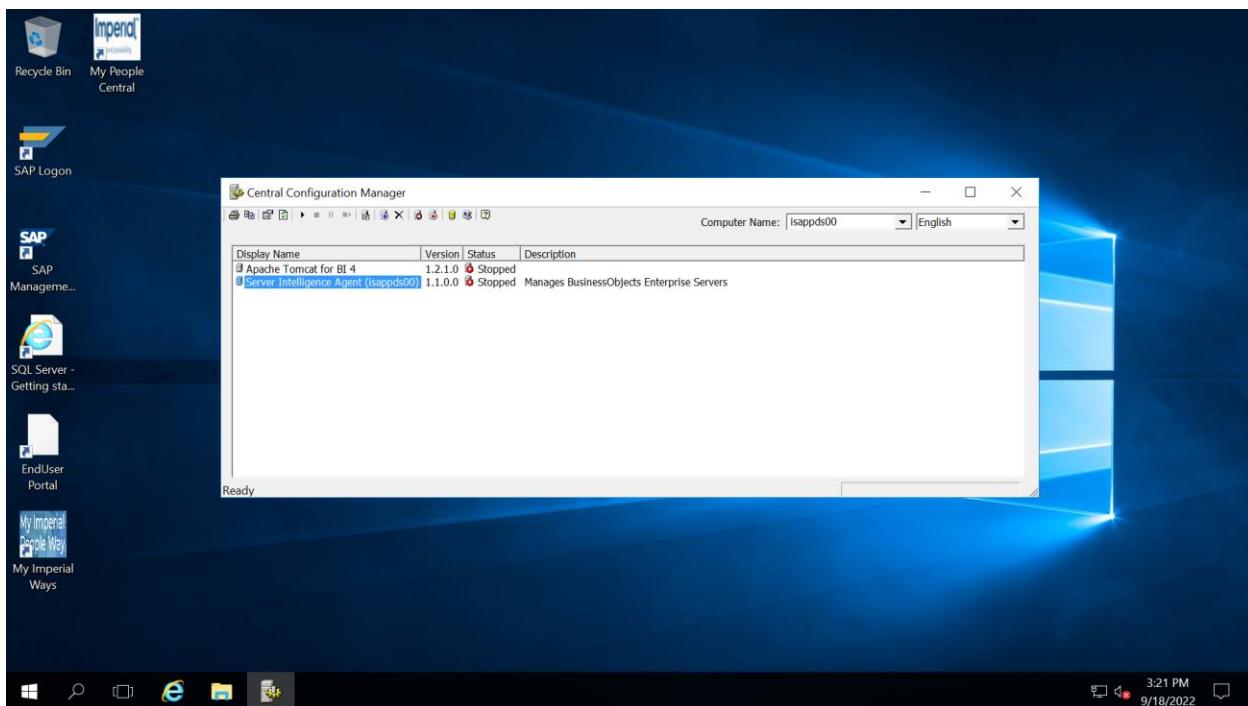
172.31.37.69 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbph200: Sun Sep 18 07:40:53 2022

18.09.2022 07:40:53
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbsdaemon, HDB Daemon, GRAY, Stopped, , , 8520

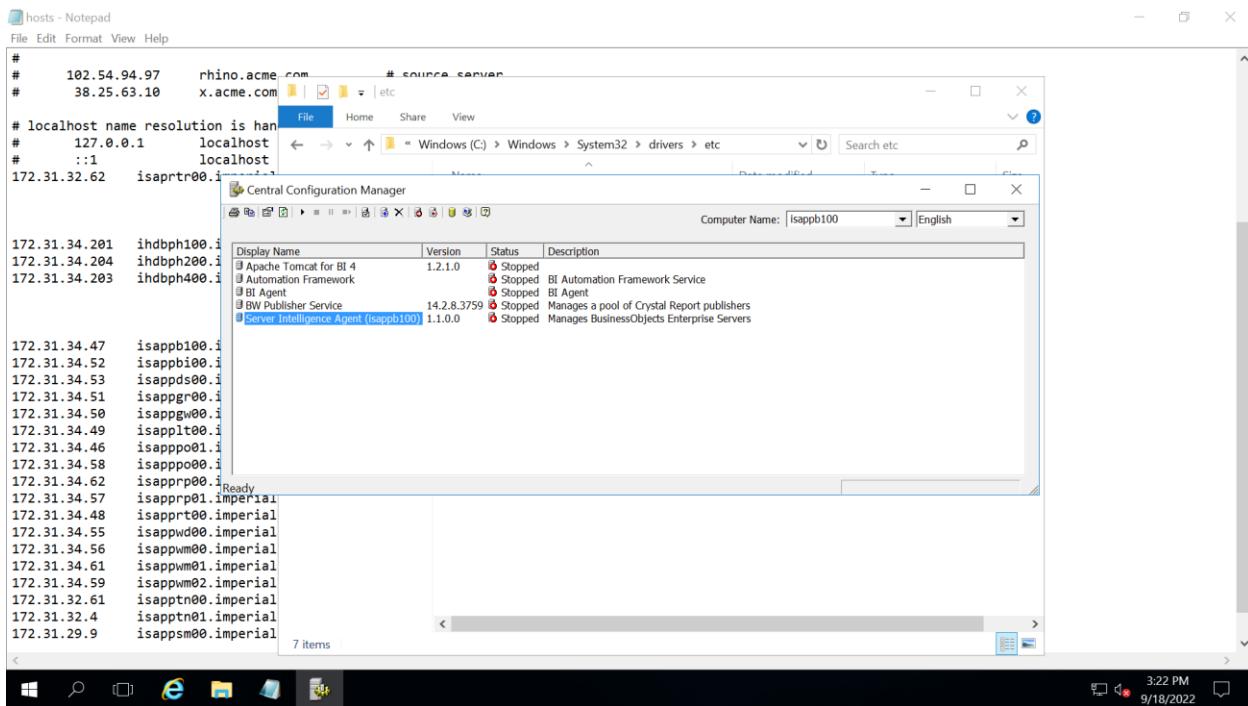
172.31.37.69 - PuTTY
Cloudy
Cloudy
ENG IN
11:10 AM 18-09-2022
172.31.37.69 - PuTTY
Cloudy
Cloudy
ENG IN
11:10 AM 18-09-2022

```

3.2. Stop the applications: BOBJ and BODS BODS (PDS)-



BOBJ (PB1) -



3.3. Stop the VMs

- To be performed from CMS end.

3.4. Change the DNS Back

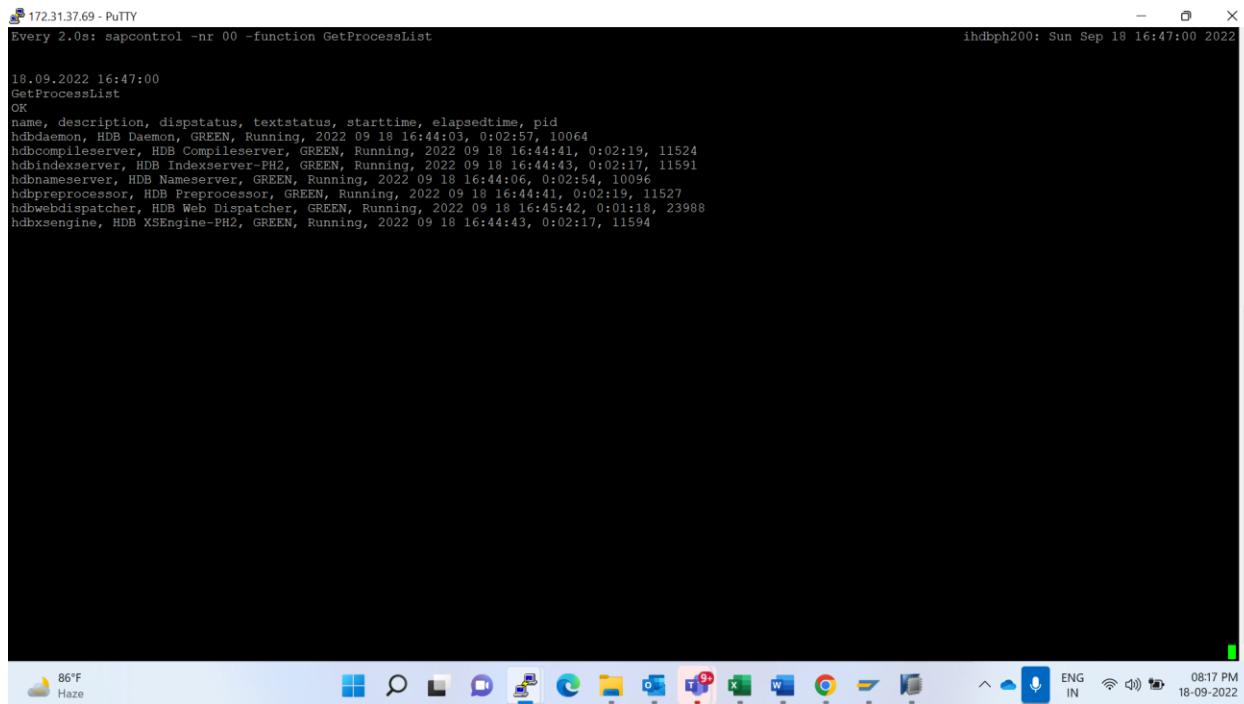
- To be performed from Imperial end.

3.5. Decommission the Application VMs (Created by ASR)

- To be performed from CMS end.

3.6. Start the HANA DB and Application in Primary site (Old IPs)

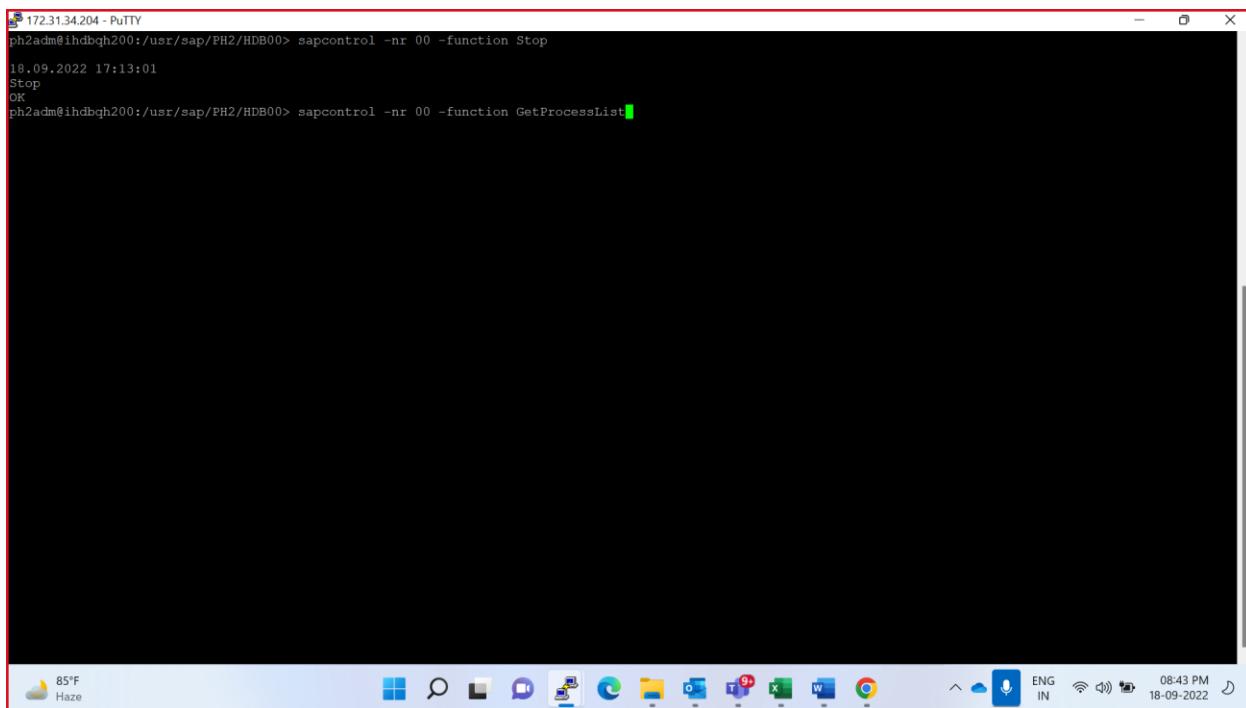
sapcontrol -nr 00 -function Start



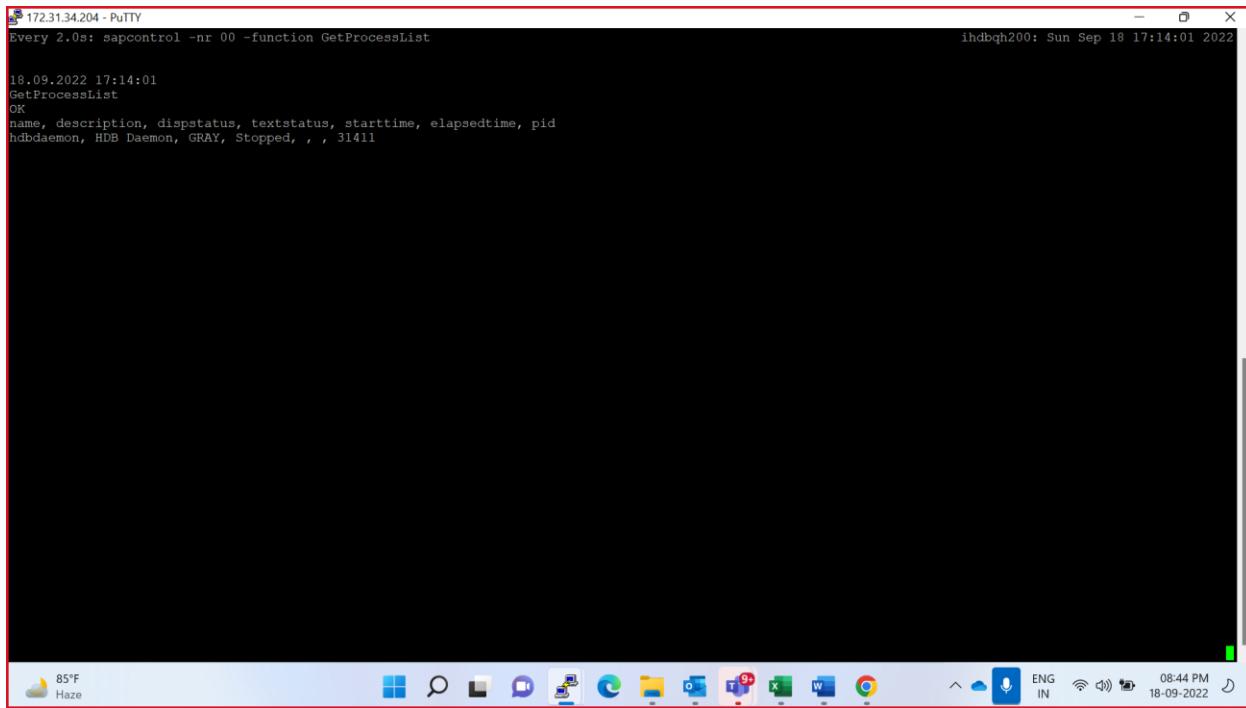
```
172.31.37.69 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbph200: Sun Sep 18 16:47:00 2022
18.09.2022 16:47:00
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GREEN, Running, 2022 09 18 16:44:03, 0:02:57, 10064
hdbcompileservice, HDB Compileservice, GREEN, Running, 2022 09 18 16:44:41, 0:02:19, 11524
hdbindexserver, HDB Indexserver-PH2, GREEN, Running, 2022 09 18 16:44:43, 0:02:17, 11591
hdbnameserver, HDB Nameserver, GREEN, Running, 2022 09 18 16:44:06, 0:02:54, 10096
hdbpreprocessor, HDB Preprocessor, GREEN, Running, 2022 09 18 16:44:41, 0:02:19, 11527
hdbwebdispatcher, HDB Web Dispatcher, GREEN, Running, 2022 09 18 16:45:42, 0:01:18, 23988
hdbxsengine, HDB XSEngine-PH2, GREEN, Running, 2022 09 18 16:44:43, 0:02:17, 11594
```

Stop the DR

DR TEST



```
172.31.34.204 - Putty
ph2adm@ihdbqh200:/usr/sap/PH2/HDB00> sapcontrol -nr 00 -function Stop
18.09.2022 17:13:01
Stop
OK
ph2adm@ihdbqh200:/usr/sap/PH2/HDB00> sapcontrol -nr 00 -function GetProcessList
```



```
172.31.34.204 - Putty
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbqh200: Sun Sep 18 17:14:01 2022

18.09.2022 17:14:01
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbsdaemon, HDB Daemon, GRAY, Stopped, , , 31411
```

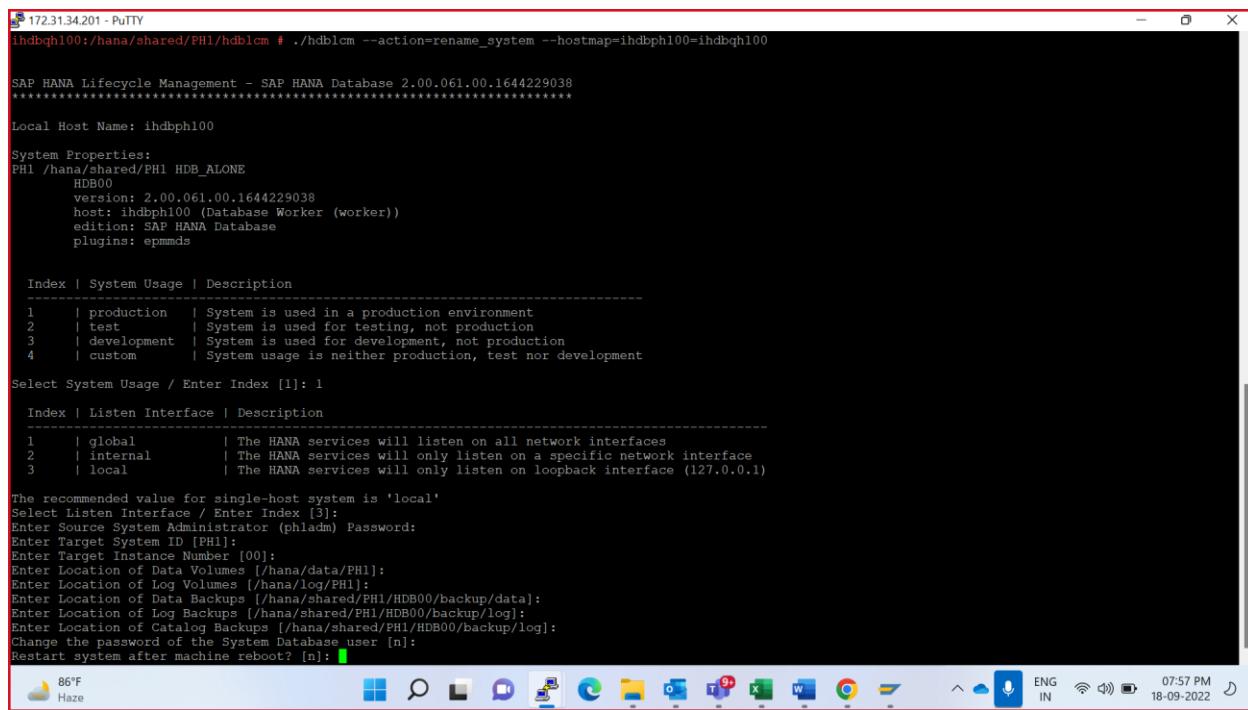
Revert hosts file changes on Quality DB

3.7. Failback scenario:

- ihdbph100(PRD) → rename to → (QA)ihdbqh100
- ihdbph200(PRD) → rename to → (QA)ihdbqh200
- ihdbph400(PRD) → rename to → (QA)ihdbqh400
- ihdbph100dr (NEW PRD) → rename to → (PRD)ihdbph100
- ihdbph200dr (NEW PRD) → rename to → (PRD)ihdbph200
- ihdbph400dr (NEW PRD) → rename to → (PRD)ihdbph400

PH1

./hdblcm --action=rename_system --hostmap=ihdbph100=ihdbqh100 (on DR host)



```

172.31.42.201 - Putty
ihdbqh100:/hana/shared/PH1/hdblcm # ./hdblcm --action=rename_system --hostmap=ihdbph100=ihdbqh100

SAP HANA Lifecycle Management - SAP HANA Database 2.00.061.00.1644229038
*****
Local Host Name: ihdbph100

System Properties:
PH1 /hana/shared/PH1 HDB_ALONE
    HDB00
        version: 2.00.061.00.1644229038
        host: ihdbph100 (Database Worker (worker))
        edition: SAP HANA Database
        plugins: epmmmds

Index | System Usage | Description
-----+
1   | production   | System is used in a production environment
2   | test          | System is used for testing, not production
3   | development   | System is used for development, not production
4   | custom         | System usage is neither production, test nor development

Select System Usage / Enter Index [1]: 1

Index | Listen Interface | Description
-----+
1   | global           | The HANA services will listen on all network interfaces
2   | internal          | The HANA services will only listen on a specific network interface
3   | local             | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Source System Administrator (phladm) Password:
Enter Target System ID [PH1]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH1]:
Enter Location of Log Volumes [/hana/log/PH1]:
Enter Location of Data Backups [/hana/shared/PH1/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH1/HDB00/backup/log]:
Enter Location of Catalog Backups [/hana/shared/PH1/HDB00/backup/catalog]:
Change the password of the System Database user [n]:
Restart system after machine reboot? [n]: y

 86°F
Haze
  07:57 PM
ENG IN
18-09-2022

```

DR TEST

```
172.31.34.201 - Putty
Select System Usage / Enter Index [1]: 1
Index | Listen Interface | Description
-----
1   | global           | The HANA services will listen on all network interfaces
2   | internal          | The HANA services will only listen on a specific network interface
3   | local             | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Source System Administrator (phladm) Password:
Enter Target System ID [PH1]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH1]:
Enter Location of Log Volumes [/hana/log/PH1]:
Enter Location of Data Backups [/hana/shared/PH1/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH1/HDB00/backup/log]:
Enter Location of Catalog Backups [/hana/shared/PH1/HDB00/backup/catalog]:
Change the password of the System Database user [n]:
Restart system after machine reboot? [n]:

Summary before execution:
=====
SAP HANA Database
Rename Parameters
  Installation Path: /hana/shared
  Source System ID: PH1
  Target System ID: PH1
  Target Instance Number: 00
  Remote Execution: ssh
  Host Name: ihdbph100 -> ihdbqph100
  System Usage: production
  Listen Interface: local
  Certificate Host Names: ihdbqph100 -> ihdbph100
  Location of Data Volumes: /hana/data/PH1
  Location of Log Volumes: /hana/log/PH1
Log File Locations
  Log directory: /var/tmp/hdb_PH1_hdblcm_rename_system_2022-09-18_16.26.55
  Trace location: /var/tmp/hdblcm_2022-09-18_16.26.55_31836.trc

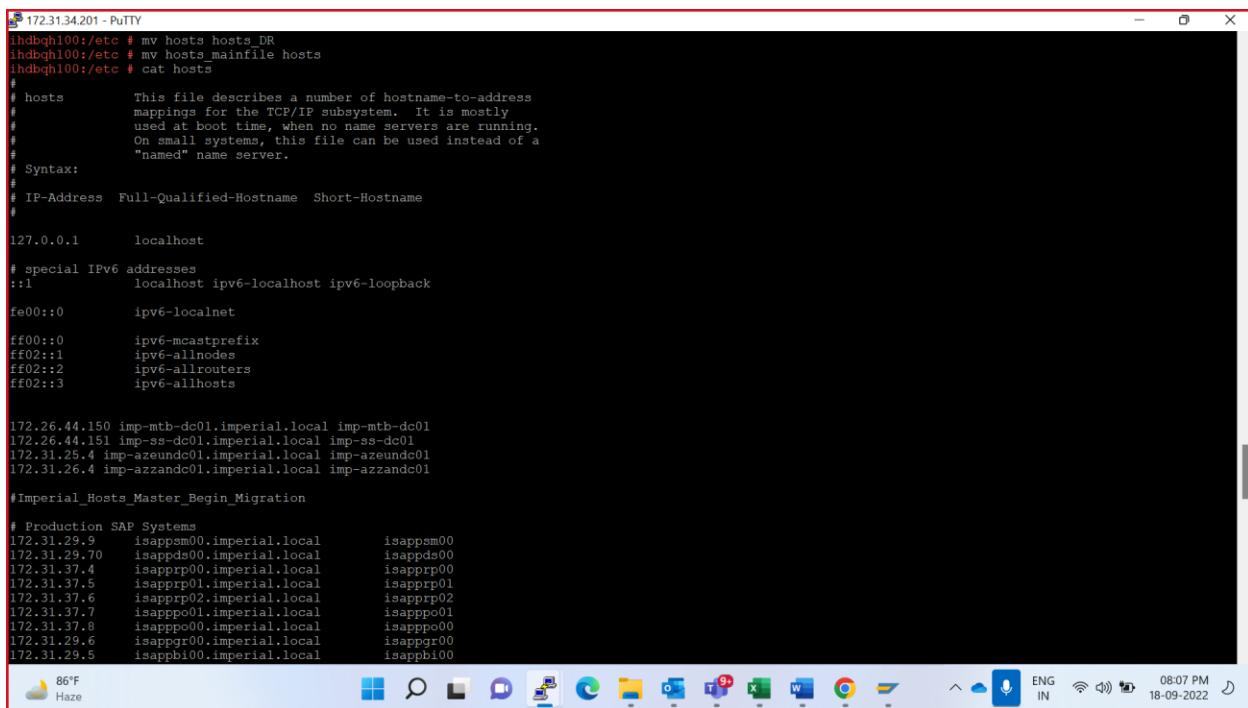
Note: SAP HANA Database System will be restarted
Do you want to continue? (y/n): y
  86°F Haze 07:59 PM IN 18-09-2022
```

```
172.31.34.201 - Putty
Listen Interface: local
Certificate Host Names: ihdbqph100 -> ihdbph100
Location of Data Volumes: /hana/data/PH1
Location of Log Volumes: /hana/log/PH1
Log File Locations
  Log directory: /var/tmp/hdb_PH1_hdblcm_rename_system_2022-09-18_16.26.55
  Trace location: /var/tmp/hdblcm_2022-09-18_16.26.55_31836.trc

Note: SAP HANA Database System will be restarted
Do you want to continue? (y/n): y
Renaming System...
Renaming instance...
Stopping system...
  Stopping 7 processes on host 'ihdbph100' (worker):
    Stopping on 'ihdbph100' (worker): hdbdaemon, hdbcompileservice, hdbindexserver (PH1), hdbnameserver, hdbpreprocessor, hdbwebdispatcher, hdbxsengine (PH1)
  )  All server processes stopped on host 'ihdbph100' (worker).
Stopping sapstartsrv service...
Removing sapservices entry...
Updating system configuration files...
Renaming instance...
Configuring environment scripts...
Creating sapservices entry...
Starting service (sapstartsrv)...
Starting instance PH1 (HDB00) on host 'ihdbqph100'...
  Starting 1 process on host 'ihdbqph100' (worker):
    Starting on 'ihdbqph100' (worker): hdbdaemon
  Starting 7 processes on host 'ihdbqph100' (worker):
    Starting on 'ihdbqph100' (worker): hdbdaemon, hdbcompileservice, hdbindexserver (PH1), hdbnameserver, hdbpreprocessor, hdbwebdispatcher, hdbxsengine (PH1)
  )  Starting on 'ihdbqph100' (worker): hdbdaemon, hdbcompileservice, hdbindexserver (PH1), hdbnameserver, hdbpreprocessor, hdbwebdispatcher, hdbxsengine (PH1)
    Starting on 'ihdbqph100' (worker): hdbdaemon, hdbindexserver (PH1), hdbwebdispatcher, hdbxsengine (PH1)
    Starting on 'ihdbqph100' (worker): hdbdaemon, hdbwebdispatcher, hdbxsengine (PH1)
    Starting on 'ihdbqph100' (worker): hdbdaemon, hdbwebdispatcher
  All server processes started on host 'ihdbqph100' (worker).
Registering Instance Service...
Updating Component List...
Updating SAP HANA Database Instance Integration on Local Host...
  Deploying SAP Host Agent configurations...
SAP HANA Database System renamed
Log file written to '/var/tmp/hdb_PH1_hdblcm_rename_system_2022-09-18_16.26.55/hdblcm.log' on host 'ihdbqph100'.
ihdbqph100:/hana/shared/PH1/hdblcm #
```

Revert to old hosts file

DR TEST



```

172.31.34.201 - PuTTY
ihdbqh100:/etc # mv hosts hosts.DR
ihdbqh100:/etc # mv hosts_mainfile hosts
ihdbqh100:/etc # cat hosts

# hosts      This file describes a number of hostname-to-address
#             mappings for the TCP/IP subsystem. It is mostly
#             used at boot time, when no name servers are running.
#             On small systems, this file can be used instead of a
#             "named" name server.
# Syntax:
# IP-Address Full-Qualified-Hostname Short-Hostname

127.0.0.1      localhost

# special IPv6 addresses
::1            localhost ipv6-localhost ipv6-loopback
fe00::0        ipv6-localnet
ff00::0         ipv6-mcastprefix
ff02::1         ipv6-allnodes
ff02::2         ipv6-allrouters
ff02::3         ipv6-allhosts

172.26.44.150 imp-mtb-dc01.imperial.local imp-mtb-dc01
172.26.44.151 imp-ss-dc01.imperial.local imp-ss-dc01
172.31.25.4   imp-azeundc01.imperial.local imp-azeundc01
172.31.26.4   imp-azzandc01.imperial.local imp-azzandc01

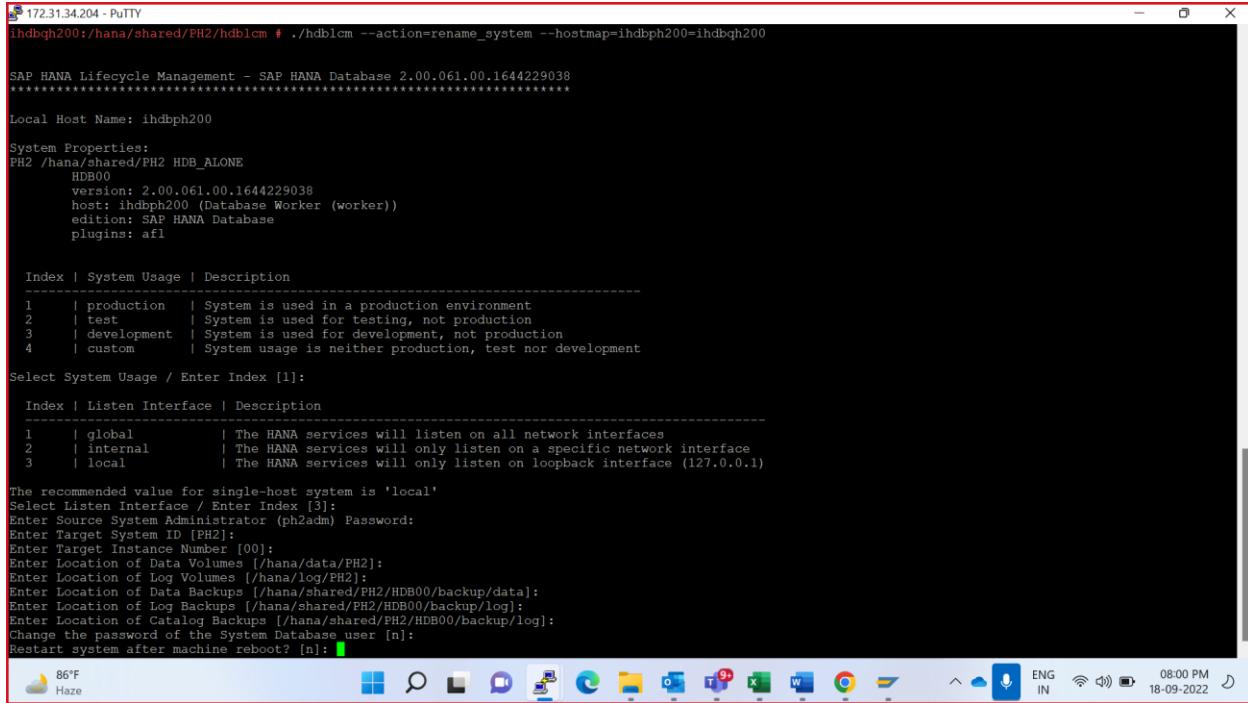
#Imperial_Hosts_Master_Begin_Migration

# Production SAP Systems
172.31.29.9   isappsm00.imperial.local      isappsm00
172.31.29.70  isappd00.imperial.local      isappd00
172.31.37.4   isapprp00.imperial.local      isapprp00
172.31.37.5   isapprp01.imperial.local      isapprp01
172.31.37.6   isapprp02.imperial.local      isapprp02
172.31.37.7   isappo01.imperial.local      isappo01
172.31.37.8   isappo00.imperial.local      isappo00
172.31.29.6   isappgr00.imperial.local     isappgr00
172.31.29.5   isappb100.imperial.local     isappb100

```

PH2

`./hdblcm --action=rename_system --hostmap=ihdbph200=ihdbqh200`



```

172.31.34.204 - PuTTY
ihdbqh200:/hana/shared/PH2/hdblcm # ./hdblcm --action=rename_system --hostmap=ihdbph200=ihdbqh200

SAP HANA Lifecycle Management - SAP HANA Database 2.00.061.00.1644229038
*****
Local Host Name: ihdbph200

System Properties:
PH2 /hana/shared/PH2 HDB_ALONE
    HDB00
    version: 2.00.061.00.1644229038
    host: ihdbph200 (Database Worker (worker))
    edition: SAP HANA Database
    plugins: afl

Index | System Usage | Description
-----+
1   | production   | System is used in a production environment
2   | test          | System is used for testing, not production
3   | development   | System is used for development, not production
4   | custom         | System usage is neither production, test nor development

Select System Usage / Enter Index [1]:
Index | Listen Interface | Description
-----+
1   | global          | The HANA services will listen on all network interfaces
2   | internal         | The HANA services will only listen on a specific network interface
3   | local            | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Source System Administrator (ph2adm) Password:
Enter Target System ID [PH2]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH2]:
Enter Location of Log Volumes [/hana/log/PH2]:
Enter Location of Data Backups [/hana/shared/PH2/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH2/HDB00/backup/log]:
Enter Location of Catalog Backups [/hana/shared/PH2/HDB00/backup/catalog]:
Change the password of the System Database user [n]:
Restart system after machine reboot? [n]: y

```

```

172.31.34.204 - Putty
Select System Usage / Enter Index [1]:
Index | Listen Interface | Description
-----|-----|-----
1   | global           | The HANA services will listen on all network interfaces
2   | internal          | The HANA services will only listen on a specific network interface
3   | local             | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Source System Administrator (ph2adm) Password:
Enter Target System ID [PH2]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH2]:
Enter Location of Log Volumes [/hana/log/PH2]:
Enter Location of Data Backups [/hana/shared/PH2/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH2/HDB00/backup/log]:
Enter Location of Catalog Backups [/hana/shared/PH2/HDB00/backup/catalog]:
Change the password of the System Database user [n]:
Restart system after machine reboot? [n]: n

Summary before execution:
=====

SAP HANA Database
Rename Parameters
  Installation Path: /hana/shared
  Source System ID: PH2
  Target System ID: PH2
  Target Instance Number: 00
  Remote Execution: ssh
  Host Name: ihdbqh200 -> ihdbqh200
  System Usage: production
  Listen Interface: local
  Certificate Host Names: ihdbqh200 -> ihdbqh200
  Location of Data Volumes: /hana/data/PH2
  Location of Log Volumes: /hana/log/PH2
Log File Locations
  Log directory: /var/tmp/hdb PH2 hdblcm_rename_system_2022-09-18_16.30.25
  Trace location: /var/tmp/hdblcm_2022-09-18_16.30.25_29482.trc

Note: SAP HANA Database System will be restarted

Do you want to continue? (y/n): y

```

```

172.31.34.204 - Putty
Listen Interface: local
Certificate Host Names: ihdbqh200 -> ihdbqh200
Location of Data Volumes: /hana/data/PH2
Location of Log Volumes: /hana/log/PH2
Log File Locations
  Log directory: /var/tmp/hdb PH2 hdblcm_rename_system_2022-09-18_16.30.25
  Trace location: /var/tmp/hdblcm_2022-09-18_16.30.25_29482.trc

Note: SAP HANA Database System will be restarted

Do you want to continue? (y/n): y

Renaming System...
Renaming instance...
Stopping system...
Stopping 7 processes on host 'ihdbqh200' (worker):
  Stopping on 'ihdbqh200' (worker): hdbdaemon, hdbcompileservice, hdbindexserver (PH2), hdbnameserver, hdbpreprocessor, hdbwebdispatcher, hdbxsengine (PH2)
) All server processes stopped on host 'ihdbqh200' (worker).
Stopping sapstartsrv service...
Removing sapservices entry...
Updating system configuration files...
Renaming instance...
Configuring environment scripts...
Creating sapservices entry...
Starting service (sapstartsrv)...
Starting instance PH2 (HDB00) on host 'ihdbqh200'...
  Starting 1 process on host 'ihdbqh200' (worker):
    Starting on 'ihdbqh200' (worker): hdbdaemon
  Starting 7 processes on host 'ihdbqh200' (worker):
    Starting on 'ihdbqh200' (worker): hdbdaemon, hdbcompileservice, hdbindexserver (PH2), hdbnameserver, hdbpreprocessor, hdbwebdispatcher, hdbxsengine (PH2)
) Starting on 'ihdbqh200' (worker): hdbdaemon, hdbcompileservice, hdbindexserver (PH2), hdbpreprocessor, hdbwebdispatcher, hdbxsengine (PH2)
Starting on 'ihdbqh200' (worker): hdbdaemon, hdbindexserver (PH2), hdbpreprocessor, hdbwebdispatcher, hdbxsengine (PH2)
Starting on 'ihdbqh200' (worker): hdbdaemon, hdbwebdispatcher
Starting on 'ihdbqh200' (worker): hdbdaemon, hdbwebdispatcher
All server processes started on host 'ihdbqh200' (worker).

Registering Instance Service...
Updating Component List...
Updating SAP HANA Database Instance Integration on Local Host...
Deploying SAP Host Agent configurations...
SAP HANA Database System renamed
Log file written to '/var/tmp/hdb PH2 hdblcm_rename_system_2022-09-18_16.30.25/hdblcm.log' on host 'ihdbqh200'.
ihdbqh200:/hana/shared/PH2/hdblcm #

```

Revert to the old host file

DR TEST

```

172.31.34.204 - Putty
ihdbqh200:/etc # mv hosts hosts.DR
ihdbqh200:/etc # mv hosts_mainfile hosts
ihdbqh200:/etc # cat hosts

# hosts      This file describes a number of hostname-to-address
#             mappings for the TCP/IP subsystem. It is mostly
#             used at boot time, when no name servers are running.
#             On small systems, this file can be used instead of a
#             "named" name server.
# Syntax:
# IP-Address Full-Qualified-Hostname Short-Hostname

127.0.0.1      localhost

# special IPv6 addresses
::1            localhost ipv6-localhost ipv6-loopback

fe00::0        ipv6-localnet

ff00::0         ipv6-mcastprefix
ff02::1         ipv6-allnodes
ff02::2         ipv6-allrouters
ff02::3         ipv6-allhosts

172.26.44.150 imp-mtb-dc01.imperial.local imp-mtb-dc01
172.26.44.151 imp-ss-dc01.imperial.local imp-ss-dc01
172.31.25.4   imp-azeundc01.imperial.local imp-azeundc01
172.31.26.4   imp-azzandc01.imperial.local imp-azzandc01

#Imperial_Hosts_Master_Begin_Migration

# Production SAP Systems
172.31.29.9   isappsm00.imperial.local      isappsm00
172.31.29.70  isappds00.imperial.local      isappds00
172.31.37.4   isapprp00.imperial.local      isapprp00
172.31.37.5   isapprp01.imperial.local      isapprp01
172.31.37.6   isapprp02.imperial.local      isapprp02
172.31.37.7   isappo01.imperial.local      isappo01
172.31.37.8   isappo00.imperial.local      isappo00
172.31.29.6   isapprg00.imperial.local      isapprg00
172.31.29.5   isappb100.imperial.local     isappb100

```

86°F Haze 08:05 PM IN 18-09-2022

PH4

./hbdlcm --action=rename_system --hostmap=ihdbph400=ihdbqh400

```

172.31.34.203 - Putty
drwxr-xr-x 6 ph4adm sapsys 92 Feb 3 2021 resources
ihdbqh400:/hana/shared/PH4/hbdlcm # ./hbdlcm --action=rename_system --hostmap=ihdbph400=ihdbqh400

SAP HANA Lifecycle Management - SAP HANA 1.00.122.33.1602166441
***** Local Host Name: ihdbph400 *****

Local Host Name: ihdbph400

System Properties:
PH4 /hana/shared/PH4 HDB_ALONE
    HDB00
        version: 1.00.122.33.1602166441
        host: ihdbph400 (Database Worker (worker))
        plugins: afl

Index | System Usage | Description
-----
1 | production | System is used in a production environment
2 | test | System is used for testing, not production
3 | development | System is used for development, not production
4 | custom | System usage is neither production, test nor development

Select System Usage / Enter Index [1]:
Index | Listen Interface | Description
-----
1 | global | The HANA services will listen on all network interfaces
2 | internal | The HANA services will only listen on a specific network interface (127.0.0.1)
3 | local | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Certificate Host Name For Host 'ihdbqh400' [ihdbph400]:
Enter Source System Administrator (ph4adm) Password:
Enter Target System ID [PH4]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH4]:
Enter Location of Log Volumes [/hana/log/PH4]:
Enter Location of Data Backups [/hana/shared/PH4/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH4/HDB00/backup/log]:

```

Windows Taskbar: About Help Open Cancel 30°C 8:05 PM 9/18/2022

```

172.31.34.203 - PuTTY
3 | local | The HANA services will only listen on loopback interface (127.0.0.1)

The recommended value for single-host system is 'local'
Select Listen Interface / Enter Index [3]:
Enter Certificate Host Name For Host 'ihdbqh400' [ihdbqh400]:
Enter Source System Administrator (ph4adm) Password:
Enter Target System ID [PH4]:
Enter Target Instance Number [00]:
Enter Location of Data Volumes [/hana/data/PH4]:
Enter Location of Log Volumes [/hana/log/PH4]:
Enter Location of Data Backups [/hana/shared/PH4/HDB00/backup/data]:
Enter Location of Log Backups [/hana/shared/PH4/HDB00/backup/log]:
Change the password of the Database user [n]:
Restart system after machine reboot? [n]

Summary before execution:
=====

Rename System
  Rename Parameters
    Installation Path: /hana/shared
    Source System ID: PH4
    Target System ID: PH4
    Target Instance Number: 00
    Remote Execution: ssh
    Host Name: ihdbqh400 -> ihdbqh400
    System Usage: production
    Listen Interface: local
    Certificate Host Names: ihdbqh400 -> ihdbqh400
    Location of Data Volumes: /hana/data/PH4
    Location of Log Volumes: /hana/log/PH4

Note: SAP HANA System will be restarted

Do you want to continue? (y/n): y

Executing SAP HANA System rename

Renaming system...
Renaming instance...
Stopping system...
  Stopping 1 process on host 'ihdbqh400' (worker):
  Stopping on 'ihdbqh400': hdb.sapPH4_HDB00
[...]

```

```

Remote Execution: ssh
Host Name: ihdbqh400 -> ihdbqh400
System Usage: production
Listen Interface: local
Certificate Host Names: ihdbqh400 -> ihdbqh400
Location of Data Volumes: /hana/data/PH4
Location of Log Volumes: /hana/log/PH4

Note: SAP HANA System will be restarted

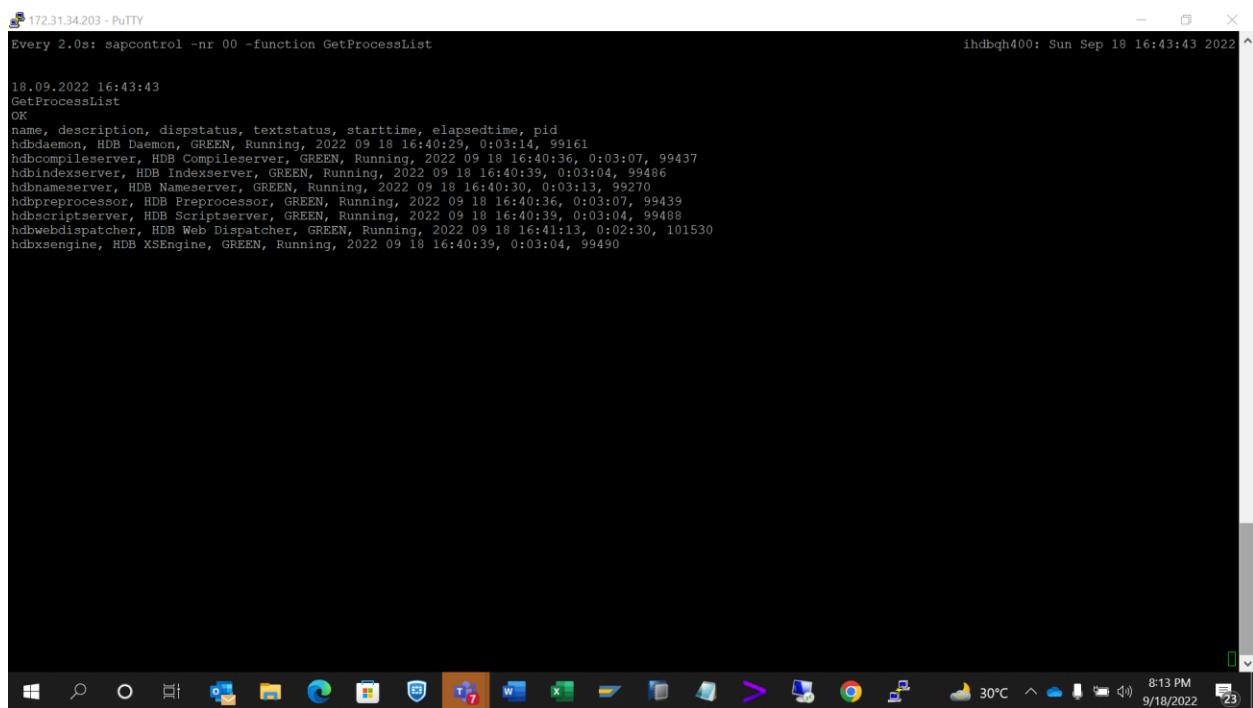
Do you want to continue? (y/n): y

Executing SAP HANA System rename

Renaming system...
Renaming instance...
Stopping system...
  Stopping 1 process on host 'ihdbqh400' (worker):
  Stopping on 'ihdbqh400': hdb.sapPH4_HDB00
  All server processes stopped on host 'ihdbqh400' (worker).
Stopping sapstartsrv service...
Updating system configuration files...
Renaming instance...
Creating sapervices entry...
Starting service (sapstartsrv)...
Starting instance PH4 (HDB00) on host 'ihdbqh400'...
Starting 1 process on host 'ihdbqh400' (worker):
  Starting on 'ihdbqh400': hdbirdconf
  Starting 8 processes on host 'ihdbqh400' (worker):
  Starting on 'ihdbqh400': hdbcompileservice, hbddaemon, hdbindexserver, hdbnameserver, hdbpreprocessor, hdbscriptserver, hdbwebdispatcher, hdbxsengine
  Starting on 'ihdbqh400': hdbcompileservice, hbddaemon, hdbindexserver, hdbpreprocessor, hdbscriptserver, hdbwebdispatcher, hdbxsengine
  Starting on 'ihdbqh400': hbddaemon, hdbindexserver, hdbscriptserver, hdbwebdispatcher, hdbxsengine
  Starting on 'ihdbqh400': hbddaemon, hdbscriptserver, hdbwebdispatcher, hdbxsengine
  Starting on 'ihdbqh400': hbddaemon, hdbscriptserver, hdbwebdispatcher
  Starting on 'ihdbqh400': hbddaemon, hdbwebdispatcher
  All server processes started on host 'ihdbqh400' (worker).

Registering Instance Service...
Updating component list...
Updating SAP HANA Instance Integration on Local Host...
SAP HANA system renamed!
You can send feedback to SAP with this form: https://ihdbqh400:1129/lms1/HDBLCM/PH4/feedback/feedback.html
Log file written to '/var/tmp/hdb_PH4_hdblcm_rename_system_2022-09-18_16.31.08/hdblcm.log' on host 'ihdbqh400'.
ihdbqh400:/hana/shared/PH4/hdblcm # patch sacontrol -nr 00 -function GetProcessList
ihdbqh400:/hana/shared/PH4/hdblcm #
```

DR TEST



```
172.31.34.203 - Putty
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbph400: Sun Sep 18 16:43:43 2022 ^

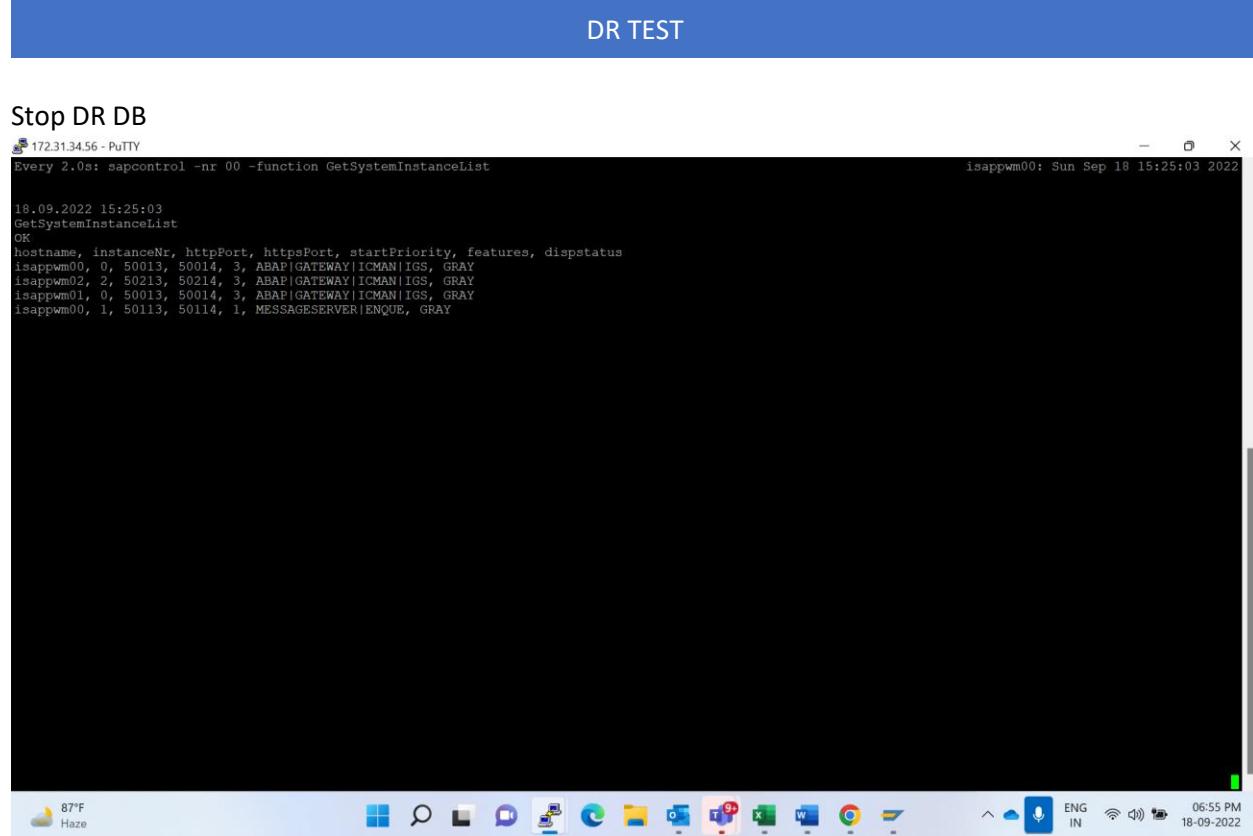
18.09.2022 16:43:43
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GREEN, Running, 2022 09 18 16:40:29, 0:03:14, 99161
hdbcompileservice, HDB Compileservice, GREEN, Running, 2022 09 18 16:40:36, 0:03:07, 99437
hdbindexserver, HDB Indexserver, GREEN, Running, 2022 09 18 16:40:39, 0:03:04, 99486
hdbnameserver, HDB Nameserver, GREEN, Running, 2022 09 18 16:40:30, 0:03:13, 99270
hdbpreprocessor, HDB Preprocessor, GREEN, Running, 2022 09 18 16:40:36, 0:03:07, 99439
hdbscriptserver, HDB Scriptserver, GREEN, Running, 2022 09 18 16:40:39, 0:03:04, 99488
hdbwebdispatcher, HDB Web Dispatcher, GREEN, Running, 2022 09 18 16:41:13, 0:02:30, 101530
hdbxsengine, HDB XSEngine, GREEN, Running, 2022 09 18 16:40:39, 0:03:04, 99490
```

hdblcm --action=rename_system --hostmap=ihdbph100dr=ihdbph100 (on Primary host)

hdblcm --action=rename_system --hostmap=ihdbph200dr=ihdbph200 (on Primary host)

hdblcm --action=rename_system --hostmap=ihdbph400dr=ihdbph400 (on Primary host)

Stop DR DB



```
172.31.34.56 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetSystemInstanceList
isappwm00: Sun Sep 18 15:25:03 2022

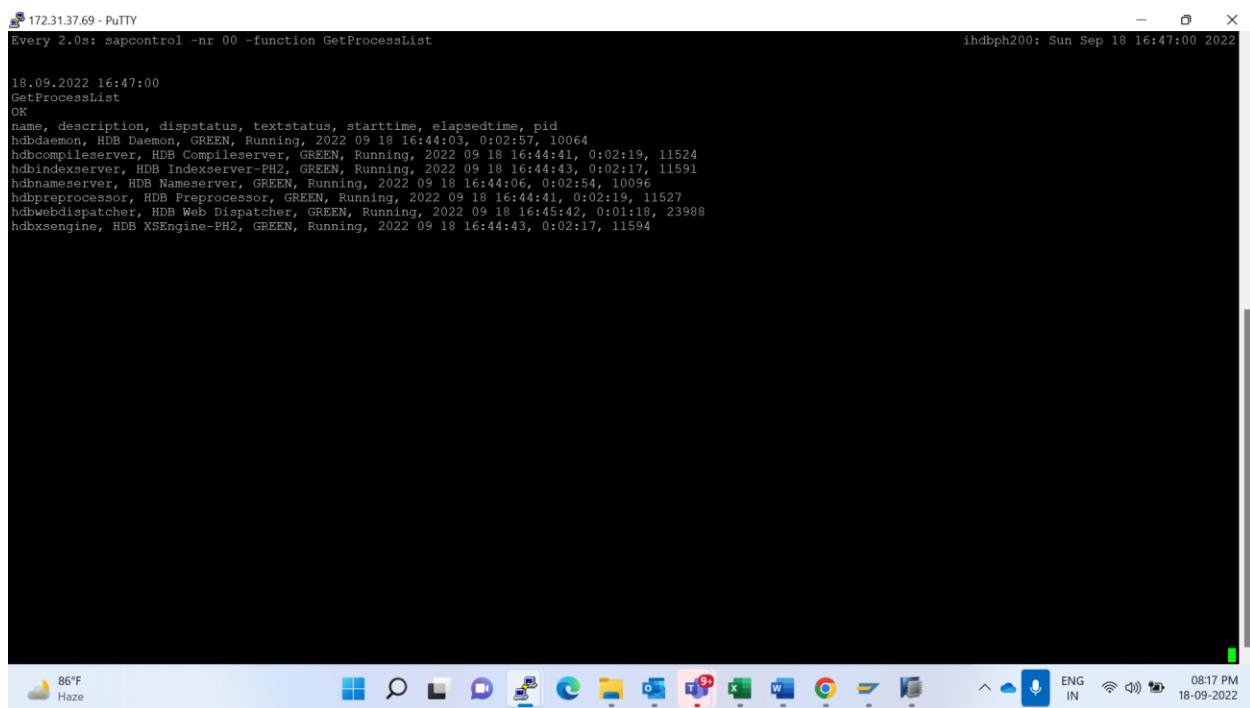
18.09.2022 15:25:03
GetSystemInstanceList
OK
hostname, instanceNr, httpPort, httpsPort, startPriority, features, dispstatus
isappwm00, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isappwm02, 2, 50213, 50214, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isappwm01, 0, 50013, 50014, 3, ABAP|GATEWAY|ICMAN|IGS, GRAY
isappwm00, 1, 50113, 50114, 1, MESSAGESERVER|ENQUE, GRAY
```

Replication Setup

Start Primary DB

```
sapcontrol -nr 00 -function StartSystem
```

DR TEST

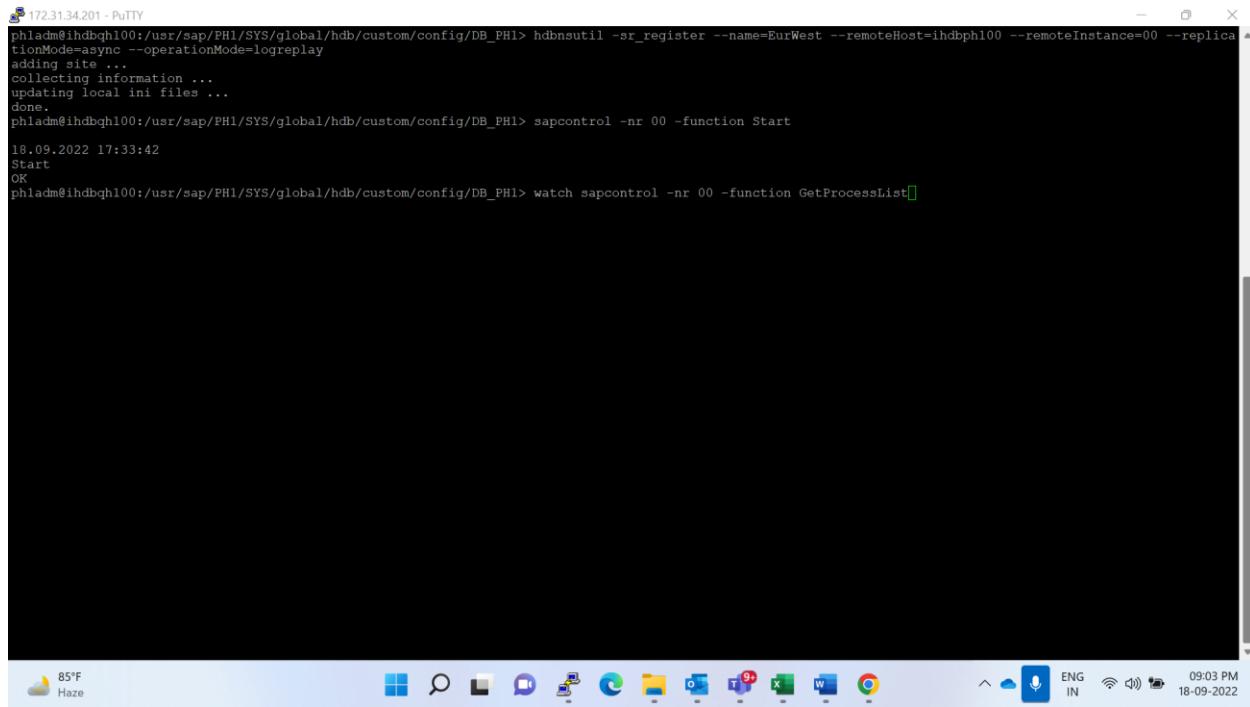


```
172.31.37.69 - PuTTY
Every 2.0s: sapcontrol -nr 00 -function GetProcessList
ihdbphx00: Sun Sep 18 16:47:00 2022

18.09.2022 16:47:00
GetProcessList
OK
name, description, dispstatus, textstatus, starttime, elapsedtime, pid
hdbdaemon, HDB Daemon, GREEN, Running, 2022 09 18 16:44:03, 0:02:57, 10064
hdbcompileservice, HDB Compileservice, GREEN, Running, 2022 09 18 16:44:41, 0:02:19, 11524
hdbindexservice, HDB Indexservice-PH2, GREEN, Running, 2022 09 18 16:44:43, 0:02:17, 11591
hdbnameservice, HDB Nameservice, GREEN, Running, 2022 09 18 16:44:06, 0:02:54, 10096
hdbpreprocessor, HDB Preprocessor, GREEN, Running, 2022 09 18 16:44:41, 0:02:19, 11527
hdbwebdispatcher, HDB Web Dispatcher, GREEN, Running, 2022 09 18 16:45:42, 0:01:18, 23988
hdbxsengine, HDB XSEngine-PH2, GREEN, Running, 2022 09 18 16:44:43, 0:02:17, 11594
```

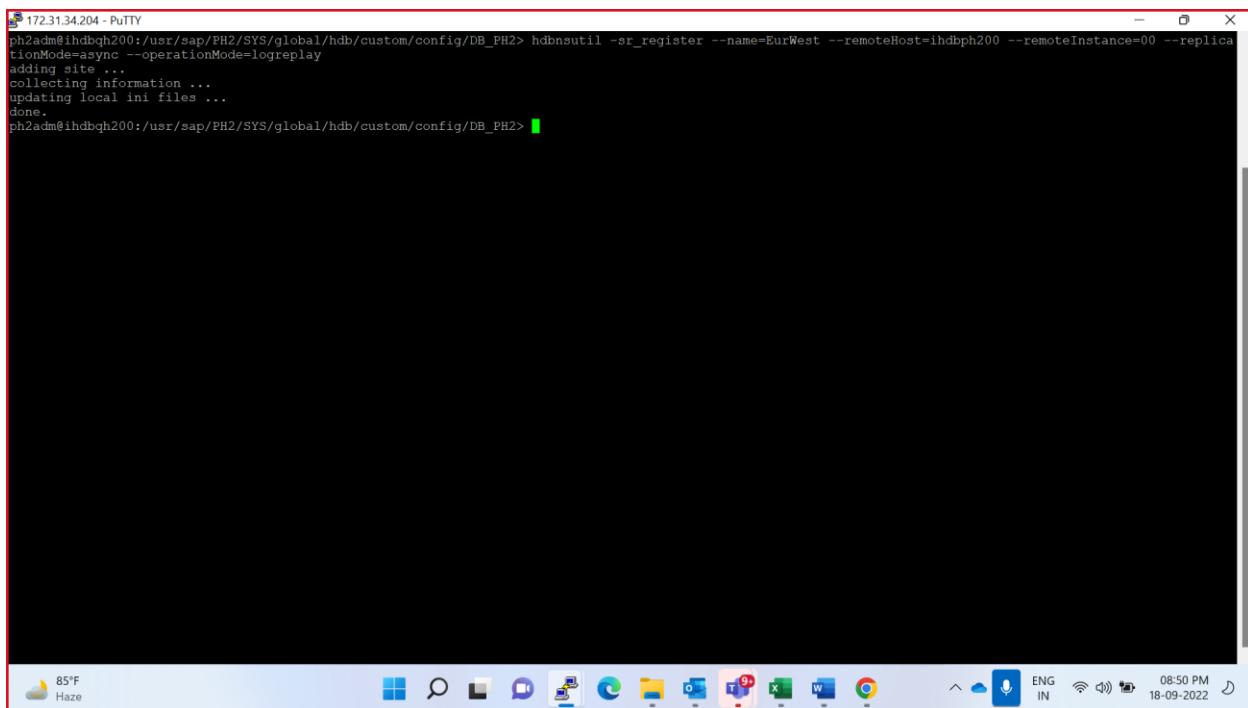
3.8. Register the Secondary DB (Quality DB Servers)

```
hdbnsutil -sr_register --name=<region> --remoteHost=ihdbphx00 --remoteInstance=00 --replicationMode=async --operationMode=logreplay
```



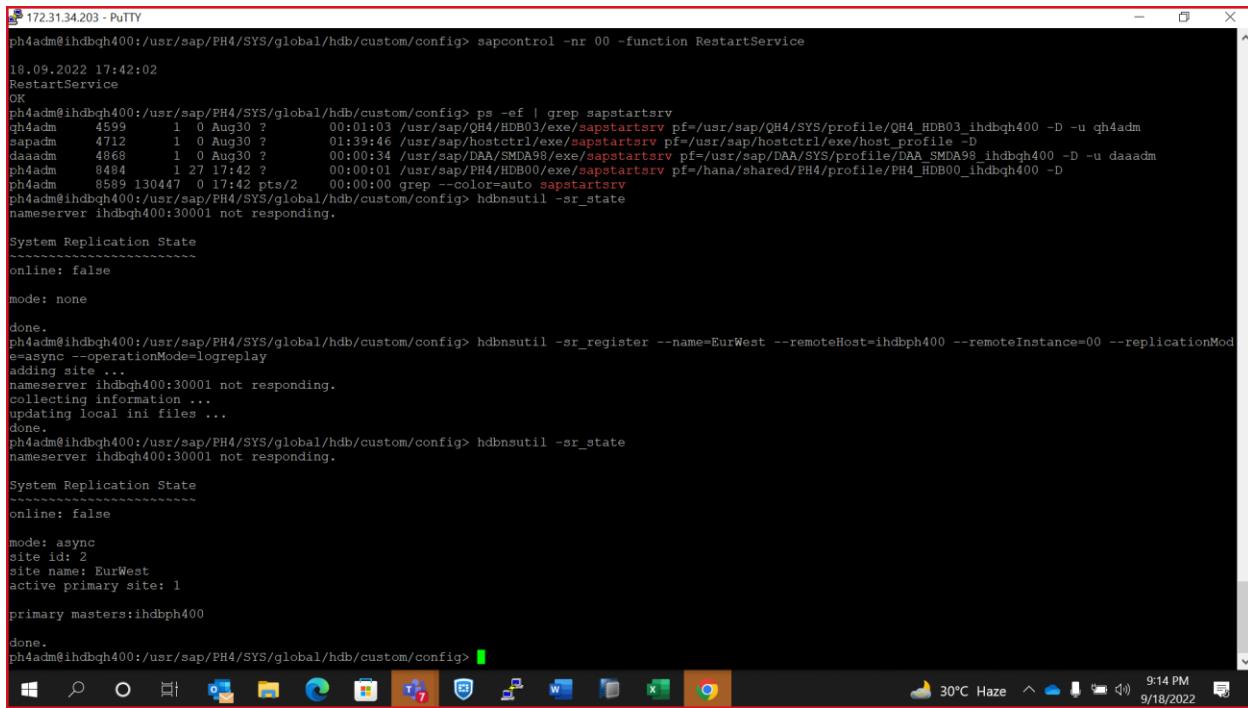
```
172.31.34.201 - PuTTY
phladm@ihdbqh100:/usr/sap/PH1/SYS/global/hdb/custom/config/DB_PH1> hdbnsutil -sr_register --name=EurWest --remoteHost=ihdbph100 --remoteInstance=00 --replicationMode=async --operationMode=logreplay
adding site ...
collecting information ...
updating local ini files ...
done.
phladm@ihdbqh100:/usr/sap/PH1/SYS/global/hdb/custom/config/DB_PH1> sapcontrol -nr 00 -function Start
18.09.2022 17:33:42
Start
OK
phladm@ihdbqh100:/usr/sap/PH1/SYS/global/hdb/custom/config/DB_PH1> watch sapcontrol -nr 00 -function GetProcessList
```

DR TEST



```
172.31.34.204 - PuTTY
ph2adm@ihdbqh200:/usr/sap/PH2/SYS/global/hdb/custom/config/DB_PH2> hdbnsutil -sr_register --name=EurWest --remoteHost=ihdbph200 --remoteInstance=00 --replicationMode=async --operationMode=logreplay
adding site ...
collecting information ...
updating local ini files ...
done.
ph2adm@ihdbqh200:/usr/sap/PH2/SYS/global/hdb/custom/config/DB_PH2>
```

Unhash HANA Parameter changes for DR ihdbqh200 (global_allocation_limit)



```
172.31.34.203 - PuTTY
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> sapcontrol -nr 00 -function RestartService
18.09.2022 17:42:02
RestartService
OK
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> ps -ef | grep sapstartsrv
q4adm 4599 1 0 Aug30 ? 0:01:03 /usr/sap/QH4/HDB03/exe/sapstartsrv pf=/usr/sap/QH4/SYS/profile/QH4_HDB03_ihdbqh400 -D -u qh4adm
sapadm 4712 1 0 Aug30 ? 0:139:46 /usr/sap/hostctrl/exe/sapstartsrv pf=/usr/sap/hostctrl/exe/host_profile -D
daaadm 4868 1 0 Aug30 ? 0:00:34 /usr/sap/DAA/SMDA98/exe/sapstartsrv pf=/usr/sap/DAA/SYS/profile/DAA_SMDA98_ihdbqh400 -D -u daaadm
ph4adm 8484 1 27 17:42 ? 0:00:01 /usr/sap/PH4/HDB00/exe/sapstartsrv pf=/hana/shared/PH4/profile/PH4_HDB00_ihdbqh400 -D
ph4adm 8589 130447 0 17:42 pts/2 0:00:00 grep --color=auto sapstartsrv
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> hdbnsutil -sr_state
nameserver ihdbqh400:30001 not responding.

System Replication State
-----
online: false

mode: none

done.
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> hdbnsutil -sr_register --name=EurWest --remoteHost=ihdbph400 --remoteInstance=00 --replicationMod=easync --operationMode=logreplay
adding site ...
nameserver ihdbqh400:30001 not responding.
collecting information ...
updating local ini files ...
done.
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config> hdbnsutil -sr_state
nameserver ihdbqh400:30001 not responding.

System Replication State
-----
online: false

mode: async
site id: 2
site name: EurWest
active primary site: 1

primary masters:ihdbph400

done.
ph4adm@ihdbqh400:/usr/sap/PH4/SYS/global/hdb/custom/config>
```

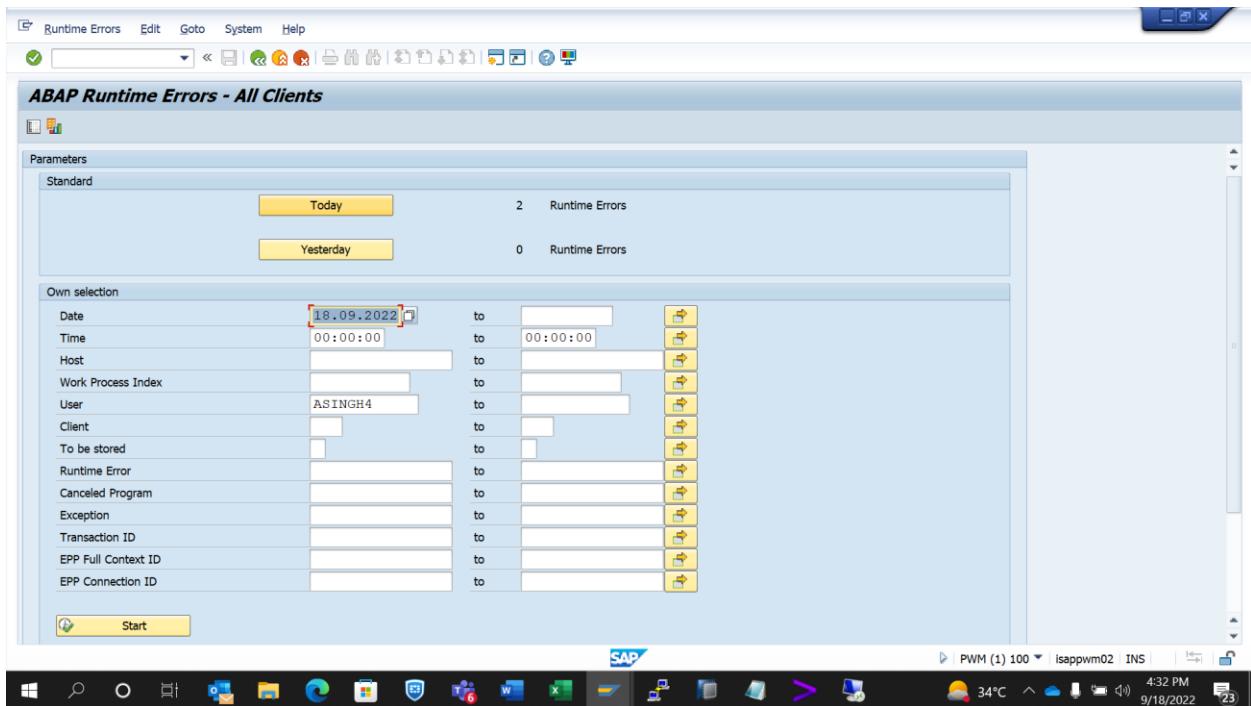
sapcontrol -nr 00 -function Start

```
ph2adm@ihdbqh200:/usr/sap/PH2/SYS/global/hdb/custom/config/DB_PH2> sapcontrol -nr 00 -function Start
18.09.2022 17:21:10
Start
OK
ph2adm@ihdbqh200:/usr/sap/PH2/SYS/global/hdb/custom/config/DB_PH2> watch sapcontrol -nr 00 -function GetProcessList
```

3.9. Bring up the Quality APP+DB

3.10. Basic health check of the system

ST22



DR TEST

The screenshot shows the SAP DR TEST interface with the title "List of Selected Runtime Errors". The main area displays a table of runtime errors:

Current Date	Time	Application Server	User	Client Ke Runtime Error	Exception	Canceled Program
18.09.2022	11:22:03	isappwm00_PWM_	SAPSYS	000 C COMPUTE_BCD_OVERFLOW	CX_SY_ARITHMETIC_OVERFLOW	RSDSSPNR
18.09.2022	11:16:57	isappwm00_PWM_	SAPSYS	000 C COMPUTE_BCD_OVERFLOW	CX_SY_ARITHMETIC_OVERFLOW	RSDSSPNR

SM51

The screenshot shows the SAP SM51 interface with the title "AS Instances of SAP System PWM". The main area displays a table of application server instances:

Application Server Instance	Host	Instance Services	State
isappwm00_PWM_00	isappwm00	Dialog Batch Update Upd2 Spool ICM	Active
isappwm01_PWM_00	isappwm01	Dialog Batch Update Upd2 Spool ICM	Active
isappwm02_PWM_02	isappwm02	Dialog Batch Update Upd2 Spool ICM	Active

SM50

DR TEST

The screenshot shows the SAP Work Processes interface for AS Instance isappwm02_PWM_02. The title bar displays "Work Processes of AS Instance isappwm02_PWM_02". The top menu includes Administration, Edit, Goto, List, Settings, System, and Help. Below the menu is a toolbar with various icons. The main area shows the following statistics:

Time	Total Number of Work Processes	155
Dialog	95 / 89 (Total/Free)	Average Load = (0.001 / 0.025 / 0.012)
Update	20 / 20 (Total/Free)	
Background	20 / 20 (Total/Free)	
Spool	10 / 10 (Total/Free)	
Update Task 2	10 / 10 (Total/Free)	
Standby	5 / 5 (Total/Free)	
Configurable	170	

The detailed list of work processes is as follows:

Number	Type	Process ID	WP Status	"On Hold"	Failures	LockedSem.	Requ.S.	CPU Time	Time Priority	Name of Program Being Executed by the Work Process	Client User ID
14	DIA	28,554	Running					0:00:03	High	CL_SERVER_INFO=====CP	100 ASINGH4
0	DIA	28,540	Waiting					0:00:02			
1	DIA	28,541	Waiting					0:00:02			
2	DIA	28,542	Standby					0:00:02			
3	DIA	28,543	Waiting					0:00:02			
4	DIA	28,544	Waiting					0:00:12			
5	DIA	28,545	Waiting					0:00:02			
6	DIA	28,546	Waiting					0:00:02			
7	DIA	28,547	Waiting					0:00:02			
8	DIA	28,548	Waiting					0:00:04			
9	DIA	28,549	Waiting					0:00:02			
10	DIA	28,550	Waiting					0:00:02			
11	DIA	28,551	Waiting					0:00:02			
12	DIA	28,552	Waiting					0:00:02			
13	DIA	28,553	Waiting					0:00:02			
15	DIA	28,555	Waiting					0:00:02			
16	DIA	28,556	Waiting					0:00:02			

The taskbar at the bottom shows various application icons and the SAP logo. The system tray indicates a temperature of 34°C, a date of 9/18/2022, and a time of 4:50 PM.

SICK

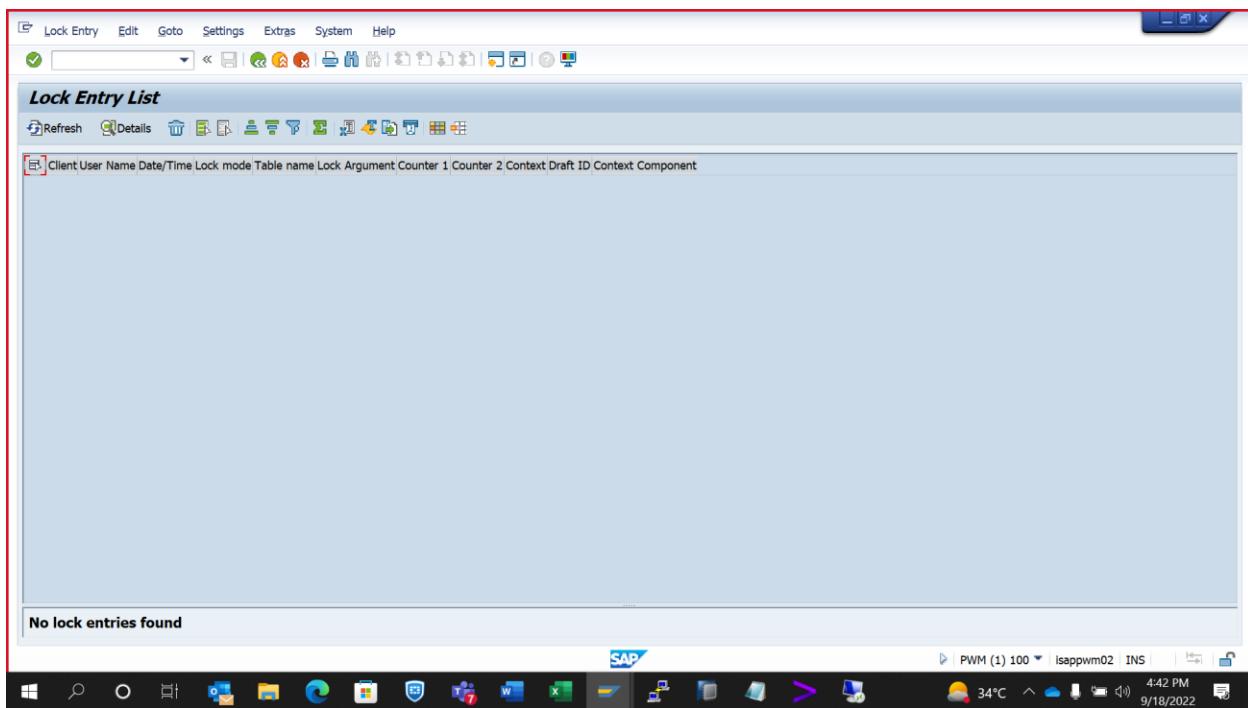
The screenshot shows the SAP Initial Consistency Check interface. The title bar displays "SAP Initial Consistency Check". The main area shows a message box with the following content:

SAP System Check
no errors reported

The taskbar at the bottom shows various application icons and the SAP logo. The system tray indicates a temperature of 34°C, a date of 9/18/2022, and a time of 4:41 PM.

SM12

DR TEST



SM21

Syslog of instance isappwm02_PWM_02							
Date	TIME	Instance	Type	Process No	Cl.	User	Priority Message ID Message Text
18.09.2022	03:59:27	isappwm02_PWM_02 RD	000			QOR	Failed to call function GwRead; rc: -006
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	133	000 SAPSYS		EMF	Logon of Jobstep User Failed
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	133	000 SAPSYS		EME	BASIS_BATCH 100
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	133	000 SAPSYS		EME	Job: ZOBD_C301_COMP 05002700
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	133	000 SAPSYS		D01	Transaction canceled 00 560 (BASIS_BATCH 100)
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	131	000 SAPSYS		EMF	Logon of Jobstep User Failed
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	131	000 SAPSYS		EME	BASIS_BATCH 100
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	131	000 SAPSYS		D01	Transaction canceled 00 560 (BASIS_BATCH 100)
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	132	000 SAPSYS		EMF	Logon of Jobstep User Failed
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	132	000 SAPSYS		EME	MNAICKAN 100
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	132	000 SAPSYS		EME	Job: C301_RECALC_BIN_CAP_Z1F0 04000900
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	132	000 SAPSYS		D01	Transaction canceled 00 560 (MNAICKAN 100)
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	129	000 SAPSYS		EMF	Logon of Jobstep User Failed
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	129	000 SAPSYS		EME	MNAICKAN 100
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	129	000 SAPSYS		D01	Transaction canceled 00 560 (MNAICKAN 100)
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	130	000 SAPSYS		EMF	Logon of Jobstep User Failed
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	130	000 SAPSYS		EME	MNAICKAN 100
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	130	000 SAPSYS		EME	Job: C301_RECALC_BIN_CAP_Z1B7 04000902
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	130	000 SAPSYS		D01	Transaction canceled 00 560 (MNAICKAN 100)
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	128	000 SAPSYS		EMF	Logon of Jobstep User Failed
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	128	000 SAPSYS		EME	MNAICKAN 100
18.09.2022	05:00:27	isappwm02_PWM_02 BTC	128	000 SAPSYS		D01	Transaction canceled 00 560 (MNAICKAN 100)

Syslog messages

Syslog of Instance isappwm02_PWM_02

Date	TIME	Instance	Type	Process No	Cl.	User	Priority	Message ID	Message Text
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	128	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	128	000	SAPSYS	● EME	Job: SAP_COLLECTOR_FOR_PERFMONITOR 04152701	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	128	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	125	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	125	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	125	000	SAPSYS	● EME	Job: SAP_SOAP_RUNTIME_MANAGEMENT 04152701	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	125	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● EME	Job: SAP_UCON_MANAGEMENT 04152701	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	131	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	131	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	131	000	SAPSYS	● EME	Job: Z_EWM_PROCESS_INBOUND_IDOCS 05142701	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	131	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● EME	Job: SWEQSRV 05142700	
18.09.2022	05:15:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:16:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:16:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● EME	WF-BATCH 100	
18.09.2022	05:16:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● EME	Job: SWWWIM 05112701	
18.09.2022	05:16:27	isappwm02_PWM_02	BTC	132	000	SAPSYS	● D01	Transaction canceled 00 560 (WF-BATCH 100)	
18.09.2022	05:16:27	isappwm02_PWM_02	BTC	131	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:16:27	isaoowm02_PWM_02	BTC	131	000	SAPSYS	● EME	BASIS_BATCH 100	

PWM (1) 100 | isappwm02 INS | 4:43 PM 9/18/2022 34°C

Syslog messages

Syslog of Instance isappwm02_PWM_02

Date	TIME	Instance	Type	Process No	Cl.	User	Priority	Message ID	Message Text
18.09.2022	05:21:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:21:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:21:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● EME	Job: SWEQSRV 05202700	
18.09.2022	05:21:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● EME	Job: Z_EWM_PROCESS_INBOUND_IDOCS 05212701	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	130	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● EMF	Logon of Jobstep User Failed	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● EME	BASIS_BATCH 100	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● EME	Job: SWEQSRV 05212700	
18.09.2022	05:22:27	isappwm02_PWM_02	BTC	133	000	SAPSYS	● D01	Transaction canceled 00 560 (BASIS_BATCH 100)	
18.09.2022	05:56:06	isappwm02_PWM_02	RD	000			● Q0R	Failed to call function GwRead; rc: -006	
18.09.2022	07:00:06	isappwm02_PWM_02	DIA	064	000		● R0Z	The update dispatch info was reset	
18.09.2022	07:34:29	isappwm02_PWM_02	RD	000			● Q0R	Failed to call function GwRead; rc: -006	
18.09.2022	07:35:48	isappwm02_PWM_02	DP	000			▲ Q41	Snapshot 1 created	
18.09.2022	12:05:41	isappwm02_PWM_02	DP	000			▲ Q30	Error in value for profile parameter: rec/client > Value: all	
18.09.2022	12:05:41	isappwm02_PWM_02	DP	000			▲ Q31	> Cause: Parameter value not matching with regular expression '^OFF AL'	
18.09.2022	12:05:46	isappwm02_PWM_02	IC	000			● Q0I	Operating system call unlink failed (error no. 1)	
18.09.2022	12:06:10	isappwm02_PWM_02	SPO	143	000	SAPSYS	● Q0I	Operating system call connect failed (error no. 115)	
18.09.2022	12:06:10	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲ FBM	Printer HL49 Temporarily Locked Due to Connection Problem	
18.09.2022	12:06:21	isappwm02_PWM_02	SPO	143	000	SAPSYS	● Q0I	Operating system call connect failed (error no. 115)	
18.09.2022	12:06:21	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲ FBM	Printer HM09 Temporarily Locked Due to Connection Problem	
18.09.2022	12:06:31	isaoowm02_PWM_02	SPO	143	000	SAPSYS	● O0I	Operating system call connect failed (error no. 115)	

PWM (1) 100 | isappwm02 INS | 4:43 PM 9/18/2022 34°C

DR TEST

The screenshot shows the SAP GUI interface with the title bar "Syslog Edit Goto System Help". Below the title bar is a toolbar with various icons. The main area is titled "Syslog messages" and displays a list of log entries for instance "isappwm02_PWM_02". The log entries are as follows:

Date	TIME	Instance	Type	Process	No Cl.	User	Priority	Message ID	Message Text
18.09.2022	12:07:02	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HM48 Temporarily Locked Due to Connection Problem
18.09.2022	12:07:12	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:07:12	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HD32 Temporarily Locked Due to Connection Problem
18.09.2022	12:07:22	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:07:22	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HD43 Temporarily Locked Due to Connection Problem
18.09.2022	12:07:33	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:07:33	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HB69 Temporarily Locked Due to Connection Problem
18.09.2022	12:07:43	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:07:43	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HD41 Temporarily Locked Due to Connection Problem
18.09.2022	12:07:53	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:07:53	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HD39 Temporarily Locked Due to Connection Problem
18.09.2022	12:08:03	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:08:03	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HD49 Temporarily Locked Due to Connection Problem
18.09.2022	12:08:14	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:08:14	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HB35 Temporarily Locked Due to Connection Problem
18.09.2022	12:08:24	isappwm02_PWM_02	SPO	143	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:08:24	isappwm02_PWM_02	SPO	143	000	SAPSYS	▲	FBM	Printer HD26 Temporarily Locked Due to Connection Problem
18.09.2022	12:12:14	isappwm02_PWM_02	SPO	142	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:13:14	isappwm02_PWM_02	SPO	142	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:14:14	isappwm02_PWM_02	SPO	142	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:18:14	isappwm02_PWM_02	SPO	138	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:20:14	isappwm02_PWM_02	SPO	138	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:24:14	isappwm02_PWM_02	SPO	144	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)
18.09.2022	12:26:14	isappwm02_PWM_02	SPO	144	000	SAPSYS	●	Q01	Operating system call connect failed (error no. 115)

The bottom of the screen shows the SAP logo and a taskbar with various application icons. The status bar at the bottom right shows the date and time: 9/18/2022 4:43 PM.

SMI G

DR TEST

CCMS: Load Distribution

Instance	St	Resp.time (ms)	Thrshd	User	Thrshd	Sample	Quality	Dialog steps
isappwm00_PWM_00	green	131		2		13:11:50	351	1
isappwm01_PWM_00	green	350		2		13:13:30	86	1
isappwm02_PWM_02	green	416		2		13:11:04	6	1
* Summary				6				3

Logon Group	Current logon instan
PWM_App	isappwm00_PWM_00
SPACE	isappwm00_PWM_00

SAP

PWM (1) 100 ▾ isappwm02 INS 4:44 PM 34°C 9/18/2022

ST06

PWM isappwm02_PWM_02 Linux isappwm02 4.12.14-150100.197.114-default #1

Snapshot Overview 18.09.2022 13:14:40 Interval 60 sec. (Expert View)

Monitoring Category	Description	Value Unit
Info	Operating system	Linux isappwm02 4.12.14-150100.197.114-default
	Timestamp	18.09.2022 13:14:40
	Hostname	isappwm02
	Manufacturer	Microsoft Corporation
	Model	Virtual Machine

CPU

System calls	0 / s
Interrupts	2,088 / s
Average processes waiting (1 min)	1.13
Average processes waiting (5 min)	0.96
Average processes waiting (15 min)	0.79
Context switches	2,689 / s
Number of CPUs	16
Utilization	2 %
I/O Wait	0 %
System Utilization	1 %
User Utilization	1 %
Idle	98 %

Memory

Physical memory	128,925 MB
Free memory	114,865 MB
Free swap size	128,925 MB

SAP

PWM (1) 100 ▾ isappwm02 INS 4:45 PM 34°C 9/18/2022

DR TEST

SAP Operating System Monitor

PWM isappwm02_PWM_02 Linux isappwm02 4.12.14-150100.197.114-default #1

Snapshot Overview 18.09.2022 13:14:40 Interval 60 sec. (Expert View)

Monitoring Category	Description	Value	Unit
Memory	Free swap size	128,925	MB
	Configured swap size	128,925	MB
	Actual swap size	128,925	MB
	Maximum swap size	128,925	MB
	Free memory incl. FS cache	116,619	MB
	Free memory percentage	89	%
	Pages In	0	Pg/S
	Pages Out	0	Pg/S
	Page In	0	KB/s
	Page Out	0	KB/s
	Page In of RAM	0	%/h
	Page Out of RAM	0	%/h
Disk with highest response time	sda		
	Utilization	95	%
	Operations	4	/s
	Transfer rate	40	KB/s
	Response time	226	ms
	Avg. wait time	0	ms
	Avg. service time	226	ms
	Queue	1	
LAN (summary)	Packets in	12	/s
	Packets out	16	/s
	Collisions	0	/s
	Errors in	0	/s
	Errors out	0	/s

ST02

Tune Summary (isappwm02_PWM_02)

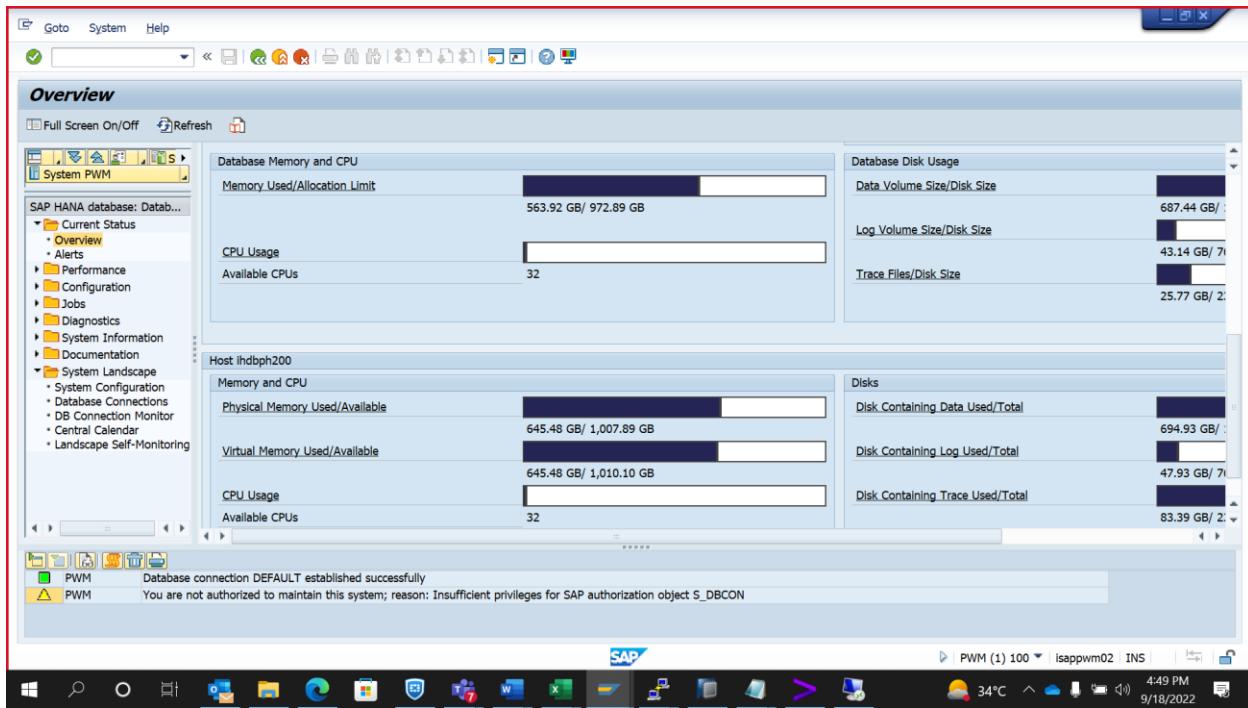
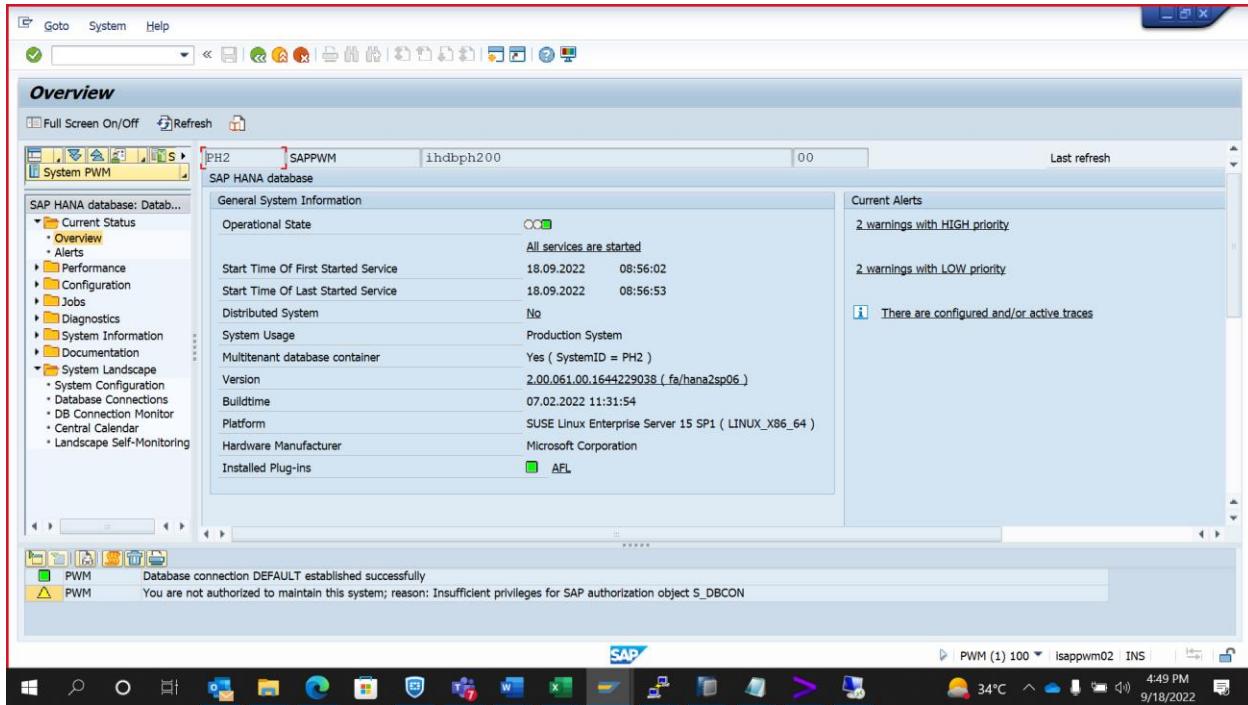
System: isappwm02_PWM_02 **Date + Time of Snapshot:** 18.09.2022 13:16:04 **Tune summary Startup:** 18.09.2022 12:05:46

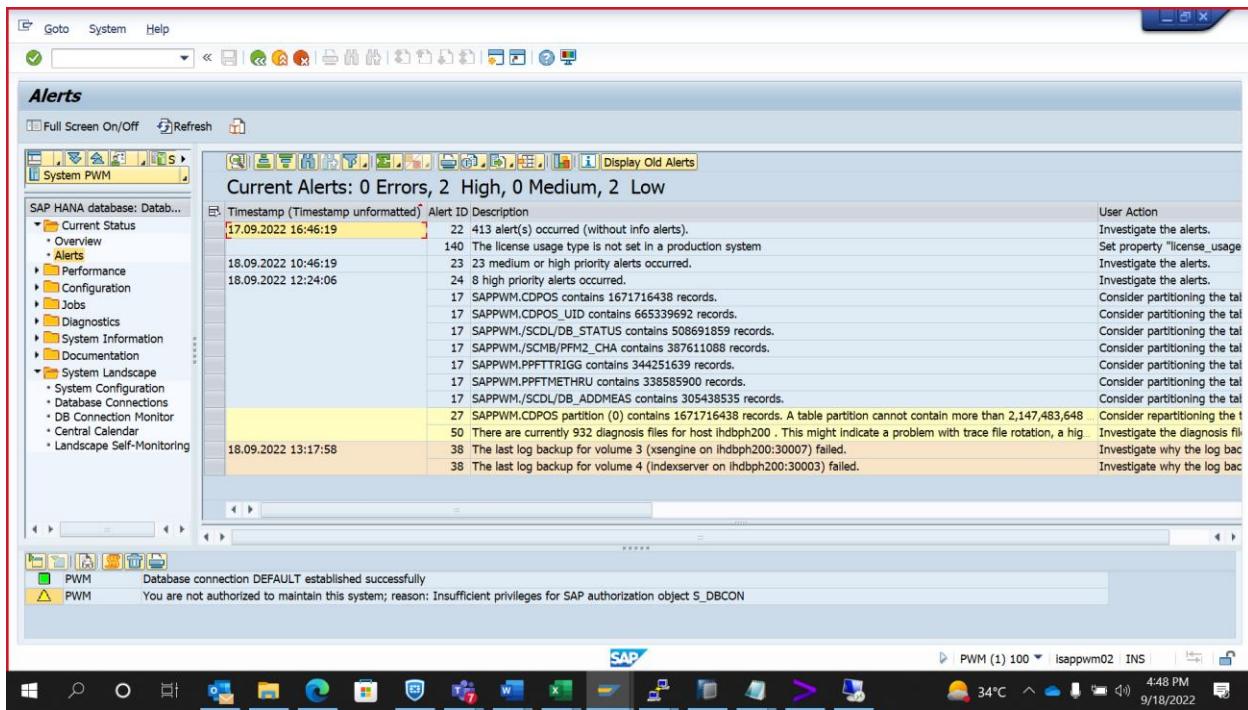
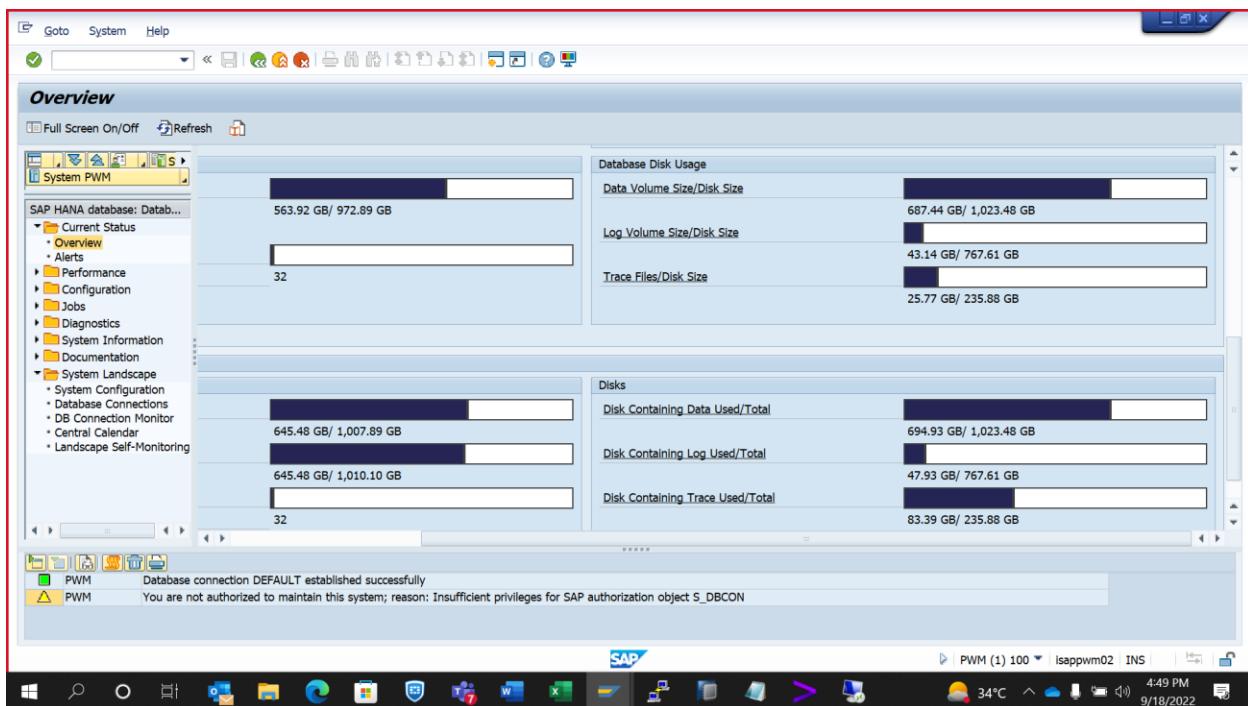
Buffer	HitRatio %	Alloc. KB	Freesp. KB	% Free Sp.	Dir. Size	FreeDirEnt	% Free Dir	Swaps	DB Accs
Nametab (NTAB)									
Table definition	90.23	473,803	376,025	99.57	878,906	875,114	99.57	0	5,015
Field definition	89.25	995,636	875,254	99.58	878,906	876,684	99.75	0	2,224
Short NTAB	99.17	127,373	87,861	99.97	219,726	219,624	99.95	0	102
Initial records	29.87	215,263	175,359	99.76	219,726	218,944	99.64	0	782
program	48.62	9,268,192	6,218,575	75.66	2,317,045	2,291,333	98.89	0	77,136
CUA	89.13	10,000	8,511	94.04	2,500	2,473	98.92	0	27
Screen	98.22	19,531	18,386	99.30	10,000	9,976	99.76	0	24
Calendar						71	28.40	0	179
OTR						2,000	100.00	0	
Tables								0	
Buffer	92.02	3,191,808	2,971,681	99.27	966,797	964,909	99.80	0	1,919
Export/import	90.54	400,000	359,336	99.93	116,000	109,916	99.92	0	
Exp./ Imp. SHM		20,000	16,300	100.00	10,000	10,000	100.00	0	

SAP Memory	Curr.Use %	CurUse [KB]	MaxUse [KB]	In Mem [KB]	OnDisk [KB]	SAPCurCach	HitRatio %
Page area							
Extended memory	12.59	7,221,248	7,319,552	57,339,904	762,240	Statement IDs	86.00
Ext. global memory	61.40	4,426,388	4,426,388	7,208,960	0		89.82
							0.00

DBACOCKPIT

DR TEST





SM37-

DR TEST

Job Overview

Job overview from: 00.00.0000 at: : :
to: 00.00.0000 at: : :
Selected job names: *
Selected user names: *

Scheduled Released Ready Active Finished Canceled
 Event-Driven Event ID:
 ABAP program Program name :

JobName	Spool	Job doc	Job CreatedB	Status	Start date	Start Time	Duration(sec.)	Delay (sec.)
/BDL/TASK_PROCESSOR			VODACOM	Released/Susp.			0	0
/LIME/BACKGROUND_DELETE_EXEC			CUTOVER_EWM2	Released/Susp.			0	0
/LIME/BACKGROUND_DELETE_EXEC			CUTOVER_EWM2	Released/Susp.			0	0
/SAPAPO/AMODAL_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SAPAPO/DELETE_LOCATIONS			CUTOVER_EWM2	Released/Susp.			0	0
/SAPAPO/DELETE_PRODUCTS			CUTOVER_EWM2	Released/Susp.			0	0
/SCMB/ALLEN_ALERT_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCTM/CLEANUP_PPF			CUTOVER_EWM2	Released/Susp.			0	0
/SCTM/CLEANUP_PPF			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/REPLENISHMENT			FF_IIT_EWM01	Released/Susp.			0	0
/SCWM/BW_COLLECTIVE_RUN			CUTOVER_BI3	Released/Susp.			0	0
/SCWM/R_CAP_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/R_MS_RESULT_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/R_MS_RESULT_DELETE			CUTOVER_EWM2	Released/Susp.			0	0
/SCWM/R_PDO_COMPLETE			CUTOVER_EWM2	Released/Susp.			0	0
/SDF/MON_SCHEDULER			ADROMGOOL	Released/Susp.			0	0
/SDF/MON_WATCHDOG			ADROMGOOL	Released/Susp.			0	0
A001_RECALC_BIN_CAP_ZIBO			MNAICKAN	Released/Susp.			0	0

SAP PWM (1) 100 | isappwm00 INS | 6:21 PM 9/18/2022 23

Job Overview

Job overview from: 00.00.0000 at: : :
to: 00.00.0000 at: : :
Selected job names: *
Selected user names: *

Scheduled Released Ready Active Finished Canceled
 Event-Driven Event ID:
 ABAP program Program name :

JobName	Spool	Job doc	Job CreatedB	Status	Start date	Start Time	Duration(sec.)	Delay (sec.)
ZREPC303A			DFRASER	Released/Susp.			0	0
ZREPC303B			DFRASER	Released/Susp.			0	0
ZREPC303_C			FF_IIT_EWM03	Released/Susp.			0	0
ZREPC304			AKRULL	Released/Susp.			0	0
ZRAUTUPD_NEW			BASIS_BATCH	Released/Susp.			0	0
Z_EWM_ICL_PRICES			BASIS_BATCH	Released/Susp.			0	0
Z_EWM_IHS_PRICES			CUTOVER_EWM2	Released/Susp.			0	0
Z_EWM_IHS_PRICES			CUTOVER_EWM2	Released/Susp.			0	0
Z_EWM_IHS_Z1D0_STOCK_TYPE_CHANGE			CUTOVER_EWM8	Released/Susp.			0	0
Z_EWM_IHS_Z1H0_STOCK_TYPE_CHANGE			CUTOVER_EWM8	Released/Susp.			0	0
Z_EWM_PROCESS_IDOC_IN_ERROR			BASIS_BATCH	Released/Susp.			0	0
Z_EWM_PROCESS_INBOUND_IDOCs			BASIS_BATCH	Released/Susp.			0	0
RDDIMPDF			LSERETSSI	Released			0	0
RDDIMPDF_CLIENT_001			DDIC	Released			0	0
RDDIMPDF_CLIENT_100			SAP*	Released			0	0
*Summary							0	0

SAP PWM (1) 100 | isappwm00 INS | 6:22 PM 9/18/2022 23

3.10. Handover the system to Imperial

- Post-handover functional testing is performed from Imperial side.

3.11. Execute reports on production after failback

- To be performed from Imperial end.

3.12. Compare reports between environments and give feedback

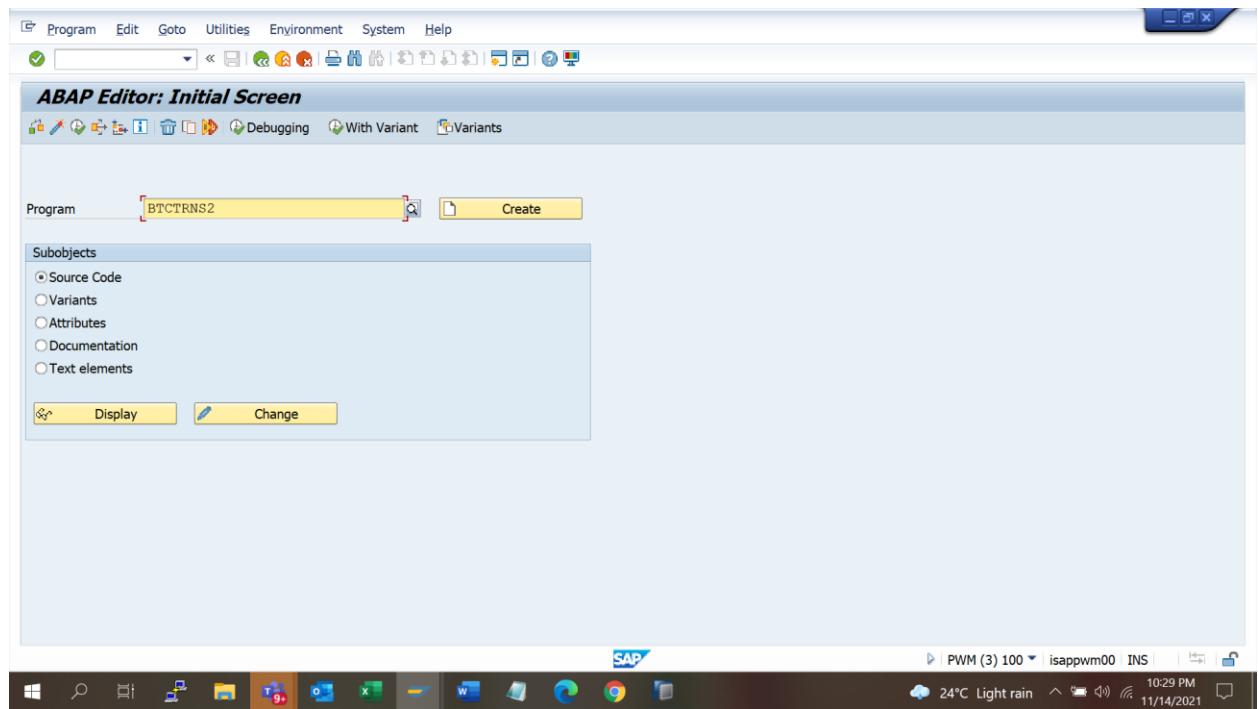
- To be performed from Imperial end.

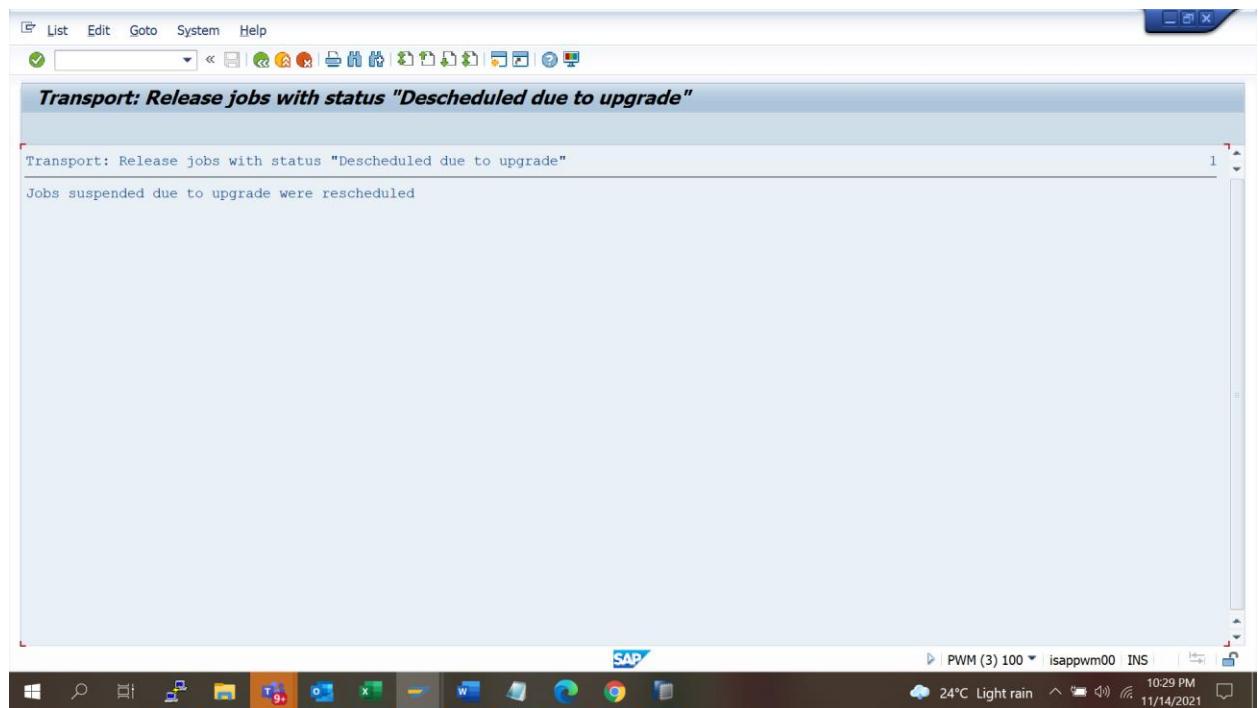
3.13. Unlock all users

- To be performed from Imperial end.

3.14. Start Batch Jobs

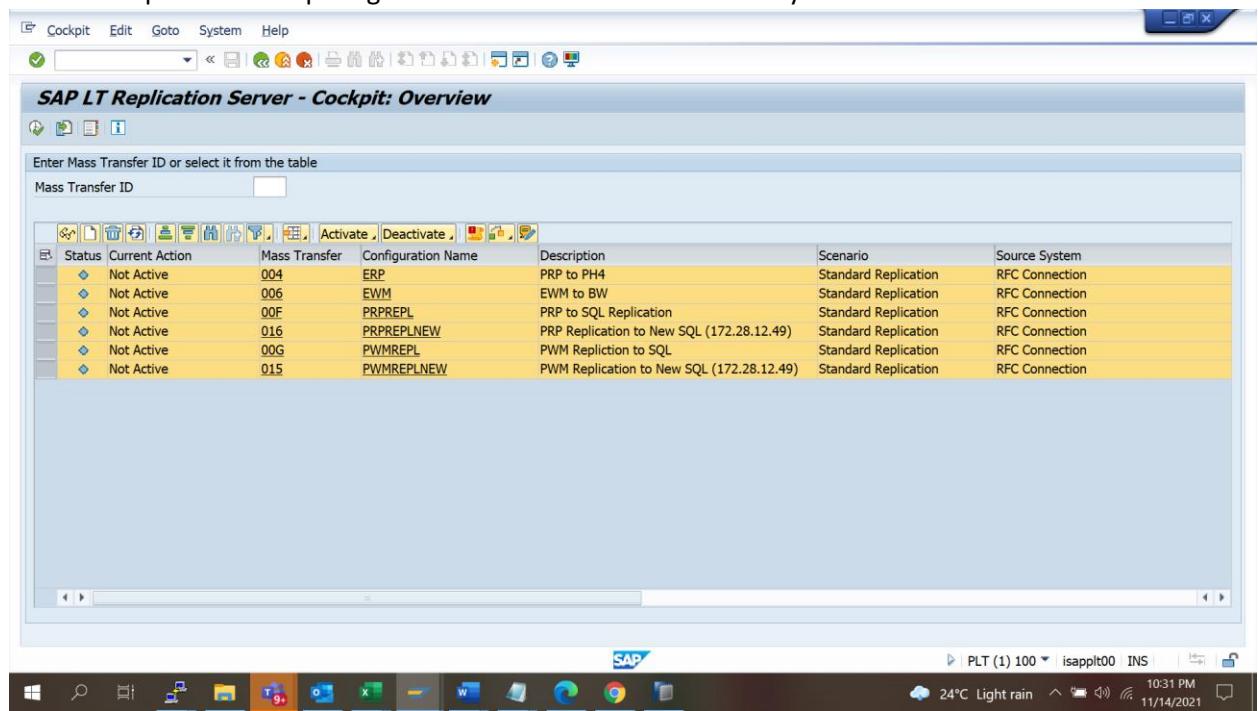
- SE38 -> BTCTRNS2**





3.15. Start PLT Replication

- Start the replication comparing the screenshots before the activity



3.16. Start Web Dispatcher

- PWD -> **sapcontrol -nr 00 -function Start**

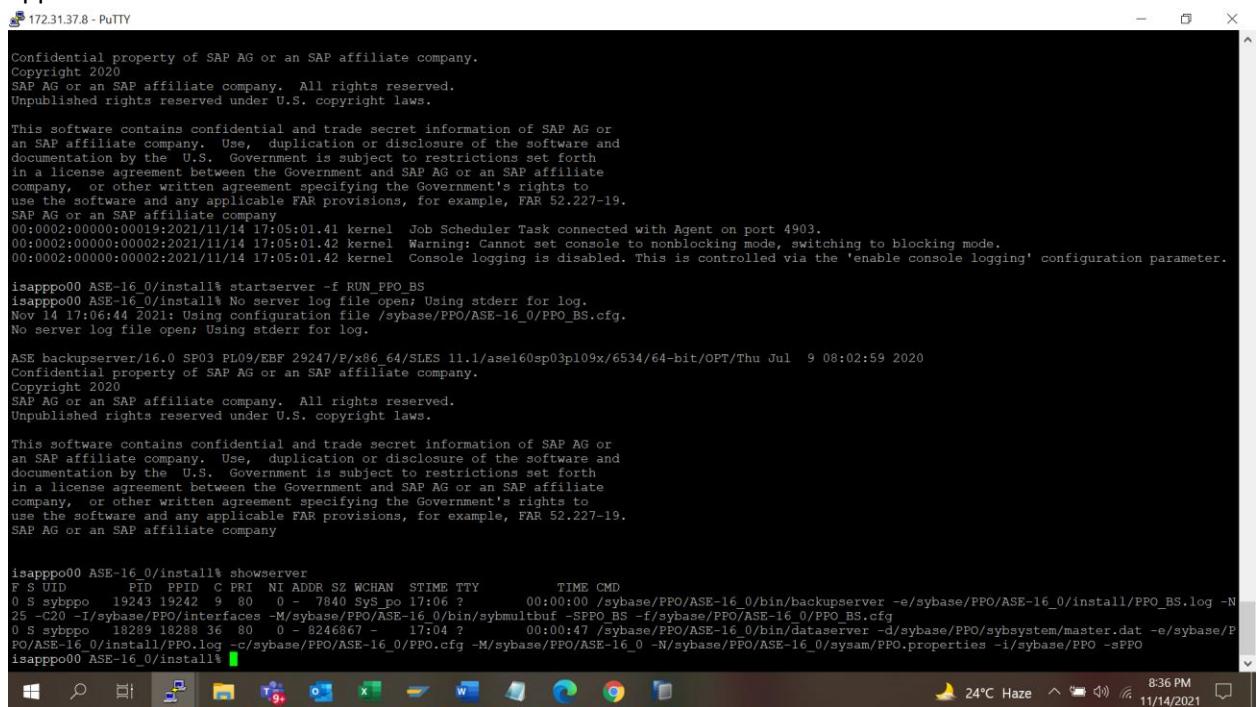
The screenshot shows a Windows desktop environment. At the top, there is a blue header bar with the text "DR TEST". Below it, the taskbar displays several icons for common applications like File Explorer, Microsoft Word, and Microsoft Excel. The main area of the screen contains two windows:

- Terminal Window (PuTTY):** This window shows a command-line session on a Linux system (172.31.29.12). The user runs "sudo su" and then "sapcontrol -nr 00 -function StartSystem" twice, once at 17:06:15 and once at 18:27:46. Both commands return "OK". The session also includes "GetProcessList" commands and displays the status of the "sapwebdisp" service, which is shown as "Running" with a pid of 5099.
- Web Browser Window:** This window is titled "Web Dispatcher Administration" and shows the "Logon" page. It features a central box with the title "Web Dispatcher Logon" and three input fields: "Username", "Password", and a "Log On" button. The browser's address bar shows the URL "isappwd00.imperial.local:8100/sap/wdisp/admin/public/session_logon.html".

The desktop status bar at the bottom indicates the date as 11/14/2021, the time as 10:01 PM, and the weather as "24°C Light rain".

3.17. Check PO

- PO -> startsap from sybppo (DB) -> startsap from gwaadm -> startsap from ppoadm for application



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company, or other written agreement specifying the Government's rights to
use the software and any applicable FAR provisions, for example, FAR 52.227-19.
SAP AG or an SAP affiliate company
00:00:02:00000:0019:2021/11/14 17:05:01.41 kernel Job Scheduler Task connected with Agent on port 4903.
00:00:02:00000:0002:2021/11/14 17:05:01.42 kernel Warning: Cannot set console to nonblocking mode, switching to blocking mode.
00:00:02:00000:0002:2021/11/14 17:05:01.42 kernel Console logging is disabled. This is controlled via the 'enable console logging' configuration parameter.

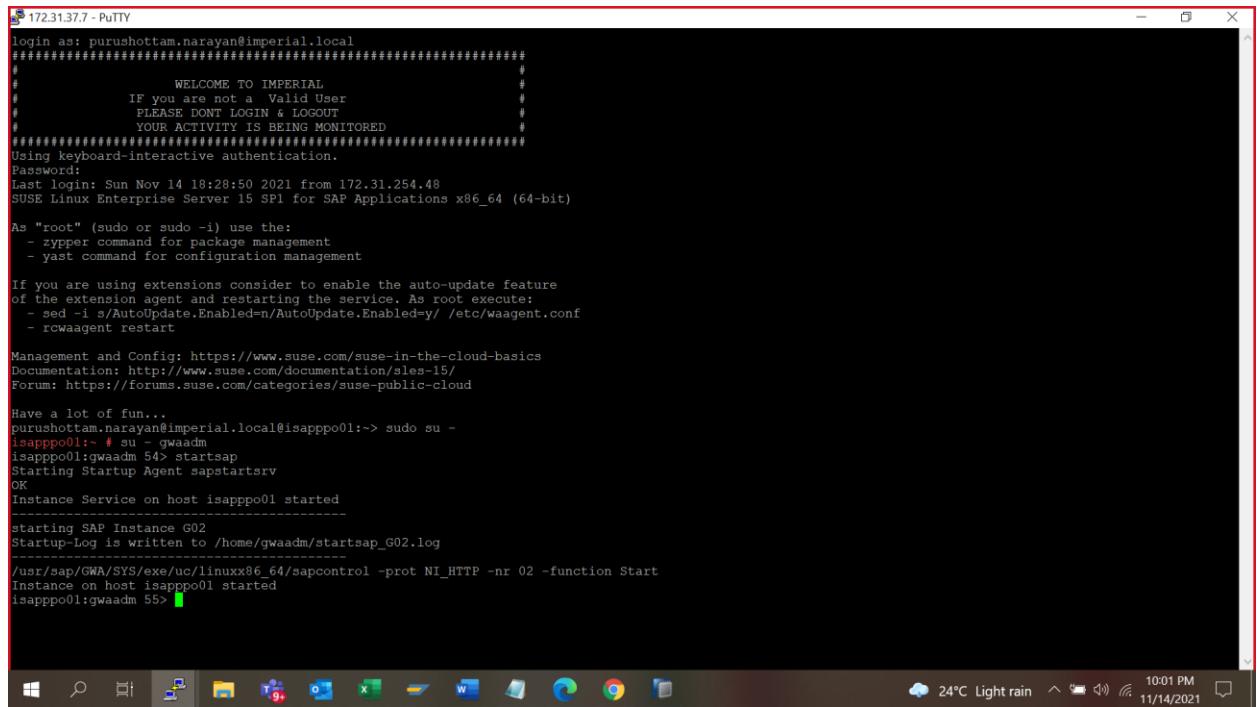
isapppo0 ASE-16_0/install% startserver -f RUN_PPO_BS
isapppo0 ASE-16_0/install% No server log file open; Using stderr for log.
Nov 14 17:06:44 2021: Using configuration file /sybase/PPO/ASE-16_0/PPO_BS.cfg.
No server log file open; Using stderr for log.

ASE backupserver/16.0 SP03 PL09/EBF 29247/P/x86_64/SLES 11.1/ase160sp03pl09x/6534/64-bit/OPT/Thu Jul 9 08:02:59 2020
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isapppo0 ASE-16_0/install% showserver
F S UID PID PPID C PRI NI ADDR SZ WCHAN STIME TTY TIME CMD
0 S sybppo 19243 9 80 0 - 7840 Sys_p_o 17:06 ? 00:00:00 /sybase/PPO/ASE-16_0/bin/backupserver -e/sybase/PPO/ASE-16_0/install/PPO_BS.log -N
25 -C20 -I/sybase/PPO/interfaces -M/sybase/PPO/ASE-16_0/bin/sybmultbuf -S PPO_BS -f/sybase/PPO/ASE-16_0/PPO_BS.cfg
0 S sybppo 18289 18288 36 80 0 - 8246867 - 17:04 ? 00:00:47 /sybase/PPO/ASE-16_0/bin/dataserver -d/sybase/PPO/sybsystem/master.dat -e/sybase/P
PO/ASE-16_0/install/PPO.log -c/sybase/PPO/ASE-16_0/PPO.cfg -M/sybase/PPO/ASE-16_0 -N/sybase/PPO/ASE-16_0/sysam/PPO.properties -i/sybase/PPO -sPPO
isapppo0 ASE-16_0/install%

```



```

login as: purushottam.narayan@imperial.local
#####
#          WELCOME TO IMPERIAL
#          IF you are not a Valid User
#          PLEASE DONT LOGIN & LOGOUT
#          YOUR ACTIVITY IS BEING MONITORED
#####
Using keyboard-interactive authentication.
Password:
Last login: Sun Nov 14 18:28:50 2021 from 172.31.254.48
SUSE Linux Enterprise Server 15 SPI for SAP Applications x86_64 (64-bit)

As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yaST command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- seed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y /etc/waagent.conf
- rcWaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.suse.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local:~> sudo su -
isapppo01: # su - gwaadm
isapppo01:gwaadm 54> startsap
Starting Startup Agent sapstartsrv
OK
Instance Service on host isapppo01 started
starting SAP Instance G02
Startup-Log is written to /home/gwaadm/startsap_G02.log
/usr/sap/GWA/SYS/exe\uc/linuxx86_64/sapcontrol -prot NI_HTTP -nr 02 -function Start
Instance on host isapppo01 started
isapppo01:gwaadm 55>

```

DR TEST

172.31.37.7 - PuTTY

```

As "root" (sudo or sudo -i) use the:
- zypper command for package management
- yast command for configuration management

If you are using extensions consider to enable the auto-update feature
of the extension agent and restarting the service. As root execute:
- sed -i s/AutoUpdate.Enabled=n/AutoUpdate.Enabled=y /etc/waagent.conf
- rcwaagent restart

Management and Config: https://www.suse.com/suse-in-the-cloud-basics
Documentation: http://www.suse.com/documentation/sles-15/
Forum: https://forums.com/categories/suse-public-cloud

Have a lot of fun...
purushottam.narayan@imperial.local:~> sudo su -
isapppo01:~ # su - ppoadm
isapppo01:ppoadm 51> startsap
Checking db Database
-----
J2EE Database is running
See logfile /home/ppoadm/JdbcCon.log
Starting Startup Agent sapstartsrv
OK
Instance Service on host isapppo01 started
-----
starting SAP Instance SCS01
Startup-Log is written to /home/ppoadm/startsap_SCS01.log
-----
/usr/sap/PPO/SCS01/exe/sapcontrol -prot NI_HTTP -nr 01 -function Start
Instance on host isapppo01 started
Starting Startup Agent sapstartsrv
OK
Instance Service on host isapppo01 started
-----
starting SAP Instance J00
Startup-Log is written to /home/ppoadm/startsap_J00.log
-----
/usr/sap/PPO/J00/exe/sapcontrol -prot NI_HTTP -nr 00 -function Start
Instance on host isapppo01 started
isapppo01:ppoadm 52> cdpro
isapppo01:ppoadm 53> ls -lrt
total 108
-rw-r--r-- 1 ppoadm sapsys 2765 Mar 16 2019 PPO_SCS01_isapppo01
-rw-r--r-- 1 ppoadm sapsys 1483 Feb 12 2021 DEFAULT.1.PFL

```

24°C Light rain 1001 PM
11/14/2021

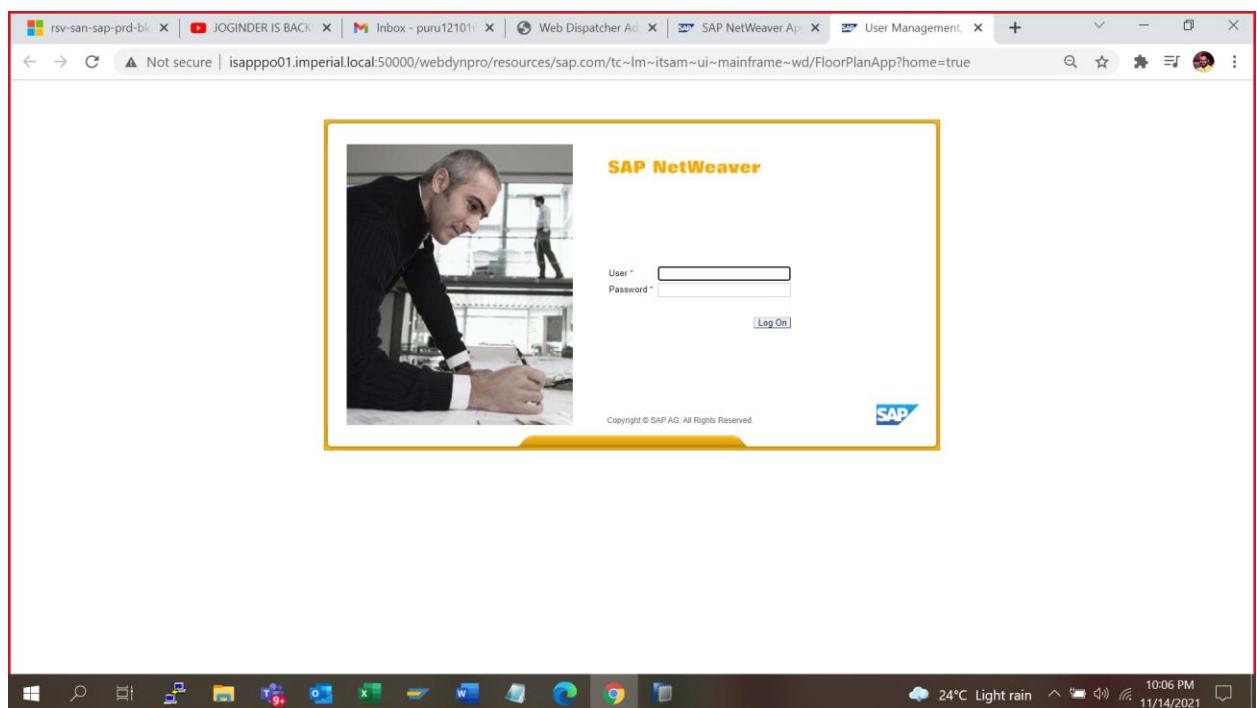
172.31.37.7 - PuTTY

```

|Shared caches | 0
Sun Nov 14 18:35:27 2021 (repeating: p v) >
Processes:
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
|Idx|Name |PID |State |Err|Run|LBrestr|Cluster|Exec|Threads|Caches|AccPts|BrSess|EjbSess|RoConn|Services
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
| 3|server1 |22838|Running| 0| 1| false|4810051| yes| 310| 29| 1| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 2|server0 |22839|Running| 0| 1| false|4810050| yes| 338| 32| 1| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 1|cm |22749|Running| 0| 1| true|4810020| yes| 0| 0| 9| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 0|debugproxy| 0|Initial| 0| 0| true| 0| no| 0| 0| 0| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
|Productive servers | 2
|Restricted servers | 0
|Applications | 1466
|Shared caches | 0
Sun Nov 14 18:35:32 2021 (repeating: p v) >
Processes:
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
|Idx|Name |PID |State |Err|Run|LBrestr|Cluster|Exec|Threads|Caches|AccPts|BrSess|EjbSess|RoConn|Services
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
| 3|server1 |22838|Running| 0| 1| false|4810051| yes| 310| 29| 1| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 2|server0 |22839|Running| 0| 1| false|4810050| yes| 338| 32| 1| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 1|cm |22749|Running| 0| 1| true|4810020| yes| 0| 0| 9| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 0|debugproxy| 0|Initial| 0| 0| true| 0| no| 0| 0| 0| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
|Productive servers | 2
|Restricted servers | 0
|Applications | 1466
|Shared caches | 0
Sun Nov 14 18:35:37 2021 (repeating: p v) >
Processes:
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
|Idx|Name |PID |State |Err|Run|LBrestr|Cluster|Exec|Threads|Caches|AccPts|BrSess|EjbSess|RoConn|Services
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
| 3|server1 |22838|Running| 0| 1| false|4810051| yes| 310| 29| 1| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 2|server0 |22839|Running| 0| 1| false|4810050| yes| 338| 32| 1| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 1|cm |22749|Running| 0| 1| true|4810020| yes| 0| 0| 9| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
| 0|debugproxy| 0|Initial| 0| 0| true| 0| no| 0| 0| 0| 0| 0| 0| 0|Http,P4,IIOP,Telnet|
+---+ +---+ +---+ +---+ +---+ +---+ +---+ +---+
|Productive servers | 2
|Restricted servers | 0
|Applications | 1466
|Shared caches | 0
Sun Nov 14 18:35:42 2021 (repeating: p v) >

```

24°C Light rain 10:05 PM
11/14/2021



3.18. DR test complete