Installation von Oracle Real Application Cluster 10gR1 auf CentOS 4.2 mit Raw-Devices

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1. Installation von CentOS

Partitionierung

/boot	100 MB
swap	2048 MB
/	Rest = 35400 MB

1.1 Netzwerk-Interfaces

```
[root@racnode1 oracle]# ifconfig -a
eth0      Link encap:Ethernet  HWaddr 00:11:6B:31:D0:4A
          inet addr:10.1.20.100  Bcast:10.1.20.255  Mask:255.255.255.0
          inet6 addr: fe80::211:6bff:fe31:d04a/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:7582 errors:0 dropped:0 overruns:0 frame:0
          TX packets:783 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:598386 (584.3 KiB)  TX bytes:80012 (78.1 KiB)
          Interrupt:10 Base address:0x4700

eth1      Link encap:Ethernet  HWaddr 00:11:43:1E:1D:57
          inet addr:192.168.1.4  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::211:43ff:fe1e:1d57/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:9 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 b)  TX bytes:654 (654.0 b)
          Interrupt:11
```

```
[root@racnode2 etc]# ifconfig -a
eth0      Link encap:Ethernet  HWaddr 00:11:6B:31:D0:49
          inet addr:10.1.20.101  Bcast:10.1.20.255  Mask:255.255.255.0
          inet6 addr: fe80::211:6bff:fe31:d049/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:11500 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1285 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:871064 (850.6 KiB)  TX bytes:175937 (171.8 KiB)
          Interrupt:10 Base address:0x4700

eth1      Link encap:Ethernet  HWaddr 00:11:43:20:05:62
          inet addr:192.168.1.5  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::211:43ff:fe20:562/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:2 errors:0 dropped:0 overruns:0 frame:0
          TX packets:9 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:128 (128.0 b)  TX bytes:654 (654.0 b)
          Interrupt:11


[root@racnode1 oracle]# cat /etc/hosts
# Do not remove the following line, or various programs
# that require network functionality will fail.
127.0.0.1               localhost.localdomain localhost

10.1.20.102     racnode1vip.intra    racnode1vip
10.1.20.103     racnode2vip.intra    racnode2vip
#
192.168.1.4     racnode1p.intra   racnode1p
192.168.1.5     racnode2p.intra   racnode2p
#
#
10.1.20.100    racnode1.intra    racnode1
10.1.20.101    racnode2.intra    racnode2
#

[root@racnode2 etc]# cat /etc/hosts
# Do not remove the following line, or various programs
# that require network functionality will fail.
127.0.0.1               localhost.localdomain localhost

10.1.20.102     racnode1vip.intra    racnode1vip
10.1.20.103     racnode2vip.intra    racnode2vip
#
192.168.1.4     racnode1p.intra   racnode1p
192.168.1.5     racnode2p.intra   racnode2p
#
#
10.1.20.100    racnode1.intra    racnode1
10.1.20.101    racnode2.intra    racnode2
#
```

1.2 Kernel Parameter in /etc/sysctl.conf

```
# Default setting in bytes of the socket receive buffer
net.core.rmem_default=262144

# Default setting in bytes of the socket send buffer
net.core.wmem_default=262144

# Maximum socket receive buffer size which may be set by using
# the SO_RCVBUF socket option
net.core.rmem_max=262144

# Maximum socket send buffer size which may be set by using
# the SO_SNDBUF socket option
net.core.wmem_max=262144
```

1.3 Kernel Installation und Firewire Modules:

Download von Kernel 2.6.9.22-0.1.EL

http://ftp-stud.fht-esslingen.de/pub/Mirrors/centos/4.2/updates/i386/RPMS/kernel-2.6.9-22.0.1.EL.i686.rpm

Installation mit

```
rpm -ivh -force kernel-2.6.9-22.0.1.EL.i686.rpm
```

Reboot

Download von Firewire-Kernel-Modules

http://oss.oracle.com/projects/firewire/dist/files/RedHat/RHEL4/i386/oracle-firewire-modules-2.6.9-22.0.1.EL-1286-1.i686.rpm

```
rpm -ivh oracle-firewire-modules-2.6.9-22.0.1.EL-1286-1.i686.rpm
```

/etc/modprobe.conf:

```
options sbp2 exclusive_login=0
```

Reboot

2. Konfiguration der Raw-Devices

Logical Volume		Filename	/dev/raw/rawN Index
ACTIVE	'/dev/pv1/lvol0' [20.00 MB] inherit	/opt/oracle/oradata/DEVHA/ctrl/control01.ctl	1
ACTIVE	'/dev/pv1/lvol1' [20.00 MB] inherit	/opt/oracle/oradata/DEVHA/ctrl/control02.ctl	2
ACTIVE	'/dev/pv1/lvol2' [1.00 GB] inherit	/opt/oracle/oradata/DEVHA/data/system01.dbf	3
ACTIVE	'/dev/pv1/lvol3' [2.00 GB] inherit	/opt/oracle/oradata/DEVHA/data/sysaux01.dbf	4
ACTIVE	'/dev/pv1/lvol4' [2.00 GB] inherit	/opt/oracle/oradata/DEVHA/temp/temp01.dbf	5
ACTIVE	'/dev/pv1/lvol5' [3.00 GB] inherit	/opt/oracle/oradata/DEVHA/undo/undotbs01.dbf	6
ACTIVE	'/dev/pv1/lvol6' [3.00 GB] inherit	/opt/oracle/oradata/DEVHA/undo/undotbs02.dbf	7
ACTIVE	'/dev/pv1/lvol7' [50.00 MB] inherit	/opt/oracle/oradata/DEVHA/origlogA/redo_01_01.rdo	8
ACTIVE	'/dev/pv1/lvol8' [50.00 MB] inherit	/opt/oracle/oradata/DEVHA/origlogA/redo_01_02.rdo	9
ACTIVE	'/dev/pv1/lvol9' [50.00 MB] inherit	/opt/oracle/oradata/DEVHA/origlogA/redo_01_03.rdo	10
ACTIVE	'/dev/pv1/lvol10' [50.00 MB] inherit	/opt/oracle/oradata/DEVHA/origlogA/redo_02_01.rdo	11
ACTIVE	'/dev/pv1/lvol11' [50.00 MB] inherit	/opt/oracle/oradata/DEVHA/origlogA/redo_02_02.rdo	12
ACTIVE	'/dev/pv1/lvol12' [50.00 MB] inherit	/opt/oracle/oradata/DEVHA/origlogA/redo_02_03.rdo	13
ACTIVE	'/dev/pv1/lvol14' [5.00 GB] inherit	/opt/oracle/oradata/DEVHA/data/ts_data01.dbf	15
ACTIVE	'/dev/pv1/lvol15' [5.00 GB] inherit	/opt/oracle/oradata/DEVHA/data/ts_index01.dbf	16
ACTIVE	'/dev/pv1/lvol16' [100.00 MB] inherit	/opt/oracle/oradata/DEVHA/crs/ora_ocr_raw100m	17
ACTIVE	'/dev/pv1/lvol17' [5.00 GB] inherit	/opt/oracle/oradata/DEVHA/crs/ora_vote_raw_20m	18
ACTIVE	'/dev/pv1/lvol18' [5.00 MB] inherit	/opt/oracle/oradata/DEVHA/pfile/spfileDEVHA.ora	19
ACTIVE	'/dev/pv1/lvol19' [6144 MB] inherit	/opt/oracle/oradata/DEVHA/data/ts_data02.dbf	20
ACTIVE			

bei beiden Nodes: vgscan
dann bei einem Node:

```
pvcreate -d /dev/sdb1
vgcreate -l 256 -p 256 -s 128k /dev/pv1 /dev/sdb1

lvcreate -L 20m /dev/pv1
lvcreate -L 20m /dev/pv1
lvcreate -L 1024m /dev/pv1
lvcreate -L 2048m /dev/pv1
lvcreate -L 2048m /dev/pv1
lvcreate -L 3072m /dev/pv1
lvcreate -L 3072m /dev/pv1
lvcreate -L 50m /dev/pv1
```

lvcreate -L 50m /dev/pv1

lvcreate -L 50m /dev/pv1

lvcreate -L 50m /dev/pv1

lvcreate -L 50m /dev/pv1

lvcreate -L 50m /dev/pv1

```
lvcreate -L 1m /dev/pv1
lvcreate -L 5120m /dev/pv1
lvcreate -L 5120m /dev/pv1
lvcreate -L 100m /dev/pv1
lvcreate -L 20m /dev/pv1
lvcreate -L 5m /dev/pv1
lvcreate -L 6144m /dev/pv1

lvcreate -L 100m /dev/pv1 # OCR copy1
lvcreate -L 100m /dev/pv1 # OCR copy2
```

/etc/rc.local:

```
#!/bin/sh
#
# This script will be executed *after* all the other init scripts.
# You can put your own initialization stuff in here if you don't
# want to do the full Sys V style init stuff.

touch /var/lock/subsys/local

vgscan
vgchange -a y



/usr/bin/raw /dev/raw/raw1 /dev/pv1/lvol0
/usr/bin/raw /dev/raw/raw2 /dev/pv1/lvol1
/usr/bin/raw /dev/raw/raw3 /dev/pv1/lvol2
/usr/bin/raw /dev/raw/raw4 /dev/pv1/lvol3
/usr/bin/raw /dev/raw/raw5 /dev/pv1/lvol4
/usr/bin/raw /dev/raw/raw6 /dev/pv1/lvol5
/usr/bin/raw /dev/raw/raw7 /dev/pv1/lvol6
/usr/bin/raw /dev/raw/raw8 /dev/pv1/lvol7
/usr/bin/raw /dev/raw/raw9 /dev/pv1/lvol8
/usr/bin/raw /dev/raw/raw10 /dev/pv1/lvol9
/usr/bin/raw /dev/raw/raw11 /dev/pv1/lvol10
/usr/bin/raw /dev/raw/raw12 /dev/pv1/lvol11
/usr/bin/raw /dev/raw/raw13 /dev/pv1/lvol12
/usr/bin/raw /dev/raw/raw14 /dev/pv1/lvol13
/usr/bin/raw /dev/raw/raw15 /dev/pv1/lvol14
/usr/bin/raw /dev/raw/raw16 /dev/pv1/lvol15
/usr/bin/raw /dev/raw/raw17 /dev/pv1/lvol16
/usr/bin/raw /dev/raw/raw18 /dev/pv1/lvol17
/usr/bin/raw /dev/raw/raw19 /dev/pv1/lvol18
```

```
/usr/bin/raw /dev/raw/raw20 /dev/pv1/lvol19
sleep 3

/bin/chmod 600 /dev/raw/raw1
/bin/chmod 600 /dev/raw/raw2
/bin/chmod 600 /dev/raw/raw3
/bin/chmod 600 /dev/raw/raw4
/bin/chmod 600 /dev/raw/raw5
/bin/chmod 600 /dev/raw/raw6
/bin/chmod 600 /dev/raw/raw7
/bin/chmod 600 /dev/raw/raw8
/bin/chmod 600 /dev/raw/raw9
/bin/chmod 600 /dev/raw/raw10
/bin/chmod 600 /dev/raw/raw11
/bin/chmod 600 /dev/raw/raw12
/bin/chmod 600 /dev/raw/raw13
/bin/chmod 600 /dev/raw/raw14
/bin/chmod 600 /dev/raw/raw15
/bin/chmod 600 /dev/raw/raw16
/bin/chmod 600 /dev/raw/raw17
/bin/chmod 600 /dev/raw/raw18
/bin/chmod 600 /dev/raw/raw19
/bin/chmod 600 /dev/raw/raw20

/bin/chown oracle:dba /dev/raw/raw1
/bin/chown oracle:dba /dev/raw/raw2
/bin/chown oracle:dba /dev/raw/raw3
/bin/chown oracle:dba /dev/raw/raw4
/bin/chown oracle:dba /dev/raw/raw5
/bin/chown oracle:dba /dev/raw/raw6
/bin/chown oracle:dba /dev/raw/raw7
/bin/chown oracle:dba /dev/raw/raw8
/bin/chown oracle:dba /dev/raw/raw9
/bin/chown oracle:dba /dev/raw/raw10
/bin/chown oracle:dba /dev/raw/raw11
/bin/chown oracle:dba /dev/raw/raw12
/bin/chown oracle:dba /dev/raw/raw13
/bin/chown oracle:dba /dev/raw/raw14
/bin/chown oracle:dba /dev/raw/raw15
/bin/chown oracle:dba /dev/raw/raw16
/bin/chown oracle:dba /dev/raw/raw17
/bin/chown oracle:dba /dev/raw/raw18
/bin/chown oracle:dba /dev/raw/raw19
/bin/chown oracle:dba /dev/raw/raw20
```

Reboot

```
mkdir -p /opt/oracle/oradata/DEVHA
cd /opt/oracle/oradata/DEVHA
mkdir ctrl temp data undo pfile origlogA origlogB


ln -s /dev/raw/raw1 ctrl/control01.ctl
ln -s /dev/raw/raw2 ctrl/control02.ctl
ln -s /dev/raw/raw3 data/system01.dbf
ln -s /dev/raw/raw4 data/sysaux01.dbf
ln -s /dev/raw/raw5 temp/temp01.dbf
ln -s /dev/raw/raw6 undo/undotbs01.dbf
ln -s /dev/raw/raw7 undo/undotbs02.dbf
ln -s /dev/raw/raw8 origlogA/redo_01_01.rdo
ln -s /dev/raw/raw9 origlogA/redo_01_02.rdo
ln -s /dev/raw/raw10 origlogA/redo_01_03.rdo
ln -s /dev/raw/raw11 origlogA/redo_02_01.rdo
ln -s /dev/raw/raw12 origlogA/redo_02_02.rdo
ln -s /dev/raw/raw13 origlogA/redo_02_03.rdo
ln -s /dev/raw/raw14 pfile/spfileDEVHA.ora
ln -s /dev/raw/raw15 data/ts_data01.dbf
ln -s /dev/raw/raw16 data/ts_index01.dbf
ln -s /dev/raw/raw20 data/ts_data02.dbf
```

Create a file dbname_raw.conf:

```
control1=/dev/raw/raw1
control2=/dev/raw/raw2
system=/dev/raw/raw3
sysaux=/dev/raw/raw4
temp=/dev/raw/raw5
undotbs1=/dev/raw/raw6
undotbs2=/dev/raw/raw7
redo1_1=/dev/raw/raw8
redo1_2=/dev/raw/raw9
redo1_3=/dev/raw/raw10
redo2_1=/dev/raw/raw11
redo2_2=/dev/raw/raw12
redo2_3=/dev/raw/raw13
spfile=/dev/raw/raw14
```

```
export DBCA_RAW_CONFIG=/opt/oracle/oradata/DEVHA/dbname_raw.conf
```

2.1 Konfiguration des Environments

```
groupadd -g 115 dba
useradd -u 175 -g 115 -d /home/oracle -s /bin/bash -c "Oracle Software Owner" -p oracle
oracle
chown -R oracle:dba /opt/oracle
chown -R oracle:dba /home/oracle
passwd oracle

groupadd oinstall
```

Add User oracle to oinstall group:

```
mkdir -p /opt/oracle/product/10.1.0/crs
mkdir -p /opt/oracle/product/10.1.0/db
```

2.2 Shared-Memory / Semaphores:

Add to /etc/sysctl.conf

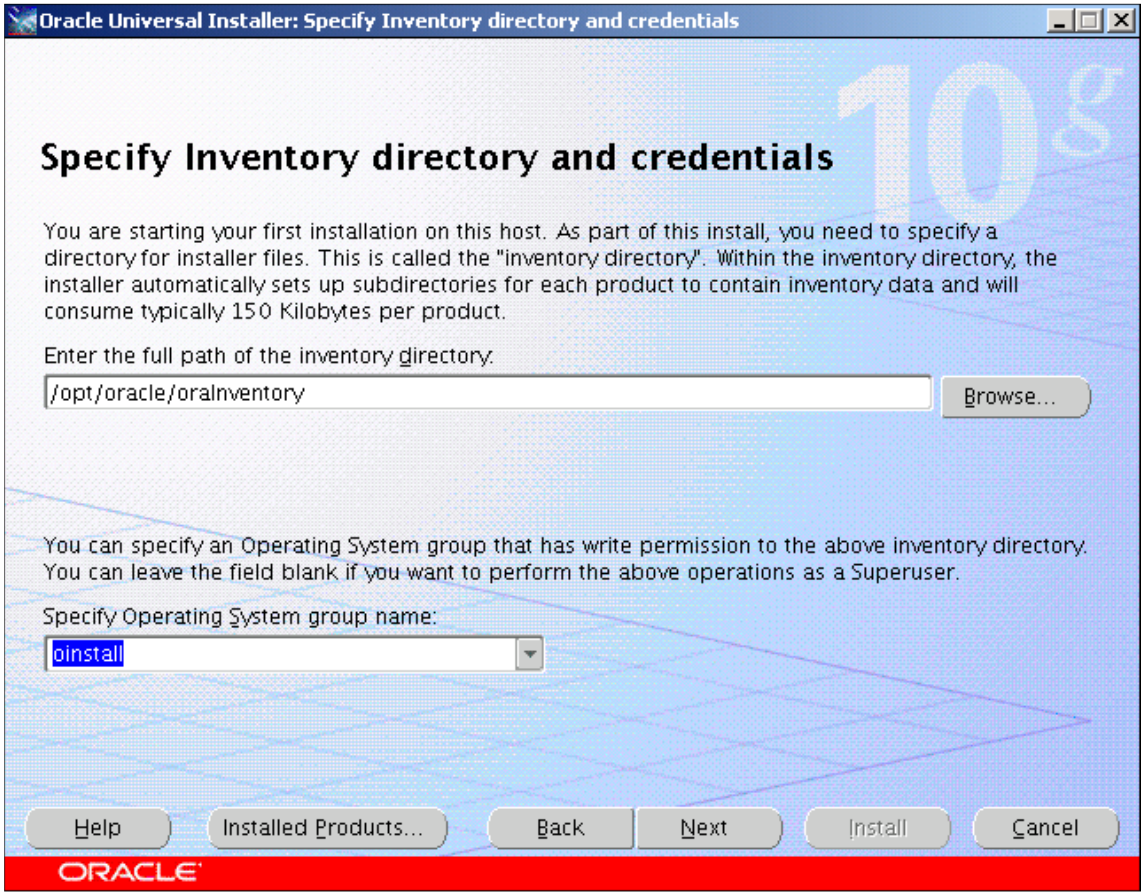
```
fs.file-max=65536
kernel.sem=250 32000 100 128
kernel.shmmax=792723456
kernel.shmall = 2097152
kernel.shmmni = 4096
```

2.3 Hangcheck

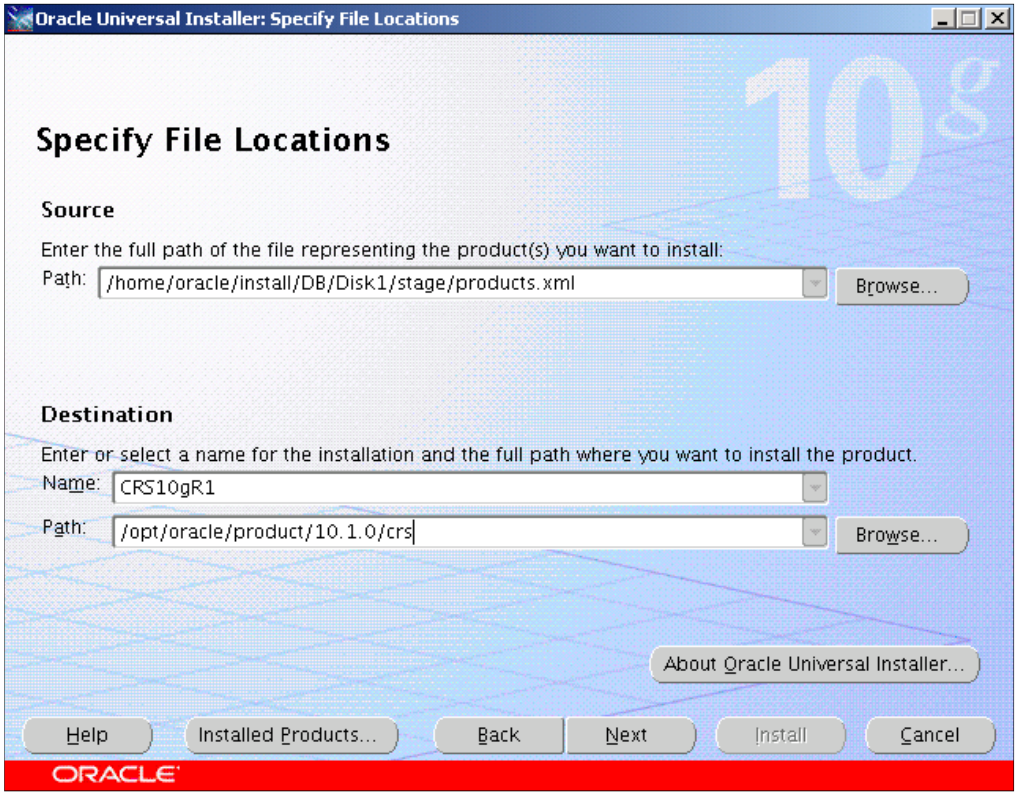
```
echo “options hangcheck-timer hangcheck_tick=30 hangcheck_margin=180”
>>/etc/modprobe.conf

echo “/sbin/modprobe hangcheck-timer” >> /etc/rc.local
```

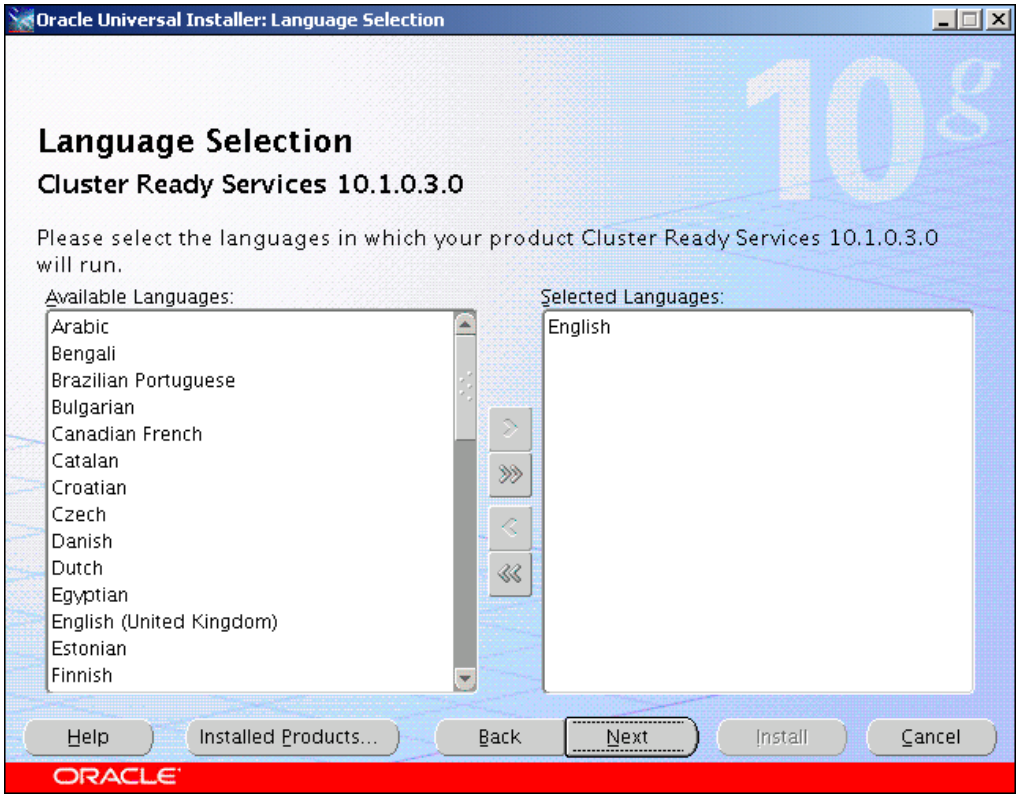
3. Installation CRS

```
./runInstaller -ignoreSysPrereqs
```


Oracle Universal Installer: Specify Inventory directory and credentials
Specify Inventory directory and credentials
You are starting your first installation on this host. As part of this install, you need to specify a directory for installer files. This is called the "inventory directory". Within the inventory directory, the installer automatically sets up subdirectories for each product to contain inventory data and will consume typically 150 Kilobytes per product.
Enter the full path of the inventory directory:
/opt/oracle/oraInventory
Browse...
You can specify an Operating System group that has write permission to the above inventory directory. You can leave the field blank if you want to perform the above operations as a Superuser.
Specify Operating System group name:
oinstall
Help
Installed Products...
Back
Next
Install
Cancel
ORACLE

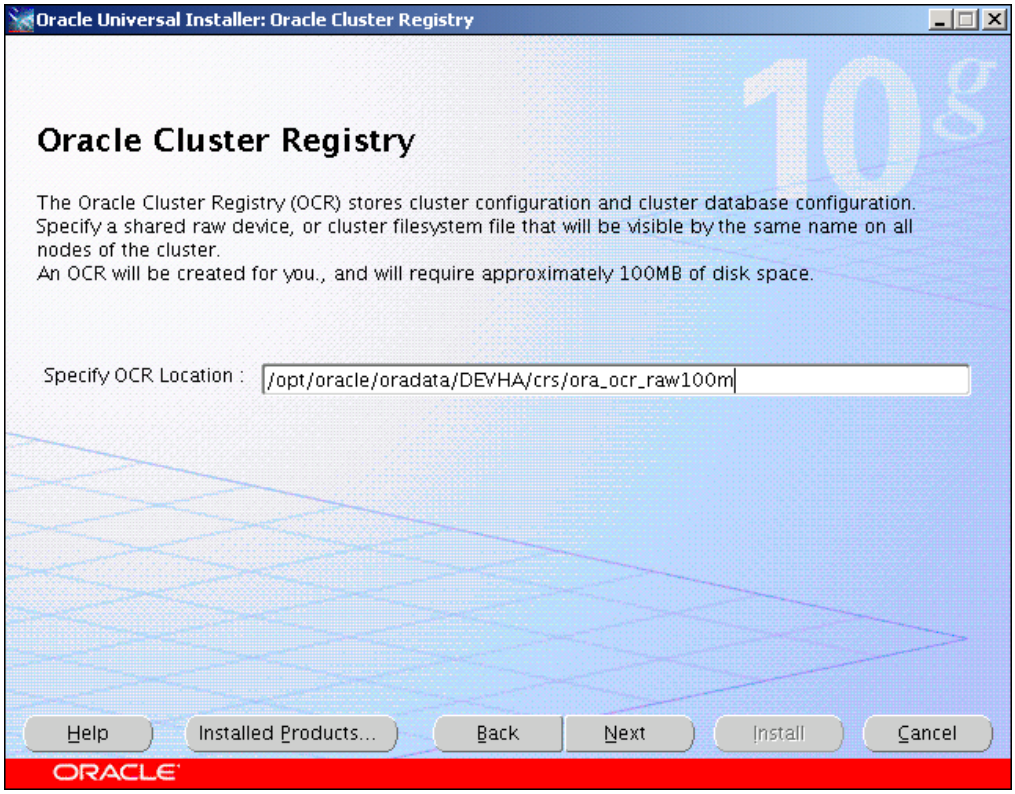
Oracle Universal Installer
Certain actions need to be performed with root privileges before the install can continue. These actions are stored in a shell script named /opt/oracle/oraInventory/orainstRoot.sh.
Please execute the /opt/oracle/oraInventory/orainstRoot.sh script now from another window, then click "Continue" to continue the install.
Help
Continue
Cancel

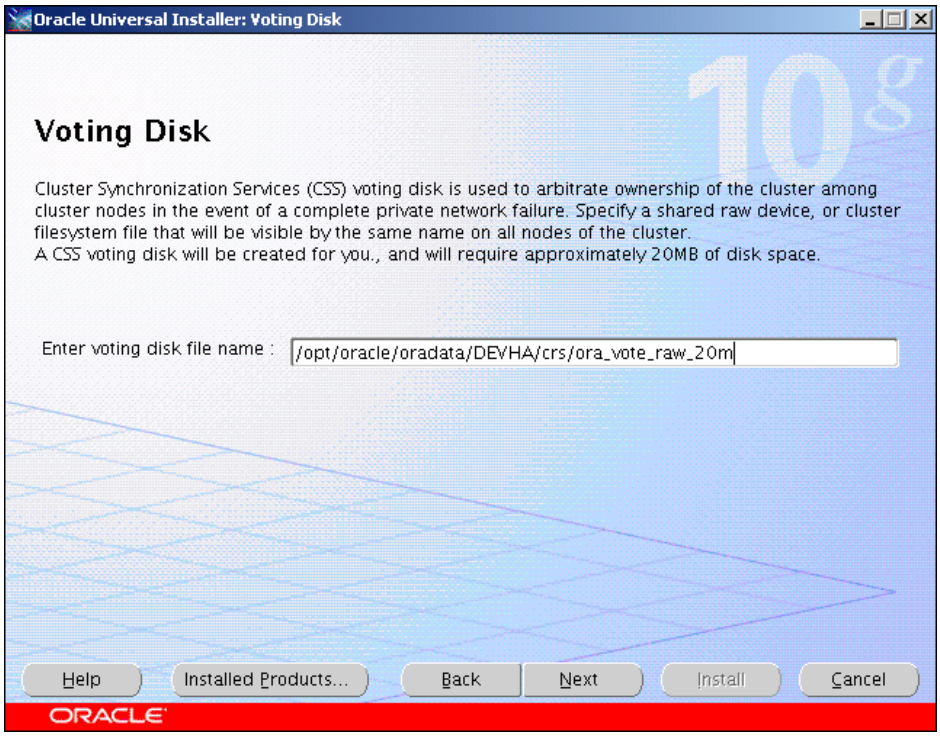


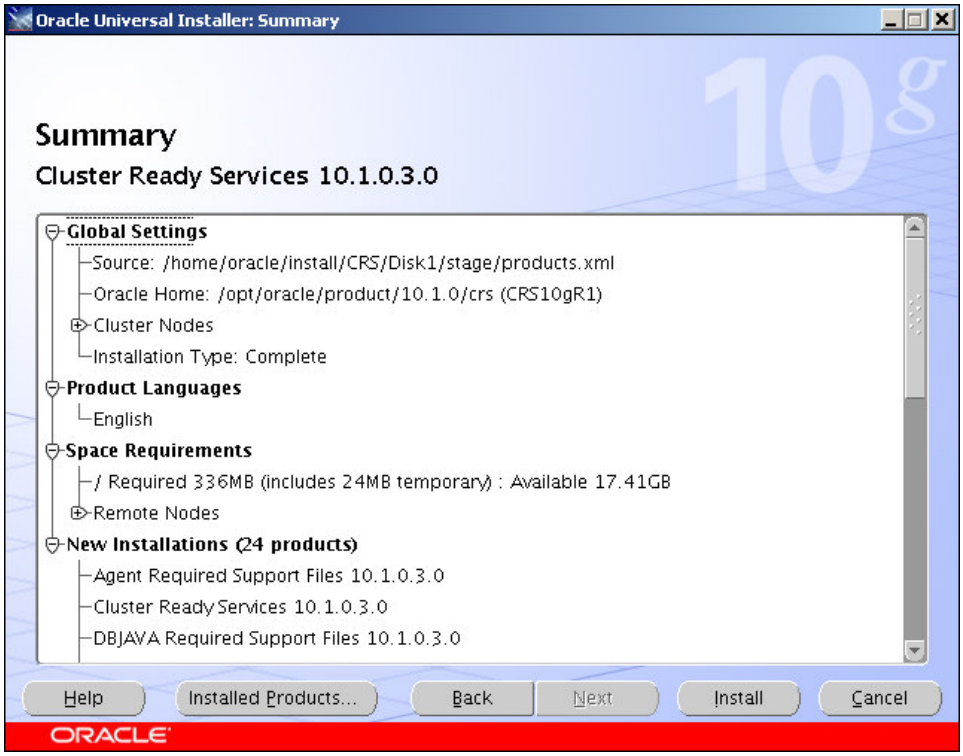


Cluster Name: DEVHA
Public Node Names: racnode1, racnode2
Private node Names: racnode1p, racnode2p

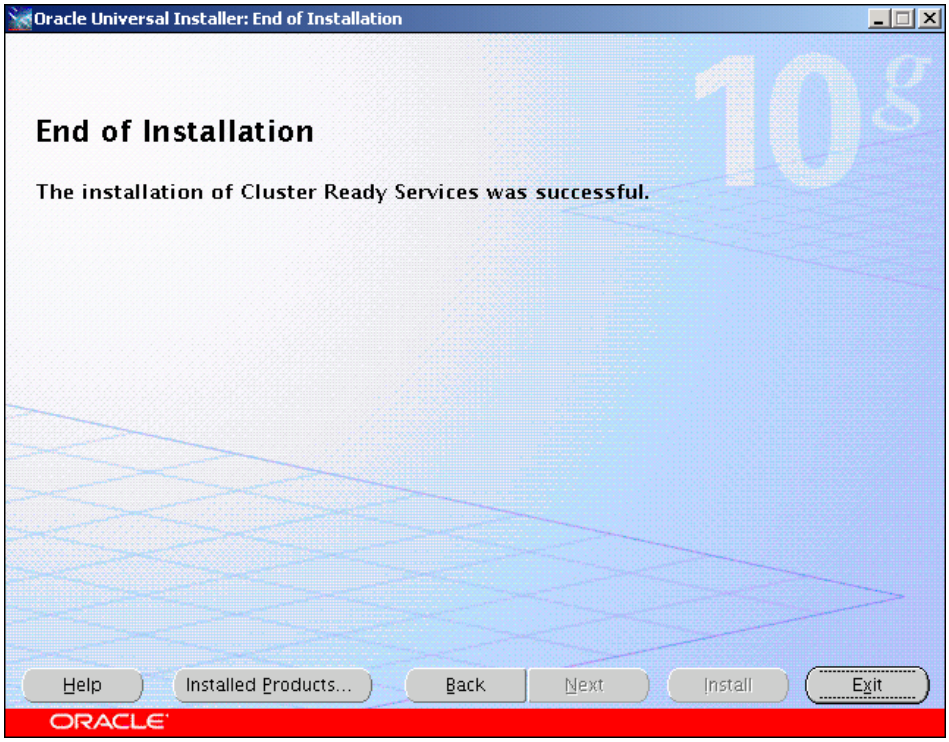
Interfaces:
eth0: 10.1.20.0 public
eth1: 192.168.1.0 private







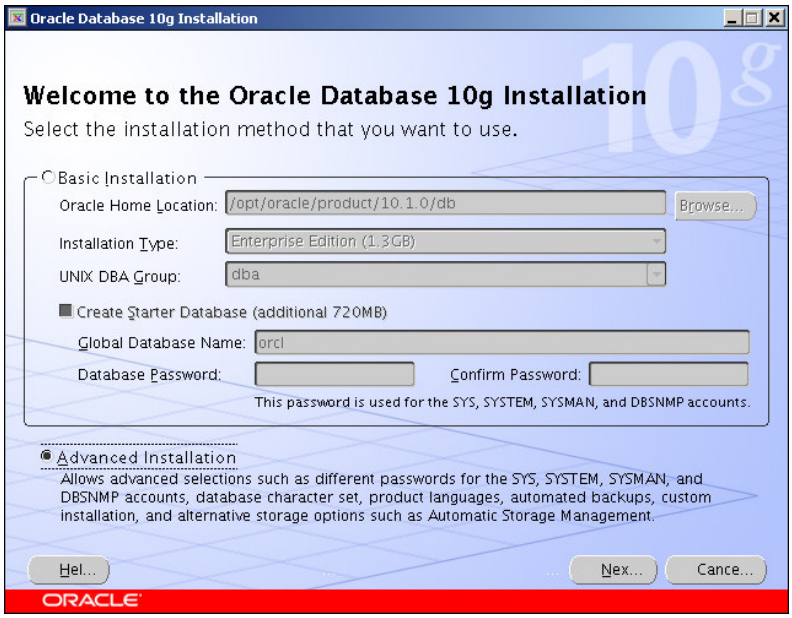
root.sh ausführen.

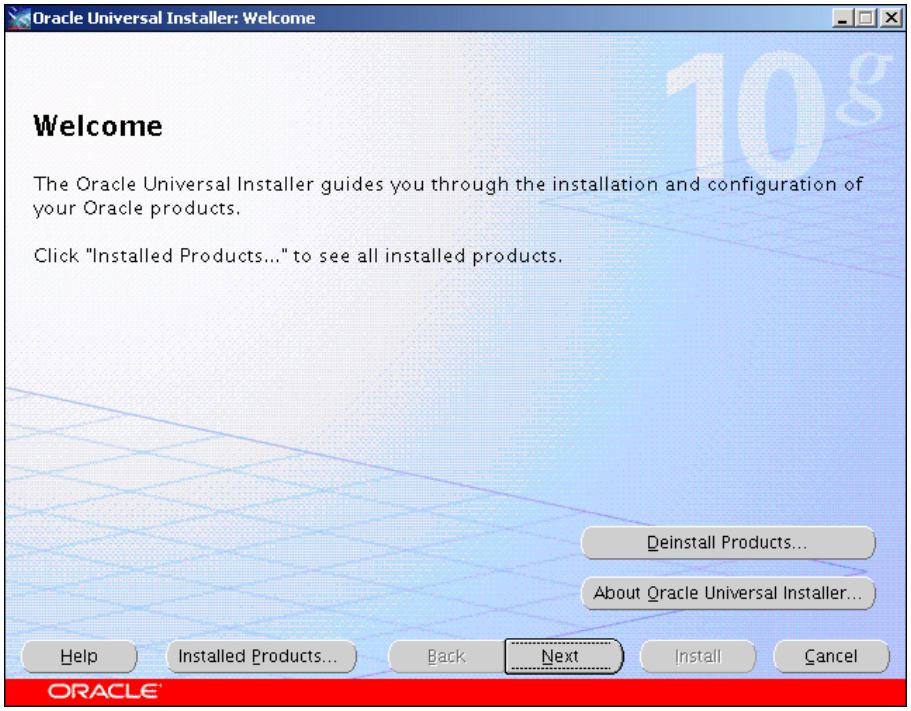


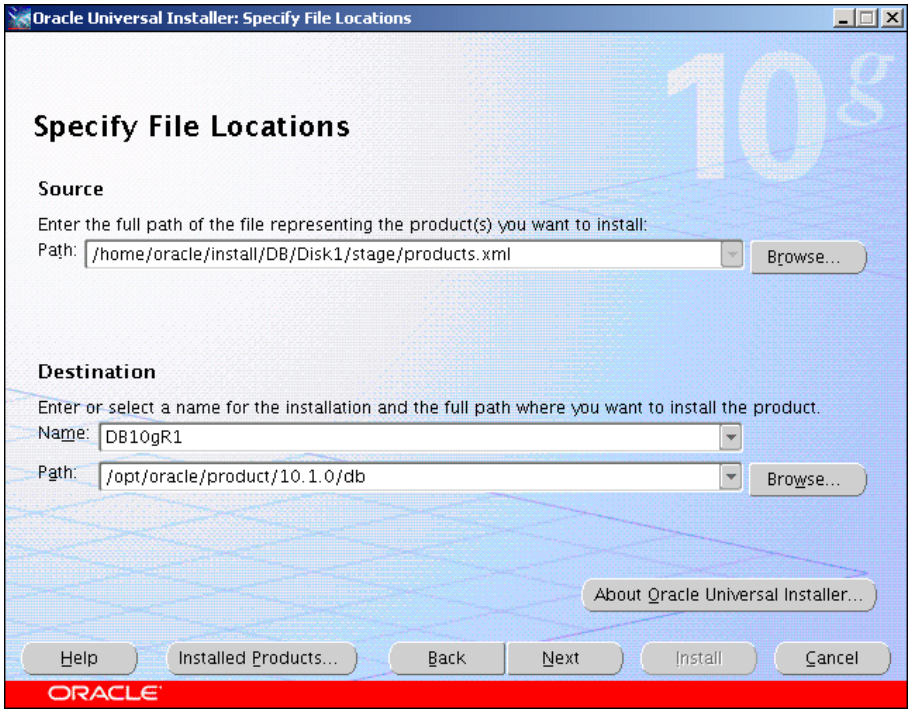
Ändern des CSS Misscount als root:

```
/opt/oracle/product/10.1.0/crs/bin/crsctl get css misscount
Configuration parameter misscount has value of 60.

/opt/oracle/product/10.1.0/crs/bin/crsctl set css misscount 360
Configuration parameter misscount is now set to 360.
```

4. Installation Datenbank

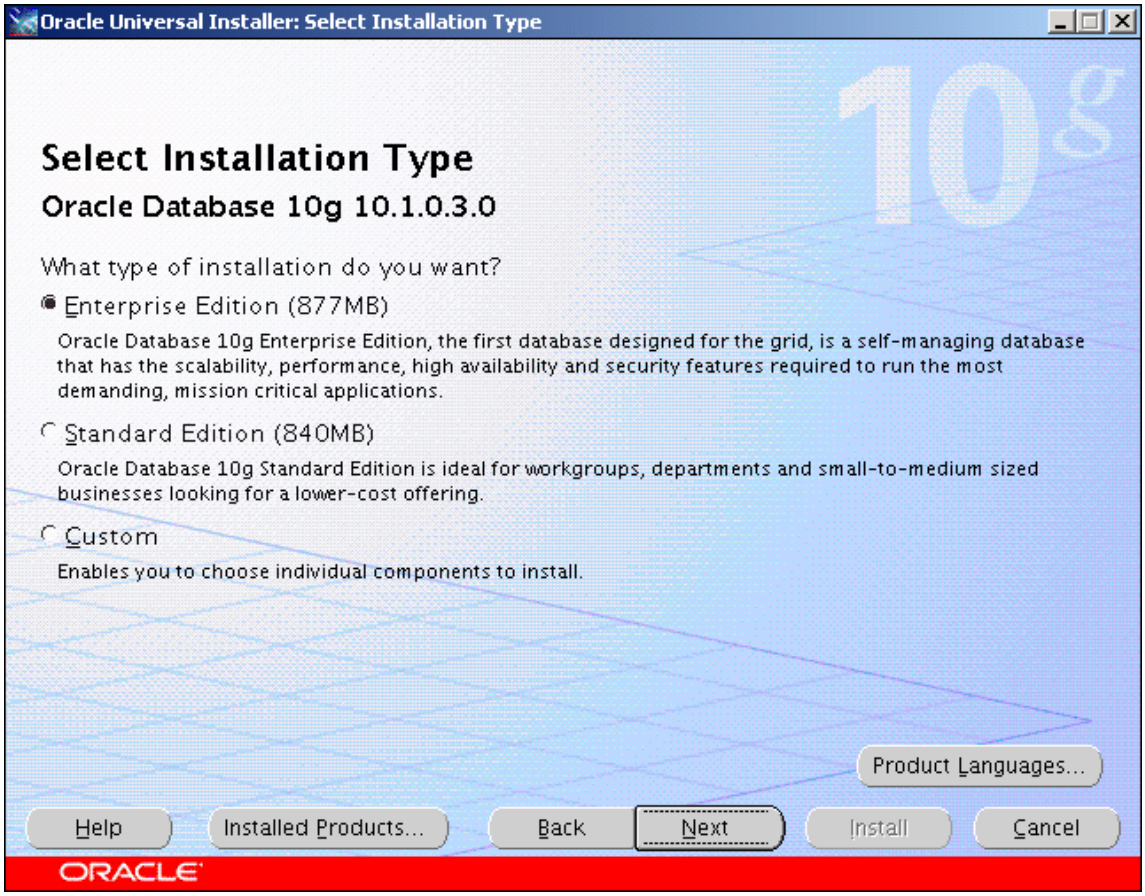


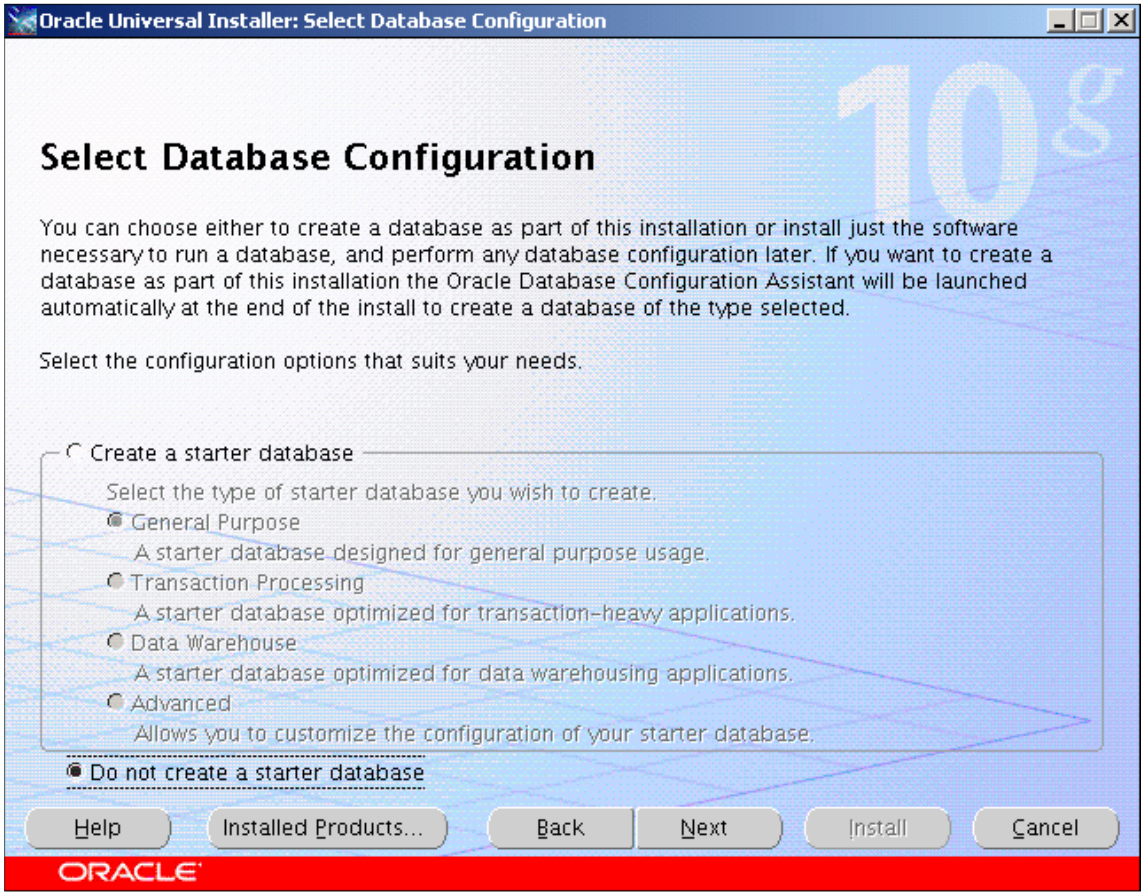


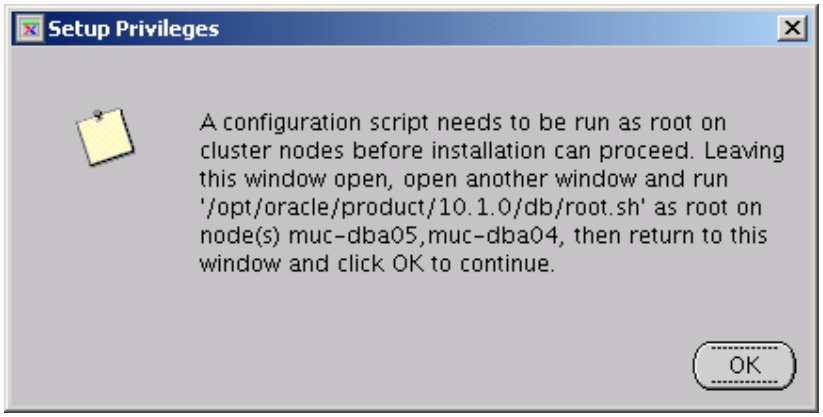


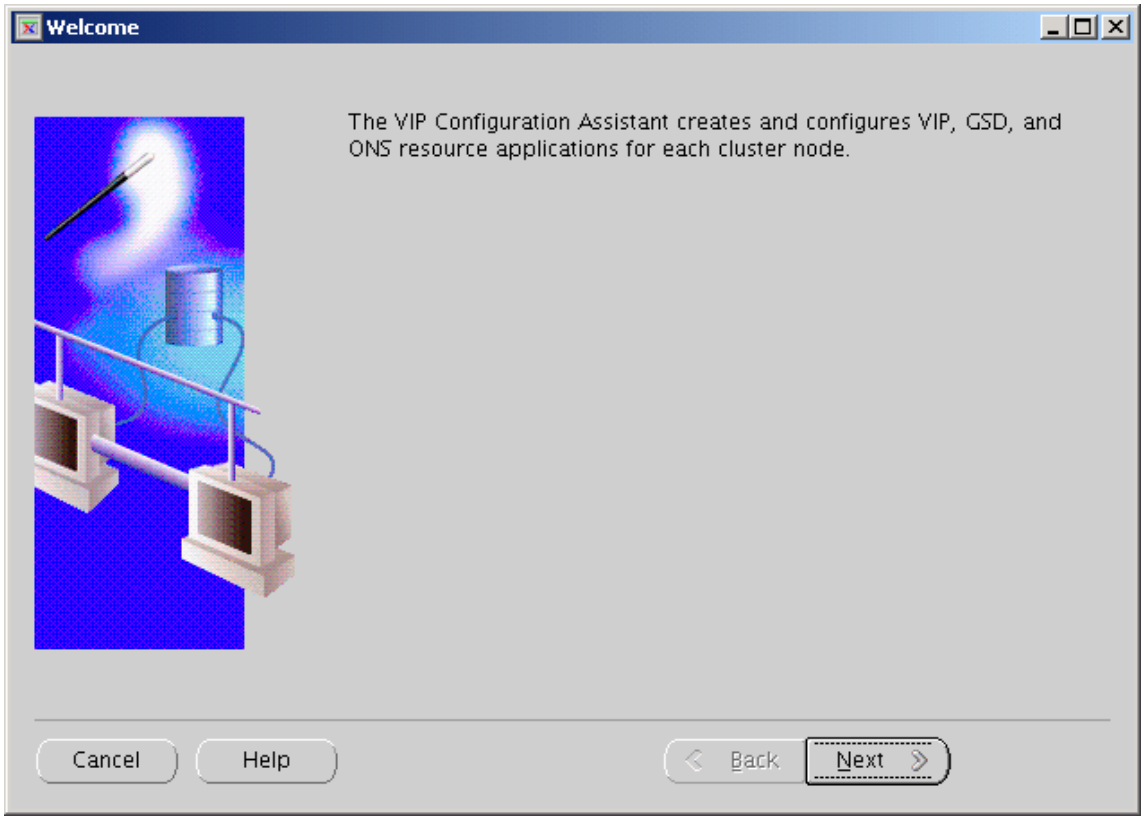
Auswählen: Cluster Database, selektieren von beiden Nodes

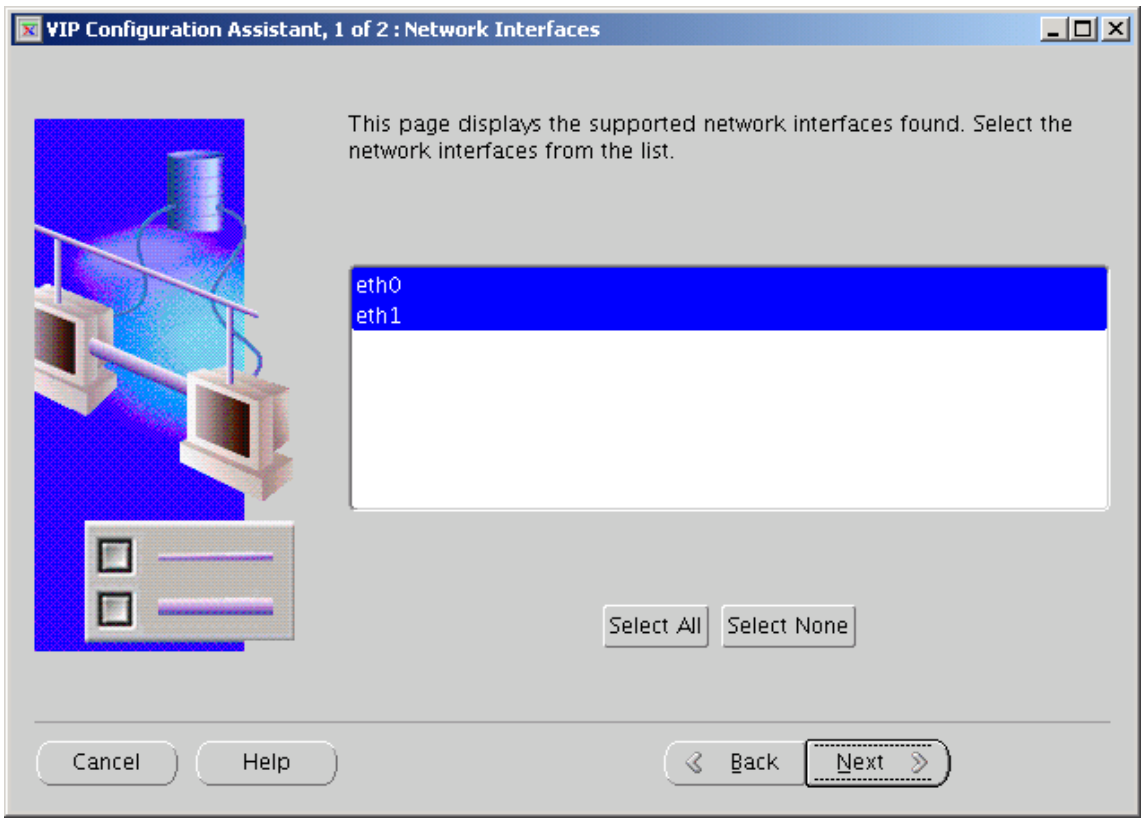
Oracle Universal Installer
Certain actions need to be performed with root privileges before the install can continue. These actions are stored in a shell script named /opt/oracle/oraInventory/orainstRoot.sh.
Please execute the /opt/oracle/oraInventory/orainstRoot.sh script now from another window on all cluster nodes, then click "Continue" to continue the install.
Help
Continue
Cancel


Oracle Universal Installer: Select Installation Type
Select Installation Type
Oracle Database 10g 10.1.0.3.0
What type of installation do you want?
Enterprise Edition (877MB)
Oracle Database 10g Enterprise Edition, the first database designed for the grid, is a self-managing database that has the scalability, performance, high availability and security features required to run the most demanding, mission critical applications.
Standard Edition (840MB)
Oracle Database 10g Standard Edition is ideal for workgroups, departments and small-to-medium sized businesses looking for a lower-cost offering.
Custom
Enables you to choose individual components to install.
Product Languages...
Help
Installed Products...
Back
Next
Install
Cancel
ORACLE


Oracle Universal Installer: Select Database Configuration
Select Database Configuration
You can choose either to create a database as part of this installation or install just the software necessary to run a database, and perform any database configuration later. If you want to create a database as part of this installation the Oracle Database Configuration Assistant will be launched automatically at the end of the install to create a database of the type selected.
Select the configuration options that suits your needs.
Create a starter database
Select the type of starter database you wish to create.
General Purpose
A starter database designed for general purpose usage.
Transaction Processing
A starter database optimized for transaction-heavy applications.
Data Warehouse
A starter database optimized for data warehousing applications.
Advanced
Allows you to customize the configuration of your starter database.
Do not create a starter database
Help
Installed Products...
Back
Next
Install
Cancel
ORACLE

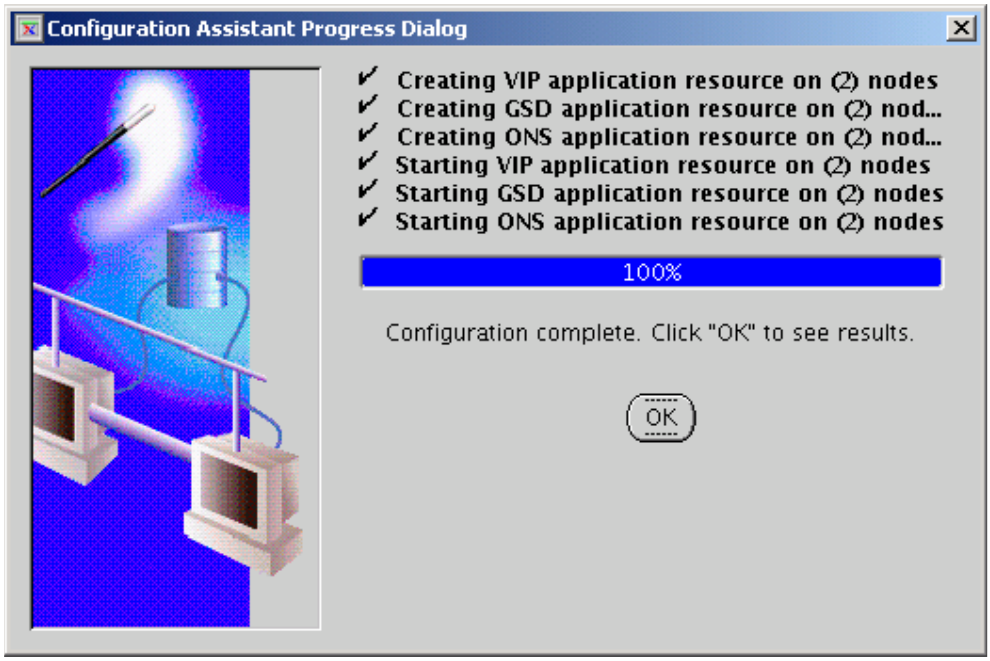

Setup Privileges
A configuration script needs to be run as root on cluster nodes before installation can proceed. Leaving this window open, open another window and run '/opt/oracle/product/10.1.0/db/root.sh' as root on node(s) muc-dba05,muc-dba04, then return to this window and click OK to continue.
OK


Welcome
The VIP Configuration Assistant creates and configures VIP, GSD, and ONS resource applications for each cluster node.
Cancel
Help
Back
Next


VIP Configuration Assistant, 1 of 2 : Network Interfaces
This page displays the supported network interfaces found. Select the network interfaces from the list.
eth0
eth1
Select All
Select None
Cancel
Help
Back
Next

Next.

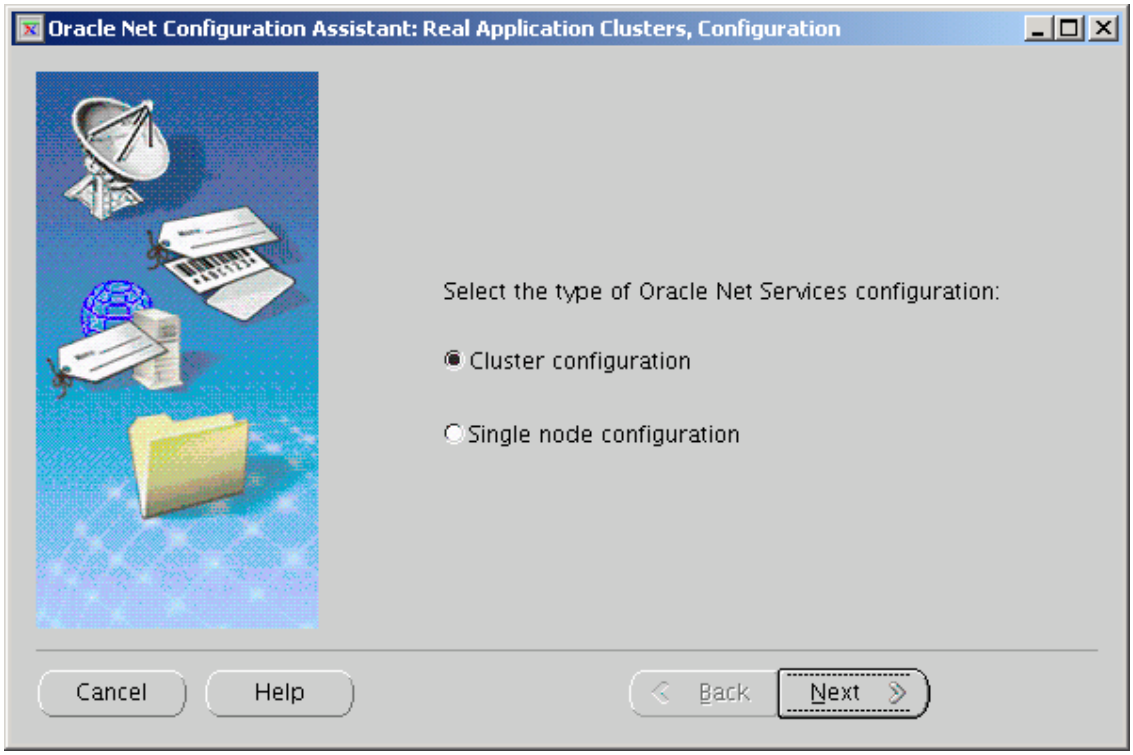
Checken von Subnet Masks auf Summary Page, dann Finish.



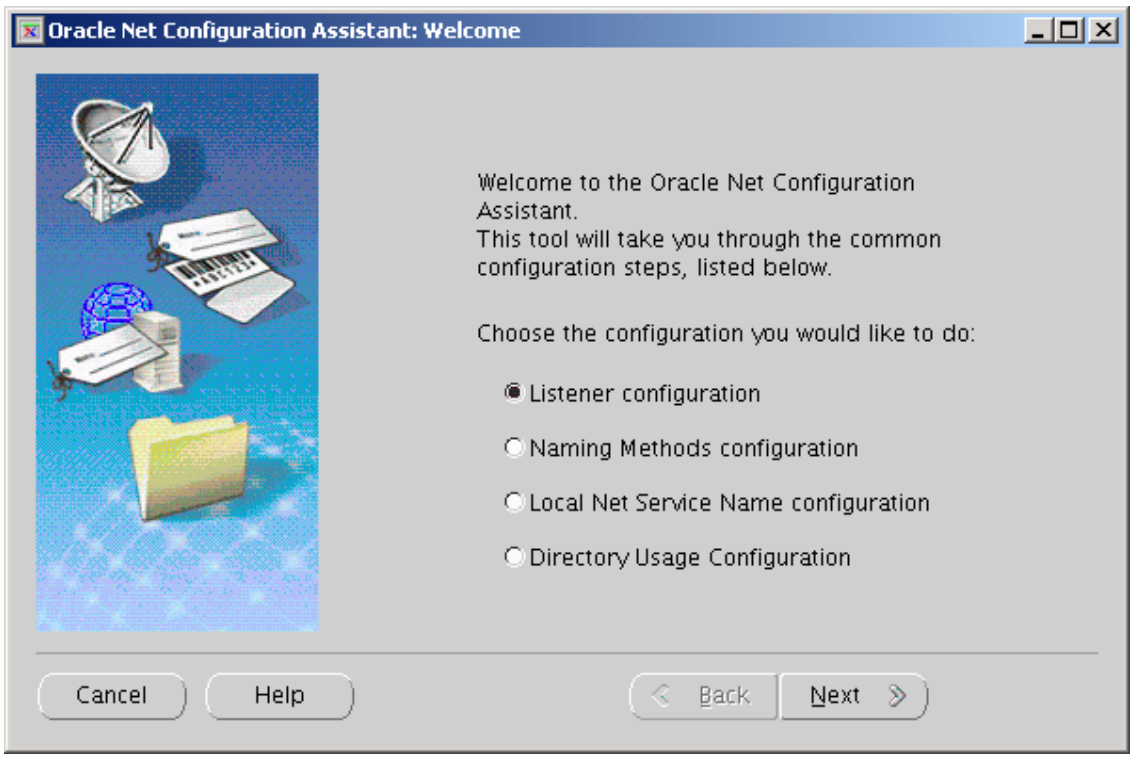
Net Configuration:

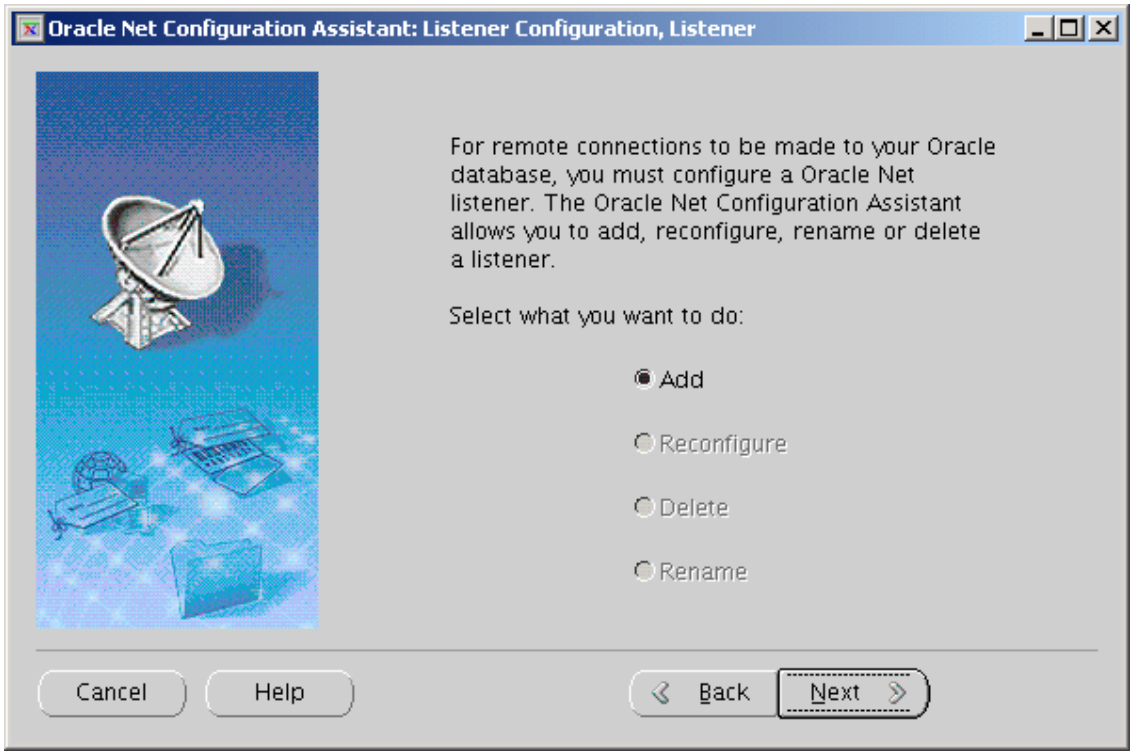
Login auf oracle@racnode2

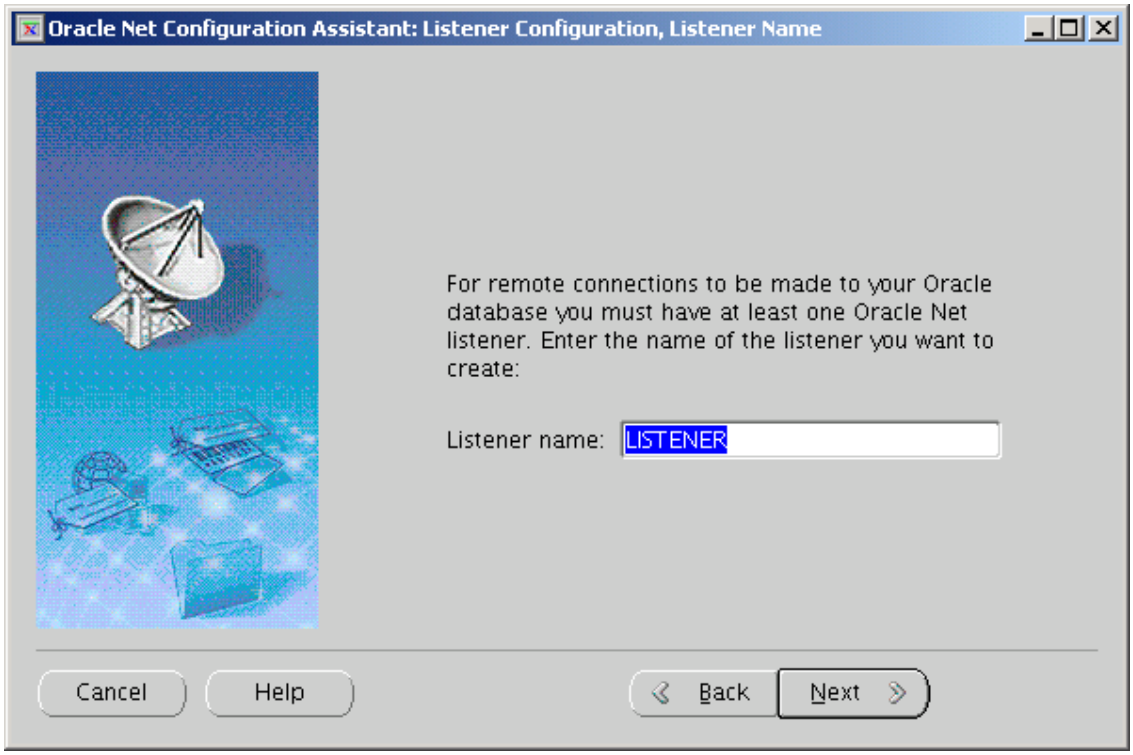
```
export DISPLAY .....
echo $ORACLE_HOME
netca &
```

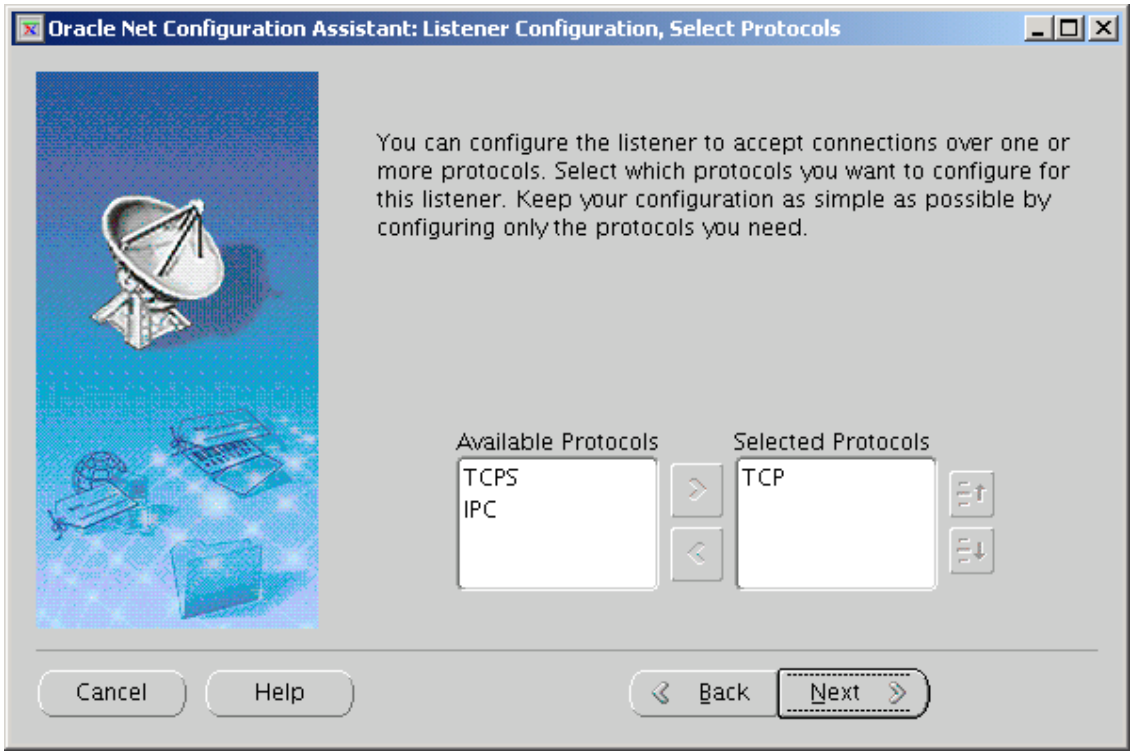


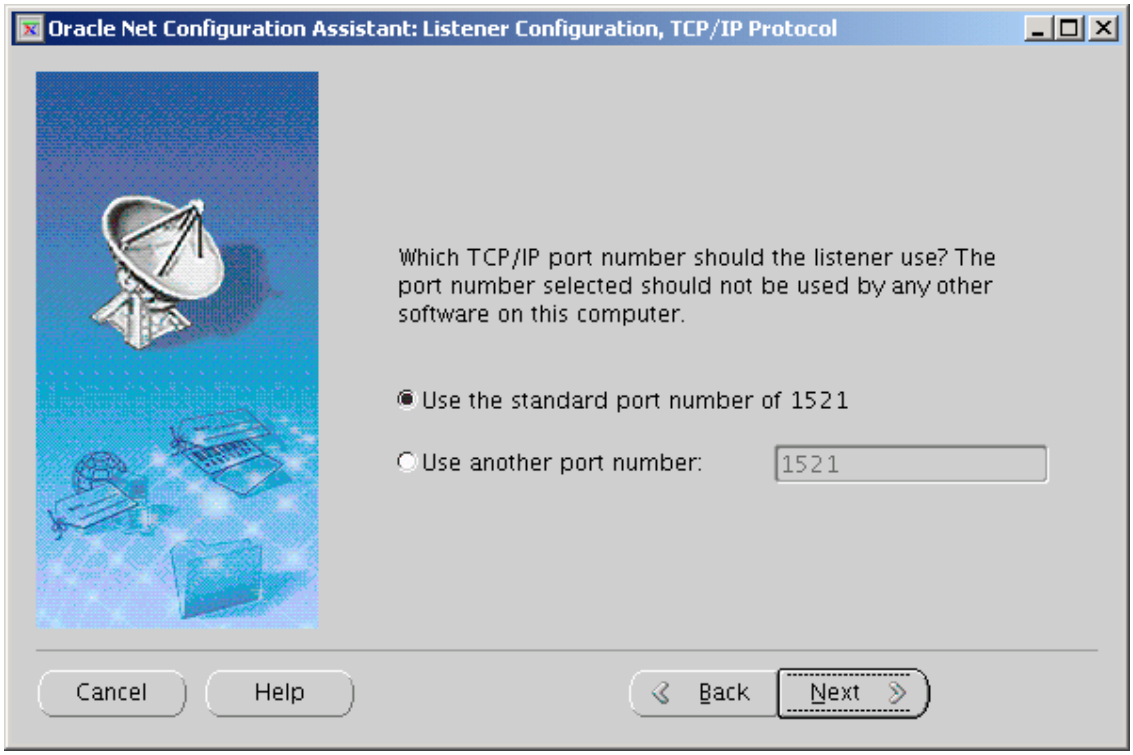
Auswählen von beiden Nodes.

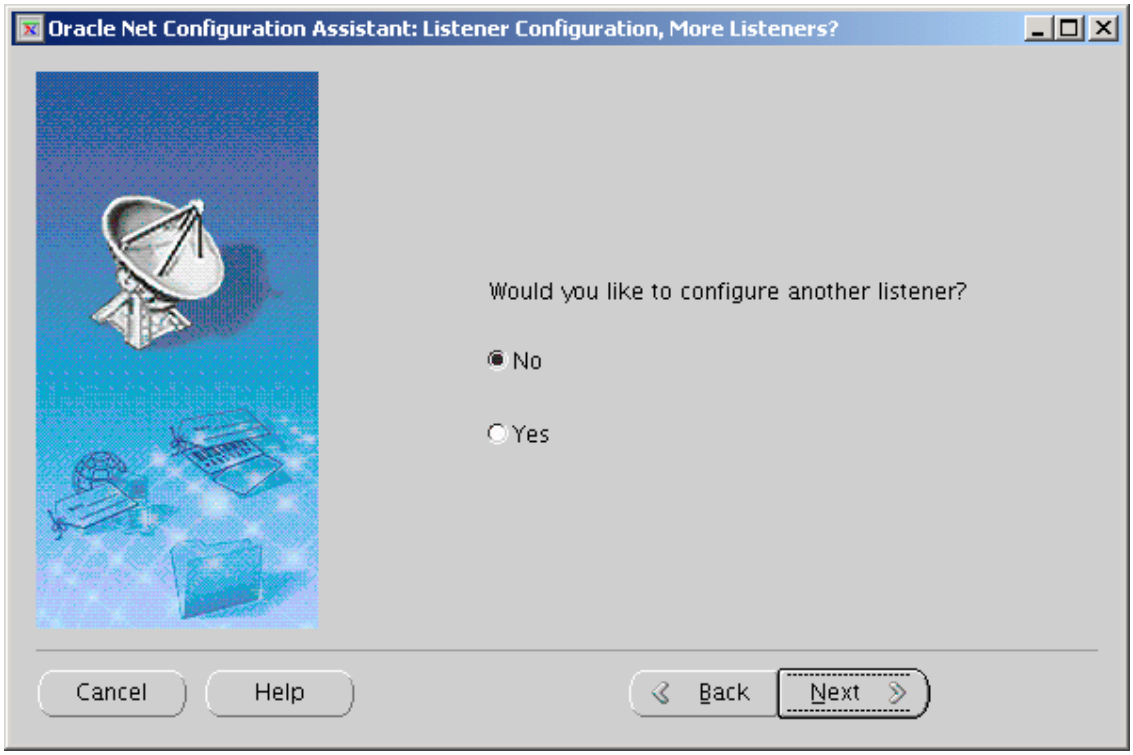



Oracle Net Configuration Assistant: Listener Configuration, Listener
For remote connections to be made to your Oracle database, you must configure a Oracle Net listener. The Oracle Net Configuration Assistant allows you to add, reconfigure, rename or delete a listener.
Select what you want to do:
Add
Reconfigure
Delete
Rename
Cancel
Help
Back
Next

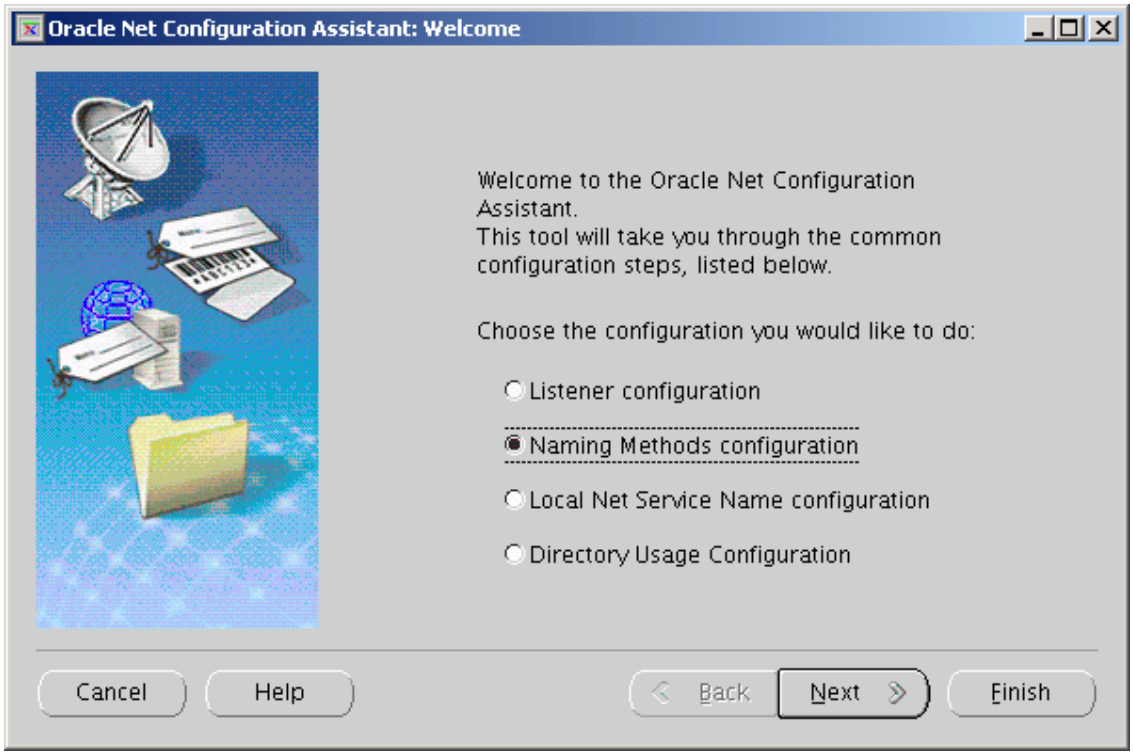

Oracle Net Configuration Assistant: Listener Configuration, Listener Name
For remote connections to be made to your Oracle database you must have at least one Oracle Net listener. Enter the name of the listener you want to create:
Listener name:
LISTENER
Cancel
Help
Back
Next

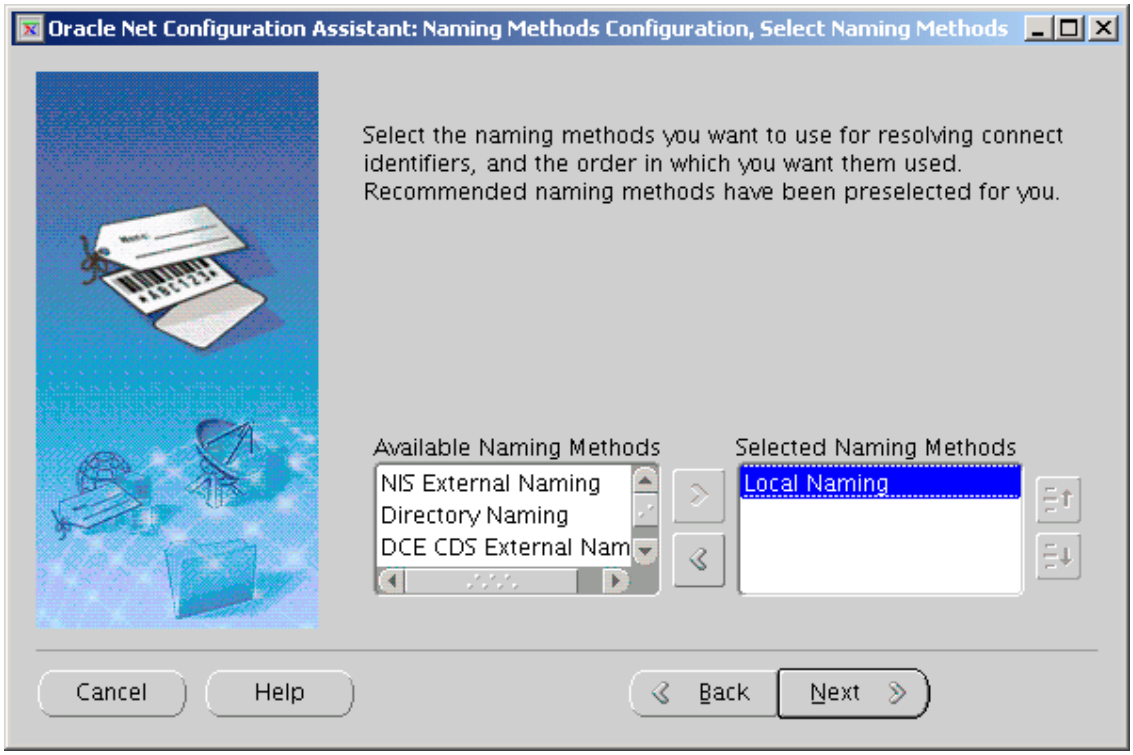

Oracle Net Configuration Assistant: Listener Configuration, Select Protocols
You can configure the listener to accept connections over one or more protocols. Select which protocols you want to configure for this listener. Keep your configuration as simple as possible by configuring only the protocols you need.
Available Protocols
TCPS
IPC
Selected Protocols
TCP
Cancel
Help
Back
Next

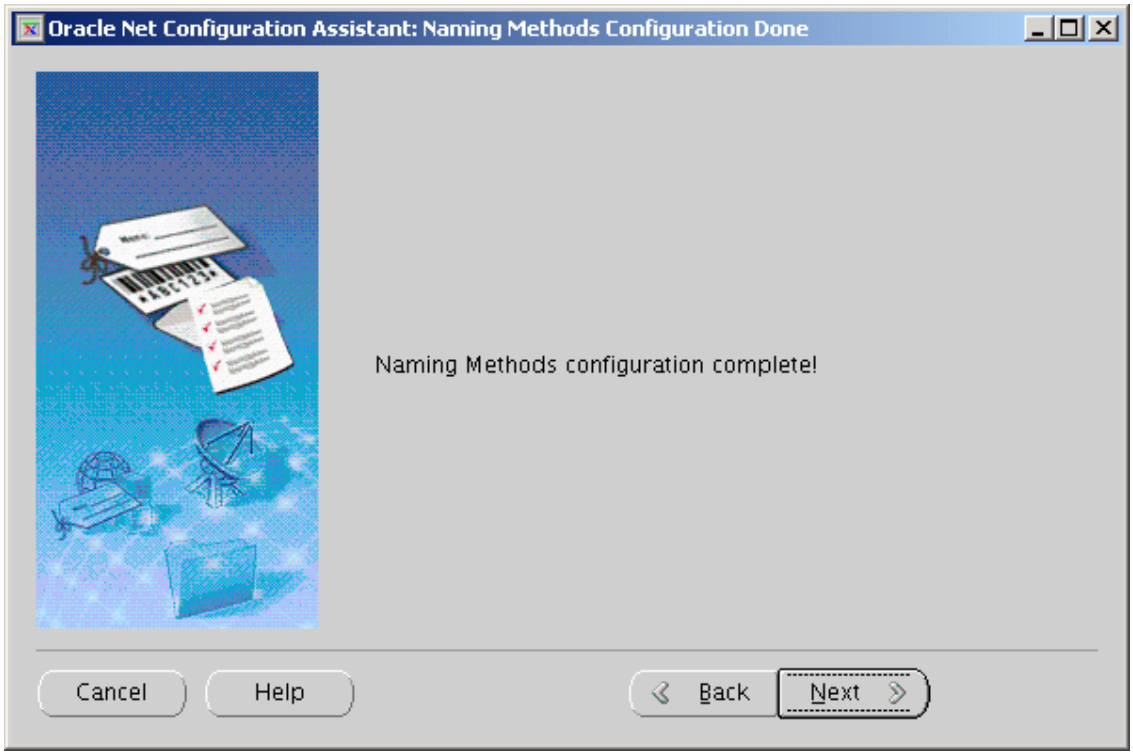

Oracle Net Configuration Assistant: Listener Configuration, TCP/IP Protocol
Which TCP/IP port number should the listener use? The port number selected should not be used by any other software on this computer.
Use the standard port number of 1521
Use another port number:
1521
Cancel
Help
Back
Next


Oracle Net Configuration Assistant: Listener Configuration, More Listeners?
Would you like to configure another listener?
No
Yes
Cancel
Help
Back
Next

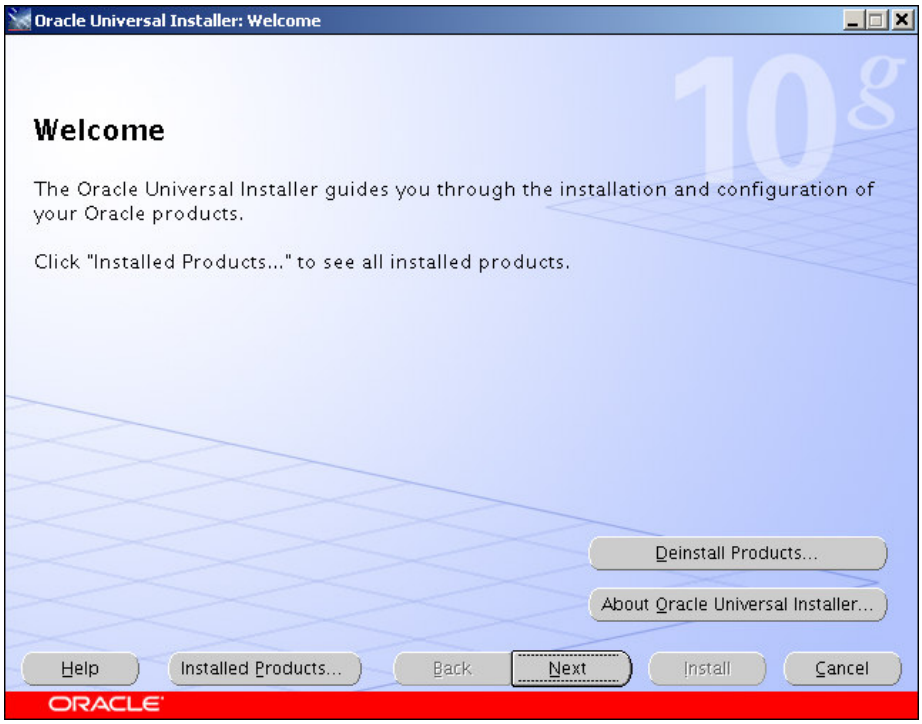
Oracle Net Configuration Assistant: Listener Configuration Done
Listener configuration complete!
Cancel
Help
Back
Next

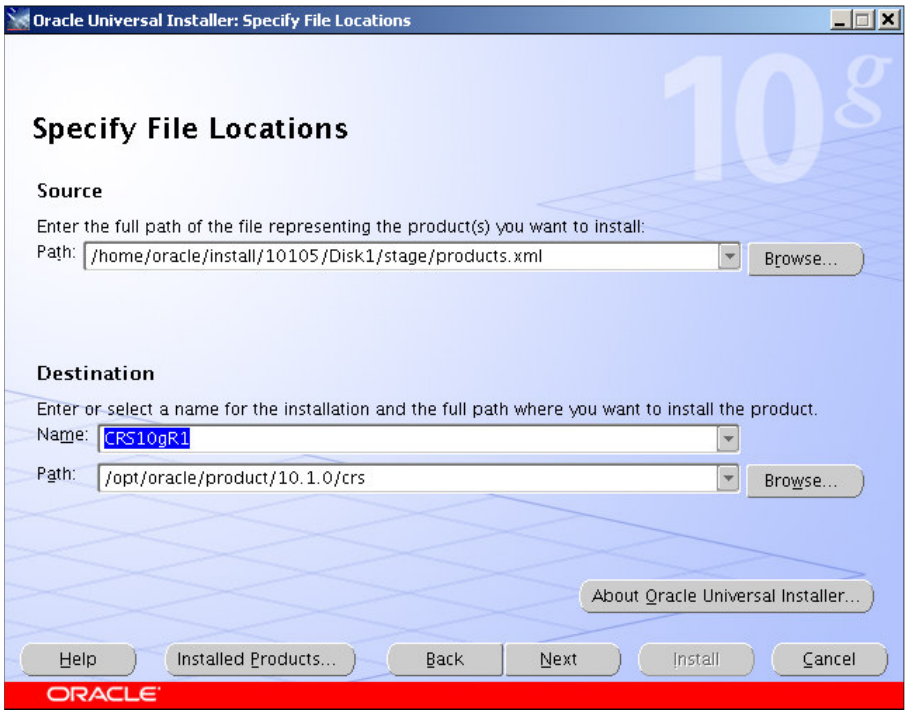

Oracle Net Configuration Assistant: Welcome
Welcome to the Oracle Net Configuration Assistant.
This tool will take you through the common configuration steps, listed below.
Choose the configuration you would like to do:
Listener configuration
Naming Methods configuration
Local Net Service Name configuration
Directory Usage Configuration
Cancel
Help
Back
Next
Finish


Oracle Net Configuration Assistant: Naming Methods Configuration, Select Naming Methods
Select the naming methods you want to use for resolving connect identifiers, and the order in which you want them used.
Recommended naming methods have been preselected for you.
Available Naming Methods
NIS External Naming
Directory Naming
DCE CDS External Nam
Selected Naming Methods
Local Naming
Cancel
Help
Back
Next


Oracle Net Configuration Assistant: Naming Methods Configuration Done
Naming Methods configuration complete!
Cancel
Help
Back
Next

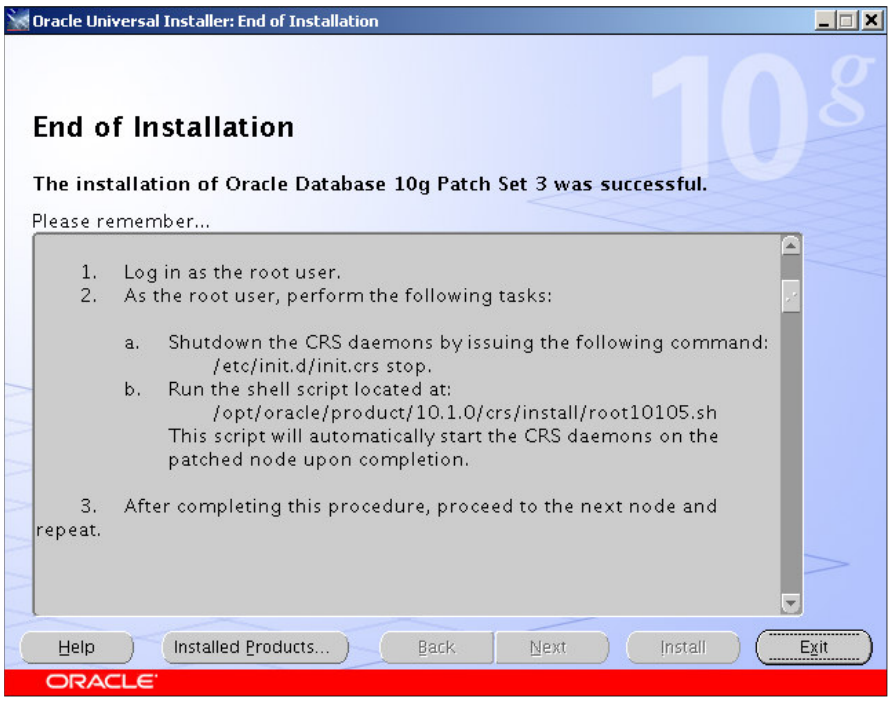
5. Upgrade 10.1.0.5 CRS



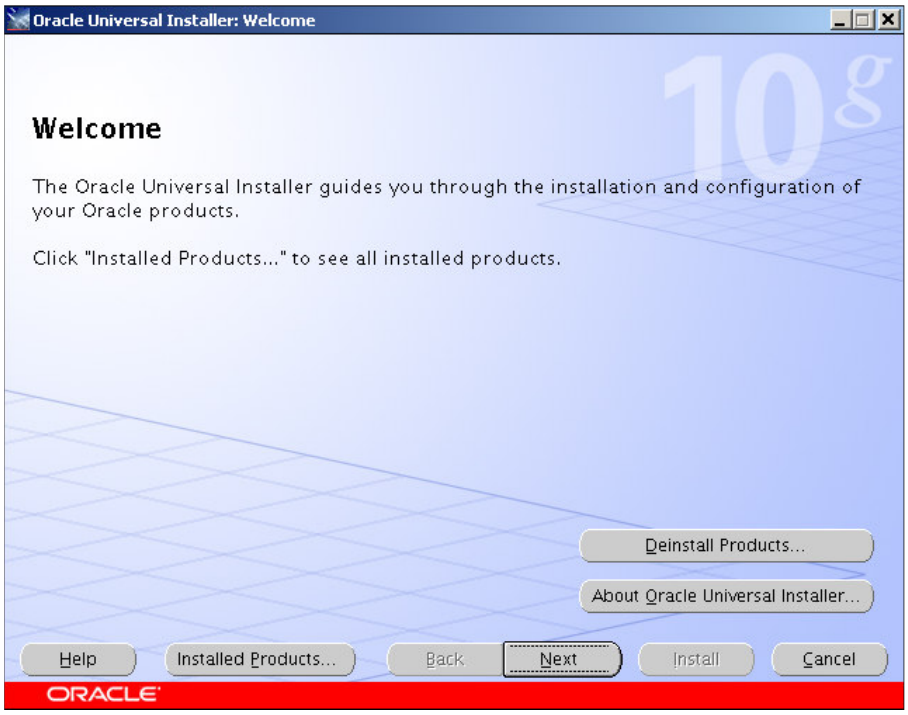


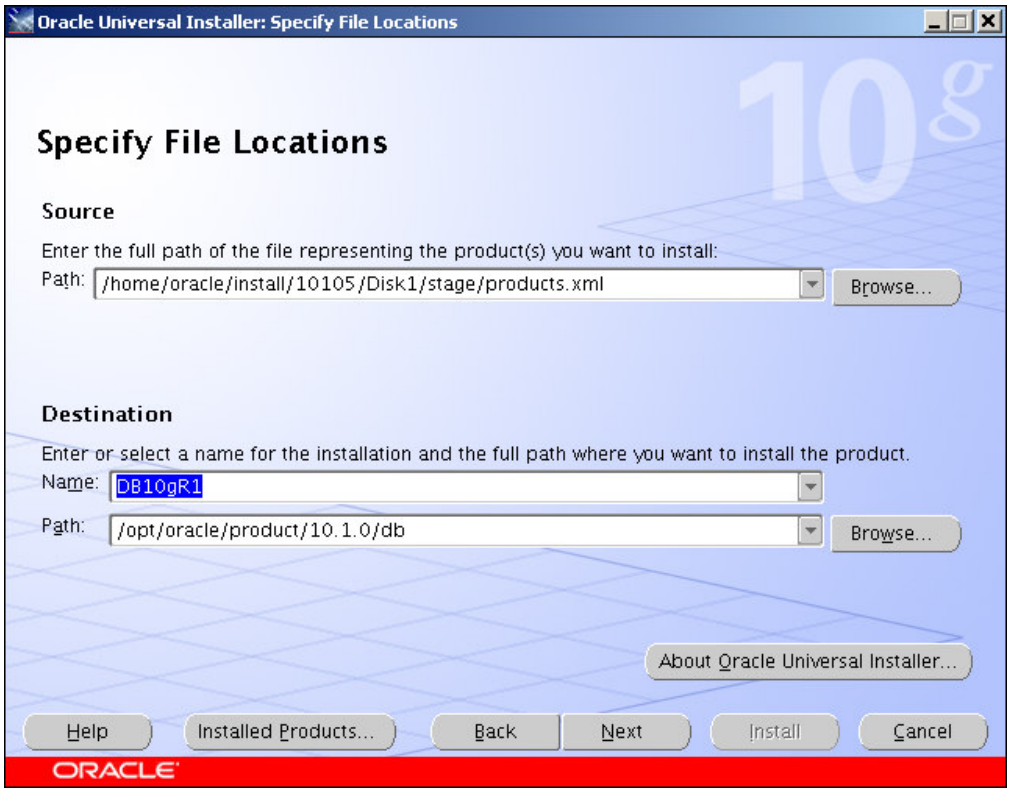
Next

Oracle Universal Installer: Summary
Summary
Oracle Database 10g Patch Set 3 10.1.0.5.0
Global Settings
Source: /home/oracle/install/10105/Disk1/stage/products.xml
Oracle Home: /opt/oracle/product/10.1.0/crs (CRS10gR1)
Cluster Nodes
Product Languages
English
Space Requirements
/ Required 240MB (includes 24MB temporary) : Available 15.13GB
Remote Nodes
Upgrades (3 products)
New Installations (21 products)
Agent Required Support Files Patch 10.1.0.5.0
Cluster Ready Services Patch 10.1.0.5.0
DBJAVA Required Support Files Patch 10.1.0.5.0
Help
Installed Products...
Back
Next
Install
Cancel
ORACLE

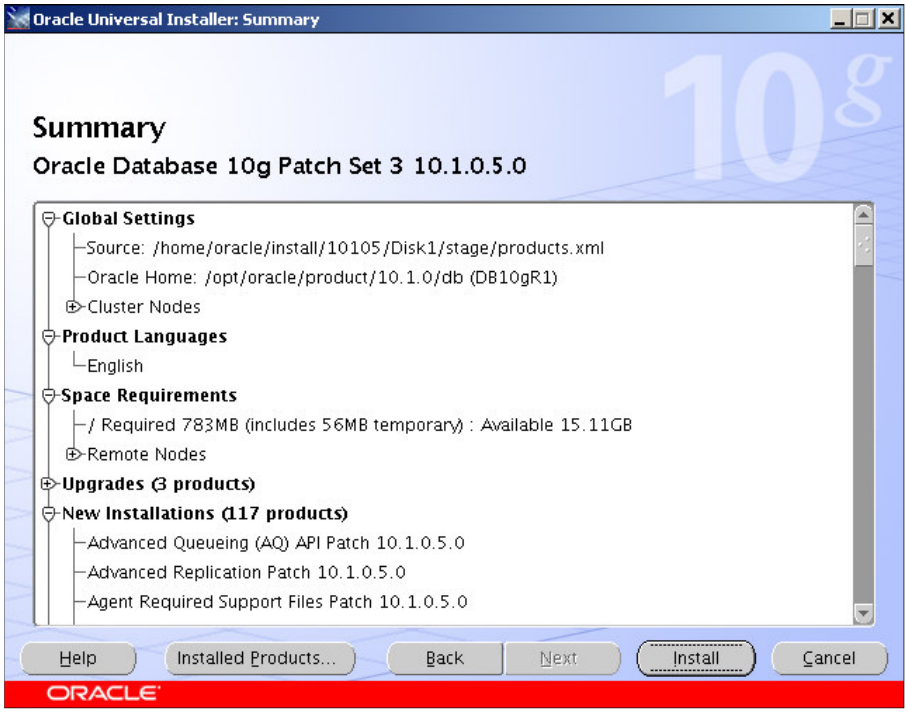

Oracle Universal Installer: End of Installation
End of Installation
The installation of Oracle Database 10g Patch Set 3 was successful.
Please remember...
1. Log in as the root user.
2. As the root user, perform the following tasks:
a. Shutdown the CRS daemons by issuing the following command:
/etc/init.d/init.crs stop.
b. Run the shell script located at:
/opt/oracle/product/10.1.0/crs/install/root10105.sh
This script will automatically start the CRS daemons on the patched node upon completion.
3. After completing this procedure, proceed to the next node and repeat.
Help
Installed Products...
Back
Next
Install
Exit
ORACLE

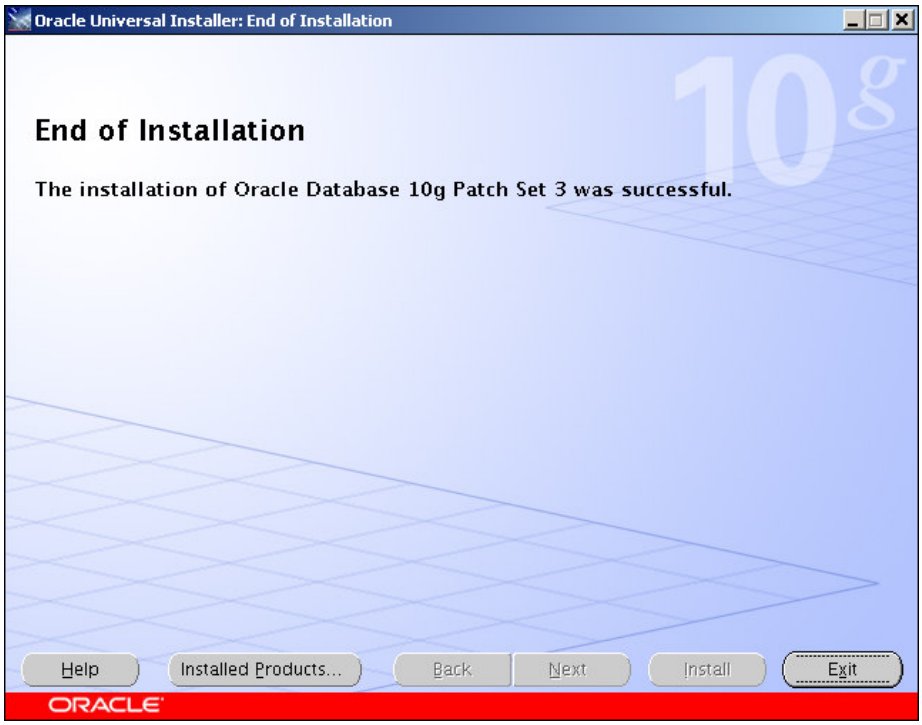
6. 10.1.0.5 – Upgrade Database





Next.



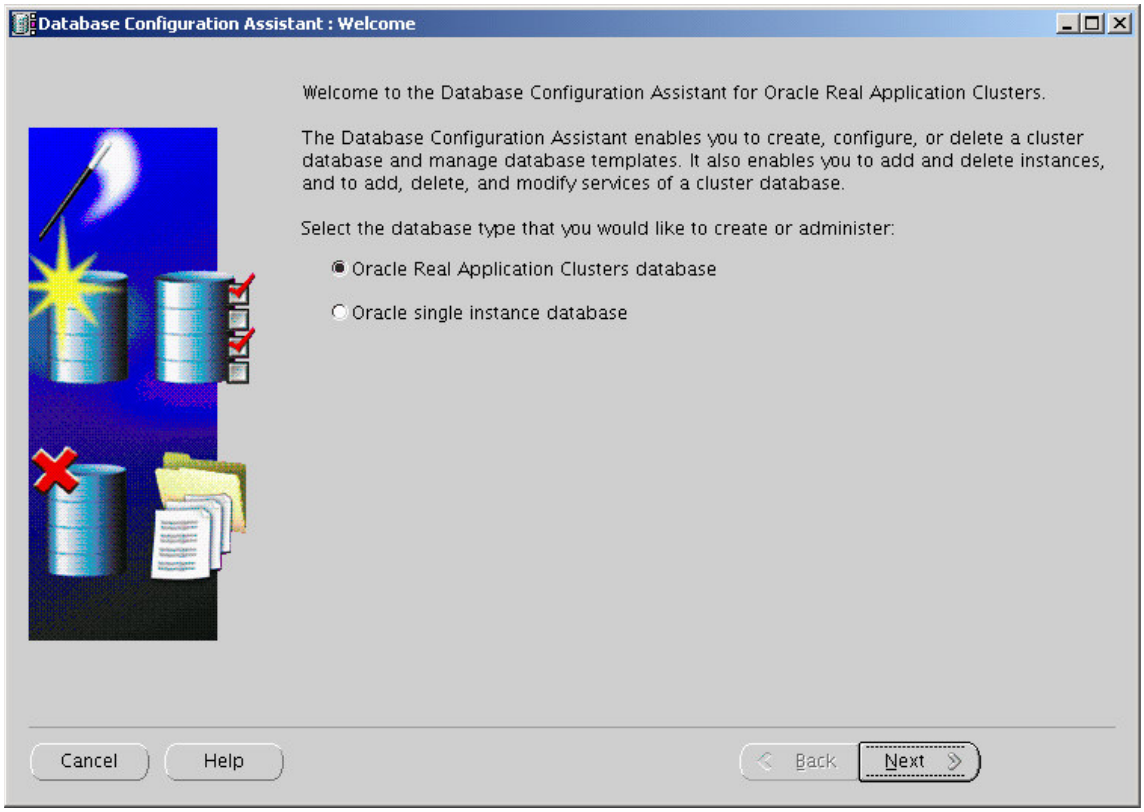


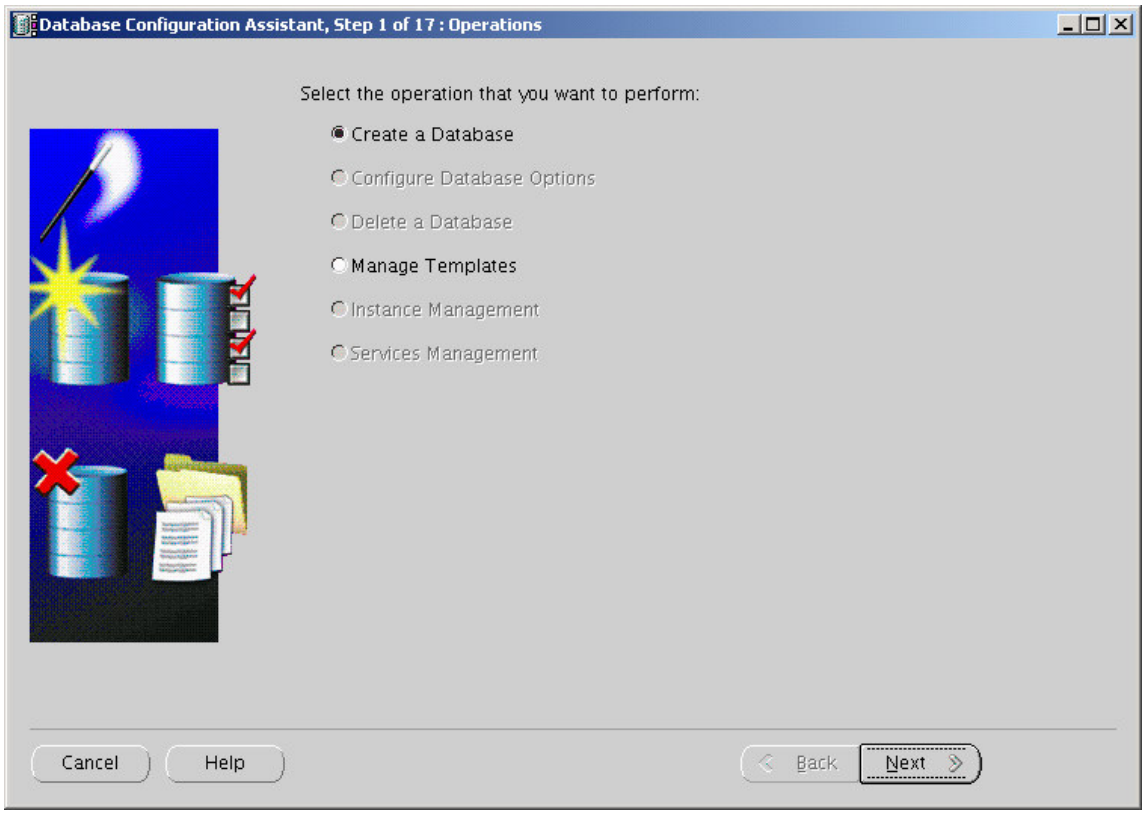
CPU 2006 April:

```
. DEVHA1.env
srvctl stop nodeapps -n racnode1
srvctl stop nodeapps -n racnode2
```

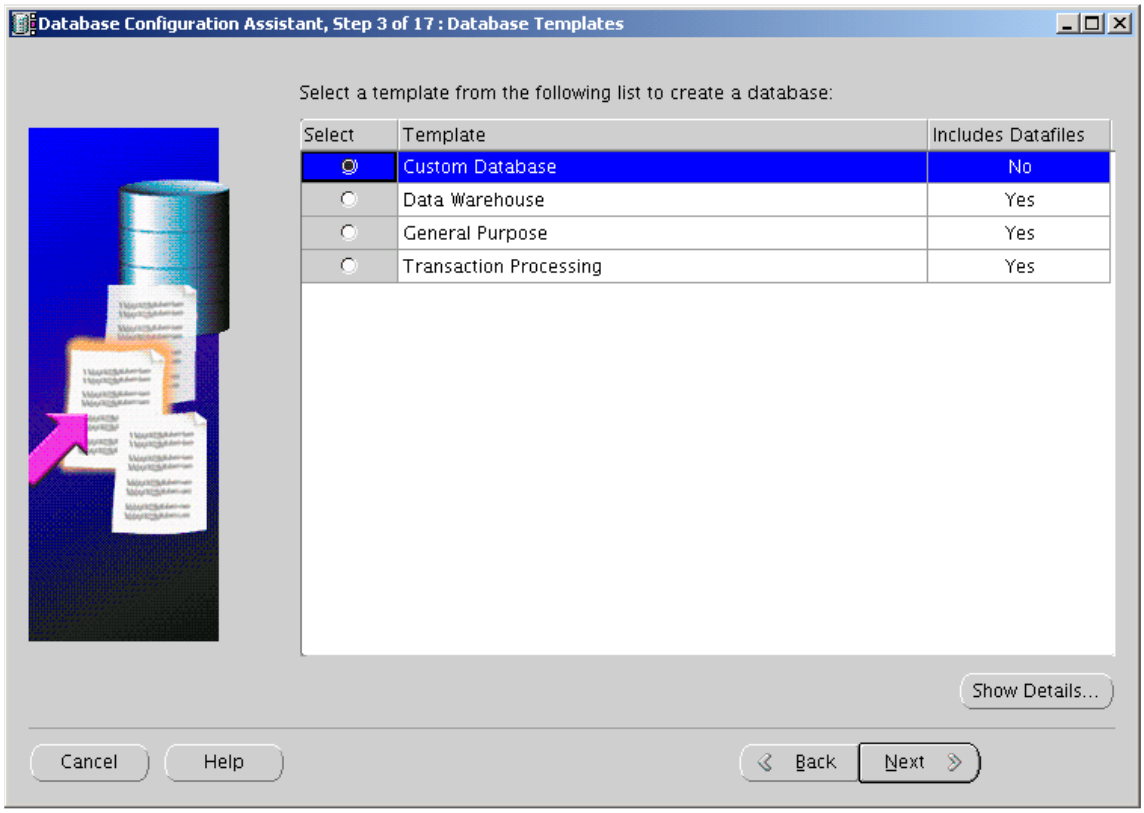
```
$ORACLE_HOME/OPatch/opatch apply
```

7. Database Configuration Assistant

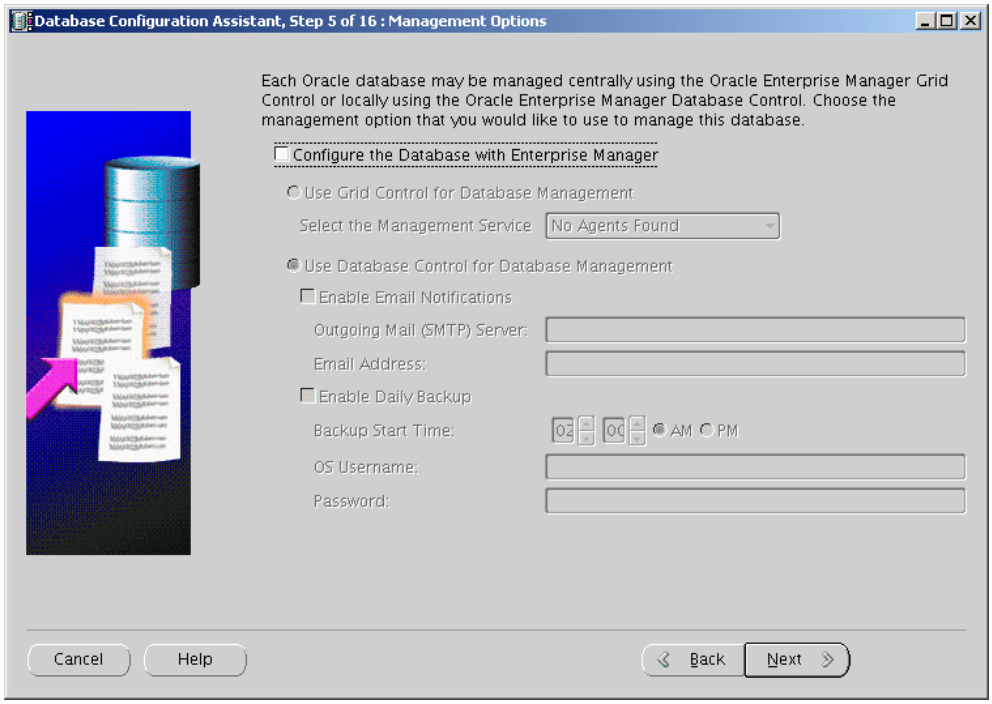


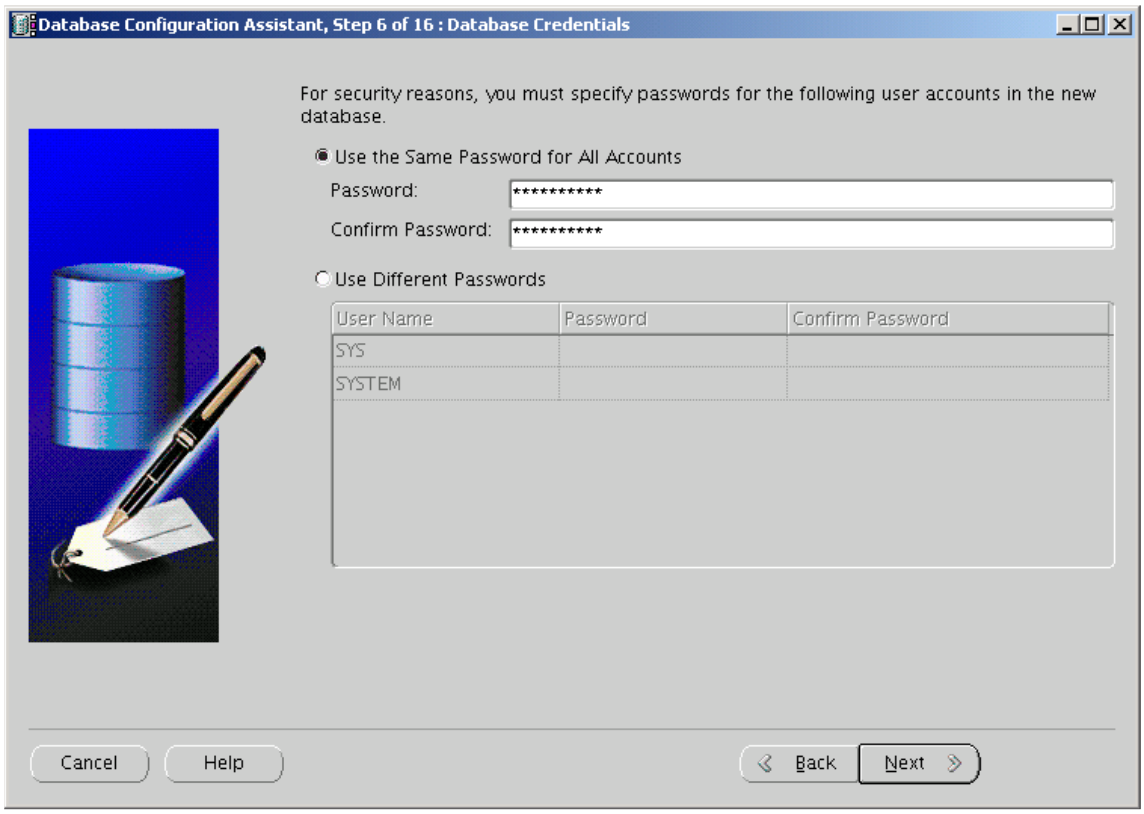


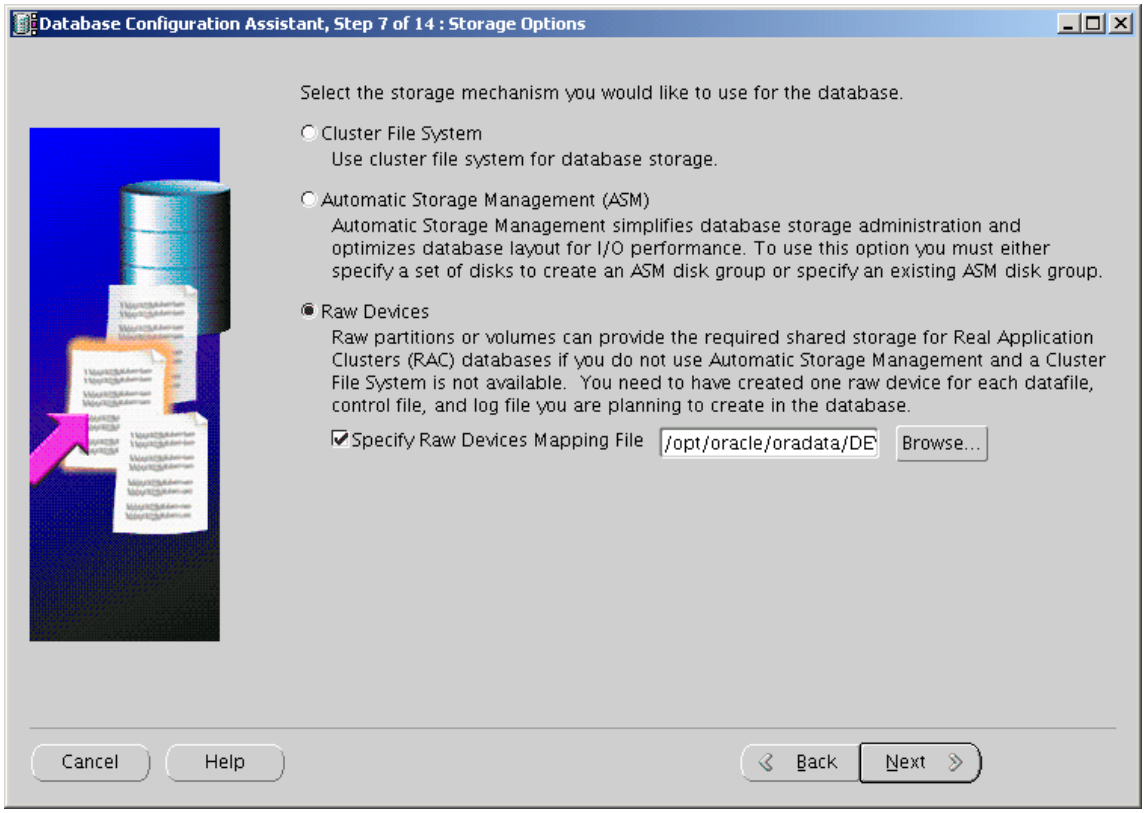
Next.

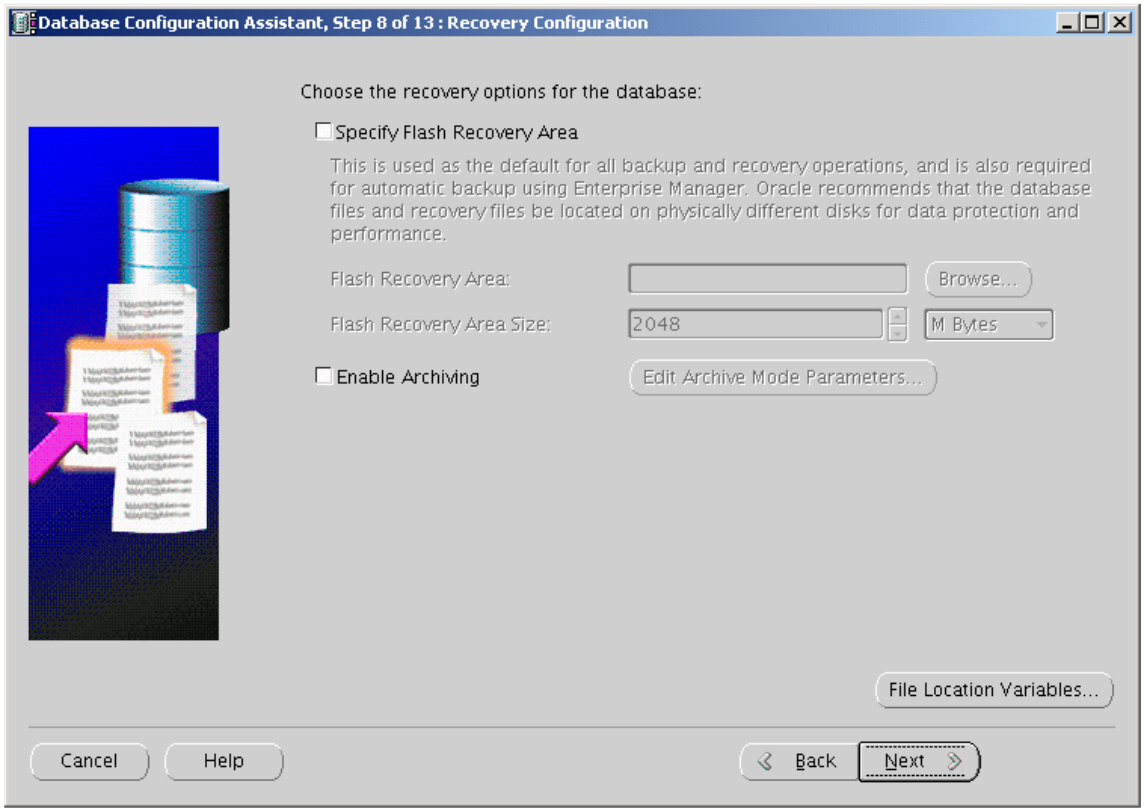


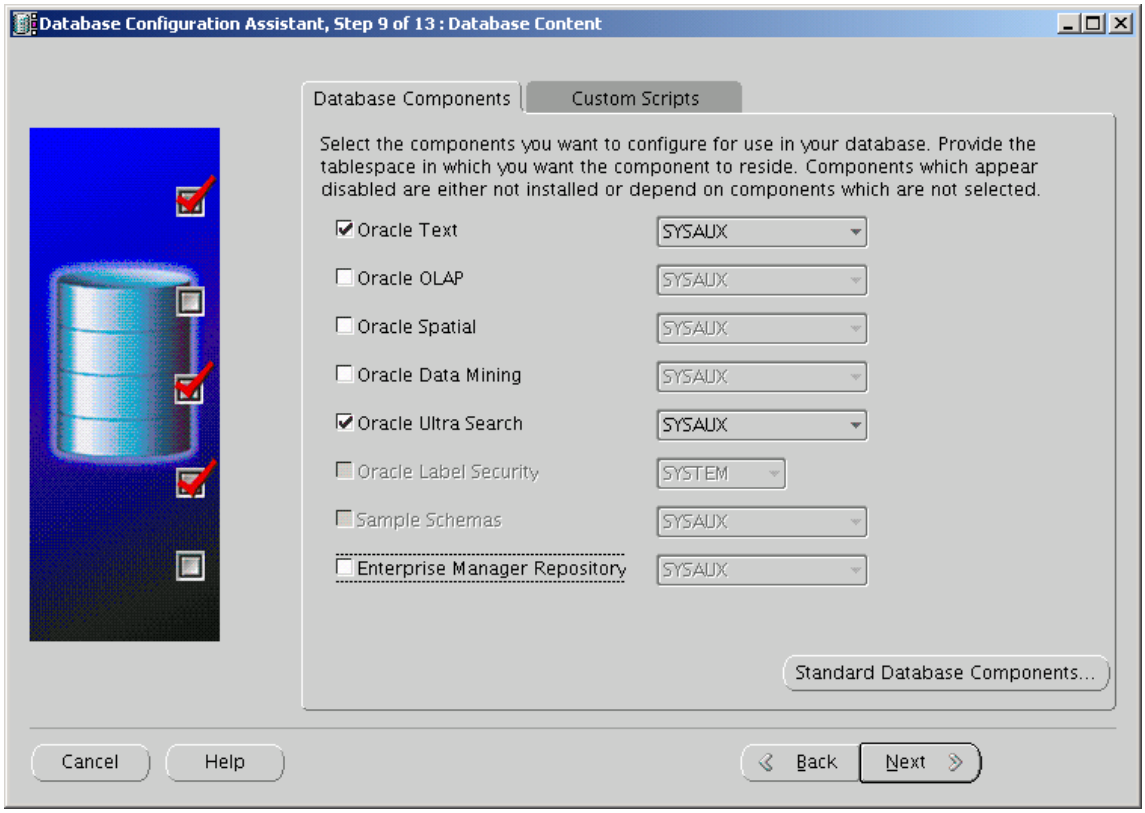
SID: DEVHA




Database Configuration Assistant, Step 6 of 16 : Database Credentials
For security reasons, you must specify passwords for the following user accounts in the new database.
Use the Same Password for All Accounts
Password:
****
Confirm Password:
****
Use Different Passwords
User Name
Password
Confirm Password
SYS
SYSTEM
Cancel
Help
Back
Next

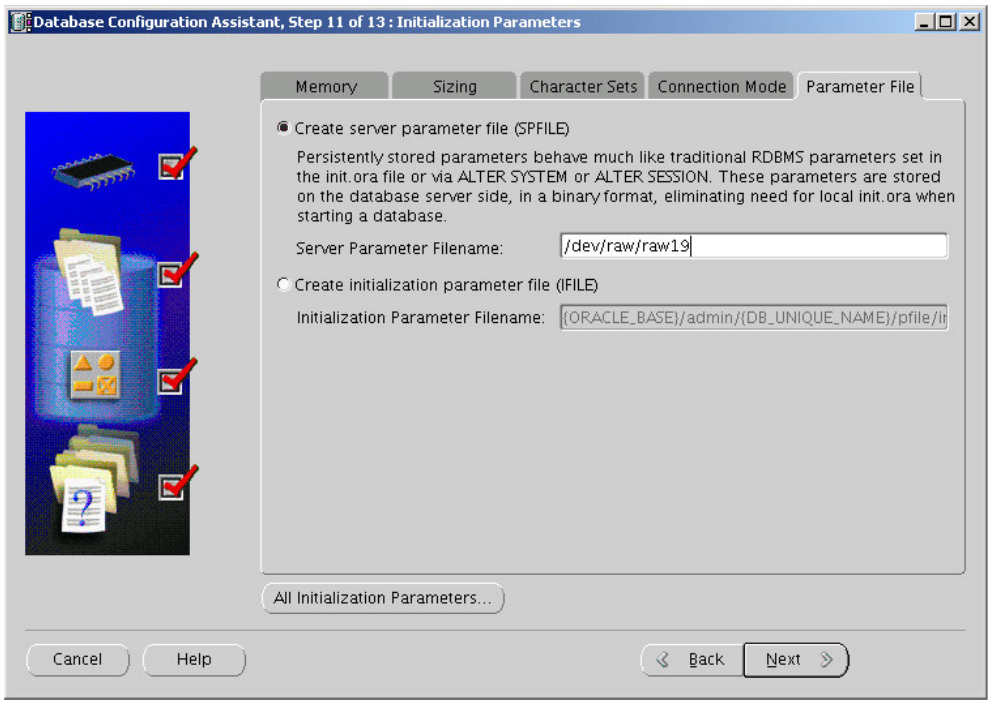

Database Configuration Assistant, Step 7 of 14 : Storage Options
Select the storage mechanism you would like to use for the database.
Cluster File System
Use cluster file system for database storage.
Automatic Storage Management (ASM)
Automatic Storage Management simplifies database storage administration and optimizes database layout for I/O performance. To use this option you must either specify a set of disks to create an ASM disk group or specify an existing ASM disk group.
Raw Devices
Raw partitions or volumes can provide the required shared storage for Real Application Clusters (RAC) databases if you do not use Automatic Storage Management and a Cluster File System is not available. You need to have created one raw device for each datafile, control file, and log file you are planning to create in the database.
Specify Raw Devices Mapping File
/opt/oracle/oradata/DE
Browse...
Cancel
Help
Back
Next

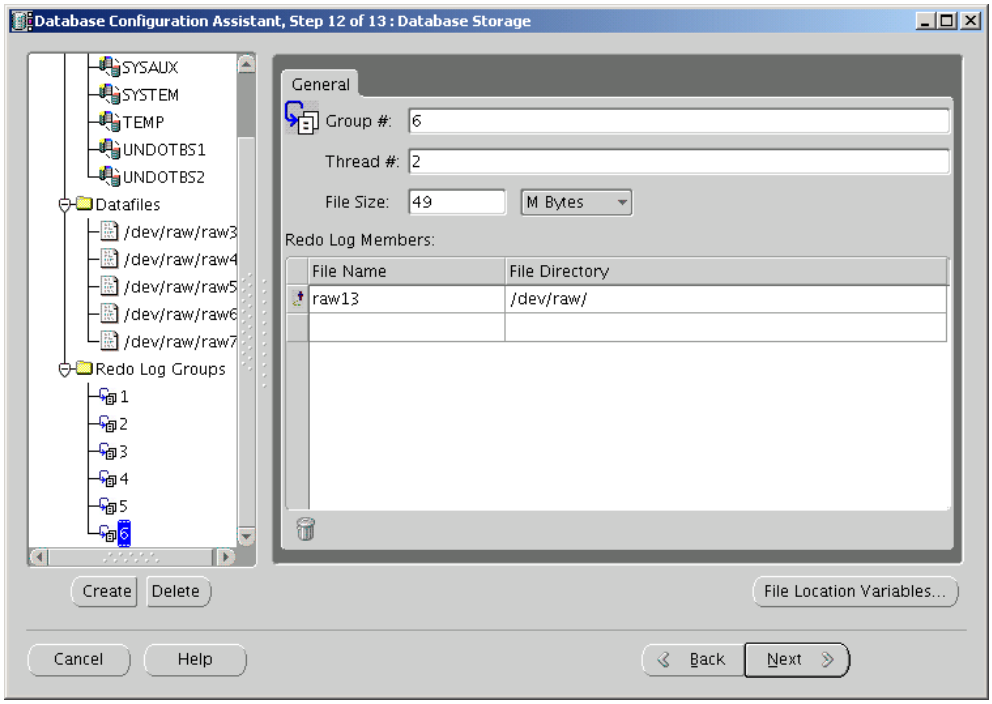

Database Configuration Assistant, Step 8 of 13 : Recovery Configuration
Choose the recovery options for the database:
Specify Flash Recovery Area
This is used as the default for all backup and recovery operations, and is also required for automatic backup using Enterprise Manager. Oracle recommends that the database files and recovery files be located on physically different disks for data protection and performance.
Flash Recovery Area:
Browse...
Flash Recovery Area Size:
2048
M Bytes
Enable Archiving
Edit Archive Mode Parameters...
File Location Variables...
Cancel
Help
Back
Next

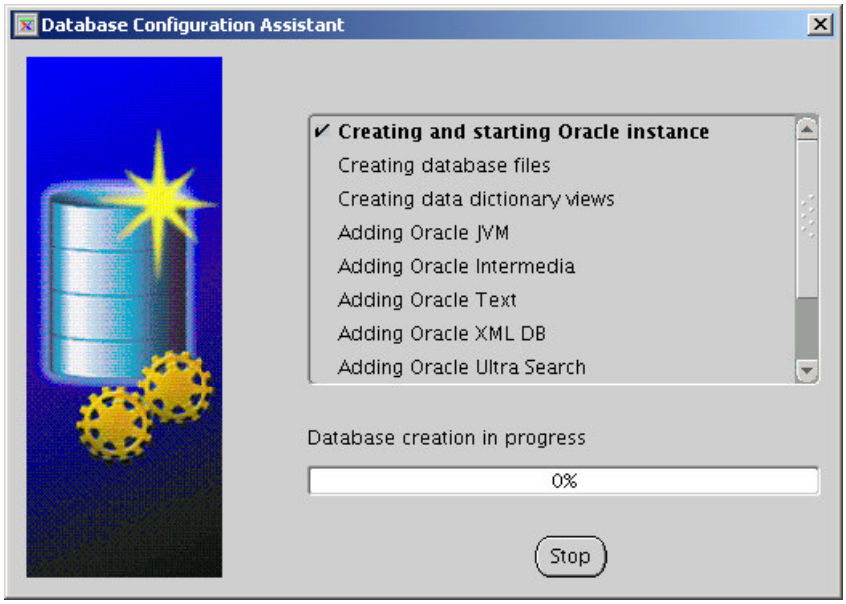

Database Configuration Assistant, Step 9 of 13 : Database Content
Database Components
Custom Scripts
Select the components you want to configure for use in your database. Provide the tablespace in which you want the component to reside. Components which appear disabled are either not installed or depend on components which are not selected.
Oracle Text
SYSAUX
Oracle OLAP
SYSAUX
Oracle Spatial
SYSAUX
Oracle Data Mining
SYSAUX
Oracle Ultra Search
SYSAUX
Oracle Label Security
SYSTEM
Sample Schemas
SYSAUX
Enterprise Manager Repository
SYSAUX
Standard Database Components...
Cancel
Help
Back
Next

Database Services:

Hinzufügen eines Services "DEVHA" mit beiden Instances als Preferred.







8. Referenzen:

http://www.oracle.com/technology/pub/articles/hunter_rac10gr2.html

http://www.rampant-books.com/art_hunter_rac.htm