

使用 VBox 安装 Oracle Database 12c Flex Cluster for OEL 5.8

第 4 部分 开始安装

本系列为 [Lunar\(www.lunar2013.com\)](http://www.lunar2013.com) 原创，一共 5 篇，分别为：

[第 1 部分 环境介绍](#)

[第 2 部分 前期准备工作](#)

[第 3 部分 准备网络环境](#)

[第 4 部分 开始安装](#)

[第 5 部分 总结](#)

1. On Oracle Linux 6.3, Select **Servers** on the left hand side of the screen, and **System administration tools** on the right hand side of the screen (options may vary between releases).

The Packages in System Tools window opens.

2. Select the Oracle Pre-Install RPM or Oracle Validated package box from the package list. For example, for Oracle 6, select a package similar to the following:

```
oracle-rdbms-server-12cR1-preinstall-1.0-1.el6.x86_64.rpm
```

除了 gns vip 其余都是自动识别的：

前面忘记截屏了，不过记住，选择安装 cluster，然后下一页选择 Flex Cluster，然后就看到这个了：

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 5 of 17

Grid Plug and Play Information

Single Client Access Name (SCAN) allows clients to use one name in connection strings to connect to the cluster as a whole. Client connect requests to the SCAN name can be handled by any cluster node.

Cluster Name:

SCAN Name:

SCAN Port:

☒ **Configure GNS**

☒ **Configure nodes Virtual IPs as assigned by the Dynamic Networks**

☒ **Create a new GNS**

GNS VIP Address:

GNS Sub Domain:

☐ **Use Shared GNS**

GNS Client Data:

修改成（为了跟 DNS 和 DHCP 中配置的名称一致）：

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 5 of 17

Grid Plug and Play Information

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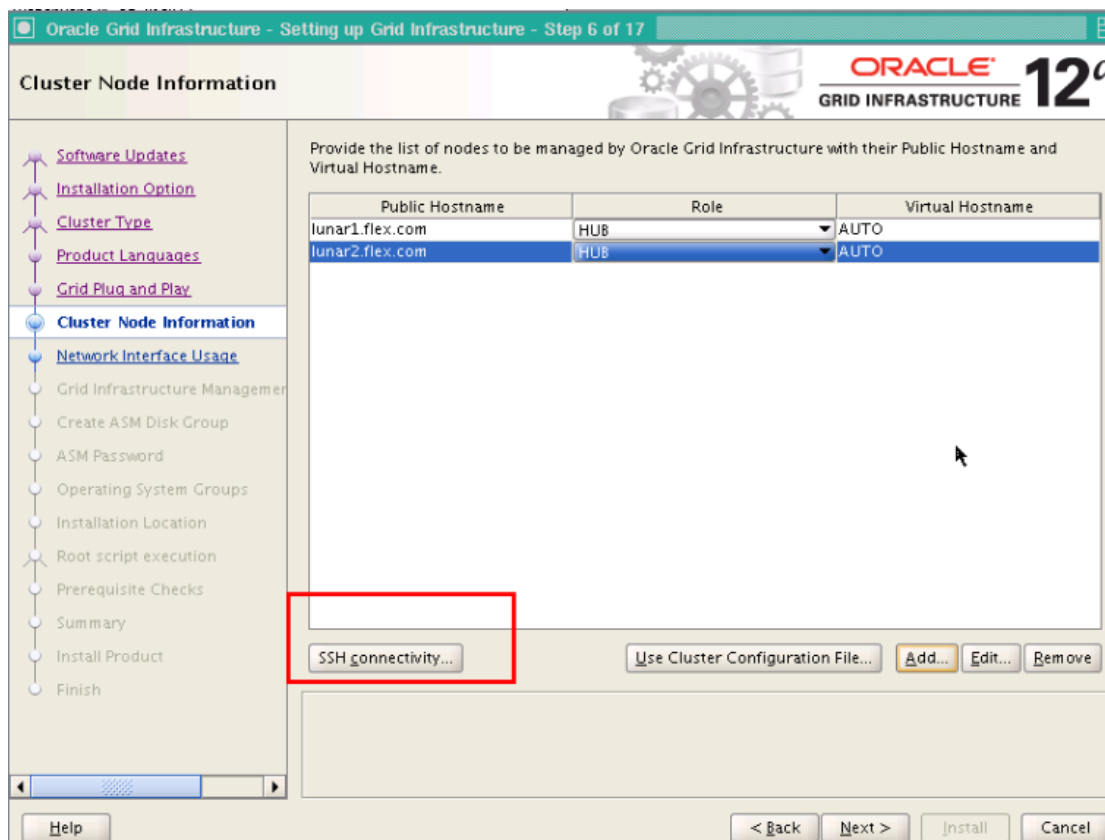
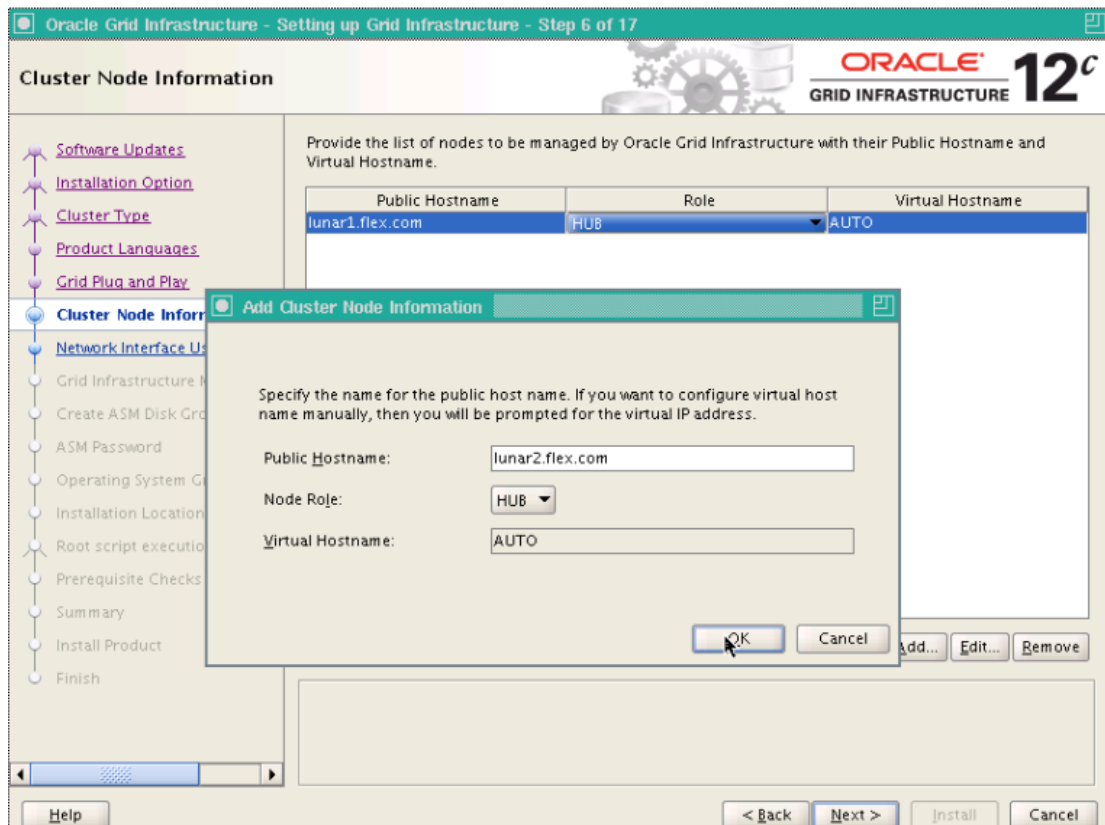
☒ **Create a new GNS**

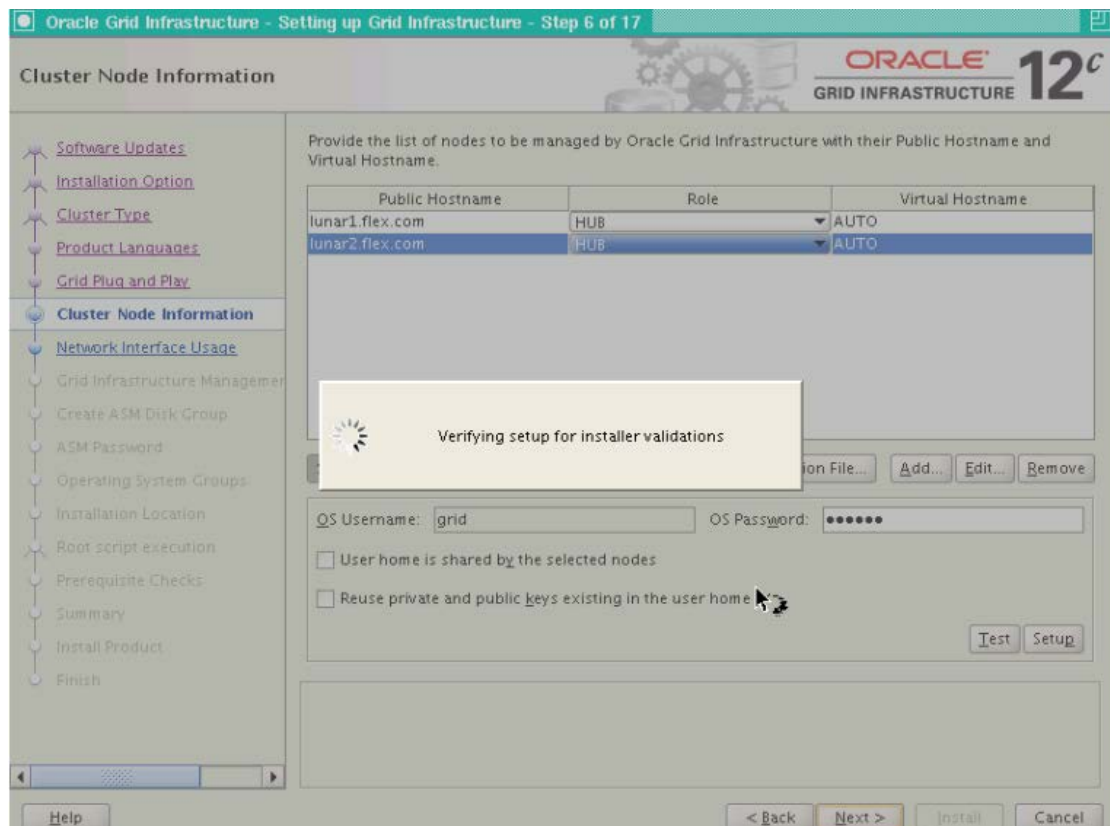
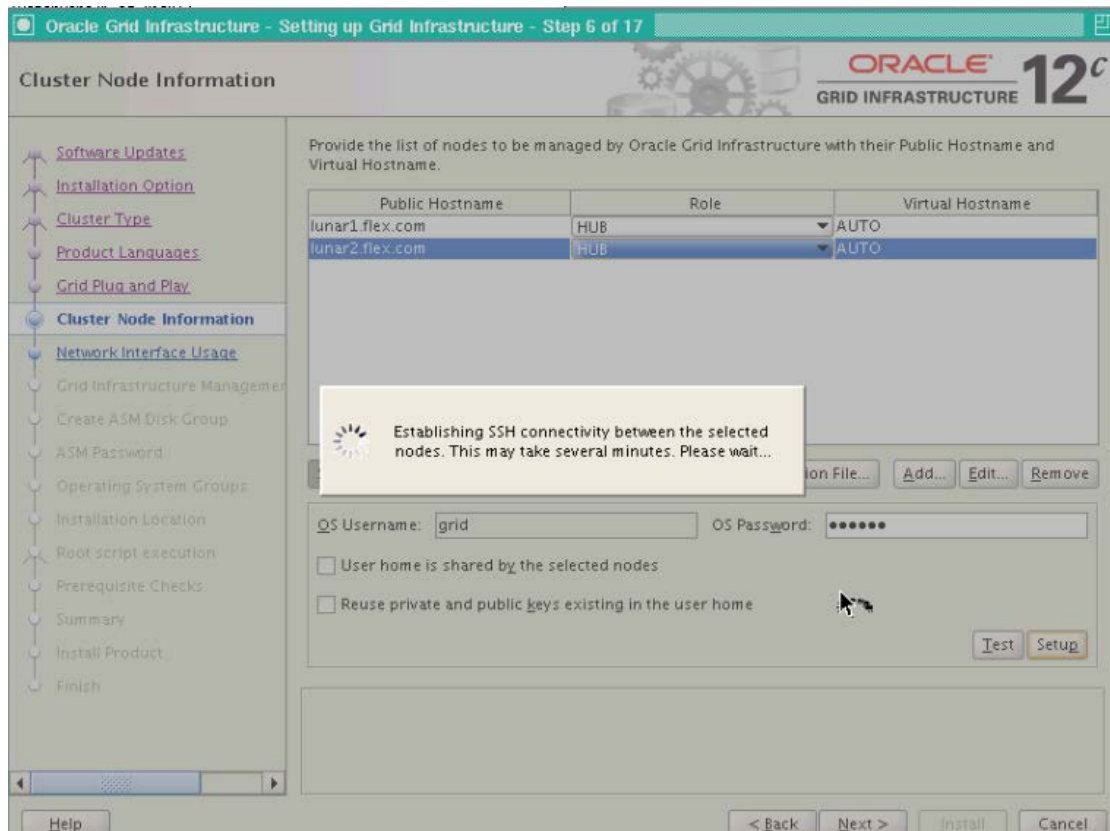
GNS VIP Address:

GNS Sub Domain:

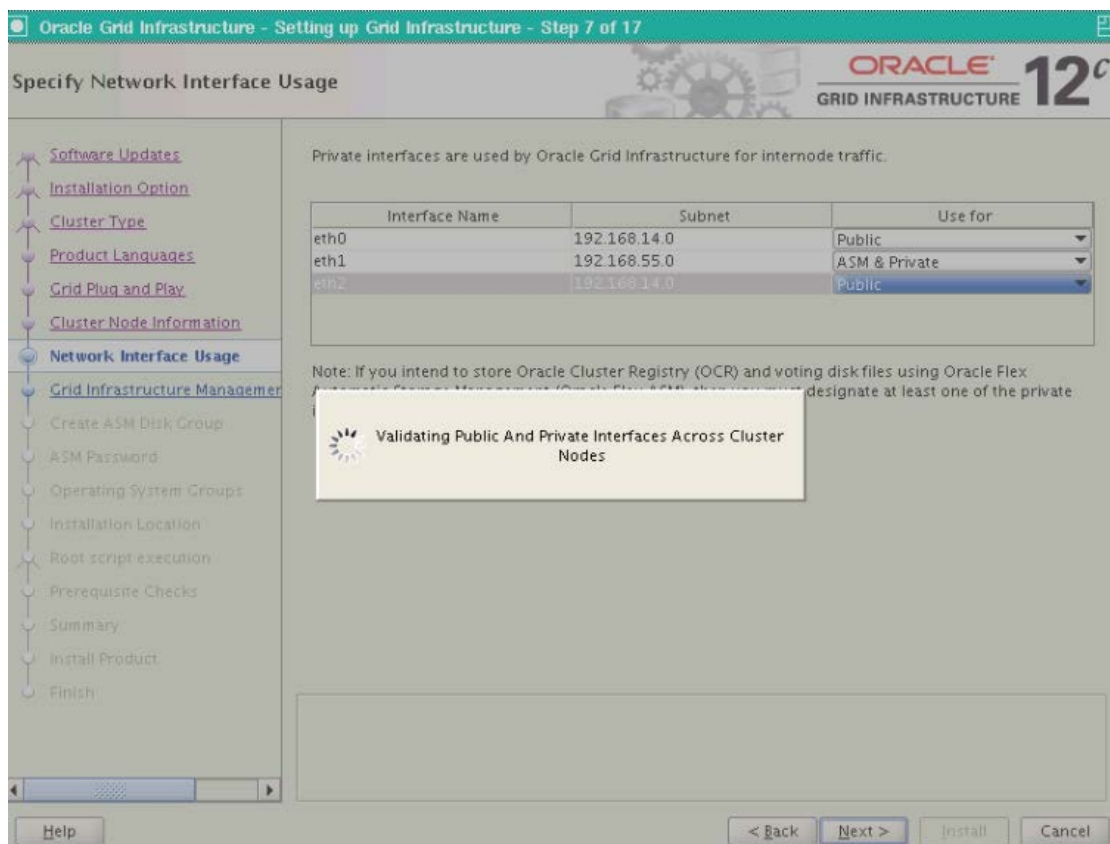
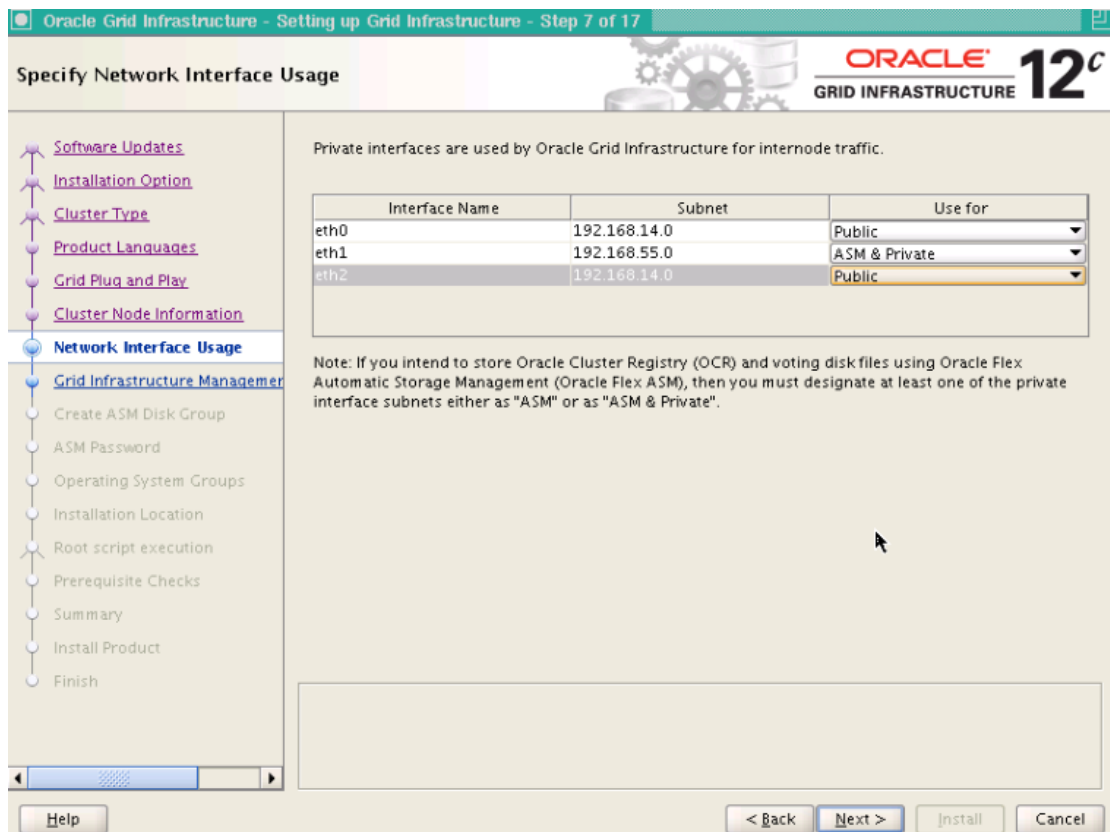
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GNS Client Data:

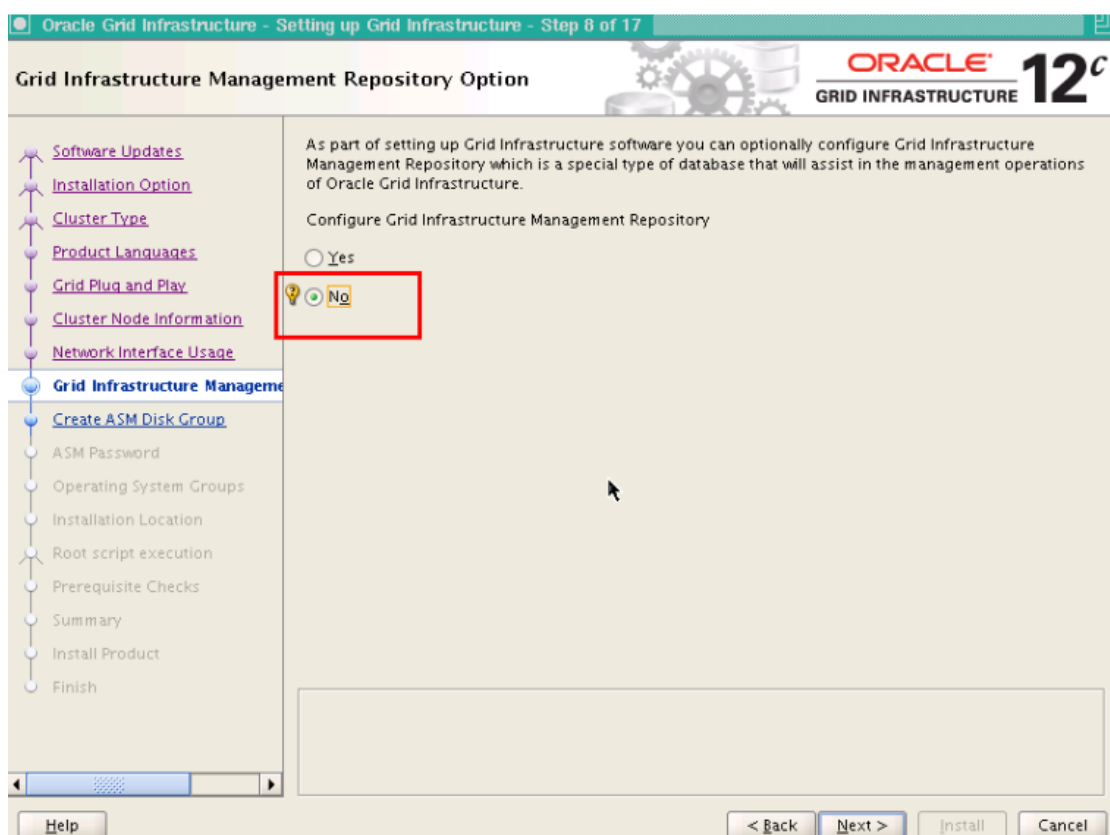
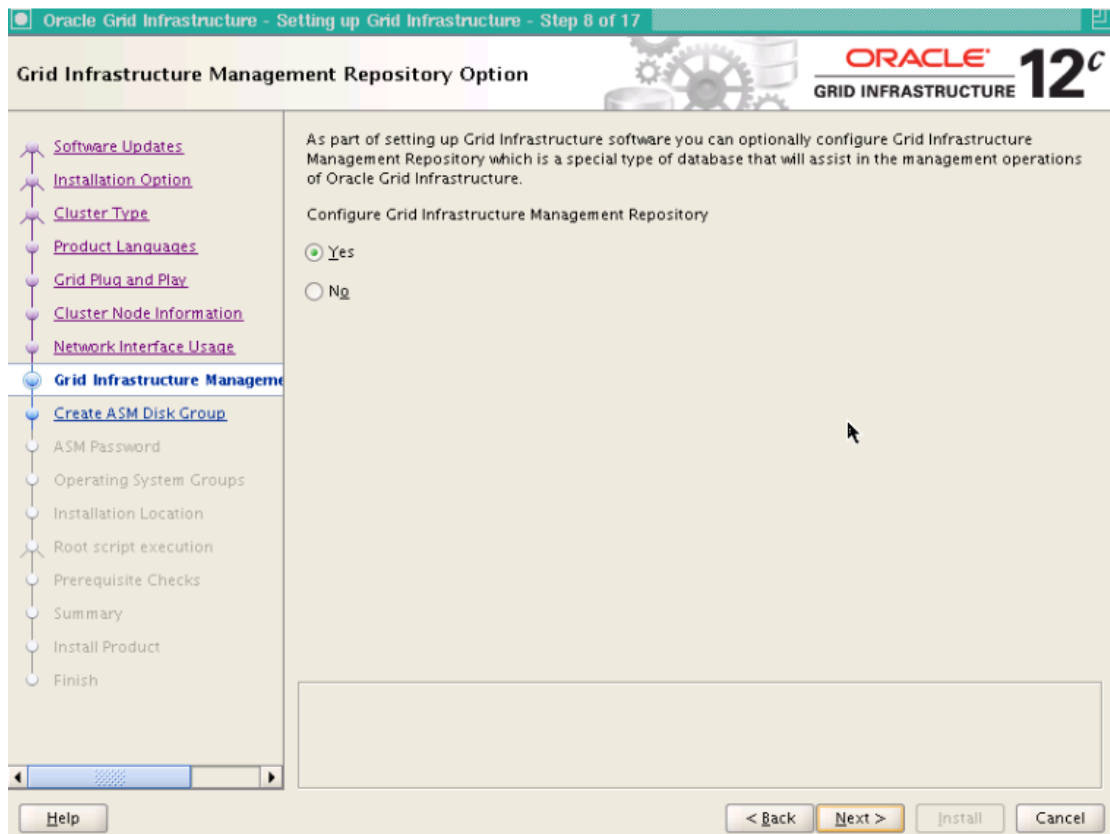


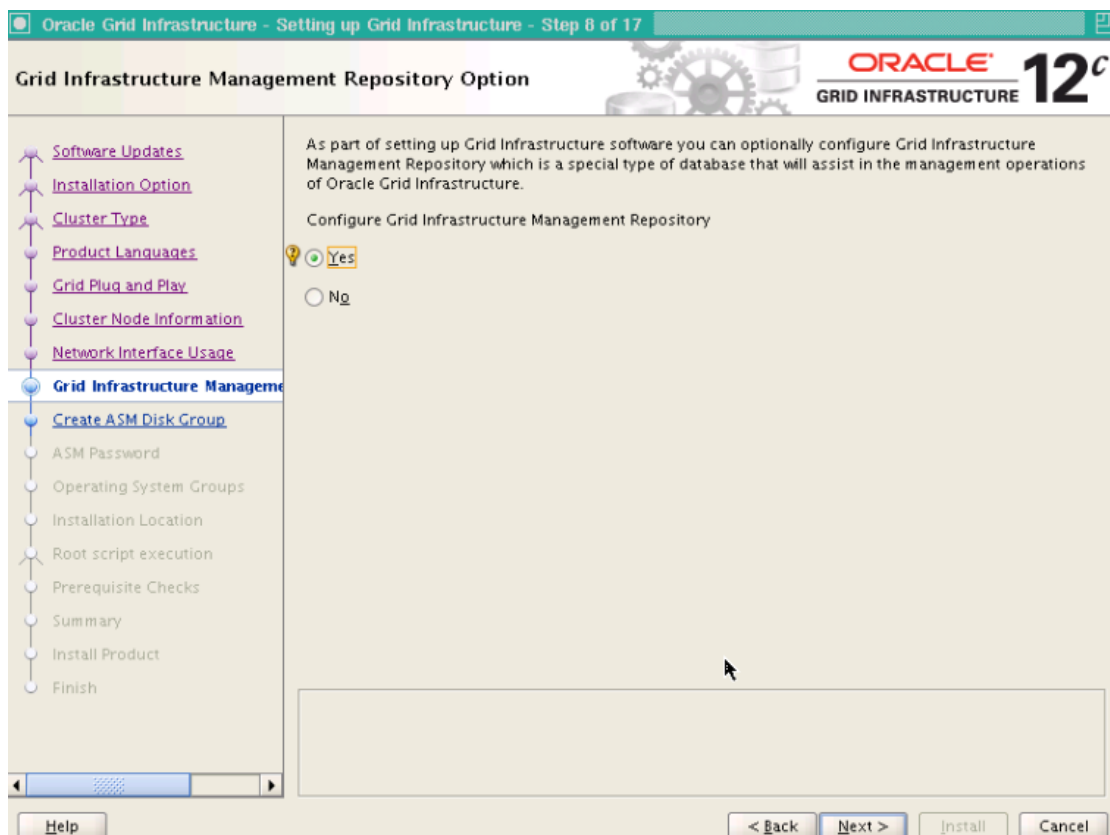
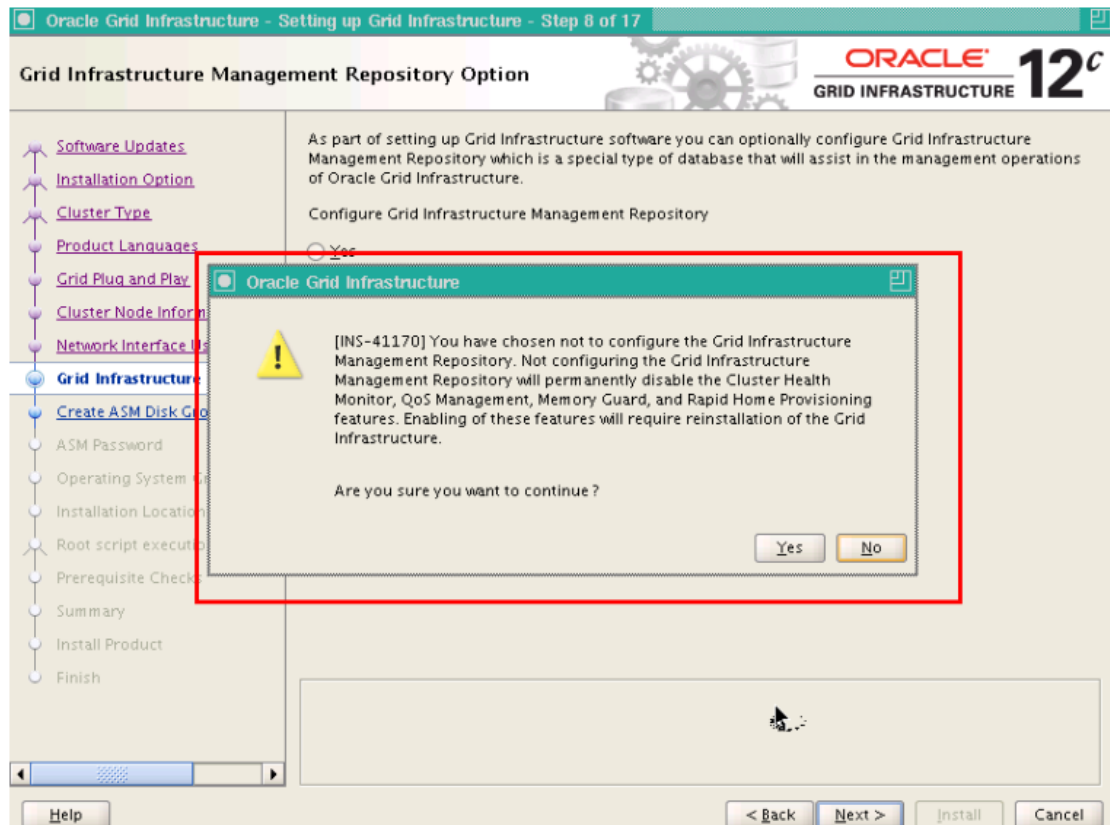


因为我的节点1即是 DNS SERVER, 又是 GNS, 因此, DNS SERVER(eth2, 192.168.14.101)和 public(eth0, 192.168.14.11)使用不同的虚拟网卡, 但是在同一个网段(192.168.14.x):



心里发虚，另外也想玩玩这个新东西，因此，还是选择配置吧：





Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 9 of 17

Create ASM Disk Group

Select Disk Group characteristics and select disks

Disk group name:

Redundancy: ☐ High ☒ Normal ☐ External

Allocation Unit Size: MB

Add Disks

☒ Candidate Disks ☐ All Disks

	Disk Path	Size (in MB)	Status
☐	/dev/sdb	5120	Candidate
☐	/dev/sdd	5120	Candidate

[Change Discovery Path...](#)

[Help](#) [Back](#) [Next >](#) [Install](#) [Cancel](#)

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 9 of 17

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[Change Discovery Path...](#)

[Help](#) [Back](#) [Next >](#) [Install](#) [Cancel](#)

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 10 of 17

Specify ASM Password

The new Oracle Automatic Storage Management (Oracle ASM) instance requires its own SYS user with SYSASM privileges for administration. Oracle recommends that you create a less privileged ASMSNMP user with SYSDBA privileges to monitor the ASM instance.

Specify the password for these user accounts.

☐ Use different passwords for these accounts

	Password	Confirm Password
SYS		
ASMSNMP		

☒ Use same passwords for these accounts

Specify Password: Confirm Password:

Messages:

Specify Password:[INS-30011] The password entered does not conform to the Oracle recommended standards.

Help < Back Next > Install Cancel

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 10 of 17

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Specify Password: Confirm Password:

Messages:

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Oracle Grid Infrastructure

[INS-30011] The SYS password entered does not conform to the Oracle recommended standards.
[INS-30011] The ASMSNMP password entered does not conform to the Oracle recommended standards.

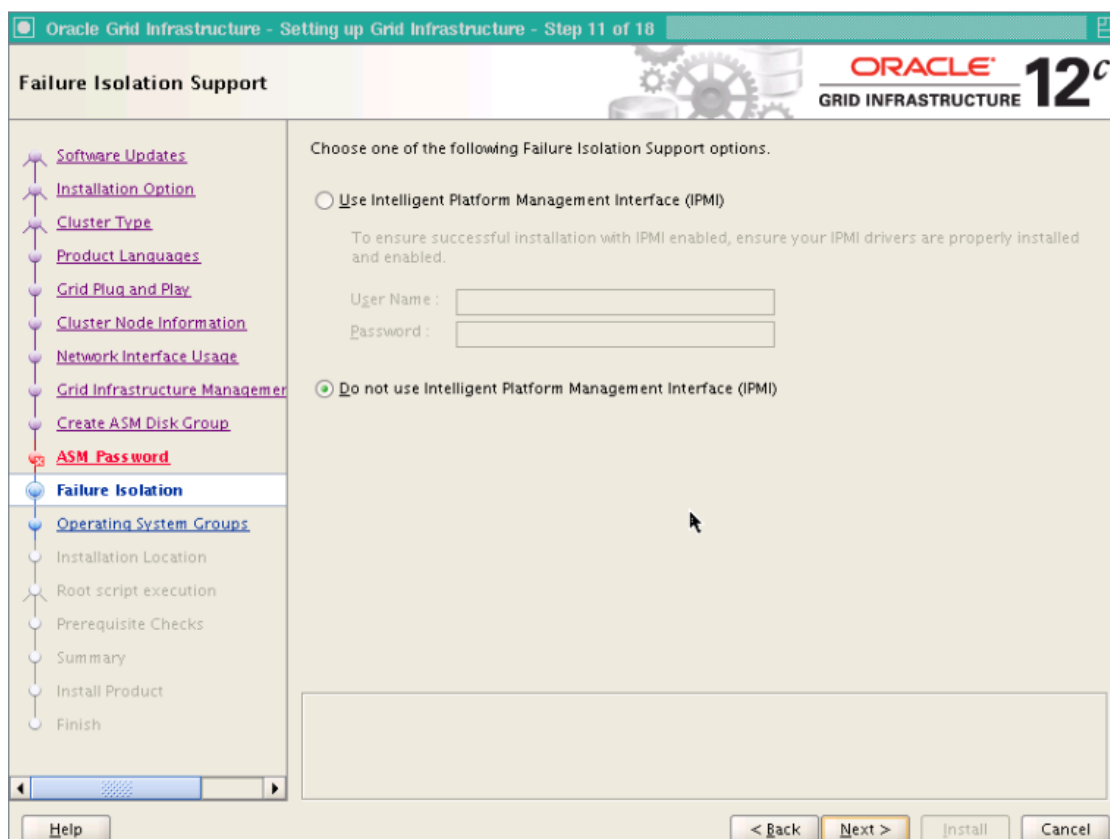
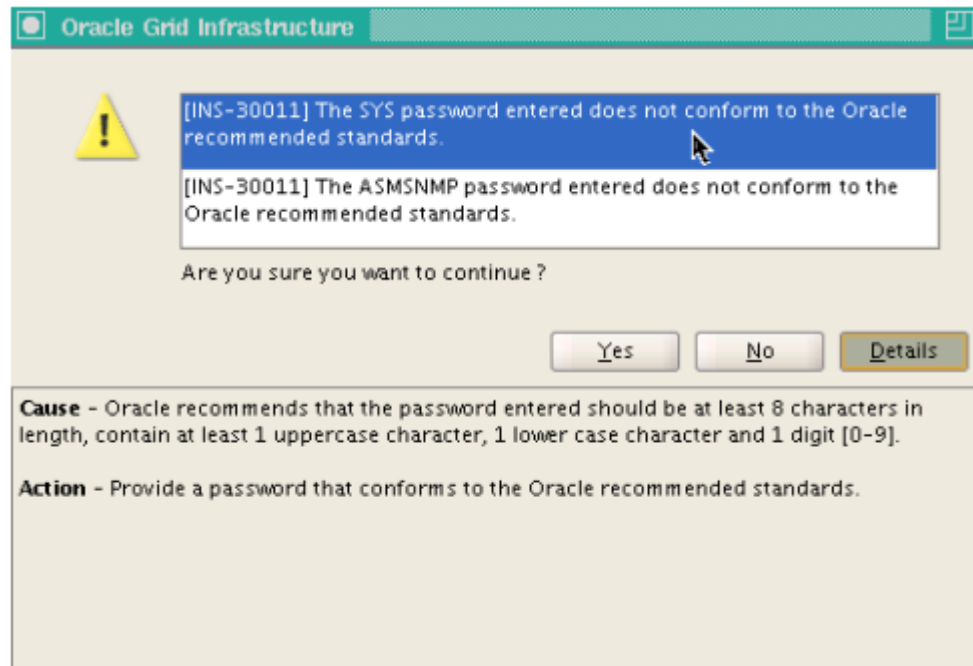
Are you sure you want to continue?

Yes No Details

Messages:

Specify Password:[INS-30011] The password entered does not conform to the Oracle recommended standards.

Help < Back Next > Install Cancel



Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 12 of 18

Privileged Operating System Groups

Select the name of the operating system group, that you want to use for operating system authentication to Oracle Automatic Storage Management.

Oracle ASM Administrator (OSASM) Group:

Oracle ASM DBA (OSDBA for ASM) Group:

Oracle ASM Operator (OSOPER for ASM) Group (Optional):

Navigation: [Software Updates](#), [Installation Option](#), [Cluster Type](#), [Product Languages](#), [Grid Plug and Play](#), [Cluster Node Information](#), [Network Interface Usage](#), [Grid Infrastructure Management](#), [Create ASM Disk Group](#), [ASM Password](#), [Failure Isolation](#), **Operating System Groups**, [Installation Location](#), [Root script execution](#), [Prerequisite Checks](#), [Summary](#), [Install Product](#), [Finish](#)

Buttons: [Help](#), [Back](#), [Next >](#), [Install](#), [Cancel](#)

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 13 of 18

Specify Installation Location

Specify the Oracle Grid Infrastructure for a Cluster Oracle base. By default, Oracle Grid Infrastructure is installed in a path indicating the Oracle Grid Infrastructure release and grid infrastructure software owner.

Oracle base: [Browse...](#)

Specify a location for storing Oracle software files separate from configuration files in the Oracle base directory. This software directory is the Oracle Grid Infrastructure home directory.

Software location: [Browse...](#)

Navigation: [Software Updates](#), [Installation Option](#), [Cluster Type](#), [Product Languages](#), [Grid Plug and Play](#), [Cluster Node Information](#), [Network Interface Usage](#), [Grid Infrastructure Management](#), [Create ASM Disk Group](#), [ASM Password](#), [Failure Isolation](#), [Operating System Groups](#), **Installation Location**, [Root script execution](#), [Prerequisite Checks](#), [Summary](#), [Install Product](#), [Finish](#)

Buttons: [Help](#), [Back](#), [Next >](#), [Install](#), [Cancel](#)

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 13 of 18

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Oracle base:

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Software location:

 Validating specified location...

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 14 of 19

Create Inventory

You are starting your first installation on this host. Specify a directory for installation metadata files (for example, install log files). This directory is called the "inventory directory". The installer automatically sets up subdirectories for each product to contain inventory data. The subdirectory for each product typically requires 150 kilobytes of disk space.

Inventory Directory:

Members of the following operating system group (the primary group) will have write permission to the inventory directory (orainventory).

orainventory Group Name: oinstall

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 15 of 19

Root script execution configuration

While configuring the software, certain operations have to be performed as "root" user. You can choose to have the installer perform these operations automatically by specifying inputs for one of the options below.

☐ Automatically run configuration scripts

☒ Use "root" user credential

Password:

☐ Use sudo

Program path:

User name:

Password:

Navigation:

- Software Updates
- Installation Option
- Cluster Type
- Product Languages
- Grid Plug and Play
- Cluster Node Information
- Network Interface Usage
- Grid Infrastructure Manager
- Create ASM Disk Group
- ASM Password
- Failure Isolation
- Operating System Groups
- Installation Location
- Create Inventory
- Root script execution**
- Prerequisite Checks
- Summary
- Install Product
- Finish

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 16 of 19

Perform Prerequisite Checks

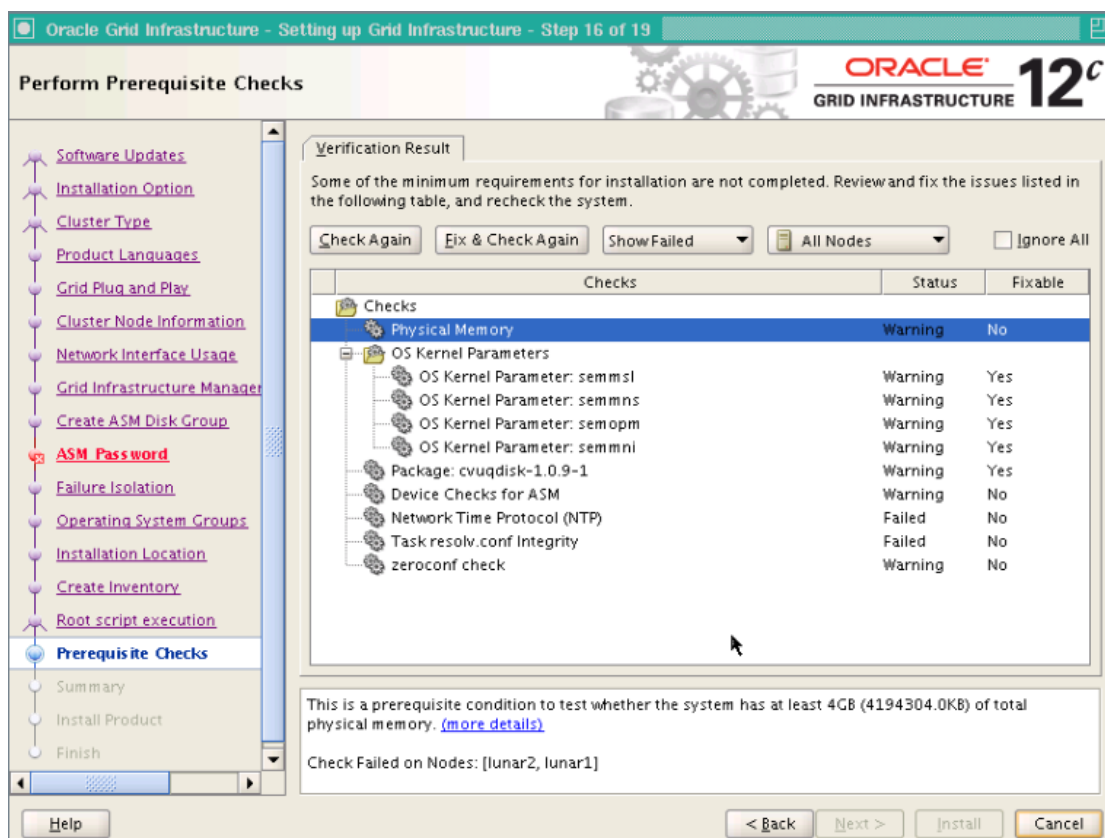
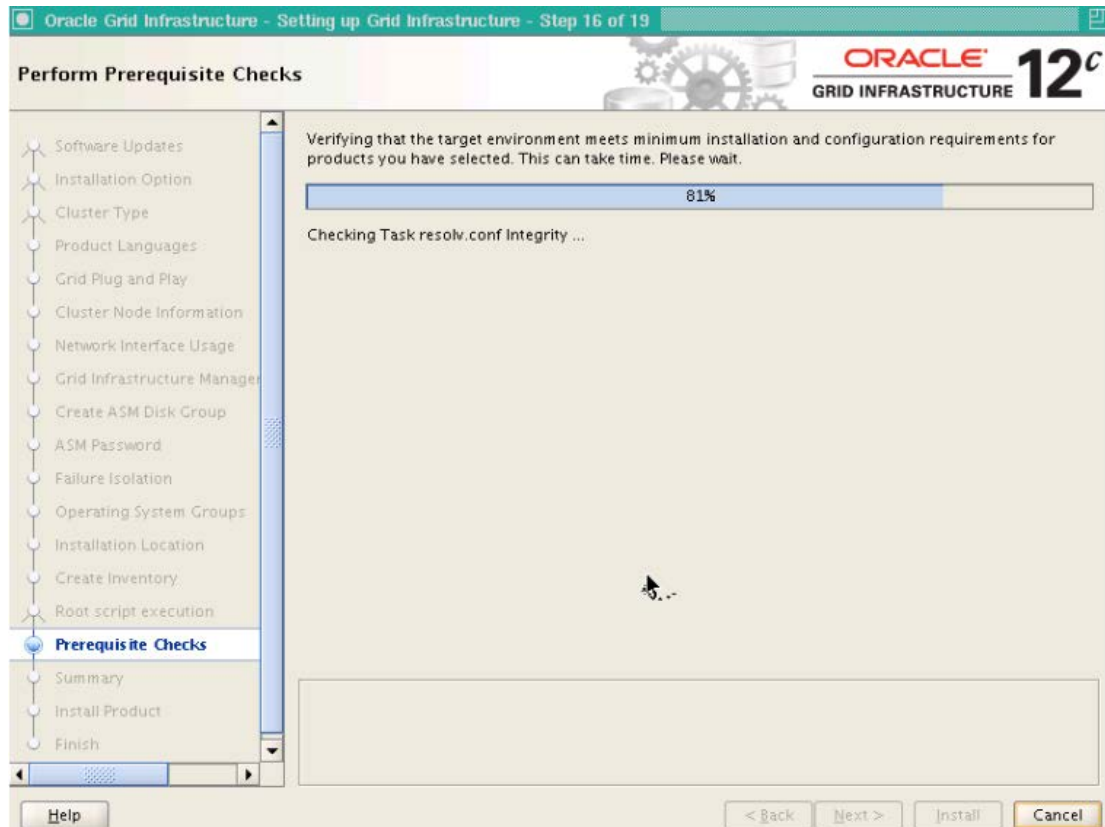
Verifying that the target environment meets minimum installation and configuration requirements for products you have selected. This can take time. Please wait.

0%

Preparing to perform checks...

Navigation:

- Software Updates
- Installation Option
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Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 16 of 19

Perform Prerequisite Checks

ORACLE 12c GRID INFRASTRUCTURE

Verification Result

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

Check Again **Fix & Check Again** Show Failed All Nodes Ignore All

Checks	Status	Fixable
Physical Memory	Warning	No
OS Kernel Parameters		
OS Kernel Parameter: semmsl	Warning	Yes
OS Kernel Parameter: semmns	Warning	Yes
OS Kernel Parameter: semopm	Warning	Yes
OS Kernel Parameter: semmni	Warning	Yes
Package: cvuqdisk-1.0.9-1	Warning	Yes
Device Checks for ASM	Warning	No
Network Time Protocol (NTP)	Failed	No
Task resolv.conf Integrity	Failed	No
zeroconf check	Warning	No

This is a prerequisite condition to test whether the system has at least 4GB (4194304.0KB) of total physical memory. [more details](#)

Check Failed on Nodes: [lunar2, lunar1]

Help < Back Next > Install Cancel

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 16 of 19

Perform Prerequisite Checks

ORACLE 12c GRID INFRASTRUCTURE

Verification Result

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

Execute Fixup Scripts

Some of the prerequisites have failed on the following nodes. Installer has generated a fixup command that needs to be run as a privileged user (root) on the listed nodes.

Script: /tmp/CVU_12.1.0.1.0_grid/runfixup.sh

Nodes:

```
lunar2
lunar1
```

To execute the fixup scripts:

1. Open a terminal window
2. Login as "root"
3. Run the command
4. Return to this window and click "OK" to continue

OK Cancel

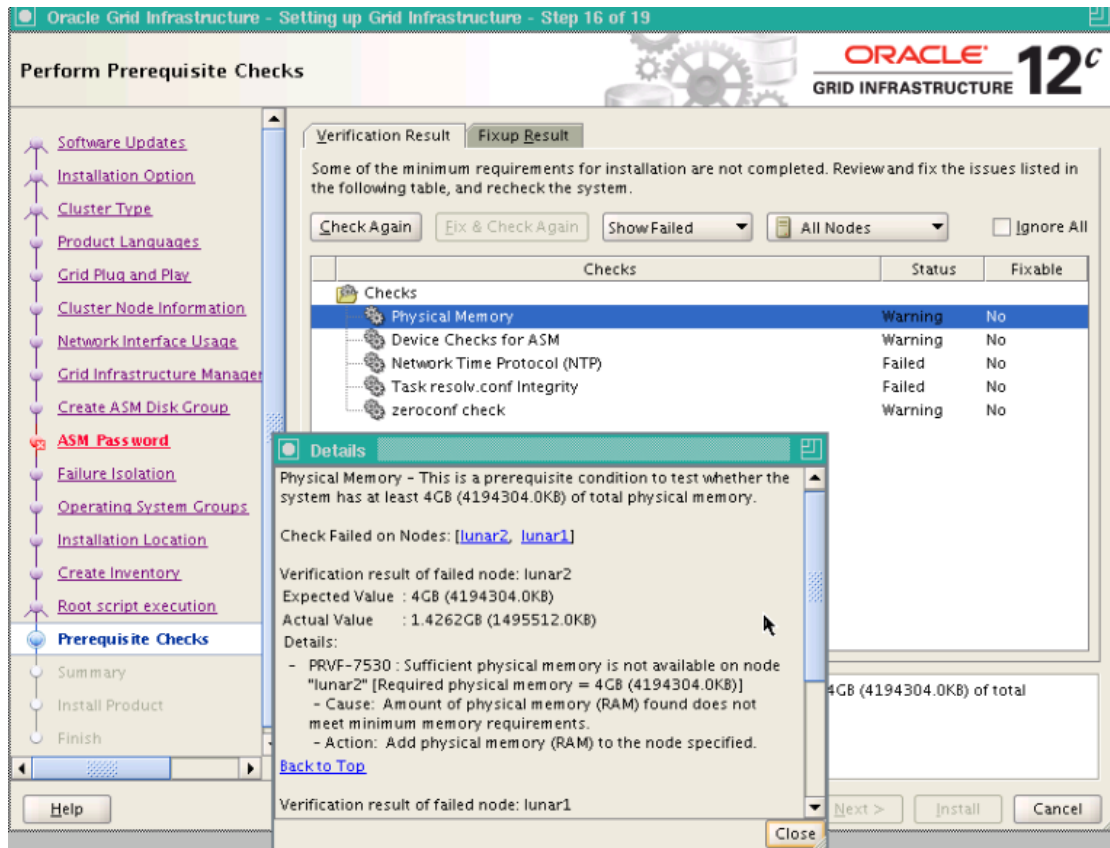
physical memory. [more details](#)

Check Failed on Nodes: [lunar2, lunar1]

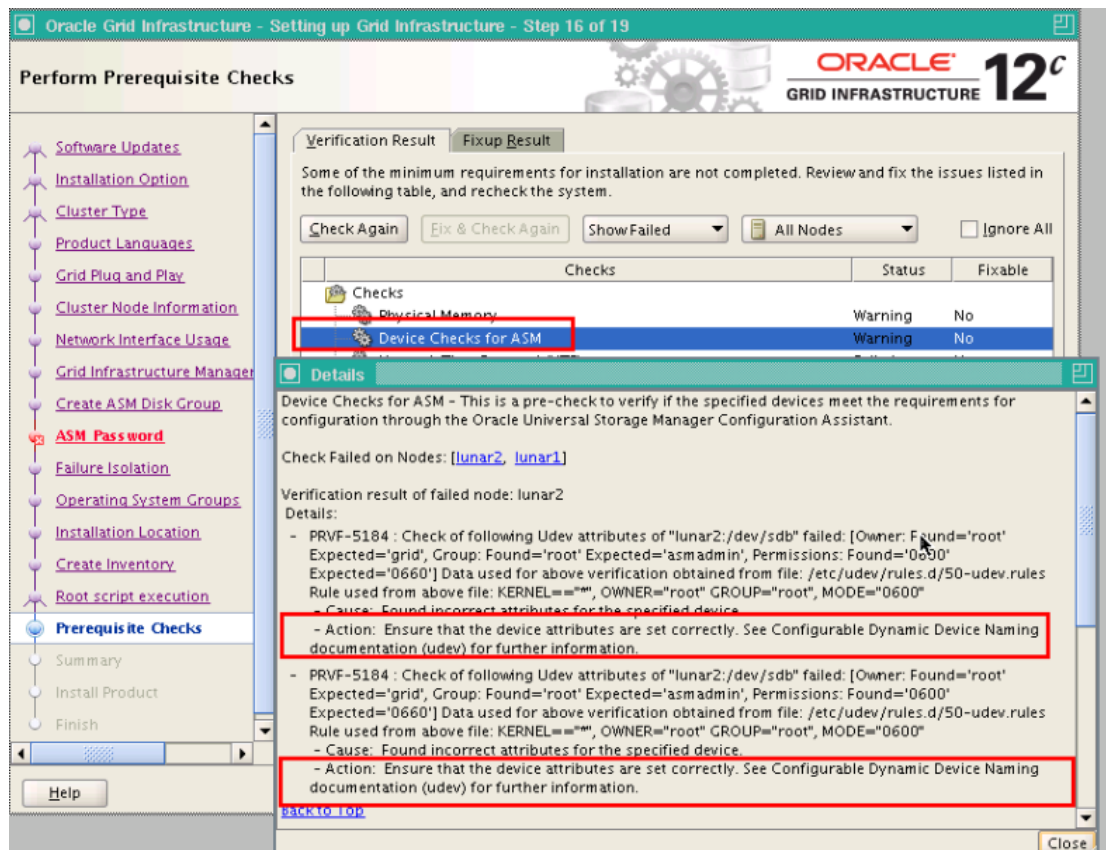
Help < Back Next > Install Cancel

```
[root@lunar1 CVU_12.1.0.1.0_grid]# ./runfixup.sh
All Fix-up operations were completed successfully.
[root@lunar1 CVU_12.1.0.1.0_grid]#
```

```
[root@lunar2 CVU_12.1.0.1.0_grid]# ./runfixup.sh
All Fix-up operations were completed successfully.
[root@lunar2 CVU_12.1.0.1.0_grid]#
```



这个没办法，内存就是少....



解决方法:

我用的是 `cat /etc/udev/rules.d/60-raw.rules`

这个不管。。。。

Oracle Grid Infrastructure - Setting up Grid Infrastructure - Step 16 of 19

Perform Prerequisite Checks

Software Updates
Installation Option
Cluster Type
Product Languages
Grid Plug and Play
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Network Interface Usage
Grid Infrastructure Manager
Create ASM Disk Group
ASM Password
Failure Isolation
Operating System Groups
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Summary
Install Product
Finish

Help

Verification Result Fixup Result

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

Check Again Fix & Check Again Show Failed All Nodes Ignore All

Checks	Status	Fixable
Physical Memory	Warning	No
Device Checks for ASM	Warning	No
Network Time Protocol (NTP)	Failed	No
Database Configuration	Failed	No

Details

Network Time Protocol (NTP) - This task verifies cluster time synchronization on clusters that use Network Time Protocol (NTP).

Error:

- PRVF-5507 : NTP daemon or service is not running on any node but NTP configuration file exists on the following node(s): lunar2
- Cause: The configuration file was found on at least one node though no NTP daemon or service was running
- Action: If you plan to use CTSS for time synchronization then NTP configuration must be uninstalled on all nodes of the cluster.

Check Failed on Nodes: [lunar2, lunar1]

Verification result of failed node: lunar2
[Back to Top](#)

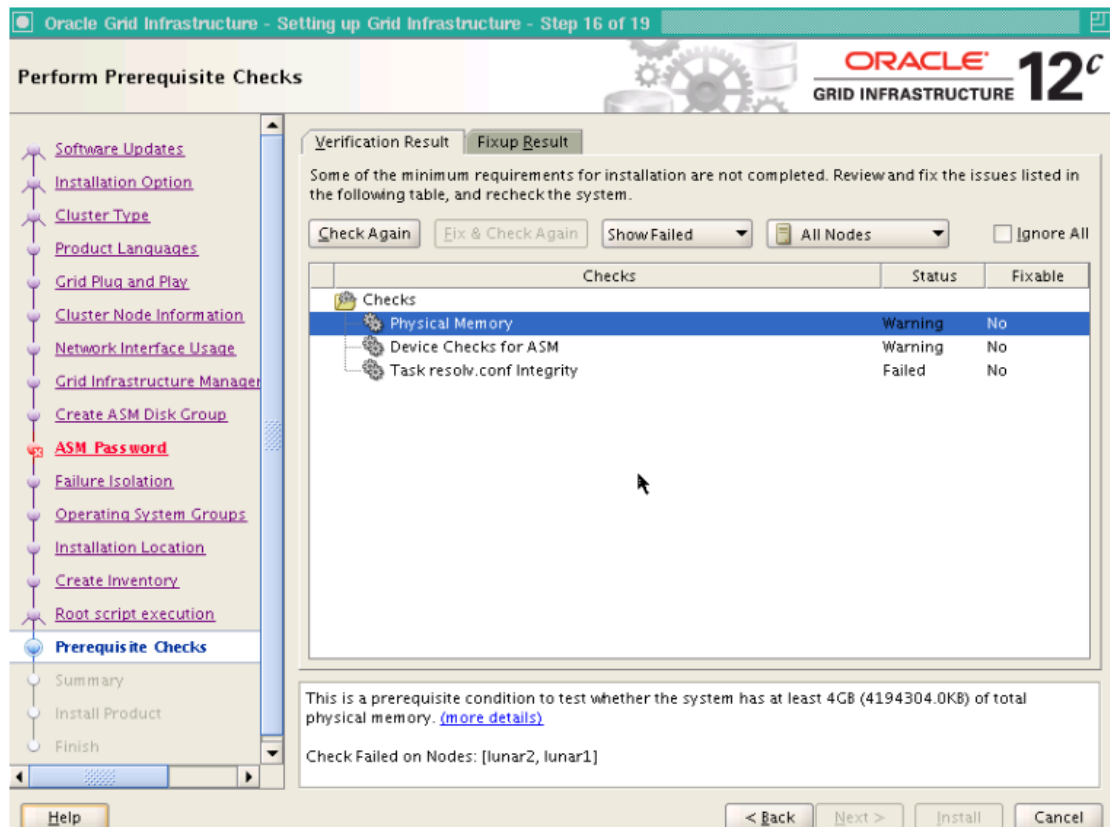
Verification result of failed node: lunar1
Details:

- PRVF-5402 : Warning: Could not find NTP configuration file "/etc/ntp.conf" on node "lunar1"
- Cause: NTP might not have been configured on the node, or NTP might have been configured with a configuration file different from the one indicated.
- Action: Configure NTP on the node if not done so yet. Refer to your NTP vendor documentation for details.

解决方法方法:

```
/sbin/service ntpd stop  
chkconfig ntpd off  
mv /etc/ntp.conf /etc/ntp.conf.prerac
```

再次 check--- “Checkagain” :



这些顽固的错误是我力不能及的，比如这个环境，如果 DNS，DHCP 和 GNS 拿出去，别放在第一个 rac 节点估计就不会有两个 public 的问题，也就不会这样的后续问题。。。

都是人穷惹的祸（windows 本来可以配置为 DNS 和 DHCP，但是，因为没有安装介质，怀疑折腾 windows 还需要更长时间，因此就用第一个 rac 节点讲究了。。。)

如果再次安装，我会选择安装一个 300M 内存的 linux 做 DNS,DHCP 的，这样效果可能好点，但是网络和 IO 始终是硬伤。。。。。。好了，生活还在继续。。。

