

How to build 10g RAC on VMware? --Moid

Introduction

What is RAC?

Oracle RAC is a clustered database with a shared cache architecture (Cache Fusion) that overcomes the limitations of what stand alone server offers. RAC gives the flexibility of keeping the data in the central storage and access it via multiple nodes while providing high availability, high scalability and load balancing.

What are the benefits of RAC?

- Connections to the database is shared between the nodes, thus provide the load balancing.
- If the node failure occurs, clusterware would evict that node from the cluster and the connections would automatically failover to the surviving node, thus providing high availability.
- A node can be removed or a new new node can be added without any downtime to the application. Thus providing high scalability.
- Rolling patches are supported which means there is zero downtime for hardware/software updates.

In this exercise we will be building a RAC cluster with 2 nodes on VMWare which is installed on **Windows Server 2008 R2**. Without getting in much of the administration part of RAC (which we will do later), let us see what you will need to build a successful 2-node cluster.

In this document, I will be using the following VM-67 with the following details:

VMWare Info

VMWare Server	Win2k8-67
VMWare Server IP	192.168.0.67
VMWare Server URL	https://192.168.0.67:8367/ui/#

Nodes Info

<u>Node #</u>	<u>VM Hostname</u>	<u>Hostname</u>	<u>OS</u>	<u>Public IP</u>	<u>Virtual IP</u>	<u>Private IP</u>
1	OEL5-VM-78	Linux-1	64-bit OEL 5.3	192.168.0.78	192.168.0.79	99.99.99.1
2	OEL5-VM-88	Linux-2	64-bit OEL 5.3	192.168.0.88	192.168.0.89	99.99.99.2

SAN Storage

<u>Node</u>	<u>VM Hostname</u>	<u>Hostname</u>	<u>OS</u>	<u>Public IP</u>	<u>Virtual IP</u>	<u>Private IP</u>
n/a	OpenF-VM-SAN	SAN-1	Openfiler	192.168.94	N/A	99.99.99.3

Will you use the same names and IPs that I have used above?

No. You will have your own IPs that I have assigned for you and your partner. To check the list of complete IPs that are assigned to Batch 22, [click here](#). Please note that only my students have access to this document.

How to access your VMMachine?

To login to Server-23, follow the instructions below.

1. mstsc to RDP.xxxxxxx.com:23
2. students\YourUserName
3. From the desktop, click the Vmmachine that is assigned to you. Very very important, **DO NOT UPGRADE** Firefox. We want to keep using the old version 3.5.19.
4. And then follow the document outlined below.

Note: I would not recommend installing 10g RAC on VMWare but what the heck, we can build a Oracle cluster on VMWare for our testing/practice. Well, let us see how we can build the cluster.

Step#	Document Title	Other notes
1	10g RAC Build on VMWare (Part1) -- VMWare Setup of Node-1	
2	10g RAC Build on VMWare (Part2) -- VMWare Setup of Node-2	
3	10g RAC Build on VMWare (Part3) -- VMWare Setup of SAN using openfiler	Using Openfiler as a replacement of SAN
4	10g RAC Build on VMware (Part4) -- Install OEL5 on Node-1	
5	10g RAC Build on VMware (Part5) -- Install OEL5 on Node-2	
6	10g RAC Build on VMware (Part6) -- Build SAN Area (Openfiler) on VMWare	
7	10g RAC Build on VMWare (Part7) -- Add entries in hosts file	
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