Support Matrix

For HP Parallel Database Cluster for Oracle 10g RAC and / or Application Server (J2EE) on Red Hat Linux X86_64 and x86 32 bit with: MSA 1500, MSA1000, EVA3000, EVA5000, EVA4000/6000/8000

Product Description

The HP Parallel Database Cluster (PDC) solutions are specifically defined configurations of hardware and software that have been tested for the Oracle Real Application Clusters and Oracle Application Server (J2EE) environment. By complying with the PDC specification that follows, customers are assured of the shortest time to deployment, a fully functional cluster with maximum availability designed in, and expert PDC specialized Support. Variations from the specification are considered "Custom" implementations and will be supported through standard HP support mechanisms.

Updates and Notes as of 12/06/2006

The following notes apply to the most current version of the PDC for Linux Cluster Kit scripts and processes. Always e-mail RAC_Contact@HP.com to receive the latest scripts and documentation prior to beginning any installation.

Notes:
HP DL380 Packaged Cluster MSA500

This is currently supported only with Fibre channel connectivity to the storage.

PDC Specification and Requirements for RAC

Server Support

Supported sever models:

X86 32bit architecture extension architecture	X86_64 EM64T and Opteron AMD 64bit
DL360 G4 or earlier	DL360 G4
DL380 G4 or earlier	DL380 G4
DL560	
DL580 G3 or earlier	DL580 G3
	DL385
	DL585
BL20p G3 or earlier	BL20p G3 or earlier
BL40p	
	BL25p
	BL45p
DL380 G4 Packaged Cluster	
MSA500 (2 node only)	

Only SCSI internal controllers supported (no SATA)

- Combinations of the PDC supported servers can be used to accommodate cluster expansion etc. It is highly recommended that matched servers (# processors, memory) be used wherever possible.

- Processor requirements/options:
  - Minimum 2 processors per server
  - All available processor speeds for supported models

- Memory requirements per server:
  - Minimum 2 GB highly recommended

- Minimum 2 server nodes, maximum of 8
- Minimum 36GB of local storage

- All other options supported for the server model selected are supported with the PDC.

Supported storage and options:

<u>**MSA1000, MSA1500 :**</u> Standard configuration rules with the following restrictions apply:
- 2 and 4 GB SAN interconnect components only
- Switches
    - MSA SAN switch 2/8 (integrated)
    - 2 GB Fibre Channel Infrastructure family of switches (external)
    - BladeSystem SAN Switches
- Single path or dual path configurations (i.e. controller, switch, HBA)
- HBA FCA 2214 only (with v7.05.00a driver or later)
- MSA1000 Array Controller Firmware version 4.48 or later
- MSA1000 Environmental Monitoring Unit firmware version 1.86 or later

<u>**EVA 3000 v2 and EVA5000 v3 EVA4000/6000/8000**</u>: Standard configuration rules apply with the following restrictions:
- 2 and 4 GB SAN interconnect components only
- Switches:
    - 2 GB Fibre Channel Infrastructure family of switches (external)
    - BladeSystem SAN Switches
- Single path or Qlogic Multi path configurations (i.e. controller, switch, HBA)
- HBA – FCA 2214 only (with v7.05.00a driver or later)
- The PDC for Linux with EVA 5000 is qualified with the HSV110 Virtual Array Controller Software (VCS) version 3.020 or later
- The PDC for Linux with EVA 3000 is qualified with the HSV100 Virtual Array Controller Software (VC) version 3.020 or later
- The PDC for Linux with EVA 4000/6000/8000 is qualified with the HSV100 Virtual Array Controller Software (VC) version 5.020 or later
- One HP StorageWorks SAN Management Appliance is required

<u>**MSA500 (DL380 G4 Packaged Cluster):**</u> Standard configuration rules apply with the following restrictions:
- HBA – DL380 G4 Embedded Smart Array 5i Controller and Smart Array Controller 542 (redundancy option)

Cluster Interconnect
- Standard Ethernet or Gigabit Ethernet – highly recommended
- Use common PCI slots across all nodes

- An Ethernet Switch is recommended in all configurations
- Redundant Ethernet configurations are supported (NIC teaming). The following options are available:

    1. Redundant Cluster Interconnect only: Must have three NIC ports available. Two for cluster Interconnect and one for public LAN connections.
    2. Redundant Cluster Interconnect and Public LAN connections: Must have Four NIC ports available. Two for cluster Interconnect and Two for public LAN connections.

    Note: If using Fibre channel NIC cards, you must also use FC cables and FC Ethernet switches. Make sure that NICs are compatible for teaming.

Software components

Red Hat AS Linux 4

- Red Hat Enterprise Linux AS 4.0 (U3) for x86 or x86_64 depending on your server
- Oracle10g Release version 10.2 for x86/x86_64 depending on your Server
- Oracle ASMLIB libraries   version 2.0.0-1

NOTE: All server nodes must have the same versions of software

PDC RAC Red Hat Linux Installation Utilities Environment Variables

For Red Hat Enterprise Linux AS 4.0U3

X86-64-bit for Opteron AMD

MSA1500/1000 and EVA 3000/5000/4000/6000/8000

This information is used by the Installation Scripts contained in the PDC Linux cluster kit and is needed for installation updates . Please refer to the Installation Guide for update procedures.

Variable/Software	Initial Tool Parameters (at PDC release)	Current Parameters (Updated versions)
RED HAT INSTALL CD VERSION	Red Hat Enterprise Linux AS 4.0 U2	Red Hat Enterprise Linux AS 4.0 U3
PROLIANT_SUPPORT_PACK	Proliant Support Pack 7.4	Proliant Support Pack 7.5
ORCL_ASM_OPTION	Yes	Yes
ORCL_ASMLIB_OPTION	Yes	Yes
ORCL_ASM_SUPPORT_FILENAME	**oracleasm-support-2.0.0-1.x86_64.rpm**	**Oracleasm-support-2.0.0-1.x86_64.rpm**
ORCL_ASM_FILENAME for Opteron	**oracleasm-2.6.9-22.ELsmp-2.0.0-1.x86_64.rpm**	**Oracleasm-2.6.9-34.ELsmp-2.0.0-1.x86_64.rpm**
ORCL_ASMLIB_FILENAME	**oracleasmlib-2.0.0-1.x86_64.rpm**	**oracleasmlib-2.0.0-1.x86_64.rpm**
ORCL_CFS_OPTION	no (Not Supported)	no (Not Supported)

PDC RAC Red Hat Linux Installation Utilities Environment Variables

For Red Hat Enterprise Linux <u>AS 4..0 U3</u>

X86-64-bit for Nocona Intel EM64T

MSA 1500/1000 and EVA 3000/5000/4000/6000/8000

Please refer to the Installation Guide for update procedures.

Variable/Software	Initial Tool Parameters (at PDC release)	Current Parameters (Updated versions)
RED HAT INSTALL CD VERSION	Red Hat Enterprise Linux AS 4.0 U2	Red Hat Enterprise Linux AS 4.0 U3
PROLIANT_SUPPORT_PACK	Proliant Support Pack 7.4	Proliant Support Pack 7.5
ORCL_ASM_OPTION	Yes	Yes
ORCL_ASMLIB_OPTION	Yes	Yes
ORCL_ASM_SUPPORT_FILENAME	**oracleasm-support-2.0.0-1.x86_64.rpm**	**oracleasm-support-2.0.0-1.x86_64.rpm**
ORCL_ASM_FILENAME for Opteron	**oracleasm-2.6.9-22.ELsmp-2.0.0-1.x86_64.rpm**	**oracleasm-2.6.9-34.ELsmp-2.0.0-1.x86_64.rpm**
ORCL_ASMLIB_FILENAME	**oracleasmlib-2.0.0-1.x86_64.rpm**	**oracleasmlib-2.0.0-1.x86_64.rpm**
ORCL_CFS_OPTION	no	no

PDC RAC Red Hat Linux Installation Utilities Environment Variables

For Red Hat Enterprise Linux AS 4.0u3

x86 Intel IA 32bit

MSA1500/1000 and EVA 3000/5000/4000/6000/8000

Please refer to the Installation Guide for update procedures.

Variable/Software	Initial Tool Parameters (at PDC release)	Current Parameters (Updated versions)
RED HAT INSTALL CD VERSION	Red Hat Enterprise Linux AS 4.0U2	Red Hat Enterprise Linux AS 4.0U3
PROLIANT_SUPPORT_PACK	Proliant Support Pack 7.4	Proliant Support Pack 7.5
ORCL_ASM_OPTION	Yes	Yes
ORCL_ASMLIB_OPTION	Yes	Yes
ORCL_ASM_SUPPORT_FILENAME	**oracleasm-support-2.0.0-1.i386.rpm**	**oracleasm-support-2.0.0-1.i386.rpm**
ORCL_ASM_FILENAME for SMP kernel	**oracleasm-2.6.9-22.ELsmp-2.0.0-1.i686.rpm**	**oracleasm-2.6.9-34.ELsmp-2.0.0-1.i686.rpm**
ORCL_ASM_FILENAME for HugeMem kernel	**oracleasm-2.6.9-22.ELhugemem-2.0.0-1.i686.rpm**	**oracleasm-2.6.9-34.ELhugemem-2.0.0-1.i686.rpm**
ORCL_ASMLIB_FILENAME	**oracleasmlib-2.0.0-1.i386.rpm**	**oracleasmlib-2.0.0-1.i386.rpm**
ORCL_CFS_OPTION	No	No

PDC Specification and Requirements for OAS

Supported sever models:

- All servers listed under RAC

- Processor requirements/options:
  - Minimum 2 processors per server
  - All available processor speeds for these models

- Memory requirements per server:
  - Minimum 1 GB highly recommended
- Minimum 36GB of local storage

- All other options supported for the server model selected are supported with the PDC.

Software components
- Red Hat Enterprise Linux AS4.0 (U3)
- Oracle10g OAS

Filename: PDC RH Lx Support Matrix_RDP_PDC_KIT.doc
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  Settings\Temporary Internet Files\OLK17
Template: C:\Documents and Settings\Conway\Application
  Data\Microsoft\Templates\Normal.dot
Title: Certification Matrix
Subject:
Author: KLyons
Keywords:
Comments:
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