

Flash

IBM Oracle International Competency Center (ICC)



August, 2008

email address: ibmoracl@us.ibm.com

Using IBM BladeCenter S with Oracle RAC on MS Windows Server 2003 and 2008

The IBM BladeCenter S can be configured to run with Oracle DB RAC based on the IBM announcement of the IBM BladeCenter S with SAS RAID Controller Module. With this announcement, IBM made available the RSSM (RAIDed Shared Storage Module) which allows hard drives to be networked together as a SAN (Storage Area Network) switch that can be shared by the blade servers within the chassis.

Linux distributions were tested and are document in the reference section, see below.

The IBM Oracle International Competency Center completed tests of this IBM hardware with Microsoft Windows Server 2003 and 2008.

The tests with Windows Server 2003 are documented in a white paper (see reference #2). There is a planned white paper to document the tests done Windows Server 2008.

When planning to implement the RSSM as a main storage source, the main points to consider are:

1. Ensure the configuration has no single points of failure, making sure you have two RSSM modules and two network switch modules in your configuration.
2. Do not use the failover capabilities of the BladeCenter Module. Oracle DB RAC handles the failover process and you should not have the BladeCenter trying to do failovers at the same time. This can cause unpredictable results.
3. The configuration must set up a persistent multipath configuration with the persistent mapping on raw or block devices, depending on the level of the operating system being used.
4. The current support of Oracle Database with RAC running on a BladeCenter S with RSSM and Windows Server 2008 requires also Windows Server 2003 for the IBM Storage Configuration Manager. The IBM Storage Configuration Manager is a new tool created to allow ease of administration of SAS module, as well as other

storage controllers, but currently it is not supported on MS Windows XP or MS Windows Server 2008 operating system platforms (however, Red Hat AS/EX 4 & 5 and SUSE ES 9 & 10 Linux platforms are supported).

The BladeCenter S Chassis supports 12 disks on two disk storage module composed of SAS (Serial Attached SCSI) 3.0 Gbps 15K RPM (rotations per minute) drives as well as NL-SAS (Near Line SAS) 3.0 Gbps 7200 RPM drives with up to 9TB of total storage capacity. You must evaluate your I/O workload in this environment.

References:

1. Flash for IBM BladeCenter S and Linux support with Oracle RAC

<http://www-03.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/FLASH10658>

2. White paper that describes ICC experiences with Windows 2003

<http://www-03.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/WP101411>

3. Solution Data Sheet for BladeCenter S and Oracle RAC

<http://www-03.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/PRS3638>

4. IBM "Redbook": Implementing IBM BladeCenter S Chassis (provides general guidelines on configuring the IBM BladeCenter s and provides also storage configurations)

<http://www.redbooks.ibm.com/redbooks/pdfs/sg247682.pdf>

Please e-mail the IBM Oracle International Competency Center at ibmoracl@us.ibm.com with any questions you may have on this topic.