

# 1 Hardware Requirements

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## 1.1 DB Server

### 1.1.1 System Requirements

The following must be present:

1. 96 GB of RAM minimum
2. 2 x 146GB SAS HD RAID1 (for O.S.)
3. 4 x 600GB SAS HD RAID 10 (for data)
4. Windows Server 2008 R2 SP1 Enterprise Edition 64 Bit (English)

### 1.1.2 Disk Configuration

The following table details how disks must be configured:

Qty	Disk	RAID	Partitioning	Notes
2	146 GB	RAID 1	NTFS, single partition	Install O.S. here
4	600 GB	RAID 10	NTFS, single partition	Mount as C:\RCS

### 1.1.3 Suggested Hardware Specifications

Below you can find a recommended hardware configuration for DB Server

Dell PowerEdge R720
<b>CPU</b> : Intel Xeon E5-2660 2.20Ghz, 20MB Cache
<b>RAM</b> : 12 x 8GB RDIMM, 1600Mhz
<b>HD (OS)</b> : 2 x 146GB SAS 6Gbps 15k 2.5" HD Hot Plug (RAID1)
<b>HD (Data)</b> : 4 x 600GB SAS 6Gbps 10k 2.5" HD Hot Plug (RAID10)
<b>RAID</b> : PERC H710p Integrated RAID Controller
<b>Network</b> : Broadcom 5720 QP 1Gb Network Card
<b>Optical</b> : 16X DVD+/-RW Drive SATA

### 1.1.4 Additional Configurations

Enable the NTP Synchronization towards the NTP server on the RCS Collector.

## 1.2 Collector

### 1.2.1 System Requirements

The following must be present:

1. 16 GB of RAM minimum
2. 2 x 300GB SAS HD RAID1 (for O.S. and data)
3. Windows Server 2008 R2 SP1 Standard Edition (or above) 64 Bit (English)

### 1.2.2 Disk Configuration

The following table details how disks must be configured:

Qty	Disk	RAID	Partitioning	Notes
2	300 GB	RAID 1	NTFS, single partition	Install O.S. here

### 1.2.3 Suggested Hardware Specifications

Below you can find a recommended hardware configuration for Collector.

Dell PowerEdge R210 II
<b>CPU</b> : Intel Xeon E3-1230 3.20Ghz, 8MB Cache
<b>RAM</b> : 2 x 8GB DDR3, 1333Mhz
<b>HD (OS)</b> : 2 x 300GB SAS 6Gbps 15k 2.5" HD Hot Plug (RAID1)
<b>RAID</b> : PERC H200 RAID Controller
<b>Network</b> : 2 x Broadcom 5720 QP 1Gb Network Card
<b>Optical</b> : 16X DVD+/-RW Drive SATA

### 1.2.4 Additional Configurations

Enable the NTP Synchronization towards the closest public NTP server.

## 1.3 VPSs

### 1.3.1 System Requirements

The following must be present:

1. 256 MB of RAM minimum
2. 10GB HD
3. Linux CentOS 6 32 Bit
4. Static public IP address
5. 2 Mbit/s Internet connection

### 1.3.2 Suggested VPS List

The following table list examples of possible VPS providers:

Name	Web site	Locations
Linode	<a href="http://www.linode.com">http://www.linode.com</a>	USA and many other locations
Host Europe	<a href="http://www.hosteurope.de">http://www.hosteurope.de</a>	Germany and other locations

## 1.4 User computers

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**NOTE:** A VPN connection is suggested when connecting to DB server from external network.

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### 1.4.1 System Requirements

The following must be present:

1. 4 GB of RAM minimum
2. 320GB SATA HD
3. Windows or OS X
4. Display capable of 1280x800 pixel minimum resolution

### 1.4.2 Suggested Hardware Specifications

Below you can find a recommended hardware configuration for users laptops.

Dell Latitude 15 – Series 3000
<b>CPU</b> : Intel Core i3-3120M 2.50Ghz, 3MB Cache
<b>RAM</b> : 1 x 4GB DDR3, 1600Mhz
<b>HD</b> : 1 x 320GB SATA 7.2k 2.5" HD
<b>Video</b> : Intel HD Graphics 4000
<b>Network</b> : 1 x 1Gb Network Card, 1 x Dell Wireless 1901 802.11 a/b/g/n
<b>Optical</b> : 8X DVD+/-RW Drive SATA

### 1.4.3 Additional Configurations

Adobe Air runtime must be installed on the system.

## 1.5 Backup

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**NOTE:** The backup unit is a SAN (Storage Area Network) or a NAS (Network Attached Storage) device that is responsible for all data backup.

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### 1.5.1 System Requirements

The following must be present:

1. 64 GB of RAM minimum
2. 6 x 1TB SAS HD RAID6 (for data)

### 1.5.2 Disk Configuration

The following table details how disks must be configured:

Qty	Disk	RAID	Partitioning	Notes
6	1 TB	RAID 6	NTFS, single partition	Mount as Z:\

### 1.5.3 Suggested Hardware Specifications

Below you can find a recommended hardware configuration for backup unit.

**DELL PowerVault MD3200i**

**HD : 6 x 1TB SAS 6Gbps 7.2k HD Hot Plug**

## 1.6 Firewall

### 1.6.1 System Requirements

The following must be present:

1. Support for VPN connection client to site (SSL or IPSEC)
2. Stateful throughput of 1 Gbps
3. IMIX performance of 235 Mbps
4. Maximum connections of 225000
5. VPN throughput of 300 Mbps

### 1.6.2 Suggested Hardware Specifications

Below you can find a recommended hardware configuration for firewall.

SonicWall NSA 3600 Network Security Appliance
<b>IPSEC VPN Connections Client to Site:</b> Up to 1000
<b>Firewall inspection throughput:</b> 3.4 Gbps
<b>IMIX Performance:</b> 900 Mbps
<b>Maximum Connections:</b> 325000
<b>VPN Throughput:</b> 1.5 Gbps

Or

SonicWall NSA 2600 Network Security Appliance
<b>IPSEC VPN Connections Client to Site:</b> Up to 250
<b>Firewall inspection throughput:</b> 1.9 Gbps
<b>IMIX Performance:</b> 600 Mbps
<b>Maximum Connections:</b> 225000
<b>VPN Throughput:</b> 1.1 Gbps

## 1.7 Switch

### 1.7.1 System Requirements

The following must be present:

1. 24 ports
2. Support for 10/100/1000 Mbps

### 1.7.2 Suggested Hardware Specifications

Below you can find a recommended hardware configuration for the switch.

Dell PowerConnect 2800
<b>Ports</b> : 24 at least
<b>Speed</b> : 10/100/1000 Mbps