

Appendix A

Recommended Hardware/Software for N-Centaurus

These are minimum guidelines. LVM discusses hardware requirements with customers on an individual basis.

Data Server:

- **SQL 2008 R2 Standard, 2008 Standard OR Enterprise Editions** with latest service packs and with Reporting Services Installed. MS-SQL Server License or MS-SQL Access License for each workstation. MS-SQL Server Reporting Services. Reporting Services may optionally be run on a separate server with additional MS-SQL licenses.

MS-SQL Stored Procedures/Functions – Most reports in the N-Centaurus application use MS-SQL Stored Procedures/Functions. To run Reports, each Centaurus user must have EXECUTE rights to these stored procedures/functions.

- Windows 2008 Server or Advanced Server
- .NET 4.0 (used for N-Centaurus Administrative Tools. This could also be installed on the Admin's PC)
- Dual core or dual processors, 2-Gigahertz (GHz) or faster
- 8/16 Gigabytes of RAM (or more based upon the number of users)
- CD ROM, NIC cards, Monitor, Keyboard, Mouse, Power Supply - UPS
- 2 Hard Disks... 200 Gigabytes or larger, based upon needs
- One hard disk for MS-SQL data and the second hard disk for SQL logs and backup files. You may also use a RAID configuration for your hard disks.
- Backup systems that can backup & restore MS-SQL databases

Middle Tier Server / Data Access Server:

Optional, unless you choose to run via a direct Internet Access Method

- Windows 2003/2008 Server or Advanced Server running IIS
- SSL Certificate (self signed if running only on an internal network, or signed by a trusted certificate issuer such as VeriSign)
- Dual core or dual processors, 2-Gigahertz (GHz) or faster
- 2 Gigabytes of RAM (or more based upon the number of users)
- CD ROM, NIC cards, Monitor, Keyboard, Mouse, Power Supply – UPS

Note: For each N-Centaurus database there needs to be at least one user account setup for N-Centaurus to use to update the database structure. If SQL Authentication is used, LVM recommends that 3 SQL Server user accounts be setup.

- An "LVMAdmin" account to be used in updating the database structure with DBO rights and Execute permission for Stored Procedures/Functions.
- An "LVMUser" account to be used for end-user access with data reader/data writer rights and Execute permission for Stored Procedures/Functions.
- An "LVMReader" account to be used for end-user report access with data reader rights and Execute permission for Stored Procedures/Functions.

Workstations: Windows XP, Windows 7 or Windows Vista

Microsoft XP:

- 1.0 Gigahertz (GHz) or faster processor
- 1 Gigabyte of RAM (or larger based upon needs)
- Hard Disk - 40 Gigabytes or larger... 2 Gig available to N-Centaurus application
- XP Service Pack 3 (using RDP 6.1 or higher)

Microsoft Vista/Windows 7: (with latest version and service packs)

- 1.5-Gigahertz (GHz) or faster processor
- 2/4 Gigabytes of RAM
- Hard Disk - 80 Gig or larger... 2 Gig available to N-Centaurus application

All Workstations:

- MS-SQL Access License for each workstation
- .NET 3.5 Service Pack 1
- The Workstation or Client will be used to store and execute programs, screens and temporary/work databases
- Adobe – Acrobat Reader – Latest Version
- Windows Internet Explorer
- **MS-SQL Management Studio to be installed on at least one “Master Workstation” – usually the “Super User”**
- **MS-SQL Business Intelligence Development Studio tools are necessary for any client who needs to create or modify reports**

Microsoft Windows Internet Explorer/Firefox:

We support the current version of Windows Internet Explorer and one full version back. The current version of the browser Firefox is supported and one full version back.

Support Requirements:

Access for LVM support on the “Master Workstation” – this should allow LogMeIn Rescue to be utilized. See <https://secure.logmeinrescue.com/HelpDesk/Home.aspx> for more details.

Help System Requirements:

To access all of the available Help Topics you must be able to access the LVM Systems Documentation Portal via a high-speed internet connection.

Screen Resolution:

A minimum screen resolution of 1024 x 768 is required. It is better to have a higher screen resolution and larger screens and it is best to have two screens/monitors. The larger the screens and resolutions, the more functional the N-Centaurus software can be.