

SUPPORT NOTE

SN-153

RDS Intranet Customer Supplied Platform Guideline

I) Introduction

This document provides guidance to customers that have opted to provide their own hardware and/or software for their RDS Intranet server.

RDS Intranet supports:

- Microsoft SQL Server 2000 to SQL Server 2008 R2 Standard
- Microsoft Windows Server 2000 to Windows Server 2003 R2
- Microsoft Windows XP
- Internet Explorer 0 and 8.0
- IIS 5.1 and 6.0
- **Crystal Reports 9 and XI**

RDS Intranet does not support:

- Microsoft SQL Server 2012
- Microsoft Server 2008 or 2012
- Microsoft Windows 7 or 8
- Internet Explorer 9.0 (works in some cases)

II) Lab Edition

RDS Intranet Lab Edition includes one workstation connected to one DOS test controller via a crossover cable. The lab edition PC is intended for installations with only one test system, so it contains the test client and database server for the RDS Intranet environment. To function as the test client, it is physically located next to the test instrumentation. This implementation features RDS Intranet, SQL Server, and IIS hosted within a Windows 2003 Virtual Machine.

A) Minimum Configuration for PC

Table 1 contains the minimum requirements for the RDS Intranet Lab Edition PC hardware.

CPU	RAM	PSU	Chassis	Media	NIC	RAID	HDD
Intel Corei3 or AMD equivalent	4GB	Single 110V	Tower	DVD-R	Dual 10/100/1000 Mbits/sec	RAID-1	250GB total 7200RPM

Table 1 - Minimum PC Hardware Requirements

Database	RAM	Guest O/S	Media	NIC	HDD
SQL Server 2008 R2	2GB+	Windows 2003 Server R2	Shared Optical Drive and USB Ports	2 Bridged NICs, attached to each physical NIC	100-150GB, Multiple Files, Expandable

Table 2 – VMWare Settings for RDS Intranet Virtual Machines

B) Other Customer Supplied Hardware

In addition to the PC, these are needed:

- Flat Panel Monitor
- 2-Port KVM Switch
- USB Keyboard and Mouse
- 250GB+ External USB Hard Drive
- One 14' Crossover CAT-6e (or better) for connection to the Test Controller
- One 25' CAT-6e (or better) for connection to the customer's network

C) Software

The Lab Edition computer hosts a virtual machine containing the Reedholm application and database. Windows Server 2008 R2 Standard 64-bit is recommended as the host operating system and VMWare Player or VMWare Workstation as the virtualization software.

While Windows Server 2008 R2 Standard 32-bit is supported by Reedholm, it restricts the amount of useable RAM available to the operating system. This can be very limiting when hosting a virtual machine, which uses a portion of the physical memory for the guest operating system.

1) Virtual Machine Requirements

VMWare is used by Reedholm for virtualization. The settings listed in Table 2 were created with VMWare in mind. Other virtualization software should be set similarly.

III) Enterprise Edition

RDS Intranet Enterprise Edition is used when multiple test systems share a database. Each set of instruments is controlled by a Test Controller as well as a Windows based Test Client PC. Even if there is a single initial system, RDS Intranet Enterprise Edition enables easy expansion to additional test systems without having to purchase additional Reedholm servers. Servers may be physically located anywhere on a customer network, as long as network access to the Test Client PCs is not hindered in any way. This implementation features RDS Intranet, SQL Server, and IIS hosted within a Windows 2003 Virtual Machine.

A) Server Hardware

Table 3 contains the minimum requirements for the RDS Intranet Enterprise Edition server hardware.

1) Stand-Alone Server

If the stand-alone RDS Intranet Enterprise Edition server is not hosted in a server room and/or is not fully supported by the customer IT department, Reedholm recommends that this additional hardware be acquired:

- Flat Panel Monitor.
- 4-Port KVM Switch.
- USB Keyboard and Mouse.
- 250GB+ External USB Hard Drive.
- 5 to 8-port Network Switch.
- One 14' Crossover CAT-6e (or better) cable per Test Client PC.
- One 25' CAT-6e (or better) cable per Test Client PC plus one for the server.

2) Customer Hosted Server

A customer-hosted RDS Intranet Enterprise Edition server is located in the customer server infrastructure so that it can be fully supported by their IT department. In this case, the customer handles the database backup logistics, networking, and insertion of optical media, if needed. The server should be on the same logical network as the Test Clients to insure proper communications.

3) Hosted Virtual Machine Only

Customers hosting the virtual machine on an existing virtualization server should refer to the section, *Enterprise Edition Virtual Machine Requirements*, for setup information. This configuration also implies that the customer handles mounting of optical media, networking, and the database backups.

B) Test Client Hardware

Minimum hardware requirements of a Test Client are contained in Table 4.

C) Software

The Enterprise Edition server hosts a virtual machine containing the Reedholm application and database. Windows Server 2008 R2 Standard 64-bit is required as the host operating system and VMWare Player or VMWare Workstation is recommended as the virtualization software.

1) Virtual Machine Requirements

VMWare is used by Reedholm for virtualization, so the settings listed in Table 5 were created with VMWare in mind. Other virtualization software should be set similarly.

CPU	RAM	PSU	Chassis	Media	NIC	RAID	HDD
Intel Corei5	8GB	Dual 110V	Tower Hot-Swap	DVD-R	Dual 10/100/1000 Mbits/sec	RAID-5	250GB 7200RPM

Table 3 – Minimum RDS Intranet Server Hardware Requirements

CPU	RAM	PSU	Chassis	Media	NIC	HDD
Intel Corei3	3GB	110V	Tower	DVD-R	Dual 10/100/1000 Mbits/sec	250GB 7200RPM

Table 4 – Minimum Test Client Hardware Requirements

RAM	Database	Guest O/S	Media	NIC	HDD
4GB+	SQL Server 2008 R2	Windows 2003 Server R2	Shared Optical Drive and USB Ports	1 Bridged NIC, attached to a physical NIC	100-150GB Multiple files Expandable

Table 5 – Virtual Machine Requirements

2) Test Client Software

Table 6 contains the Test Clients software requirements are below.

O/S	Max Supported Browser
Windows XP or Window 7 with XP Mode	Internet Explorer 8

Table 6 –Test Client Software Requirements

IV) RDS Windows Requirements

Later this year Reedholm will be releasing RDS Windows, which will support the latest Microsoft versions. This new version will also be using elements first introduced by Microsoft in SQL server 2008 R2, and thus will be the earliest version of SQL that RDS Windows will support.

For a smoother and more cost effective transition to RDS Windows, Reedholm recommends obtaining a server with Windows Server 2008 R2 to host a Windows Server 2003 R2 virtual machine for RDS Intranet.

RDS Windows will support the following:

- Windows XP, 7, and 8
- Windows Server 2008 R2 and Windows Server 2012*
- SQL Server 2008 R2 and SQL Server 2012

*As noted above, Reedholm only restricts OS because of SQL Server system requirements.

Finally, RDS Windows will no longer support Crystal Reports. Any custom reports will need to be ported to SQL Server Reporting Services, which RDS Intranet has been shipping with and supporting since June 2009.