

Customer Hosted RELAIS ILL V2009 TECHNICAL REQUIREMENTS Revised October 29, 2009

The following document outlines basic technical requirements needed to run Relais ILL. Relais ILL should be installed on servers / workstations with the following hardware. Note that increasing/decreasing this hardware will improve/degrade performance.

1. Relais V2009 Application Workstation / Server

For customers with > **50,000 requests per year**, Relais International recommends that Relais applications be run on their own server.

Operating System	2000 / 2003 **
	Recommended
CPU	Dual 2.4GHz
RAM	4GB
HDD	250GB

For customers with < **50,000 requests/year**, the following recommended requirements for the server should be followed.

Operating System	2000 / 2003**
	Recommended
CPU	2GHz
RAM	2GB
HDD	100GB

If a server class machine is not used to run the applications, the machine should be dedicated to Relais. If the applications and web server are installed on a server class machine then it does not have to be dedicated to Relais.

The applications, web and database servers (if using SQL Server or Oracle) can exist on the same machine, however in this case use the recommendations for the server for > 50,000 requests shown above.

2. Relais V2009 Database Server

A Microsoft SQL Server Desktop Engine (MSDE) run time license is included with Relais. If using MSDE, no database server is required; the database can be hosted by the application server – see above for recommended specifications.

Oracle or SQL Server can also be used as the database, but is **NOT** included with the product release.

DBMS	MS SQL Server (6.5 through 2005) or ORACLE (7 through 10g) or Microsoft SQL Server Desktop Engine (MSDE)
Operating System	2000 / 2003 / UNIX / LINUX **
	Recommended

CPU	2GHz
RAM	2GB
HDD	100GB

UNIX\LINUX can only be used as an operating system for the database server when using an Oracle database.

The applications, web and database servers (if using SQL Server or Oracle) can exist on the same machine, however in this case use the recommendations for the server for > 50,000 requests shown above.

3. Relais V2009 Web Server

This machine will host the Relais Access web pages and store PDF documents for post to web delivery. For Web Browser support, [see below](#).

Operating System	2000 / 2003 / UNIX / LINUX **
	Recommended *
CPU	2GHz
RAM	2GB
HDD	100GB

UNIX\LINUX\Windows can be used as an operating system for the web server.

If the application and web servers are installed on a server class machine then it does not have to be dedicated to Relais.

The applications, web and database servers (if using SQL Server or Oracle) can exist on the same machine, however in this case use the recommendations for the server for > 50,000 requests shown above.

4. Web Browser Compatibility

Relais Access Web Forms	IE6	IE7	Firefox 1.5+2	Netscape 8+9	Opera 8.5
	Yes	Yes	Yes	Yes	Yes

Secure Post to Web with...	IE6	IE7	Firefox 1.5+2	Netscape 8+9
Adobe Reader 5	Yes	No	Yes	Yes
Adobe Reader 6	Yes	No	Yes	Yes
Adobe Reader 7	Yes	Yes	Yes	Yes
Adobe Reader 8	Yes	Yes	Yes	Yes
Adobe Reader 9	Yes	Yes	Yes	Yes

There are some known issues with Firefox secure post to web. The reasons are undetermined as of yet.

5. Adobe Acrobat

Adobe Acrobat must be installed on each workstation or server running the electronic delivery applications (Delivery Email, Delivery FTP & Delivery Fax Server) to permit conversion of TIFF and PDF images as required.

6. Scanners

If a scanner is not purchased from Relais International, make sure there is a TWAIN or Kofax compatible driver available for the scanner. In the case of a TWAIN driver, the Relais scanning software opens the scanner's driver interface.

Relais also supports Bookeye scanners and the Zeutschel OS 12000 Scanner.

7. Client Workstations

Requirements for workstations running windows based applications, e.g., Receive FTP (for receiving documents from Ariel or Odyssey), scanning and for staff functions.

Operating System	2000/XP **
	Recommended
CPU	2GHz
RAM	2GB
HDD	100GB

8. General Notes

** 2000 --> Windows 2000 SP4
 XP --> Windows XP SP2
 2003 --> Windows 2003 SP1

1. Relais International does not supply or license any operating systems.
2. Relais International does not supply or license Oracle or SQL Server.
3. Relais International will supply a run time license for Microsoft SQL Server Desktop Engine (MSDE) if appropriate.
4. Some predefined reports are provided. Knowledge of Crystal Reports (or equivalent) is required for customers to create and generate additional statistical reports.
5. Crystal Reports 11 is needed if a customer wants to modify Relais reports, including the format, layout etc of statistical reports as well as pick slips and cover sheets. Alternatively a quote for making such changes can be provided by Relais International.
6. Relais System Administrators require a working knowledge of the following:
 - Oracle or SQL Server administration (if not using MSDE).
 - TCP/IP Networking.
 - Windows Server.
 - IIS/Apache/Tomcat (if implementing Relais Access or Delivery Email Post to Web).
 - Java (if customizing Relais Access).
7. If using Post to Web delivery: Relais is able to convert TIF images to PDF, However, a current version of Adobe (full) is required in order to insert cover pages into existing PDFs. Third party PDF makers cannot be used with Relais.

9. Relais ILL External Firewall Usage

It is recommended that Relais be installed behind a hardware firewall or NAT capable router.

Ensure the following TCP/IP ports are allowed through the firewall.

Port	Description
25	Used by <u>many Relais applications</u> to send out email messages via SMTP. For example ILL Message Handler and Delivery Email as well as sending various notices and message re errors to the administrator.
80	Used by patrons when entering requests via the Relais web forms or to retrieve Post to Web documents when posted to an HTTP server. Used by the Relais web client for staff.
110	Used by <u>ILL Message Handler</u> to access the POP3 mailboxes used for receiving GSM and ISO ILL requests and messages.
419	Used by <u>Delivery FTP</u> to send documents to Ariel (only needed on the first scanner workstation).
422	Used by <u>Received FTP</u> to receive documents from Ariel (only needed on the first scanner workstation).
7968	7968 is used by <u>Delivery FTP</u> and <u>Receive FTP</u> to send documents to and receive documents from Odyssey.
1611	Used by <u>ILL Message Handler</u> to send and receive ISO ILL requests via TCP/IP.
210	Used by <u>Search applications</u> when connecting to a Z39.50 server. Each library system typically uses a different port number, so verify with your local catalog system administrator. These are examples of
2200	
7090	commonly used ports for Z39.50.

10. Mail Server

- Relais requires access to a SMTP/POP compatible email server.
- Access should be enabled to allow the Relais application workstation / server to relay outgoing messages on SMTP, as well as receive incoming messages on POP.
- The default ports of 25 (SMTP) and 110 (POP) do not have to be used, but should be made available to the installer of the Relais software, as they will have to enter them into the configuration. Note that the mail server can be internal to the institution, or the institution's Internet Service Provider.

The following POP mailboxes should be available

Relais Administer	Used by Relais to send errors to the Relais administrator, e.g., relaisadmin@yourlibrary.com
Relais Delivery	Used by the Relais delivery applications as the From address when sending documents to patrons (does not have to exist), e.g., relaisdelivery@yourlibrary.com
Relais GSM	Used by the ILL Message Handler to send/receive generic script messages, e.g., relaisgsm@yourlibrary.com
Relais ISO	Used by the ILL Message Handler to send/receive ISO email messages, e.g., relaisiso@yourlibrary.com

11. Security in Relais

- Software security is provided by the Windows network on which Relais is running.
- Relais applications are secured through Windows file sharing and possibly your own VPN.
- The Relais database can be secured if you provide the secure ODBC connection.
- Security for web components (i.e. HTTP, FTP, SMTP, POP) are managed by the web server (i.e. Windows, Linux/UNIX).
- Hardware security is provided by your own switches, routers, firewalls, etc. on which Relais is running.

12. Access Control and User Validation in Relais

- Relais workstations, running the Windows applications are managed by the Windows network at the user and machine level.
- Relais also maintains its own internal staff user accounts for use at the request processing level.
- The Relais database user is managed by the database server (i.e. Oracle, SQL Server).
- Relais web users are validated by their username and password for their Relais account.
- Relais machines may also be managed by the client's network hardware.

13. Data Integrity and Backup

- Data integrity in the Relais system is only as reliable as the network on which Relais is running.
- The Relais application data can be backed up using your own in-house backup procedures.
- Relais database information can be backed up through the use of the database server's own backup function.
- The Relais system also provides an application used for archiving database information to a secondary database.