

**RELAIS ENTERPRISE V2008  
TECHNICAL REQUIREMENTS**  
Revised March 26, 2008

**Relais Enterprise V2008 Application Server**

<b>Operating System</b>	2000/2003 ***	
	<b>Recommended *</b>	<b>Minimum **</b>
<b>CPU</b>	Dual 2GHz	1GHz
<b>RAM</b>	2GB	512MB
<b>HDD</b>	100GB	50GB

**Relais Enterprise V2008 Database Server**

<b>DBMS</b>	MS SQL Server (6.5 through 2005) / ORACLE (7 through 10g) / Microsoft SQL Server Desktop Engine (MSDE)	
<b>Operating System</b>	2000/ 2003/ UNIX /LINUX ***	
	<b>Recommended *</b>	<b>Minimum **</b>
<b>CPU</b>	2GHz	1GHz
<b>RAM</b>	1GB	256MB
<b>HDD</b>	50GB	25GB

**Relais Enterprise V2008 Web Server**

If you are running Relais Access or using Delivery Email - Post to Web, see below.

<b>Operating System</b>	2000 / 2003 / UNIX / LINUX ***	
	<b>Recommended *</b>	<b>Minimum **</b>
<b>CPU</b>	1GHz	500MHz
<b>RAM</b>	256MB	128MB
<b>HDD</b>	50GB	25GB

**Web Browser Compatibility**

<b>Relais Access Web Forms</b>	<b>IE6</b>	<b>IE7</b>	<b>*Firefox 1.5+2</b>	<b>Netscape 8+9</b>	<b>Opera 8.5</b>
	Yes	Yes	Yes	Yes	Yes

<b>Secure Post to Web with...</b>	<b>IE6</b>	<b>IE7</b>	<b>*Firefox 1.5+2</b>	<b>Netscape 8+9</b>
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

\*There have been some issues with Firefox and the new security. The reasons are undetermined as of yet.

## Notes

1. Relais International recommends that Relais Enterprise applications be run on their own server.
2. Smaller libraries (<50K requests/year) may wish to combine the application, database and web servers on a single machine, in which case the recommended requirements for the application server should be followed.
3. If using an Microsoft SQL Server Desktop Engine (MSDE) database, no database server is required; the database can be hosted by the application server.
4. UNIX\LINUX can only be used as an operating system for the database or web server when using an Oracle database.
5. Oracle or SQL Server can be used as the database, but neither is included with the product release.
6. If a server class machine is not used to run the applications, the machine should be dedicated to Relais Enterprise.
7. If the applications and web server are installed on an existing server class machine then it does not have to be dedicated to Relais Enterprise.
8. The application, web and database server (if using SQL Server or Oracle) can exist on the same machine, but in this case use the application PC recommendations for Relais Enterprise.

## Staff Workstation and Scanning Workstation

Operating System	2000/XP ***	
	Recommended *	Minimum **
CPU	1GHz	500MHz
RAM	256MB	128MB
HDD	5GB	5GB

## 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.

## General Notes

\* Recommended is approximately 250,000 requests per year

\*\* Minimum is approximately 50,000 requests per year

\*\*\* 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. Knowledge of Crystal Reports is required for customers who may wish to change the format, layout etc of reports embedded in Relais, e.g., pick slips and cover sheets. Alternatively a quote for making such changes can be provided by Relais International.
6. Relais Enterprise 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).

## Relais Enterprise (& Relais Access if used) Firewall Usage

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

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

Port	Description
21	Used by <u>Relais Access</u> for patrons to retrieve Post to Web documents (when posted to an FTP server).
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 <u>Relais Access</u> , for example, for patrons to enter requests into Relais or to retrieve Post to Web documents when posted to an HTTP server.
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 requests to your local Ariel Store & Forward Server.
422	
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 commonly used ports for Z39.50.
2200	
7090	

### Software Requirements

#### Operating Systems:

- Windows 2000, XP, 2003
- UNIX/Linux (for Oracle/Web server only)

#### Databases:

- SQL Server 6.5 through 2005
- Oracle 7 through 10g
- MSDE

#### Other:

- Crystal Reports 11 is required if you wish to edit/customize your reports.
- Adobe Acrobat 7 (full) is required to be installed on the Application Server running the delivery applications if you plan to attach PDF files to your requests.
  - Relais is able to convert TIF images to PDF, for use with Post to Web. However, Adobe is required in order to insert Coverpages into existing PDFs. Third party PDF makers cannot be used with Relais.

#### Web Server:

Either Microsoft [Internet Information Services](#) 4, 5, 6 (in 5 mode), or Apache 1, 2 is required to host the Relais Access web forms. This should be installed prior to the Relais installation. Java J2SE SDK 1.4 or higher and Tomcat 4 or 5 are also required to be installed on the web server, but are supplied by Relais. Note that the web server can be installed on the workstation running Relais, or can reside elsewhere within the institution. If using the Delivery Email – PostToWeb function, then a drive mapping must exist between the Application PC and the Web PC. For Windows, this would be through Windows File Sharing, and for Linux/UNIX, it would be through SMB File Sharing.

#### Mail Server:

The Relais ILL software requires access to a SMTP/POP compatible email server. Access should be enabled to allow the Relais Application PC 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 considered:

<b>Relais Administer</b>	Used by Relais to send errors to the Relais administrator
<b>Relais Delivery</b>	Used by the Relais delivery applications as the From address when sending documents to patrons (does not have to exist)
<b>Relais GSM</b>	Used by the ILL Message Handler to send/receive GSM messages

<b>Relais ISO</b>	Used by the ILL Message Handler to send/receive ISO email messages
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### **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 the Relais system is running

### **Access Control and User Validation in Relais**

- Relais staff using 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)
- The Relais web users are validated by their username and password for their Relais account
- Relais machines may also be managed by your network hardware

### **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