sierra system administration

# Access through Local Firewalls

**What network access through our firewall does Innovative need?**

Innovative requests access be granted through your firewall for connections originating from the list of IP addresses below and connecting to the Secure Shell (SSH) service on your Sierra Server(s). The IP addresses listed represent Innovative core support servers, which require that Innovative staff successfully authenticate to them before establishing connections to your site.

**Support from Emeryville, CA, USA**

205.227.88.253

In addition, Innovative requests that access be granted through your firewall for both inbound and outbound Secure Shell (SSH) and SFTP services for the IP address listed below.

8.4.224.250

Support from Bristol, UK

Customers receiving support from Innovative's Bristol, UK office should grant access through their firewall for the following network address block:

Net Range

194.201.82.0 - 194.201.82.255 (CIDR: 194.201.82.0/24)

In some special instances, Innovative may require direct access through your firewall from an Innovative Staff member's workstation. In these situations, Innovative staff will request additional access.

**Content Pro**

To allow access to Content Pro, the following ports must be open on the Content Pro server. If your library uses Encore, Content Pro will be running on the Encore server; these ports must be open on the Encore server. If your library does not have the Encore product, allow access to the Content Pro server.

* Allow III (205.227.88.253, 8.4.224.250) access to <Content Pro Server IP> on port 22 (ssh)
* Allow WWW access to <Content Pro Server IP> on port 80 (http), 443 (https)
* Allow III (205.227.88.253) access to <Content Pro Server IP> on port 4601
* Allow outbound access from <Content Pro Server IP> to WWW on port 25 (SMTP)Bullets here

### Encore

See Encore: [Configuring Your Firewall.](https://myproquest.sharepoint.com/%3Aw%3A/s/ITLC-Public/ESvanW8nimtOuCiepug3nhIBCTdUuDMU_IeWMXuwRmirOA?e=DfueEa)

**Decision Center**

To enable Decision Center, the following ports must be open between the Sierra application server and the hosted Reporter and Decision Center server: port 80 (bidirectional) and port 63000 (bidirectional) and 63100 (bidirectional).

**Research Pro**

See the [Research Pro Firewall Requirements Summary](https://myproquest.sharepoint.com/%3Aw%3A/s/ITLC-Public/EZaGGYHwaSJEiwgeuUh0pnoB26UD-hJ_TKqtr5pxpvLSLA?e=S7velq).

**SMS Alerts**

Allow Innovative [52.36.229.248/smsdom.iii.com ] access to your library's server on ports 80 and 443 (SSL).

**Does the information in this FAQ apply to DMZs and private networks?**

Yes. Whether your organization uses a private network, a DMZ, a standard firewall, or a combination of these, the information below on opening ports applies to all access control devices, if you want to provide access as outlined below.

**How do I secure my system access?**

You can limit access to your system in the Sierra Admin Corner. For more information see [Limit Network Access](https://documentation.iii.com/sierrahelp/Default.htm#sadmin/sadmin_limit_network_access.html).

**My organization is an INN-Reach site and I want to change our IP address and/or install a firewall in front of the Innovative server. What do I have to do?**

For information on changing your IP address and any requirements based on your firewall installation, see the [IP Address Changes FAQ.](https://myproquest.sharepoint.com/%3Aw%3A/s/ITLC-Public/ERGhxt5PlzNLodBCb3Z56IEBgX-DLUj5RWgUjZX7Su4nEQ?e=cXnZqk)

**Warning**

Failure to coordinate IP changes with Innovative Interfaces and your library's INN-Reach Central Server may result in unexpected issues, such as an inability for your library's server to successfully communicate with the INN-Reach Central Server.

**What sort of timeout should I set on my firewall?**

A library running Sierra should NOT have a timeout set on a firewall. If a site running Sierra has a timeout set on a firewall, users may be logged-out during sessions when the desktop application is idle for a few minutes.

**Does Innovative use User Datagram Protocol (UDP) services?**

All network services provided by the Innovative server use TCP-based protocols. However, Innovative servers do initiate UDP-based DNS requests. For example, Network Time Protocol runs as an outbound UDP connection on port 123.

**Where can I control access to my 2082 staging port?**

The 2082 port currently shares its access settings with the default WebPAC (port 80).

**How do I know which ports to open for traffic from searchers using our Z39.50 Client?**

The administrators of the remote Z39.50 Server you want to search should be able to tell you. Port 210 is the standard, but some developers and vendors of Z39.50 Server software do use different ports.

**Do I need to open ports for the Z39.50 Server for inbound traffic? Outbound? Or both?**

Both.

**Which ports should my library open for Innovative staff, the public, library staff, and other related groups such as partner libraries?**

Refer to the charts at the end of this article for all ports that you must open in your firewall for the appropriate parties.

* Sierra Application Server (App Server) ports
* Sierra Database Server (DB Server) ports

**Note:** If your organization allows Secure Shell (SSH) access, Innovative requires TCP/22 - Secure Shell (SSH) access through your organization's firewall to Sierra system and SFTP access between your server and upgrade.iii.com. Innovative can support the Sierra system and applications through SSH. For more information on Innovative's support access via SSH Tunneling, see the SSH (Secure Shell) FAQ.

**Note:** Unless otherwise noted, both in-bound and out-bound access are required on the indicated port number.

**Application Server**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PRODUCT (Protocol)** | **PORT NUMBERS** | **PUBLIC****(INTERNET / EXTERNAL)** | **STAFF/ PARTNERS (Internal)** | **INNOVATIVE (External)** | **SIERRA DATABASE SERVER** | **OTHER (External)** |
| SSHD | 22 |   | X (for staff who access the 'Admin Corner') | X | X |  |
| **Mail** (SMTP, outbound), Content Pro (outbound to www) | 25 | X | X |  |  |  |
| **HTTP** (Including Patron Web Services) | 80 | X | X | Recommended | X |  |
| **HTTP** Alternate databases | 81,82,83 … | X | X |  |  |  |
| **HTTP** KidsOnline | 90 | X | X |  |  |  |
| **AirPAC for Smartphones** | 91 | X | X |  |  |  |
| **Outbound UDP Connection (Network Time Protocol)** | 123 |  |  |  |  | X |
| **Z39.50 Server** Primary database | 210 | X | X |  |  |  |
| **WebPAC Z39.50 Client** | 211 (Your library may require additional ports if your system runs multiple character sets on multiple ports.) | X | X |  |  |  |
| **Z39.50 Client(Z39.50)** | Any (The remote organization specifies the port; for example ports 210, 2200 and 7090 are commonly used.) |  | X |  |  |  |
| **INN-View Authority Access** | 212 (Outbound to Innovative Address [innview.iii.com]) |  |  | X |  |  |
| **LDAP Patron Authentication (LDAP)** | 389 (Outbound connections to your organization's LDAP server) |  |  |  |  | X |
| **ArticleReach e-Delivery Integration service (Ariel)** | 422 |  | X | X |  |  |
| **HTTPS/SSL** (Including Patron Web Services) | 443 | X | X | Recommended | X |  |
| **HTTPS/SSL** (Additional WebPAC servers) | 444, 445, 446... | X | X | Recommended |  |  |
| **OCLC ILL** | 499 ('Other' external access is for outbound connections to OCLC.) |  | X |  |  | X |
| **LDAP Patron Authentication** **(LDAP/SSL)** | 636 (Outbound connections to your organization's LDAP server) |  |  |  |  | X |
| **WebPAC FTP Access** (FTP) and **Quick Click Ordering** | 1021 |  | X |  |  |  |
| **MySQL** (for statistics reporting) | 1031 |  | X | Recommended |  |  |
| **WebPAC Staging Site** | 2082 |  | X |  |  |  |
| **WebPAC Staging Reference Databases** | 2083 |  | X |  |  |  |
| **WebPAC Staging Site - KidsOnline (HTTP)** | 2090 |  | X |  |  |  |
| **Collection Web Reports** | 4440 |  | X |  |  |  |
| **Circulation Statistics Web Report** | 4441 |  | X |  |  |  |
| **Patron Search Statistics Web Report** | 4442 |  | X |  |  |  |
| **Fund Management Web Report** | 4443 |  | X |  |  |  |
| **INN-Reach Patron Reports** (INN-Reach Central Sites only) | 4444 (see also 4454) |  | X |  |  |  |
| **Vendor Performance Statistics Web Report** | 4445 |  | X |  |  |  |
| **Article Access Management Web Report** | 4446 |  | X |  |  |  |
| **Web Access Management Web Report** | 4447 |  | X |  |  |  |
| **Web Report Manager** | 4448 |  | X |  |  |  |
| **Patron Functions Web Reports** | 4449 |  | X |  |  |  |
| **INN-Reach Patron Reports** (INN-Reach Central Sites only) | 4454 (Alternative port used by libraries that don't wish to allow access to port 4444. See also 4444) |  | X |  |  |  |
| **Telephone Renewal** | 4460 (Inbound from Telephone Renewal PC) |  | X |  |  |  |
| **Pickup Anywhere** | 4465 & 4470 |  | X |  |  |  |
| **AirPAC and/or Wireless Workstation** | 4480 | X | X |  |  |  |
| **System Printer Note:** Port 9100 is on the printer. The server communicates with the printer on port 9100. | 9100 |  | X |  |  |  |
| **Research Pro** **Locally-hosted servers** [See also Research Pro] | 9797 | X | X |  |  |  |
| **SSL Self Checkout** | 45550 |  |  | X |  |  |
| **Sierra Data Server** [See also Research Pro] | 54605 (Inbound and outbound connections to the IP range 205.227.90) |  |  |  |  | X |
| **Patron API Server via SSL** | 54620 |  | X |  |  |  |
| **Research Pro Locally-hosted servers** [See also Research Pro] | 61080 - 61087 | X | X |  |  |  |
| **Sierra Mobile**(Mobile Worklists) | 61125 |  |  |  Required Cloud Platform 54.183.40.224 54.67.111.221 |  |  |
| **Reporter & Decision Center, Staff Web Applications, Sierra Dashboard App, Sierra Desktop App** | 63000 |  | X |  RequiredReporter & Decision Center server.Contact III if you are unsure what IP to use.Required SMS Alerts server 74.217.196.23 smsdom.iii.comRecommended for all libraries not using SMS Alerts | X | Required from hosted Reporter & Decision Center IP; Required for book jacket vendors |
| **Reporter & Decision Center, Staff Web Applications (SSL), Sierra Dashboard App, Sierra Desktop App** | 63100 |  | X | Required SMS Alerts server 74.217.196.23 smsdom.iii.comRecommended for all libraries not using SMS Alerts | X | Required from hosted Reporter & Decision Center IP; Required for book jacket vendors |
| **RSS Feeds** | 63200 | X | X |  |  |  |
| **Sierra Dashboard App, Sierra Desktop App** | 64000 |  | X | Recommended |  | Required for book jacket vendors |
| **Sierra Data Server** | 64001 |  | X | Recommended |  |  |
| **SSL Sierra Desktop App**Available beginning with Sierra 4.1 | 64100 |  | X | Recommended |  |  |

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