

# About Pirouette Hosting

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In order to get Pirouette software up and running, it must first be installed on the organization's server. This involves substantial start-up costs, in terms of purchasing the server and the related server software, and purchasing and configuring security infrastructure such as firewalls. Few organizations have the resources or expertise in-house to effectively and securely set up and maintain their networks. Further, typical low-cost network solutions such as DSL have very poor performance and will be slow if accessed by a large number of users.

For many organizations, off-site hosting is deemed preferable to local hosting because it is significantly less expensive, and provides both increased security and improved performance. Roxy Software servers are hosted at 151 Front St., a sophisticated, high-tech data centre located in downtown Toronto. The data centre offers services such as redundant power with generator backup, and multiple homed, symmetrical, fibre-optic based internet connectivity. For more information about 151 Front St., including connectivity and security details, please visit <http://www.151frontstreet.com>

## Security

### Networking

Every time you host an additional service locally, you create a potential "hole" where unwanted intruders can try to gain access to your network. Effectively countering this security threat requires substantial technical expertise that may not be available at your organization.

Off-site hosted services are no longer attached to your local network. As a result, you avoid increasing your local network's vulnerability and your data is secured and maintained by professionals with extensive network, firewall, and database experience.

### Encryption

Pirouette is a web based database, which presents a number of benefits – the most obvious being the ability to access the data remotely from any internet connection. This can, however, present a number of security issues if the server is not configured appropriately. Specifically, information needs to remain secure as it moves from the server to the workstation, so that it can't be viewed by unwanted intruders.

This level of security is typically achieved through Secure Socket Layer (SSL) encryption, which scrambles the information as it travels between the server and the workstation. To descramble the information, the workstation must have the corresponding key. First used by banking institutions, SSL encryption has become the international standard for secure communications. Any servers hosted with Roxy Software are provided with a Roxy Software domain name (such as yourCompany.roxysoftware.com) which is configured to use SSL security by default.

## Physical Security

Most small offices are not properly equipped to prevent theft, and valuable computer equipment is a common target. An organization's server is often its most expensive piece of hardware, and is likely to be the greatest target when a theft occurs.

Our hosting facility has numerous security protocols and mechanisms in place to prevent any theft attempts. In addition to having 24/7 security guards, the building requires photo key card access, as do the elevators and the suite containing the machinery. Each server cabinet is secured with additional key locks, and any hardware leaving the building must be signed out with security.

## Performance

Optimal database performance is dependent upon the reliability and performance of the organization's internet connection. Most organizations use a standard DSL connection to access the internet. With this type of connection, local hosting will provide adequate performance provided all users are accessing the database from a single site (assuming that the server is hosted at that same site.) This is because the local users and the server are both on the same network.

If, however, users will be accessing the database from multiple sites and locations, a DSL internet connection is ill-equipped to support this type of activity. Users trying to access Pirouette remotely will experience a significant decrease in performance.\* When users are accessing the database remotely, colocation provides the fastest connectivity. Roxy Software's colocation services utilize a powerful internet connection\*\* for optimal database performance regardless of user location. For an individual organization, this type of internet service would likely cost several times more than the monthly fees for our hosting service.

\*DSL internet connections offer "asymmetrical" performance. This means that they receive data (download) much faster than they can provide it (upload). This asymmetrical configuration could be as heavily weighted as 20:1, meaning downloads are 20 times faster than uploads. In terms of database performance with a locally hosted server, this means that when a user tries to access Pirouette remotely – which requires uploading from the organization's server – there could be up to a 95% decrease in connectivity speed.

\*\*Roxy Software's hosting services currently utilize a 100Mbit/s (100 million bits per second) symmetrical connection, over 200 times faster than the typical DSL or cable connection. DSL and cable connections by comparison average just 400-500 Kbps (400-500 thousand bits per second) at best, and further suffer from the asymmetrical performance issues outlined above.