



CyberTools® Cloud/Hosting Questions & Answers

Since 2000, CyberTools cloud computing has helped specialized libraries and academic organizations lower costs, update technology, and enhance both access and privacy. Hosting lets your IT staff focus on their core activities while CyberTools handles such IT concerns as security, maintenance, backup and support.

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1. The CyberTools Data Center: Security, Connectivity and Response Issues

- **Where is your data center or co-location facility?**

After a 15 month trial, we migrated to Amazon's AWS EC2 farm in November 2014. The live primary server and its main secondary shadow server are on the east coast. A tertiary shadow server is on the west coast.

If the live primary server fails on the east coast, then the secondary shadow assumes the live server's IP number, and becomes the new live server. It takes seconds to make this change.

If the entire east coast site should fail, then the west coast tertiary shadow becomes the live server. In this case then CyberTools would need to establish the west coast IP number for the live server. This would need to be changed at Network Solutions so that domain servers throughout the world would know where to find the CyberTools live server. Network Solutions has responded quickly in our testing; however, it can take up to two hours for the change to flow through to all domain servers in the world. Conceivably, this would be an extremely rare circumstance, and CyberTools conducts regular testing to ensure backup cloud procedures remain effective for our users.

- **How do we access the application? Public Internet, VPN/Extranet, other?**

Public Internet.

- **Is any extra software needed on our PC's?**

No extra software is needed for online catalog/OPAC or A-Z list users who may access via the Internet from any PC, laptop, workstation, mobile phone, tablet or similar device. Staff use requires a free download of Java. Library/collection management personnel may access CyberTools staff functions from any Windows PC.

- **Any secure access requirements, tokens, etc.?**

Staff functions are user-identifier and password protected. Patron searching is typically anonymous but can be user-identifier, password protected, and/or IP authenticated, at the option of the library. This last option is most commonly selected by commercial research organizations and law firms. Patron holds and renews require a patron ID (typically an email address) and a password. Most academic and health sciences collections are designed to promote open access in order to market their valuable print and digital resources to their patrons.

- **What audit reports are maintained?**

All transactions are logged and can be reported on demand.

- **What server/software security measures are in place?**

- **Firewall:** CyberTools uses the AWS EC2 security groups. Ports 25, 80, 210, 443, 465, and 20004 have unlimited access, all other ports are restricted or fully closed.
- **Virus Checking:** Linux does not have the virus issues that Microsoft Windows does. There are no Linux virus checkers.
- **Intrusion Detection:** We use very long system user identifiers and passwords of 12 randomly generated characters. Passwords are regularly changed with the same random character generator. All access is automatically reported to the system administrator every four hours. All file size and date changes are reported every fifteen minutes to the system administrator. All logs are automatically reviewed hourly and anomalies reported to CyberTools system engineers.
- **Authentication/Encryption:** We use long user identifiers and passwords, all encrypted. System admin access is via ssh. Library staff user access is via encryption by the application and controlled by user identifiers and passwords. Due to requirements we maintain for our US government libraries, CyberTools optionally offers FIPS 140 encryption at no additional cost to all users.
- **Backup policy:** First, all database writes are cached on disk prior to being applied. Second, databases are journaled and shadow de-journaled in real-time. At night, every database is backed up and archived. The backup is also securely transmitted to the tertiary server where it is extracted. At any point in time there are six (6) secure copies of a library's database.
- **Ability to restore a system:** We fully restore the daily backup each day, seven days a week, on the tertiary server, so there is no doubt that the backup is executed correctly.
- **Disaster Recovery:** Every hardware component is in triplicate form and can be replaced in minutes with minimum down time.

- **How is the collection database and catalog set up, partitioned, and shared?**

No database is partitioned. Each CyberTools collection (catalog) is established in its own secure database, and these are never shared. Libraries that choose to participate in free union CyberTools catalogs share the same bibliographic record file but maintain control over their own unique collection and patron data. As an example, libraries from various academic and hospital organizations in the Phoenix area have chosen to create a CyberTools union catalog which optionally displays all collections at once.

2. Redundancy and Fail Over Procedures

- **If the application or hardware fails, is it down or does it rollover to another server?**

Rollover takes minutes and is regularly tested. All servers are mirrored.

3. Hours of Operation and Access Time

- **Are there any times that the application is unavailable?**

No. Since CyberTools first released a hosted version in 2000, our libraries have experienced near 100% uptime. The average since 2005 has been better than 99.999%, with 100% uptime between January 2004 and February 2015. Ask our users about our solid record of uptime.

4. Communication and Notifications

- **If there is to be scheduled downtime or upgrade work how are we notified?**

Sunday mornings at 7 AM Eastern are used for periodic scheduled downtime for maintenance. Otherwise, scheduled and unscheduled downtime is highly infrequent. Daily backups occur without hindrance to your uptime. The client-only Knowledge Center web site also serves as a clearinghouse for scheduled downtime and other urgent communications, as well as for ongoing training, documentation, quick-tours, recorded webinars and other resources. While this notification procedure has been working well, we expect to implement an enhanced plan for client event notification later in 2015.

5. Upgrades

- **Are upgrades included in the standard subscription fee?**

Yes. Upgrades to all server hardware, software, maintenance, and all application updates and support are included in the CyberTools subscription fee.

- **How often are upgrades applied?**

An upgrade is installed when it becomes available. We do not wait to install upgrades at the end of each month or week. For hosted libraries, the CyberTools Support Group installs all upgrades. On average, two to three major upgrades occur each year. On average, minor upgrades occur at least monthly, and since our release of the Electronic Resource Management module, more frequently due to online content providers updating their data structures. Notices are posted (1) at the Staff User login, (2) at our client-only Knowledge Center web site, and (3) via email notifications to library contacts. Major upgrades occur with close partnering among our client librarian beta testers.

- **Are upgrades automatically applied or scheduled? Are all upgraded at the same time?**

Upgrades are automatically applied, although we communicate major updates in advance. All CyberTools clients are upgraded at the same time.

- **How many application upgrades have you performed?**

More than 1000.

- **Have you performed hardware and/or operating system upgrades on the system?**

Yes. We regularly update primary, secondary and tertiary hardware at all server locations.

6. Support

- **Who do we call for product support and what hours are they available?**

We encourage librarians to email Support@CyberToolsForLibraries.com for non-emergency support 24 hours a day, 7 days a week. We reply within our high standards for service between 8 AM and 8 PM, Monday-Friday, and same-day on Saturday and Sunday. A clear email will give us the information we need to answer the question, helps the client formalize the question, and allows a response in writing, so the librarian can follow-up at his/her convenience. This process also allows us to share knowledge gained from this client interaction with all our staff and with other clients to enhance our responsiveness. Users are welcome to call us toll-free 800-894-9206 x 2 Support for urgent and emergency issues, including local connectivity issues. In practice, we also assist users, especially new users, regularly by phone and/or private desk-top sharing webinar to resolve issues with best practices. All this support is included in the base fee.

- **What is the average turnaround time for problem resolution?**

Our standard for support is to respond in one hour or less. Most questions to our Support Group are simple requests for assistance with using existing features. We assign a primary and secondary individual each day to manage Support. The secondary person ties out all support inquiries at the end of each workday to insure nothing was missed.

- **What kind of support issues have you incurred to date?**

Support calls cover a range of topics: Libraries with new computers may need to disable pop-ups or require help in downloading Java. Our most common support request is for a forgotten password: we offer an auto-re-set feature for passwords. Librarians with little cataloging experience might call with questions about MARC, how to download bibliographic records, or the use of bar codes, and we are pleased to assist them. Librarians occasionally call with suggestions for enhancements to the software. Commonly asked questions are answered in a series of FAQs provided at our client-focused Knowledge Center web site, and we add to this FAQ list when a particularly good question comes up.

- **What else should we know about your support?**

CyberTools is known for highly responsive, personalized support. Walk-throughs and hands-on support are also available via free monthly Q&A Workshop webinars conducted by our professional librarian and sometimes co-hosted by our technical support staff. CyberTools arranges with any interested clients in advance of each session to demonstrate new features in their live databases to the group. CyberTools has arranged with the Medical Library Association to award CEs for all participants. Hands-on workshops covering new features are popular webinar topics. Client webinars, recordings, and our client-focused Knowledge Center web site are valuable resources for the CyberTools community.

7. How Safe is My Library Data?

- **Do you sell or share library data with anyone?**

Never. You own the data and although it remains on the CyberTools server during your service period, your contract explicitly states that you have ownership of your own data. CyberTools also secures the reading history of individual patrons: while aggregated usage data is widely available, only information about outstanding items on loan is available and tied to individual patrons for the library/collection management staff.

- **How do we get our data back if there is a problem? In a readable format?**

With CyberTools your library's data is in standard MARC21 format and is universally compatible with other major integrated systems and can be exported at any time by the client via system menus.

- **Can we get regular downloads of our data for use in other in-house apps?**

Yes. CyberTools also provides an ODBC interface. A Z39.50 server add-on is available for an additional fee, required only when the library is participating in a non-CyberTools shared state/regional catalog.

8. Business Issues

- **What happens if your company goes out of business?**

CyberTools has been in business since 1986, has no debt, entered the library automation marketplace in 2000, and has been in the top tier of library ILS providers (as measured by total sites according to Library Journal) for many years. Since you own your own data which is in a standard MARC21 format that is highly portable, and since your data can be exported by the library via system menus to another system at any time, CyberTools clients achieve a level of fast and easy portability to other systems that is unsurpassed in the library community. Most ILS providers require you to request a copy of your own data from them, and frequently charge extra for this. We partner constructively with our user community and are secure in their ongoing support.

- **Do you give us the opportunity to bring the application in house?**

CyberTools offers an in-house server option only to major universities. An in-house server is more expensive for the library and requires local IT resources. Our all-inclusive hosting fees are very low. There is little demand for running via in-house servers even among our larger clients today.

- **Do we need to purchase workstations and bar code hardware through you?**

You have complete flexibility to purchase any hardware from any source. You do not purchase this via CyberTools, and we do not take a portion of the hardware fee. CyberTools is completely portable to any web-enabled platform. You may use any bar code methodology or bar code equipment with CyberTools.

- **Do we have the ability to get copies of our data and a program to read them with?**

The standard MARC21 data is easily read with the freeware product, MarcEdit.

- **Are there any additional charges that are considered "extras" that are not in the service contract?**

For 99% of CyberTools libraries, there are no additional service fees. CyberTools aims for simple, integrated, all-in-one service. Very rarely a library wishes to expose its collection while participating in a non-CyberTools ILS/online catalog; a Z39.50 server fee would then apply.