Server Security and Data Backup

Web servers are extremely reliable and our servers are in a physically secure "data centre" used by major companies in our area. The servers are managed by hosting.ca. On the next page is an excerpt from their web site describing the data centre.

Unauthorized access by "hackers" is not possible on our servers because we use the latest in hardware and software firewalls.

Backup and Recovery:

- Our servers have two hard drives. C: drive holds the operating system and files for programs like Access and SQL Server. D: drive has the SAS data files and the SAS programming files, images, etc. for each school
- Data is backed up daily, so no more than one day's data would be lost in the case of a server failure or data corruption. The data files are compressed and saved on both hard drives of the server. The SAS programming files, images, etc. are compressed and saved on the C: drive.
- Data is also downloaded up three times weekly to our office and stored on removable encrypted hard drives. The programming files, image, etc., are downloaded every weekend. One of the encrypted drives is stored away from the office.
- We also encourage schools to back up their data from our web servers on a regular basis, so data resides in three physical locations. We can easily set up a FTP account so schools can download their data at their convenience.

Contact: Seann Lyncaster sales@sasystem.org

Data Center Information

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All hosting.ca servers are all connected to a Tier 4 level data center in Vancouver BC, Canada. Here are some brief details:

Physical Security

There are two methods of authentication; these are both a security pass card, and a biometric finger scanner. As both of the processes are required to enter the IDC, it is unlikely for anyone other than authorized people to enter the facility. There are closed circuit cameras throughout the floor and throughout the IDC facility which is monitored 24/7. All movements are recorded and archived for 60 days.

Fire Suppression

There are environmental sensors/ionized smoke detectors on the ceiling and under the raised floor throughout the entire data center.

Climate Control

There are two Liebert HVAC (air conditioning) dual compressor units dedicated to cooling the IDC floor. The advantages of using a dual compressor HVAC, is the ability to perform maintenance on one compressor while the other is still operating. Temperatures in the data center is regulated at 72 Degrees Fahrenheit, with 45% relative humidity.

Power Feeds

The data center has a diesel generator and two UPS (Uninterruptible Power Supplies) to ensure that our servers are always up and running. In the event of a power failure, these systems will take over ensuring that your equipment always has power.

Power Setup

Power delivery to the floor is critical to the success of the data center, and there is no single point of failure. The hydro power feed is **redundantly connected** into the Automatic Transfer Switches (ATS). If the ATS sensor detects failure or interruption in the hydro feed, it signals the Diesel Generator to start, and then uses this power until the hydro power is restored.