

Backups and Disaster Recovery

For the customers hosting their own servers, they will be responsible for data backups and Disaster Recovery. Tk20 will work with you to ensure that you have complete information as to what needs to be backed up for successful recovery of the system.

Backups:

Tk20 will be more than happy to cooperate with the backup process. Tk20 will work with you to let you know what needs to be backed up for successful recovery of the system should the disaster occur. Additionally upon your request, Tk20 can install a backup script on your server that backs up the contents necessary for Tk20 software operation.

There are 2 parts of the system that need to be backed up.

1. ctools database: - This is where the complete configuration and system usage data resides. Campustools uses postgres as a backed database. All the information that needs to be backed up resides in ctools database.
2. User Files: - As part of system usage, users upload variety of files. All the files by default reside on the web tier server, and can also reside on a separate file server. All the files reside under /home/tk20/fileshighered directory. So it is sufficient to make a tar ball on this entire directory as part of the backup process.

Backup Script:

In order to accomplish daily back up process, Tk20 will be happy to install a backup script on your servers. The script will reside located under /home/tk20/ and is called Tk20remotebackups.sh. This shell script backs up the database on database server and files on web tier server. There is a cron job scheduled to run every day at 2am on each server. This job runs as deployer user and executes this script with proper arguments. The script backs the appropriate item (either database or the files depending upon the argument passed to the script) and stores the backup file under /home/tk20/backup/<day of the week>#/ directory, where # is the hour of day.

For example, once the script is executed by cron job on web tier server on Monday, you will find a directory structure

/home/tk20/backups/Monday/<schoolname>.tar.gz

Similarly on middle tier server it would be

/home/tk20/backups/Monday/<schoolname>.sql

What do you have to back up?

Your IT has to back up /home/tk20/backup directory on both, the web tier and middle tier server daily, which would include a week long backup of files and database. Once this is backed up on the tape it can then reside at a off site location

Disaster Recovery:

In case of disaster recovery it is your responsibility to make the latest tape backup available to Tk20. It should include both the components of the latest backup, a sql file and a tar file.

Additionally you will have to provide us the necessary access to the recovery server which includes setting up deployer account and activating the sudo access to the account. Tk20 will then proceed to install all the necessary components required for Tk20 operation. Once the component installation is complete, Tk20 will redeploy Campustools Highered and load the data from these two files. From the time the server access is obtained usually it takes at least 6-8 hours depending on the deployment topology to recover the system fully.

Following table describes the activities involved in disaster recovery and the responsible part for each of these.

No	Item	Responsible Party
1	Identify server for system recovery (This server needs to have comparable specifications (RAM, Hard disk space etc) as the production server)	Institution IT
2	Install Operating System	Institution IT
3	Create necessary system users	Institution IT
4	Configure the ports between the servers	Institution IT
5	Assign/decide the URL to be assigned to the server	Institution IT
6	Purchase server certificate (SSL)	Institution IT
7	Provide necessary access for Tk20 for server installation	Institution IT
8	Provide the access to latest backup files to Tk20 from which system can be recovered	Institution IT
9	Install System components	Tk20
10	Configure apache with server certificates	Tk20/ Institution IT
11	Tk20 Software Installation	Tk20
12	Tk20 Software Configuration	Tk20
13	System recovery	Tk20
14	Application level testing	Tk20