

## Backing up with Wintix version 5 – the MySQL version

### What is different?

This version saves its data on a “server.” This is a separate computer whose only purpose in life is to handle data. It gives some big advantages (suitable for heavy load, better data integrity, better security, data mining). It is the standard for e-commerce.

The data still needs to be backed up. But there are other things that are important that also need to be backed up. The solution is re-defining the concept of backups.

Defining a backup as data overlooks some important details: These are topology, systems configurations, tuning and how the larger pieces talk to each other. You also need to back up the administrator passwords and permissions. Lots of time gets put into this. This is a specialized skill and requires expensive people. There is a lot of trial and error. Oddly enough, this does not seem to be a concern for backing up and restoring. Few people are experienced enough to write down their changes and how to go back to the old way. When it is done, these notes are complicated and incomplete (even for the original tech).

### A different definition of backup

A backup has to be defined as the ability to survive failures. It needs to be affordable and do-able by people. The way to do this is a pre-configured (and tested) backup system. This does not mean tape drives (which are unreliable and difficult to restore from). This is would be a setup of hardware and software that would be constantly plugged in and performing constant backups. When there is a failure, or simply a need for maintenance on the main server, everyone would switch to using the backup server and data. The backup would be portable in that it could be taken home for an off-site backup. Switching to another server in Wintix and Tixsales is a simple change in sqlrdd.ini.

### Not as expensive as it sounds

A laptop is the obvious choice. Laptops are available for less than \$500. Used laptops are even less expensive. All it needs is a network card and a hard drive. Set it up as a LAMP server. Then, set it to do an automatic backup as needs dictate (once a day or once an hour). The backup gets checked by running reports through the HTML interface.

### Advantages:

- When the day of reckoning (or maintenance) comes, everyone would simply point their programs to the backup computer just by changing the settings in the sqlrdd.ini.
- Having the backup machine set up as both a web server and database server means that the machine would be able to replace either one.
- It would be simple enough that the average technician or box office manager would be able to handle the switch-over.

### Disadvantages:

- Cost: However, 2 laptops would probably be less expensive than a dedicated tape drive system.

- Performance: This would not be as good (unless you spend a lot of money on the laptop). But with planned maintenance, few will complain. In a crisis, no one will complain.
- Network slowdown: If it gets done every hour, people would notice the slowdown. If the backup is restricted to just the files that frequently changed (mainsale and chartlist), it would be much faster. If the backup is done when no one else is using the network (before opening and after closing) no one would notice the slowdown.
- Space: Laptops do take up space – but not very much.

**Tip:**

Dual boot: Let's say your personal laptop runs XP and your server uses Linux. You don't want to throw away everything you have on the laptop. The solution is to install Linux alongside of XP. This is called a dual boot. Then, when you turn on the laptop, you will have a choice to boot under Linux or Windows. Some distributions of Linux will allow you to re-size the hard disk partitions so you can save all your Windows data.

**Caveats:**

- Back up your laptop data first
- Make sure you have enough hard drive space (Linux will take about 7G Data will take another 2 G ) Re-sizing a partition will take about 3 hours.
- Set a good password for Linux. You have data that can be sensitive (if you are saving the credit card numbers).