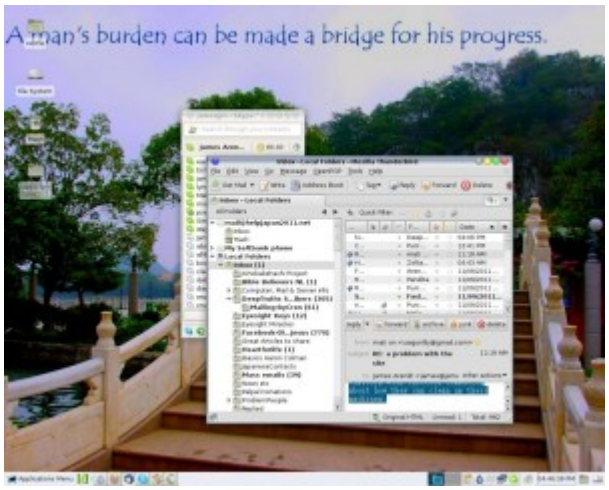
BTRFS Blues and Backup Basics



Grsync - the
best backup
tool for Linux

This post is aimed at Linux users, and especially at techies.

When Fedora 16 went gold on Nov. 8, 2011, I immediately installed it and used the new BTRFS for my /home partition. I read that BTRFS may become the default file system in Fedora and was under the assumption that BTRFS now had a good file system tool to fix errors. It turned out that I created an accident waiting to happen!

About a week later I learned that the file system checker program, btrfsck, was still in development, It could only identify file system errors not fix them. I thought to immediately reformat /home back to ext4 and start again, but I decided to wait. I had my fingers crossed that /home would survive till the time btrfsck would be perfected. No such fortune. /dev/sda1 that holds /home crashed yesterday, 97 days later.

Because I realized from early on I was running a risk of losing the data in /home partition to file system corruption. I made frequent backups of /home to a second internal HDD on my PC which is formatted in ext4. And I made a second backup to an external USB drive.

I tried in vain to fix the bad block on /dev/sda1 by downloading and running Fedora 17 Alpha thinking that may have a perfected btrfsck tool to fix the BTRFS partition. But I found that btrfsck still can't fix errors. It turns out that btrfsck won't even be ready for Fedora 17 and was pushed back to Fedora 18! Though I like keep up with bleeding edge Linux technology, I decided to wait for at least another year or more to try out BTRFS again.

You may wonder how much data I lost considering I lost my entire working

/home partition – a first for me. I like to make regular backups of the entire /home partition to a second internal drive on my PC, and the last backup was fortunately only 10 days before the crash. I use Grsync to backup files. It’s an excellent backup tool because it synchronizes the target partition to the source. It copies only the newer files to the target partition, and deletes any old files on the target partition that no longer exist on the source partition.

So what did I lose between backups? No essential data whatsoever. Only 10 days of email (all of which I read and replied to), 3 files on one of my static websites which I was able to restore from the server, and 2 files of material to post on a website I am making for friends – material they can resend me.

Some of my friends have had total data loss when their hard disk failed. An investment of the purchase of an external USB HDD and regular backups to it can save you from this fate!