CREATING A SANTA CRUZ OPERATIONS (SCO) UNIX EMERGENCY SYSTEM

BY STEPHEN FORCE

Having a current, well-tested operating system emergency system provides absolute piece of mind. If you have never had a damaged system you needed to get active immediately, you are either extremely lucky or new to the technical support business.

Not having an emergency system is a big mistake. Having an emergency system that you think is reliable, but fails when needed, will literately make a grown man cry. I know; I have been in the unfortunate position of having a emergency system fail due to a colleague's "oversight."

Because of this horrible experience, I will no longer trust anyone's word if I personally have to rely on an operating system emergency system. I test it myself and will always have a trusted copy in my safe keeping.

This article deals with creating and testing such a emergency system, specifically for the Santa Cruz Operation (SCO) UNIX system (SCO UNIX V Release 3.2 Version 4.2.). Although the concepts mentioned here apply to most operating system environments, this article is primarily targeted for the numerous SCO UNIX users among us.

The SCO UNIX emergency boot floppy diskette system allows you to recover your system in the event of a catastrophic system failure. Or, you could use these diskettes to restore a corrupted root filesystem without re-installing the operating system.

If you are the system administrator responsible for more than one SCO UNIX system, you should make emergency boot floppy diskette systems for each UNIX machine in your care. After creating a bootable operating system diskette, you should create a root file system floppy diskette that contains all operating system commands needed to either get your system running or to at least get you to the next step of data restoration if needed.

Prior to placing all of these newly created diskettes in safe storage, test each diskette on the proper computer. Do not assume anything. Test each diskette individually.

Creating the Boot Diskette

The following illustrates how to create the Boot floppy disk:

1 Log in your UNIX system as the Root user.
2. Invoke the **sysadmsh** shell and then select from the menu:
   Filesystems Floppy
3. At the Floppy disk Filesystem Creation menu, select the number that corresponds to the disk drive type that you boot from.
4. When prompted for the floppy filesystem contents, select option 2 to create the Boot disk.
5. When prompted, insert a blank floppy disk and then press Enter.
6. The Boot filesystem disk is created and you see each file name as the files are copied to the diskette. Then, the filesystem is automatically checked.
7. Finally, remove the diskette from the drive bay, label it "Boot" and the UNIX machine name. Stick (or slide up) a write-protect tab on the diskette to avoid accidently erasing the vital information contained on the diskette.

Creating the Root File System Diskette

Immediately after creating the bootable diskette, create the root filesystem diskette. Here's how:

1. Remain in the **sysadmsh** shell and then select:
   Filesystems Floppy
2. When prompted (in the Floppy Disk Filesystem Creation menu), select the number that corresponds to the disk drive you are using.
3 After being prompted for the floppy filesystem contents, select option 3 to create the root filesystem.
4. You will be prompted to insert a blank floppy disk in the disk drive. Do so, and then press Enter to continue.
5. The root filesystem is copied. (You will see messages as files are copied to the disk.)
6. When the root filesystem is completed, remove the diskette from the drive bay and label it with "root filesystem" and also a UNIX machine name. Do not write-protect this disk.
7. Finally, copy your chosen UNIX backup commands (tar, cpio, etc.) to the root filesystem diskette. This will allow you to recover backed up data from your SCO UNIX backup medium.

Testing Your SCO UNIX Emergency System

It is vitally important to verify that your emergency system works. To test it, shut down your UNIX system and then re-boot from the boot diskette just created. When prompted, insert the root filesystem disk you also just created and verify the data in the filesystem.

Again, test all UNIX emergency systems.

A Safe Place

If not already done, label each SCO

UNIX emergency system diskette with enough descriptive information to discern one diskette from another and then store all diskettes in a safe and secure place.

All backup tapes and critical disks must be stored in a location safe from fire and other disastrous occurrences. This place could be a fire-proof safe, off-site storage or in a bank vault.

For small shops or at home, another lesser known but rather ingenious place is in your freezer (as mentioned in the accompanying UNIX data backup article on page 12.)

Document Emergency Procedures

One of the most important things to do is to clearly document your emergency system. Write your documentation as simple and complete as possible, and then verify its accuracy. Better yet, have a trusted colleague check it for you and then give you feedback.

Conclusion

Make a reliable and tested emergency system procedure a part of your regular routine. Make several copies of this system and store them in safe, yet easily accessible locations. Print several copies of the emergency system documentation and place one copy with each set of emergency system diskettes and in other strategic locations.

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