

Linux Firewire Mass Storage Disc Server

Keywords: linux, firewire, mass, storage, iPod, simulation, external, hard, drive, file, gadget, disk, server.

Abstract: Contract to create a File Backed Storage Gadget using Firewire instead of USB. Test it under Windows XP and Windows Vista.

Goal

We want to set up a Linux box to act as a mass storage disk server (“mass storage device”), but using firewire instead of USB. The Linux box has a large hard drive, and a firewire port. When a standard Windows XP or Vista PC is connected to this Linux box via a firewire cable, we want a mass storage device to appear under Windows XP or Vista. This requires that the Linux box emulate a mass storage device, much like an external firewire hard drive or an iPod in mass storage mode.

What We Don’t Want

We cannot possibly use ethernet, networks, Samba, USB, or any other solution. We specifically need a Linux box to act as a firewire mass storage device.

Background Information

It is already possible for a “USB File Backed Storage Gadget” to simulate a hard drive. We need to adapt this technique to use firewire, instead of USB.

For a full description of how to set Linux up to use a USB File Backed Storage Gadget, see http://www.linux-usb.org/gadget/file_storage.html.

Target OS

Preferred Linux OS is SuSE v11. If it turns out that the project is difficult to implement under SuSE v11, please submit a written request to switch to a different Linux OS.

Deliverables

A document that describes how to set up any standard Linux box so that it appears to be a mass storage device when a firewire cable is plugged into it.

If the document references any online web pages,

the relevant portions of the webpage must be copied into the document, along with a link to the original web page.

Testing

The solution must be tested in the laboratory, ie: two PC's must be set up, both with firewire plugs, one running Linux, the other one capable of booting either Windows XP and Vista.

- ▶ Test situation 1: Windows XP with a Linux firewire disc server. Connect the Linux box to a computer running Windows XP, see if a mass storage device appears under Windows XP.
- ▶ Test situation 2: Windows Vista with a Linux firewire disc server. Connect the Linux box to a computer running Windows Vista, see if a mass storage device appears under Windows Vista.

Timeline

Deliverables must be delivered in no more than 2 weeks after the initial acceptance of the project.

Start of project: 2008-10-26.

End of project: 2008-11-08.

Contact

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