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To: NCITS Technical Committee T10, SCSI Commands, Architecture, & Protocol Working Group (CAP)
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Subject: [SSS] SCSI Socket Services status report - 2000-07-12

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NCITS Project T10/1246-D (closed(temporarily(kwp)))

Switching from soliciting academic participation to “rolling my own” SSS implementation

When it came to finally pushing the e-mail “send” button, soliciting academic class work participation, I couldn’t do it for a project that had been prematurely canceled. I decided to do an implementation under Linux as a demonstration that will be published/posted as GNU open-source once it is completed.

I will not publish/post the work in progress, but I am willing to share it with anyone who specifically requests it.

Linux currently does not support 16 byte SCSI commands

The first step is to fix Linux so that it supports 16 byte SCSI commands. Since this will need to be incorporated in the standard Linux kernel build, I will try to include SCSI Target Mode hooks at the same time.

Linux SSS Implementation Architecture

sss-main - Main Kernel Module Character Device Driver

This is a **largely platform independent** kernel module that, on one side communicates with the **sss-nic-ether** device driver to get and put network packets, and on the other side communicates with the **sss-cam** kernel module to issue/respond to SCSI commands. This is a character device driver kernel module with the character interface used for setting SSS configuration by writing to the device driver and getting SSS configuration by reading the device driver.

sss-nic-ether : Ethernet NIC simulation Kernel Module Network Device Driver

This kernel module simulates an Ethernet NIC (Network Interface Card) network device driver. It primarily communicates with the **sss-main** kernel module with 2 functions, one to get and one to put network packets.

sss-cam : SSS CAM simulation Kernel Module Character Device Driver

This kernel module character device driver provides a CAM-“like” SCSI Target Mode API for the **sss-main** kernel module. It will simulate, as close as convenient, the CAM API with Target Mode support. Configuration setting/getting is handled by writing/reading the **sss-cam** device driver (like the sss-main device driver).

sss : User Interface Administration Application

An application program that provides a user interface for configuring and monitoring SSS.