

iSCSI Concepts and Solutions

**Solution
Technology**



This seminar provides a comprehensive summary of the current development of iSCSI (SCSI protocol over TCP/IP). This exposes the student to the maze of information available and puts it all together, from making connections to how commands work. All the pieces of an iSCSI system are clearly summarized including what it takes to integrate iSCSI components into a working system. In class exercises help reinforce system concepts. We also look at the trend of the current iSCSI documents and examine iSCSI analyzer captures from some of the current products available.

IP Storage Framework

Overview

Environments

Naming & Discovery

iSCSI Environment

Security Considerations

Design Considerations - Overview

Ease of implementation

Reliability & Availability

Interoperability, Security & Management

Internet Accessibility

Definitions & References

Naming & Discovery - Overview

Naming Requirements

iSCSI Names & Alias

iSCSI Discovery

Configuring Target Information

SendTargets Command

Initiator Queries a Storage Name Server Storage Name Server (SNS) -

Overview

Login Control & Discovery Domains

Query and Registration Services

State Change Notification

iSCSI - Overview

SCSI & iSCSI Concepts

iSCSI Concepts & Functional Overview

Terms & Definitions

Layers & Sessions

Login, Full Feature Phase

Connection Termination

Naming & Addressing

iSCSI PDU Formats

PDU Length and Padding

PDU Templates & Headers

Opcodes for Initiators & Targets

SCSI Command & Response

SCSI Task Management Command & Response

SCSI Data

Text Command & Response

Login Command & Response

Logout Command & Response

SNACK Request

Ready To Transfer (R2T)

Third Party Commands

Reject

iSCSI Error Handling & Recovery

Where Errors Occur

Format, Digest, Sequence, & Protocol Errors

Connection Failure & Session Errors

Recovery Levels

Within-task, Within-connection,

Within-session, Session Recovery

iSCSI Analysis Trace Exercises

Login & Text Command(s)

Common SCSI Commands

READ & WRITE Command(s)

Who Should Attend: This seminar is targeted towards developers, integrators, managers, marketing personnel, technical writers and others with a need for an understanding of storage area networks as implemented using iSCSI technology.

Prerequisites: An understanding of current computer interfaces or networks is useful, but not necessary.

Course Length: 2 Days