SANavigator™

Optimizing SAN Performance

Robert Pulley
Architecture & Integration

April 2002

McDATA Confidential

Agenda

- Introduction
- Planning for Performance
- Monitoring SAN Performance
- Tuning SAN Performance
- Summary

Introduction

- A SAN can significantly improve the performance of networked data movement
- But, there are a number of ways performance can be degraded once the SAN is installed
  - too few data paths to a storage device, relative to traffic
  - data path with mismatched device throughputs
  - constant change in SAN applications, devices, and topology

Planning for Performance

- Select the right equipment
  - all devices in data path should have near equivalent throughput, i.e. 1Gbps switches, hubs, and HBAs
- Place lower capacity devices intelligently
- If budgetary concerns are high, perform bandwidth availability risk vs. device performance vs. cost trade-off analysis
- Consider a SAN planning tool

Monitoring SAN Performance

- You won't know if you planned correctly unless you monitor
- SAN monitoring applications monitor not only device/link faults, but performance, too
  - Latency, jitter, packet loss, bandwidth usage, etc…

Tuning SAN Performance

- Constant Feedback
  - Use a SAN management application
- Modeling and Simulation
  - In its infancy

Summary

- Plan - do your homework
- Monitor - keep an eye on the shop
- Tune - adjust to changes

Thank You!

- For more information, visit www.sanavigator.com or send an email to sales@sanavigator.com