

# Capacity & Performance Management of Storage Area Networks (SANs)

3 Days  
£1,595

Most modern enterprises are migrating to Storage Area Networks (SANs) for a variety of reasons, including cost, security and business continuity. However the migration to SANs is not an easy path. SANs bring a wealth of performance and capacity implications, depending on the architecture and technology chosen. This course is designed to give the Storage Capacity Analyst an understanding of how to cope with the issues surrounding SANs.

## Learn How To:

- Identify performance issues and improve the performance of your storage mechanisms
- Identify the business need for a Storage Area Network
- Write a compelling business justification for a SAN
- Capacity plan your SAN to ensure growth is met
- Understand the performance implications of moving to SAN technologies
- Optimise your SAN performance to reflect your actual workload, not a fictitious sample workload
- Develop a data management strategy to accurately reflect your business growth and data constraints

## Topics

### Introduction to SANs

The Value of Data  
History of Disk Architectures  
Modern Data Storage Requirements  
The Advantages of SANs  
A Data Management Strategy  
SAN Capital Cost Trends

### Data Storage Options

Direct Attached Storage  
Network Attached Storage  
Storage Area Networks  
Redundant Array of Inexpensive Disks

### SAN Technologies & Architectures

SAN Interfaces, Interconnects & Fabrics  
FC-AL vs. iSCSI  
Data Sharing  
Mirroring  
SAN Performance Monitoring Tools

### SAN Performance Management

Disk Performance Characteristics  
Network Performance Characteristics  
Filesystem Performance  
Write vs. Read Performance  
I/O Filesize Impact  
Case Study: UFS Performance  
Volume Management  
Database Performance Management  
Backup & Batch Windows  
Queuing Theory & SANs  
Workload Characterisation & Forecasting  
SAN Performance Modelling  
Cryptography Issues

### SAN Capacity Management

Mirroring/RAID Technology  
Backups & Disaster Recovery  
Planning for Growth

### Implementing a SAN

Business Justification for a SAN  
Migration Planning for a SAN