Implementing **Samba** *(3 days)*

How to integrate your Unix/Linux systems with your Microsoft network using Samba

Relevant Platforms:
- **Linux**
- **Unix**
- **Windows XP**
- **Windows Server 2003**
- **Windows Vista**
- **Windows Longhorn**

You will learn how to
- Install and build Samba
- Configure Samba
- Create and manage shares.
- Create and manage printers
- Understand and implement Samba security and authentication options
- Implement domain security
- Manage users and groups
- Understand how to create, update and synchronise user and machine passwords
- Implement name resolution
- Use advanced Samba techniques

Course Benefits

Microsoft networking is widely used in corporate networks. It is used for sharing files, sharing printers, network logons, security and directory services. Commonly, Active Directory is used to provide an integrated network environment.

In addition, many organisations also utilise Unix and Linux systems. The challenge is how to integrate the two.

Samba is the primary tool for integrating Microsoft networks with Unix and Linux systems. Samba gives organisations a comprehensive set of highly configurable interoperability solutions.

Whilst setting up a network using Windows can seem deceptively easy, in reality SMB/CIFS networking is very complex. NT and Active Directory domains add to that complexity. Understanding these protocols and systems is essential when seeking to use them effectively and particularly when you wish to mix Microsoft networking across multiple operating systems.

This course explains in detail the principles of networking using CIFS/SMB. It also shows in detail how you can use Samba to implement Microsoft networking on Linux and Unix.

Who Should Attend

This course is ideal for network administrators who are responsible for integrating Microsoft networking with Unix and Linux platforms.

A knowledge of general networking concepts and TCP/IP in particular, is required.

Course Contents

Background to Samba
- Windows Networking
- NetBIOS
- Server Message Block (SMB)
- NetBIOS Names and UNCs
- NetBIOS and the Transport Layer
- NetBIOS over TCP/IP (NBT)

Introduction to Samba
- What is Samba?
- File sharing and printer services
- WINS server
- Authentication models
- Integration with Unix and Linux
- Active directory and Samba

Installing Samba
- Obtaining Samba
- Building and Compiling Samba
- Installing Samba
- Testing the installation

Configuring Samba
- The Samba daemons
- Starting restarting & stopping
- The smbcontrol command
- The Samba net command
- The Samba configuration file
- Basic shares in smb.conf
- The security parameter
- Samba smb.conf variables
- Viewing Samba's Status
- Debugging Samba
- Configuring Samba with SWAT
- Installing SWAT

Configuring Samba Clients
- Basic principles
- Configuring TCP/IP
- Advanced TCP/IP
- Computer Name
- Workgroup or Domain

File Sharing and Samba
- Uses for file shares
- Basic shares in smb.conf
- Using shares
- The [homes] share
- Windows and Unix files
- File filename options
- Unix and Windows links
- Locking and locking options
- File attributes
- Basic Unix file permissions
- Controlling user access
- Windows ACLs and POSIX ACLs
- Virtual servers

Name Services & Browsing
- NetBIOS Name Resolution
- The hosts and lmhosts Files
- Broadcasts

- Windows Internet Name Service (WINS)
- Mode types
- The Domain Name System
- DNS and Active Directory
- Browsing
- Master Browsers
- Domain Master Browsers

Samba Printer Service
- Samba Print Services
- Unix Printing
- The Samba [printers] Share
- Printer Drivers
- The PRINT$ Share

Samba Security Models
- SMB/CIFS security
- Users and Passwords
- Encrypted passwords
- Samba user security
- The smbpasswd backend
- Samba domain security
- Samba ads security
- Samba server security
- Samba as an NT PDC

Samba and Active Directory
- Joining Active Directory domains
- Working with Active Directory

Samba & Identity Management
- Mapping SIDs to UIDs
- The tdbsam backend
- LDAP and identity management
- The ldapsam backend
- The nisplus and mysql backends
- Samba backup domain controllers
- NSS and PAM
- Winbind and IDMAP mappings

Samba4 – The Future of Samba
- What is Samba4?
- Building and using Samba4
- IPv6 and Samba4

Practicals

During the course there will be many opportunities for hands-on work. Every delegate has at least one server provided for their own use. Each module has an exercise associated with it.

Delegates each have a Linux server running Samba. Windows servers will be available within the classroom.

The Trainers

All our trainers are practising network consultants with extensive experience with Samba networking on Unix & Linux in large commercial environments. They are ideally suited to bring you the highest quality of training.

The Company

For further information about the training and our company see our web-site at www.erion.co.uk