

Linux Networking

Cursusduur: 2 Dagen Cursuscode: LN Trainingsmethode: Virtual Learning

Beschrijving:

Linux Networking Course Overview

This highly practical instructor led Linux Networking course introduces the delegate to the main concepts of Linux networking and TCP/IP. It describes the structure of networks, topologies, TCP/IP Protocol suite, IP addressing, Application Layer protocols and packet capture techniques using Wireshark.

The delegate will learn Linux commands to view and configure Linux network cards, IPv4 and IPv6 addresses as well as subnetting and analysis of network packets for key applications using Wireshark.

This Linux Networking course is based on the Red Hat/CentOS Linux distribution, the delegate will be able to apply the concepts covered on this course to other Linux based distributions.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

Virtueel en Klassikaal™

Virtueel en Klassikaal™ is een eenvoudig leerconcept en biedt een flexibele oplossing voor het volgen van een klassikale training. Met Virtueel en Klassikaal™ kunt u zelf beslissen of u een klassikale training virtueel (vanuit huis of kantoor) of fysiek op locatie wilt volgen. De keuze is aan u! Cursisten die virtueel deelnemen aan de training ontvangen voor aanvang van de training alle benodigde informatie om de training te kunnen volgen.

Doelgroep:

Who will the Course Benefit?

Users and Administrators who need to design, implement, troubleshoot and oversee TCP/IP networks. This Linux Networking course is also suitable for delegates who need an understanding of TCP/IP and are required to maintain a network.

Doelstelling:

■ Course Objectives

- To provide the skills necessary for the delegate to design, build, test and subnet TCP/IP Networks. The delegate will also learn how to capture packets and trace and rectify faults on the network.
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Vereiste kennis en vaardigheden:

- There are no formal pre-requisites, although knowledge and understanding of an operating system is essential. Having LINUX/UNIX knowledge is particularly advantageous, as the course is built around TCP/IP and LINUX/UNIX.
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Vervolg cursussen:

Further Learning

- Linux System Security
 - Linux Fundamentals
 - Linux Introduction
 - Linux Shell Programming
 - Linux Advanced Shell Programming Tools
 - Linux Bash Shell Programming
 - Linux System Administration (LPI)
 - Linux Advanced System Administration (LPI)
 - Apache Web Server
 - AIX Basics
 - AIX Fundamentals
 - HP-UX Introduction
 - Solaris Fundamentals
 - UNIX Shell Programming for Developers
 - UNIX Fundamentals
 - UNIX Introduction
 - UNIX Advanced Shell Programming Tools
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Cursusinhoud:

Linux Networking Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: NETWORKING FUNDAMENTALS

- Network Hardware
- Data Bandwidth and Speed
- Attenuation and Noise
- Network Types and Topologies
- Network Ports and Sockets
- MAC Addresses
- Exercise

Session 2: NETWORKING MODELS AND STANDARDS

- OSI Model
- Institute of Electrical and Electronic Engineers
- Internet Society and Internet Engineering Task Force
- Exercise

Session 3: IP ADDRESSING

- Internet Protocol Addressing
- Classful IP Addressing
- Reserved IP Address Ranges
- Classless Inter-Domain Routing (CIDR)
- Subnetting Considerations
- Extended Network Prefix
- Exercise

Session 4: PRACTICAL TCP/IP

- Origins of TCP/IP
- TCP/IP and the OSI Model
- TCP and UDP Headers
- TCP Data Flow
- The Address Resolution Protocol
- Installing Wireshark and Viewing Frames
- Exercise

Session 5: IP CONFIGURATION

- Microsoft Windows
- Linux Graphical Configuration
- Network Manager Configuration
- Network Testing Commands
- Exercise Linux Networking Training Course Course Contents - DAY 2

Session 6: IPV6

- IPv6 Address Format and Allocation
- IPv6 Auto Configuration
- IPv6 Configuration
- Exercise

Session 7: ROUTING

- Routing Principles
- Default Gateway
- Static Routing
- Routing Protocols
- Routing Protocols and Software
- Viewing the Routing Table
- Exercise

Session 8: FURTHER WIRESHARK OPERATIONS

- Filtering with Wireshark
- Further Wireshark Filters
- Filtering IPv6 Traffic
- Exercise

Session 9: APPLICATION LAYER PROTOCOLS

- Secure Shell(SSh)
- Domain Name System(DNS)
- Dynamic Host Configuration Protocol(DHCP)
- Network Time Protocol(NTP)
- Internet Control Message Protocol(ICMP)
- Hypertext Transfer Protocol(HTTP)
- File Transfer Protocol(FTP)
- Simple Mail Transfer Protocol(SMTP)
- Simple Network Management Protocol(SNMP)
- Network File Sharing Programs(NFS ; Samba)
- Remote Desktop Programs
- Exercise

Session 10: NETWORK MONITORING AND TROUBLESHOOTING

- Network Troubleshooting
- Performance Analysis
- Detecting Network Errors with Wireshark
- Wireshark Expert Information
- Retransmission and Connection Resets

Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

info@globalknowledge.nl

www.globalknowledge.com/nl-nl/

Iepenhoeve 5, 3438 MR Nieuwegein