



DHCP Fundamentals Workshop Course Syllabus

- * The history of address allocation in IP networks

- * RARP / DRARP
- * BOOTP

- * relay agent operation

- * vendor information field
- * Dynamic Host Configuration Protocol (DHCP)

- * DHCP to distribute network configuration for IP hosts

- * the DHCP protocol
- * the states of a DHCP client
- * DHCP message exchange

- * Format of DHCP messages

- * DHCP options

- * DHCP deployment design
- * centralized vs. decentralized DHCP
- * the role of DHCP relay agents
- * setting up a DHCP relay agent
- * using static DHCP address allocation * Split-Scopes
- * Failover-Cluster

- * DHCP Clients
- * DHCP Clients
- * Windows DHCP Clients
- * MacOS X
- * Solaris 10/11
- * Linux/xBSD - the ISC DHCP Client
- * Linux - dnsmasq (Ubuntu Linux)
- * Identifying clients on the DHCP Server

- * DHCP Server
- * ISC DHCP 3.x and 4.x
- * Microsoft DHCP 2008/2012

- * ISC Kea
- * Cisco IOS DHCP

- * ISC DHCP Server
- * History and Versions

- * installation
- * starting and stopping

- * the configuration file

- * parameters and options
- * subnets, shared-networks and pools
- * host and group declarations
- * the lease database
- * automating DHCP management with scripting

- * DHCP and DNS interaction
- * DNS dynamic update
- * DHCP DDNS update strategies
- * configure dynamic update on the DNS Server side
- * configure dynamic update on the DHCP Server side

- * securing dynamic updates
- * dynamic update troubleshooting

- * DHCP operations
- * DHCP testing and troubleshooting
- * DHCP Server monitoring
- * Monitoring DHCP Pool utilization
- * finding unauthorized DHCP Servers * maintaining a DHCP Server

- * DHCP and IPv6
- * DHCPv6
- * how it is different from DHCPv4
- * DHCPv6 and IPv6 auto configuration
- * stateful and stateless DHCPv6
- * DHCPv6 and the ISC DHCP Server 4.x