

Networking and TCP/IP Basics and preparation for Network+

Course code: GOC2

The very basic, five-days course which provides students with all the necessary knowledge to understand, deploy, operate and troubleshoot basic networking technologies based on IPv4 and TCP/UDP protocol suites. The course discusses also topics such as DNS, DHCP or IP routing and NAT.

Who is the course for

This course is intended for workers responsible for service and net administration in a company.

What we teach you

In this course students learn about nets (mainly about TCP/IP), which are necessary for every administrator.

Required skills

OS - Windows Server

Course Outline

Introduction, net examples, network environment formation

Net range.

Components which partake in network environment formation.

Network topology.

Network technology.

RM ISO/OSI model

Origin of ISO/OSI model

Seven layers of the model

Data transport

Kinds of service

Network protocol

Protocols and data transport.

Common protocols used in network environment.

Other communication protocols.

Protocols used in RAS connection.

Protocol TCP/IP

Set of protocol TCP/IP.

Translation of the names on TCP/IP nets.

Description of data transfer process.

Data heading across nets.

Addressing using protocol IP

IP address classes.

Subnetting.

Planning of the address area.

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Configuration of the protocol TCP/IP.
Hostsearching optimalization in nets using IP address
Binary IP address entry.
Binary „subnet mask“ entry.
Hostsearching process in the net and data transfer.
Possibilities of net monitoring
Network monitor
Networking analysis
Solving of network problems
Automatic allocation of Protocol (IP) addresses
DHCP summary
Installation of DHCP service
Autorization of DHCP service
DHCP "Scope" creation and configuration
DHCP functions adaptation
DHCP configuration in direction IP environment
DHCP support
Implementation of name differentiation using DNS
Question process DNS summary
DNS service installation
Configuration of the name differentiation on clients
Zone creation and configuration
Configuration of DNS for internal use
DNS and DHCP integration
Support and solving of problems on DNS servers
Configuration Windows server as a router
Routers and routing tables summary
Network connection configuration
Routing and Remote Access services
Configuration of static ways
Configuration of Routing Information Protocol
Access to Internet configuration
Possibilities of network connection to Internet
Access to Internet using Router
Access to Internet using address translation (NAT)

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