

Network Management with SNMP

Concepts, Processes, Functions

An efficient administration of LANs, routers, and other network components is not possible without powerful management tools. With the Simple Network Management Protocol (SNMP), a de-facto standard has been able to establish itself for management communication in heterogeneous networks. The SNMP-capability of the corresponding network products is no longer being explicitly asked for by the user today. Rather, it is taken to be a standard feature. The aim of the course is to impart a well-based and directly applicable know-how on network management with SNMP. The knowledge acquired is necessary for the evaluation and selection of specific network management systems.

Course Contents

- Tasks of Network Management Systems
- SNMP Manager and Agent
- Management Information Base (MIB)
- ASN.1 and Basic Encoding Rules (BER)
- SNMP and Traps
- Remote Monitoring and SMON
- SNMPv2c
- SNMPv3
- User-Based Security Module (USM)
- NMS Vendors (Overview)

The contents will be intensified by means of hands-on exercises at a test network.

In this course of the ExperTeach Networking series, each student will receive the comprehensive ExperTeach course documentation.

Target Group

The course addresses network designers and operators, as well as administrators who wish to acquire a detailed know-how of the protocol and its application options in addition to an overview of SNMP-based network management.

Knowledge Prerequisites

Knowledge of the internetworking sector and of the concepts of the IP world is a prerequisite for successful attendance of the course.

Reservation and Registration

We will be glad to make a free and non-binding course reservation for you for the duration of two weeks. On www.experteach-benelux.com under *Registration*, you can conveniently make course reservations, registrations, and hotel reservations. Alternatively, call us under +31 (0)76 52 32 950.

For closed groups of participants, we can modify the course contents according to your requirements. Do not hesitate to contact us!



2 days

€1,095 exclusive of V.A.T.

Course date (dd.mm.yy)/Location

Course dates available on request

Up-to-date information: www.experteach-benelux.com

SNMP



EXPERTeach





- 1 Network Management Systems**
 - 1.1 What is Network Management?
 - 1.2 Why Network Management?
 - 1.3 What Do Network Management Systems Do?
 - 1.4 RFC—The Internet Standard
 - 1.5 Why SNMP?
 - 1.6 Other NMS Protocols

- 2 SNMPv1**
 - 2.1 The Concept
 - 2.1.1 The Manager
 - 2.1.2 The Agents
 - 2.1.3 The Proxy Agent
 - 2.2 The MIB
 - 2.2.1 ASN.1—The Syntax
 - 2.2.2 MIB II—The Current Standard
 - 2.2.3 Private MIB—Vendor-Specific Completion
 - 2.3 The Protocols
 - 2.3.1 TCP/IP—The Basis
 - 2.3.2 SNMP—The Protocol
 - 2.3.3 Traces—SNMP Frames under Scrutiny

- 3 RMON—Remote Monitoring**
 - 3.1 RMON-4—The Basics
 - 3.2 The Functional Components
 - 3.2.1 The Test
 - 3.2.2 The Management Application
 - 3.3 RMON Groups
 - 3.3.1 Remote Monitoring in IEEE-802.3/Ethernet Networks
 - 3.4 RMON2—Analysis up to the Application Layer
 - 3.4.1 Remote Monitoring in High-Speed Networks
 - 3.5 Remote Monitoring in Switched Networks—SMON
 - 3.5.1 SMON—The Groups

- 4 SNMPv2 and v3**
 - 4.1 The Motivation
 - 4.2 What Is Different?
 - 4.2.1 SNMPv2 Frames
 - 4.3 Security Aspects—Once upon a time...?
 - 4.4 SNMPv3—An Overview
 - 4.4.1 The Application of SNMPv3

- 5 NMS Products**
 - 5.1 An Open NMS
 - 5.2 Tivoli Management Environment and IBM
 - 5.3 Spectrum by CA
 - 5.4 HP OpenView
 - 5.5 Micromuse OMNibus
 - 5.6 ManageWise by Novell
 - 5.7 Solstice Manager by Sun



ExperTeach Benelux

Emmastraat 6d • 4th floor
4811 AG Breda
Phone +31 (0)76 52 32 950 • Fax +31 (0)76 52 32 959
info@experteach-benelux.com • www.experteach-benelux.com

© ExperTeach GmbH, all specifications made are exempted from liability.

Status 21.12.2011