The migration of the IP networks worldwide to the new standard IPv6 is in full swing. All network designers and administrators have to deal with this topic sooner or later. This seminar imparts comprehensive know-how about IPv6, from the header format over addressing issues to the options of application. After the course, the students will be familiar with the benefits and improvements offered by IPv6. They will be able to assess the effort required for a migration to IPv6 and the demands made on the parallel application of IPv4 and IPv6. Hands-on exercises and the application of IPv6 in the Internet via an IPv6-capable Internet access round off the topic.

Course Contents
- Aims of IPv6
- Application Fields of IPv6
- IPv6 Addressing and Address Types
- Modifications in the Header Format
- Auto-configuration with SLAAC and DHCPv6
- Routing of IPv6 with RIP, OSPF, IS-IS, BGP-4, and MPLS
- Migration Strategies from IPv4 to IPv6
- Tunneling of IPv6 over IPv4
- Interworking of IPv6 with IPv4 (NAT64)
- ISP Networks and IPv6
- Enterprise Networks and IPv6
- IPv6 and Mobile Communications
- Operating Systems and IPv6

During the course, the practical implementation of IPv6 will be performed in a test network.

E-Book
You will receive the comprehensive documentation package of the ExperTeach Networking series – printed documentation, e-book, and personalized PDF! As online participant, you will receive the e-book and the personalized PDF.

Target Group
This course addresses network specialists wishing to study the potential of IPv6 and the corresponding application scenarios. This course is also recommended for administrators who already have to struggle with the limitations of IPv4, as well as persons responsible for networks who want to prepare themselves for the future planning of IPv6 networks.

Prerequisites
A detailed know-how of IPv4 is necessary for a successful participation in the course. A good preparation for the course at hand is the attendance at the course TCP/IP.
# IPv6 – Addressing, Routing, and IPv4 Interworking

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B List of Abbreviations

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