

Praktikum Next Generation Networks

Vorlesungsteil

Overview

1. Next Generation Network ?

- 1.1 NGN - Definition of ITU
- 1.2 Communication Protocols - Basis for NGN
- 1.3 Distributed systems, examples
- 1.4 Types of protocols

2. Mechanisms in Communication Protocols

- 2.1 Addressing, address translation
- 2.2 Connection oriented vs. connectionless
- 2.3 Flow control
- 2.4 Quality of Service (QoS)
- 2.5 Precedence and Preemption
- 2.6 Ad-hoc networking
- 2.7 Authentication, authorization
- 2.8 Security mechanisms
- 2.9 Tunneling
- 2.10 Mobility support
- 2.11 Broadcast / multicast

3. Implementation of Protocols

- 3.1 (Formal) Description of protocols
- 3.2 Design of protocol instances
- 3.3 Standardization of protocols

4. Testing of Protocols

- 4.1 Conformance tests
- 4.2 Interoperability tests
- 4.3 Stress tests

5. Next Generation Networks !

- 5.1 Architecture, types of network elements
- 5.2 Some Protocols used in NGN

Appendix:

Sources used for this lecture

Sources for further study