

Internet Routing

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General information

- ❑ Area: BKS – Hauptstudium Vertiefer
- ❑ Time
 - Di: 12:00 – 14:00
- ❑ Exam
 - For those that need it ☺
 - Oral or written exam after semester end (depends on # of participants)
- ❑ Prerequisite
 - Basis Kommunikationsnetze or corresponding experience

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Overview: (2-3 lectures)

- Goal
 - Get context, overview, “feel” of networking
 - More depth, detail *later* in course

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Review via example

- Overview Internet architecture
- Internet protocols
 - TCP, UDP, IP, IP addresses
- Internet Applications
 - Web, DNS, ...
- Layer 2
 - Ethernet / Switching / ARP

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Internet routing

- Routing protocols
- Internet topology
- Traffic engineering
- P2P
- Outlook

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Routing protocols

- Internet routing architecture
- Example routing protocols
 - RIP
 - OSPF
 - BGP

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Internet topology

- Topology inference
- Stability
- Impact of path diversity

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Traffic engineering

- Principles
- Mechanism
- Examples

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P2P routing

- Introduction
- Examples
 - Gnutella
 - Bittorrent
 - DHTs

Outlook

- Wireless routing
- Wireless mesh routing
- IPv6
- ...