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
Overview: (2-3 lectures)

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

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

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

Routing protocols

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

- Topology inference
- Stability
- Impact of path diversity

**Traffic engineering**

- Principles
- Mechanism
- Examples
P2P routing

- Introduction
- Examples
  - Gnutella
  - Bittorrent
  - DHTs

Outlook

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