Blockseminar:  
“Qualität im Internet / Quality in the Internet”  
gemeinsam mit Prof. Dr. Franz Schober und Prof. Dr. Günter Knieps  

Wintersemester (winter term) 2009/10

Course Description:

Target Group:  
This Seminar addresses to VWL Diplom Students as well as students in their advanced third or fourth semester of their integrated master program

Organization:

Registration:  
July 20 until August 04, 2009 personally at our office  
office time: 09.30 – 12 am, room 2522

First meeting:  
October 21, 2009

Time:  
03pm

Room:  
2330

Presentation:  
December 04 and 05, 2009
Communication:
All announcements, handouts, etc. will be posted on Campusonline.

Tentative Topics:

Part Prof. Dr. Fanz Schober

Topic 1 Data Grids in eHealth

Topic 2 Data Sharing in Music Markets

Topic 3 Prozess Virtualization as Prerequisite to Network Design

Topic 4 Incentives for Information Sharing

Topic 5 Open Source Software Development Trends

Topic 6 IT Impact on the Formation of Enterprise Networks
Part Prof. Dr. Günter Knieps

Topic 7 Overlay Netze

1. Overlay-Netze
   Clark/Lehr/Bauer/Faratin/Sami/Wroclawski (2006):
   “Overlay Networks and the Future of the Internet”, in:
   Communications&Strategies, no. 63, p. 109-129.

   Li/Mohapatra (2004):
   “QRON: QoS-Aware Routing in Overlay Networks”,
   IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, Vol. 22, No. 1,
   p. 29-40

   De Vleeschauwer/De Turck/Dhoedt et. al. (2008):
   „End-to-end QoE Optimization Through Overlay Network Deployment“, ICOIN 2008
   - International Conference on Information Networking, p. 1 – 5

2. Content Delivery Networks
   Pallis/Vakali (2003):
   “Content Delivery Networks: Status and Trends”, IEEE Internet Computing, Vol. 7
   No. 6, p. 68-74.

   Molina/Ruiz/Palau/Guerri/Esteve (2004):
   "A Closer Look at Content Delivery Implementation”, Proceedings of the 12th IEEE

   Hosanagar/Krishnan/Smith/Chuang (2004):
   “Optimal Pricing of Content Delivery Network (CDN) Services”, Proceedings of the
   37th IEEE Hawaii International Conference on System Sciences.

Topic 8 Service-Level-Agreements

1. Next-Generation-Networks und Service-Level-Agreements
   Sadiku/Nguyen (2002):

   Marilly/Martinot/Papini/Goderis (2002):
   “Service Level Agreements: A Main Challenge for Next Generation Networks”,
   ECUMN 2002 - 2nd European Conference on Universal Multiservice Networks,
   IEEE, p. 297-304.
Yin/Yang/Liu (2004):

2. Differentiated Services und Service-Level-Agreements
Knieps (2009):
“Qualitäts- und Preisdifferenzierung im Internet”, Diskussionsbeitrag Nr. 124, erscheint in: Tagungsband Wettbewerbsprobleme im Internet, Reinhard Fischer Verlag, 2009.

Knieps/Zenhäusern (2008):

Bouras/Sevasti (2004):

Chen/Zhang (2004):

Topic 9 Internet-Anwendungen

1. Voice-over-IP
Graham/Ure (2005):
„IP telephony and voice over broadband“, Info, 2005, v. 7, iss. 4, pp. 8-20.

Varshney/Snow/McGivern/Howard (2002):

Meisel/Needles (2005):

2. Triple-Play / IPTV
Pernet (2006):
Janssen/Mendys-Kamphorst (2008):

Kerpez/Waring/Lapiotis/Lyles/Vaidyanathan (2006):
“IPTV Service Assurance”,

Part Prof. Dr. Dirk Neumann

Topic 10: Computational Grids (2 Topics)

10.1 Cooperation in Grids
Krzystof Rzadca, Denis Trystrame:
“Promoting cooperation in selfish Computational Grids”

10.2 Real-time Allocation
Ravi Bapna, Paulo Goes, Alok Gupta:
“Auctioning Vertically Integrated Online Services: Computational Approaches for Real-Time Allocation”

Topic 11: Internet Routing and P2P (3 Topics)

11.0 VCG-based Pricing
“A BGP-based Mechanism for Lowest-Cost Routing,”
Distributed Computing 18 (2005), pp. 61-72.
(Special issue of selected papers from Proc. of ACM PODC’02.)
(by Joan Feigenbaum, Christos Papadimitriou, Rahul Sami, and Scott Shenker)

11.1 Policy-orientation
J. Feigenbaum, D. Karger, V. Mirrokni, R. Sami:

11.2 Content Addressable Networks
Ratnasamy, Sylvia and Francis, Paul and Handley, Mark and Karp, Richard and Schenker, Scott,
“A scalable content-addressable network”,
SIGCOMM ’01: Proceedings of the 2001 conference on Applications,
technologies, architectures, and protocols for computer communications, 2001, p. 161—172

Topic 12: Service-Level Risks and Risk Management

R. J. Kauffman, R. Sougstad:

A. Habib, J. Chuang:

Topic 13: Data Centers and Green IT

Benjamin Lubin, David C. Parkes, Jeff Kephart, Rajarshi Das:
„Expressive Power-Based Resource Allocation for Data Centers“,(PDF); in the Twenty-First International Joint Conference on Artificial Intelligence (IJCAI-09) 2009 /to appear

Policies and Procedures
Grading: Seminar paper (about 15 pages) and final presentation
The seminar paper can be written in english or german.

Creditpoints: 4

Credit points are accreditable to: Pflichtfach „Wirtschaftspolitik“ (Mikropolitik)
Wahlpflichtfach „Wirtschaftsinformatik“ oder „Ordnungs- und Wettbewerbsökonomik“, 2nd Year MIE Master Studierende

Chair: Prof. Dr. Dirk Neumann
Albert-Ludwigs-Universität
Chair of Information Systems
Platz der Alten Synagoge
D-79085 Freiburg