

Welcome to ...

TDTS11 (Computer Networks and Internet Protocols)

... IT program students

TDDE35 (Large-scale Systems Distributed Systems and Networks)

... U program students

TDTS04 (Computer Networking and Distributed Systems)

... well, the rest of you 😊

Andrei Gurtov, Professor

<http://www.ida.liu.se/~andgu38/>

Niklas Carlsson, Associate Professor

<http://www.ida.liu.se/~nikca89/>

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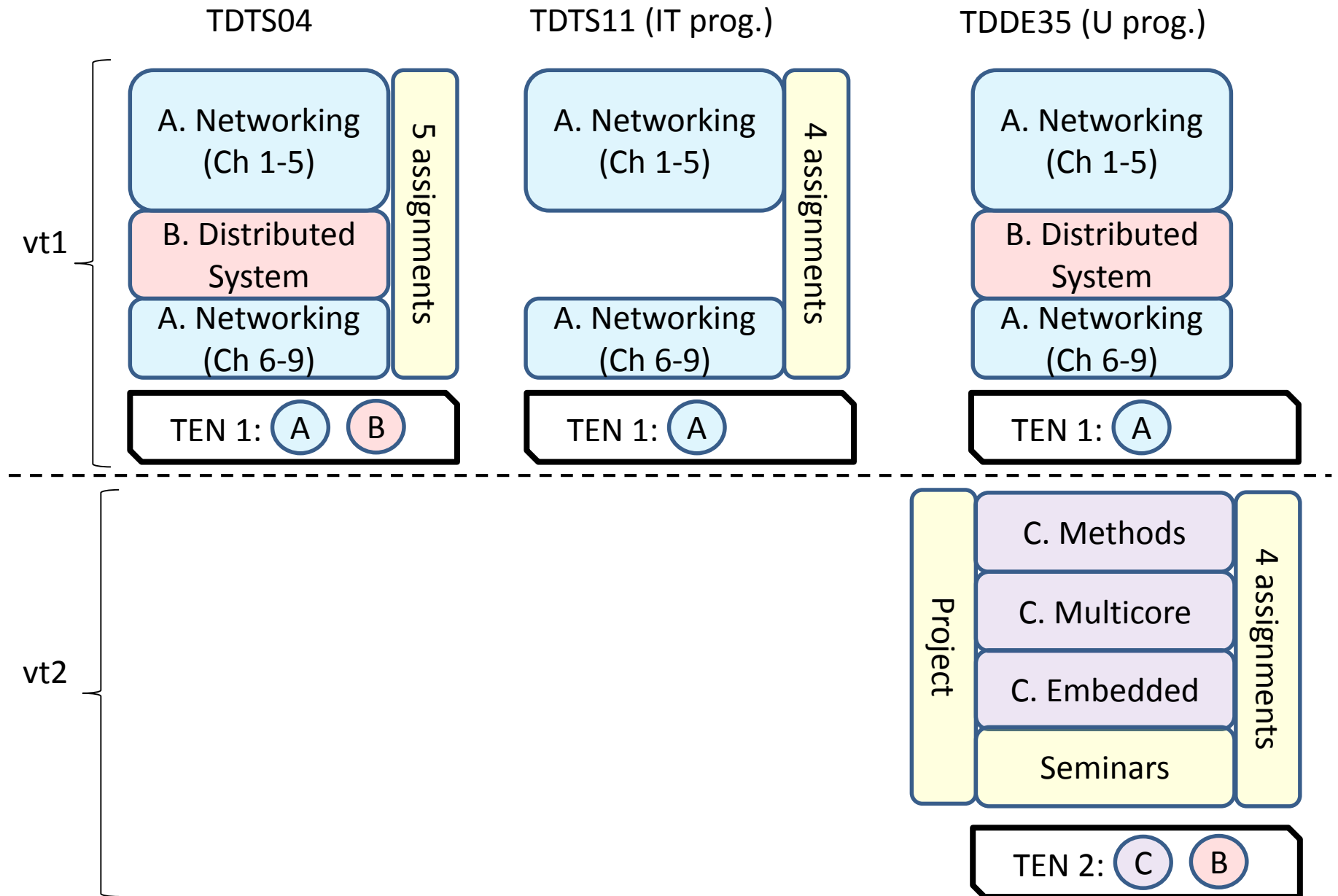
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English

- The courses will be given in English ...
- Many reasons, including (but not limited to):
 - Terminology mostly in English
 - Google and the literature will give you **many more** and **much better** answers ...
 - Much better lecture quality ... especially with good book + slides in English
 - (+ **many** more reasons)
- ❑ Great opportunity to practice
 - ❑ Understanding is the focus (not your language skills ...)



People during vt1

- Examiners and lecturers
 - Andrei Gurtov, Professor
Research area: Networking, network security, cloud computing, future Internet architectures, peer-to-peer communication, ...
 - Niklas Carlsson, Associate Professor
Research area: Design, modeling, and performance evaluation of distributed systems and networks, including topics such as ...
- Lab assistants TDTS04
 - Nikita Korzhitskii (PhD student)
 - Alireza Mohammadinodooshan (Research assistant)
- Lab assistant TDTS11
 - Rouhollah Mahfouzi (PhD student)
- Lab assistant TDDE35
 - No labs/assignments during vt1
 - During vt2: TBD ()
- Director of studies
 - Patrick Lambrix

Course Overview(s)

- Written exam
 - Grads: ‘fail’, 3, 4, 5.
- Five (5) or four (4) mandatory lab assignments
 - Must pass all assignments
 - Thirteen (13) or eight (8) lab opportunities
 - Register on webreg. (Deadline on Friday!!)
 - TDTS11: one (1) optional assignment
 - Up to 4 bonus marks for exam
- Seventeen (17) or thirteen (13) lectures
 - Twelve (12) network “focus” [all groups]
 - Four (4) distributed systems “focus” [TDTS04 + TDDE35]
 - + Last lecture with some exam preparation [all groups]
- See your respective websites for more information ...
 - TDDE35 website (hopefully) up soon ...

Our expectations

- Read textbook
 - Good textbook, written by highly regarded researchers in the field
 - Lots of content
 - Not time to cover everything during lectures
- Work hard
 - Pay attention during lectures
 - Make sure you **understand** the material
 - Start assignments early (some will take time)
- Follow deadlines and office hours

What to expect? (What will be covered?)

- Design principles for computer networks
 - Conceptual view of Internet architecture
- Design, resource, and performance tradeoffs
 - General working knowledge of protocols/applications
 - Detailed knowledge of selected protocols/applications
 - Some practical hands on experience
- Glimpse into the future of the Internet
 - Emerging trends and technologies

Kick starting science ...



What do you have in the future?



How do we build services that are ...



Efficient



Secure



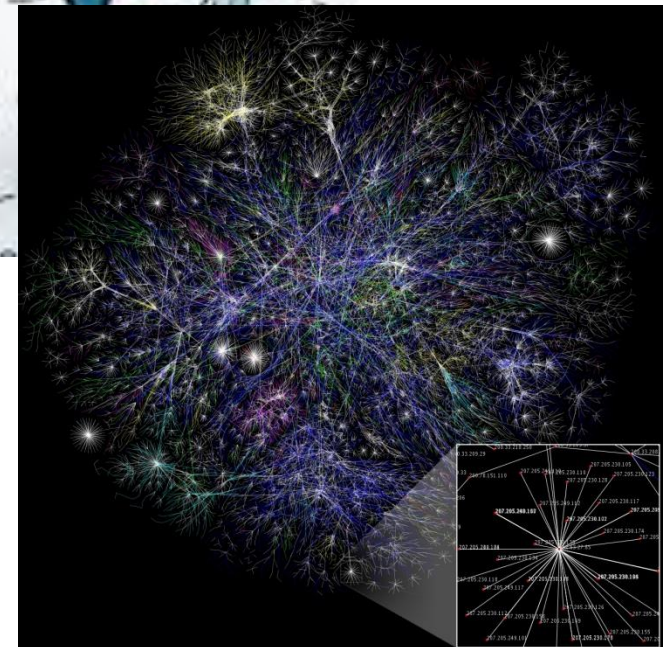
Reliable

Basic example problems include ...

How do we communicate with a machine across the world?



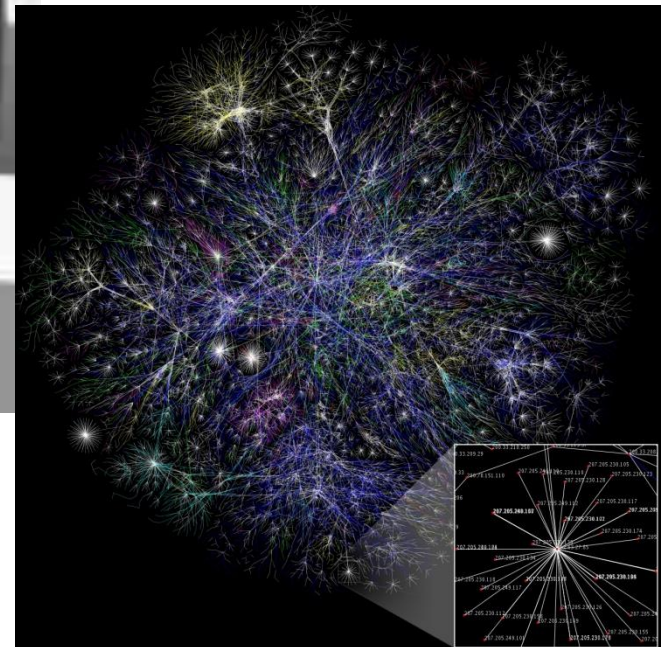
How do we find out who to talk to?



How can we trust that we talk to the
right machine/organization?



How do we find a path?



How do we **avoid sending too much** for the receiver and network to handle?



What happens at our machine? Inside
the network? Along the path?

So let's start the course ...