Welcome to …

TDTS11 (Computer Networks and Internet Protocols)

… IT program students

TDDD93 (Large-scale Systems Distributed Systems and Networks)

… U program students

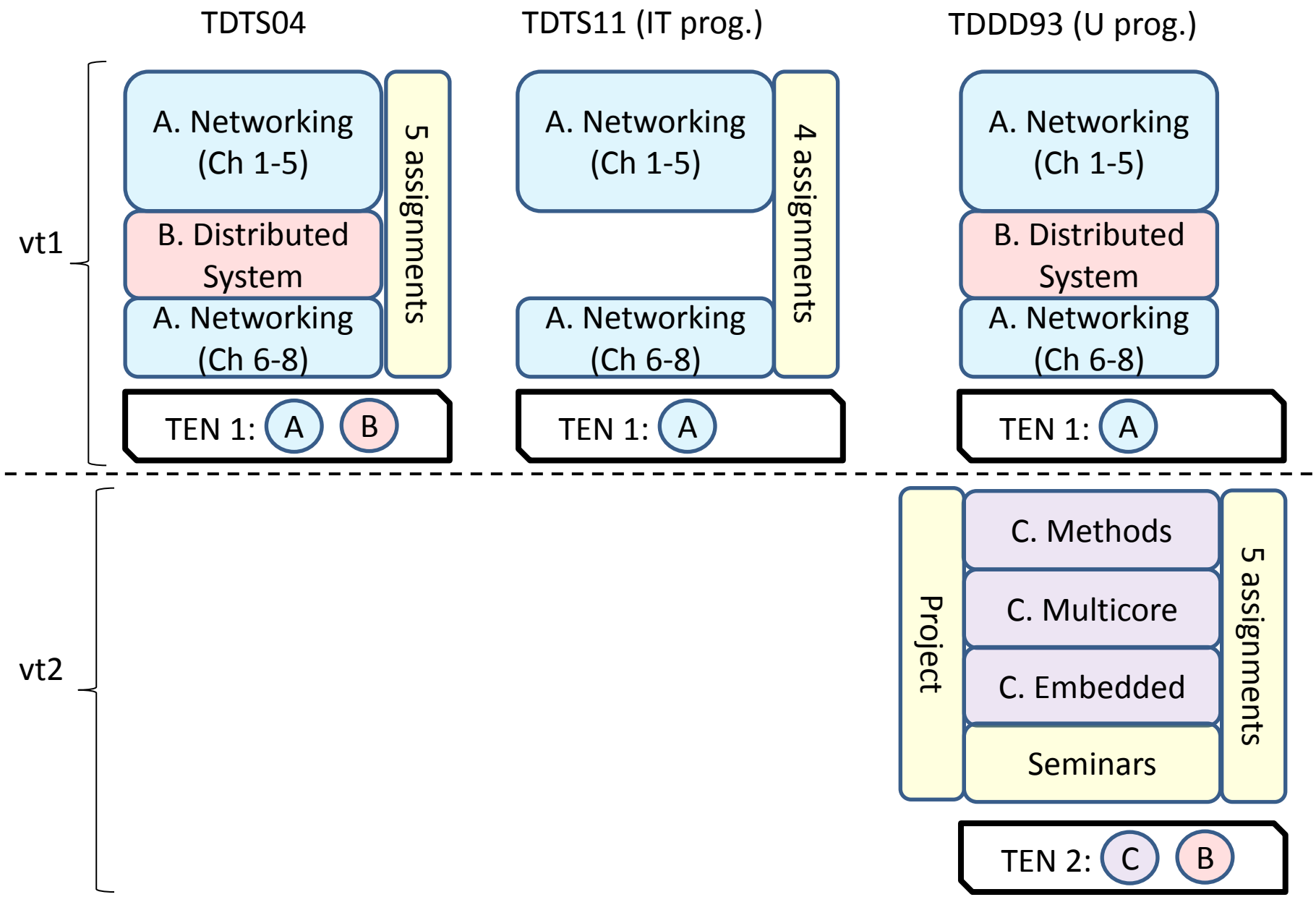
TDTS04 (Computer Networking and Distributed Systems)

… well, the rest of you ☺

Niklas Carlsson, Associate Professor
http://www.ida.liu.se/~nikca/

English

- The courses will be given in English …
  - … but first a few words in Swedish … (apologies to exchange and international students)
- 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
  - Can still ask questions in Swedish … (please remind me to rephrase the question in English)
  - Understanding is the focus (not your language skills ...)


TDTS04
TDTS11 (IT prog.)
TDDD93 (U prog.)
vt1
A. Networking (Ch 1-5)
B. Distributed System
A. Networking (Ch 6-8)
5 assignments
TEN 1: A B
A. Networking (Ch 1-5)
A. Networking (Ch 6-8)
4 assignments
TEN 1: A
A. Networking (Ch 1-5)
B. Distributed System
A. Networking (Ch 6-8)
TEN 1: A
vt2
C. Methods
C. Multicore
C. Embedded
Seminars
Project
5 assignments
TEN 2: C B

People during vt1

- Examiner and lecturer
  - Niklas Carlsson, Associate Professor

    Research area: Design, modeling, and performance evaluation of distributed systems and networks
- Guest lecturer
  - Tatiana Polishchuk, Postdoc
- Lab assistants TDTS04
  - Georgios Rizothanasis, master student
  - Meysam Aghighi, PhD student
  - Vengatanathan Krishnamoorthi, PhD student
- Lab assistant TDTS11
  - Rahul Hiran, PhD student
- Lab assistant TDDD93
  - No labs/assignments during vt1
  - During vt2: Vengatanathan Krishnamoorthi, PhD student
- 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
- Fourteen (14) or ten (10) lectures
  - Ten (10) network “focus” [all groups]
  - Four (4) distributed systems “focus” [TDTS04 + TDDD93]
  - + Last lecture with some exam preparation [all groups]
- See your respective websites for more information ...

My 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?

What do you have in the future?

How does it keep going?

… well, cable into wall …

What happens there?

What happens there?

Or maybe more realistically …

- Work at company …

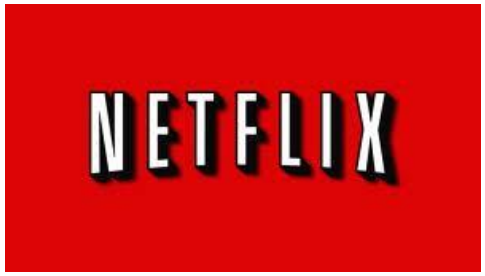
How do we build services that are …

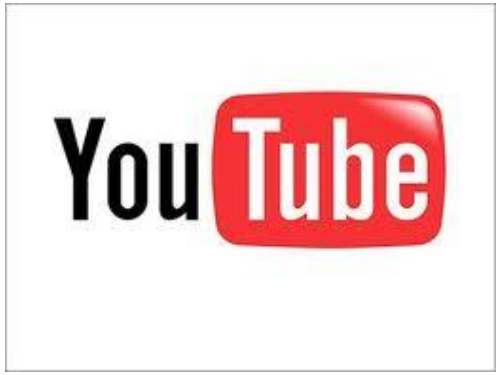
Efficient

Secure

Reliable

Important problem faced every day by many companies, including …



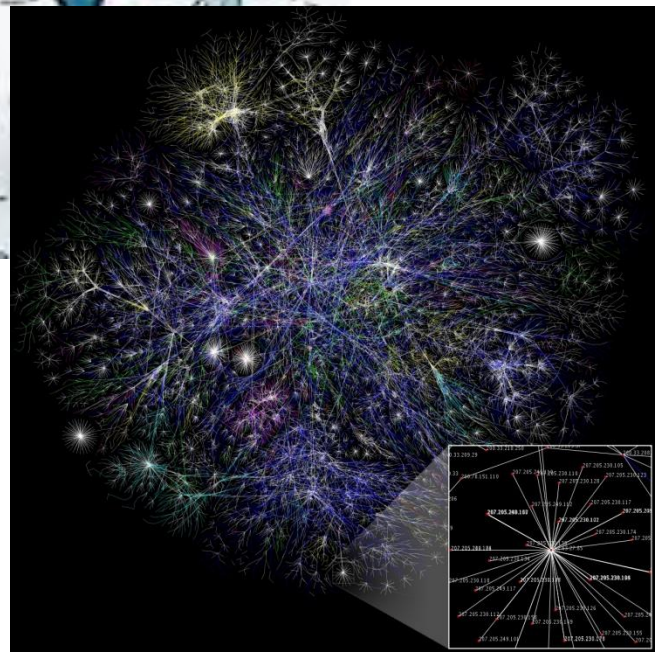


In this course we will look at things such as …

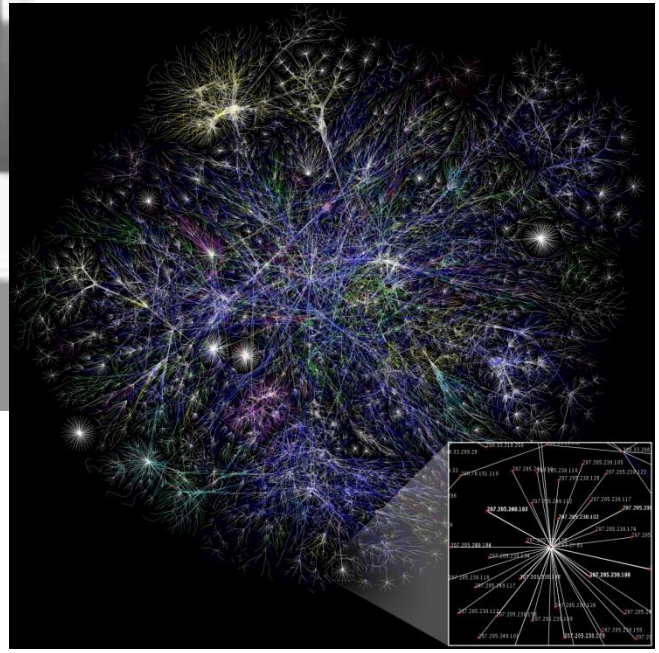
How do we build scalable, efficient, secure, and reliable services?

How do we communicate with a machine across the world?

How do we find out who to talk to?



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?

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

So let’s start the course …