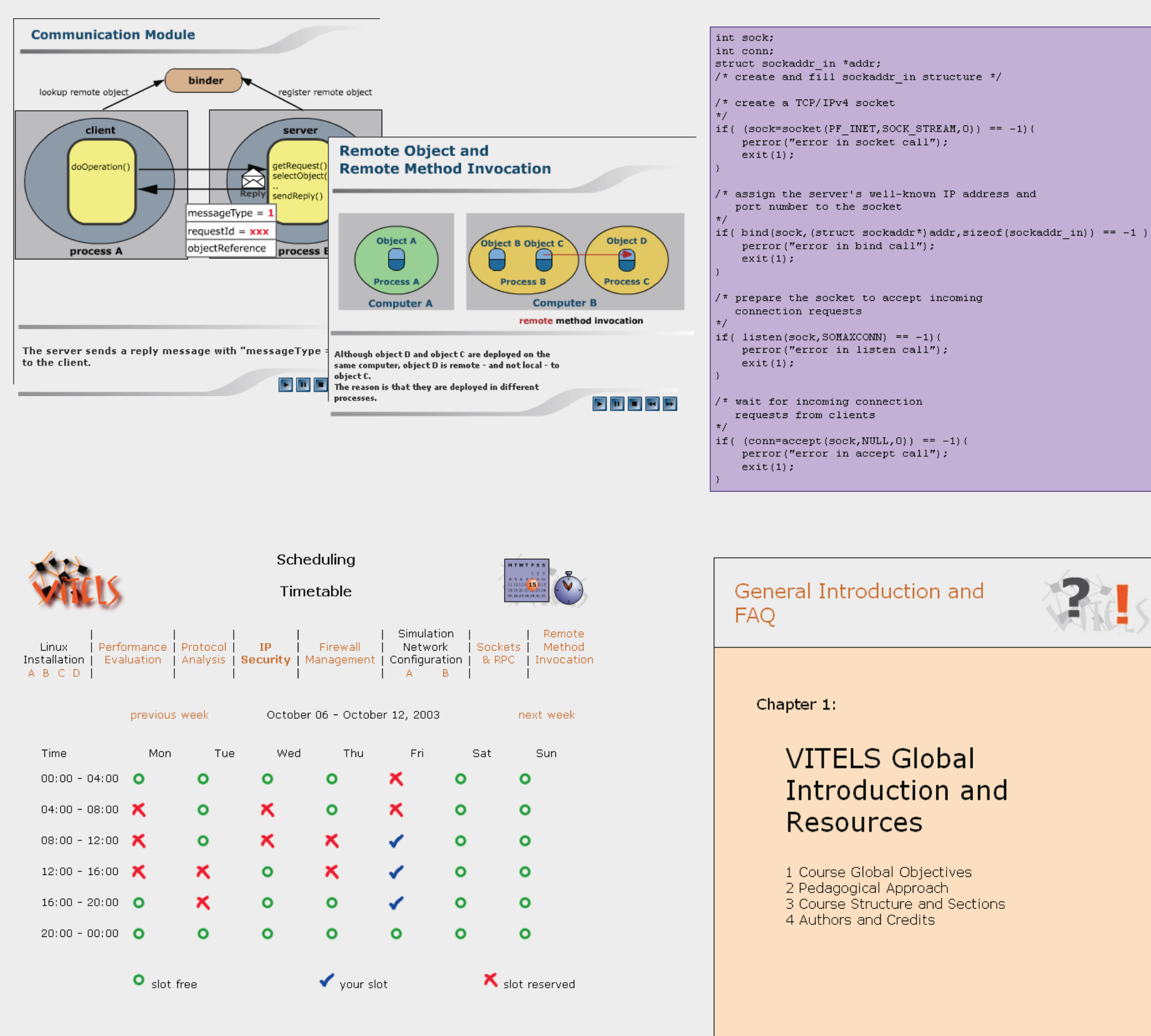


Virtual Internet and Telecommunications Laboratory of Switzerland

Overview

VITELS provides a modular structured online course covering a variety of topics in the area of telecommunications and computer networks with a special focus on hands-on experience.

VITELS is designed for students that have successfully finished their basic studies in computer science or similar disciplines and would like to strengthen their knowledge.



Modules

Simulation of IP Network Configuration

- Get familiar with IP routers, routing tables and protocols.

Client/Server Concepts

- Learn about Client/Server concepts and analyze HTTP as an example protocol.

IP Security

- Use real equipment to set up a VPN-tunnel and perform measurements.

Firewall Management

- Configure a real firewall and learn more about practical firewall management.

Sockets and Remote Procedure Calls

- Learn about socket programming and remote procedure calls.

Remote Method Invocation

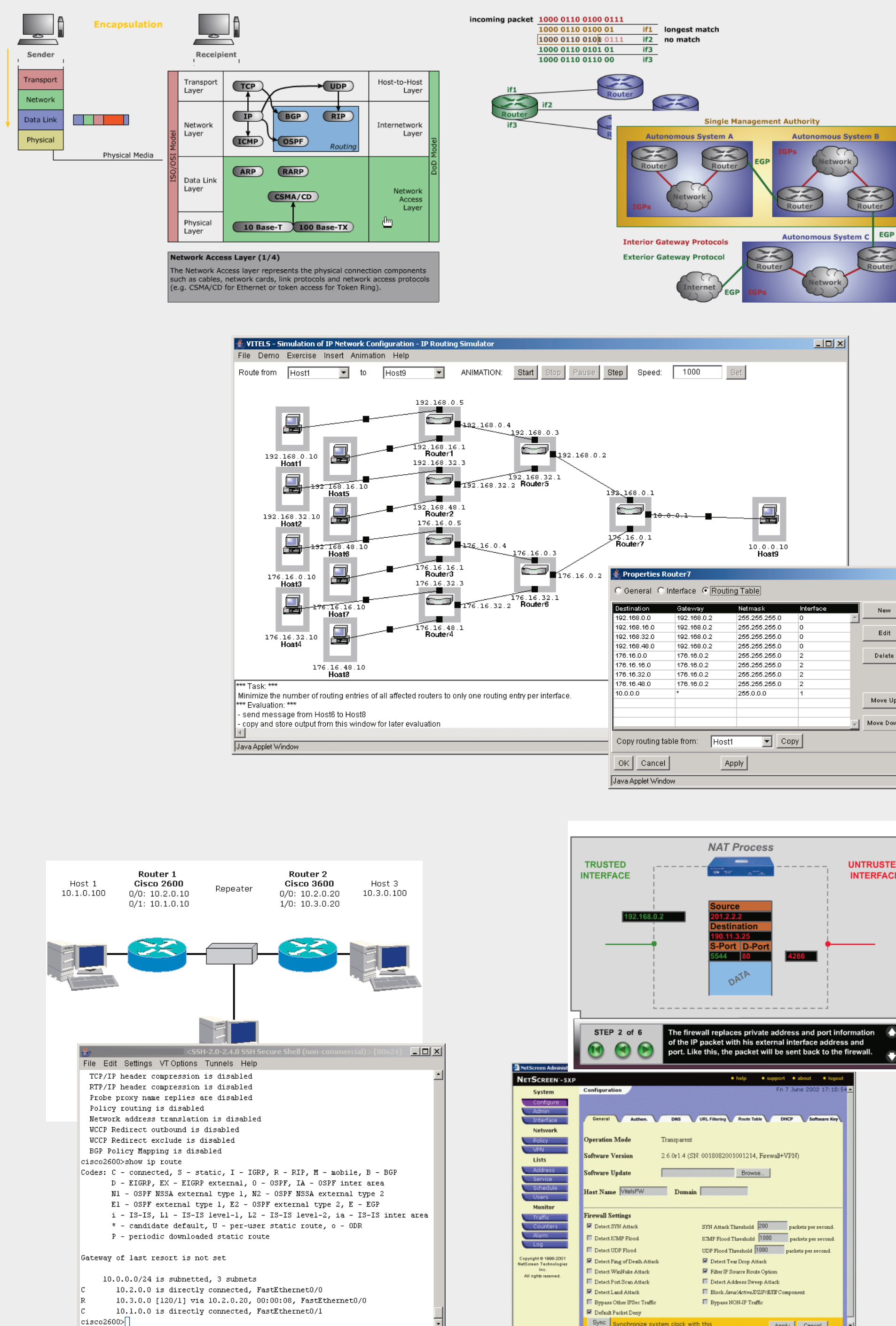
- Get familiar with the RMI programming model for distributed applications.

Application Server

- Understand multi-tier architectures and the J2EE platform.

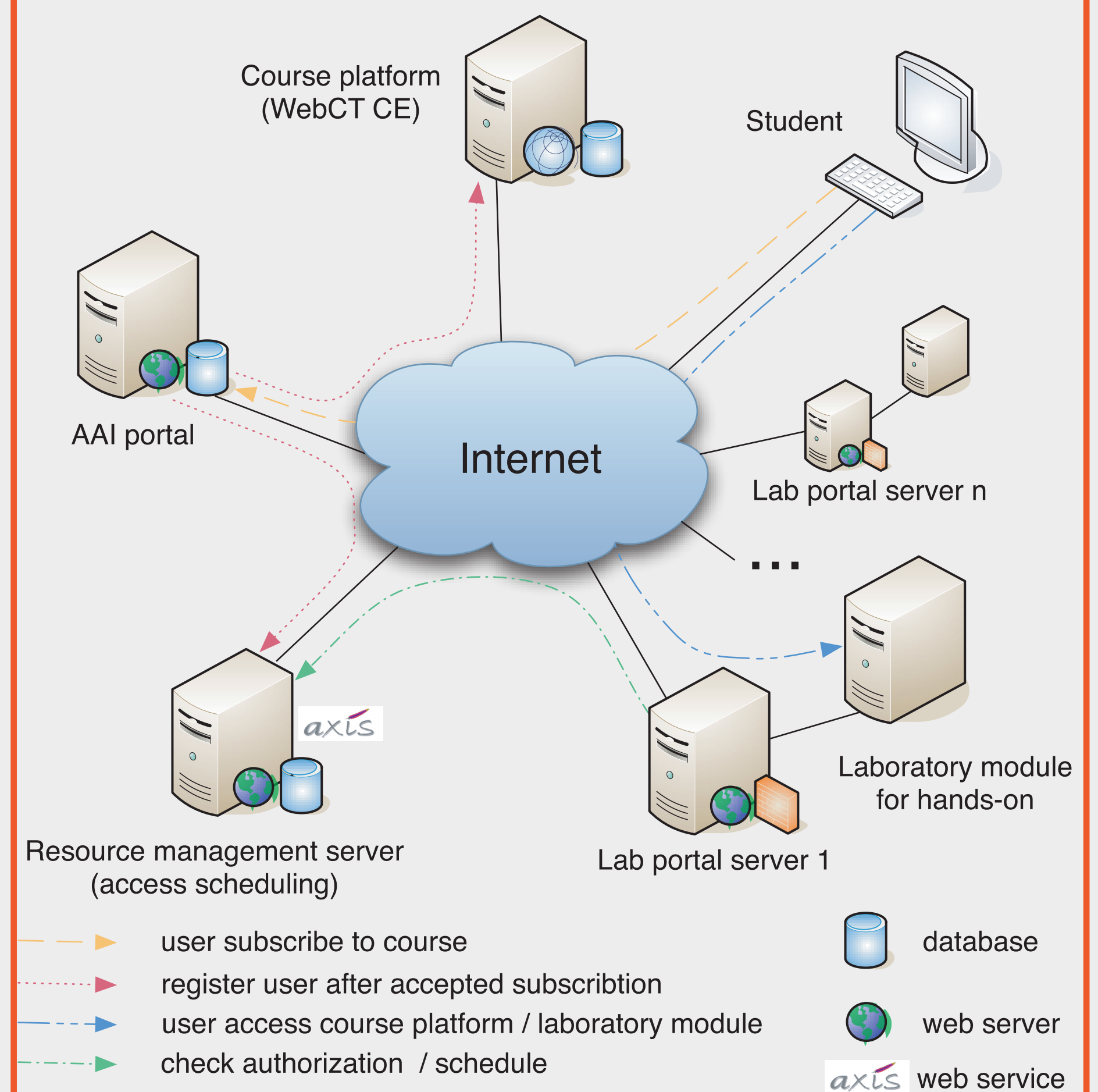
Security and Privacy in the Internet

- Learn about vulnerabilities, attacks, countermeasures and security mechanisms and setup a Kerberos based authentication.



Architecture

- Distributed clients and hands-on session providers
- Central student management (AAI portal), hands-on session reservation system (resource management server) and web learning (course platform)
- Integration into Switch AAI



Partners

Academic Partners

- University of Bern (CH)
- University of Fribourg (CH)
- University of Neuchatel (CH)

Contact

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Didactics

- Constructivist concept
- Uniform course layout

Chapter 1: Introduction

- 1 Welcome
- 2 The Goals and how to Reach Them
- 3 Module Vicinity
- 4 My Goals
- 5 Tips
- 6 FAQ

Chapter 2: Theory

- 1 Theoretical Basics
- 2 Readings
- 3 Personal Synthesis
- 4 Self Test
- 5 Quiz

Chapter 3: Application/Exploration

- 1 Introduction
- 2 Hands-on Session

Chapter 4: Prove Your Knowledge and Skills

- 1 Personal Synthesis
- 2 Final Quiz
- 3 Survey