

第1講 Computer Networks and the Internet

L01_A

- 1.1 What is the Internet? ("Ch1-1_Ch1-3" 00:00~15:43)
- 1.2 Network edge ("Ch1-1_Ch1-3" 15:44~25:43)
- 1.3 Network core

L01_B

- 1.4 Network access and physical media (43分53秒)

L01_C

- 1.5 Internet structure and ISPs
- 1.6 Delay & loss in packet-switched networks
- 1.7 Protocol layers, service models
- 1.8 History

第2講 Application Layer

L02_A

- 2.1 Principles of network applications
 - 2.1.1 app architectures
 - 2.1.2 app requirements

L02_B

- 2.1 Principles of network applications
 - 2.1.1 app architectures
 - 2.1.2 app requirements
- 2.2 Web and HTTP
- 2.4 Electronic Mail m SMTP, POP3, IMAP

L02_C

- 2.5 DNS
- 2.6 P2P file sharing
- 2.7 Socket programming with TCP

L02_D

- 2.8 Socket programming with UDP

L02_E

- 2.8 Socket programming with UDP
- 2.9 Building a Web server

第3講 Transport Layer

C03_A

- 3.1 Transport-layer services

C03_B

- 3.1 Transport-layer services
- 3.2 Multiplexing and demultiplexing
- 3.3 Connectionless transport:UDP
- 3.4 Principles of reliable data transfer

C03_C

- 3.4 Principles of reliable data transfer

C03_D

- 3.4 Principles of reliable data transfer

C03_E

- 3.5 Connection-oriented transport:TCP

C03_F

- 3.5 Connection-oriented transport:TCP

C03_G

- 3.6 Principles of congestion control

C03_H

- 3.7 TCP congestion control

第4講 The Network Layer

L04_A

- 4.1 Introduction
- 4.2 Virtual circuit and datagram networks

L04_B

- 4.2 Virtual circuit and datagram networks
- 4.3 What's inside a router
- 4.4 IP: Internet Protocol

L04_C

- 4.4 IP: Internet Protocol

L04_D

- 4.4 IP: Internet Protocol

L04_E

- 4.5 Routing algorithms

L04_F

- 4.5 Routing algorithms
- 4.6 Routing in the Internet

L04_G

- 4.6 Routing in the Internet

L04_H

- 4.7 Broadcast and multicast routing

L04_I

- 4.7 Broadcast and multicast routing

第5講 Data Link Layer

L05_A

- 5.1 Introduction and services
- 5.2 Error detection and correction
- 5.3 Multiple access protocols

L05_B

- 5.4 Link-Layer Addressing
- 5.5 Ethernet

L05_C

- 5.5 Ethernet
- 5.6 Hubs and switches
- 5.7 PPP

L05_D

- 5.7 PPP
- 5.8 Link Virtualization: ATM and MPLS

L05_E

- 5.8 Link Virtualization: ATM and MPLS