



TRƯỜNG ĐẠI HỌC CÔNG NGHỆ THÔNG TIN - ĐHQG-HCM
KHOA MẠNG MÁY TÍNH VÀ TRUYỀN THÔNG

DHCP SERVICE

QUẢN TRỊ MẠNG VÀ HỆ THỐNG
Networks and Systems Administration

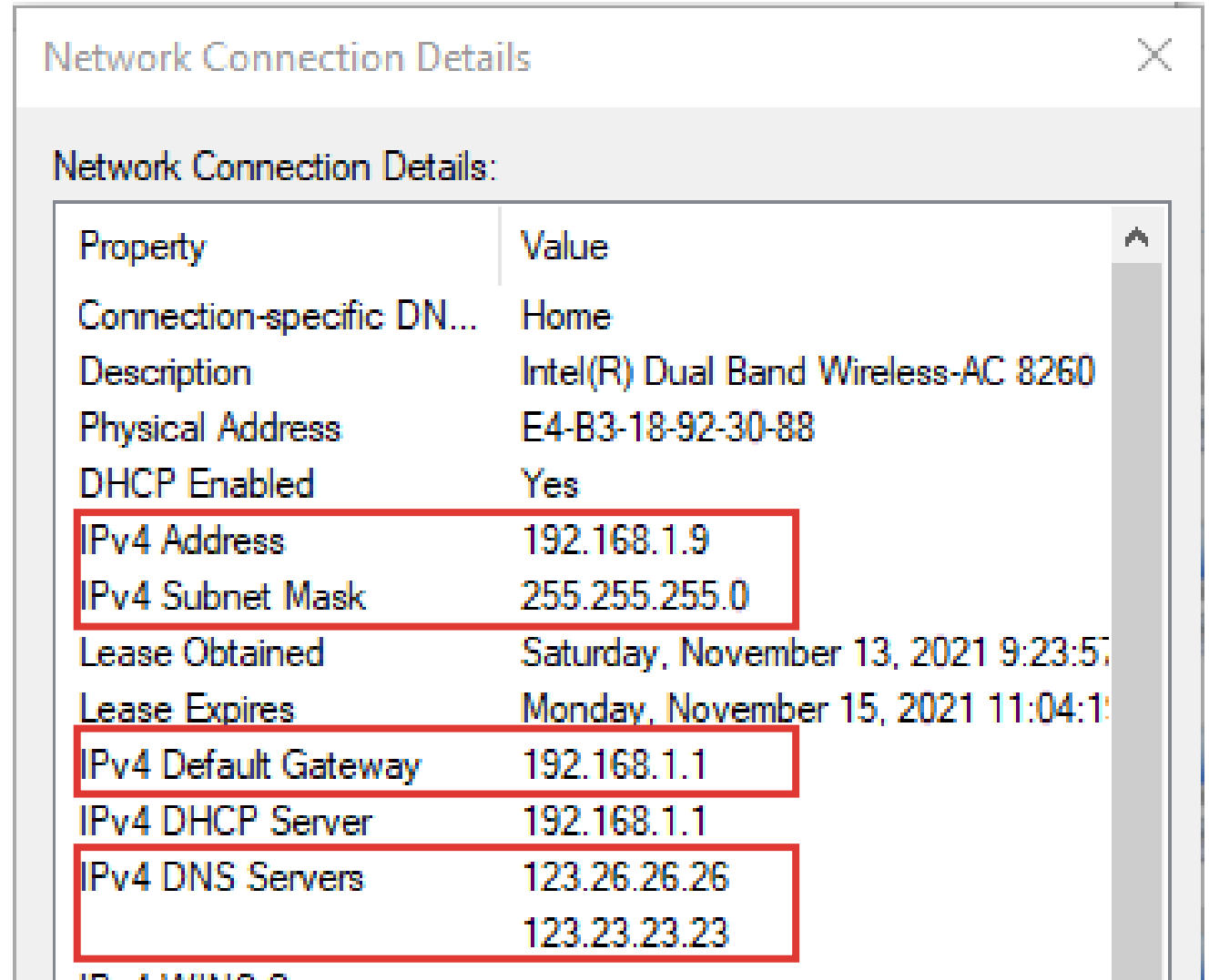
MSc. Trần Thị Dung



- DHCP Overview
- DHCP Operation
- DHCP Implementation

DHCP overview

- DHCP assigns IP addresses and other network configuration information dynamically
- DHCP server provides
 - IP address
 - Subnet mask
 - Default gateway
 - DNS server



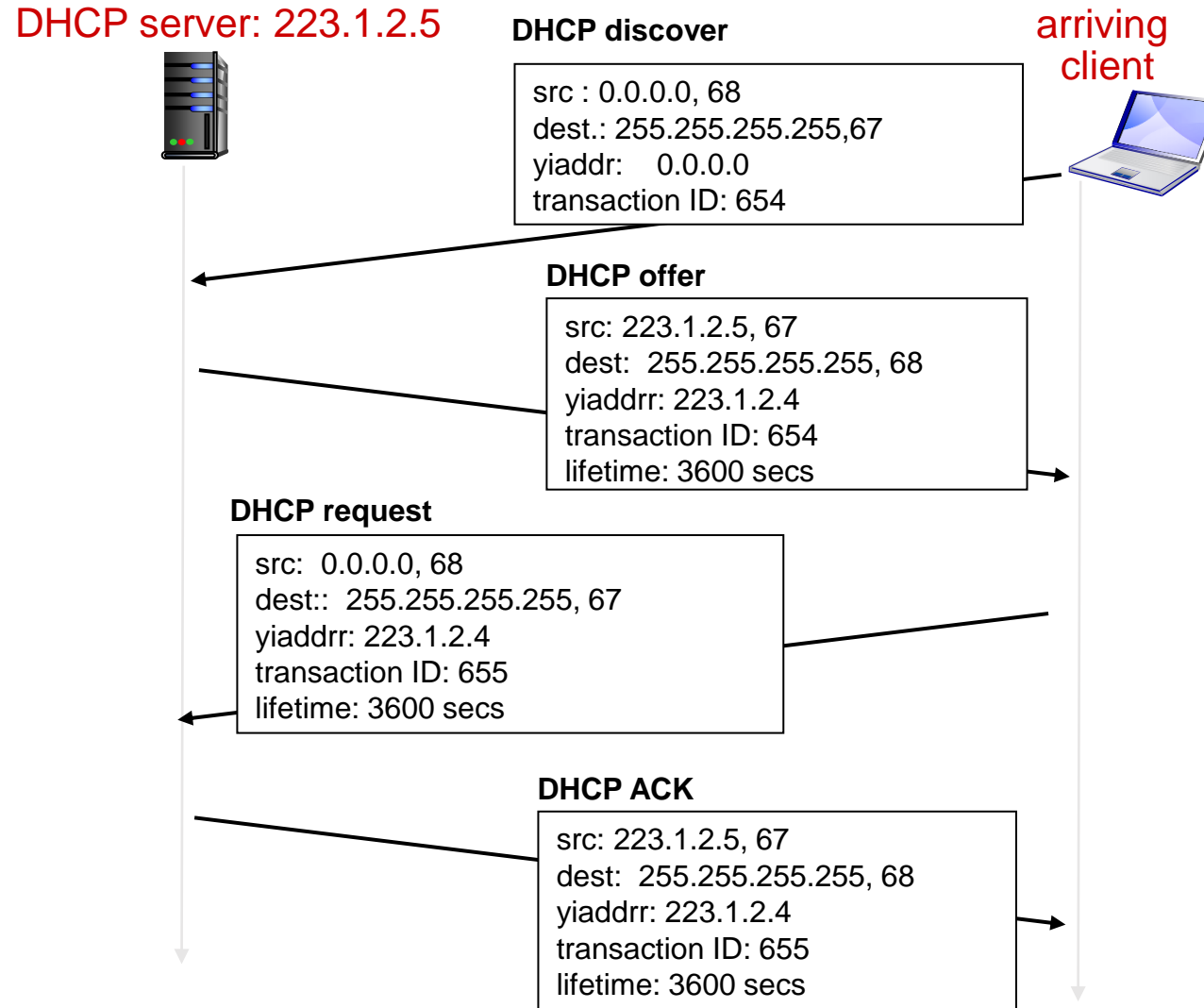
The screenshot shows a Windows 'Network Connection Details' window. It displays a table of network properties for a wireless connection. Several properties are highlighted with red boxes: IPv4 Address (192.168.1.9), IPv4 Subnet Mask (255.255.255.0), IPv4 Default Gateway (192.168.1.1), and IPv4 DNS Servers (123.26.26.26 and 123.23.23.23). Other visible properties include Connection-specific DN... (Home), Description (Intel(R) Dual Band Wireless-AC 8260), Physical Address (E4-B3-18-92-30-88), and DHCP Enabled (Yes).

Property	Value
Connection-specific DN...	Home
Description	Intel(R) Dual Band Wireless-AC 8260
Physical Address	E4-B3-18-92-30-88
DHCP Enabled	Yes
IPv4 Address	192.168.1.9
IPv4 Subnet Mask	255.255.255.0
Lease Obtained	Saturday, November 13, 2021 9:23:57
Lease Expires	Monday, November 15, 2021 11:04:11
IPv4 Default Gateway	192.168.1.1
IPv4 DHCP Server	192.168.1.1
IPv4 DNS Servers	123.26.26.26 123.23.23.23


Content

- DHCP Overview
- **DHCP Operation**
- DHCP Implementation

DHCP overview



DHCP Server on modem/AP



450M Wireless N Router
Model No. TL-WR940N

StatusQuick SetupWPSWorking ModeNetworkWirelessGuest NetworkDHCP- DHCP Settings- DHCP Client List- Address ReservationForwardingSecurityParental ControlAccess ControlAdvanced Routing

DHCP Settings

DHCP Server: ☐ Disable ☒ Enable

Start IP Address:

192.168.0.100

End IP Address:

192.168.0.199

Address Lease Time:

120

 minutes (1~2880 minutes, the default value is 120 min)

Default Gateway:

192.168.0.1

(Optional)

Default Domain:

(Optional)

Primary DNS:

0.0.0.0

(Optional)

Secondary DNS:

0.0.0.0

(Optional)

Save

DHCP Server on modem/AP

Network Setup

Router IP

DHCP Server Settings

IP Address: 192 . 168 . 0 . 1

Subnet Mask: 255.255.255.0

DHCP Server: ☒ Enabled ☐ Disabled

DHCP Reservation

Start IP Address: 192.168.0. 100

Maximum number of Users: 50

IP Address Range: 192.168.0. 100 - 149

Client Lease Time: 0 minutes (0 means one day)

Static DNS 1: 0 . 0 . 0 . 0

Static DNS 2: 0 . 0 . 0 . 0

Static DNS 3: 0 . 0 . 0 . 0

WINS: 0 . 0 . 0 . 0

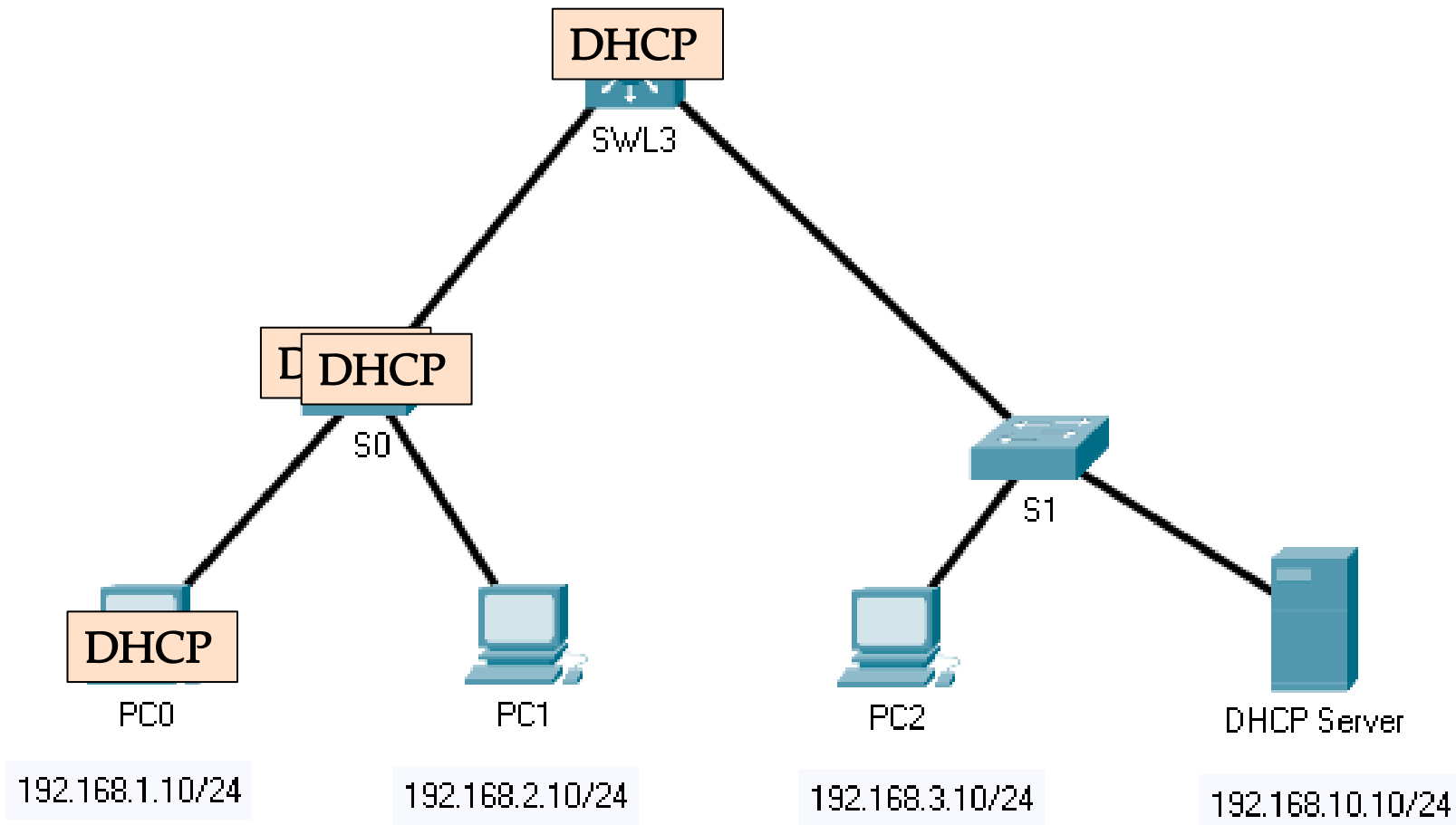
Content

- DHCP Overview
- DHCP Operation
- **DHCP Implementation**

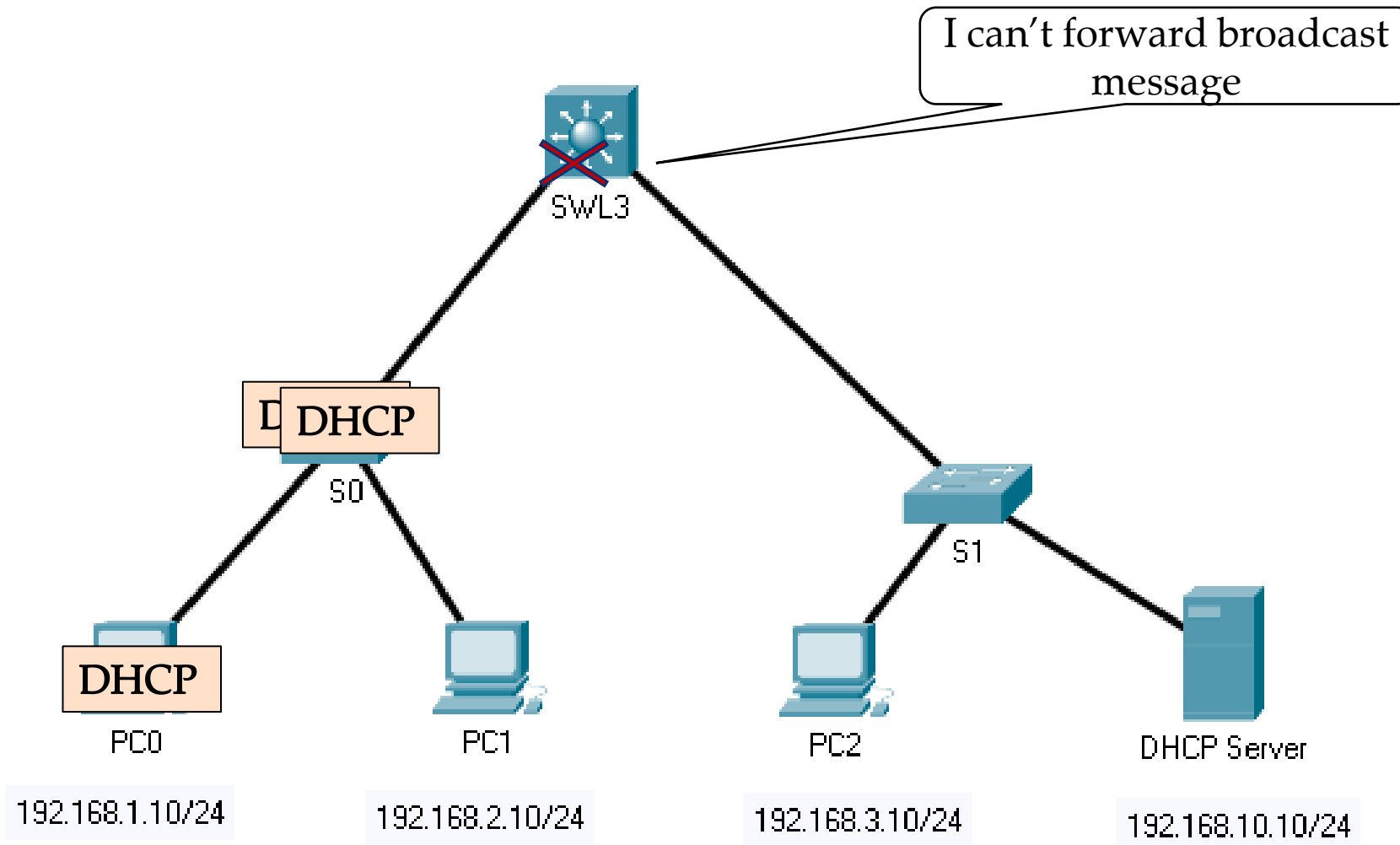
DHCP Operation

- Router as a DHCP server
- Router as a DHCP Relay agent

Router as a DHCP Server



Router as a DHCP Relay agent



Router as a DHCP Relay agent

