

2020

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Oppgavebeskrivelse:

1. Lag to (eller flere) ulike VLAN. Vis at to PCer på samme VLAN kan kommunisere direkte, mens PCer på ulike VLAN bare kan nå hverandre via ruter. Det siste kan f.eks. vises med traceroute. Husk at ulike VLAN bruker ulike ip-nettverk.
2. Vi valgte vi å få satt opp trunking mellom ruter og svitsj.



Vårt oppsett.

2020

Oppgave 1:

```
# ericyounger at Erics-MacBook-Pro.local in ~ [14:58:58] DevTools Matte Eksamen Atmosphere P
→ traceroute 192.168.4.101
traceroute to 192.168.4.101 (192.168.4.101), 64 hops max, 52 byte packets
 1 192.168.4.101 (192.168.4.101) 1.036 ms 0.398 ms 0.328 ms
```

Det øverste skjermbildet viser at Eric har IP-adresse 192.168.4.100. Han kan kommunisere med med Jonas, som har IP-adresse 192.168.4.101 direkte, da de er på samme VLAN (200).

Interface Settings

Interface Setting Table

Filter: Interface Type equals to Port

Entry No.	Interface	Interface VLAN Mode	PVID	Frame Type	Ingress Filtering	VLAN Priority
1	g1	Trunk	1	Admit All	Enabled	0
2	g2	Access	200	Admit Untagged Only	Enabled	0
3	g3	Access	200	Admit Untagged Only	Enabled	0
4	g4	Access	1	Admit Untagged Only	Enabled	0
5	g5	Access	1	Admit Untagged Only	Enabled	0
6	g6	Access	1	Admit Untagged Only	Enabled	0
7	g7	Access	1	Admit Untagged Only	Enabled	0
8	g8	Access	1	Admit Untagged Only	Enabled	0

Copy Settings... Edit...

DHCP Status

IPv4 IPv6

☒ VLAN ☐ Option 82

VLAN ID: 200

DHCP Server: 192.168.4.1

Dynamic IP Used: 2

Static IP Used: 0

DHCP Available: 48

Total: 50

DHCP Status Table

Client Host Name	Rule Name	IP Address	MAC Address	Client Lease Time
Eric-MBP		192.168.4.100	82:0d:5d:26:fa:01	23 Hours, 57 Minutes, 7 Seconds
Jonas-MacBookAir		192.168.4.101	18:7e:b9:02:c0:22	23 Hours, 57 Minutes, 15 Seconds

Items 1-2 of 2 5 per page

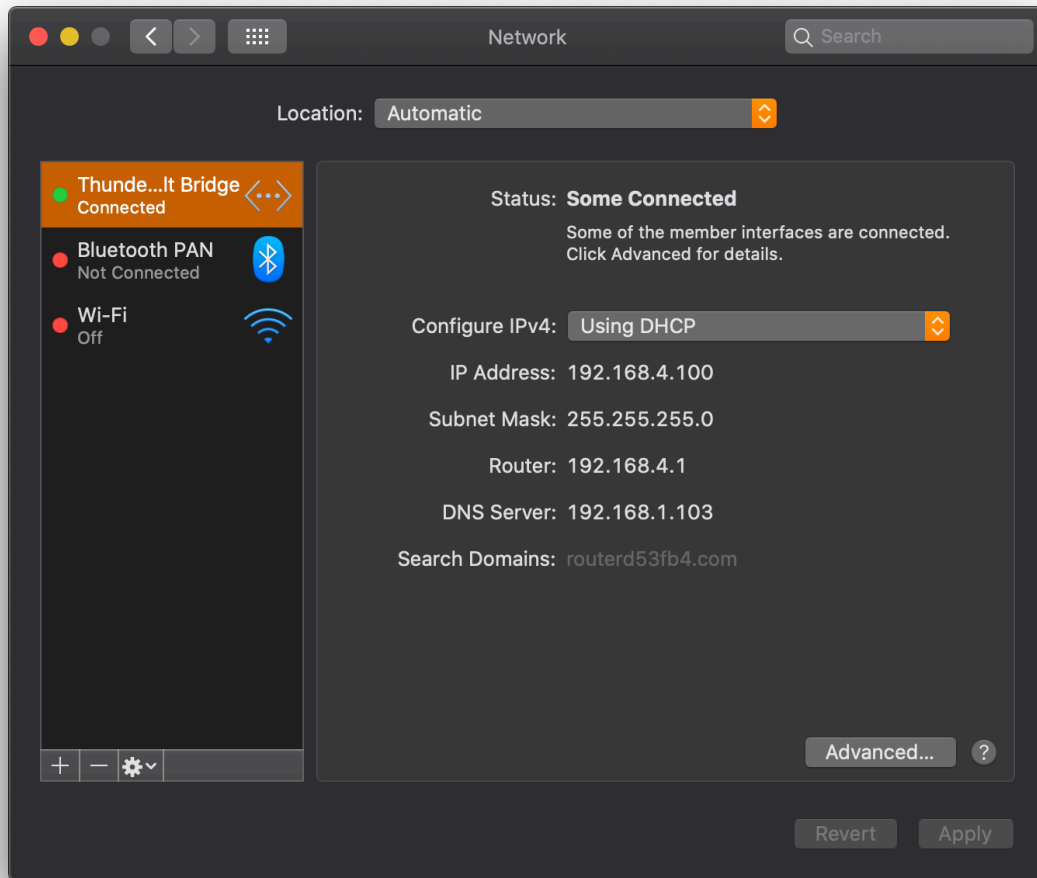
Refresh

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Oppgave 2

Forskjellige
VLAN:



```
# ericyounger at Erics-MacBook-Pro.local in ~ [14:33:05]
→ traceroute 192.168.4.100
traceroute to 192.168.4.100 (192.168.4.100), 64 hops max, 52 byte packets
 1  192.168.1.1 (192.168.1.1)  1.051 ms  0.602 ms  0.542 ms
 2  192.168.4.100 (192.168.4.100)  1.025 ms  1.046 ms  0.965 ms
```

Skjermbildet over viser at Eric (192.168.5.100) kommuniserer med Jonas (192.168.4.100) gjennom ruterer når begge er på forskjellige VLAN.

2020

Small Business

RV320 Gigabit Dual WAN VPN Router

Getting Started

System Summary

Setup

DHCP

DHCP Setup

DHCP Status

Option 82

IP & MAC Binding

DNS Local Database

Router Advertisement

System Management

Port Management

Firewall

VPN

Certificate Management

Log

SSL VPN

User Management

Wizard

DHCP Status

IPv4

IPv6

VLAN

Option 82

VLAN ID:

200

DHCP Server:192.168.4.1

Dynamic IP Used:1

Static IP Used:0

DHCP Available:49

Total:50

DHCP Status Table

Client Host Name	Rule Name	IP Address	MAC Address	Client Lease Time
<div><div></div>jonasbl-MacBookAir</div>		192.168.4.100	18:7e:b9:02:c0:22	23 Hours, 49 Minutes, 23 Seconds
<div>Delete</div>				

Refresh

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Log

SSL VPN

User Management

Wizard

DHCP Status

IPv4

IPv6

VLAN

Option 82

VLAN ID:

300

DHCP Server:192.168.5.1

Dynamic IP Used:1

Static IP Used:0

DHCP Available:49

Total:50

DHCP Status Table

Client Host Name	Rule Name	IP Address	MAC Address	Client Lease Time
<div><div></div>Eric's-MBP</div>		192.168.5.100	82:0d:5d:26:fa:01	23 Hours, 41 Minutes, 22 Seconds
<div>Delete</div>				

Refresh

2020

Andre innstillinger:

Ruter:

Skjermbildet viser innstillingene vi satt opp for våre egne VLAN (200 og 300) på ruter.

The screenshot shows the Cisco RV320 Gigabit Dual WAN VPN Router web interface. The left sidebar contains a navigation menu with options like Getting Started, System Summary, Setup, DHCP, System Management, Port Management (highlighted), Port Setup, Port Status, Traffic Statistics, VLAN Membership (highlighted), Map DSCP to queue, Map CoS to DSCP, 802.1X Configuration, Firewall, VPN, Certificate Management, Log, SSL VPN, User Management, and Wizard. The main content area is titled 'VLAN Membership' and shows the 'VLAN: Enable' checkbox checked. Below this, it says 'Create VLANs and assign the Outgoing Frame Type. Up to four new VLANs can be created. VLAN IDs must be in the range (4..4094)'. A table titled 'VLAN Table' displays the following data:

VLAN ID	Description	Inter VLAN Routing	Device Management	LAN1	LAN2	LAN3	LAN4
1	Default	Enabled	Enabled	Untagged	Untagged	Untagged	Untagged
25	Guest	Disabled	Disabled	Tagged	Tagged	Tagged	Tagged
100	Voice	Disabled	Disabled	Tagged	Tagged	Tagged	Tagged
200	1+1	Enabled	Enabled	Tagged	Tagged	Tagged	Tagged
300	vlan3	Enabled	Enabled	Tagged	Tagged	Tagged	Tagged

At the bottom of the table are buttons for 'Add', 'Edit', and 'Delete'. Below the table are 'Save' and 'Cancel' buttons. The footer of the interface shows '© 2013 Cisco Systems, Inc. All Rights Reserved.'