

epati

HP Metro WAN Campus Configuration

Product: Antikor v2 - Next Generation Firewall
Configuration Examples

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Summary

In the configuration example, there is a remote site connected to the center via the point-to-point MPLS VPN structure provided by the service provider (Ulaknet).

The configuration of the backbone switch and remote campus switch will be described in order for this campus network to be able to receive service from the central Antikor Firewall when it is online.

Prior Knowledge

MPLS (Multi Protocol Label Switching):

It can be described as switching in OSI 2nd layer and integrating routing in OSI 3rd layer. MPLS technology performs routing operations faster.

Metro Ethernet MPLS can be configured in two ways:

Virtual Lease Line(VLL):

Metro ethernet is the structure that provides point-to-point connection to each ID via the MPLS network.

Virtual Private LAN Service(VPLS):

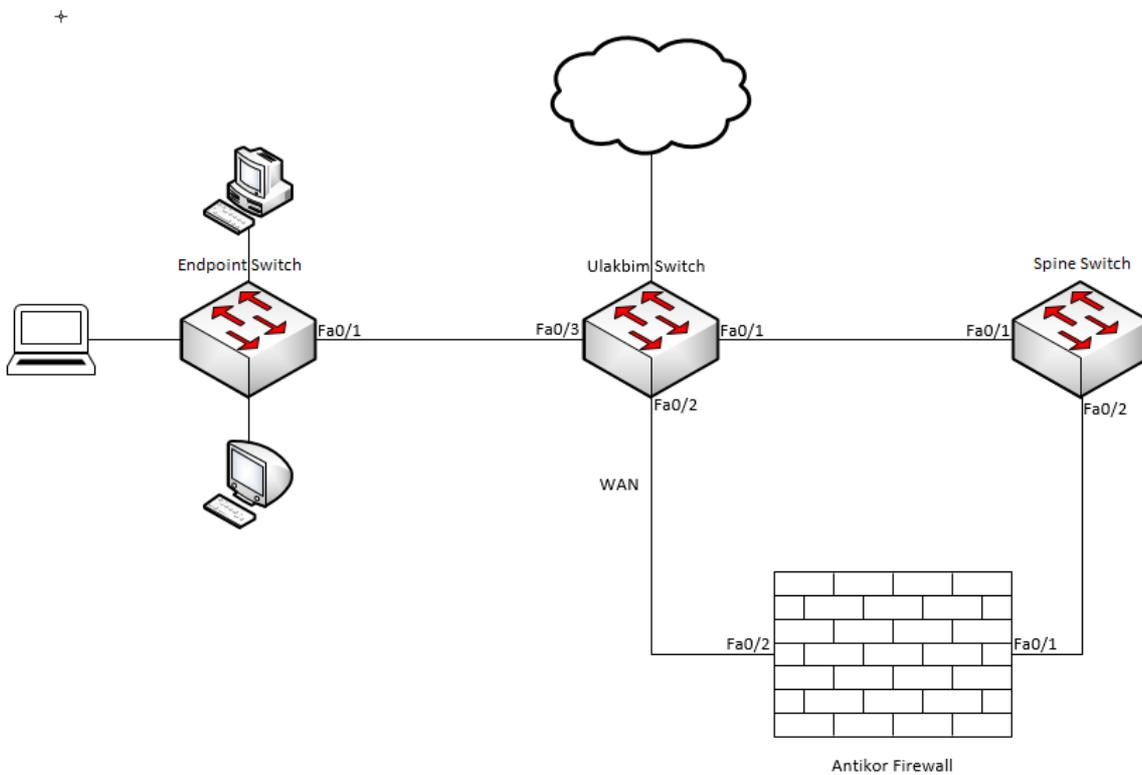
Metro Ethernet is a structure that provides multi-point to multi-point communication over the MPLS network.

VPLS allows remote locations to share the same broadcast domains.

Thanks to the Metro Ethernet structure, the service provider can differentiate its customers' networks with VPN(Virtual Private Network).

In such a structure, the Ethernet switches on the receiving side must have 802.1q VLAN support and must have a fiberoptic port suitable for receiving the service of the service provider.

Network Topology



Configuration

Ulakbim configurations on the Metro Ethernet Switch comes ready to service. It is shown as an example.

Ulakbim Switch

```
Running configuration:

; J9019B Configuration Editor; Created on release #Q.11.17

hostname "ULAKBIM"
snmp-server community "public" Unrestricted
vlan 1
  name "DEFAULT_VLAN"
  exit
vlan 10
  name "University_WAN"
  ip address 172.168.2.1 255.255.255.0
  mac address 00d0-bcaa-9e01
  untagged 2
  exit
vlan 100
  tagged 1
  exit
vlan 200
  name "endpoint"
  untagged 3
  tagged 1
  exit
aaa authentication telnet login radius local
aaa authentication telnet enable radius local
aaa authentication ssh enable radius local
end
```

Spine Switch

```
Running configuration:

; J9019B Configuration Editor; Created on release #Q.11.17

hostname "Spine"
snmp-server community "public" Unrestricted
vlan 1
    name "DEFAULT_VLAN"
    exit
vlan 100
    ip address 192.168.2.1 255.255.255.0
    mac address 0001-43ee-0b01
    tagged 1-2
    exit
vlan 200
    ip address 10.2.1.1 255.255.255.0
    mac address 0001-43ee-0b02
    tagged 1-2
    exit
vlan 201
    name "Spine_ANTIKOR"
    ip address 192.168.201.1 255.255.255.0
    mac address 0001-43ee-0b03
    untagged 2
    exit
ip route 0.0.0.0 0.0.0.0 192.168.2.2 (From Spine Switch to Antikor it is made forwarded.)
aaa authentication telnet login radius local
aaa authentication telnet enable radius local
aaa authentication ssh enable radius local
end
```

End-Point Switch

Note: Depending on demand, more endpoints can be carried as many times as desired.

```
Running configuration:

; J9019B Configuration Editor; Created on release #Q.11.17

hostname "SWITCH"
snmp-server community "public" Unrestricted
vlan 1
    name "DEFAULT_VLAN"
    exit
vlan 200
    ip address 10.2.1.2 255.255.255.0
    mac address 0060-3e63-b301
    untagged 1-2
    exit
ip route 0.0.0.0 0.0.0.0 10.2.1.1 (From Spine Switch to Antikor it is made forwarded.)
aaa authentication telnet login radius local
aaa authentication telnet enable radius local
aaa authentication ssh enable radius local
end
```

Antikor

The necessary VLANs and Routing it is made on the Antikor side.

Testing

The ping test between Antikor and End Point was successful for two ways.

Troubleshooting

Executing Command	Error Message	Solution Proposal
<code>ping 10.2.1.2</code>	— Ping statistics for 10.0.0.1 — 5 packets transmitted, 0 packets received, 100.0% packet loss	Check the status of the ports.
		Review VLAN settings.

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