

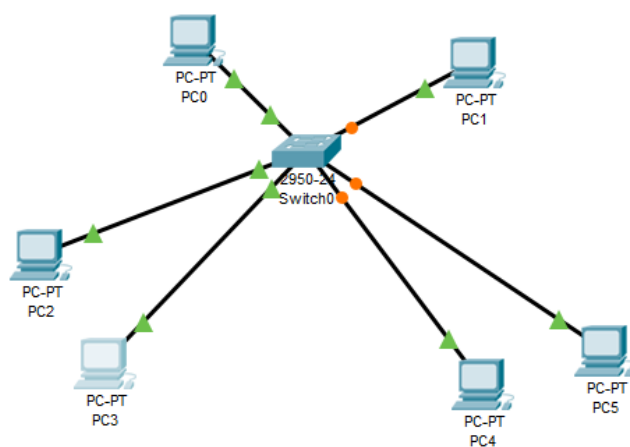
PRAKTIKUM PERANCANGAN JARINGAN KOMPUTER

Modul 3

Nama : Tasya Farah Putri A.
NIM : L200170146
Kelas : A

I. VLAN A

a. Topologi



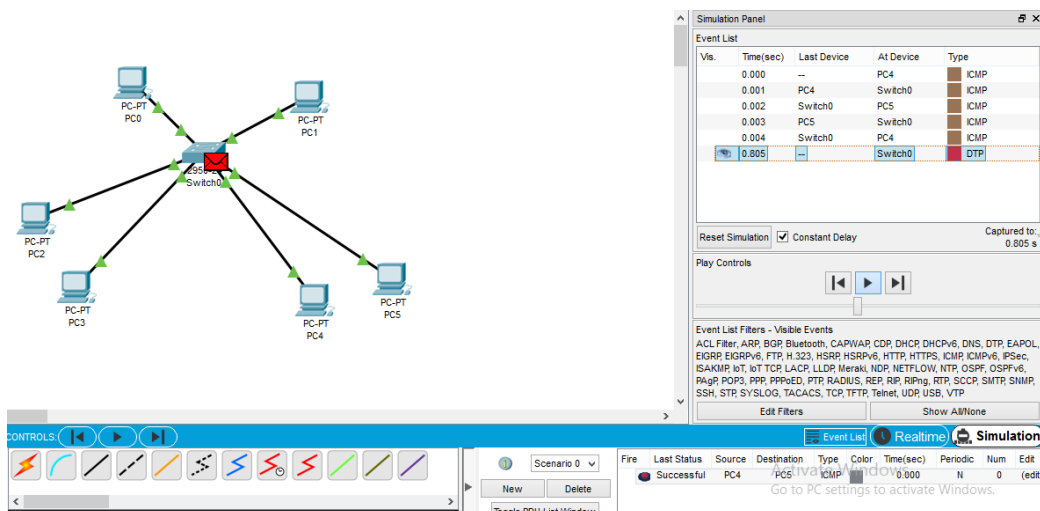
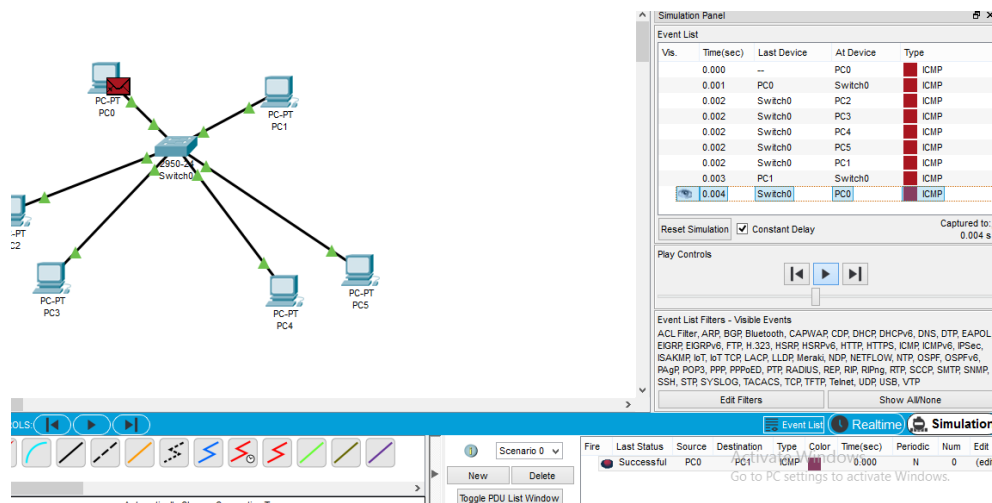
b. Konfigurasi switch

```
Switch(config-if)#
Switch#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 2
Switch(config-vlan)#name FK11
Switch(config-vlan)#int range fa0/9 - 10
Switch(config-if-range)#switchport access vlan 2
Switch(config-if-range)#

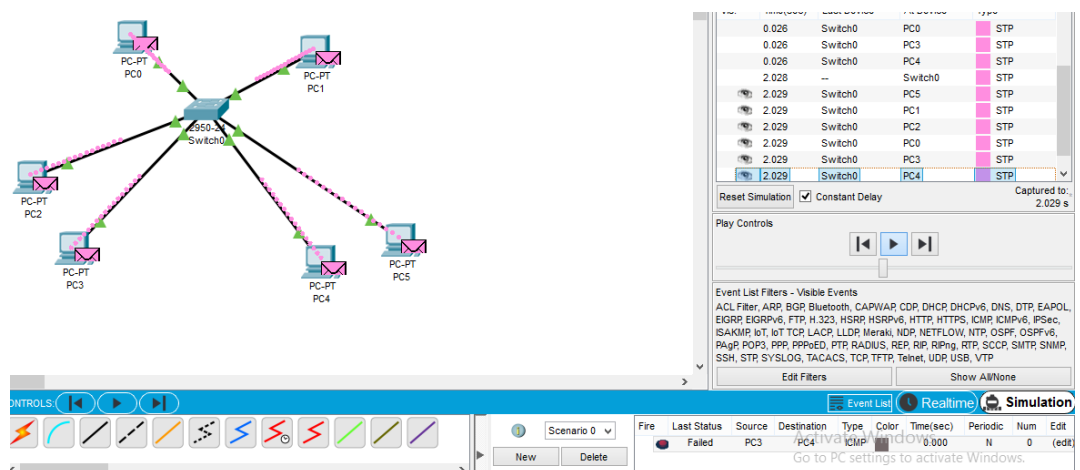
Switch#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 3
Switch(config-vlan)#name FK12
Switch(config-vlan)#int range fa0/18 - 19
Switch(config-if-range)#switchport access vlan 3
Switch(config-if-range)#
^
% Invalid input detected at '^' marker.

Switch(config-if-range)#switchport access vlan 3
```

c. Test ping dalam VLAN yang sama

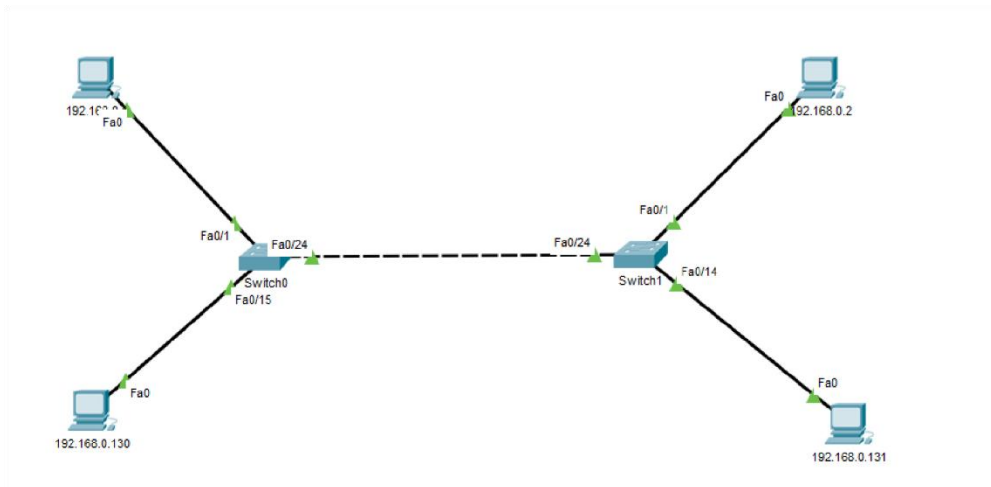


d. Test ping ke VLAN yang berbeda



II. VLAN B

a. Topologi



b. VLAN

```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/15, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/15, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/24, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to up

Switch>show vlan

VLAN Name      Status      Ports
-----
1    default     active     Fa0/1, Fa0/2, Fa0/3, Fa0/4,
          Fa0/5, Fa0/6, Fa0/7, Fa0/8,
          Fa0/9, Fa0/10, Fa0/11, Fa0/12,
          Fa0/13, Fa0/14, Fa0/16, Fa0/17,
          Fa0/18, Fa0/19, Fa0/20, Fa0/21,
          Fa0/22, Fa0/23,
          Fa0/25
2    VLAN2      active
1002 fddi-default active
1003 token-ring-default active
1004 fdlnet-default active
1005 trnet-default active

VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
-----
1    enet  100001    1500    -      -      -      -      -      0      0
2    enet  100002    1500    -      -      -      -      -      0      0
1002 fddi  101002    1500    -      -      -      -      -      0      0
1003 tr  101003    1500    -      -      -      -      -      0      0
1004 fdnet 101004    1500    -      -      -      ieee  -      0      0
--More--

Ctrl-F to exit CLI focus
```

```
Switch1
Physical Config CLI Attributes
IOS Command Line Interface

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/14, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/14, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/24, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to up

Switch>show vlan

VLAN Name      Status      Ports
-----
1    default     active     Fa0/1, Fa0/2, Fa0/3, Fa0/4,
          Fa0/5, Fa0/6, Fa0/7, Fa0/8,
          Fa0/9, Fa0/10, Fa0/11, Fa0/12,
          Fa0/13, Fa0/15, Fa0/16, Fa0/17,
          Fa0/18, Fa0/19, Fa0/20, Fa0/21,
          Fa0/22, Fa0/23,
          Fa0/14
2    VLAN2      active
1002 fddi-default active
1003 token-ring-default active
1004 fdlnet-default active
1005 trnet-default active

VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
-----
1    enet  100001    1500    -      -      -      -      -      0      0
2    enet  100002    1500    -      -      -      -      -      0      0
1002 fddi  101002    1500    -      -      -      -      -      0      0
1003 tr  101003    1500    -      -      -      -      -      0      0
1004 fdnet 101004    1500    -      -      -      ieee  -      0      0
--More--

Ctrl-F to exit CLI focus
```

c. Mode trunk

Switch0

Physical **Config** CLI Attributes

FastEthernet0/10
FastEthernet0/11
FastEthernet0/12
FastEthernet0/13
FastEthernet0/14
FastEthernet0/15
FastEthernet0/16
FastEthernet0/17
FastEthernet0/18
FastEthernet0/19
FastEthernet0/20
FastEthernet0/21
FastEthernet0/22
FastEthernet0/23
FastEthernet0/24

FastEthernet0/24

Port Status ☐
Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒
Duplex ☐ Half Duplex ☒ Full Duplex ☒
Trunk ☐ VLAN 1-1005
Tx Ring Limit 10

Equivalent IOS Commands

```
Switch(config)#interface FastEthernet0/15
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/24
Switch(config-if)#
```

☐ Top

Switch1

Physical **Config** CLI Attributes

FastEthernet0/10
FastEthernet0/11
FastEthernet0/12
FastEthernet0/13
FastEthernet0/14
FastEthernet0/15
FastEthernet0/16
FastEthernet0/17
FastEthernet0/18
FastEthernet0/19
FastEthernet0/20
FastEthernet0/21
FastEthernet0/22
FastEthernet0/23
FastEthernet0/24

FastEthernet0/24

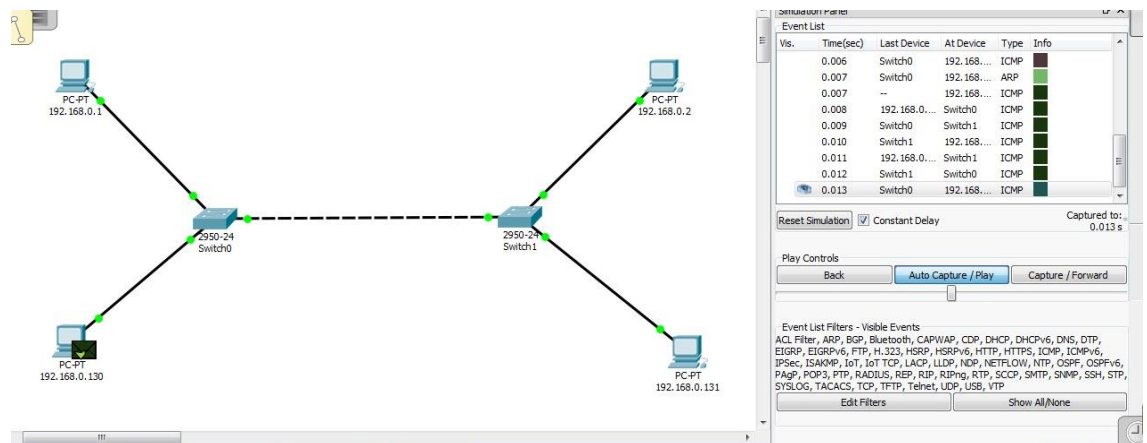
Port Status ☐
Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒
Duplex ☐ Half Duplex ☒ Full Duplex ☒
Trunk ☐ VLAN 1-1005
Tx Ring Limit 10

Equivalent IOS Commands

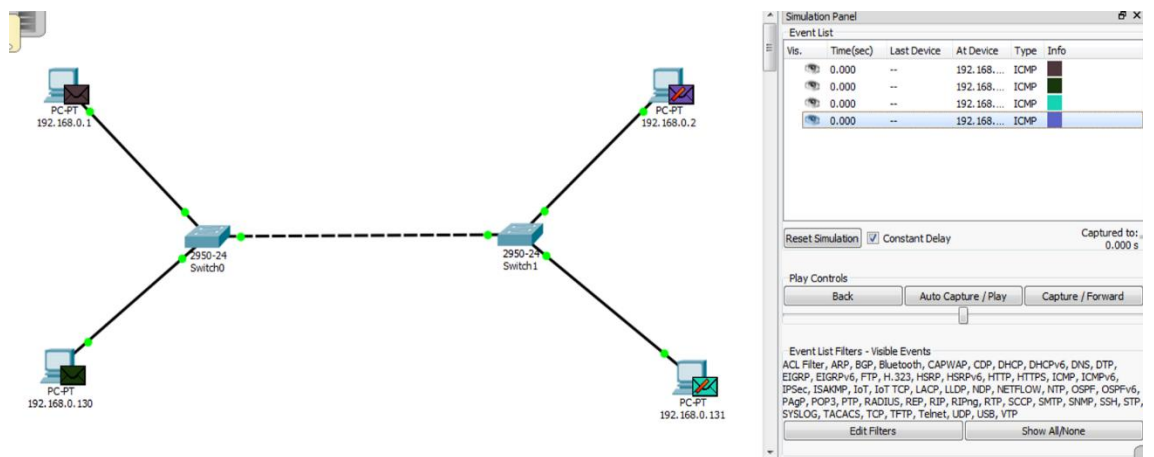
```
Switch(config)#interface FastEthernet0/14
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/24
Switch(config-if)#
```

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d. Test ping VLAN yang sama

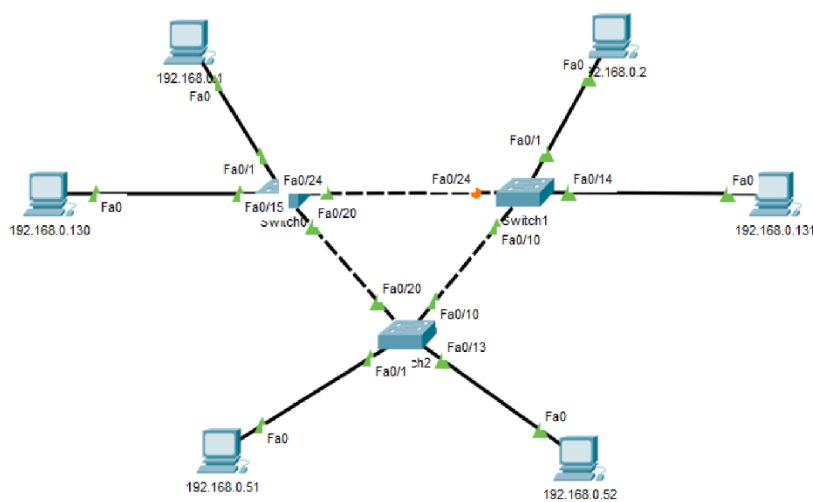


e. Test ping VLAN yang berbeda



TUGAS MODUL 3

A. Topologi



B. VLAN

Switch0

Physical Config CLI Attributes

IOS Command Line Interface

Press RETURN to get started.

Switch>show vlan

VLAN Name	Status	Ports
1 default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23
2 VLAN2	active	Fa0/18
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

VLAN Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1	enet	100001	1500	-	-	-	-	0	0
2	enet	100002	1500	-	-	-	-	0	0
1002	fddi	101002	1500	-	-	-	-	0	0
1003	tr	101003	1500	-	-	-	-	0	0
1004	fdnet	101004	1500	-	-	ieee	-	0	0

Ctrl-F6 to exit CLI focus

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Switch1

Physical Config CLI Attributes

IOS Command Line Interface

Press RETURN to get started.

Switch>show vlan

VLAN Name	Status	Ports
1 default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23
2 VLAN2	active	Fa0/14
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

VLAN Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1	enet	100001	1500	-	-	-	-	0	0
2	enet	100002	1500	-	-	-	-	0	0
1002	fddi	101002	1500	-	-	-	-	0	0
1003	tr	101003	1500	-	-	-	-	0	0
1004	fdnet	101004	1500	-	-	ieee	-	0	0

Ctrl-F6 to exit CLI focus

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Switch2

Physical Config CLI Attributes

IOS Command Line Interface

Press RETURN to get started.

Switch>show vlan

VLAN Name	Status	Ports
1 default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20, Fa0/21, Fa0/22, Fa0/23 Fa0/24
2 VLAN2	active	Fa0/13
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

VLAN Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1	enet	100001	1500	-	-	-	-	0	0
2	enet	100002	1500	-	-	-	-	0	0
1002	fddi	101002	1500	-	-	-	-	0	0
1003	tr	101003	1500	-	-	-	-	0	0
1004	fdnet	101004	1500	-	-	ieee	-	0	0

Ctrl-F6 to exit CLI focus

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C. Test ping VLAN yang sama

Simulation Panel - Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.002	Switch0	Switch2	ARP
	0.002	Switch0	Switch1	ARP
	0.003	Switch2	192.168.0.51	ARP
	0.003	Switch1	192.168.0.2	ARP
	0.005	192.168.0.2	Switch1	ARP
	0.006	Switch1	Switch2	ARP
	0.007	Switch2	Switch0	ARP
	0.008	Switch0	192.168.0.1	ARP
	0.008	Switch0	192.168.0.1	ICMP

Reset Simulation ☒ Constant Delay Captured to: 0.008 s

Play Controls: [Previous] [Play] [Next]

Event List Filters - Visible Events: ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, RADIUS, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telet, UDP, USB, VTP

Edit Filters Show AllNone

Event List Realtime Simulation

D. Test ping VLAN berbeda

Simulation Panel - Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	---	192.168.0.51	ARP
	0.001	192.168.0.1	Switch0	ICMP
	0.001	192.168.0.51	Switch2	ARP
	0.002	Switch0	Switch2	ICMP
	0.002	Switch2	Switch1	ARP
	0.002	Switch2	Switch0	ARP
	0.003	Switch2	Switch1	ICMP
	0.003	Switch1	192.168.0.2	ARP
	0.003	Switch0	192.168.0.1	ARP
	0.003	Switch0	Switch1	ARP

Reset Simulation ☒ Constant Delay Captured to: 0.003 s

Play Controls: [Previous] [Play] [Next]

Event List Filters - Visible Events: ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, RADIUS, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telet, UDP, USB, VTP

Edit Filters Show AllNone

Event List Realtime Simulation