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LAMPIRAN

LAMPIRAN 1

- Tabel IP Router COT

Perangkat	Interface	IP Address
COT	BVI1 IPv4	11.0.1.1 /24
	BVI1 IPv6	2101::1 /64
	BVI2 IPv4	10.28.32.252 /24
	Gig 0/5 IPv4	10.0.0.1 /30
	Gig 0/5 IPv6	1001::1/64
	Gig 0/2 IPv4	10.0.5.1 /30
	Gig 0/2 IPv6	1006::1/64
	Tunnel 0	2001::1 /64
	Tunnel 1	2006::1 /64
ESW5	VLAN 99	10.28.32.4 /24
ESW6	VLAN 99	10.28.32.15 /24
ESW7	VLAN 99	10.28.32.16 /24
ESW8	VLAN 99	10.28.32.17 /24
ESW9	VLAN 99	10.28.32.32 /24
Server2	Ens3 IPv4	11.0.1.2 /24
	Ens3 IPv6	2101::2 /64

- Tabel IP Router Classroom

Perangkat	Interface	IP Address
CLASSROOM	BVI1 IPv4	11.0.2.1 /24
	BVI1 IPv6	2102::1 /64
	BVI2 IPv4	10.28.32.5 /24
	Gig 0/2 IPv4	10.0.0.2 /30
	Gig 0/2 IPv6	1001::2/64
	Gig 0/3 IPv4	10.0.1.1 /30
	Gig 0/3 IPv6	1002::1/64
	Tunnel0	2001::2 /64
	Tunnel1	2002::1 /64
ESW10	VLAN 99	10.28.32.6 /24
ESW13	VLAN 99	10.28.32.7 /24
ESW11	VLAN 99	10.28.32.8 /24
ESW12	VLAN 99	10.28.32.9 /24
Server3	Ens3 IPv4	11.0.2.2 /24
	Ens3 IPv6	2102::2 /64

- Tabel IP Router Civil

Perangkat	Interface	IP Address
CIVIL	BVI1 IPv4	11.0.3.1 /24
	BVI1 IPv6	2103::1 /64
	BVI2 IPv4	10.28.32.26 /24
	Gig 0/2 IPv4	10.0.1.2 /30
	Gig 0/2 IPv6	1002::2/64
	Gig 0/3 IPv4	10.0.2.1 /30
	Gig 0/3 IPv6	1011::1/64
	Gig 0/4 IPv6	10.0.11.1 /30
	Gig 0/4 IPv6	1003::1/64
	Tunnel0	2002::2 /64
	Tunnel1	2003:1 /64
	Tunnel2	2011::1 /64
ESW14	VLAN 99	10.28.32.27 /24
ESW17	VLAN 99	10.28.32.28 /24
ESW15	VLAN 99	10.28.32.29 /24
ESW16	VLAN 99	10.28.32.30 /24

- Tabel IP Router Electrical

Perangkat	Interface	IP Address
ELEKTRO	BVI1 IPv4	11.0.4.1 /24
	BVI1 IPv6	2104::1 /64
	BVI2 IPv4	10.28.32.40 /24
	Gig 0/2 IPv4	10.0.2.2 /30
	Gig 0/2 IPv6	1003::2/64
	Gig 0/3 IPv4	10.0.3.1 /30
	Gig 0/3 IPv6	1004::1/64
	Tunnel0	2003::2 /64
	Tunnel1	2004::1 /64
ESW19	VLAN 99	10.28.32.41 /24
ESW20	VLAN 99	10.28.32.42 /24
ESW21	VLAN 99	10.28.32.43 /24
ESW22	VLAN 99	10.28.32.44 /24
ESW23	VLAN 99	10.28.32.45 /24
Server5	Ens3 IPv4	11.0.4.2 /24
	Ens3 IPv6	2104::2 /64

- Tabel IP Router Naval-B

Perangkat	Interface	IP Address
NAVAL-B	Gig 0/0 IPv4	11.0.51.1 /24
	Gig 0/0 IPv6	2151::1 /64
	Gig 0/1	10.28.32.91 /24
	Gig Gig 0/2 IPv4	10.0.2.2 /30
	Gig 0/2 IPv6	1004::2/64
	Gig 0/3 IPv4	10.0.3.1 /30
	Gig 0/3 IPv6	1005::1/64
	Tunnel0	2004::2 /64
	Tunnel1	2005::1 /64
Server6	Ens3 IPv4	11.0.51.2 /24
	Ens3 IPv6	2151::2 /64

- Tabel IP Router Naval-A

Perangkat	Interface	IP Address
NAVAL-A	BVI1 IPv4	11.0.10.1 /24
	BVI1 IPv6	2110::1 /64
	BVI2 IPv4	10.28.32.86 /24
	Gig 0/2 IPv4	10.0.9.2 /30
	Gig 0/2 IPv6	1010::2/64
	Gig 0/3 IPv4	10.0.4.2 /30
	Gig 0/3 IPv6	1005::2/64
	Tunnel0	2010::2 /64
	Tunnel1	2005::2 /64
ESW42	VLAN 99	10.28.32.87 /24
ESW43	VLAN 99	10.28.32.88 /24
ESW44	VLAN 99	10.28.32.89 /24
Server7	Ens3 IPv4	11.0.10.2 /24
	Ens3 IPv6	2110::2 /64

- Tabel IP Router Geological

Perangkat	Interface	IP Address
GEOLOGI	BVI1 IPv4	11.0.9.1 /24

	BVI1 IPv6	2109::1 /64
	BVI2 IPv4	10.28.32.70 /24
	Gig 0/2 IPv4	10.0.8.2 /30
	Gig 0/2 IPv6	1009::2/64
	Gig 0/3 IPv4	10.0.9.1 /30
	Gig 0/3 IPv6	1010::1/64
	Tunnel0	2009::2 /64
	Tunnel1	2010::1 /64
ESW38	VLAN 99	10.28.32.71 /24
ESW39	VLAN 99	10.28.32.72 /24
ESW40	VLAN 99	10.28.32.73 /24
ESW41	VLAN 99	10.28.32.74 /24
Server8	Ens3 IPv4	11.0.9.2 /24
	Ens3 IPv6	2109::2 /64

- Tabel IP Router Mechanical

Perangkat	Interface	IP Address
MESIN	BVI1 IPv4	11.0.8.1 /24
	BVI1 IPv6	2108::1 /64
	BVI2 IPv4	10.28.32.56 /24
	Gig 0/2 IPv4	10.0.7.2 /30
	Gig 0/2 IPv6	1008::2/64
	Gig 0/3 IPv4	10.0.8.1 /30
	Gig 0/3 IPv6	1009::1/64
	Tunnel0	2008::2 /64
	Tunnel1	2009::1 /64
ESW34	VLAN 99	10.28.32.57 /24
ESW35	VLAN 99	10.28.32.58 /24
ESW36	VLAN 99	10.28.32.59 /24
ESW37	VLAN 99	10.28.32.60 /24
Server9	Ens3 IPv4	11.0.8.2 /24
	Ens3 IPv6	2108::2 /64

- Tabel IP Router Architectural

Perangkat	Interface	IP Address
ARSITEK	BVI1 IPv4	11.0.7.1 /24
	BVI1 IPv6	2107::1 /64
	BVI2 IPv4	10.28.32.19 /24
	Gig 0/2 IPv4	10.0.6.2 /30
	Gig 0/2 IPv6	1007::2/64
	Gig 0/3 IPv4	10.0.7.1 /30
	Gig 0/3 IPv6	1008::1/64
	Gig 0/4 IPv4	10.0.11.2 /30
	Gig 0/4 IPv6	1011::2/64
	Tunnel0	2007::2 /64
	Tunnel1	2008::1 /64
	Tunnel2	2011:2 /64
ESW28	VLAN 99	10.28.32.20 /24
ESW29	VLAN 99	10.28.32.21 /24
ESW30	VLAN 99	10.28.32.22 /24
ESW31	VLAN 99	10.28.32.23 /24
ESW32	VLAN 99	10.28.32.24 /24
ESW33	VLAN 99	10.28.32.25 /24
Server1	Ens3 IPv4	11.0.7.2 /24
	Ens3 IPv6	2107::2 /64

- Tabel IP Router CSA

Perangkat	Interface	IP Address
CSA	BVI1 IPv4	11.0.6.1 /24
	BVI1 IPv6	2106::1 /64
	BVI2 IPv4	10.28.32.10 /24
	Gig 0/2 IPv4	10.0.5.2 /30
	Gig 0/2 IPv6	1006::2/64
	Gig 0/3 IPv4	10.0.6.1 /30
	Gig 0/3 IPv6	1007::1/64
	Tunnel0	2006::2 /64
	Tunnel1	2007::1 /64
ESW24	VLAN 99	10.28.32.12 /24
ESW25	VLAN 99	10.28.32.13 /24
ESW26	VLAN 99	10.28.32.14 /24
ESW27	VLAN 99	10.28.32.15 /24
Server10	Ens3 IPv4	11.0.6.2 /24
	Ens3 IPv6	2106::2 /64

LAMPIRAN 2

- Configurasi Router

```
Router#
Router#conf t
Router(config)#hostname Elektro
Elektro(config)#int gig 0/0
Elektro(config-if)#no shut
Elektro(config-if)#ip add 10.0.3.1 255.255.255.0
Elektro(config-if)#ipv6 add 1004::1/64
Elektro(config-if)#exit
Elektro(config)#do ping 10.0.3.2
Elektro(config)#int tun 0
Elektro(config-if)# ipv6 add 2004::1/64
Elektro(config-if)#tunn mode ipv6ip
Elektro(config-if)#tunn source 10.0.3.1
Elektro(config-if)#tunn destination 10.0.3.2
Elektro(config-if)#end
Elektro#ping 1
Elektro#ping 2004::2
Elektro#sh ip int brief
Elektro#sh ipv6 int brief
Elektro(config)#int gig 0/2.1
Elektro(config-subif)#encapsulation dot1Q 1
Elektro(config-subif)#bridge-group 1
Elektro(config-subif)#exit
Elektro(config)#int gig 0/2.99
Elektro(config-subif)#ip add 10.28.32.40 255.255.255.0
Elektro(config-subif)#encapsulation dot1Q 99
Elektro(config-subif)#ip add 10.28.32.40 255.255.255.0
Elektro(config-subif)#no ip add
Elektro(config-subif)#exit
Elektro(config)#bridge 1 route IP
Elektro(config)#bridge irb
Elektro(config)#bridge 1 route IP
Elektro(config)#bridge 2route IP
```

```
Elektro(config)#bridge 1 protocol ieee
Elektro(config)#bridge 2 protocol ieee
Elektro(config)#int bvi 1
Elektro(config-if)#ip add 11.0.4.1 255.255.255.0
Elektro(config-if)#ipv6 add 2104::1/64
Elektro(config-if)#exit
Elektro(config)#int bvi 2
Elektro(config-if)#ip add 10.28.32.40 255.255.255.0
Elektro(config-if)#exit
Elektro(config)#router ospf 1
Elektro(config-router)#router-id 4.4.4.4
Elektro(config-router)#network 10.0.3.0 0.0.0.3 area 0
Elektro(config-router)#net 10.0.4.0 0.0.0.255 area 0
Elektro(config-router)#net 10.28.32.0 0.0.0.255 area 0
Elektro(config-router)#do sh ip int brief
Elektro(config-router)#do show run | begin ospf
Elektro(config-router)#end
Elektro#sh ip ospf database
Elektro#sh ip int brief
Elektro#conf t
Elektro(config)#ipv6 router ospf 1
Elektro(config-rtr)#router-id 4.4.4.4
Elektro(config-rtr)#exit
Elektro(config)#int gig 0/0
Elektro(config-if)#ipv6 ospf 1 area o
Elektro(config-if)#int bvi 1
Elektro(config-if)#ipv6 ospf 1 area o
Elektro(config-if)#int tun 0
Elektro(config-if)#ipv6 ospf 1 area 0
Elektro(config-if)#end
Elektro#sh ip int brief
Elektro#sh run | begin ospf
Elektro#sh ipv6 ospf data
Elektro#reload
```

LAMPIRAN 3

- Configurasi Ethernet Switch

```
ESW1#format flash:
ESW1#conf t
ESW1(config)#vlan 99
ESW1(config-vlan)#nama manage
ESW1(config-vlan)#exit
ESW1#interface fastEthernet 2/0
ESW1(config-if)#switchport mode trunk
ESW1(config-if)#exit
ESW1(config)#int vl 99
ESW1(config-if)#ip add 10.28.32.42 255.255.255.0
ESW1(config-if)#exit
ESW1(config)#ip routing
ESW1(config)#touter ospf 1
ESW1(config-router)#net 10.28.32.0 0.0.0.255 area 0
ESW1(config-router)#end
ESW1#sh int tr
ESW1#conf t
ESW1(config)#int fastEthernet 2/0
ESW1(config-if)#switchport mode trunk
ESW1(config-if)#end
ESW1#sh int tr
ESW1#sh vlan-sw
ESW1#conf t
ESW1(config)#int fa 2/0
ESW1(config-if)#sw trunk encapsulation dot1q
ESW1(config-if)#sw mod tr
ESW1(config-if)#end
ESW1#sh run int fa 2/0
ESW1#copy run start
```

LAMPIRAN 4

- Instalasi Dan Config FTP

```
Sudo apt update
Sudo apt install vsftpd
Sudo nano/etc/vsftpd.conf
Anonypous_enable=NO
Local_enable=YES
Chroot_local_user=YES
Userlist_enable=YES
Userlist_file=/etc/vsftpd.user_list
Userlist_deny=NO
Sudo nano/etc/vsftpd.user_list
Sudo systemctl restrart vsftpd
Sudo systemctl status vsftpd
```

LAMPIRAN 5

- Proses Buat File

```
Perintah Console GNS3:
~$ truncate -s 25M file25m
Cek Data File:
~$ Is -al
```

- FTP Upload Data

```
Upload File FTP IPv4:
Wput ftp://gns3:gns3@[IPv4]/testfile

Upload File FTP IPv6:
Wput ftp://gns3:gns3@[IPv6]/testfile
```

- FTP Download Data

```
Unduh File FTP IPv4:
Wget ftp://gns3:gns3@[IPv4]/testfile
Unduh File FTP IPv6:
Wget ftp://gns3:gns3@[IPv6]/testfile
```