Permodelan routing BGP sederhana menggunakan Vyatta dan Mikrotik dengan Private AS pada Jaringan Intranet

BGP atau Border Gateway Protocol routing Protocol yang menghubungkan antar AS (autonomous System) yang sama IBGP (Interior Border Gateway Protocol) atau antar AS yang berbeda EBGP (Exterior Border Gateway Protocol). BGP telah terbukti scalable, stabil dan menyediakan mekanisme yang diperlukan untuk mendukung routing yang kompleks. Pada permodelan kali ini kita akan menggunakan BGP dengan redistribute OSPF dan untuk Autonomous System Number yang dipergunakan maka kita akan menggunakan Private AS 64512 sampai 65534 yang dapat digunakan untuk tujuan pribadi seperti halnya Private IP address.

### TOPOLOGI



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### SKEMA PENGALAMATAN

Poutor		Poutor id	Interface			
Koutei	Kouter AS Kouter-1d		Eth0	Eth1	Eth2	Eth3
R1	64512	192.168.2.1	192.168.1.254/24 vif 2 172.16.0.1/30		-	-
				vif 3 172.16.0.5/30		
R2	64513	192.168.2.2	vlan 2 172.16.0.1/30	172.16.0.9/30	172.16.0.13/30	172.16.0.17/30
R3	64514	192.168.2.3	vlan 3 172.16.0.5/30	172.16.0.10/30	172.16.0.21/30	172.16.0.25/30
R4	-	192.168.2.4	172.16.0.14/30	172.16.1.1/24	-	-
R5	-	192.168.2.5	172.16.0.18/30	172.16.2.1/24	-	-
R6	-	192.168.2.6	172.16.0.22/30	172.16.3.1/24	-	-
R7	-	192.168.2.7	172.16.0.26/30	172.16.4.1/24		

#### KONFIGURASI

#### R1 Vyatta

Pada R1 Vyatta, masuk ke console, set interface, NAT, BGP, redistribute connected dan redistribute static.

vyatta@vyatta:~\$ configure [edit] vyatta@vyatta# set interfaces ethernet eth0 address 192.168.1.254/24 [edit] vyatta@vyatta# set interfaces ethernet eth1 vif 2 address 172.16.0.1/30 [edit] vyatta@vyatta# set interfaces ethernet eth1 vif 3 address 172.16.0.5/30 [edit] vyatta@vyatta# set interfaces loopback lo address 192.168.2.1/32 [edit] vyatta@vyatta# set protocols static route 0.0.0.0/0 next-hop 192.168.1.1 [edit] vyatta@vyatta# set service nat rule 1 outbound-interface eth0 [edit] vyatta@vyatta# set service nat rule 1 type masquerade [edit] vyatta@vyatta# set protocols bgp 64512 parameters router-id 192.168.2.1 [edit] vyatta@vyatta# set protocols bgp 64512 network 172.16.0.0/30 [edit] vyatta@vyatta# set protocols bgp 64512 network 172.16.0.4/30 [edit] vyatta@vyatta# set protocols bgp 64512 neighbor 172.16.0.2 remote-as 64513 [edit] vyatta@vyatta# set protocols bgp 64512 neighbor 172.16.0.6 remote-as 64514 [edit] vyatta@vyatta# set protocols bgp 64512 redistribute connected [edit]

vyatta@vyatta# set protocols bgp 64512 redistribute static [edit] vyatta@vyatta# commit [edit] vyatta@vyatta# save Saving configuration to '/opt/vyatta/etc/config/config.boot'... Done [edit] vyatta@vyatta#

#### R2 Mikrotik

Masuk melalui Winbox atau SSH, untuk memudahkan saya sarankan menggunakan winbox. Buat Interface VLAN

Interface List					
Interface Ethernet EoIP Tunnel IP Tunnel VLAN VRRP Bonding					
	Find				
EoIP Tunnel Type Tx Rx Tx Pac Rx Pac	-				
IP Tunnel Ethernet 7.2 kbps 1536 bps 1 2					
VLAN 7.2 kbps 1248 bps 1 2					
VRRP Ethernet 368 bps 0 bps 1 0					
Bonding Ethernet Ubps Ubps U U					
Bridge					
6to4					
VPLS					
PPP Server					
PPP Client					
PPTP Server					
PPTP Client					
L2TP Server					
L2TP Client					
OVPN Server					
OVPN Client					
PPPoE Server					
PPPoE Client					
ISDN Server					
ISDN Client					
Bridge					
Eramerelay PVC					
Virtual AP					
WDS					
Nstreme Dual					

Untuk nama anda bisa menggunakan sembarang nama yang anda sukai, tetapi untuk VLAN ID kita beri No. 2 karena kita akan membuat interface ini bisa terhubung dengan vif 2 pada Vyatta, ini ada kaitannya dengan dengan masalah encapsulation dot1q atau tagging frame vlan.

New Inter	face		×
General Traffi	c		ОК
Name:	vlan2		Cancel
Туре:	VLAN	/LAN	
MTU:	1500		
MAC Address:	enabled		Comment
ARP:			Сору
VLAN ID:			Remove
Interface:	ether1	₹	Torch
disabled	running	slave	

Langkah berikutnya berikan IP address sesuai dengan skema pengalamatan pada tabel diatas.

Interfaces	
Wireless	
Bridge	
PPP	
Bridge	
IP N	Addresses
IPv6 🗈	Routes
MPLS	Pool
VPLS	ARP
Routing 🗅	Firewall
Ports	Socks
Queues	UPnP
Drivers	Traffic Flow
System 🗅	Accounting
Files	Services
Log	Packing
SNMP	Neighbors
Users	DNS
Radius	Web Proxy
Tools D	DHCP Client
New Terminal	DHCP Server
Telnet	DHCP Relay
Password	Hotspot
Certificates	IPsec

Address List						
+	- 🖌 🗶 🗖 🍸		Find			
	Address <172.16.0.2/30>		Interface 💌 vlan2			
	Address: 172.16.0.2/30	ОК	ether2 ether3			
	Network: 172.16.0.0	Cancel				
	Broadcast: 172.16.0.3	Apply				
	Interface: vlan2 🗧	Disable				
		Comment				
		Сору				
		Remove				
	disabled					
3 iten	ns (1 selected)					

Perhatikan IP Address tersebut kita berikan pada interface apa.

Ulangi langkah sebelumnya untuk ether2 dan ether3

🗖 Address List 🛛 🗙						
+ - • × 🗅 🍸	Find					
Address <172.16.0.9/30>	Interface  vlan2					
Address: 172.16.0.9/30 OK	ether2 ether3					
Network: 172.16.0.8  Cancel						
Broadcast: 172.16.0.11 Apply						
Interface: ether2 ∓ Disable						
Comment						
Сору						
Remove						
disabled						
3 items (1 selected)						

	Address Lis	t				×
÷	- 🖌	X 🗂 🍸			Fi	ind
	Addres	s <172.16.0.13	3/30;	- 🛛	Interface vlan2	-
	Address:	172.16.0.13/30		OK	ether2 ether3	
	Network:	172.16.0.12	•	Cancel		
	Broadcast:	172.16.0.15	•	Apply		
	Interface:	ether3	₹	Disable		
				Comment		
				Сору		
				Remove		
disabled						
3 iten	ns (1 selected	)			-	

### Set routing BGP

ю	<b>(</b>	
	Interfaces	
	Wireless	
	Bridge	
	PPP	
	Bridge	
	IP 🗅	
	IPv6 ▷	
	MPLS	
	VPLS	
	Routing D	PIM
	Ports	Filters
	Queues	RIP
	Drivers	OSPF
	System 🗅	BGP
	Files	ММЕ
	Log	RIPng

BGP	BGP Instance	<default></default>	×	×
Instances Peers	Name:	default	ОК	
+ - 🖌	AS:	64513	Cancel	Find
Name	Router ID:	192.168.2.2	Apply	Cluster ID 🗸 🗸 🗸
		Redistribute Connected	Disable	
		Redistribute Static     Bedistribute BIP	Comment	
		Redistribute OSPF	Сору	
		Redistribute Other BGP	Remove	
	Out Filter:	<b>•</b>		
	Confederation:			
	Confederation Peers:	\$		
	Cluster ID:	▼		
		Client To Client Reflection		
1 item (1 selected)		Ignore AS Path Length		
	disabled			

Berikan AS, router-id dan tandai redistribute seperti gambar dibawah

BGP	BGP Peer <peer1< th=""><th>&gt;</th><th></th><th>×</th></peer1<>	>		×
Instances Peers	General Advanced S	tatus	ОК	
+ - 🗸 🗙	Name:	peer1	Cancel	Find
Name	Instance:	default <b>Ŧ</b>	Apply	note ID Uptime 🔻
R peer2	Remote Address:	172.16.0.1	Disable	
	Remote Port:	<b></b>	Comment	
	Remote AS:	64512	Сору	
	TCP MD5 Key:	<b></b>	Remove	
	Nexthop Choice:	default <b>T</b>	Befresh	
		Route Reflect	Refresh All	
	Hold Time:	180 .	Resend	
	TTL:	255	Resend All	
•	Max Prefix Limit:	<b>•</b>		•
2 items (1 selected)	Max Prefix Restart Time:			
	In Filter:	<b>↓</b>		
	Out Filter:	<b>↓</b>		
	disabled	established		

Buat BGP peer sesuai dengan IP address dan AS pada router neighbor.

🗖 BGP	BGP Peer <peer2< th=""><th>&gt;</th><th></th><th></th></peer2<>	>		
Instances Peers	General Advanced S	tatus	ОК	
+ - * *	Name:	peer2	Cancel	Find
Name	Instance:	default 🗧	Apply	note ID Uptime 🔻
speer1	Remote Address:	172.16.0.10	Disable	. 168. 1. 254 00: 35: 04
	Remote Port:	<b></b>	Comment	
	Remote AS:	64514	Сорч	
	TCP MD5 Key:	<b></b>	Bemove	
	Nexthop Choice:	default Ŧ		
		Multihop	Refresh	
		Route Reflect	Refresh All	
	Hold Time:	180 <b>Ŧ</b> s	Resend	
	TTL:	255	Resend All	
A Disease (1. selected)	Max Prefix Limit:	<b></b>		•
2 items (1 selected)	Max Prefix Restart Time:	▼		
	In Filter:	Ŧ		
	Out Filter:	₹		
	disabled	active		

🗖 BGP		×
Instances Peers N	Networks Aggregates	
+ - <b>*</b> ×	T	Find
Instance 🛆	BGP Network <172 16.0.	-
default R default		
	Network: 17216.0.0/20	
	Apply	
	Disable	
	Сору	
	Remove	
	disabled	
2 items (1 selected)		
F		
🗖 BGP		×
Instances Peers	Networks Aggregates	
+ - * *	T	Find
Instance A	BGP Network <172.16.0 🗙	-
default	Instance: default 🔻 🛛 🕅	_
	Network: 172.16.0.8/30 Cancel	
	Hemove	
	disabled	
2 items (1 selected)		

Set routing OSPF untuk interface berikutnya

ø	C#	
	Interfaces	
	Wireless	
	Bridge	
	PPP	
	Bridge	
	IP 🗅	
	IPv6 D	
	MPLS	
	VPLS	
	Routing D	PIM
	Ports	Filters
	Queues	RIP
	Drivers	OSPF
	System 🗅	BGP
	Files	ММЕ
	Log	RIPng

Berikan router-id dan tandai redistribute seperti pada gambar dibawah.

OSPF Settings	×
General Metrics Status	ОК
Router ID: 192.168	.2.2 Cancel
Redistribute Default Route: always (	as type 1) 🔻 Apply
Redistribute Connected Routes: as type	1 7
Redistribute Static Routes: as type	1 7
Redistribute RIP Routes: no	₹
Redistribute BGP Routes: as type	1 7

Set Alamat Network yang akan menggunakan OSPF.

0	SPF									×
Interf	aces	Networks	Areas	Area Ranges	Virtual Links	Neighbors	NBMA Neighbors	LSA	Routes .	
+	-	<b>*</b>	T						FI	ind
	Netwo	ork	Δ 4	vrea						•
	<u> </u>	SPF Netv	vork <	172.16	<b>X</b>					
	Netv	work: 72.16	6.0.12/30	ОК						
	,	Area: back	bone 🖪	F Cancel	-					
				Apply						
				Disable						
					-					
				Сору	-					
				Remove						
	disab	led			—					
1 item	(1 sel	ected)								

Untuk OSPF area kita bisa menggunakan area default yaitu dengan nama backbone dan Area ID 0.0.0, kecuali anda ingin membuat area baru, mungkin nanti bisa anda lakukan sebagai pengembangan atau routing OSPF dengan area yang berbeda.

🗖 OSPF	🔲 OSPF Area <b< th=""><th>ackbone &gt;</th><th>×</th><th>×</th></b<>	ackbone >	×	×
Networks Areas	Area Name:	backbone	ОК	A Routes ASBR Routers
+ - 🗸 >	Area ID:	0.0.0.0	Cancel	Find
Area Name	Туре:	default <b>Ŧ</b>	Apply	Active I Neighb
<b>B</b> Backbond	Translator Role:	translate candidate 🔻	Disable	
	Authentication:	none <b>Ŧ</b>	Сору	
	Default Cost:	Inject Summary LSA	Remove	
	Interfaces:	1		
	Active Interfaces:	1		
	Neighbors:	0		
	Adjacent Neighbors:	0		
	disabled			
1 item (1 selected)				

### R3 Mikrotik

Langkah ini sama persis dengan R2, tinggal meyesuaikan No Vlan, IP address, BGP

ю	0		
	Interfaces		Interface List
	Wireless		Interface Ethernet E
	Bridge		
	PPP		
	Bridge		EoIP Tunnel
	IP 1	5	
	IPv6	5	VRRP
	MPIS		Bonding
		-	Bridge
		_	6to4
	Routing	_	VPLS
	Ports		PPP Server
	Queues		PPTP Server
	Drivers		PPTP Client
	System 🕺	2	L2TP Server
	Files		L2TP Client
	Loa		OVPN Server
	SNMP		PPPoF Server
	Users	-1	PPPoE Client
	Oseis	-1	ISDN Server
	Hadius	-1	ISDN Client
	Tools		Bridge
	New Terminal		Framerelay PVC
	Telnet		VIRTUAIAP WDS
	Password		Nstreme Dual

🔲 Interface	<vlan3></vlan3>		
General Traf	fic		ОК
Name:	vlan3		Cancel
Туре:	VLAN		Apply
MTU:	1500		Disable
MAC Address:	00:0C:29:23:8B:E7		Comment
ARP:	enabled	₹	Сору
VLAN ID:	3		Bemove
Interface:	ether1	Ŧ	
			Torch
disabled	running	slave	

🗖 Addr	ess List		×
+ -	✓ X □ 7		Find
Add 유	Address <172.16.0.6/30>		hterface ▼ Ian3
÷	Address: 172.16.0.6/30	ОК	ther2
	Network: 172.16.0.4	Cancel	
	Broadcast: 172.16.0.7	Apply	
	Interface: vlan3 Ŧ	Disable	
		Comment	
		Сору	
		Remove	
	disabled		
2 items (1	selected)		-

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🗖 Add	ress List					×
+ -	🖌 🗶 🗖	]				Find
Ac 운	🗖 Address <	172.16.0.10	0/30>		Interface vlan3	•
÷	Address: 172	.16.0.10/30		OK	ether2	
	Network: 172	.16.0.8	•	Cancel		
	Broadcast: 172	.16.0.11	•	Apply		
	Interface: ethe	er2	Ŧ	Disable		
				Comment		
				Сору		
				Remove		
	disabled					
2 items (1	selected)					



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BGP Instance	<default></default>	
Name:	default	ОК
AS:	64514	Cancel
Router ID:	192.168.2.3	Apply
	Redistribute Connected	Disable
	Redistribute Static     Bedistribute BIP	Comment
	Redistribute OSPF	Сору
	Redistribute Other BGP	Remove
Out Filter:	₹	
Confederation:	▼	
Confederation Peers:	\$	
Cluster ID:	▼	
	<ul> <li>Client To Client Reflection</li> <li>Ignore AS Path Length</li> </ul>	
disabled		

BGP Peer <peer1< th=""><th>&gt;</th><th></th></peer1<>	>	
General Advanced S	tatus	ОК
Name:	peer1	Cancel
Instance:	default Ŧ	Apply
Remote Address:	172.16.0.5	Disable
Remote Port:	<b>▼</b>	Comment
Remote AS:	64512	Сору
TCP MD5 Key:	▼	Remove
Nexthop Choice:	default F	Befresh
	Route Reflect	Refresh All
Hold Time:	180 <b>∓</b> s	Resend
TTL:	255 🔻	Resend All
Max Prefix Limit:	<b>•</b>	
Max Prefix Restart Time:	<b></b>	
In Filter:	<b>T</b>	
Out Filter:	<b>•</b>	
disabled	established	

BGP Peer <peer2< th=""><th>&gt;</th><th></th></peer2<>	>	
General Advanced S	tatus	ОК
Name:	peer2	Cancel
Instance:	default 🔻	Apply
Remote Address:	172.16.0.9	Disable
Remote Port:	<b>▼</b>	Comment
Remote AS:	64513	Сору
TCP MD5 Key:	▼	Remove
Nexthop Choice:	default <b>Ŧ</b>	Befresh
	Multihop	
		Hetresh All
Hold Time:	180 <b>Ŧ</b> s	Resend
TTL:	255 🗧	Resend All
Max Prefix Limit:	<b></b>	
Max Prefix Restart Time:	<b></b>	
In Filter		
in Filei.		
Out Filter:		
disabled	established	

#### R4 Mikrotik

Setting IP address pada masing-masing interface.



Addres	s <172.16	.1.1/24>	
Address:	172.16.1.1/2	4	OK
Network:	172.16.1.0	<b></b>	Cancel
Broadcast:	172.16.1.255	<b></b>	Apply
Interface:	ether2	₹	Disable
			Comment
			Сору
			Remove
disabled			

Pilih routing OSPF pada menu, set router-id dan redistribute seperti gambar dibawah.

🔲 OSPF	Setting	<u>ş</u> s		×
General	Metrics	Status		OK
		Router ID:	192.168.2.4	Cancel
Redistribute Default Route:		never <b>T</b>	Apply	
Redistribute Connected Routes:		as type 1 🗧	]	
Redistribute Static Routes:		no Ŧ	]	
Redistribute RIP Routes:		no 두	]	
Re	distribute	BGP Routes:	no 두	]

Set alamat network yang akan menggunakan OSPF.

OSPF Netw	ork <172.16 🔀
Network: 172.16	.0.12/30 OK
Area: backb	one <b>Ŧ</b> Cancel
	Apply
	Disable
	Сору
	Remove
disabled	
OSPF Netw	ork <172.16 🔀
Network: 172.16	ork <172.16 🔀 1.0/24 OK
Network: 172.16 Area: backb	ork <172.16 🔀 1.0/24 OK one 🔻 Cancel
OSPF Network: 172.16 Area: backb	ork <172.16 🔀 1.0/24 OK one 🔻 Cancel Apply
OSPF Network: 172.16 Area: backb	ork <172.16 .1.0/24 OK one ▼ Cancel Apply Disable
Network: 172.16 Area: backb	ork <172.16 0K 0K Cancel Apply Disable Copy
OSPF Network: 172.16 Area: backb	ork <172.16 1.0/24 OK one ▼ Cancel Apply Disable Copy Remove

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Unutk OSPF area gunakan default.

🔲 OSPF Area <b< th=""><th>ackbone &gt;</th><th></th></b<>	ackbone >	
Area Name:	backbone	OK
Area ID:	0.0.0.0	Cancel
Туре:	default 두	Apply
Translator Role:	translate candidate 🔻	Disable
Authentication:	none <b>Ŧ</b>	Сору
Default Cost:	<ul> <li>✓ Inject Summary LSA</li> <li>1</li> </ul>	Remove
Interfaces:	2	
Active Interfaces:	2	
Neighbors:	1	
Adjacent Neighbors:	1	
disabled		

Set DNS yang nanti akan dipergunakan oleh client yang menggunakan DHCP

DNS Settings		
Primary DNS:	192.168.1.1	OK
Secondary DNS:	0.0.0.0	Cancel
	Allow Remote Requests	Apply
Max UDP Packet Size:	512	
Cache Size:	2048 KiB	
Cache Used:	5	

Set DHCP

DHCP Setup
Select interface to run DHCP server on
DHCP Server Interface: ether2
Back Next Cancel

🗖 DHCP Setup 🛛 🔀
Select network for DHCP addresses
DHCP Address Space: 172.16.1.0/24
Back Next Cancel
DHCP Setup
Select gateway for given network
Gateway for DHCP Network: 172.16.1.1
Pack Neut Canad
DHCP Setup
BHCP Setup
DHCP Setup Select pool of ip addresses given out by DHCP server Addresses to Give Out: 72.16.1.2-172.16.1.254
DHCP Setup     Select pool of ip addresses given out by DHCP server Addresses to Give Out: 72.16.1.2-172.16.1.254
DHCP Setup Select pool of ip addresses given out by DHCP server Addresses to Give Out: 72.16.1.2-172.16.1.254
■ DHCP Setup Select pool of ip addresses given out by DHCP server Addresses to Give Out: 72.16.1.2-172.16.1.254 Back Next Cancel
■ DHCP Setup       X         Select pool of ip addresses given out by DHCP server         Addresses to Give Out:       72.16.1.2-172.16.1.254         Back       Next       Cancel
DHCP Setup   Select pool of ip addresses given out by DHCP server   Addresses to Give Out:   72.16.1.2-172.16.1.254     Back   Next   Cancel   DHCP Setup
DHCP Setup Select pool of ip addresses given out by DHCP server Addresses to Give Out: 72.16.1.2.172.16.1.254 Back Next Cancel DHCP Setup Select DNS servers
DHCP Setup Select pool of ip addresses given out by DHCP server Addresses to Give Out: 72.16.1.2.172.16.1.254 Back Next Cancel DHCP Setup Select DNS servers DNS Servers: 172.16.1.1
■ DHCP Setup       X         Select pool of ip addresses given out by DHCP server         Addresses to Give Out:       72.16.1.2·172.16.1.254         Back       Next       Cancel         ■ DHCP Setup       X         Select DNS servers       DNS Servers:       172.16.1.1         □ 192.168.1.1       ◆
■ DHCP Setup       X         Select pool of ip addresses given out by DHCP server         Addresses to Give Out:       72.16.1.2·172.16.1.254         Back       Next         Cancel         ■ DHCP Setup         Select DNS servers         DNS Servers:         172.16.1.1         \$         Back         Next         Cancel
■ DHCP Setup       X         Select pool of ip addresses given out by DHCP server         Addresses to Give Out:       72.16.1.2·172.16.1.254         Back       Next         Cancel         DHCP Setup         Select DNS servers         DNS Servers:         172.16.1.1         Back         Next         Cancel

🗖 DHCP Setup 🛛 🔀
Select lease time
Lease Time: 3d 00:00:00
Back Next Cancel

#### R2 Mikrotik

Pilih IP route, maka akan terlihat routing tabel yang terbentuk baik melalui BGP maupun OSPF

- R	oute List										$\mathbf{X}$
Rout	Routes Rules										
+										_+	
	Destination 🛛 🗚	Gateway	Gateway	Interface	Distance	Routing Mark	Pref. Source				-
DAb	0.0.0/0	172.16.0.1		vlan2	20						
Db	0.0.0/0	172.16.0.10		ether2	20						
DAC	172.16.0.0/30			vlan2	0		172.16.0.2				
Db	172.16.0.0/30	172.16.0.1		vlan2	20						
Db	172.16.0.0/30	172.16.0.10		ether2	20						
DAb	172.16.0.4/30	172.16.0.1		vlan2	20						
Db	172.16.0.4/30	172.16.0.10		ether2	20						
DAC	172.16.0.8/30			ether2	0		172.16.0.9				
Db	172.16.0.8/30	172.16.0.10		ether2	20						
DЬ	172.16.0.8/30	172.16.0.1		vlan2	20						
DAC	172.16.0.12/30			ether3	0		172.16.0.13				
DAb	172.16.0.20/30	172.16.0.10		ether2	20						
Db	172.16.0.20/30	172.16.0.1		vlan2	20						
Db	172.16.0.24/30	172.16.0.1		vlan2	20						
DAb	172.16.0.24/30	172.16.0.10		ether2	20						
DAo	172.16.1.0/24	172.16.0.14		ether3	110						
DAb	192.168.1.0/24	172.16.0.1		vlan2	20						
Db	192.168.1.0/24	172.16.0.10		ether2	20						
DAb	192.168.2.1	172.16.0.1		vlan2	20						
DЬ	192.168.2.1	172.16.0.10		ether2	20						
20.8-											
20 ite	ms								English (United :	States	

#### **R4** Mikrotik

Pilih IP route, maka akan terlihat routing tabel yang terbentuk oleh OSPF termasuk yang di-redistribute oleh BGP

Route List								
Routes Rules								
+	🕂 🖃 🖉 🖉 🔽 👔							
	Destination 🛛 🔺	Gateway	Gateway	Interface	Distance	Routing Mark	Pref. Source	-
DAo	▶ 0.0.0.0/0	172.16.0.13		ether1	110			
DAo	172.16.0.0/30	172.16.0.13		ether1	110			
DAo	172.16.0.4/30	172.16.0.13		ether1	110			
DAo	172.16.0.8/30	172.16.0.13		ether1	110			
DAC	172.16.0.12/30			ether1	0		172.16.0.14	
DAo	172.16.0.20/30	172.16.0.13		ether1	110			
DAo	172.16.0.24/30	172.16.0.13		ether1	110			
DAC	172.16.1.0/24			ether2	0		172.16.1.1	
DAo	192.168.1.0/24	172.16.0.13		ether1	110			
DAo	192.168.2.1	172.16.0.13		ether1	110			
10 ite	ms							

#### Client

Pada client, set interface untuk mendapatkan IP dari DHCP server pada R4 Mikrotik, lakukan tracert untuk melihat route yang ditempuh oleh packet dalam mencapai destination, misal: tracert www.unsri.ac.id.



candra@unsri.ac.id

Buka web browser dan akses ke salah satu web, misalnya http://www.unsri.ac.id



Untuk router yang lain bisa anda lakukan sendiri dengan cara yang sama.