

LAB - VIÉT CENTRALIZED POLICY **Đ**Ể LEAKING ROUTE GIỮA CÁC SERVICE VPN

I. Sơ đồ



II. Yêu cầu kỹ thuật

- Viết hai Feature Template có tên là vEdge_VPN1, vEdge_VPN1_Ge0/2 để tạo thêm một Service VPN mới dành cho server.
- Viết một Device Template có tên vEdge_VPN1 từ hai Feature Template trên và dùng lại các Feature Template cũ (vEdge_VPN0, vEdge_VPN0_Ge0/0, vEdge_VPN0_Ge0/1, vEdge_VPN512, vEdge_VPN512_eth0, vEdge_OSPF) để tạo thêm một VPN1 dành cho server.
- Đẩy cấu hình Device Template vừa viết xong.
- Viết Centralized Policy để VPN12 có thể giao tiếp đến VPN1 của server.
- III. Các bước thực hiện

3.1. Viết hai Feature Template cho VPN1 dành cho server

• Tạo Feature Template: *vEdge VPN1*

Đầu tiên ta vào giao diện vManage > Configuration > Template > Feature > Add Template.



 TRUNG TÂM TIN HỌC VNPRO

 DC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chí Minh

 DT: (028) 35124257 | Hottine: 0933427079 Email: vnpro@vnpro.org

~ - ø ×

Monitor - Overview Cisco SDWA: 🗙 🕂

÷ -		t secure https://192.168.1.	1:8443/#/app/monit	or2/overview						Ê	\$		1 :
Cis	sco SD-WAN	N					Overview			٥	Ξ	0	۵
<u> </u>	Monitor		Devices		nels	Applicatio	Security	VPN More · 2					
ใม่ใ		· · ·	TLS/SSL Proxy Certificates							68	Ξ	ы	
×	Tools		Network Design		T	CERTIFIC	ATE STATUS	LICENSING	REBOOT				
\$ \$	Maintenance	, <mark> </mark>	Templates Policies	•		() Warning		O Assigned 3 Unassigned	O Last 24 hrs				
ی م	Administration	· · · ·	Security										
	Reports		Network Hierarch	iy ications	Sites		unnel Health	O	24 Hours	24 Hours ✓	Actio		
Ċ	Analytics		Cloud onRamp fo	or SaaS or IaaS	Unter				24 110013		unner		
			Cloud onRamp to	or Multicloud				0 Tunnets					
٩	admin	Sign Out							No [Data to Display			
https://1	92.168.1.1:8443/#/ap	p/config/template/configGroups								^ @ @	d∎ 10	242 PM	ج
## C	Configuration - Templa	ates Cisco 🗄 🗙 🕂								V	-	0	×
← -		t secure https://192.168.1.	1:8443/#/app/config	J/template/feature						Ŀ	☆		1 :
=	≡ Cisco SD	-WAN 💮 Sele	ect Resource Gr	oup▼			Templat	es		\bigcirc	Ξ	0	4
			Co	nfiguration Groups Fe	ature F	Profiles De	evice Templates	Feature Templates					
	Q Search										5	7	
E	Add Template	nn-Default 🗸								Total Rows: 20	a	æ	
	Name	Description	Туре	Device Model	Device	e Templates	Resource Gro	up Devices Attached	d Updated	By Last Updated		r≎r	
	vEdge_Site1_V	vEdge_Site1_VPN0_Ge0/	WAN Edge Inter	vEdge Cloud	0		global	0	admin	11 Jul 2023 5:1	7		
	vEdge_VPN0_G	vEdge_VPN0_Ge0/0_Site	WAN Edge Inter	vEdge Cloud	0		global	0	admin	11 Jul 2023 5:1	7 •••		
	vEdge_VPN11	vEdge_VPN11_Ge0/2_VR	. WAN Edge Inter	vEdge Cloud	0		global	0	admin	11 Jul 2023 5:1	7 •••		
	vEdge_VPN512	vEdge_VPN512	WAN Edge VPN	vEdge Cloud	1		global	3	admin	11 Jul 2023 5:1	7	L	
	vSmart_VPN51	vSmart_VPN512_eth1	WAN Edge Inter-	vSmart	1		global	3	admin	11 Jul 2023 5:1:	7		
	vEdge_VPN11	vEdge_VPN11	WAN Edge VPN	vEdge Cloud	0		global	0	admin	11 Jul 2023 5:1	7 •••		
	vSmart_VPN512	vSmart_VPN512	vSmart VPN	vSmart	1		global	1	admin	11 Jul 2023 5:1	7 •••		
	vEdge_VPN0_G	vEdge_VPN0_Ge0/0_Inte	WAN Edge Inter	vEdge Cloud	1		global	3	admin	11 Jul 2023 5:13	7 •••		
#	, D ≣i	0 🖬 🧉 🧿	F- 4							^ ⊕ ⊕	d <mark>∎</mark> 10	43 PM	F1

Ở phần Select Devices ta chọn thiết bị vEdge Cloud rồi chọn mục VPN





ĐC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chí Minh **Đ**T: (028) 35124257 | **Hotline**: 0933427079 **Email**: vnpro@vnpro.org

Configuration - Templates Cisco	+		v – Ø
→ C ▲ Not secure https://www.secure https://wwwwwwwwwwwwww.secure https://www.secure https://www.secur	x//192.168.1.1:8443/#/app/config/template/feature?display=add		ie 🖈 🛛 🛔
≡ Cisco SD-WAN	Select Resource Group•	Templates	
	Configuration Groups Feature Pro	ofiles Device Templates Feature Templates	
Feature Template > Add Template			
Select Devices	VDN		
Q Search by device name	VEN		
ISRv	•		
vEdge 100	Secure Internet Gateway (SIG)	VPN	VPN Interface Bridge
vEdge 100 B	WAN	Ę	LAN
vEdge 100 M			
vEdge 100 WM			
vEdge 1000	VPN Interface Cellular	VPN Interface Ethernet	VPN Interface GRE
vEdge 2000	WAN	Management WAN LAN	WAN
vEdge 5000			
vEdge Cloud			
vManage	VPN Interface IPsec	VPN Interface NATPool	VPN Interface PPP
vSmart	WAN	WAN	WAN
	v C		

Tiếp theo vào mục VPN ta cấu hình như sau:

Template Name: *vEdge_VPN1* Description: *vEdge_VPN1* VPN: 1

mPro						DC: 276 - 2 DT: (028) 3	TRUNG TÂM TIN HỌC VNI DC: 276 - 278 Ung Văn Khiém, P.25, Q.Binh Thạnh, Tp Hồ Chỉ DT: (028) 35124257 Hotline: 0933427079 Email: vnpro@vnpr					
onfiguration - Templates Cisco 🛛	< +								~	-	٥	×
C A Not secure #	https://192.16	58.1.1:8443/#/app/co	nfig/template/feature?dis	play=add&deviceTy	/pe=vedge-cloud&ter	mplateType=vpn-vedge			Ê	\Rightarrow) :
E Cisco SD-WAN	\bigcirc	Select Resource	Group		Templa	ates			\bigcirc	Ξ	0	4
			Configuration Groups	Feature Profiles	Device Templates	Feature Templates						
ature Template > Add Temp	late > VPN											
evice Type	vEdge Clour	t i										
emplate Name*	vEdge_VPI	N1										
escription*	vEdge_VPI	N1										
Basic Configuration Route Leak	DNS	Advertise OMP	IPv4 Route	IPv6 Route	Service	Service Route	GRE Route	IPSEC Route	N	AT		
✓ BASIC CONFIGURAT	ION											
VPN			1									
Name			⊘ -									
Enhance ECMP Keying			⊙• On	Off								

Cuối cùng chọn Save để tạo được cái Feature Template đầu tiên

- Tạo Feature Template: *vEdge VPN1 Ge0/2* (để cấu hình cổng ge0/2 cho VPN1)
- Chon vManage > Configuration > Template > Feature > Add Template.

≡ Cisco SD-WAN	♦ Select Resource Group •	Templates	
	Configuration Groups Fea	ature Profiles Device Templates Feature Templates	
eature Template > Add Template			
Select Devices Q Search by device name	VPN		
ISRv	•		
vEdge 100	Secure Internet Gateway (SIG	a) VPN	VPN Interface Bridge
vEdge 100 B	WAN		LAN
vEdge 100 M			
vEdge 100 WM		ſm	
vEdge 1000	VPN Interface Cellular	VPN Interface Ethernet	VPN Interface GRE
vEdge 2000	WAN	Management WAN LAN	WAN
vEdge 5000			
vEdge Cloud			
🗆 vManage	VPN Interface IPsec	VPN Interface NATPool	VPN Interface PPP
□ vSmart	WAN	WAN	WAN

Tạo template cho VPN 1 interface như bên dưới:

Website: www.vnpro.vn | Forum: www.vnpro.org | Video: https://www.youtube.com/@vnpro149



- Select Devices: vEdge Cloud
- Template: VPN/VPN Interface Ethernet
- **Template Name**: *vEdge_VPN1_Ge0/2*
- **Description**: *vEdge_VPN1_Ge0/2*

	CCD3//152.100.1.1.04403/070701			,	
= Cisco SD-WAN	Select Resource	ce Group.		Templates	=
				Templates	0 = 0
		Configuration Groups	Feature Profiles	Device Templates	
eature Template > Add Templ	ate > VPN Interface Ethernet				
evice Type	vEdge Cloud		•		
emplate Name*	vEdge_VPN1_Ge0/2				
escription*	vEdge_VPN1_Ge0/2]		
Basic Configuration	Tunnel NAT	VRRP ACL/QoS	ARP	802.1X Advanced	
V BASIC CONFIGURATI	ION				
Shutdown		• Ves	O No		
Interface Name		⊕ ▼ ge0/2			
Description		⊘ -			
			IDv/	IDviR	
, Д 🛱 💽 肩	😆 🍳 🖻 🛓	3	Cancel	Save	~ ⊕ ⊕ ⊄∎ 10-47 PM
오 H 💽 📻 Configuration - Templates Cisco : x	🖕 💽 🕾 🔒	3	Cancel	Save	 △ □ ⊕ ↓ 1047 PM 7/10/2023 ✓ - ♂
O H C ■ Configuration - Templates Cisco ★ → C ▲ Not secure ▲	 ♦ ♦	3 /config/template/feature?di:	Cancel splay=add&deviceTy	Save ype=vedge-cloud&templateType=vpn-vedge-interf	へ ⊡ ⊕ 4 1047 PM 7/10/2023 マ ー の ace ピ ☆ □ 書
O H Configuration - Templates Cisco × → C ▲ Not secure A = Cisco SD-WAN		3. /config/template/feature?dii ce Group ←	Cancel	Save ype=vedge-cloud&templateType=vpn-vedge-interf Templates	 ○ ● ● ● 1047 PM 7/10/2023 ✓ - ○ ace 止 ☆ ○ □ ▲ ○ Ξ ○
O ■ ■ ■ Configuration - Templates Cisco > → C ▲ Not secure ■ ■ Cisco SD-WAN	 	/config/template/feature?di ce Group↓ Configuration Groups	Cancel splay=add&deviceTy Feature Profiles	Save ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates Festure Templates	 ○ ⊕ ↓ 1047 PM ✓ - 0 ace ▷ ☆ □ ▲ ○ Ξ ⑦
O H1 ● Image: Configuration - Templates Cisco > Configuration - Templates Cisco A Not secure Image: Cisco → C ▲ Not secure Image: A = Cisco SD-WAN eature Template > Add Template			Cancel splay=add&deviceTy Feature Profiles	Save ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates Feature Templates	 ▲ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
O III III IIII Configuration - Templates Cisco × × × × → C ▲ Not secure IIII = Cisco SD-WAN eature Template > Add Template		Config/template/feature?dia CC Group ↓ Configuration Groups	Cancel splay=add&deviceTy Feature Profiles	Save ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates Feature Templates IPv6	 ○ ⊕ 4 1047 PM 7/10/2023 ✓ - Ø ace ☆ ★ □ ≛ ○ Ξ ⑦
O III Image: Configuration - Templates Cisco x > C A Not secure k > C A Not secure k Image: Cisco SD-WAN Image: Cisco SD-WAN eature Template > Add Template			Cancel splay=add&deviceTy Feature Profiles	Save ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates IPv6	
O III C III Configuration - Templates Cisco > → C A Not secure III E Cisco SD-WAN eature Template > Add Templ O Dynamic O Stat		3. /config/template/feature?di: cce Group↓ Configuration Groups	Cancel splay=add&deviceTy Feature Profiles	Save ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates IPv6	 ○ ● ● ● 1047 PM 7/10/2023 ✓ - ○ ace 止 ★ ○ □ ▲ ○ Ξ ○
O H O Image: Configuration - Templates Cisco × → C ▲ Not secure ▲ = Cisco SD-WAN eature Template > Add Template O Dynamic O State IPv4 Address IPv4 Address Image: Configuration - Template - State	<	Config/template/feature?dia ce Group • Configuration Groups	Cancel splay=add&deviceTy Feature Profiles	Save ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates Peature Templates IPv6 [vpn1_ge0/2_if_ipv4_address]	 ○ ● 4 1047 PM 7/10/2023 ○ - ○ ace ☆ ☆ □ ● ☆ ☆ □ ●
O H O Configuration - Templates Cisco C O Not secure K C C O Not secure K C C O Dynamic O Stat IPv4 Address Secondary IP Address	(+ + () Select Resour () Select Resou	Config/template/feature?dii Cce Group • Configuration Groups	Cancel splay=add&deviceTy Feature Profiles IPv4	ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates IPv6 [vpn1_ge0/2_j#_ipv4_eddress]	 ▲ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
Configuration - Templates Cisco > Configuration - Templates Cisco > C A Not secure R Cisco SD-WAN esture Template > Add Templ O Dynamic O Stat IPv4 Address Secondary IP Address I	<	Config/template/feature?dis Cce Group • Configuration Groups	Cancel splay=add&deviceTy Feature Profiles IPv4	Vye=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates IPv6 [vpn1_ge0/2_ff_pv4_address] vy	 ○ ⊕ 4 1047 PM 7/10/2023 ∨ - Ø ace ☆ ★ □ ≛ ○ Ξ ⑦
O III C Configuration - Templates Cisco > → C A Not secure III E Cisco SD-WAN Cisco SD-WAN Cisco SD-WAN C Add Template > Add Template O Dynamic O Statt IPv4 Address Secondary IP Address I DHCP Helper	A constraint of the second	Config/template/feature?dis Cee Group • Configuration Groups	Cancel splay=add&deviceTy Feature Profiles	VPE=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates IPv6 [vpn1_ge0/2_ilf_ipv4_address] Py ge0/2_ilf_ipv4_address	 ▲ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
Configuration - Templates Cisco > Configuration - Templates Cisco > C A Not secure R Cisco SD-WAN esture Template > Add Templ O Dynamic O Stat IPv4 Address Secondary IP Address I DHCP Helper Block Non Source IP	<	Config/template/feature?dis Cce Group • Configuration Groups Global Device Specif Coefault	Cancel splay=add&deviceTy Feature Profiles	V V V V V V V V V V V V V V	 ○ ● ● ● 1047 PM 7/10/2023 ○ - ○ ace 止 ★ □ ▲ ○ Ξ ○
● EI ● ■ Configuration - Templates Cisco > > > → C ▲ Not secure > ■ Clsco SD-WAN ■ ■ ■ Elsco Not secure ■ ■ ■ Elsco Not secure ■ ■ ■ Haddress ■ ■ ■ ■ ■ Elsco Non Source IP ■ ■ ■ ■ ■ Bandwidth Upstream ■ ■ ■ ■ ■ ■ ■	(* * * * * * * * * * * * * * * * *	Config/template/feature?dis Cce Group • Configuration Groups Global Device Specif Corfault Corf yes Cor Yes	Cancel splay=add&deviceTy Feature Profiles	VPE=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates IPv6 (vpn1_ge0/2_iff_ipv4_address] V ge0/2_iff_ipv4_address	 ○ ● ● ● 1047 PM 7/10/2023 ○ - ○ △ ○ 三 ○
O H ● Configuration - Templates Cisco > → C ▲ Not secure ▶ ■ Clsco SD-WAN ■ Clsco SD-WAN ■ Clsco SD-WAN ■ Clsco SD-WAN ■ IPv4 Address Secondary IP Address I DHCP Helper Block Non Source IP Bandwidth Upstream Bandwidth Downstream	() PN Interface Ethernet ic (Maximum: 4)	Config/template/feature?dis Cce Group • Configuration Groups Global Device Specif O Default O - Yes O •	Cancel splay=add&deviceTy Feature Profiles	VPE=vedge-cloud&templateType=vpn-vedge-interf Templates Device Templates [Vpn1_ge0/2_ilf_ipv4_address] [Vg ge0/2_ilf_ipv4_address] [Vg	
	<	Config/template/feature?dis ce Group • Configuration Groups Global Device Specif O Default O efault	Cancel splay=add8/deviceTy Feature Profiles	ype=vedge-cloud&templateType=vpn-vedge-interf Templates Device Template: Festure Templates IPv6 [vpn1_ge0/2_Jf_jpv4_eddress] y ge0/2_Jf_jpv4_eddress]	

Website: www.vnpro.vn | Forum: www.vnpro.org | Video: https://www.youtube.com/@vnpro149



Chọn Save để tạo Template

3.2. Tạo một Device Template

Ở giao diện vManage, **Configuration > Templates** (tab Device).

Chon Create Template > From Feature Template.

Chon Device Model (vEdge Cloud).

Configuration - Templates Cisco X + C A Not secure https:///		#/app/config/tem	plate/device					V	-		× ×
≡ Cisco SD-WAN	Select Re	source Group	•		Templates			0	=	0	 _
		Configur	ration Groups Fe	eature Profiles Device Te	mplates	are Templates					Í
Q Search										7	
Create Template > From Feature Template								Total Rows: 2	Ø	钧	
Name Description Type	Device Mode	Device Role F	Resource Group	Feature Templates	Draft Mode	Devices Attached	Updated By	Last Updated	1		
vEdge vEdge_VPN12 Feature	vEdge Cloud	SDWAN Edge	global	14	Disabled	3	admin	11 Jul 2023 5:22.			
vSmar vSmart_Template Feature	vSmart	SDWAN Edge	global	9	Disabled	1	admin	11 Jul 2023 5:33.			
# 🔎 🗉 💽 🖬 🗳	9	4						^ @ ¢	₽ 4	10:48 PN 7/10/202	⁴ □

Device Model: *vEdge Cloud*

Nhập Template Name (vEdge_Site1), Description (vEdge_Site1).

CÔNG TY TNHH TƯ VÁN VÀ DỊCH VỤ CHUYÊN VIỆT
TRUNG TÂM TIN HỌC VNPRO
DC: 276 - 278 Ung Văn Khiêm, P.25, Q.Bình Thạnh, Tp Hồ Chí Minh

TIT I TT AND



		D1 : (028) 35124257 Hotmie: (J95542 (N	079 EI	nail: vnp	oro@v		
# Configuration - Templates Cisco : × +			~	-	٥	×		
→ C ▲ Not secure https://192.168.1.1:8443/#/app/config/templat	te/device/feature		Ŀ	\Rightarrow) 1		
≡ Cisco SD-WAN ⑦ Select Resource Group • Templates								
Configurat	ion Groups Feature Profiles Device Templates Feature Templa	ites						
Device Model* VEdge Cloud	~					1		
Device Role* SDWAN Edge	~							
Template Name* vEdge_Site1								
Description* vEdge_Site1								
System * Factory Default vEdge System Templ		Additional System Templates						
Sustem *		Additional System Tomplaton				1		
Logging* Factory_Default_Logging_Template_V01	Ť	Archive						
Logging* Factory_Default_Logging_Template_V01	l •	Archive NTP						
Logging* Factory_Default_Logging_Template_V01		Archive The second se						
Logging* Factory_Default_Logging_Template_V01		Archive NTP						
Logging* Factory_Default_Logging_Template_V01		Archive NTP						
Logging* Factory_Default_Logging_Template_V01		Archive NTP						
Logging* Factory_Default_Logging_Template_V01		Archive NTP						
Logging* Factory_Default_Logging_Template_V01	Treate Cancel	Archive NTP						

Trong phần Basic Information thì để mặc định nếu có những template tương ứng thì có thể chọn vào.

- C A Not secur	re https://192.168.1.1:8443/#/app/cor	ifig/template/device/teat	ure			B	¥		-
E Cisco SD-WA	AN () Select Resource	Group	Temp	lates		\bigcirc	=	0	
		Configuration Groups	Feature Profiles Device Templates	Feature Template	15				
Basic Information	Transport & Management VPN	Service VPN	Additional Templates						
sic Information									
System *	Factory_Default_vEdge_Syst	em_Templ 👻			Additional System Templates				
.ogging*	Factory_Default_Logging_Te	mplate_V01 👻			Archive Archive NTP				
IAA	Factory_Default_AAA_Temp	ate 👻	BFD *	Factory_De	fault_BFD_Template_V01 -				
OMP *	Factory_Default_vEdge_OM	P_Template 🔻	Security *	Factory_De	fault_vEdge_Security_Temp 👻				

Đối với phần Transport & Management VPN, ta chọn lần lượt các Feature Template cũ sau: **VPN0**: *vEdge_VPN0*

Website: www.vnpro.vn | Forum: www.vnpro.org | Video: https://www.youtube.com/@vnpro149





VPN512: *vEdge VPN512*

VPN Interface: *vEdge_VPN_eth0*

🗱 Configuration - Templates Cisco 🗄 🗙	+			\sim	-	٥	×
← → C ▲ Not secure http	s://192.168.1.1:8443/#/app/config/template/device/fea	ure		Ê	☆		1 :
≡ Cisco SD-WAN	◊ Select Resource Group •	Templates		\bigcirc	Ξ	0	4
	Configuration Groups	Feature Profiles Device Templates Feature Template	s				
Transport & Management V	/PN						Î
VPN 0 * VPN Interface VPN Interface	vEdge_VPN0 ▼ vEdge_VPN0_Ge0/0_Internet ▼ vEdge_VPN0_Ge0/1_MPLS ▼		Additional VPN 0 Templates				
VPN 512 * VPN Interface	vEdge_VPN512 vEdge_VPN512_eth0		Additional VPN 512 Templates VPN Interface 				
Service VPN		Create Cancel					

Ở Service VPN, ta lần lượt chọn các template tương ứng với các mục như sau:

mPro		0		CÔNG TY TNHH TƯ VẦN VÀ DỊC TRUNG TẦ ĐC: 276 - 278 Ung Văn Khiêm, P.25, Q.Bi ĐT: (028) 35124257 Hotline: 093342707	H VŲ CHU M TIN HO nh Thạnh, Tp 9 Email: vnp	J YÊN VI OC VNPI Hồ Chí M tro@vnpro
Configuration - Templates Cisco 🛛 🗙 🕇				~	- 0	×
→ C ▲ Not secure https://192.16	i8.1.1:8443/#/app/config/template/device/featu	ire		Ê	* 🛛 🔮	1
■ Cisco SD-WAN		Template	es	\bigcirc	≡ ⊘	4
	Configuration Groups	Feature Profiles Device Templates	Feature Templates			
						-
Service VPN						
Q. Search					Y	
0 Rows Selected Add VPN Re	Imove VPN			Total Rows: 0	C	
	Template Name		Sub-Templates			
		No data available				14
Additional Templates						
Pannar						-
		Create Cancel				
					10:52 PM	

VPN: vEdge_VPN12 OSPF: vEdge_VPN12_OSPF VPN Interface: vEdge_VPN12_Ge0/3

CÔNG TY TNHH TƯ VÁN VÀ DỊCH VỤ CHUYÊN VIỆT TRUNG TÂM TIN HỌC VNPRO



DC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chí Minh DT: (028) 35124257 | Hotline: 0933427079 Email: vnpro@vnpro.org

 \times

 \times

Add VPN				
	Select VPNs		Select Sub-Templates	
Select one or more Service VPNs	s to add:			1 Items Selected
Available VPN Templates	Select All		Selected VPN Templates	Select All
O Search	∇		O Search	\bigtriangledown
	Template Name		ID Template	Name
cc43f84d-b5a9-4dc5-84fc-97	2dd vEdge_VPN1		8b1eeab3-41e2-4e92-b879-816b vEdge_VPI	N12
554e866f-bbc0-4f9e-b65b-f9	077dvEdge_VPN11			
Create VPN Template		Ne	ext Cancel	
Add VPN				
	Select VPNs		Select Sub-Templates	
Include sub-templates to attach to	ALL selected service VPNs:			
				Tomoletes
OSPF	vEdge_VPN12_OSPF	• 🏛	Additional VPN	Templates
			(+) BGP (+) IGMP	
VPN Interface	vEdge_VPN12_Ge0/3	• =	Sub-Templates	
		0.	⊕ OSPF	
			⊕ PIM	
			VPN Interface	
			VPN Interface E	Bridge
			(+) VPN Interface 0	SRE
			VPN Interface I	PSec
			VPN Interface	warpool

Back Cancel

VPN: *vEdge_VPN1*

Website: www.vnpro.vn | Forum: www.vnpro.org | Video: https://www.youtube.com/@vnpro149



VPN Interface: *vEdge_VPN1_Ge0/2*

lect one or more Service VF	PNs to add:								
									1 Items Select
Available VPN Templates		Select All		Selected VP	N Template	S			Select Al
Q Search		Y		Q Search					Y
ID	Template Name			ID			Temp	late Name	
554e866f-bbc0-4f9e-b65b	-f9077dvEdge_VPN11			cc43f84d-b5a	a9-4dc5-84	4fc-972dd	vEdge_	VPN1]
reate VPN Template			Ne	xt C	ancel				
reate VPN Template			Ne	xt C	ancel				
reate VPN Template Add VPN		Colors VDNo	Ne	xt C	ancel				
reate VPN Template Add VPN		Select VPNs	Ne	xt C Select Sub-Ter	ancel				
reate VPN Template Add VPN	a to ALL selected service VPI	Select VPNs	Ne	xt C Select Sub-Ter	ancel				
reate VPN Template Add VPN lude sub-templates to attach	to ALL selected service VP	Select VPNs	Ne	xt C Select Sub-Ter	nplates	Addi	tional V	'PN Ten	nplates
reate VPN Template Add VPN Jude sub-templates to attach	to ALL selected service VP	Select VPNs	Ne •	xt C Select Sub-Ten	nplates	Addi B	tional V GP	PN Terr	nplates
reate VPN Template Add VPN lude sub-templates to attach VPN Interface	to ALL selected service VP	Select VPNs	Ne •	xt C Select Sub-Ter	ancel nplates	Addi B IC M	tional V GP MP	PN Terr	nplates
reate VPN Template Add VPN lude sub-templates to attach VPN Interface	to ALL selected service VP	Select VPNs	Ne •	xt C Select Sub-Ter	ancel nplates	Addi	tional V GP MP ulticast SPF	'PN Terr	nplates
reate VPN Template Add VPN lude sub-templates to attach VPN Interface	to ALL selected service VPI	Select VPNs	Ne •	xt C Select Sub-Ter	nplates	Addi (+) Bi (+) IG (+) Mi (+) O (+) Pi	tional V GP MP ulticast SPF M	'PN Ten	nplates
Add VPN	to ALL selected service VPI vEdge_VPN1_Get	Select VPNs	● ● ● ●	xt C Select Sub-Ter	ancel nplates	Addi	tional V GP MP ulticast SPF M PN Interfa	'PN Terr	nplates
Add VPN Add VPN	to ALL selected service VPI vEdge_VPN1_Get	Select VPNs	Ne	xt C Select Sub-Ten	nplates	Addi B C M O P V V V V V V	tional V GP ulticast SPF M PN Interfa PN Interfa	'PN Terr ce ce Bridge	nplates
Add VPN Add VPN	to ALL selected service VPI	Select VPNs		xt C Select Sub-Ten	nplates	Addi	tional V GP iMP ulticast SPF M PN Interfa PN Interfa PN Interfa	'PN Terr ce bridge ce GRE	nplates
Add VPN Iude sub-templates to attach	to ALL selected service VPI	Select VPNs		xt C Select Sub-Ten	ancel nplates	Addi	tional V GP MP ulticast SPF M PN Interfa PN Interfa PN Interfa PN Interfa	Ce ce Bridge ce GRE ce IPsec	nplates

CÔNG TY TNHH TƯ VÁN VÀ DỊCH VỤ CHUYÊN VIỆT TRUNG TÂM TIN HỌC VNPRO

ĐC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chí Minh

		ĐT : (028	8) 35124257 Hotline: 0933427079 Email: vnpro@
## Configuration - Templates Cisco 🛛 🗙 🕂			v – Ø
← → C ▲ Not secure https://192.168.1.1:8443/	#/app/config/template/device/feature		ie 🖈 🛛 😩
■ Cisco SD-WAN Select Re	source Group •	Templates	
	Configuration Groups Feature Profiles Device	re Templates Feature Templates	
Service VPN			
Q Search			∇
ai 🗌	Template Name	Sub-Templates	~
Bb1eeab3-41e2-4e92-b879-816b4dc39ac4	vEdge_VPN12	OSPF, VPN Interface	
cc43f84d-b5a9-4dc5-84fc-972dde22aceb	vEdge_VPN1	VPN Interface	
Additional Templates			
Paneer			
Choose	•		
Policy Choose	•		
	Create	Cancel	

Chọn Create để hoành thành Device Template

VnPro

Tiến hành cấu hình thiết bị vEdge bằng cách Attach Devices

tta Configuration - Templates Cisco 🛛 🗙 🕂					~	- 0	×
← → C ▲ Not secure https://*	192.168.1.1:8443/#/app/config/templa	te/device					± :
≡ Cisco SD-WAN	Select Resource Group•		Templates			0	4
	Configuration	on Groups Feature Profiles Devi	ce Templates Feature Templates				
Q Search						∇	- 1
Create Template V							
Template Type Non-Default ~	Device Mode Device Role Res	ource Group Feature Templates	Draft Mode Devices Attached	Updated By	Total Rows: 3	ð @	
vEdge vEdge_VPN12 Feature	vEdge Cloud SDWAN Edge glo	bal 14	Disabled 3	admin	11 Jul 2023 5:22 •	••	
vSmar vSmart_Template Feature	vSmart SDWAN Edge glo	bal 9	Disabled 1	admin	11 Jul 2023 5:33 •	••	
vEdge vEdge_Site1 Feature	vEdge Cloud SDWAN Edge glo	bal 15	Disabled 0	admin	11 Jul 2023 5:56	es ource Gr	oup
第 〇 詳 〇 第 4) 💿 🖻 占				^ ⊡ ⊕ ⊄∎	10:57 PN 7/10/202	¦ □

Chọn thiết bị vEdge ở SITE1

nPro			•	CÔNG TY TNHH TU ĐC: 276 - 278 Ung Văn ĐT: (028) 35124257 H	J VÁN VÀ DỊCH VỤ CH TRUNG TÂM TIN H Khiêm, P.25, Q.Binh Thạnh, otline: 0933427079 Email: vi	IUYÊN VIỆT HỌC VNPRO Tọ Hồ Chí Minh npro@vnpro.org
Attach Devices	3					×
Attach device from the list below					1 Items Selected	
Available Devices		Select All	Selected Devices		Select All	
All - Q s	Search	∇	All	Q Search	∇	
Name	Device IP		Name	Device IP		
80060207-b2bd-a5fa-691f-72: f121e275-5c29-cbce-71c1-78 ecf8966f-55f0-b701-b9df-717 be5ba729-6684-943c-1e91-70 57569bb0-0758-89a6-37e7-11 a95df91b-578a-e6a2-8da8-58 vEdge_Site2 vEdge_Site3 vbond	386930a34e 3ee2126db4 fe3ca0fd0 46ff296e97b 88e62ced210 9f11f0b758 3.1.1.1 4.1.1.1 1.1.1.2	• (C	vEdge_Site1	2.1.1.1		
				Attach	Cancel	

Chọn Attach

Tiến hành thêm các thông số cho vEdge-Site1 như sau:

🗱 Configuration - Templates Cisco 🛛 🗙 🕂			~	- 0 ×
← → C ▲ Not secure https://192.168.1.1:8443/#	#/app/config/template/device/configur	e/f6bfb23a-72a5-499c-85fc-edfea2a102c4	Ľ	2 🖈 🛛 😩 🗄
■ Cisco SD-WAN	source Group -	Templates	\bigcirc	≣ ⊘ 4
Device Template vEdge_Site1	tisecie x +			
Q Search				Y
			Total Rows	s: 1 🕋 🛓
S Chassis Number Syste	em IP Hostname	IPv4 Address(vpn1_ge0/2_if_ipv4_address)	IPv4 Address(vpn12_ge0/3_if_ipv4_address)	
Ob0f3c75-47c5-5e73-a557-9cf97c754274 2.1.1	1.1 vEdge_Site1		192.168.1.254/24	•••
			Edit	t Device Template 🖑
	x + x - x x x + x			
		Next Cancel		
📰 🔎 🛱 💽 🚍 🍏 🧖 🕾	<u> </u>		_ <u>©</u> ∉	€ 4 10:58 PM 7/10/2023 □

CÔNG TY TNHH TƯ VÁN VÀ DỊCH VỤ CHUYÊN VIỆT TRUNG TÂM TIN HỌC VNPRO



.

ĐC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chí Minh **ĐT**: (028) 35124257 | **Hotline**: 0933427079 **Email**: vnpro@vnpro.org

the Configuration - Templates Cisco 🛛 🗙 🕂			~ - a ×
← → C ▲ Not secure https://192.168	3.1.1:8443/#/app/config/template/device/configure/f6bfb2	23a-72a5-499c-85fc-edfea2a102c4	🖻 🖈 🔲 😩 🗄
≡ Cisco SD-WAN 🔅 s	elect Resource Group •	Templates	
Device Template vEdge_Site1	Update Device Template	÷	
Q Search	Variable List (Hover over each field for more information	n)	V
	Status	in_complete	Total Rows: 1 Total
S Chassis Number	Chassis Number	0b0f3c75-47c5-5e73-a557-9cf97c754274	t if invet address)
0.000/2c75_47c5_5c72_c557_0cf0	System IP	2.1.1.1	1_11_1p+4_address)
0001307574705758757855778037	Hostname	vEdge_Site1	
	IPv4 Address(vpn1_ge0/2_if_ipv4_address)	10.10.254/24	
	IPv4 Address(vpn12_ge0/3_if_ipv4_address)	192.168.1.254/24	
	Router ID(ospf_router_id)	2.1.1.1	
	Address(vpn0_Internet_next_hop_ip_address_1)	200.200.1.1	
	IPv4 Address(vpn0_ge0/1_MPLS_if_ipv4_address)	172.16.1.1/24	
	IPv4 Address(vpn0_ge0/0_Internet_if_ipv4_address)	200.200.1.2/30	
	Hostname	vEdge_Site1	
	System IP	2.1.1.1	
	Site ID	1	
	Generate Password	Update Cancel	
# 🔎 🛱 💽 📑 🗳 🕻			∧ @ ⊕ 4 11:00 PM

Chon Update > Next > Configure Device

Configuration - Templates Cisco 🛛 🗙	+			~	- 0	×
← → C ▲ Not secure https://	://192.168.1.1:8443/#/app/config/template/device/configure	e/preview/f6bfb23a-72a5-499c-85fc-edfea2a102c4		ê t	2	± :
\equiv Cisco SD-WAN	⑦ Select Resource Group ▼	Templates		\bigcirc	0	4
Device Template Tot vEdge_Site1 1	al					
Device list (Total: 1 devices) Filter/Search						
0b0f3c75-47c5-5e73-a557- 9cf97c754274 vEdge_Site1 2.1.1.1						
		**				
		Please select a device from the device list				
Configure Device Rollback Timer						
		Back Configure Devices	Cancel			
🚛 🔎 🛱 🔍 🛢	🖕 💿 🖻 🛃		^	@ ∉ 4	11:00 P 7/10/20	M 23





Dùng lệnh ping từ PC1 ở VPN12 sang Server ở VPN1



Sẽ báo không tìm thấy được đích đến, nên giờ ta sẽ viết policy để VPN12 ping được VPN1



3.3. Viết Centralized Policy leaking route để VPN12 có thể giao tiếp đến VPN1 của server

Vào giao diện vManage > Configuration > Policies > Centralized Policy > Add Policy



ク 🗄 💽 🖬 🌢 💽 🖻 1



Sau đó ta vào Site > New Site List để thêm lần lượt ba site

the Configuration - Policies Cisco SD ×	+					~	-	0	×
← → C ▲ Not secure http	s://192.168.1.1:8443/#,	/app/config/policy?type=cen	tralizedPolicy&action=add			Ê	\$		<u>a</u> :
≡ Cisco SD-WAN	Select Res	ource Group -		Policies		\bigcirc	Ξ	0	4
Centralized Policy > Add Policy									
Creat	e Groups of Interest	Configure Topolo	ogy and VPN Membership	Configure Traffic Rules	Apply Policies to Sites and VPN				
Select a list type on the left and sta	rt creating your groups	of interest							
Application									
Color	New Site I	list							
Community									
Data Prefix	Site 1	Entries	Reference Count	opdated By	11 Jul 2023 5:17:25 AM				
Policer	Site	1	4	admin	11 JUI 2023 5:17:25 AM V U G				
Prefix	Site2	2	3	admin	11 Jul 2023 5:17:25 AM 🦉 🛅 🗍				
App Probe Class	Site3	3	4	admin	11 Jul 2023 5:17:25 AM 🧷 🗈 🗍				
SLA Class									
TLOC									
VPN									۰.
Region									
Preferred Color Group									
									v
			Next Cance	el					
# Q # 💽 🗖	龄 👩 🔤	4			,	\ <u>@</u> ∰	d e 1	1:05 PM	
	<u> </u>					< Ĝ ∰	9 <mark>8</mark> 7/	/10/2023	; 4

Bước tiếp theo chọn **VPN** > **New VPN List** để tạo *VPN1* và *VPN12*

Monitor - VPN Cisco SDWAN X	+					\sim	-	0	
→ C ▲ Not secure http	s://192.168.1.1:8443/#/a	app/config/policy?type=centr	alizedPolicy&action=add			Ê	☆		-
≡ Cisco SD-WAN	Select Reso	ource Group -		VPN		\bigcirc	\equiv	0	Ĺ,
Centralized Policy > Add Policy									
Creat	e Groups of Interest	Configure Topolog	y and VPN Membership	Configure Traffic Rules	Apply Policies to Sites and VP				
Select a list type on the left and sta	rt creating your groups of	of interest							
Application									^
Color	① New VPN L	ist							I
Community	Norma	Fablas		Undered Du	Lost Hadatad Astro-				I
Data Prefix	Name	Entries	Reference Count	Updated By	Last updated Action				ı
Policer	VPN1	1	0	admin	11 Jul 2023 6:06:02 AM 🤌 🖬 😈				ı
Prefix	VPN11	11	4	admin	11 Jul 2023 5:17:25 AM 🥒 🖻 🗍				ı
Site	VPN12	12	0	admin	11 Jul 2023 6:06:08 AM 🥒 🗖 🗑			-	ı
App Probe Class									1
SLA Class									1
TLOC									
VPN									
Region									
Preferred Color Group									
									*
			Next Canc	el					
Q 🛱 💽 📄	龄 👩 🔤	#				^ @ @	4	1:06 PM	4 [

Sau khi đã tạo xong các Site và VPN thì ta chọn Next để qua bước tiếp theo



Tiếp theo xuất hiệu giao diện sau, ta chọn Topology > Add Topology

	https://152.100.1.1.0445/*/6	ipp/comg/poncyrtype=c	entralized oncyclaction add				12	н		-
E Cisco SD-WAN	Select Reso	ource Group -		VPN			\bigcirc	\equiv	0	
Centralized Policy > Add Po	licy									
o c	reate Groups of Interest	 Configure Topo 	logy and VPN Membership	Configure Traffic Ru	les Apply Pol	licies to Sites and VPNs				
specify your network topology	/									
Topology VPN Men	nbership									
Q. Search									∇	
Add Topology v										
Add Topology V						Telef			~	4
						Iotai	KOWS: U	Ð	<u>دې</u>	\$
Name	Туре	Description	Mode	Reference Count	Updated By	Last Updated				
			No data availa	ble						
				_						

Hãy chọn CustomControl (Route & TLOC) để tạo ra những điều kiện cho policy

 	Monitor - VPN Cisco SDWAN 🗙 ·	+						~	-	٥	3
E Claco SD-WAN	C A Not secure https://	//192.168.1.1:8443/#/ap	pp/config/policy?type=ce	entralizedPolicy&action=add				e i	2	-	
eritalized Policy 2 Add Policy Careta Groups of Interest Configure Topology and VPN Membership Configure Traffic Rules Apply Policies to Stass and VPNIs pecify your retwork topology VPN Membership Careta Caret	E Cisco SD-WAN	🔆 Select Reso	urce Group -		VPN		0	5	= 0	D	Ç,
Configure Topology and VPN Membership Configure Topology and VPN Membership Configure Topology Traffic Rules Apply Policles to States and VPHs policy VPN Membership Ven Configure Topology VPN Membership Configure Topology VPN Membership Configure Topology VPN Membership Configure Topology Ven Mode Reference Count Updated By Lest Updated No data available Ket Cancel Configure Topology Configure Topology Configure Topology Configure Topology Configure Topology VPN Membership Configure Topology	Centralized Policy > Add Policy										
eck Membership	🥑 Create Gi	roups of Interest	Configure Topolo	ogy and VPN Membership	Configure Traffic Rul	les Apply Po	licies to Sites and VPNs				
Topology VPN Membership Search Add Topology ~ Hub-and-Spoke Mesh Custom Control (Route & TLOC) Description Mode Reference Count Updated By Last Updated Mode Reference Count Updated By Last Updated Mode Reference Count Updated By Last Updated Mode Reference Count Updated By Last Updated Mode Reference Count Updated By Last Updated Mode Reference Count Updated By Last Updated 	specify your network topology										
Add Topology ~ Hub-and-Spoke Mesh Costand Control (Route & TLOCI) Description Mode Reference Count Updated By Last Updated No data available	Topology VPN Membersh	hip									
Add Topology > Hub-and-Spoke Mash Custom Control (Route & TLOO(h) Description Mode Reference Count Updated By Last Updated No data available Add topology Reference Count Mode Reference Count Updated By Last Updated Mode No data available No data available Not Cancel											
Add Topology ~ Hub-and-Spoke Castom Control (Route & TLOCI) Import Existing Topology Add Topology Description Mode Reference Count Updated By Last Updated No data available No data available	Q. Search								V	7	
Hub-and-Spoke Mesh Custom Control (Route & TLOC) Description Mode Reference Count Updated By Last Updated No data available No Ack Next Cancel											
Mesh Total Rows: 0 Color Custom Control (Route & TLOC) Description Mode Reference Count Updated By Last Updated No data available Ack Next Cancel	Hub-and-Spoke										
Custom Control (Route % TLOCI) Description Mode Reference Count Updated By Last Updated Import Existing Topology No data available No data available No data available	Mesh						Total Rows	: 0	94	(Q)	
ack No data available	Custom Control (Route & TLOC)	l)	Description	Mode	Reference Count	Updated By	Last Updated				
ack Next Cancel				No data availat	ble						
ack Next Cancel											
ick Next Cancel											
ack Next Cancel											
ack Next Cancel											
ack Next Cancel											
ack Next Cancel											
Next Cancel											
	Jack			Next	Cancel						_



Bước tiếp chỉnh sửa những thông số như sau cho policy:

Name: Leaking_Route

Description: Leaking_Route

### Monitor - VPN Cisco SDWAN × +				~	-	٥	×
← → C ▲ Not secure https://192.168.1.1:8443/#/app/config/policy?type=centrali	izedPolicy&action=add			Ê	☆		<u>a</u>) :
■ Cisco SD-WAN ② Select Resource Group•		VPN		\bigcirc	Ξ	0	4
Add Custom Control Policy							
Name* Leaking_Route							
Description* Leaking_Route							
Default Action							
Sequence Type	Enabled						
↑↓ Drag & drop to reorder	Enabled					D	
Default Action						-	-
Save	e Control Policy	Cancel					
🚛 🔎 📼 🥥 🛤 🔍			^	6 €	d <mark>≈</mark> 11 7/	:08 PM 10/2023	\Box

Bước tiếp theo, hãy chọn **Sequence Type,** rồi sau đó chọn **Route** để tạo policy áp dụng trên OMP.

mPro	DC DC DT	NG TY TNHH TU VAN VA DĮC TRUNG TÂ C: 276 - 278 Ung Văn Khiêm, P.25, Q.Bi F: (028) 35124257 Hotline: 093342707	H VŲ CHUYEN VI ÂM TIN HỌC VNPI inh Thạnh, Tp Hồ Chí M 79 Email: vnpro@vnpro
& Monitor - VPN Cisco SDWAN × +		~	- o ×
C A Not secure https://192.168.1.1:8443/#/app/config/policy?type=ce	entralizedPolicy&action=add	Ê	x 🛛 😩 :
■ Cisco SD-WAN ② Select Resource Group•	VPN	\bigcirc	≡ ⊘ 4
Add Custom Control Policy			*
Name* Leaking_Route			
Description* Leaking_Route			
Sequence Type T ₁ Drag & drop to reorder refut Action	A Control Policy		

Chọn **Sequence Rule**, sau đó ở phần **Match Conditions** là phần điều kiện chọn *VPN12* và phần **Actions** thì ta chọn Export To *VPN1* (có nghĩa là nếu bất kì route của VPN12 đều được chuyển qua cho VPN1 học)

dt Monitor - VPN Cisco St	DWAN ×	+			× -	- 0 ×
\leftrightarrow \rightarrow C \blacktriangle Not	t secure http	s://192.168.1.1:8443/#/app/config/policy?t	/pe=centralizedPolicy&action=add		iê 🕁	I 😩 🗄
≡ Cisco SD	-WAN	♦ Select Resource Group •		VPN		0 🗘
Add Custom Control	Policy					Â
Name*	Leaking_R	oute				
Description*	Leaking_R	oute				
Sequence Ty t Drag & drop to Route Default Action	pe reorder :	Route Carg and drop to	: re-arrange rules			Route
			Save Control Policy	Cancel		
	2	📦 💿 🖭 🛃			^ @ € 4≥	8:55 AM 7/11/2023

CÔNG TY TNHH TƯ VÁN VÀ DỊCH VỤ CHUYÊN VIỆT

TRUNG TÂM TIN HỌC VNPRO

DC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chí Minh **D**T: (028) 35124257 | **Hotline:** 0933427079 **Email:** vnpro@vnpro.org

R

ld			∨ Ê	_ ☆	
ld			È	☆	
VPN			\bigcirc	\equiv	0
					Route
Match Actions					
Originator Preference	Site Path Type	TLOC VPN Pre	fix List		
	Actions				
×	Reject	Enabled			
•					
		Cancel	Save Match	And Ac	ctions
Cancel			^ @ @ ∨	8:5 4 <mark>8</mark> 7/1	66 AM 1/2023
Cancel			 ↓ ↓	4 <mark>≥</mark> 7/1 -	6 AM 1/2023
Cancel id			 ● ● <li< td=""><td>⊲<mark>≈ ⁸⁵</mark> 7/1 ☆</td><td>56 AM 1/2023</td></li<>	⊲ <mark>≈ ⁸⁵</mark> 7/1 ☆	56 AM 1/2023
Cancel Id VPN			 ▶ ● ● > 	⊲ <mark>≥</mark> 7/1 − ☆	66 AM 1/2023
id VPN			 ○ ○ 		6 AM 1/2023
id VPN			€ € × ⊡	4 <mark>≥ ⁸⁵⁵</mark> - ☆	6 AM 1/2023
Cancel id VPN			 ○ ● ● ● ● 	4 <mark>∞ 855</mark> 7/1 ☆	66 AM 1/2023
Id VPN			 ▲ ✓ ✓ ✓ ✓ 	4∎ 855 7/1 ★	6 AM 1/2023 (?) (?) Route
id VPN			 ○ ◆ ○ 	4 852 7/1 ☆	6 AM 1/2023
Cancel id VPN			 ○ ◆ ○ 	4 ∞ ⁸ 5 − ☆	66 AM 1/2023 0 0 0 0 0 0 0 0 0 0 0 0 0
Cancel id VPN Match Actions ity Export To OMP Tag	Preference Service	te TLOC Action	 ○ ● ● ● ● 	4 <u>*</u> 7/1 → ☆	66 AM 1/2023
Cancel id VPN Match Actions ity Export To OMP Tag	Preference Service Actions	ce TLOC Action	 № № 	4 85 7/1 ★	6 AM 1/2023
Cancel id VPN Match Actions ity Export To OMP Tag	Preference Servic Actions Accept	ce TLOC Action	 <!--</td--><td>4 83 7/1 ☆</td><td>6 AM 1/2023</td>	4 83 7/1 ☆	6 AM 1/2023
Cancel id VPN ity Export To OMP Tag	Preference Service Actions Accept Export To	ce TLOC Action	 ▷ ♥ ♥ ● 	283 7/1 ★	6 AM 1/2023
Cancel id VPN Match Actions ity Export To OMP Tag ×	Preference Service Actions Accept Export To VPN1 ×	ce TLOC Action	 ○ ● ● ● ● 	285 7/1 ★	6 AM 1/2023
Cancel Id VPN Id Katch Actions Ity Export To OMP Tag X	Preference Service Actions Accept Export To VPN1 ×	ce TLOC Action Enabled	 > ⊕ ⊕ ⊕ □ 	4 <u>≥</u> 271 → ☆	6 AM 1/2023
Cancel id VPN id Katch Actions ity Export To OMP Tag	Preference Servic Actions Accept Export To VPN1 ×	ce TLOC Action		4 * 271 ★	AM 1/2023
Cancel id VPN Watch Actions ity Export To OMP Tag ×	Preference Servic Actions Accept Export To VPN1 x	ce TLOC Action Enabled Cancel	∧ Q ⊕ ↓ <td>4 ⇒ *7/1 → → And A</td> <td>AM 1/2023</td>	4 ⇒ *7/1 → → And A	AM 1/2023
Cancel id VPN Match Actions ity Export To OMP Tag	Preference Service Actions Accept Export To VPN1 ×	ce TLOC Action Enabled		4 * 7/1 → → → → → → → → → → → → → → → → → → →	AM 1/2023
Cancel id VPN Match Actions ity Explor To OMP Tag X	Preference Service Actions Accept Export To VPN1 ×	ce TLOC Action Enabled Cancel	∧ Q Q Q	4 * 7/1 → ★ 	AAM 1/2023
	Match Actions Originator Preference X	Match Actions Originator Preference Site Path Type Actions Reject	Match Actions Originator Preference Site Path Type TLOC VPN Pre Actions Reject Enabled Cencel	Match Actions Originator Preference Site Path Type TLOC VPN Prefix List Actions Reject Enabled Cencel Save Match	Match Actions Originator Preference Site Path Type TLOC VPN Prefix List Actions Reject Enabled Cancel Save Match And Actions

Ta thực hiện tương tự như bước trên nhưng ngược lại là **Match Conditions** là: *VPN1* và **Export To** là *VPN12*

CÔNG TY TNHH TƯ VĂN VÀ DỊCH VỤ CHUYÊN VIỆT TRUNG TÂM TIN HỌC VNPRO ĐC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chi Minh

^ @ € 4<mark>8 ^{8:58} AM</mark> ↓

VnPro

			B1 . (028) 5.	124257 Hotilite. 0555	42 (0)	× 1	an, vup	, Dag
Monitor - VPN Cisco SDWAN 🗙	+				~	-	٥	>
→ C ▲ Not secure ht	ttps://192.168.1.1:8443/#/app/config/policy?type	=centralizedPolicy&action=add			ė	☆) :
\equiv Cisco SD-WAN	♦ Select Resource Group •	VF	N	(\bigcirc	Ξ	0	4
Add Custom Control Policy								
Name* Leaking_	_Route							
Description* Leaking_	_Route							
	Route						Rout	9
(+) Sequence Type	Sequence Rule Drag and drop to re-	arrange rules						
↑ Drag & drop to reorder								
	Match Conditions	VDN12	Actions					
; Route	VPN LISC.	VPINIZ	Accept	V/DN1				
sfault Action			Export to.	VEIGI			_	
						_		
	2 ≡ Match Conditions		Actions				0	
	VPN List:	VPN1	Accept					
			Export To:	VPN12			U	

📰 🔎 🛱 💽 🚍 🗳 🔁 🚆

Sau đó ở phần Default Action > Actions, ta chọn Accept rồi chọn Save Match And Actions.

👑 Monitor - VPN Cisco SDWAN 🗙	+			~ - @ ×
← → C ▲ Not secure https	://192.168.1.1:8443/#/app/config/policy?type=c	entralizedPolicy&action=add		🖻 🖈 🔲 😩 🗄
≡ Cisco SD-WAN	Select Resource Group•	٨	/PN	
Add Custom Control Policy				A
Name* Leaking_Ro	ute			
Description* Leaking_Ro	ute			
Sequence Type 1 1 Drag & drop to reorder Route	Default Action	Enabled		P
Default Action				
		Save Control Policy	Cancel	
🔳 🔎 🖽 🗨 📑	🗉 💽 🖻			^ @ € 4 859 AM □

Bước tiếp theo, hãy chọn Save Control Policy để lưu policy, xong chọn Next > Next để qua bước cuối.

Monitor - VPN Cisco SDWAN → C A Not secure = Cisco SD-WAI Centralized Policy > Add P	× + https://192.168.1.1:8443/# N () Select Re:	#/app/config/policy?type=c				TNHH TƯ VẤN VÀ DỊCH VỤ CHUYÊN TRUNG TÂM TIN HỌC VI 8 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Ch 124257 Hottine: 0933427079 Email: vnpro@vn				
C A Not secure Cisco SD-WAI Centralized Policy > Add P	https://192.168.1.1:8443/#	#/app/config/policy?type=c				~	-	٥	×	
Cisco SD-WA	N 🕜 Select Re:		entralizedPolicy&action=add			Ŕ	☆) :	
Centralized Policy > Add P		source Group -		VPN		\bigcirc	1	0	4	
	olicy Create Groups of Interest	Configure Topo	logy and VPN Membership	Configure Traffic Rul	es 🌑 Apply Poli	cies to Sites and VPNs			Â	
pecify your network topolog	gy mbership								Â	
									1	
Q Search								∇		
Add Topology 🗸										
						Total Rows: 1	Ø	(()		
Name	Туре	Description	Mode	Reference Count	Updated By	Last Updated				
Leaking_Route	🕒 Custom Control	Leaking_Route	created	0	admin	11 Jul 2023 3:59:59 PM	1+. ••			
									Ŧ	
ack			Next	Cancel					1	

Sau đó ta thấy xuất hiện giao diện để tạo tên và mô tả cho policy

Policy Name: *Leaking_Route*

Policy Description: *Leaking_Route*

NOTITOL - VEN CISCO SDWAIN	+			v – Ø
→ C ▲ Not secure +	ttps://192.168.1.1:8443/#/app/config/policy?type=	centralizedPolicy&action=add		ie 🛧 🛛 🔹
E Cisco SD-WAN	○ Select Resource Group •	VPN		$\bigcirc \equiv \bigcirc$
entralized Policy > Add Polic	y ate Groups of Interest 🥝 Configure Topi	ology and VPN Membership 🛛 😔 Configure Traffi	c Rules Apply Policies to Si	tes and VPNs
Add policies to sites and VP!	٩s			
Policy Name* Leaking	ıg_Route			
Policy Description* Leaking	ng_Route			
eaking_Route				CUSTOM CONTROL
(+) New Site/Region List Direction	Site/Region List	Region ID	Action	
ack		Preview Save Policy C	ancel	

Website: www.vnpro.vn | Forum: www.vnpro.org | Video: https://www.youtube.com/@vnpro149



Ở phần New Site List, ta chọn lần lượt Site1, Site2, Site3 theo hướng vào (in)

= CISCO SD-WAIN	Select Resource Group	VPN		\cap		= (2
entralized Policy > Add Policy	•						-
Create	e Groups of Interest 📀 Configure Topology	and VPN Membership 🕑 Configure Tr	raffic Rules Apply Policies to	Sites and VPNs			
Add policies to sites and VPNs							
Policy Name* Leaking	Route						
Policy Description* Leaking,	Route						
opology Application-A	ware Routing Traffic Data Cflowd	Role Mapping for Regions					
eaking_Route				CUSTOM	CON	TROL	Î
							I
New Site/Region List							I
) Site List () Region ()							I
Site1 x Site2 x Site3	×					-	I
Search							I
Site1							I
Site2							ı
2 Site2 2 Site3							l
Site2 Site3 Site3 DEL C SUVAN X	s 10 10 10 10 10 10 10 10 10 10 10 10 10	Preview Save Policy	Cancel	^ @ € ~	£g ⊄ <mark>×</mark>	9:01 7/11/	AM 2023
Site2 Site3 ack O Hi		Preview Save Policy	Cancel	د ق ف ب ک	t3 ⊲ ×	9:01 7/11/ -	AM 2023
Site2 Site3 Site3 Site3 Site4 Site5 Site3 Site4 Site3 Site4 Site3 Si		Preview Save Policy alizedPolicy&action=add VPN	Cancel	€ ف م ب ی	₹ 4 ×	9:01 7/11/ E (AM 2023 1 1
Site2 Site3 Site3 ack O H C C C C A Not secure Http C A Not secure Http C C A Not secure Nttp C C C C SD-WAN ntrailzed Policy > Add Policy C Create		Preview Save Policy alizedPolicy&action=add VPN and VPN Membership @ Configure Tr	Cancel	∧ Q̄, ∉ ✓<		9:01 7/11/ = = = (AM 2023 0 1
Site2 Site3 Site3 ack C A Not secure Attg C C A Not secure Attg C C A Not secure Attg C C C C C C C C C C C C C C C C C C C		Preview Save Policy alizedPolicy&action=add VPN and VPN Membership O Configure Tr	Cancel affic Rules Apply Policies to	∧ Q €		9x01 7/11/ 	AM 2023
Site2 Site3 Site3 ack O H C C C C C C C C C C C C C C C C C C		Preview Save Policy alizedPolicy&action=add VPN and VPN Membership Configure Tr	Cancel	 ▲ ④ ● ✓ ✓<!--</td--><td>₹ 4<mark>×</mark></td><td>9:01 7/11/ = = = (</td><td>AM 2023</td>	₹ 4 <mark>×</mark>	9:01 7/11/ = = = (AM 2023
Site2 Site3		Preview Save Policy alizedPolicy&action=add VPN and VPN Membership Ornfigure Tr	Cencel affic Rules Apply Policies to	^ Q. €	₹ 4 • ☆	9:01 7/11/ = = (AM 2023
Site2 Site3 Si		Preview Save Policy alizedPolicy&action=add VPN and VPN Membership ③ Configure Tr	Cancel	 ∧ Q. Q. ✓ ✓	₹ 0 ×	9:01 7/11/ = = = (AM 2023
Site2 Site3 Site3 Site4 Site3 Site4 Site4 Site5 Site4 Site5 Site5 Site5 Site6		Preview Save Policy	Cancel	∧ Q̄ ∉		9:01 7/11/ = : (AM 2023
Site2 Site3 Site3 Site4 Site3 Site3 Site4 Site4 Site4 Site6 Site5 Site5 Site5 Site5 Site5 Site6		Preview Save Policy	Cancel	 No and VPNs 	€ ⊄≈	9:011 7/11/ = = (AM 2023
Site2 Site3 ack C AND SECURE Http: C C NOT SECURE Http: C C AND SECURE Http: C C ADD POlicy > Add Policy C Create Add policies to sites and VPNs Policy Name* Leaking, Policy Description* Leaking, Policy		Preview Save Policy alizedPolicy&action=add VPN and VPN Membership Configure Tr Co	Cancel	 ▲ ④ ● ✓ ✓<!--</td--><td>₹ 4≈</td><td>9x01 7/11/ = = = (</td><td>AM 2023</td>	₹ 4 ≈	9x01 7/11/ = = = (AM 2023

Chọn Save Policy để hoàn thành tạo policy

Cuối cùng ta kích hoạt policy vừa tạo xong bằng cách chọn Activate

					ĐT : (028) 351	124257 Hotline: 09334	127079 En	nail: v	npro@v
onitor - VPN Cisco SDWAN	× +						~ -	C	ı ×
C A Not secure	e https://192.168.1.1:8443/#	*/app/config/policy/centrali	izedPolicy/policies				€ ☆		1 :
Cisco SD-WA	AN 💮 Select Res	source Group▼		VPN		2		0	4
			Centralized Policy	Localized Policy		ျို့ Custom	Options	~	
Q Search								∇	
Add Policy Add Def	fault AAR & QoS								
						Total Rows:	4 9	\$ <u>\$</u>	
_eaking_Route	Leaking_Route	UI Policy Builder	false	admin	07112023T090307670	Last opdated	PM + •••		
/PN11_NAT_POLICY	VPN11_NAT_POLICY	UI Policy Builder	false	admin	07102023T221734749	11 Jul 2023 5:17:3	View	_	
-lub_and_Spoke	Hub_and_Spoke	UI Policy Builder	false	admin	07102023T221735899	11 Jul 2023 5:17:3	Copy		
Jser_Guest_VPN12	User_Guest_VPN12	UI Policy Builder	false	admin	07102023T221736864	11 Jul 2023 5:17:3	Delete		
onitor - VPN Cisco SDWAN	► ♦ × +	<u>e</u>				^ @	v ⊕ 4 <mark>×</mark> ; ∨ −	9:03 AM 7/11/202	I ₃
Aonitor - VPN Cisco SDWAN	× + e https://192.168.1.1:8443/#	ع /app/config/policy/centralia	zedPolicy/policies			^ @	v ⊕ ¶≥ ; ∨ - ⊮ ☆	9:03 AM 7/11/202	3 ↓ ×
O III C Monitor - VPN Cisco SDWAN → C ▲ Not secure E Cisco SD-WA		//app/config/policy/centralia	zedPolicy/policies	VPN		5	v ⊕ • <mark>*</mark> ; v - le ☆) =	9:03 AM 7/11/202	×
↓ ↓ ↓ </td <td></td> <td>e t/app/config/policy/centraliz source Group►</td> <td>zedPolicy/policies</td> <td>VPN Localized Policy</td> <td></td> <td>~ α </td> <td>v ⊕ d_{e ;} v = <u>e</u> ★)) Ξ Options v</td> <td>9:03 AM 7/11/202</td> <td>3</td>		e t/app/config/policy/centraliz source Group►	zedPolicy/policies	VPN Localized Policy		~ α 	v ⊕ d _{e ;} v = <u>e</u> ★)) Ξ Options v	9:03 AM 7/11/202	3
C H C Not secure C SD-WA C Search		R t/app/config/policy/centralia source Group►	zedPolicy/policies	VPN Localized Policy	~	ົດ ອັ	(∰ 4 , ;	9:03 AM 7/11/202 7 7 7	x .
El: C	x + https://192.168.1.1:8443/# AN ⑦ Select Res fault AAR & QoS	Activa	centralized Policy	VPN Localized Policy	×	າ ອັ ເ	<pre></pre>	9:03 AM //11/202	3 🖓
A Search	x + https://192.168.1.1:8443/# AN ⑦ Select Res fault AAR & QoS Description	Activa	centralized Policy Centralized Policy ate Policy	VPN Localized Policy	×	۲۰ ق آرژ Custom (Total Rows: ۵ Last Updated	⊕	9:03 AM //11/202 ⑦	,
A Search Add Policy Add Def Add Policy Add Polic	Image: Select Res x + e https://192.168.1.18443/# AN © Select Res fault AAR & QoS Description Leaking_Route	Activa Policy will be 1.1.1.3	zedPolicy/policies Centralized Policy	VPN Localized Policy	× ersion 231090307670	Total Rows: - Last Updated 11 Jul 2023 4:03:07	● 4。	903 AM 7/11/202 0 0 0 0 0 0 0 0 0 0 0 0 0	3 Q
A Search A Search A Search Add Policy Add Def Add Policy Add Policy Add Policy Add Policy Add Policy Add Policy	Image: Second	Policy will be 1.1.1.3	centralized Policy	VPN Localized Policy warts:	× ersion 23T090307670 23T221734749	۲۰ מַרָּ ער איז	♣ 4. ★ 2 ★ 2 > = 2 > 2 > 2 > 2 > 2 > 4 > 2 > 2 > 4 > 2 > 4 > 2 > 4 > 2 > 4 > 2 > 4<	9:03 AM 7/11/202 7 7 7 7 7 7	× :
Add Policy Add Def eaking_Route	Image: Select Reserve and the select	Policy will be 1.1.1.3 UI UI	zedPolicy/policies Centralized Policy ate Policy ate Policy	VPN Localized Policy harts:	× ersion 23T221736749 23T221736899	Τοταί Rows: Γ Τοταί Rows: Γ Last Updated 11 Jul 2023 4:03:07 I 11 Jul 2023 5:17:34 J 11 Jul 2023 5:17:34 J	♣ 4 ✓ ✓ · · · · · · · · · · · · · · · · · · ·	903 AM	3 - X - X - X - X - X - X - X - X - X -
	Image: Select Res x + all https://192.168.1.1:8443/# AN Image: Select Res fault AAR & QoS Description Leaking_Route VPN11_NAT_POLICY Hub_and_Spoke User_Guest_VPN12	Activa Vapp/config/policy/centraliz source Group+ Activa Policy will be 1.1.1.3	zedPolicy/policies	Localized Policy	arsion 231090307670 231221735899 071020231221736864	۲۰۰ ۵ ۲۰۰ ۲۰۰۱ ۲۰۰ ۲۰۰ ۲۰۰	♣ 4. ✓ - ✓ - ✓ - ✓ → ✓	903 AM /11/201 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	× :



TRUNG TÂM TIN HỌC VNPRO

ĐC: 276 - 278 Ung Văn Khiêm, P.25, Q.Binh Thạnh, Tp Hồ Chí Minh **Đ**T: (028) 35124257 | **Hotline:** 0933427079 **Email:** vnpro@vnpro.org

^ @ € 4∎ 9:05 AM □

				D1. (020) 5.	124251 120000000000000000000000000000000000	is man. and	noternha
👑 Monitor - VPN Cisco SDWAN 🗙 🕂					~	- 0	×
← → C ▲ Not secure https://1	92.168.1.1:8443/#/app/config/policy	/centralizedPolicy/policies			Ŀ	☆ 🛛 🖉	B :
≡ Cisco SD-WAN	Select Resource Group•		VPN		\bigcirc	≡ ⊘	4
Centralized Policy > Config Diff vSmart Controllers Total 1 Device list (Total: 1 devices) Filter/Search P953c011-633c-4533-a9dc-5eccfe3fade4 vSmart[1.1.1.3		Please select	a device from the device list				
			Activate	Cancel			
📫 🔎 🛱 🗘 🖿	0 🔼 🖻 🛃				~ ⊕ €	9:04 AM 7/11/2023	\Box
🗰 Monitor - VPN Cisco SDWAN 🗙 🕂					~	- 0	×
← → C ▲ Not secure https://1	92.168.1.1:8443/#/app/device/status	?activity=vsmart_policy_config&pid	=vsmart_policy_config-3fafabbf-	-f5fd-4d8c-8671-59b4771f5022	Ŕ	☆ 🛛 🛔) E
≡ Cisco SD-WAN	Select Resource Group•				\bigcirc	0	4
Push vSmart Policy 🖉 Validation Succ	Dess				Initiated By: admin From:	192.168.1.200	-
Total Task: 1 Success : 1							
Q Search						∇	
					Total Rows: 1	C 🕸	
> Status	Message	Hostname	System IP	Site ID	vManage IP		
> Success	Done - Push vSmart Policy	vSmart	1.1.1.3	1000	1.1.1.1		

📲 🔎 🛱 💽 🖬 🔮 💽 🖻

IV.Kiểm tra

Kiểm tra trên thiết bị vEdge lần lượt ở ba site bằng lệnh show ip routes vpn 12 thì ta thấy VPN12 đã học được route của VPN1



CÔNG TY TNHH TƯ VÁN VÀ DỊCH VỤ CHUYÊN VIỆT TRUNG TÂM TIN HỌC VNPRO

ĐC: 276 - 278 Ung Văn Khiêm, P.25, Q.Bình Thạnh, Tp Hồ Chí Minh DT: (028) 35124257 | Hotline: 0933427079 Email: vnpro@vnpro.org

- = ×

🕞 vEdge-Site1

1 🕄 💭	🖏 🔏 Enter host <alt+r> 🛛 🗈 🛍</alt+r>	M 👍 🗟 🍠 📑 % 📍 👳	2							
🖋 vManage	r 🛩 vBond 🛩 vSmart 🛩 vEdge-Site1	×								d Þ
										•
										E
										F
										F
, S 12	10.10.10.0/24	omp	-	-	-	-	2.1.1.1	mpls	ipsec B	F
										£
										e
										e
										F
										e.
										£
										£
										e
										e i
										•
	Sitel#									Ļ

Terre State 2 File Edit View Options Transfer Script Tools Window Help State 20 State 1 - State 2 - Sta

💜 vManag	er 🌱 vBond 🖤 vSmart 🖤 vEdge-Site	e1 💜 vEdge-Site2 🗙								4
, S 12										F
, S 12										F
, s 12										F
12										F
12	10.10.10.0/24	omp	-	-	-	-	2.1.1.1	biz-internet	ipsec	F
12										F
12										F
12										F
12										F
12										F
12										F
12										F
12										-
12										F
12										F
,s 12 ,s										F

- 🗆 ×



DC: 276 - 278 Ung Văn Khiêm, P.25, Q.Bình Thạnh, Tp Hồ Chí Minh **D**T: (028) 35124257 | **Hotline**: 0933427079 **Email**: vnpro@vnpro.org

o ×

vEdge-Site3										
File	Edit	View	Options	Transfer						

Script Tools Window Helr

🞝 🕄 다 🖓 🕉 Enter host - Alt-En- 🛯 🕰 🔥 🔓 🖅 🕉 🕴 😥 🔝										
Ø vManager Ø v8ond Ø vSmart Ø vEdge-Site1 Ø vEdge-Site2 Ø vEdge-Site2 Ø vEdge-Site3 × 4										
,S 12										F
, 5 12 . S										F
12 , S										F
12 • S	10.10.10.0/24	omp	-	-	-	-	2.1.1.1	mpls	ipsec	F
12	10.10.10.0/24	omp	-	-	-	-	2.1.1.1	biz-internet	ipsec	F
12 ,S										F
12 ,S										F
12 • S										F
12 • S										F
12 . S										F
12 . S										F
12 . S										F
12 • S										F
12										F
12										-
12 ,S										F
vEdge_	vEdge_Site3≇v									

Thực hiện lệnh ping từ PC1 của VPN12 sang server của VPN1 ở SITE1

```
PC1> ping 10.10.10.2
```

```
10.10.10.2 icmp_seq=1 timeout
84 bytes from 10.10.10.2 icmp_seq=2 ttl=62 time=30.886 ms
84 bytes from 10.10.10.2 icmp_seq=3 ttl=62 time=21.137 ms
84 bytes from 10.10.10.2 icmp_seq=4 ttl=62 time=28.630 ms
84 bytes from 10.10.10.2 icmp_seq=5 ttl=62 time=39.502 ms
```

PC1>

Thực hiện lệnh ping từ PC2 của VPN12 sang server của VPN1 ở SITE2

```
PC2> ping 10.10.10.2
```

10.10.10.2 icmp seq=1 timeout										
84	bytes	from	10.10.10.2	icmp_seq=2	ttl=61	time=70.790	ms			
84	bytes	from	10.10.10.2	icmp_seq=3	ttl=61	time=56.717	ms			
84	bytes	from	10.10.10.2	icmp_seq=4	ttl=61	time=45.977	ms			
84	bytes	from	10.10.10.2	icmp_seq=5	ttl=61	time=66.777	ms			

Thực hiện lệnh ping từ PC3 của VPN12 sang server của VPN1 ở SITE3



PC3> ping 10.10.10.2

10.10.10.2 icmp_seq=1 timeout 84 bytes from 10.10.10.2 icmp_seq=2 ttl=61 time=65.063 ms 84 bytes from 10.10.10.2 icmp_seq=3 ttl=61 time=65.739 ms 84 bytes from 10.10.10.2 icmp_seq=4 ttl=61 time=75.115 ms 84 bytes from 10.10.10.2 icmp_seq=5 ttl=61 time=74.374 ms

PC3>

