Configurando VLAN Trunking no Switch OverTek OT-2208SIW/UX

DESCRIÇÃO

VLAN Trunking é o conceito de encaminhar N VLANs por um único meio físico que interliga os switchs (cabo uplink).

CENÁRIO

O cenário conforme demonstrado na imagem, são dois switchs OverTek OT-2208SIW/UX interligados pelo cabo uplink na 'porta 8' dos dois switchs. Uma RouterBoard com MikroTik está com a ether1 ligado na 'porta 1' do switch-01, e a ether2 ligado na 'porta 2' do switch-01. O mesmo se repete no switch-02, outra RouterBoard com MikroTik está ligado da mesma forma, ether1 na 'porta 1' e ether2 na 'porta 2' do switch-02. O computador para executar as configurações e os testes está ligado na 'porta 3' do switch-01.



PASSOS

A figura abaixo apresenta o MikroTik pingando por uma rede sem qualquer VLAN (192.168.0.0/24) e pela VLAN 100 (192.168.100.0/24):

Interfaces		
Wireless	+	
Bridge	Address / Network Interface	
PPP	::: IP SEM VLAN	
0.71		
Switch	::: VLAN 100	
Mesh	· 192.168.100.1/24 192.168.100.0 vian100	
IP 卜	Teminal	
MPLS D	192.168.0.2 56 64 Oms	
D N	192.168.0.2 56 64 Oms	
Routing	192.168.0.2 56 64 Oms	
System 1	192.168.0.2 56 64 0ms	
Queues	192.168.0.2 56 64 0ms	
	192.168.0.2 56 64 0m3	
Files	192.168.0.2 56.64 0mg	
Log	192.168.0.2 56 64 0ms	
Radius	192.168.0.2 56 64 Oms	
, and a second s	192.168.0.2 56 64 Oms	
Tools	192.168.0.2 56 64 Oms	
New Terminal	192.168.0.2 56 64 Oms	
MetaROUTER		
Make Supout.rif	Terminal	
Manual	192,168,100,2 56 64 Oms	
Mariuar	192.168.100.2 56 64 Oms	
Exit	192.168.100.2 56 64 Oms	
	192.168.100.2 56 64 0ms	
	192.168.100.2 56 64 0ms	
	192.100.100.2 56 64 0m3	
	192.100.100.2 50 04 UNS	-

Em seguida, vamos alterar o modo de VLAN do Switch, em 'VLAN Mode':

🤌 SmartSwitch Web-Base Controller - Windows Internet Explorer											
🕞 🔵 🗢 🙋 http://192.168.2.1/	C 2 kttp://192.168.21/										
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🙁 👻 🎉 SmartSwitch Web-Base 🗴 🎉 SmartSwitch Web-Base Co											
8-Port 10/100Mbps Web S	mart Switch										
Administrator	VI AN Mode										
Port Management											
VLAN Setting											
VLAN Mode	VLAN Port Based VI AN Change VLAN mode										
VLAN Member	Mode										
Multi to 1 Setting											
Per Port Counter											
QoS Setting											
Security											
Spanning Tree											
Trunking											
Eoc Detection											
DHCP Relay Agent											
Backup/Recovery											
Miscellaneous											
SNMP Settings											
Logout											

Após essa mudança, observe que a VLAN 100 automaticamente para de ser encaminhada entre os switchs e para de responder a pings:

Interfaces	Taminal	F	
Wireless	192 168 0 2	56 64 Ome	
Bridge	192.168.0.2	56 64 Oms	
Dinago	192.168.0.2	56 64 Oms	
PPP	192.168.0.2	56 64 Oms	
Switch	192.168.0.2	56 64 Oms	
Mesh	192.168.0.2	56 64 Oms	
	192.168.0.2	56 64 Oms	
IP	192.168.0.2	56 64 Oms	
MPLS	192.168.0.2	56 64 Oms	
Denting	192.168.0.2	56 64 Oms	
Routing	192.168.0.2	56 64 Oms	
System	192.168.0.2	56 64 Ums	-
Queues	192.168.0.2	56 64 0ms	+
Files			
T IIGS	Terminal		×
Log	192.168.100.2	56 64 Oms	+
Radius	192.168.100.2	56 64 Oms	
Teele	192.168.100.2	56 64 Oms	
TOOIS	192.168.100.2	56 64 Oms	
New Terminal	192.168.100.2	timeout	
	102 169 100 2	the second second	
Meta BOUTER	152.100.100.2	timeout	
MetaROUTER	192.168.100.2	timeout	
MetaROUTER Make Supout.rif	192.168.100.2 192.168.100.2	timeout timeout timeout	
MetaROUTER Make Supout.rif Manual	192.168.100.2 192.168.100.2 192.168.100.2	timeout timeout timeout	
MetaROUTER Make Supout.rif Manual	192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2	timeout timeout timeout timeout	
MetaROUTER Make Supout.rif Manual Exit	192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2	timeout timeout timeout timeout timeout	
MetaROUTER Make Supout.rif Manual Exit	192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2 192.168.100.2	timeout timeout timeout timeout timeout timeout	

Adicionando a VLAN 100 nos Switchs:

SmartSwitch Web-Base Controller - Windows In	ternet Explorer												×	
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8-Port 10/100Mbps Web S	mart Switch			3 4	56	7	3							
Administrator	VLAN Member S	Setting (Tag B	ased)										_	
Port Management		J(,										- 11	
✓ VLAN Setting														
VLAN Mode	VID: 100 (1~4094	4) Add			-	Delete	Update	Update						
VLAN Member	Add: Enter a VID, select the VLAN member for this entry and then press this button to add a VLAN entry to the table.													
Multi to 1 Setting	Del: Select a VID in the	he table and then pri-	ess this button to re	emove a VID entry	from the tak	ole.								
Per Port Counter	Opdate.Modily the ex	isting vito enitry, sei	ect vito and then p	ress me button.								-		
QoS Setting		VLAN Mem	ber Port		01	02	03	04	05	06	07	08	Ξ	
Security		selec	t											
Spanning Tree	Note: If you do not se	lect any port, this V	ID will be treated	as a VID embedde	ed in a 802.1	Q tag.								
 Franking Franking 	VID	Source port	0	1 02	03	3	04	05	06		07	08		
EOC Detection DHCD Relay Agent		calact	-			1							-	
Backup/Recovery		select	C.			1							_	
Miscellaneous														
SNMP Settings														
> Logout					Port VID Ma	ap.								
	Port	01	02	03	04		05	(06	07		08		
	VID				1222									
	1						Internet	Modo Proteg	ido: Desativa	do	4	▼ € 100%	• •	

Selecionando apenas as portas que irão encaminhar a VLAN 100, no caso apenas as portas 1 e 8, após selecionar clique no botão 'Update':

SmartSwitch Web-Base Controller - Windows In	ternet Explorer											×		
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8-Port 10/100Mbps Web S	mart Switch		, I		4	5 6 7	□ <mark>-</mark> 8							
Administrator	VLAN Member S	etting (Tag B	ased)									Â		
Port Management		51 5				\frown	-					- 1		
⅔ VLAN Setting					- (
VLAN Mode	VID: (1~4094	() Add				100 - L	Delete							
VLAN Member	Add: Enter a VID, sele	dd: Enter a VID, select the VLAN member for this entry and then press this button to add a VLAN entry to the table.												
Multi to 1 Setting	Del: Select a VID in th	ie table and then pro	ess this button act VID and th	to remove a	a VID entry e button	from the table.					6			
Per Port Counter	opdate.wodity the exit	isung vito enu y,sere		en press m	e bullon.									
QoS Setting		VLAN Mem	ber Port		(01	02 03	04	05	06	07 08)=		
Security		selec	t											
 Spanning Tree Tauaking 	Note: If you do not set	lect any port, this V	ID will be trea	be treated as a VID embedded in a 802.1Q tag.										
Sec Detection	VID	Source port		01	02	03	04	05	06	07	08			
DHCP Relay Agent		select								(m)				
Backup/Recovery		Succe												
Miscellaneous														
SNMP Settings												_		
> Logout			1	10	I	ort VID Map.								
	Port	01	02		03	04	05		06	07	08			
	VID													
Concluído	1						Inter	net Modo Pro	egido: Desativa	do	√a ▼ € 100	% •		

Após essa configuração a VLAN 100 voltou a pingar:

Interfaces	Terminal		×
Wireless	192.168.0.2	56 64 0ms	+
Bridge	192.168.0.2	56 64 Oms	
DDD	192.168.0.2	56 64 Oms	
PPP	192.168.0.2	56 64 Oms	
Switch	192.168.0.2	56 64 Oms	
Mesh	192.168.0.2	56 64 Oms	
hiddin	192.168.0.2	56 64 Oms	
IP D	192.168.0.2	56 64 Oms	
MPLS D	192.168.0.2	56 64 0ms	
Deutine	192.168.0.2	56 64 Ums	
Routing	192.168.0.2	50 64 UMB	
System	192.100.0.2	56 64 0mg	
Queues	192.168.0.2	56 64 0ms	٠
Files			
Log	Terminal		×
Radius	192 168 100 2	timeout	
Toole	192.168.100.2	timeout	-
TOOIS	192.168.100.2	timeout	
New Terminal	192,168,100,2	timeout	
MetaROUTER	192.168.100.2	timeout	
Make Suport of	192.168.100.2	timeout	
Make Supour.m	192.168.100.2	timeout	
Manual	192.168.100.2	timeout	
Exit	192.168.100.2	timeout	
	192.168.100.2	timeout	
	192.168.100.2	timeout	
	192.168.100.2	56 64 /ms	
	192.168.100.2	56 64 UMS	
1	192.100.100.2	20 04 UNS	-

Criando a VLAN 200 nos MikroTiks:

Interfaces	Interface	terface List										
Wireless	Interfac	e Ethernet	EoIP Tunnel	IP Tunnel	GRE Tunnel	VLAN V	RRP Bond	ing				
Bridge	+ -	- 🗸 🗙	- T]								
PPP	N	ame	∠ Type		L2 MTU	Tx	Rx	Tx Pac				
Switch	R 4	▶ether1	Ethernet		1526	44.4 kbps	3.7 kbps	5				
Meeh	R	vlan100	VLAN		1522	0 bps	0 bps	0				
incari	R 4	itether2	Ethernet		1522	0 bps	3.7 kbps	0				
IP P	R	vianzuu	VLAN		1518	Obps	Obps	0				
MPLS N	X 4	∳wlan1	Wireless	(Atheros AR5	1322	0 bps	0 bps	0				
Routing N	X 4	∳wlan2	Wireless	(Atheros AR5.		0 bps	0 bps	0				
Queues Files Log												
Radius												
Radius Tools												
Radius Tools New Terminal												
Radius Tools New Terminal MetaROUTER												
Radius Tools New Terminal MetaROUTER Make Supout.rif												
Radius Tools New Terminal MetaROUTER Make Supout.rff Manual												

Criando a VLAN 200 nos Switchs:

SmartSwitch Web-Base Controller - Windows Int	ternet Explorer	-									x		
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🔠 🔻 🌈 SmartSwitch Web-Base 🗴 🌈 Smart	Switch Web-Base Co					🟠 👻	N • 🖃	🖶 🔻 Página	✓ Segurança ✓	Ferramen <u>t</u> as 🔻	• 🕢 •		
8-Port 10/100Mbps Web Si	mart Switch		1 2	3 4	5 6 7	8							
Administrator	VLAN Member Se	etting (Tag Ba	ased)								^		
Port Management		3(-3-	,		\frown						- 1		
✓ VLAN Setting				(1				- 11		
VLAN Mode	VID: (1~4094)	Add			200 - Del	Update	Update						
VLAN Member	Add: Enter a VID, sele	dd: Enter a VID, select the VLAN member for this entry and then press this button to and a VLAN entry to the table. led: Select a VID in the table and then press this button to remove a VID entry from the table.											
 Multi to 1 Setting 	Del: Select a VID in the Undate: Modify the exis												
Per Port Counter	opulicitionity incluins	VI AN Mend	Dt	ess die outton.	01 02	02	04	05	06 0	7 00			
QoS Setting		VLAN Memo	ber Port			03	04	05	00 0	/ 08	_)		
Spanning Tree		select											
 Trunking 	Note: If you do not sele	ect any port, this V	ID will be treated a	s a VID embedde	d in a 802.1Q tag.			20.	0				
Eoc Detection	VID S	ource port	01	02	03	04	05	06	07	08			
DHCP Relay Agent		select	[PT										
Backup/Recovery													
Miscellaneous													
SNMP Settings				T									
Logout				P	on vid Map.		1	-					
	Port	01	02	03	04	05	0	6	07	08	_		
	VID							-					
Concluído	1					🍚 Internet	Modo Protegi	do: Desativado		4 v 100%	•		

A figura abaixo demonstra como fica a configuração de VLAN Trunking, observe que a 'porta 8' dos switchs estão trunking para essas VLANs:

SmartSwitch Web-Base Controller - Windows Inte	ernet Explorer				_		_				O Ping				x
Enveriter	laria da Wah Slica =					-	-				p bing				-
revolutos revolutos	Switch Web Base Co								為 -		🛋 🔻 Pá	gina 🔻 Se	ouranca 🔻	Ferramentas 🔻	· @-
Smartswitch web-base × e smart	Switch Web-Base Co										6 <u>0</u> 0	g	gununçu	renomengos	
8-Port 10/100Mbps Web Sr	mart Switch				$\frac{1}{3}$	5									
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Administrator		VLAN Wen	iber Port			0	1	02	03	04	05	00	07	08	^
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✤ VLAN Setting	Note: If you do not se	elect any port, this V	/ID will be to	reated as a V	/ID embed	ded in a	802.1	Q tag.							
VLAN Mode	VID	Source port		01	02	2	03		04	05	05 06		07	08	
VLAN Member Multi to 1 Setting		select			E										
Per Port Counter															
QoS Setting															
Security						Port V	ID Ma	ъ.							
Spanning Tree	Port	01	02		03		04		05 0		6 07			08	
Trunking	VID														
> Eoc Detection			1		2000-0-00										
DHCP Relay Agent Backup/Baccupage															= II
Miscellaneous						VLAN I	MEME	BER							
SNMP Settings		VID \ Port												100	
> Logout					1	2	_	3	4	5		6	7	8	- 11
		100			v	-		8 .				-	. –	v	
		200			-	v		0.74					0.76	v	
Concluído									🕘 Internet I	Aodo Protegi	do: Desativa	do	4	 ▼ € 100% 	

Ao concluir essas configurações o VLAN Trunking está funcionando. A imagem abaixo apresenta as VLANs 100 e 200 respondendo a pings:

Interfaces	First and the second se			
Wireless	Terminal		Address List	×
Bridge	192.168.100.2	56 64 Oms	▶ + - <	П
bildge	192.168.100.2	56 64 Oms		5.
PPP	192.168.100.2	56 64 Oms	Address A Network Interface	•
Switch	192.168.100.2	56 64 0ms	::: IP SEM VLAN	
	192.100.100.2	56 64 0mg		-11
Mesh	192.168.100.2	56 64 0ms	⇔ 192 168 100 1/24 192 168 100 0 v/ap 100	
IP 🗅	192 168 100 2	56 64 0ms	······································	
MPLS N	192.168.100.2	56 64 Oms	⊕ 192.168.200.1/24 192.168.200.0 vlan200	
D II N	192.168.100.2	56 64 Oms		
Routing	192.168.100.2	56 64 Oms		- 117
System D	192.168.100.2	56 64 Oms	•	
Queues	Second			
Files	Terminal			
1100	192.168.200.2	timeout	•	
Log	192.168.200.2	timeout		
Radius	192.168.200.2	timeout		
TIN	192.168.200.2	timeout		
Tools	192.168.200.2	timeout		
New Terminal	192.168.200.2	timeout		
MetaROUTER	192.168.200.2	timeout		
Mala Carada	192.168.200.2	56 64 8mg		
Make Supout.nf	192,168,200,2	56 64 0ms		
Manual	192.168.200.2	56 64 Oms		
Evit	192.168.200.2	56 64 Oms	+	