

Routed Mode WanLinks with a Single Physical Port

Goal: Setup a Routed Mode WanLink between two Virtual Routers that only use one physical port.

In this test scenario, LANforge-ICE is used to simulate a routed network where a single physical port is used for incoming and outgoing traffic. The traffic will enter the physical port and will then be sent through two Virtual Routers connected by a WanLink and then back out the same physical port.

- 1. Setup a Netsmith Connection.
 - A. Go to the **Status** tab and click **Netsmith**

	LANforge Manager	Version(5.4.3)		\odot \sim \times
<u>C</u> ontrol <u>R</u> eporting Wind <u>o</u> ws <u>I</u> nfo <u>T</u> es	ts			
	Chamber View Stop	All Restart	: Manager <u>R</u> i	efresh HELP
Status Port Mgr Layer-3 L3 End	os Layer 4-7 WanLinks Resourc	e Mgr Alerts Me	ssages Warnings Wifi-M	essages +
License Info	Current Users		Saved Test Configurations	
Licenses expire in: 656 days.	* Admin from:127.0.0.1 gnuserver from:127.0.0.1	Configuration:	FACTORY_DFLT	Load
Support expires in: 656 days.		Download DB	Show Progress	Delete
Status Vie <u>w</u> : Ports by Resource 💌		Name:		Save
Realm 0	Manager/Resour	ce 1		

B. Right-click in the Netsmith window and select New Connection



C. Accept defaults, Auto Create everything and click **OK**



D. Click Apply in the Netsmith window to create the connection



For more information see LANforge-GUI User Guide: Netsmith

2. Setup two Virtual Routers.

A. Right-click in the Netsmith window and select New Router



B. Accept defaults, or change the name, graphical size and notes about the Virtual Router

B Ports			_	Croate/Medify	Virtual Roy	tor	•		
ame: Auto Cre	ate New Name>	-		Width:	100	itei	Height:	100	
Use OSPF	Multicast Routir	ng 🗌 Us	e OLSR		P Dflt Route	Xorp SHA	IPv6 Rou	iter 🔲 IPv6	RADV
Use Existing Cf	g 🔲 BGP Rout	er 🗌 BC	SP 4B AS	BGP Reflect	or BGP (Confederation	n 🗌 BGP Dai	mping	
				Notes about thi	s Virtual Rout	er			
				BGP Configurat	ion Informatio	n			
	Router ID		Loc	al AS	0	Cluster ID			
	Confederation		Dan	nping Half Life		Damping Ma	x Suppress 3		
	Damping Reuse	а 3	Dan	nping Suppress					
BGP Peer Flags	_	_	Peer AS	Peer ID	Local Iface	Nexthop	Nexthop6	Hold Time	Delay Oper
Active Clie	nt 🗌 Confed	Ucast							
Active Clie	nt 🗌 Confed	✓ Ucast							
Active Clie	nt 🗌 Confed	🕑 Ucast							
Active Clie	nt 🗌 Confed	🕑 Ucast							
Active Clie	nt 🗌 Confed	✓ Ucast							
Active Clie	nt 🗌 Confed	Ucast							
Active Clie	nt 🗌 Confed	✓ Ucast							
Active Clie	nt 🗌 Confed	Ucast							
				OK	Cancel				
				UK	Cancel				

A. Click OK when done

C. Click the Apply button and repeat for the second Virtual Router



- A. NOTE: After making any changes to the Netsmith window, you must click Apply or your changes will NOT be implemented and could be lost
- D. Click the Apply button followed by the Sync button



- A. NOTE: Clicking Sync makes sure any changes are synchronized with the current database
- B. Also, note the Netsmith Apply Progress bar displayed at the bottom of the Netsmith window

For more information see LANforge-GUI User Guide: Netsmith

- 3. Configure the ports on the ends of the WanLink.
 - A. Right-click port rddVR0 and select Modify Port



B. Assign an IP address and Network Mask

		LANfo	rge Manager \	/ersion(5.4.3)		(~) (.
0		rddVR0 (lf0350-c8dc) Co	nfigure Settings		\odot \odot \otimes
		-	Port Status Informa	tion		
		Current: LINK-UF	PROBE-ERROR TSO GSO	GRO		
		Driver Info: Port ly	pe: Kedirect-Device Pee	r: rddvR0b		
			Port Configurat	les		
Enable		General II	nterface Settings		Port Rates	Advert Rates
Set MAC	Down	Aux-Mat	DHCP Hostname:	None	8 10bt-HD 10bt-FD	10bt-HD
Set TX Q Len	DHCP-IPv6	DHCP Release	DHCP Vendor ID:	None	0 100bt-HD 100bt-FD	10bt-FD
Set Offload	DHCP-IPv4	Secondary-IPs	DHCP Client ID:	None	2.5G-FD 5G-FD	100bt-FD
Set PROMISC	DNS Servers:	BLANK	Peer IP:	NA	0 10G-FD 40G-FD	1000-FD
Set Bridge Info	I <u>P</u> Address:	100.1.1.100	Global IPv6:	AUTO	O Autonegotiate	5G-FD
	IP Mask:	255.255.255.0	Link IPv6:	AUTO	Renegotiate	10G-FD
Services	Gateway IP:	0.0.0.0	IPv6 GW:	AUTO	Restart Xcvr	40G-FD
HTTP	Alias:		MTU:	1500	PROMISC	Flow-Control
FTP	MAC Addr:	fe:1d:d6:79:aa:aa	TX Q Len	1000	RX-ALL	Offload
DNS	Br Cost:	Ignore 🗖	Priority:	Ignore 👻	RX-FCS	TSO Enabled
RADIUS	Bot Timer	medium (8 s)	WiEi Bridge	NONE	Bypass NOW!	UFO Enabled
IPSEC-Client	IDCas CW/		IBCos Descuerd		Bypass Power-UP	GS0 Enabled
IPsec-Upstream	IPSec Gw:		IPSec Password:		Bypass Power-DOWN	LRO Enabled
	IPSec Local ID.		IPSec Remote ID.:		Bypass Disconnect	🖌 GRO Enabled
	Print	Display	oho Sunc	Apply	Cancel	
					Lance	

A. This example uses 10.1.1.100 and 255.255.255.0

C. Right-click port rddVR1 and select Modify Port



D. Assign an IP address and Network Mask

		LANfo	rge Manager	ersion(5.4.3)		(*) (*
		rddVR1 (lf0350-c8dc) Co	nfigure Settings		\odot \sim \times
		Current: LINK-UP Driver Info: Port Typ	Port Status Informa PROBE-ERROR TSO GSO pe: Redirect-Device Pee	tion GRO r: rddVR1b rddVR1b		
			Port Configurat	les		
Enable		General Ir	nterface Settings		Port Rates	Advert Rates
Set MAC	Down	Aux-Mgt	DHCP Hostname:	None	O 10bt-HD 10bt-FD 100bt-HD	10bt-HD
Set MTU	DHCP-IPv6	DHCP Release	DHCP Vendor ID:	None 🗸	8 1006£-FD 1000-FD	100bt-HD
Set Offload	DHCP-IPv4	Secondary-IPs	DHCP Client ID:	None	8 2.5G-FD 5G-FD	100bt-FD
Set PROMISC	DNS Servers:	BLANK	Peer IP:	NA	0 10G-FD 40G-FD	1000-FD
Set Bridge Info	IP Address:	100.1.1.101	Global IPv6:	AUTO	() Autonegotiate	5G-FD
	IP Mask:	255.255.255.0	Link IPv6:	AUTO	Renegotiate	10G-FD
Services	Gateway IP:	0.0.0.0	IPv6 GW:	AUTO	Restart Xcvr	40G-FD
НТТР	Alias:		MTU:	1500	PROMISC	Flow-Control
FTP	MAC Addr:	4e:24:c9:61:34:8b	TX Q Len	1000	RX-ALL	Offload
DNS	Br Cost:	Ignore 💌	Priority:	Ignore 💌	RX-FCS	🖌 TSO Enabled
RADIUS	Rpt Timer:	medium (8 s) 🖵	WiFi Bridge:	NONE	Bypass NOW!	UF0 Enabled
IPSEC-Client	IPSec GW:	0.0.0.0	IPSec Password:		Bypass Power-UP	GSO Enabled
- insectopstream	IPSec Local ID.:		IPSec Remote ID.:		Bypass Power-DOWN	LRO Enabled
	Print [Display Pro	obe <u>S</u> ync	Apply OK	<u>C</u> ancel	

A. This example uses 10.1.1.101 and 255.255.255.0

For more information see LANforge-GUI User Guide: Netsmith

4. Drag the ends of the WanLink into the Virtual Routers.

A. Left-click and drag rddVR0 into Router R0(1)



B. Left-click and drag rddVR1 into Router R1(2)



C. Click the Apply button at the bottom of the Netsmith window



For more information see LANforge-GUI User Guide: Netsmith

- 5. Setup the Routed Mode WanLink characteristics.
 - A. Right-click the WanLink and select Modify Wanlink



B. Verify that the B-side ports, rddVR0b and rddVR1b, are filled in

0			VRWL-1.1.000 - C	reate/Modify Wa	anLink		\odot \land \times
+ - All				Display WanLink	& WanPaths Sync	<u>Apply</u> <u>O</u> K	<u>C</u> ancel
Name: Presets:	WanLink Information VRWL-1.1.000 CUSTOM		•	2	WanLink Information Pass-Through Coupled-Mode	🔄 HW Pass-Throu 🔲 Kernel-Mode	gh
Port:	Endpoint A 12 (rddVR0b)	-	Endpoint B 14 (rddVR1b)	Resource: Rpt Timer:	1 fast (1 s)		▼
Transfer Rate: Delay:	zero (0 us)	•	zero (0 us)	Reorder-Freq:	Endpoint A zero (0%)	Endpoint B ▼ zero (0%)	-
Drop-Freq: Jitter:	zero (0%) zero (0 us)	•	zero (0%) zero (0 us)	Dup-Freq: Drop Burst:	zero (0%)	▼ zero (0%)	•
Jitter-Freq:	zero (O%)	-	zero (0%) 💌	Reorder Amt:	min 1 max 20 Script	min 1 max 2	20
CONTRA	7						_

- A. NOTE: Be sure to set the impairment, if any, and transfer rate
- B. Click **OK** when done

C. Right-click the WanLink and select Toggle Wanlink to set its status to Running (green)



For more information see LANforge-GUI User Guide: Netsmith

- 6. Setup MAC VLANs.
 - A. Go to the Port Mgr tab, select eth1 and click Create

0					LAN	orge M	anager Ve	rsion(5.3.6	5)			₽.	\odot \land \times		
<u>C</u> ontrol	Repor	ting]	<u>T</u> ear-Off <u>I</u> nfo <u>P</u> lu	gins											
							Stop	All	Restart	Manager		Refresh	HELP		
Layer-4	Layer-4 Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr vAP Stations Messages Status Layer-3 13 Endos VolP/RTP VolP/RTP Endos Armageddon Wanlinks Attenuators File-10														
Status	Status Layer-3 L3 Endps VolP/RTP VolP/RTP Endps Armageddon WanLinks Attenuators File-10														
	Disp: 192.168.100.239:0 Sniff Packets 1 Clear Counters Reset Port Delete														
	Rpt Timer: medium (8 s) 🔻 Apply I View Details Create Modify Batch Modify														
	All Ethernet Interfaces (Ports) for all Resources.														
Port	Port Pha Down IP SEC Alias Parent Dev RX Bytes RX Pkts Pps RX bps RX TX Bytes TX Pkts Pps TX														
1.1.0			192.168.100.106	0	eth0		269,824,726	690,830	9	8,408	315,968,149	444,352	12		
1.1.1			0.0.0.0	0	ethl		528	6	0	38	528	6	0		
1.1.2			0.0.0.0	0	eth2		528	6	0	39	528	6	0		
1.1.3			100.1.1.101	0	rddVR1	rddV	1,448	18	0	0	2,436	28	0		
1.1.4			0.0.0.0	0	rddVR1b	rddV	2,436	28	0	0	1,448	18	0		
1.1.5			100.1.1.100	0	rddVR0	rddV	1,358	17	0	0	2,456	28	0		
1.1.6			0.0.0.0	0	rddVR0b	rddV	2,386	27	0	0	1,358	17	0		
1		1													
Loggod	in to:	10216	59 100 106 4002	acı A	dmin										
Logged	11100	192.10	55.100.100:4002	аз. <i>А</i>	GIIIII										

B. Select the MAC-VLAN button

			Create VLANs	on Port: 1.1.1	N	\mathbf{v} \mathbf{v}
0	MAC-VLAN WIFI STA	○ 802.1Q-VLAN ○ Re ○ WiFi VAP ○ WiFi Mon	direct 🔾 Bridge itor 🔾 WiFi Virtu	○ Bond ○ GRE Tu al Radio	nnel 😽	
2	Shelf:	1	Resource:	l (lf0350-10ac) 💌	Port: 1	(ethl)
6	VLAN ID: Parent MAC: MAC Addr: Quantity: #1 Redir Name: STA ID:	00:0d:b9:47:10:ad ∞:xx:xx:*:*:xx ▼ 2	DHCP-IPv4 DHCP Client ID: IP Address: IP Mask or Bits: Gateway IP: #2 Redir Name: SSID:	None	Global IPv6: Link IPv6: IPv6 GW:	AUTO AUTO AUTO
4	WIFI AP:	WPA2	Key/Phrase:			

- A. Set a MAC address that begins with 00 (Ex: 00:11:33:55:77:01)
- B. Set the Quantity to 2
- C. Set the IP Address to 172.1.1.1 and IP Mask to 255.255.255.0
- D. Leave the Gateway IP field blank
- E. Click **OK** when done

C. Select the MAC VLAN eth1#1 and click Modify

0						LANf	orge M	anage	er Ve	rsion(5.3.6	5)				\sim \sim \times
<u>C</u> ontrol	Repor	ting 1	ear-Of	f <u>I</u> nfo <u>P</u> lu	gins										
									Stop	All	Restart	Manager		Refresh	HELP
Layer-4	Layer-4 Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr VAP Stations Messages														
Statu	Status Layer-3 L3 Endps VoIP/RTP VoIP/RTP Endps Armageddon WanLinks Attenuators File-10														
	Disp: 192.168.100.239:0 Sniff Packets 1 Clear Counters Reset Port Delete														
	Rpt Timer: medium (8 s) ▼ Apply I View Details Create Modify Batch Modify														
	All Ethernet Interfaces (Ports) for all Resources.														
Port	Port Pha Down IP SEC Alias Parent Dev RX Bytes RX Pkts Pps RX bps RX TX Bytes TX Pkts Pps TX														
1.1.0			192.10	58.100.106	0	eth0		270,1	24,382	693,526	9	8,827	319,635,849	447,964	13
1.1.1			0.0.0.0	D	0	eth1			528	6	0	0	6,166	75	0
1.1.2			0.0.0.0	D	0	eth2			6,166	75	0	36	528	6	0
1.1.3			100.1.	1.101	0	rddVR1	rddV		1,518	19	0	0	2,506	29	0
1.1.4			0.0.0.0	D	0	rddVR1b	rddV		2,506	29	0	0	1,518	19	0
1.1.5			100.1.	1.100	0	rddVR0	rddV		1,428	18	0	0	2,456	28	0
1.1.6			0.0.0.0	0	0	rddVR0b	rddV		2,456	28	0	0	1,428	18	0
1.1./			172.1.	1.1	0	eth1#0	eth1		0	0	0	0	1,038	13	0
1.1.0			1/2.1.	1.2	0	etut#1	enn		0	0	U	0	1,120	14	0
													10		
															•
Logged	in to:	192.16	68.100.	106:4002	as: A	dmin									

D. Set eth1#1 IP address to 172.2.2.1 and IP Mask to 255.255.255.0

			Port Status Info	ormation	3	
		Current:	LINK-UP PROBE-	ERROR TSO UFO		
		Driver Inf	o: Port Type: MAC	-VLAN Parent: eth1		
			Port Configur	ables		
		General In	terface Settings		Port Rates	Advert Rates
Set IF Down					O 10bt-HD	✓ 10bt-HD
Set MAC	Down	Aux-Mgt			O 100bt-HD	✓ 10bt-FD
Set TX Q Len		DHCP Belease	DHCP Vendor ID:	None	0 1000LFD	✓ 100bt-HD
Set MTU		Casaa daay IDa		News	0 10G-FD	🗹 100bt-FD
Set Offload	DHCP-IPV4	Secondary-IPs	DHCP Client ID:	None	Autonegotiate	✓ 1000-FD
Set PROMISC	DNS Servers:	BLANK	Peer IP:	NA		10G-FD
Set Rx-All/FCS	IP Address:	172.2.2.1	Global IPv6:	AUTO		40G-FD
Set Bridge Info	IP Mask:	255.255.255.0	Link IPv6:	AUTO		Flow-Contro
	Gateway IP:	0.0.0.0	IPv6 GW:	AUTO		Offload
— Services —	Alias:		MTU:	1500	BX-ECS	TSO Enable
HTTP	MAC Addr:	00:0d:b9:e3:cd:ad	TX Q Len	1000	Bypass NOW!	UFO Enable
FTP	Br Cost:	Ignore 🔻	Priority:	Ignore	Bypass Power-UP	GS0 Enable
RADIUS	Rpt Timer:	medium (8 s) 🔻	WiFi Bridge:	NONE	Bypass Power-DOWN	LRO Enable
					Bypass Disconnect	GR0 Enable
						1

E. Select eth2 and click **Create**

					LANF	orge M	anager Vei	rsion(5.3.6	5)				\odot
<u>Control</u>	Repor	ting]	<u>T</u> ear-Off <u>I</u> nfo <u>P</u> lu	gins									
							Stop	All	Restart	Manager		Refresh	HELP
Layer-4 Status	Ger	neric Layer-	Test Mgr Test 3 L3 Endps	Grou	p Resou	irce Mgr	Event Log	Alerts F Arma	Port Mgr Igeddon	vAP Statio	ons Messag .inks Att	enuators	File-I0
	Disp:	192.1	68.100.239:0	5	Sniff Packe	ts	1 Clear	Counters	Reset	Port	Delete		
	Rpt Tir	ner:	edium (8 s) 🔻		Apply		Į <u>V</u> iev	w Details	Crea	ate	Modify	Batch Modif	y
					All Et	hernet I	nterfaces (Port	s) for all Re	sources				-
Port	Pha	Down	IP	SEC	Alias	Parent Dev	RX Bytes	RX Pkts	Pps RX	bps RX	TX Bytes	TX Pkts	Pps TX
1.1.0			192.168.100.106	0	eth0		270,385,983	695,978	10	9,362	322,640,242	451,017	13
1.1.1			0.0.0.0	0	eth1		528	6	0	0	6,954	85	0
1.1.2			0.0.0.0	0	eth2		6,954	85	0	55	528	6	0
1.1.3			100.1.1.101	0	rddVR1	rddV	1,518	19	0	0	2,506	29	0
1.1.4			0.0.0.0	0	rddVR1b	rddV	2,506	29	0	0	1,518	19	0
1.1.5			100.1.1.100	0	rddVR0	rddV	1,428	18	0	0	2,456	28	0
1.1.6			0.0.0.0	0	rddVR0b	rddV	2,456	28	0	0	1,428	18	0
1.1.7			172.1.1.1	0	eth1#0	ethl	0	0	0	0	1,108	14	0
1.1.8			172.2.2.1	0	eth1#1	ethl	0	0	0	0	1,846	23	0
4		11											•
Logged	in to:	192.1	68.100.106:4002	as: A	dmin								

F. Select the MAC-VLAN button

0			Create VLANs	on Port: 1.1.2		(F	\sim \times
0	● MAC-VLAN ○ WiFi STA	○ 802.1Q-VLAN ○ Rec ○ WiFi VAP ○ WiFi Monit	lirect 🔾 Bridge cor 🔾 WiFi Virtu	○ Bond ○ GRE Tur al Radio	nnel	P.	
0	Shelf:	1	Resource:	l (lf0350-10ac) 🔻	Port: 2	(eth2)	•
a	VLAN ID:		DHCP-IPv4				
	Parent MAC:	00:0d:b9:47:10:ae	DHCP Client ID:	None 👻			
	MAC Addr:	XXX:XXX:*:*:XXX 💌	IP Address:	172.1.1.100	Global IPv6:	AUTO	
	Quantity:	2	IP Mask or Bits:	255.255.255.0	Link IPv6:	AUTO	
			Gateway IP:	172.1.1.1	IPv6 GW:	AUTO	
	#1 Redir Name:		#2 Redir Name:				
	STA ID:		SSID:			-	
	WiFi AP:		Key/Phrase:				
	WPA	WPA2	WEP				
4	Down						
	Apply	<u>C</u> ancel		C	one		

- A. Set a MAC address that begins with 00 (Ex: 00:22:44:66:88:01)
- B. Set the Quantity to 2
- C. Set the IP Address to 172.1.1.100 and IP Mask to 255.255.255.0
- D. Set the Gateway IP to 172.1.1.1
- E. Click **OK** when done

G. Select the MAC VLAN eth2#1 and click Modify

0					LAN	orge M	anager Ve	rsion(5.3.	5)				\odot \otimes \otimes		
<u>Control</u>	Report	ting]	<u>[</u> ear-Off <u>I</u> nfo <u>P</u> lu	gins											
							Stop	All	Restart	Manager		Refresh	HELP		
Layer-4	ayer-4 Generic Test Mgr Test Group Resource Mgr Event Log Alerts Port Mgr VAP Stations Messages Status Lawer-3 L3 Endos VolP/RTP VolP/RTP Endos Armaneddon Wanlinks Attenuators File-10														
Status	Status Layer-3 L3 Endps VolP/RTP VolP/RTP Endps Armageddon WanLinks Attenuators File-10														
	Disp: 192.168.100.239:0 Sniff Packets 1 Clear Counters Reset Port Delete														
	Rpt Timer: medium (8 s) Apply I View Details Create Modify Batch Modify														
	All Ethernet Interfaces (Ports) for all Resources.														
Port	Port Pha Down IP SEC Alias Parent Dev RX Bytes RX Pkts Pps RX bps RX TX Bytes TX Pkts Pps TX														
1.1.00			192.168.100.106	0	eth0		270,635,535	698,242	9	8,893	325,639,014	453,975	13		
1.1.01			0.0.0.0	0	ethl		2,644	32	0	23	7,234	89	0		
1.1.02			0.0.0.0	0	eth2		7,234	89	0	4	2,644	32	0		
1.1.03			100.1.1.101	0	rddVR1	rddV	1,588	20	0	0	2,576	30	0		
1.1.04			0.0.0.0	0	rddVR1b	rddV	2,576	30	0	4	1,588	20	0		
1.1.05			100.1.1.100	0	rddVR0	rddV	1,498	19	0	4	2,526	29	0		
1.1.06			0.0.0.0	0	rddVR0b	rddV	2,526	29	0	0	1,498	19	0		
1.1.07			172.1.1.1	0	eth1#0	eth1	0	0	0	0	1,178	15	0		
1.1.08		<u> </u>	1/2.2.2.1	0	eth1#1	ethi	0	0	0	0	2,056	26	0		
1.1.09			172.1.1.100	0	eth2#0	eth2	0	0	0	0	1,058	13	0		
1.1.10			1/2.1.1.101	0	etnz#1	etn2	0	0	0	0	₽ 1,058	13	0		
		_											1.1		
													P		
Logged	in to:	192.16	58.100.106:4002	as: A	dmin										

H. Set eth2#1 IP address to 172.2.2.100, IP Mask to 255.255.255.0 and Gateway IP to 172.2.2.1

		Current: Driver Ini	Port Status Info LINK-UP PROBE fo: Port Type: MAC	ormation ERROR TSO UFO -VLAN Parent: eth2		
			Port Configu	rables		
Enable Set IF Down		General Ir	nterface Settings		Port Rates	Advert Rate
Set TX Q Len	Down	DHCP Release	DHCP Vendor ID:	None	0 100bt-FD 0 1000-FD 0 10G-FD 0 40G-FD	 ✓ 100bt-HD ✓ 100bt-FD ✓ 100bt-FD
Set PROMISC	DNS Servers: IP Address:	BLANK 172.2.2.100	Peer IP: Global IPv6:		Renegotiate	2 1000-FD 10G-FD 40G-FD
Services —	Gateway IP: Alias: MAC Addr:	172.2.2.1 00:0d:b9:6b:a3:ae	IPv6 GW: MTU: TX Q Len	AUTO 1500 1000	PROMISC RX-ALL RX-FCS	Offload -
FTP	Br Cost: Rpt Timer:	Ignore v medium (8 s) v	Priority: WiFi Bridge:	Ignore -	Bypass NOW!	GSO Enabl

For more information see LANforge-GUI User Guide: Virtual Interfaces

- 7. Configure Netsmith.
 - A. After clicking on the sync button, move the ports on the Netsmith window to be more clearly visible. Eth1 and eth2 are connected via a loopback cabel



A. NOTE: Be sure to click Apply after moving objects so that their new positions are saved to the database

B. Drag eth1#0 into Router R0(1)



C. Drag eth1#1 into Router R1(2)



D. Click Apply in the Netsmith window



- A. LANforge is now ready to accept incoming traffic on eth0, the single physical port that is connected to a Routed Mode WanLink
- B. Ports eth0 and eth1 are physically connected via a loopback cable in this example. MAC VLANs on eth1 are configured to generate test traffic to the Routed Mode WanLink

For more information see LANforge-GUI User Guide: Netsmith

- 8. Setup a Layer-3 UDP connection between MAC VLANs eth2#0 and eth2#1.
 - A. Go to the Layer-3 tab and click Create

0				LANfor	ge Manager Ve	rsion(5.4.3)				\odot \sim \times
Control Reportin	g Wind	ows Info	Tests							
			Cham	ber <u>V</u> iew	<u>S</u> top All	Rest	art Manager		<u>R</u> efresh	HELP
Status Port M	lgr Lay	er-3 L3	Endps Lay	ver 4-7 War	Links Resource M	Igr Alerts I	Messages W	arnings W	ifi-Messages	+
Rpt Tim View	er: fast	(1 s)	▼ Go	Test Manager	all	Select All	Start + S	top - Quie Modify	esce Clear	-
				Create Co	nnasta fan Calastad	Test Manager				
				- cross co	innects for Selected	rest Manager -				
Name	Туре	State	Pkt Rx A	Pkt Rx B	Bps Rx A	Bps Rx B	Rx Drop % A	Rx Drop % B	Drop Pkts A	Drop Pkts
										•
Logged in to: loca	alhost:40	02 as: A	dmin						2 station	ns: 21 01 0Ø

B. Set Endpoint A to be eth2#0 and Endpoint B to be eth2#1

		\odot							
+ - All			5		Display	Sync Batch-Create		Apply OK	Cancel
CX Name: CX Type:	Cross-Connect Judp-cx LANforge / UDP			•	Report Timer:	Cross-Connect fast (1 s)			
	Endpoint A	_	Endpoint B		Pld Pattern	Endpoint A increasing	-	increasing	-
Resource:	1 (lf0350-10ac)		1 (lf0350-10ac)	-	Min IP Port:	AUTO	-	AUTO	-
Port:	9 (eth2#0)		10 (eth2#1)		Max IP Port:	Same	•	Same	-
Min Tx Rate:	1024000 (1.024 Mbps)	-	1024000 (1.024 Mbps)	-	Min Duration:	Forever	•	Forever	-
Max Tx Rate:	Same	-	Same	-	Max Duration:	Same	-	Same	-
Min PDU Size:	UDP Pld (1,472 B)	-	UDP Pld (1,472 B)	-	Min Reconn:	0 (0 ms)	-	0 (0 ms)	-
Max PDU Size:	Same	-	Same	-	Max Reconn:	Same	-	Same	-
IP ToS:	Best Effort (0)	-	Best Effort (0)	-	Multi-Conn:	Normal (0)	-	Normal (0)	-
Pkts To Send:	Send: Infinite		Infinite	-		Script		Script	
						Thresholds		Thresholds	

- A. Enter the CX name then set the CX Type to LANforge UDP and the Report Timer to 1000
- B. Set the Min/Max Tx Rate to 1024000 and the Min/Max Pkt Size to 1472
- C. Select the new connection and click **Start**

Ô				LANforge N	Aanager Versio	n(5.3.6)				\odot \land \times	
Control Report	ting <u>T</u> ea	ar-Off <u>I</u> nfo	Plugins								
					Stop All	Restart	Manager		Refresh	HELP	
Layer-4 Gen Status	eric T Layer-3	est Mgr T L3 End	est Group	Resource Mg /RTP	r Event Log Al /oIP/RTP Endps	erts Port Mgr Armageddon	vAP Stations WanLinks	Message Atte	s nuators	File-I0	
Rpt 1	Timer: fa	ast (1 s) 🔻 Go	Test Manage	er all 🔻	Select All	Start Sto	p <u>Q</u> uiesc	e Clear		
View	0	- 500		▼ Go	•	Display	Cr <u>e</u> ate	Mo <u>d</u> ify	Delete		
	1			-Cross Cor	nnects for Selected	Test Manager —					
Name	Туре	State	Pkt Rx A	Pkt Rx B	Bps Rx A	Bps Rx B	Rx Drop % A F	Rx Drop % B	Drop Pkts A	Drop Pkt:	
udp-cx	LF/UDP	Run	3,616	3,625	1,022,598	1,022,614	0	0	0		
Logged in to: 1	Logged in to: 192.168.100.106:4002 as: Admin										

D. Netsmith now shows the new connection and traffic flowing through the Routed Mode WanLink



For more information see LANforge-GUI User Guide

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