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! The Config Toolbox website has a detailed blog for L2TPv3 Pseudowire that you can also use as a
! reference when building your config. The config template below is an example of an L2TPv3
! pseudowire between two routers in separate locations over a private network. L2TPv3 is unsecured by
! itself, so wrap it inside of an IPSec tunnel if you need encryption.
         - Email info@configtoolbox.com if you have any questions.
! This config will establish an L2TPv3 pseudowire between ROUTER A (1.1.1.1) and ROUTER B
! (2.2.2.2) across a private network with no encryption for the purpose of extending a Layer 2 Ethernet
! connection between the two locations on VLAN 2. It will require two physical interfaces on each
! router and a GRE Tunnel interface.
! hostname ROUTER A
service password-encryption >>>>>>>>>> this will encrypt clear-text passwords
I2tp-class PASSWORD
password 0123456789012345678901234 >>>>>> use this same password on ROUTER_B
! We recommend making this password a minimum of 25 characters
hello 10
pseudowire-class PWIRE
encapsulation l2tpv3
protocol I2tpv3 PASSWORD
ip local interface Tunnel1
interface Tunnel1
description GRE Tunnel to ROUTER B for L2TPv3 Pseudowire
ip address 10.0.0.1 255.255.255.252
! These MTU and MSS values are reduced in size to compensate for larger IP headers that might be
! used for various transport methods. You can alter these values for a more specific size if you are
! comfortable with MTU/MSS math. If not, we recommend keeping these safe values.
ip mtu 1400
ip tcp adjust-mss 1360
keep alive 103
tunnel source GigabitEthernet0/0/0
tunnel destination 2.2.2.2
interface GigabitEthernet0/0/0
! Use a routed interface that can access ROUTER_B at 2.2.2.2
ip address 1.1.1.1 255.255.255.0
Interface GigabitEthernet0/0/1
! This interface will be used for the pseudowire. It will connect to the local switch on VLAN 2 and
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! virtually connect to the other office switch on VLAN 2 courtesy of the the L2TPv3 connection
! between ROUTER A and ROUTER B. The end result will be the two switches (one in each location)
! connected and spanning VLAN 2.
description Connects to local switch on VLAN 2
no ip address
xconnect 10.0.0.2 1 encapsulation l2tpv3 pw-class PWIRE
! hostname ROUTER_B
service password-encryption >>>>>>>>>> this will encrypt clear-text passwords
I2tp-class PASSWORD
password 0123456789012345678901234 >>>>>> use the same password from ROUTER_A
hello 10
pseudowire-class PWIRE
encapsulation l2tpv3
protocol I2tpv3 PASSWORD
ip local interface Tunnel1
interface Tunnel1
description GRE to ROUTER A for L2TPv3
ip address 10.0.0.2 255.255.255.252
! These MTU and MSS values are reduced in size to compensate for larger IP headers that might be
! used for various transport methods. You can alter these values for a more specific size if you are
! comfortable with MTU/MSS math. If not, we recommend keeping these safe values.
ip mtu 1400
ip tcp adjust-mss 1360
keep alive 103
tunnel source GigabitEthernet0/0/0
tunnel destination 1.1.1.1
interface GigabitEthernet0/0/0
! Use a routed interface that can access ROUTER A at 1.1.1.1
ip address 2.2.2.2 255.255.255.0
Interface GigabitEthernet0/0/1
! This interface will be used for the pseudowire. It will connect to the local switch on VLAN 2 and
! virtually connect to the other office switch on VLAN 2 courtesy of the the L2TPv3 connection
! between ROUTER_A and ROUTER_B. The end result will be the two switches (one in each location)
! connected and spanning VLAN 2.
description Connects to local switch on VLAN 2
no ip address
xconnect 10.0.0.1 1 encapsulation l2tpv3 pw-class PWIRE
! You can confirm the L2TPv3 pseudowire using these commands:
! show I2tp tunnel all
! show xconnect
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Let us know if you have any questions or need config guidance.

- Config Toolbox @ https://configtoolbox.com/contact-us

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