

MR-200/250 and DR-250

The IPsec VPN Configuration



Technical Support

If you require assistance with any of the instructions in this application note you can contact Westermo as follows:

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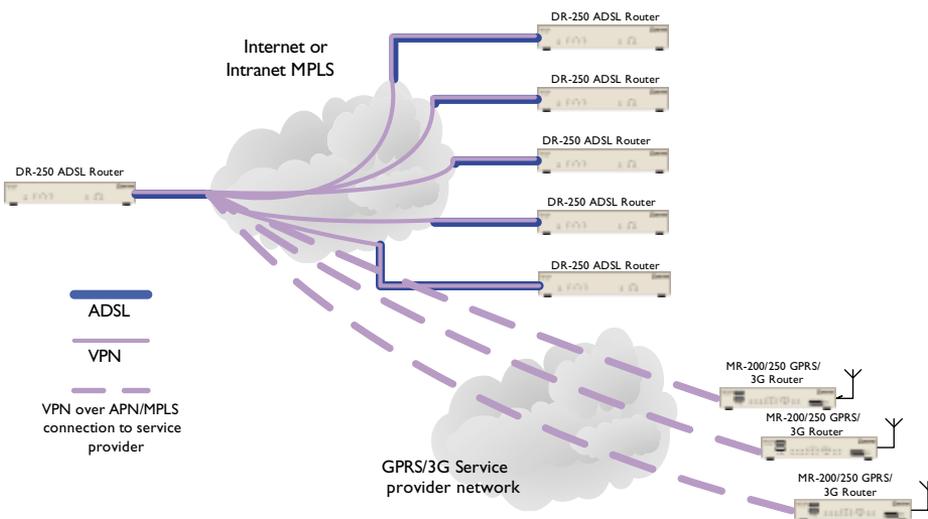
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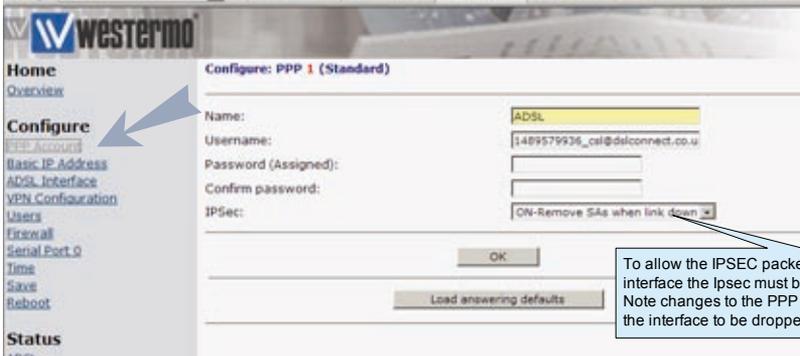
Introduction

This application note describes how to implement an IPsec VPN between two Westermo MR or DR series routers. When creating a VPN between an MR and DR series router the MR should always be the Initiator and the DR the Responder. Applications where there are many remote location with VPN's to a single location (see diagram below) the Remote router should be the Initiator and the central location the Responder. To create VPN's from a Westermo MR or DR router to a third party router please contact your local Westermo support organization for advice.

VPN configuration over WAN network

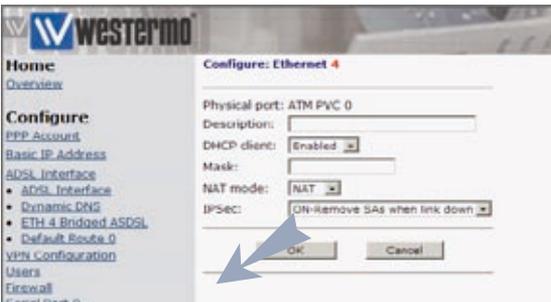


Encapsulation using PpOE or PpOA

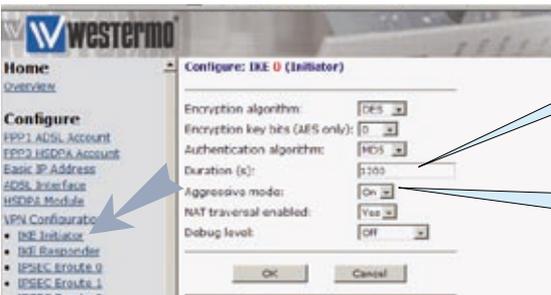


To allow the IPSEC packets over the PPP interface the Ipsec must be set to on. Note changes to the PPP interface will require the interface to be dropped and restarted.

Encapsulation using Bridge mode



IKE 0 Initiator



The IKE responder can be left at default

The duration value controls the length of time the key will be valid. On GPRS and 3G based system it is a good idea to have a longer duration (Max 28800).

Turn Aggressive Mode On

Eroute Setup

The tunnel parameters must be the same at both ends of the tunnel or the negotiation will fail

Initiator Eroute

Configuration window for Initiator Eroute. Fields include: Description (Demo Eroute Initiator), Peer IP/hostname (80.34.96.6), Peer ID (Eagle), Our ID (Hawk), Local subnet IP address (192.168.81.0), Local subnet mask (255.255.255.0), Remote subnet IP address (192.168.81.0), Remote subnet mask (255.255.255.0), Mode (Tunnel), AH authentication algorithm (Off), ESP authentication algorithm (MD5), ESP encryption algorithm (3DES), ESP encrypt key length (bits) (Default), Duration (s) (3000), Duration (kb) (1000), No SA action (Use IKE), Create SA's automatically (Yes), and Authentication method (Preshared Key).

Responder Eroute

Configuration window for Responder Eroute. Fields include: Description (Demo Eroute Responder), Peer IP/hostname (Peer), Peer ID (Eagle), Our ID (Eagle), Local subnet IP address (192.168.81.0), Local subnet mask (255.255.255.0), Remote subnet IP address (192.168.81.0), Remote subnet mask (255.255.255.0), Mode (Tunnel), AH authentication algorithm (Off), ESP authentication algorithm (MD5), ESP encryption algorithm (3DES), ESP encrypt key length (bits) (Default), Duration (s) (3000), Duration (kb) (1000), No SA action (Drop Packet), Create SA's automatically (No), and Authentication method (Preshared Key).

IP Address or Host Name for the termination point of the VPN tunnel

The duration value controls the length of time the SA will be valid.

These parameters must be the same at both ends of the tunnel

Preshared Key Setup

Preshared key entry Initiator

Configuration window for Preshared key entry Initiator. Fields include: Name (Eagle), Password (xxxx), Confirm Password (xxxx), Access Level (Low), and Web page display mode (Auto).

The user number is not important

The user name will be the Peer ID. The password must be the same on both sides of the VPN

Password should be entered here

Preshared key entry Responder

Configuration window for Preshared key entry Responder. Fields include: Name (Peer), Password (xxxx), Confirm Password (xxxx), Access Level (Low), and Web page display mode (Auto).

Password should be entered here

Config.da0 files shown are for a DR-250

Config.da0 Initiator	Config.da0 Responder
[CFG]	[CFG]
config last_saved "10:27:49, 19 Feb 2008"	config last_saved "10:27:49, 19 Feb 2008"
config last_saved_changes "1"	config last_saved_changes "1"
config last_saved_user "username"	config last_saved_user "username"
eth 0 IPAddr "192.168.83.1"	eth 0 IPAddr "197.67.51.1"
lapb 0 ans OFF	lapb 0 ans OFF
lapb 2 dtemode 2	lapb 2 dtemode 2
lapb 3 dtemode 2	lapb 3 dtemode 2
def_route 0 ll_ent "PPP"	def_route 0 ll_ent "PPP"
def_route 0 ll_add 1	def_route 0 ll_add 1
eroute 0 descr "Demo Eroute Initiator"	eroute 1 descr "Demo Eroute Responder"
eroute 0 peerip "80.34.56.91"	eroute 1 peerid "Hawk"
eroute 0 peerid "Eagle"	eroute 1 ourid "Eagle"
eroute 0 ourid "Hawk"	eroute 1 locip "197.67.51.0"
eroute 0 locip "192.168.83.0"	eroute 1 locmsk "255.255.255.0"
eroute 0 locmsk "255.255.255.0"	eroute 1 remip "192.168.83.0"
eroute 0 remip "197.67.51.0"	eroute 1 remmsk "255.255.255.0"
eroute 0 remmsk "255.255.255.0"	eroute 1 ESPauth "MD5"
eroute 0 ESPauth "MD5"	eroute 1 ESPenc "3DES"
eroute 0 ESPenc "3DES"	eroute 1 ltime 6000
eroute 0 ltime 6000	eroute 1 authmeth "PRESHARED"
eroute 0 authmeth "PRESHARED"	ppp 1 IPAddr "0.0.0.0"
eroute 0 nosa "TRY"	ppp 1 username "Enter ADSL Username"
eroute 0 autosa 2	ppp 1 timeout 0
ppp 1 IPAddr "0.0.0.0"	ppp 1 aodion 1
ppp 1 username "Enter ADSL Username"	ppp 1 autoassert 1
ppp 1 timeout 0	ppp 1 ipsec 1
ppp 1 aodion 1	ppp 1 echo 10
ppp 1 autoassert 1	ppp 1 echodropcnt 5
ppp 1 ipsec 1	ppp 1 lliface "AAL"
ppp 1 echo 10	ana 0 anon ON
ppp 1 echodropcnt 5	ana 0 lapdon 0
ppp 1 lliface "AAL"	ana 0 lapbon 0

Config.da0 Initiator	Config.da0 Responder
ana 0 anon ON	ana 0 maxdata 200
ana 0 lapdon 0	ana 0 logsize 45
ana 0 lapbon 0	cmd 0 unitid "DR-250"
ana 0 maxdata 200	cmd 0 cmdnua "99"
ana 0 logsize 45	cmd 0 hostname "SS.6000r"
cmd 0 unitid "DR-250"	cmd 0 asyled_mode 1
cmd 0 cmdnua "99"	cmd 0 tremto 1200
cmd 0 hostname "SS.6000r"	user 0 name "username"
cmd 0 asyled_mode 1	user 0 access 0
cmd 0 tremto 1200	user 1 name "westermo"
user 0 name "username"	user 1 access 0
user 0 access 0	user 2 access 0
user 1 name "Westermo"	user 3 access 0
user 1 access 0	user 4 access 0
user 2 access 0	user 5 access 0
user 3 access 0	user 6 access 0
user 4 access 0	user 7 access 0
user 5 access 0	user 8 access 0
user 6 access 0	local 0 transaccess 2
user 7 access 0	[ENDCFG]
user 8 access 0	
user 14 name "Eagle"	
local 0 transaccess 2	
[ENDCFG]	