

配置專用網路之間的IPSec路由器到路由器、預共用、NAT過載

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簡介

此組態範例顯示如何使用IPSec加密兩個私人網路 (10.50.50.x和10.103.1.x) 之間的流量。網路通過私有地址相互認識。

必要條件

需求

本文件沒有特定需求。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- Cisco IOS®軟體版本12.3.1a
- 思科2691路由器

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除 (預設) 的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

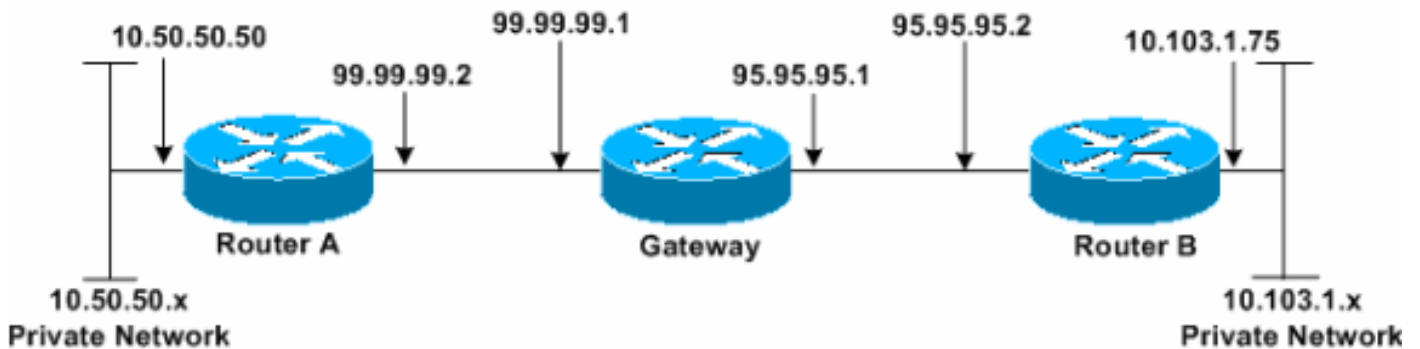
設定

本節提供用於設定本文中所述功能的資訊。

注意：要查詢有關本文檔中使用的命令的其他資訊，請使用[命令查詢工具](#)([僅限註冊客戶](#))。

網路圖表

本檔案會使用下圖中所示的網路設定。



組態

本檔案會使用這些設定。

- [路由器A](#)
- [路由器B](#)

路由器A

```
Router_A#write terminal
Building configuration...
Current configuration : 1638 bytes
!
version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Router_A
!
boot system flash:c2691-ik9o3s-mz.123-1a.bin
!
ip subnet-zero
!
ip audit notify log
ip audit po max-events 100
no ftp-server write-enable
!
crypto isakmp policy 1
hash md5
authentication pre-share
crypto isakmp key cisco123 address 95.95.95.2
!
crypto ipsec transform-set rtpset esp-des esp-md5-hmac
!
```

```
crypto map rtp 1 ipsec-isakmp
set peer 95.95.95.2
set transform-set rtpset
!--- Include the private network to private network
traffic !--- in the encryption process. match address
115
!
no voice hpi capture buffer
no voice hpi capture destination
!
interface FastEthernet0/0
ip address 99.99.99.2 255.255.255.0
ip nat outside
duplex auto
speed auto
crypto map rtp
!
interface FastEthernet0/1
ip address 10.50.50.50 255.255.255.0
ip nat inside
duplex auto
speed auto
!
!--- Except the private network traffic from the !---
Network Address Translation (NAT) process. ip nat inside
source route-map nonat interface FastEthernet0/0
overload
ip http server
no ip http secure-server
ip classless
ip route 0.0.0.0 0.0.0.0 99.99.99.1
!
!--- Except the private network traffic from the NAT
process. access-list 110 deny ip 10.50.50.0 0.0.0.255
10.103.1.0 0.0.0.255
access-list 110 permit ip 10.50.50.0 0.0.0.255 any
!--- Include the private network to private network
traffic !--- in the encryption process. access-list 115
permit ip 10.50.50.0 0.0.0.255 10.103.1.0 0.0.0.255
!
!--- Except the private network traffic from the NAT
process. route-map nonat permit 10
match ip address 110
!
dial-peer cor custom
!
line con 0
exec-timeout 0 0
line aux 0
line vty 0 4
login
!
end

Router_A#
```

路由器B

```
Router_B#write terminal
Building configuration...
Current configuration : 1394 bytes
!
version 12.3
```

```
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Router_B
!
boot system flash:c2691-ik9o3s-mz.123-1a.bin
!
ip subnet-zero
!
ip audit notify log
ip audit po max-events 100
no ftp-server write-enable
!
crypto isakmp policy 1
hash md5
authentication pre-share
crypto isakmp key cisco123 address 99.99.99.2
!
crypto ipsec transform-set rtpset esp-des esp-md5-hmac
!
crypto map rtp 1 ipsec-isakmp
set peer 99.99.99.2
set transform-set rtpset
!--- Include the private network to private network
traffic !--- in the encryption process. match address
115
!
no voice hpi capture buffer
no voice hpi capture destination
!
interface FastEthernet0/0
ip address 95.95.95.2 255.255.255.0
ip nat outside
duplex auto
speed auto
crypto map rtp
!
interface FastEthernet0/1
ip address 10.103.1.75 255.255.255.0
ip nat inside
duplex auto
speed auto
!
!--- Except the private network traffic from the NAT
process. ip nat inside source route-map nonat interface
FastEthernet0/0 overload
ip http server
no ip http secure-server
ip classless
ip route 0.0.0.0 0.0.0.0 95.95.95.1
!
!--- Except the private network traffic from the NAT
process. access-list 110 deny ip 10.103.1.0 0.0.0.255
10.50.50.0 0.0.0.255
access-list 110 permit ip 10.103.1.0 0.0.0.255 any
!--- Include the private network to private network
traffic !--- in the encryption process. access-list 115
permit ip 10.103.1.0 0.0.0.255 10.50.50.0 0.0.0.255
!
!--- Except the private network traffic from the NAT
process. route-map nonat permit 10
match ip address 110
!
```

```
dial-peer cor custom
!
line con 0
exec-timeout 0 0
line aux 0
line vty 0 4
login
!
end
Router_B#
```

驗證

目前沒有適用於此組態的驗證程序。

疑難排解

疑難排解指令

[輸出直譯器工具](#)(僅供註冊客戶使用)支援某些show命令，此工具可讓您檢視show命令輸出的分析。

注意：發出debug命令之前，請參閱[有關Debug命令的重要資訊](#)。

- debug crypto ipsec sa — 顯示第2階段的IPSec協商。
- debug crypto isakmp sa — 顯示第1階段的網際網路安全關聯和金鑰管理協定(ISAKMP)協商。
- debug crypto engine — 顯示加密會話。

相關資訊

- [IP安全性疑難排解 — 瞭解和使用debug命令](#)
- [IPSec支援頁面](#)
- [技術支援 - Cisco Systems](#)