

Configuración de ASA IPsec VTI Connection Amazon Web Services

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Introducción

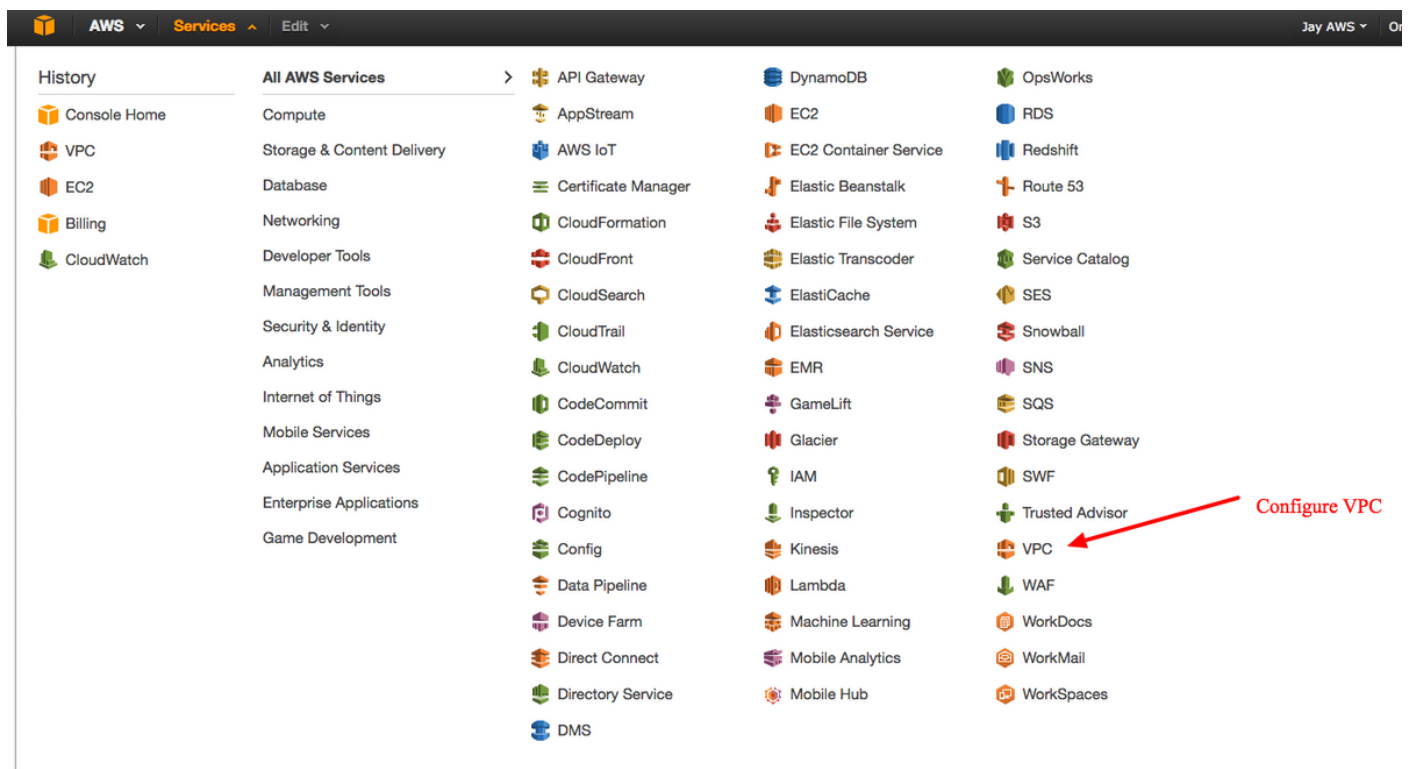
Este documento describe cómo configurar una conexión de interfaz de túnel virtual (VTI) IPsec de Adaptive Security Appliance (ASA). En ASA 9.7.1, se ha introducido IPsec VTI. Se limita a sVTI IPv4 sobre IPv4 con IKEv1 en esta versión. Este es un ejemplo de configuración para que ASA se conecte a Amazon Web Services (AWS).

Nota: Actualmente, VTI sólo se admite en modo de routing de contexto único.

Configurar AWS

Paso 1.

Inicie sesión en la consola AWS y navegue hasta el panel VPC.



Vaya al panel de VPC

Paso 2.

Confirme que ya se ha creado una nube privada virtual (VPC). De forma predeterminada, se crea un VPC con 172.31.0.0/16. Aquí es donde se conectarán las máquinas virtuales (VM).

The screenshot shows the AWS VPC Dashboard. On the left, the 'Your VPCs' link is circled in red. The main area displays a table of VPCs with the following data:

Name	VPC ID	State	VPC CIDR	DHCP options set	Route table	Network ACL	Tenancy	Default VPC
	vpc-e1e00786	available	172.31.0.0/16	dopt-58d5b13c	rtb-3a3f9e5d	acl-f6844591	Default	Yes

Below the table, the details for the VPC 'vpc-e1e00786 (172.31.0.0/16)' are shown. A red arrow points from the text 'Default VPC already created' to the '172.31.0.0/16' CIDR address in the table.

Summary

- VPC ID: vpc-e1e00786
- State: available
- VPC CIDR: 172.31.0.0/16
- DHCP options set: dopt-58d5b13c
- Route table: rtb-3a3f9e5d
- Network ACL: acl-f6844591
- Tenancy: Default
- DNS resolution: yes
- DNS hostnames: yes
- ClassicLink DNS Support: no

Paso 3.

Cree una "puerta de enlace del cliente". Se trata de un terminal que representa el ASA.

Campo

Valor

Etiqueta de nombre

Este es solo un nombre legible para las personas para reconocer el ASA.

Ruteo

Dinámico: esto significa que se utilizará el protocolo de gateway fronterizo (BGP) para intercambiar información de routing.

IP Address

Ésta es la dirección IP pública de la interfaz exterior del ASA.

ASN de BGP

El número del sistema autónomo (AS) del proceso BGP que se ejecuta en el ASA. Utilice 65 menos que su organización tenga un número AS público.

Create Customer Gateway

Specify the Internet-routable IP address for your gateway's external interface; the address must be static and may be behind a device performing network address translation (NAT). For dynamic routing, also specify your gateway's Border Gateway Protocol (BGP) Autonomous System Number (ASN); this can be either a public or private ASN (such as those in the 64512-65534 range).

Name tag: ASAVTI ⓘ

Routing: Dynamic ⓘ

IP address: 192.0.2.1 ⓘ

BGP ASN: 65000 ⓘ

Cancel Yes, Create

cgw-b778a1a9 (64.100.251.37)

Summary Tags

ID: cgw-b778a1a9 (64.100.251.37)

State: deleted

Type: ipsec.1

IP address: 64.100.251.37

BGP ASN: 65000

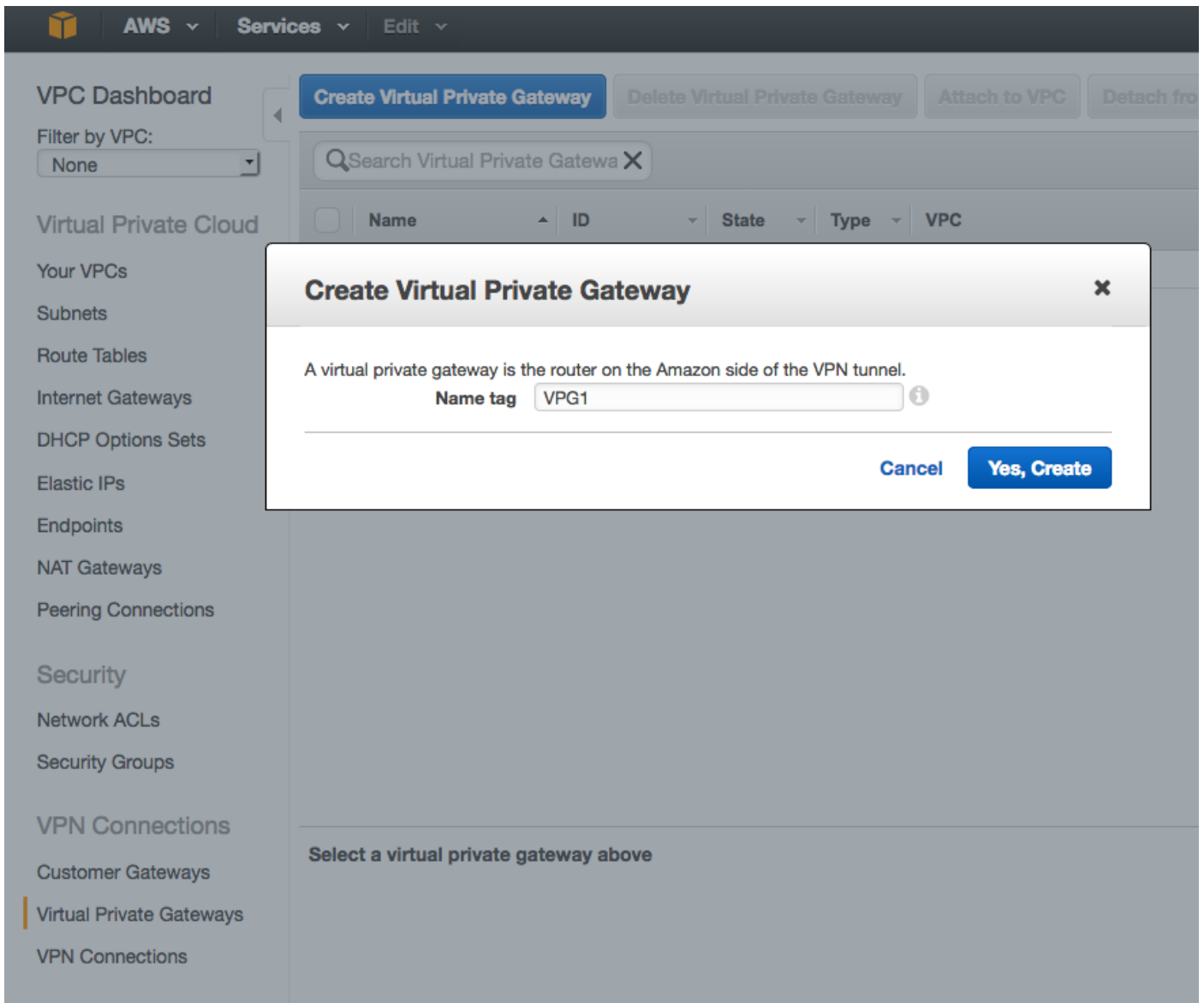
VPC:

Paso 4.

Cree un Virtual Private Gateway (VPG). Este es un router simulado que se aloja con AWS que termina el túnel IPsec.

Campo **Valor**

Etiqueta de nombre Un nombre legible por personas para reconocer el VPG.



Paso 5.

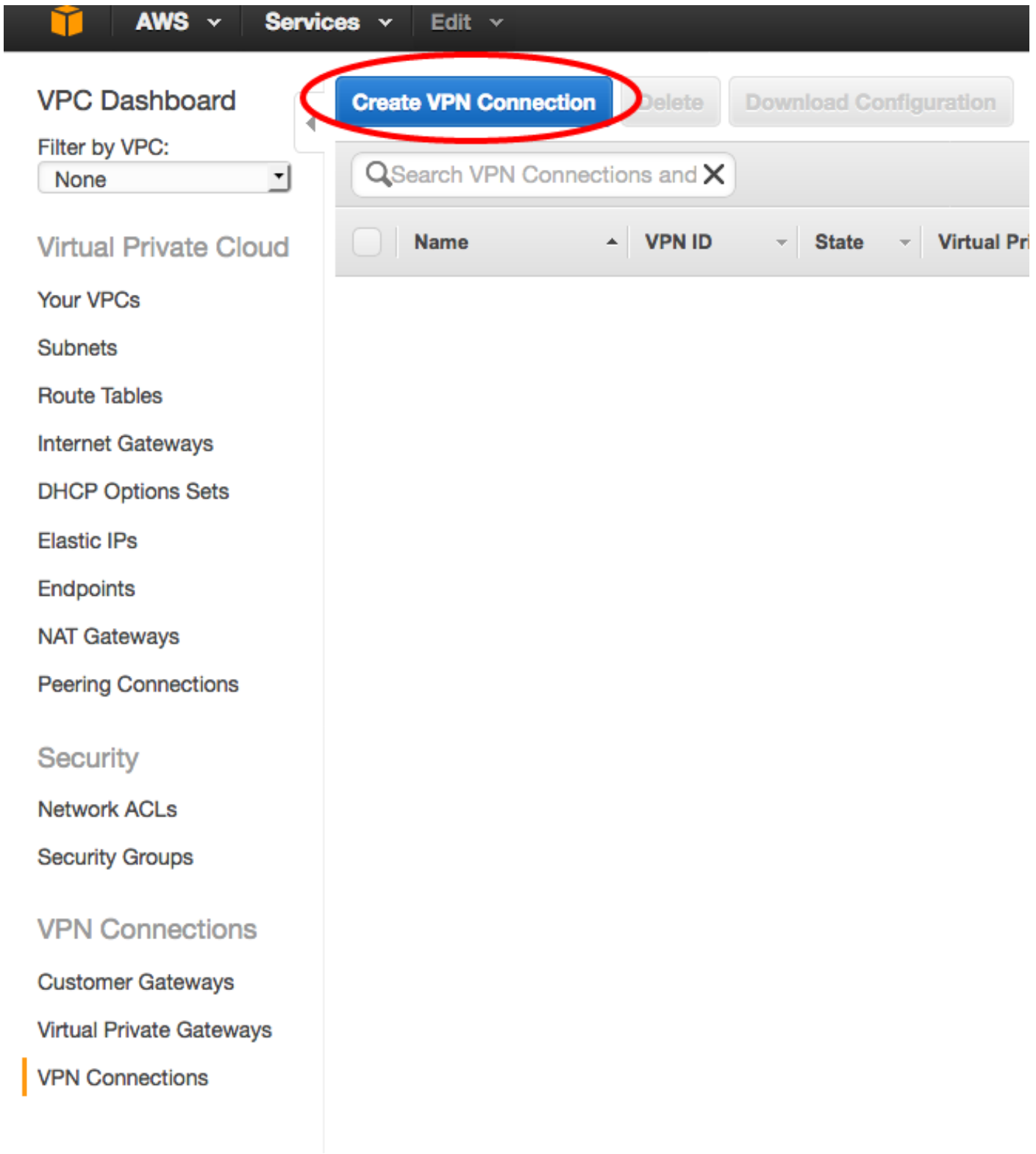
Conecte el VPG al VPC.

Elija Virtual Private Gateway, haga clic en **Adjuntar a VPC**, elija el VPC de la lista desplegable VPC y haga clic en **Sí, Adjuntar**.

The screenshot shows the AWS VPC Dashboard. At the top, there are buttons for 'Create Virtual Private Gateway', 'Delete Virtual Private Gateway', 'Attach to VPC', and 'Detach from VPC'. Below these is a search bar and a table of Virtual Private Gateways. The table has columns for Name, ID, State, Type, and VPC. One gateway, 'VPG1', is selected with a blue square and has a state of 'detached' and type 'ipsec.1'. A modal dialog titled 'Attach to VPC' is open, prompting the user to 'Select the VPC to attach to the virtual private gateway'. The 'VPC' dropdown menu is set to 'vpc-e1e00786 (172.31.0.0/16)'. At the bottom of the modal are 'Cancel' and 'Yes, Attach' buttons. Below the modal, the details for 'vgw-18954d06 | VPG1' are shown, including 'ID: vgw-18954d06 | VPG1', 'State: detached', 'Type: ipsec.1', and 'VPC:'.

Paso 6.

Cree una conexión VPN.



Campo	Valor
Etiqueta de nombre	Una etiqueta legible por personas de la conexión VPN entre AWS y ASA.
Gateway privada virtual	Elija el VPG recién creado.
Gateway del cliente	Haga clic en el botón de opción Existente y elija el gateway del ASA.
Opciones de routing	Haga clic en el botón de opción Dynamic (require BGP) .

AWS Services Edit

VPC Dashboard

Filter by VPC: None

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

NAT Gateways

Peering Connections

Security

Network ACLs

Security Groups

VPN Connections

Customer Gateways

Virtual Private Gateways

VPN Connections

Create VPN Connection Delete Download Configuration

Search VPN Connections and X

Name VPN ID State Virtual Private Gateway Customer Gateway

You do not have

Create VPN Connection

Select the virtual private gateway and customer gateway that you would like to connect via a VPN connection. You must have entered the virtual private gateway and your customer gateway information already.

Name tag: VPNtoASA

Virtual Private Gateway: vgw-18954d06 | VPG1

Customer Gateway: Existing New
cgw-837fa69d (64.100.251.37) | ASAVTI

Specify the routing for the VPN Connection (Help me choose)

Routing Options: Dynamic (requires BGP) Static

VPN connection charges apply once this step is complete. [View Rates](#)

Cancel Yes, Create

Paso 7.

Configure la Tabla de Ruta para propagar las rutas aprendidas de VPG (a través de BGP) en el VPC.

The screenshot shows the AWS Management Console interface for configuring route propagation. On the left is a navigation menu with categories like VPC Dashboard, Virtual Private Cloud, Security, and VPN Connections. The main area displays a table of route tables. The first row, with ID 'rtb-3a3f9e5d', is selected. Below the table, the 'Route Propagation' tab is active, showing a list of virtual private gateways. The checkbox for 'vgw-18954d06 | VPG1' is checked, indicating that routes from this gateway will be propagated to the selected route table. Red annotations highlight the selection of the route table and the checked checkbox for VPG1.

Name	Route Table ID	Explicitly Associat	Main	VPC
<input checked="" type="checkbox"/>	rtb-3a3f9e5d	0 Subnets	Yes	vpc-e1e00786 (172.31.0.0/16)

rtb-3a3f9e5d

Summary Routes Subnet Associations **Route Propagation** Tags

Cancel Save

Virtual Private Gate way Propagate

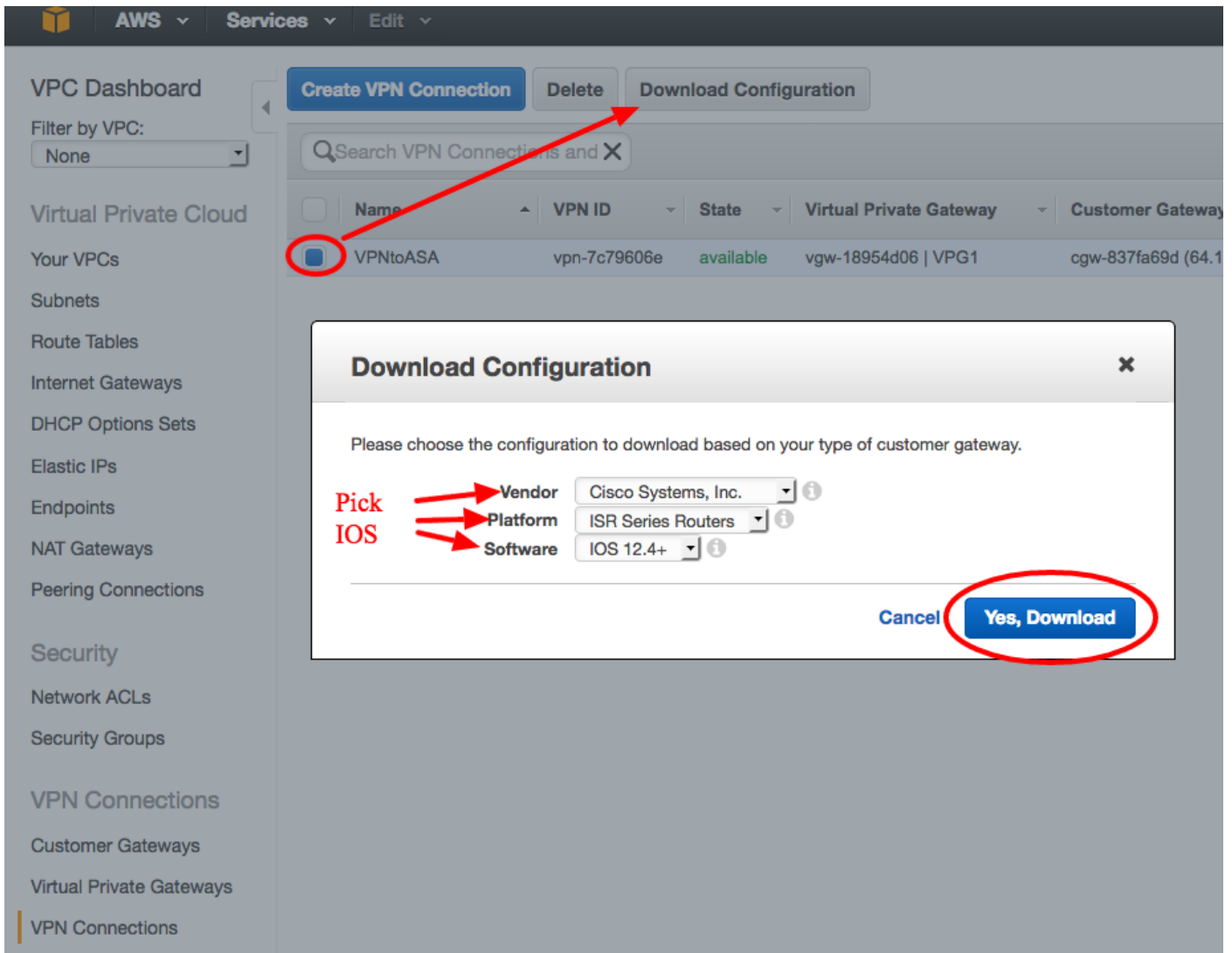
vgw-d19f47cf

vgw-18954d06 | VPG1

Paso 8.

Descargue la configuración sugerida. Elija los siguientes valores para generar una configuración que sea un estilo VTI.

Campo	Valor
Proveedor	Cisco Systems, Inc.
Platform	Routers de la serie ISR
Software	IOS 12.4+



Configuración del ASA

Una vez descargada la configuración, es necesaria alguna conversión.

Paso 1.

crypto isakmp policy to crypto ikev1 policy. Sólo se necesita una política, ya que la política 200 y la política 201 son idénticas.

Configuración sugerida

```
crypto isakmp policy 200
  encryption aes 128
  authentication pre-share
  grupo 2
  lifetime 28800
  hash sha
  salir
crypto isakmp policy 201
  encryption aes 128
  authentication pre-share
  grupo 2
```

A

```
crypto ikev1 enable outside
crypto ikev1 policy 10
  authentication pre-share
  encryption aes
  hash sha
  grupo 2
  lifetime 28800
```

```
lifetime 28800
hash sha
salir
```

Paso 2.

crypto ipsec transform-set to crypto ipsec ikev1 transform-set. Sólo se necesita un conjunto de transformación, ya que los dos conjuntos de transformación son idénticos.

Configuración sugerida

```
crypto ipsec transform-set ipsec-prop-vpn-7c79606e-
0 esp-aes 128 esp-sha-hmac
túnel de modo
salir
crypto ipsec transform-set ipsec-prop-vpn-7c79606e-
1 esp-aes 128 esp-sha-hmac
túnel de modo
salir
```

A

```
crypto ipsec ikev1 transfo
set AWS esp-aes esp-sha-hr
```

Paso 3.

crypto ipsec profile to crypto ipsec profile. Sólo se necesita un perfil, ya que ambos son idénticos.

Configuración sugerida

```
crypto ipsec profile ipsec-vpn-7c79606e-0
set pfs group2
set security-association lifetime seconds
3600
set transform-set ipsec-prop-vpn-7c79606e-0
salir
crypto ipsec profile ipsec-vpn-7c79606e-1
set pfs group2
set security-association lifetime seconds
3600
set transform-set ipsec-prop-vpn-7c79606e-1
salir
```

A

```
crypto ipsec profile AWS
set ikev1 transform-set AWS
set pfs group2
set security-association life
seconds 3600
```

Paso 4.

crypto keyring y crypto isakmp profile deben convertirse en un grupo de túnel para cada túnel.

Configuración sugerida

```
crypto keyring keyring-vpn-7c79606e-0
local-address 64.100.251.37
clave precompartida 52.34.205.227 clave QZhh90Bjf
salir
!
crypto isakmp profile isakmp-vpn-7c79606e-0
local-address 64.100.251.37
match identity address 52.34.205.227
llavero de llenado de teclado vpn-7c79606e-0
salir
!
crypto keyring keyring-vpn-7c79606e-1
```

A

```
tunnel-group
52.34.205.227 type ip
121
tunnel-group
52.34.205.227 ipsec-
atributos
ikev1 clave previamen
compartida QZhh90Bjf
isakmp keepalive
threshold 10 retry 10
tunnel-group
52.37.194.219 type ip
```

```

local-address 64.100.251.37
dirección de clave previamente compartida 52.37.194.219 121
clave JjxCWy4Ae
salir
!
crypto isakmp profile isakmp-vpn-7c79606e-1
local-address 64.100.251.37
match identity address 52.37.194.219
llavero de llenado de teclado vpn-7c79606e-1
salir
tunnel-group
52.37.194.219 ipsec-
atributos
ikev1 clave previamen
compartida JjxCWy4Ae
isakmp keepalive
threshold 10 retry 10

```

Paso 5.

La configuración del túnel es casi idéntica. El ASA no soporta el comando `ip tcp adjust-mss` o el comando `ip virtual-reassembly`.

Configuración sugerida

```

interface Tunnell
ip address 169.254.13.190 255.255.255.252
ip virtual-reassembly
tunnel source 64.100.251.37
tunnel destination 52.34.205.227
tunnel mode ipsec ipv4
tunnel protection ipsec profile ipsec-vpn-
7c79606e-0
ip tcp adjust-mss 1387
no shutdown
salir
!
interface Tunnel2
ip address 169.254.12.86 255.255.255.252
ip virtual-reassembly
tunnel source 64.100.251.37
tunnel destination 52.37.194.219
tunnel mode ipsec ipv4
tunnel protection ipsec profile ipsec-vpn-
7c79606e-1
ip tcp adjust-mss 1387
no shutdown
salir

```

A

```

interface Tunnell
nameif AWS1
ip address 169.254.13.190
255.255.255.252
interfaz de origen de túnel
externa
tunnel destination 52.34.205.2
tunnel mode ipsec ipv4
tunnel protection ipsec profil
AWS
!
interface Tunnel2
nameif AWS2
ip address 169.254.12.86
255.255.255.252
interfaz de origen de túnel
externa
tunnel destination 52.37.194.2
tunnel mode ipsec ipv4
tunnel protection ipsec profil
AWS

```

Paso 6.

En este ejemplo, el ASA sólo anunciará la subred interna (192.168.1.0/24) y recibirá la subred dentro de AWS (172.31.0.0/16).

Configuración sugerida

```

router bgp 65000
neighbor 169.254.13.189 remote-as 7224
neighbor 169.254.13.189 active
neighbor 169.254.13.189 timers 10 30 30
address-family ipv4 unicast
neighbor 169.254.13.189 remote-as 7224
neighbor 169.254.13.189 timers 10 30 30

```

A

```

router bgp 65000
bgp log-neighbor-changes
timers bgp 10 30 0
address-family ipv4 unicast
neighbor 169.254.12.85
remote-as 7224
neighbor 169.254.12.85

```

```

neighbor 169.254.13.189 default-originate
neighbor 169.254.13.189 active
neighbor 169.254.13.189 soft-reconfiguration
inbound
network 0.0.0.0
salir
salir
router bgp 65000
neighbor 169.254.12.85 remote-as 7224
neighbor 169.254.12.85 active
neighbor 169.254.12.85 timers 10 30 30
address-family ipv4 unicast
neighbor 169.254.12.85 remote-as 7224
neighbor 169.254.12.85 timers 10 30 30
neighbor 169.254.12.85 default-originate
neighbor 169.254.12.85 active
neighbor 169.254.12.85 soft-reconfiguration
inbound
network 0.0.0.0
salir
salir
neighbor 169.254.13.189 active
neighbor 169.254.13.189 remote-as 7224
neighbor 169.254.13.189 active
network 192.168.1.0
no auto-summary
sin sincronización
exit-address-family

```

Verificar y optimizar

Paso 1.

Confirme que ASA establezca las asociaciones de seguridad IKEv1 con los dos terminales en AWS. El estado de SA debe ser MM_ACTIVE.

```
ASA# show crypto ikev1 sa
```

```
IKEv1 SAs:
```

```

Active SA: 2
Rekey SA: 0 (A tunnel will report 1 Active and 1 Rekey SA during rekey)
Total IKE SA: 2

```

```

1  IKE Peer: 52.37.194.219
   Type      : L2L           Role      : initiator
   Rekey     : no           State     : MM_ACTIVE
2  IKE Peer: 52.34.205.227
   Type      : L2L           Role      : initiator
   Rekey     : no           State     : MM_ACTIVE

```

```
ASA#
```

Paso 2.

Confirme que las SA IPsec estén instaladas en ASA. Debe haber un SPI entrante y saliente instalado para cada peer y debe haber algunos contadores encaps y decaps incrementándose.

```
ASA# show crypto ipsec sa
```

```
interface: AWS1
```

```
Crypto map tag: __vti-crypto-map-5-0-1, seq num: 65280, local addr: 64.100.251.37
```

```
access-list __vti-def-acl-0 extended permit ip any any
local ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)
remote ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)
current_peer: 52.34.205.227
```

```
#pkts encaps: 2234, #pkts encrypt: 2234, #pkts digest: 2234
#pkts decaps: 1234, #pkts decrypt: 1234, #pkts verify: 1234
#pkts compressed: 0, #pkts decompressed: 0
#pkts not compressed: 2234, #pkts comp failed: 0, #pkts decomp failed: 0
#pre-frag successes: 0, #pre-frag failures: 0, #fragments created: 0
#PMTUs sent: 0, #PMTUs rcvd: 0, #decapsulated frgs needing reassembly: 0
#TFC rcvd: 0, #TFC sent: 0
#Valid ICMP Errors rcvd: 0, #Invalid ICMP Errors rcvd: 0
#send errors: 0, #recv errors: 0
```

```
local crypto endpt.: 64.100.251.37/4500, remote crypto endpt.: 52.34.205.227/4500
path mtu 1500, ipsec overhead 82(52), media mtu 1500
PMTU time remaining (sec): 0, DF policy: copy-df
ICMP error validation: disabled, TFC packets: disabled
current outbound spi: 874FCCF3
current inbound spi : 5E653906
```

inbound esp sas:

```
spi: 0x5E653906 (1583692038)
transform: esp-aes esp-sha-hmac no compression
in use settings ={L2L, Tunnel, NAT-T-Encaps, PFS Group 2, IKEv1, VTI, }
slot: 0, conn_id: 73728, crypto-map: __vti-crypto-map-5-0-1
sa timing: remaining key lifetime (kB/sec): (4373986/2384)
IV size: 16 bytes
replay detection support: Y
Anti replay bitmap:
0xFFFFFFFF 0xFFFFFFFF
```

outbound esp sas:

```
spi: 0x874FCCF3 (2270153971)
transform: esp-aes esp-sha-hmac no compression
in use settings ={L2L, Tunnel, NAT-T-Encaps, PFS Group 2, IKEv1, VTI, }
slot: 0, conn_id: 73728, crypto-map: __vti-crypto-map-5-0-1
sa timing: remaining key lifetime (kB/sec): (4373986/2384)
IV size: 16 bytes
replay detection support: Y
Anti replay bitmap:
0x00000000 0x00000001
```

interface: AWS2

```
Crypto map tag: __vti-crypto-map-6-0-2, seq num: 65280, local addr: 64.100.251.37
```

```
access-list __vti-def-acl-0 extended permit ip any any
local ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)
remote ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)
current_peer: 52.37.194.219
```

```
#pkts encaps: 1230, #pkts encrypt: 1230, #pkts digest: 1230
#pkts decaps: 1230, #pkts decrypt: 1230, #pkts verify: 1230
#pkts compressed: 0, #pkts decompressed: 0
#pkts not compressed: 1230, #pkts comp failed: 0, #pkts decomp failed: 0
#pre-frag successes: 0, #pre-frag failures: 0, #fragments created: 0
#PMTUs sent: 0, #PMTUs rcvd: 0, #decapsulated frgs needing reassembly: 0
#TFC rcvd: 0, #TFC sent: 0
#Valid ICMP Errors rcvd: 0, #Invalid ICMP Errors rcvd: 0
#send errors: 0, #recv errors: 0
```

```
local crypto endpt.: 64.100.251.37/4500, remote crypto endpt.: 52.37.194.219/4500
path mtu 1500, ipsec overhead 82(52), media mtu 1500
PMTU time remaining (sec): 0, DF policy: copy-df
ICMP error validation: disabled, TFC packets: disabled
current outbound spi: DC5E3CA8
current inbound spi : CB6647F6
```

inbound esp sas:

```
spi: 0xCB6647F6 (3412477942)
transform: esp-aes esp-sha-hmac no compression
in use settings ={L2L, Tunnel, NAT-T-Encaps, PFS Group 2, IKEv1, VTI, }
slot: 0, conn_id: 77824, crypto-map: __vti-crypto-map-6-0-2
sa timing: remaining key lifetime (kB/sec): (4373971/1044)
IV size: 16 bytes
replay detection support: Y
Anti replay bitmap:
0xFFFFFFFF 0xFFFFFFFF
```

outbound esp sas:

```
spi: 0xDC5E3CA8 (3697163432)
transform: esp-aes esp-sha-hmac no compression
in use settings ={L2L, Tunnel, NAT-T-Encaps, PFS Group 2, IKEv1, VTI, }
slot: 0, conn_id: 77824, crypto-map: __vti-crypto-map-6-0-2
sa timing: remaining key lifetime (kB/sec): (4373971/1044)
IV size: 16 bytes
replay detection support: Y
Anti replay bitmap:
0x00000000 0x00000001
```

Paso 3.

En el ASA, confirme que las conexiones BGP se establecen con AWS. El contador State/PfxRcd debe ser 1, ya que AWS anuncia la subred 172.31.0.0/16 hacia el ASA.

ASA# **show bgp summary**

```
BGP router identifier 192.168.1.55, local AS number 65000
BGP table version is 5, main routing table version 5
2 network entries using 400 bytes of memory
3 path entries using 240 bytes of memory
3/2 BGP path/bestpath attribute entries using 624 bytes of memory
1 BGP AS-PATH entries using 24 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP using 1288 total bytes of memory
BGP activity 3/1 prefixes, 4/1 paths, scan interval 60 secs
```

Neighbor	V	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down	State/PfxRcd
169.254.12.85	4	7224	1332	1161	5	0	0	03:41:31	1
169.254.13.189	4	7224	1335	1164	5	0	0	03:42:02	1

Paso 4.

En el ASA, verifique que la ruta a 172.31.0.0/16 se haya aprendido a través de las interfaces de túnel. Esta salida muestra que hay dos trayectorias a 172.31.0.0 del par 169.254.12.85 y 169.254.13.189. Se prefiere la ruta hacia el túnel 169.254.13.189 de salida 2 (AWS2) debido a la métrica más baja.

ASA# **show bgp**

```
BGP table version is 5, local router ID is 192.168.1.55
```

Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
r RIB-failure, S Stale, m multipath

Origin codes: i - IGP, e - EGP, ? - incomplete

Network	Next Hop	Metric	LocPrf	Weight	Path
* 172.31.0.0	169.254.12.85	200		0	7224 i
*>	169.254.13.189	100		0	7224 i
*> 192.168.1.0	0.0.0.0	0		32768	i

ASA# **show route**

Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, V - VPN
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, + - replicated route
Gateway of last resort is 64.100.251.33 to network 0.0.0.0

```
S* 0.0.0.0 0.0.0.0 [1/0] via 64.100.251.33, outside
C 64.100.251.32 255.255.255.224 is directly connected, outside
L 64.100.251.37 255.255.255.255 is directly connected, outside
C 169.254.12.84 255.255.255.252 is directly connected, AWS2
L 169.254.12.86 255.255.255.255 is directly connected, AWS2
C 169.254.13.188 255.255.255.252 is directly connected, AWS1
L 169.254.13.190 255.255.255.255 is directly connected, AWS1
B 172.31.0.0 255.255.0.0 [20/100] via 169.254.13.189, 03:52:55
C 192.168.1.0 255.255.255.0 is directly connected, inside
L 192.168.1.55 255.255.255.255 is directly connected, inside
```

Paso 5.

Para asegurar que el tráfico que regresa de AWS siga un trayecto simétrico, configure un route-map para que coincida con el trayecto preferido y ajuste el BGP para alterar las rutas anunciadas.

```
route-map toAWS1 permit 10
  set metric 100
  exit
!
route-map toAWS2 permit 10
  set metric 200
  exit
!
router bgp 65000
  address-family ipv4 unicast
    neighbor 169.254.12.85 route-map toAWS2 out
    neighbor 169.254.13.189 route-map toAWS1 out
```

Paso 6.

En el ASA, confirme que 192.168.1.0/24 se anuncia a AWS.

ASA# **show bgp neighbors 169.254.12.85 advertised-routes**

BGP table version is 5, local router ID is 192.168.1.55
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
r RIB-failure, S Stale, m multipath

Origin codes: i - IGP, e - EGP, ? - incomplete

Network	Next Hop	Metric	LocPrf	Weight	Path
*> 172.31.0.0	169.254.13.189	100		0	7224 i
*> 192.168.1.0	0.0.0.0	0		32768	i

Total number of prefixes 2

ASA# **show bgp neighbors 169.254.13.189 advertised-routes**

BGP table version is 5, local router ID is 192.168.1.55

Status codes: s suppressed, d damped, h history, * valid, > best, i - internal, r RIB-failure, S Stale, m multipath

Origin codes: i - IGP, e - EGP, ? - incomplete

Network	Next Hop	Metric	LocPrf	Weight	Path
*> 192.168.1.0	0.0.0.0	0		32768	i

Total number of prefixes 1

Paso 7.

En AWS, confirme que los túneles para la conexión VPN estén **ACTIVOS** y que las rutas se aprendan del par. Verifique también que la ruta se haya propagado a la tabla de ruteo.

The screenshot shows the AWS Management Console interface for VPN connections. The main view displays a table of VPN connections with columns for Name, VPN ID, State, Virtual Private Gateway, Customer Gateway, Customer Gateway Address, Type, VPC, and Routing. One connection, 'VPNtoASA', is highlighted. Below this, the 'Tunnel Details' tab is active, showing a table with columns for VPN Tunnel, IP Address, Status, Status Last Changed, and Details. Two tunnels are listed, both with a status of 'UP'. Red circles highlight the 'UP' status and the '1 BGP ROUTES' detail for both tunnels.

Name	VPN ID	State	Virtual Private Gateway	Customer Gateway	Customer Gateway Address	Type	VPC	Routing
VPNtoASA	vpn-7c79606e	available	vgw-18954006 VPG1	cgw-837fa69d (64.100.251.37) ASA/VTI	64.100.251.37	ipsec.1	vpc-e1e00786 (172.31.0.0/16)	Dynamic

VPN Tunnel	IP Address	Status	Status Last Changed	Details
Tunnel 1	52.34.205.227	UP	2016-10-18 14:23 UTC	1 BGP ROUTES
Tunnel 2	52.37.194.219	UP	2016-10-18 14:23 UTC	1 BGP ROUTES



VPC Dashboard

Filter by VPC:

None

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

NAT Gateways

Peering Connections

Security

Network ACLs

Security Groups

VPN Connections

Customer Gateways

Virtual Private Gateways

VPN Connections

Create Route Table

Delete Route Table

Set As Main Table

Search Route Tables and their

<input type="checkbox"/>	Name	Route Table ID	Explicitly Associat	Main	VPC
<input checked="" type="checkbox"/>		rtb-3a3f9e5d	0 Subnets	Yes	vpc-e1e00786 (172.31.0.0/16)

rtb-3a3f9e5d

Summary

Routes

Subnet Associations

Route Propagation

Tags

Edit

Destination	Target	Status	Propagated
172.31.0.0/16	local	Active	No
0.0.0.0/0	igw-e5ad1481	Active	No
192.168.1.0/24	vgw-18954d06	Active	Yes