IPsec site-to-site tunnelflaps telkens wanneer een wijziging in het apparaatsjabloon wordt aangebracht

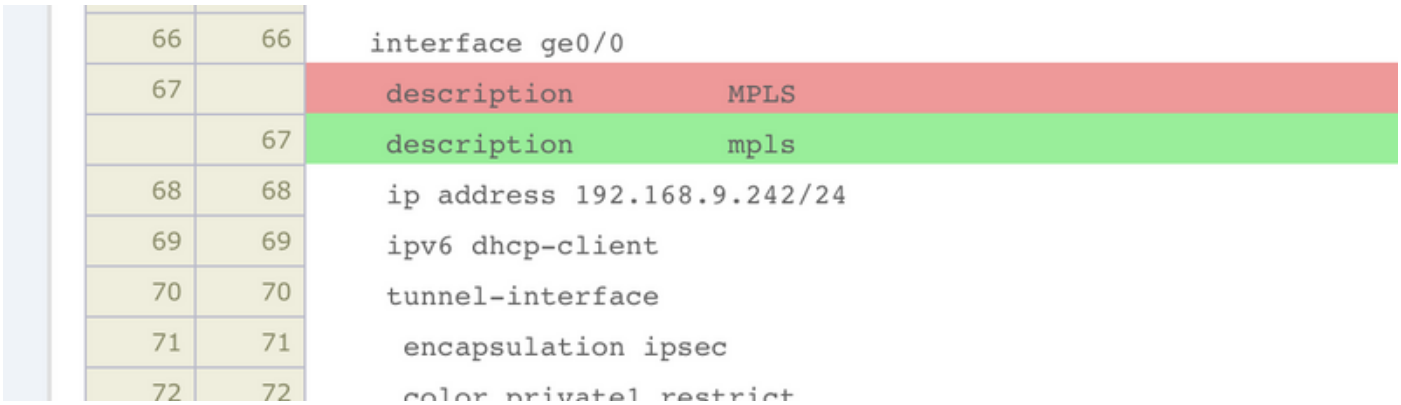
Inhoud

Inleiding

Dit document beschrijft het typische probleem dat zich voordoet wanneer de site-to-site (of ook algemeen LAN-to-LAN genoemd) Internet Key Exchange (IKE)-gebaseerde IPSec-tunnels flap in elk apparaatsjabloon-update in een vManager-controller, legt de basisoorzaken uit en biedt een oplossing voor het probleem.

Probleem

Op IKE gebaseerde IPSec-tunnelflaps wanneer de apparaatsjabloon is bijgewerkt op vManager. De veranderingen kunnen niet verwant zijn aan op IKE gebaseerde site-to-site IPSec-tunnel maar het veroorzaakt de tunnel om te flap. Het probleem kan zelfs nog erger aan de orde stellen als eBGP peering bijvoorbeeld over IPSec-tunnel loopt. Door eBGP interface tracking, vallen ook de omliggende routes en als gevolg daarvan worden alle routes teruggetrokken en dan opnieuw geïnstalleerd. Dit veroorzaakt een onderbreking voor het verkeer op zijn beurt. Dit is bijvoorbeeld de enige verandering die in de sjabloon is aangebracht zoals bevestigd door de configuratie-voorvertoning zoals in de afbeelding.



Zo ziet het er in de blogs uit:

```
tail /var/log/vsyslog -f -n 0
local7.info: Nov 26 15:21:08 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-ftmd-6-INFO-
1400002: Notification: 11/26/2019 14:21:8 fib-update severity-level:minor host-name:"BRU-SDW-
V5K-01" system-ip:10.10.10.242 vpn-id:1 address-family-type:ipv4 fib-last-update-time:2019-11-
```

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26T15:18:09+00:00
local7.info: Nov 26 15:21:13 BRU-SDW-V5K-01 BGP.1[6505]: %ADJCHANGE: neighbor 10.0.0.1 Down
local7.info: Nov 26 15:21:13 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-FTMD-6-INFO-
1000001: VPN 1 Interface ipsec1 DOWN
local7.info: Nov 26 15:21:13 BRU-SDW-V5K-01 CFGMGR[2195]: %Viptela-BRU-SDW-V5K-01-cfgmgr-6-INFO-
1400002: Notification: 11/26/2019 14:21:13 bgp-peer-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 peer:10.0.0.1 bgp-new-state:idle local-
address:10.0.0.2 local-routerid:10.10.10.242 peer-routerid:192.168.9.1
local7.info: Nov 26 15:21:13 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-ftmd-6-INFO-
1400002: Notification: 11/26/2019 14:21:13 interface-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 if-name:"ipsec1" new-state:down
local7.info: Nov 26 15:21:13 BRU-SDW-V5K-01 CFGMGR[2195]: %Viptela-BRU-SDW-V5K-01-cfgmgr-6-INFO-
1400002: Notification: 11/26/2019 14:21:13 system-commit severity-level:minor host-name:"BRU-
SDW-V5K-01" system-ip:10.10.10.242 user-name:"vmanage-admin"
local7.info: Nov 26 15:21:14 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-FTMD-6-INFO-
1000001: VPN 1 Interface ipsec1 UP. Speed 10 Duplex Full
local7.info: Nov 26 15:21:14 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-ftmd-6-INFO-
1400002: Notification: 11/26/2019 14:21:14 interface-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 if-name:"ipsec1" new-state:up
local7.warn: Nov 26 15:21:18 BRU-SDW-V5K-01 BGP.1[6505]: 10.0.0.1 unrecognized capability code:
70 - ignored
local7.info: Nov 26 15:21:18 BRU-SDW-V5K-01 BGP.1[6505]: %ADJCHANGE: neighbor 10.0.0.1 Up
local7.info: Nov 26 15:21:18 BRU-SDW-V5K-01 CFGMGR[2195]: %Viptela-BRU-SDW-V5K-01-cfgmgr-6-INFO-
1400002: Notification: 11/26/2019 14:21:18 bgp-peer-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 peer:10.0.0.1 bgp-new-state:established
local-address:10.0.0.2 local-routerid:10.10.10.242 peer-routerid:192.168.9.1
```

Zoals je ziet, is de BGP-buren geblazen. In de berichten/var/log/ziet u meer informatie:

```
auth.info: Nov 26 15:24:38 BRU-SDW-V5K-01 sshd[27423]: Accepted publickey for vmanage-admin from
10.10.10.253 port 40555 ssh2: RSA SHA256:ySiw9uiBxffv6HrO0iwDE3jm05mmO4IQoc+qgzfuyd4
authpriv.info: Nov 26 15:24:38 BRU-SDW-V5K-01 sshd[27423]: pam_unix(sshd:session): session
opened for user vmanage-admin by (uid=0)
local1.info: Nov 26 15:24:38 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 assigned
to groups: vmanage-admin,log
local1.info: Nov 26 15:24:38 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 new tcp session for
user "vmanage-admin" from 10.10.10.253
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}get attrs: nc:message-id="1"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 get attrs: nc:message-
id="1"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="1"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}get attrs: nc:message-id="2"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 get attrs: nc:message-
id="2"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="2"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}get attrs: nc:message-id="3"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 get attrs: nc:message-
id="3"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="3"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}get attrs: nc:message-id="4"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 get attrs: nc:message-
id="4"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="4"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}lock attrs: nc:message-id="5"
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local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 lock target=candidate
attrs: nc:message-id="5"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="5"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}copy-config attrs: nc:message-id="6"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 copy-config
source=running target=candidate attrs: nc:message-id="6"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="6"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}edit-config attrs: nc:message-id="7"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 edit-config
target=candidate attrs: nc:message-id="7"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="7"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}validate attrs: nc:message-id="8"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 validate
source=candidate attrs: nc:message-id="8"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="8"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}validate attrs: nc:message-id="9"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 validate source=inline
attrs: nc:message-id="9"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="9"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}edit-config attrs: nc:message-id="10"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 edit-config
target=candidate attrs: nc:message-id="10"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="10"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}commit attrs: nc:message-id="11"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 commit attrs:
nc:message-id="11"
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 14[CFG] unloaded shared key with id
'ipsec1_1'
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 07[CFG] vici terminate IKE_SA 'ipsec1_1'
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] closing CHILD_SA child_ipsec1_1{8}
with SPIs 00000107_i (6247108 bytes) 12107f74_o (6235990 bytes) and TS 0.0.0.0/0 === 0.0.0.0/0
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] closing CHILD_SA child_ipsec1_1{8}
with SPIs 00000107_i (6247108 bytes) 12107f74_o (6235990 bytes) and TS 0.0.0.0/0 === 0.0.0.0/0
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[KNL] Deleting SAD entry with SPI 00000107
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[KNL] Deleting SAD entry with SPI 12107f74
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] sending DELETE for ESP CHILD_SA with
SPI 00000107
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[ENC] generating INFORMATIONAL_V1 request
226869087 [ HASH D ]
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[NET] sending packet: from
192.168.9.242[4500] to 192.168.9.1[4500] (76 bytes)
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] closing CHILD_SA child_ipsec1_1{9}
with SPIs 00000108_i (6247912 bytes) 1286959a_o (6235990 bytes) and TS 0.0.0.0/0 === 0.0.0.0/0
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] closing CHILD_SA child_ipsec1_1{9}
with SPIs 00000108_i (6247912 bytes) 1286959a_o (6235990 bytes) and TS 0.0.0.0/0 === 0.0.0.0/0
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[KNL] Deleting SAD entry with SPI 00000108
local7.info: Nov 26 15:24:39 BRU-SDW-V5K-01 BGP.1[6505]: %ADJCHANGE: neighbor 10.0.0.1 Down
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[KNL] Deleting SAD entry with SPI 1286959a
local7.info: Nov 26 15:24:39 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-FTMD-6-INFO-
1000001: VPN 1 Interface ipsec1 DOWN
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] sending DELETE for ESP CHILD_SA with
SPI 00000108
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daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[ENC] generating INFORMATIONAL_V1 request
2972009957 [ HASH D ]
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[NET] sending packet: from
192.168.9.242[4500] to 192.168.9.1[4500] (76 bytes)
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] deleting IKE_SA ipsec1_1[10] between
192.168.9.242[192.168.9.242]...192.168.9.1[192.168.9.1]
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] deleting IKE_SA ipsec1_1[10] between
192.168.9.242[192.168.9.242]...192.168.9.1[192.168.9.1]
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[IKE] sending DELETE for IKE_SA
ipsec1_1[10]
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[ENC] generating INFORMATIONAL_V1 request
956819772 [ HASH D ]
daemon.info: Nov 26 15:24:39 BRU-SDW-V5K-01 charon: 06[NET] sending packet: from
192.168.9.242[4500] to 192.168.9.1[4500] (92 bytes)
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 commit
thandle 4552 begin
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 commit
thandle 4552 /viptela-vpn:vpn/vpn-instance{0}/interface{ge0/0}/description set to "mpls"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 commit
thandle 4552 /viptela-vpn:vpn/vpn-instance{1}/interface{ipsec1}/ike/authentication-type/pre-
shared-key/pre-shared-secret set to "****"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 commit
thandle 4552 /viptela-system:system/pseudo-confirm-commit set to "300"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 commit
thandle 4552 end
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="11"
local7.info: Nov 26 15:24:39 BRU-SDW-V5K-01 CFGMGR[2195]: %Viptela-BRU-SDW-V5K-01-cfgmgr-6-INFO-
1400002: Notification: 11/26/2019 14:24:39 bgp-peer-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 peer:10.0.0.1 bgp-new-state:idle local-
address:10.0.0.2 local-routerid:10.10.10.242 peer-routerid:192.168.9.1
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=38 sending notification
{http://viptela.com/vpn}bgp-peer-state-change
local7.info: Nov 26 15:24:39 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-ftmd-6-INFO-
1400002: Notification: 11/26/2019 14:24:39 interface-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 if-name:"ipsec1" new-state:down
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=38 sending notification
{http://viptela.com/vpn}interface-state-change
local7.info: Nov 26 15:24:39 BRU-SDW-V5K-01 CFGMGR[2195]: %Viptela-BRU-SDW-V5K-01-cfgmgr-6-INFO-
1400002: Notification: 11/26/2019 14:24:39 system-commit severity-level:minor host-name:"BRU-
SDW-V5K-01" system-ip:10.10.10.242 user-name:"vmanage-admin"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: netconf id=38 sending notification
{http://viptela.com/system}system-commit
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 14[CFG] added vici connection: ipsec1_1
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 14[CFG] loaded IKE shared key with id
'ipsec1_1' for: '192.168.9.242', '192.168.9.1'
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 14[CFG] vici initiate 'child_ipsec1_1'
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 15[IKE] initiating Main Mode IKE_SA
ipsec1_1[11] to 192.168.9.1
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 15[IKE] initiating Main Mode IKE_SA
ipsec1_1[11] to 192.168.9.1
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 15[ENC] generating ID_PROT request 0 [ SA V
V V V V ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 15[NET] sending packet: from
192.168.9.242[500] to 192.168.9.1[500] (180 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 06[NET] received packet: from
192.168.9.1[500] to 192.168.9.242[500] (104 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 06[ENC] parsed ID_PROT response 0 [ SA V ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 06[IKE] received NAT-T (RFC 3947) vendor ID
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 06[ENC] generating ID_PROT request 0 [ KE No
NAT-D NAT-D ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 06[NET] sending packet: from
192.168.9.242[500] to 192.168.9.1[500] (244 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[NET] received packet: from
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192.168.9.1[500] to 192.168.9.242[500] (304 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[ENC] parsed ID_PROT response 0 [ KE No V
V V V NAT-D NAT-D ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[IKE] received Cisco Unity vendor ID
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[IKE] received DPD vendor ID
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[ENC] received unknown vendor ID:
5e:b0:e6:33:27:48:bf:3b:80:a6:a7:d5:cd:37:64:1f
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[IKE] received XAuth vendor ID
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[IKE] faking NAT situation to enforce UDP
encapsulation
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[ENC] generating ID_PROT request 0 [ ID
HASH N(INITIAL_CONTACT) ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 08[NET] sending packet: from
192.168.9.242[4500] to 192.168.9.1[4500] (108 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[NET] received packet: from
192.168.9.1[4500] to 192.168.9.242[4500] (76 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[ENC] parsed ID_PROT response 0 [ ID HASH
]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[IKE] IKE_SA ipsec1_1[11] established
between 192.168.9.242[192.168.9.242]...192.168.9.1[192.168.9.1]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[IKE] IKE_SA ipsec1_1[11] established
between 192.168.9.242[192.168.9.242]...192.168.9.1[192.168.9.1]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[IKE] scheduling rekeying in 13069s
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[IKE] maximum IKE_SA lifetime 14509s
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[ENC] generating QUICK_MODE request
1775307947 [ HASH SA No KE ID ID ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 07[NET] sending packet: from
192.168.9.242[4500] to 192.168.9.1[4500] (316 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[NET] received packet: from
192.168.9.1[4500] to 192.168.9.242[4500] (348 bytes)
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[ENC] parsed QUICK_MODE response
1775307947 [ HASH SA No KE ID ID N((24576)) ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[KNL] add SAD entry with SPI 00000109
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[KNL] add SAD entry with SPI d8c172fc
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[IKE] CHILD_SA child_ipsec1_1{10}
established with SPIs 00000109_i d8c172fc_o and TS 0.0.0.0/0 === 0.0.0.0/0
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[IKE] CHILD_SA child_ipsec1_1{10}
established with SPIs 00000109_i d8c172fc_o and TS 0.0.0.0/0 === 0.0.0.0/0
local7.info: Nov 26 15:24:40 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-FTMD-6-INFO-
1000001: VPN 1 Interface ipsec1 UP. Speed 10 Duplex Full
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[ENC] generating QUICK_MODE request
1775307947 [ HASH ]
daemon.info: Nov 26 15:24:40 BRU-SDW-V5K-01 charon: 11[NET] sending packet: from
192.168.9.242[4500] to 192.168.9.1[4500] (60 bytes)
local7.info: Nov 26 15:24:40 BRU-SDW-V5K-01 FTMD[2202]: %Viptela-BRU-SDW-V5K-01-ftmd-6-INFO-
1400002: Notification: 11/26/2019 14:24:40 interface-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 if-name:"ipsec1" new-state:up
local1.info: Nov 26 15:24:40 BRU-SDW-V5K-01 confd[1310]: netconf id=38 sending notification
{http://viptela.com/vpn}interface-state-change
local1.info: Nov 26 15:24:44 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 got rpc:
{urn:ietf:params:xml:ns:netconf:base:1.0}unlock attrs: nc:message-id="12"
local1.info: Nov 26 15:24:44 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 unlock target=candidate
attrs: nc:message-id="12"
local1.info: Nov 26 15:24:44 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="12"
local1.info: Nov 26 15:24:46 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 close-session attrs:
nc:message-id="13"
local1.info: Nov 26 15:24:46 BRU-SDW-V5K-01 confd[1310]: netconf id=1232 sending rpc-reply,
attrs: nc:message-id="13"
auth.info: Nov 26 15:24:47 BRU-SDW-V5K-01 sshd[27428]: Received disconnect from 10.10.10.253
port 40555:11: Closed due to user request.
auth.info: Nov 26 15:24:47 BRU-SDW-V5K-01 sshd[27428]: Disconnected from user vmanage-admin
10.10.10.253 port 40555
authpriv.info: Nov 26 15:24:47 BRU-SDW-V5K-01 sshd[27423]: pam_unix(sshd:session): session
```

```
closed for user vmanage-admin
local7.warn: Nov 26 15:24:47 BRU-SDW-V5K-01 BGP.1[6505]: 10.0.0.1 unrecognized capability code:
70 - ignored
local7.info: Nov 26 15:24:47 BRU-SDW-V5K-01 BGP.1[6505]: %ADJCHANGE: neighbor 10.0.0.1 Up
local7.info: Nov 26 15:24:47 BRU-SDW-V5K-01 CFGMGR[2195]: %Viptela-BRU-SDW-V5K-01-cfgmgr-6-INFO-
1400002: Notification: 11/26/2019 14:24:47 bgp-peer-state-change severity-level:major host-
name:"BRU-SDW-V5K-01" system-ip:10.10.10.242 vpn-id:1 peer:10.0.0.1 bgp-new-state:established
local-address:10.0.0.2 local-routerid:10.10.10.242 peer-routerid:192.168.9.1
local1.info: Nov 26 15:24:47 BRU-SDW-V5K-01 confd[1310]: netconf id=38 sending notification
{http://viptela.com/vpn}bgp-peer-state-change
```

Let vooral op deze lijnen:

```
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 commit
thandle 4552 /viptela-vpn:vpn/vpn-instance{0}/interface{ge0/0}/description set to "mpls"
local1.info: Nov 26 15:24:39 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1232 commit
thandle 4552 /viptela-vpn:vpn/vpn-instance{1}/interface{ipsec1}/ike/authentication-type/pre-
shared-key/pre-shared-secret set to "*****"
```

Ondanks het feit dat de interface slechts beschrijving in de lokatie is gewijzigd, is de ipsec1 interface-toets om de een of andere reden bijgewerkt.

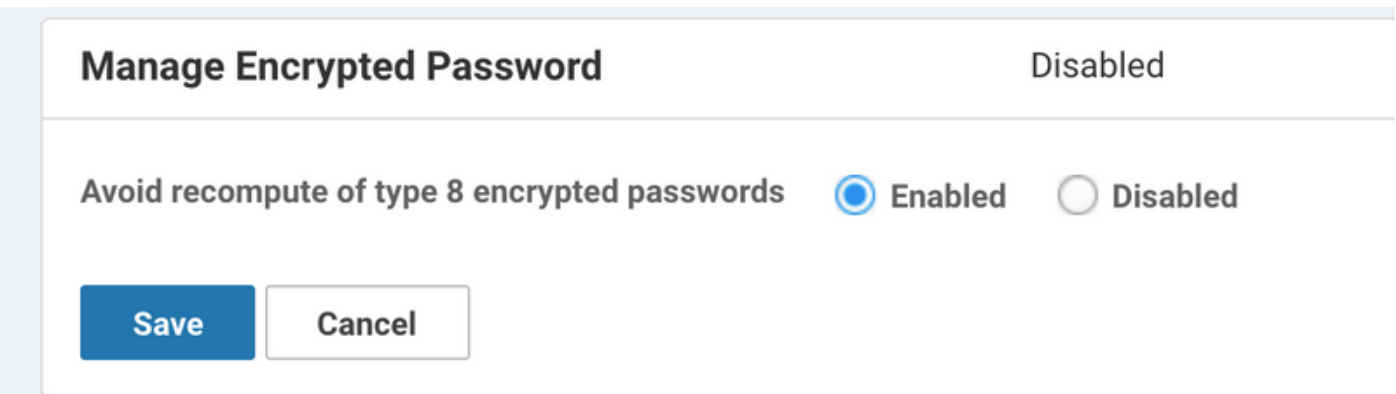
Oplossing

1. Ten eerste is het momenteel niet mogelijk een dergelijk probleem te vermijden indien een vManager-apparaatsjabloon op basis van functietekens wordt gebruikt. vManager-functies gebruiken een duidelijk tekstwachtwoord en vanwege de aard van type 8 hanteert u het wachtwoord elke keer dat er een wijziging in de sjabloon wordt aangebracht. U moet dus met de huidige softwareversies op CLI-sjablonen overschakelen. Type 8 is een algoritme-tekst die begint met 8 symbolen.

Dit gedrag is gedocumenteerd onder de defect identifier CSCvn20971

Er is ook een verbeteringsverzoek geopend voor functiesjablonen CSCvr86574

2. Als op CLI gebaseerde device sjablonen worden gebruikt, kan het probleem vermeden worden wanneer type 8 een hash is opgegeven in de apparaatconfiguratie in plaats van een duidelijk tekstwachtwoord. Daarnaast moet **de** instelling **Encrypted Password** in de vManager-instellingen worden ingesteld op **Enabled** om te voorkomen dat de gecodeerde wachtwoorden van type 8 opnieuw worden berekend. U vindt dit onder **Administratie >Instellingen.**



Nadat u de sjabloon hebt toegepast, kunt u deze opnieuw indrukken. Dit zorgt ervoor dat de tunnel voor het laatst flap raakt omdat deze laatste keer moet worden bijgewerkt nadat dit is gebeurd, en sync vManager en het apparaat. Bijna op het moment van alle latere pogingen blijft de tunnel stabiel en worden de wijzigingen alleen in het betreffende gedeelte van de configuratie aangebracht:

```
local1.info: Nov 26 15:42:37 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1267 commit
thandle 4651 begin
local1.info: Nov 26 15:42:37 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1267 commit
thandle 4651 /viptela-vpn:vpn/vpn-instance{0}/interface{ge0/0}/description set to "MPLS"
local1.info: Nov 26 15:42:37 BRU-SDW-V5K-01 confd[1310]: audit user: vmanage-admin/1267 commit
thandle 4651 end
```

In de volgende sectie, kunt u relevante configuratie voor site-to-site op IKE gebaseerde IPSec in service VPN vinden ter referentie.

Configuraties

Hier vindt u de configuratie van het apparaat voor het referentiedoel.

vEdge-router:

```
vpn 1
 router
  bgp 65001
   neighbor 10.0.0.1
    no shutdown
    remote-as 65000
   !
  !
 !
 interface ipsec1
  ip address 10.0.0.2/30
  tunnel-source-interface ge0/0
  tunnel-destination      192.168.9.1
  ike
   version      1
   mode         main
   rekey        14400
   cipher-suite aes128-cbc-sha1
   group        2
   authentication-type
    pre-shared-key
     pre-shared-secret $8$cFG/IiaNKkFYXGiHiTCbDEQYcCL4tx1tEhcDh1kO93fzNgc4LDSIIqESFeC6//yU
     local-id          192.168.9.242
     remote-id         192.168.9.1
    !
   !
  !
  ipsec
   rekey                  3600
   replay-window          512
   cipher-suite           aes256-cbc-sha1
   perfect-forward-secrecy group-2
  !
  no shutdown
```

```
 !
!
```

Cisco IOS®:

```
router bgp 65000
 bgp log-neighbor-changes
 neighbor 10.0.0.2 remote-as 65001
!
crypto keyring KR
  pre-shared-key address 0.0.0.0 0.0.0.0 key testtesttesttest
!
crypto ipsec profile IPSEC_PROFILE
 set transform-set TSET
 set pfs group2
 set isakmp-profile IKE_PROFILE
!
crypto isakmp profile IKE_PROFILE
   keyring KR
   self-identity address
   match identity address 0.0.0.0
!
interface Tunnel1
 ip address 10.0.0.1 255.255.255.252
 tunnel source GigabitEthernet2
 tunnel mode ipsec ipv4
 tunnel destination 192.168.9.242
 tunnel protection ipsec profile IPSEC_PROFILE isakmp-profile IKE_PROFILE
!
```

> **Tip**: vanwege beveiligingsverbeteringen in vEdge sinds de versie van 19.1-software, moet een vooraf gedeelde toets minimaal 16 tekens lang zijn.