

Suivi d'objets de vpc

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Introduction

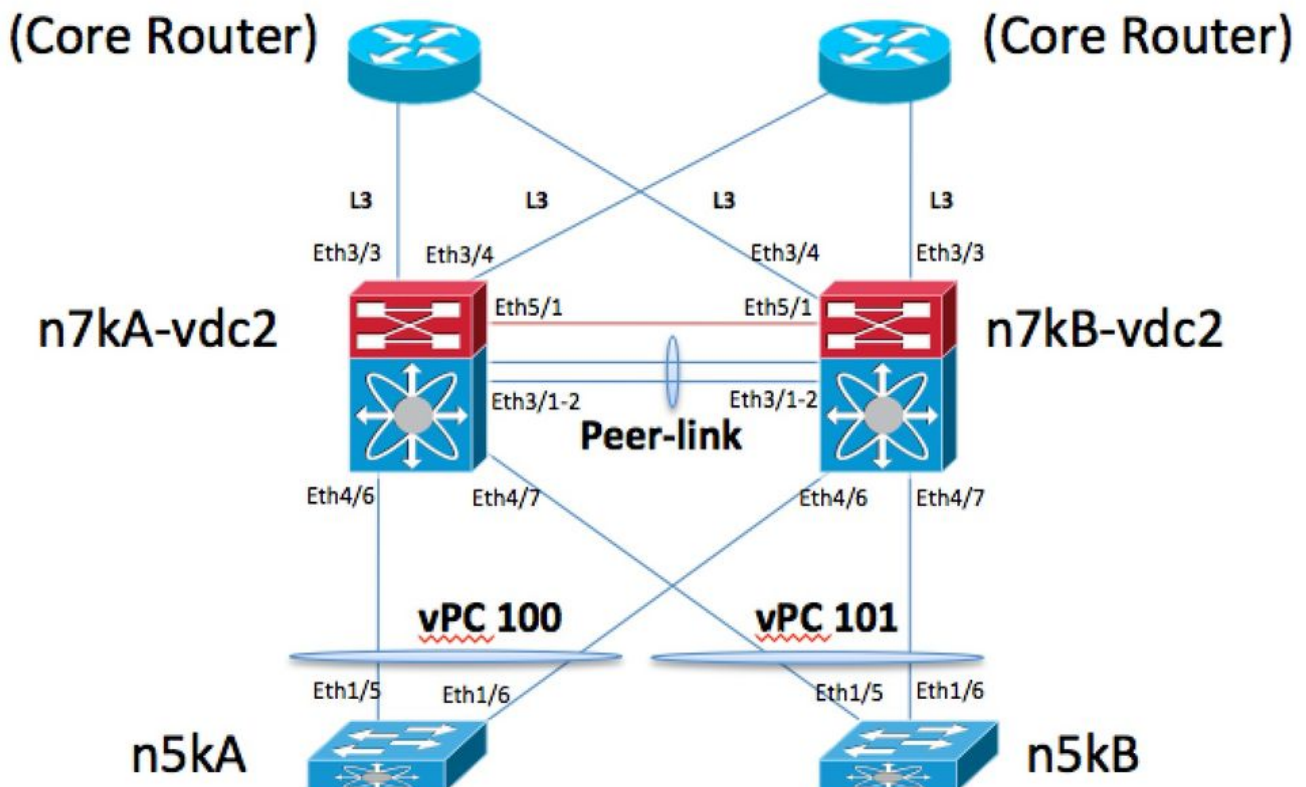
Ce document décrit le Suivi d'objets de vpc, pourquoi il est utilisé, et comment cela fonctionne.

Suivi d'objets de vpc

[Diagramme du réseau](#)

Voici le schéma de réseau utilisé pour cette démonstration :

vPC Object Tracking Topology



Le pair de vpc que le lien est l'Ethernet 5/1 du Port canalisé 1. est le lien de pair-keepalive de vpc. Il y a deux principaux Routeurs qui sont connectés par l'intermédiaire des liens e3/3 et e3/4 L3 /30 sur chaque case N7K. N5KA et N5KB simulent le vpc des Commutateurs L2 connecté sur le vpc 100 et le vpc 101. N7KA est le périphérique maître de vpc.

Commandes show de spécification de base

N7KA :

```
N7KA-vdc2# show run vpc
```

```
!Command: show running-config vpc
!Time: Thu Sep 26 19:51:57 2013
```

```
version 6.1(4)
feature vpc
```

```
vpc domain 102
  peer-keepalive destination 1.1.1.2 source 1.1.1.1 vrf vpc-keepalive
  peer-gateway
  track 1
  auto-recovery
```

```
interface port-channell
  vpc peer-link
```

```
interface port-channel100
  vpc 100
```

```
interface port-channel101
  vpc 101
```

```
N7KA-vdc2# show run track
```

```
!Command: show running-config track
!Time: Thu Sep 26 19:51:59 2013
```

```
version 6.1(4)
track 1 list boolean or
  object 2
  object 3
  object 4
track 2 interface port-channell line-protocol
track 3 interface Ethernet3/3 line-protocol
track 4 interface Ethernet3/4 line-protocol
```

```
N7KA-vdc2# show vpc brief
```

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

```
vPC domain id          : 102
Peer status            : peer adjacency formed ok
vPC keep-alive status  : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role                : primary
Number of vPCs configured : 2
Track object           : 1
```

Peer Gateway : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status : Enabled (timeout = 240 seconds)

vPC Peer-link status

```
-----  
id   Port   Status Active vlans  
--   ----   -  
1    Po1    up     1
```

vPC status

```
-----  
id   Port   Status Consistency Reason           Active vlans  
--   ----   -  
100  Po100  up     success    success           1  
101  Po101  up     success    success           1
```

N7KA-vdc2# show track

Track 1

List Boolean or
Boolean or is UP
2 changes, last change 23:24:08
Track List Members:
object 4 UP
object 3 UP
object 2 UP
Tracked by:
vPCM 102

Track 2

Interface port-channell1 Line Protocol
Line Protocol is UP
1 changes, last change 23:26:59
Tracked by:
Track List 1

Track 3

Interface Ethernet3/3 Line Protocol
Line Protocol is UP
3 changes, last change 23:26:50
Tracked by:
Track List 1

Track 4

Interface Ethernet3/4 Line Protocol
Line Protocol is UP
3 changes, last change 23:26:48
Tracked by:
Track List 1

N7KA-vdc2#

N7KB :

N7KB-vdc2# show run vpc

!Command: show running-config vpc
!Time: Thu Sep 26 19:53:17 2013

version 6.1(4)

```

feature vpc

vpc domain 102
  peer-keepalive destination 1.1.1.1 source 1.1.1.2 vrf vpc-keepalive
  peer-gateway
  track 1
  auto-recovery

interface port-channel1
  vpc peer-link

interface port-channel100
  vpc 100

interface port-channel101
  vpc 101

```

N7KB-vdc2# show run track

```

!Command: show running-config track
!Time: Thu Sep 26 19:53:20 2013

```

```

version 6.1(4)
track 1 list boolean or
  object 2
  object 3
  object 4
track 2 interface port-channel1 line-protocol
track 3 interface Ethernet3/3 line-protocol
track 4 interface Ethernet3/4 line-protocol

```

N7KB-vdc2# show vpc brief

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

```

vPC domain id           : 102
Peer status             : peer adjacency formed ok
vPC keep-alive status   : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role                : secondary
Number of vPCs configured : 2
Track object            : 1
Peer Gateway            : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status    : Enabled (timeout = 240 seconds)

```

vPC Peer-link status

```

-----
id   Port   Status Active vlans
--   -
1    Po1    up     1
-----

```

vPC status

```

-----
id   Port   Status Consistency Reason           Active vlans
--   -
100  Po100  up     success    success                       1
101  Po101  up     success    success                       1
-----

```

```

N7KB-vdc2# show track
Track 1
  List Boolean or
  Boolean or is UP
  2 changes, last change 23:25:51
  Track List Members:
  object 4 UP
  object 3 UP
  object 2 UP
  Tracked by:
  vPCM                               102

Track 2
  Interface port-channell1 Line Protocol
  Line Protocol is UP
  1 changes, last change 23:29:09
  Tracked by:
  Track List 1

Track 3
  Interface Ethernet3/3 Line Protocol
  Line Protocol is UP
  3 changes, last change 23:28:55
  Tracked by:
  Track List 1

Track 4
  Interface Ethernet3/4 Line Protocol
  Line Protocol is UP
  3 changes, last change 23:28:56
  Tracked by:
  Track List 1

```

N7KB-vdc2#

le Suivi d'objets de vpc est utilisé dans un scénario de ce type. Vous avez un module M132 utilisé pour le lien de pair de vpc aussi bien que les liaisons ascendantes L3 au noyau. En cas où vous devez perdre le module M132 dû à une panne HW vous perdriez le vpc peer-link aussi bien que les liaisons ascendantes L3. Si c'étaient de se produire sur la case secondaire de vpc (N7KB) ce ne serait pas un problème car le pair primaire opérationnel succéderait interrompre les Ports canalisés de vpc et les interfaces de VLAN sur le secondaire opérationnel. Le problème est dans le cas d'une panne HW sur le périphérique maître opérationnel (N7KA). Si vous n'utilisiez pas le Suivi d'objets nous interromprions tous les Ports canalisés de vpc sur N7KB aussi bien que les interfaces de VLAN. Le lien de pair serait également en baisse. Vous n'auriez pas une manière de conduire le principal trafic dans nos VLAN de vpc dans ce scénario.

Le Suivi d'objets vient à bout ceci en réduisant le vpc sur le primaire opérationnel de sorte que nous n'entrions pas dans ce scénario où nous réduisons les interfaces de VLAN et les Ports canalisés de vpc sur la case qui a les liaisons ascendantes restantes au noyau.

Voici que vous voyez les messages de keepalive de pair de vpc utilisant l'ethalyzer :

```

N7KA# ethalyzer local interface inband capture-filter "host 1.1.1.1 and host 1.1.1.2" limit-
captured-frames 4
Capturing on inband
2013-09-26 20:01:09.629309      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  D
estination port: 3200
2013-09-26 20:01:09.954909      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  D
estination port: 3200

```

```
2013-09-26 20:01:10.639097      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  D
estination port: 3200
2013-09-26 20:01:10.954944      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  D
estination port: 3200
4 packets captured
N7KA#
```

```
N7KB# ethanalyzer local interface inband capture-filter "host 1.1.1.1 and host 1.1.1.2" limit-
captured-frames 4
Capturing on inband
2013-09-26 20:00:22.606593      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  D
estination port: 3200
2013-09-26 20:00:22.922517      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  D
estination port: 3200
2013-09-26 20:00:23.616427      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  D
estination port: 3200
2013-09-26 20:00:23.922557      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  D
estination port: 3200
4 packets captured
N7KB#
```

Maintenant vous simulez la panne du module 3 sur N7KA par l'intermédiaire de mettre hors tension le module :

```
N7KA# conf t
Enter configuration commands, one per line.  End with CNTL/Z.
N7KA(config)# poweroff mod 3
N7KA(config)# end
N7KA#
```

```
2013 Sep 26 20:03:25 N7KA %PLATFORM-2-PFM_MODULE_POWER_OFF: Manual power-off of Module 3 from
Command Line Interface
```

Logs :

N7KA:

```
2013 Sep 26 20:03:28 N7KA-vdc2 %ETHPORT-5-IF_DOWN_INITIALIZING: Interface port-channel1 is down
(Initializing) 2013 Sep 26 20:03:28 N7KA-vdc2 %ETHPORT-5-IF_DOWN_MODULE_REMOVED: Interface
Ethernet3/3 is down (module removed) 2013 Sep 26 20:03:28 N7KA-vdc2 %ETHPORT-5-
IF_DOWN_MODULE_REMOVED: Interface Ethernet3/4 is down (module removed)
2013 Sep 26 20:03:28 N7KA-vdc2 %VPC-2-TRACK_INTFS_DOWN: In domain 102, vPC tracked interfaces
down, suspending all vPCs and keep-alive
2013 Sep 26 20:03:28 N7KA-vdc2 %ETHPORT-5-IF_DOWN_NONE: Interface port-channel101 is down (None)
2013 Sep 26 20:03:28 N7KA-vdc2 %ETHPORT-5-IF_DOWN_NONE: Interface port-channel100 is down (None)
2013 Sep 26 20:03:28 N7KA-vdc2 %ETH_PORT_CHANNEL-5-PORT_DOWN: port-channel101: Ethernet4/7 is
down 2013 Sep 26 20:03:28 N7KA-vdc2 %ETH_PORT_CHANNEL-5-PORT_DOWN: port-channel100: Ethernet4/6
is down
2013 Sep 26 20:03:28 N7KA-vdc2 %ETH_PORT_CHANNEL-5-FOP_CHANGED: port-channel101: first
operational port changed from Ethernet4/7 to none 2013 Sep 26 20:03:28 N7KA-vdc2
%ETH_PORT_CHANNEL-5-FOP_CHANGED: port-channel100: first operational port changed from
Ethernet4/6 to none
2013 Sep 26 20:03:28 N7KA-vdc2 %ETH_PORT_CHANNEL-5-PORT_DOWN: port-channel1: Ethernet3/1 is down
2013 Sep 26 20:03:28 N7KA-vdc2 %ETH_PORT_CHANNEL-5-PORT_DOWN: port-channel1: Ethernet3/2 is down
2013 Sep 26 20:03:28 N7KA-vdc2 %ETH_PORT_CHANNEL-5-FOP_CHANGED: port-channel1: first operational
port changed from Ethernet3/1 to none 2013 Sep 26 20:03:28 N7KA-vdc2 %ETHPORT-5-
IF_DOWN_PORT_CHANNEL_MEMBERS_DOWN: Interface port-channel1 is down (No operational members)
N7KB: 2013 Sep 26 20:02:39 N7KB-vdc2 %ETH_PORT_CHANNEL-5-FOP_CHANGED: port-channel1: first
operational port changed from Ethernet3/1 to none 2013 Sep 26 20:02:40 N7KB-vdc2
%ETH_PORT_CHANNEL-5-PORT_DOWN: port-channel1: Ethernet3/2 is down 2013 Sep 26 20:02:40 N7KB-vdc2
```

```
%ETHPORT-5-IF_DOWN_LINK_FAILURE: Interface Ethernet3/2 is down (Link failure)
2013 Sep 26 20:02:45 N7KB-vdc2 %VPC-2-PEER_KEEP_ALIVE_RECV_FAIL: In domain 102, VPC peer keep-
alive receive has failed
2013 Sep 26 20:02:45 N7KB-vdc2 %ETHPORT-5-IF_DOWN_PORT_CHANNEL_MEMBERS_DOWN: Interface port-
channell is down (No operational members)
2013 Sep 26 20:02:45 N7KB-vdc2 %ETH_PORT_CHANNEL-5-PORT_DOWN: port-channell: Ethernet3/1 is down
2013 Sep 26 20:02:45 N7KB-vdc2 %ETHPORT-5-IF_DOWN_LINK_FAILURE: Interface Ethernet3/1 is down
(Link failure) 2013 Sep 26 20:02:45 N7KB-vdc2 %ETHPORT-5-IF_DOWN_PORT_CHANNEL_MEMBERS_DOWN:
Interface port-channell is down (No operational members)
```

Maintenant vous êtes laissé dans le cet état. N7KA est le pair primaire de vpc, mais il cesse d'envoyer des messages de keepalive de pair de vpc à N7KB de sorte que N7KB ne disparaisse pas interrompu. N7KB est le seul système qui a des liaisons ascendantes.

Note: e3/4 sur N7KB se connecte à un autre volts continu sur N7KA qui est pourquoi il est également descendu. Le point est que vous avez dépisté des interfaces sur N7KB et aucun sur N7KA ainsi il cesse de l'envoyer message à N7KB sur le lien de pair-keepalive.

Ethanalyzer a sorti de N7KA :

(Avis après que le Syslog TRACK_INTFS_DOWN nous n'envoient plus le pair-keepalives à N7KB, nous les recevons seulement de N7KB qui est 1.1.1.2)

```
2013-09-26 20:03:23.684887      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:03:23.685766      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:03:24.684863 1.1.1.1 -> 1.1.1.2 UDP Source port: 3200 Destination port: 3200 2013-
09-26 20:03:24.685580 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013 Sep
26 20:03:25 N7KA-vdc2 %$ VDC-2 %$ %PLATFORM-2-PFM_MODULE_POWER_OFF: Manual power-off of Module 3
from Command Line Interface 2013 Sep 26 20:03:25 N7KA %$ VDC-1 %$ %PLATFORM-2-
PFM_MODULE_POWER_OFF: Manual power-off of Module 3 from Command Line Interface 2013-09-26
20:03:25.684869 1.1.1.1 -> 1.1.1.2 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:25.685771 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200
2013-09-26 20:03:26.684835 1.1.1.1 -> 1.1.1.2 UDP Source port: 3200 Destination port: 3200 2013-
09-26 20:03:26.685716 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200
2013-09-26 20:03:27.690661 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-
09-26 20:03:27.691367 1.1.1.1 -> 1.1.1.2 UDP Source port: 3200 Destination port: 3200 2013 Sep
26 20:03:28 N7KA-vdc2 %$ VDC-2 %$ %PLATFORM-2-MOD_PWRDN: Module 3 powered down (Serial number
JAF1703ALTD) 2013 Sep 26 20:03:28 N7KA %$ VDC-1 %$ %PLATFORM-2-MOD_PWRDN: Module 3 powered down
(Serial number JAF1703ALTD) 2013 Sep 26 20:03:28 N7KA-vdc2 %$ VDC-2 %$ %VPC-2-TRACK_INTFS_DOWN:
In domain 102, vPC tracked interfaces down, suspending all vPCs and keep-alive 2013-09-26
20:03:28.700594 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:29.700538 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:30.700603 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:31.710665 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:32.720601 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:33.715295 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:34.713112 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200 2013-09-26
20:03:35.713177 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200
```

Ethanalyzer a sorti de N7KB :

```
2013-09-26 20:02:36.651007      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:36.651534      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:37.651053      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
```

```

3200
2013-09-26 20:02:37.651644      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:38.650967      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:38.651579      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:39.656523      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:39.657500      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200

```

(Here we stop receiving keepalive messages from N7KA or 1.1.1.1):

```

2013-09-26 20:02:40.666531      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:41.666442      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:42.666479      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:43.676461      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:44.686478      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200

```

```

2013 Sep 26 20:02:45 N7KB-vdc2 %$ VDC-2 %$ %VPC-2-PEER_KEEP_ALIVE_RECV_FAIL: In domain 102, VPC
peer keep-alive receive has failed

```

```

2013-09-26 20:02:45.681050      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:46.678911      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:47.678918      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:02:48.678961      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200

```

N7KA :

```
N7KA-vdc2# sh vpc brief
```

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

```

vPC domain id          : 102
Peer status            : peer link is down
vPC keep-alive status  : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role               : primary
Number of vPCs configured : 2
Track object           : 1
Peer Gateway           : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status   : Enabled (timeout = 240 seconds)

```

```
vPC Peer-link status
```

id	Port	Status	Active vlans
1	Po1	down	-

vPC status

id	Port	Status	Consistency	Reason	Active vlans
100	Po100	down	success	success	-
101	Po101	down	success	success	-

N7KA-vdc2# show track

Track 1

List Boolean or
 Boolean or is DOWN
 3 changes, last change 00:20:50
 Track List Members:
 object 4 DOWN
 object 3 DOWN
 object 2 DOWN
 Tracked by:
 vPCM 102

Track 2

Interface port-channell1 Line Protocol
 Line Protocol is DOWN
 2 changes, last change 00:20:50
 Tracked by:
 Track List 1

Track 3

Interface Ethernet3/3 Line Protocol
 Line Protocol is DOWN
 4 changes, last change 00:20:50
 Tracked by:
 Track List 1

Track 4

Interface Ethernet3/4 Line Protocol
 Line Protocol is DOWN
 4 changes, last change 00:20:50
 Tracked by:
 Track List 1

N7KA-vdc2#

N7KB :

N7KB-vdc2# sh vpc brief

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

```

vPC domain id          : 102
Peer status            : peer link is down
vPC keep-alive status  : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role               : secondary, operational primary
Number of vPCs configured : 2
Track object          : 1
Peer Gateway         : Enabled
  
```

Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status : Enabled (timeout = 240 seconds)

vPC Peer-link status

```
-----  
id   Port   Status Active vlans  
--   ----   -  
1    Po1     down  -
```

vPC status

```
-----  
id   Port   Status Consistency Reason      Active vlans  
--   ----   -  
100  Po100   up     success    success      1  
101  Po101   up     success    success      1
```

N7KB-vdc2# sh track

Track 1

List Boolean or
Boolean or is UP
2 changes, last change 23:57:10
Track List Members:
object 4 DOWN
object 3 UP
object 2 DOWN
Tracked by:
vPCM 102

Track 2

Interface port-channell1 Line Protocol
Line Protocol is DOWN
2 changes, last change 00:22:04
Tracked by:
Track List 1

Track 3

Interface Ethernet3/3 Line Protocol
Line Protocol is UP
3 changes, last change 1d00h
Tracked by:
Track List 1

Track 4

Interface Ethernet3/4 Line Protocol
Line Protocol is DOWN
4 changes, last change 00:22:04
Tracked by:
Track List 1

N7KB-vdc2#

Maintenant vous pouvez restaurer l'installation :

N7KA# conf t

Enter configuration commands, one per line. End with CNTL/Z.

N7KA(config)# no poweroff mod 3

N7KA(config)# end

N7KA#

Command Line Interface

2013 Sep 26 20:26:56 N7KA %PLATFORM-2-MOD_DETECT: Module 3 detected (Serial number JAF1703ALTD)
Module-Type 10 Gbps Ethernet XL Module Model N7K-M132XP-12L
2013 Sep 26 20:26:56 N7KA %PLATFORM-2-MOD_PWRUP: Module 3 powered up (Serial number JAF1703ALTD)
2013 Sep 26 20:26:56 N7KA %PLATFORM-5-MOD_STATUS: Module 3 current-status is
MOD_STATUS_POWERED_UP

N7KA :

N7KA-vdc2# sh vpc brief

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

vPC domain id : 102
Peer status : peer adjacency formed ok
vPC keep-alive status : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role : primary, operational secondary
Number of vPCs configured : 2
Track object : 1
Peer Gateway : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status : Enabled (timeout = 240 seconds)

vPC Peer-link status

Table with 4 columns: id, Port, Status, Active vlans. Row 1: 1, Po1, up, 1

vPC status

Table with 6 columns: id, Port, Status, Consistency, Reason, Active vlans. Rows 100 and 101 showing vPC details.

N7KA-vdc2# sh track

Track 1

List Boolean or
Boolean or is UP
4 changes, last change 00:01:44
Track List Members:
object 4 UP
object 3 UP
object 2 UP
Tracked by:
vPCM 102

Track 2

Interface port-channell1 Line Protocol
Line Protocol is UP
3 changes, last change 00:01:40
Tracked by:
Track List 1

Track 3

```
Interface Ethernet3/3 Line Protocol
Line Protocol is UP
5 changes, last change 00:01:43
Tracked by:
  Track List 1
```

Track 4

```
Interface Ethernet3/4 Line Protocol
Line Protocol is UP
5 changes, last change 00:01:44
Tracked by:
  Track List 1
```

N7KA-vdc2#

N7KB :

N7KB-vdc2# sh vpc brief

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

```
vPC domain id           : 102
Peer status              : peer adjacency formed ok
vPC keep-alive status    : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role                 : secondary, operational primary
Number of vPCs configured : 2
Track object             : 1
Peer Gateway             : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status     : Enabled (timeout = 240 seconds)
```

vPC Peer-link status

id	Port	Status	Active vlans
1	Pol	up	1

vPC status

id	Port	Status	Consistency	Reason	Active vlans
100	Pol100	up	success	success	1
101	Pol101	up	success	success	1

N7KB-vdc2# sh track

Track 1

```
List Boolean or
Boolean or is UP
2 changes, last change 1d00h
Track List Members:
object 4 UP
object 3 UP
object 2 UP
Tracked by:
vPCM          102
```

Track 2

```
Interface port-channell1 Line Protocol
Line Protocol is UP
3 changes, last change 00:02:07
Tracked by:
  Track List 1
```

Track 3

```
Interface Ethernet3/3 Line Protocol
Line Protocol is UP
3 changes, last change 1d00h
Tracked by:
  Track List 1
```

Track 4

```
Interface Ethernet3/4 Line Protocol
Line Protocol is UP
5 changes, last change 00:02:09
Tracked by:
  Track List 1
```

N7KB-vdc2#

Détails sur la panne de Pair-keepalive de vpc :

Réexécutez le test afin de voir ce qui se produit avec le lien de pair-keepalive.

Envoyez les keepalives bidirectionnel - actuellement tout est haut et opérationnel :

```
2013-09-26 20:32:12.532319      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:32:12.533083      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:32:13.532485 1.1.1.1 -> 1.1.1.2 UDP Source port: 3200 Destination port: 3200 2013-
09-26 20:32:13.533147 1.1.1.2 -> 1.1.1.1 UDP Source port: 3200 Destination port: 3200
```

Maintenant arrêt M132 le module 3 sur N7KA de nouveau :

```
2013 Sep 26 20:32:14 N7KA %$ VDC-1 %$ %PLATFORM-2-PFM_MODULE_POWER_OFF: Manual power-off of
Module 3  from Command Line Interface
2013 Sep 26 20:32:14 N7KA-vdc3 %$ VDC-3 %$ %PLATFORM-2-PFM_MODULE_POWER_OFF: Manual power-off of
Module 3  from Command Line Interface
2013 Sep 26 20:32:14 N7KA-vdc2 %$ VDC-2 %$ %PLATFORM-2-PFM_MODULE_POWER_OFF: Manual power-off of
Module 3  from Command Line Interface
```

```
2013-09-26 20:32:14.532364      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:32:14.533217      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
```

```
2013-09-26 20:32:15.532453      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:32:15.533158      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
```

```
2013-09-26 20:32:16.532452      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:32:16.536224      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
```

```
2013 Sep 26 20:32:17 N7KA %$ VDC-1 %$ %PLATFORM-2-MOD_PWRDN: Module 3 powered down (Serial
number JAF1703ALTD)
```

2013 Sep 26 20:32:17 N7KA-vdc3 %\$ VDC-3 %\$ %PLATFORM-2-MOD_PWRDN: Module 3 powered down (Serial number JAF1703ALTD)

2013 Sep 26 20:32:16 N7KA-vdc2 %\$ VDC-2 %\$ %VPC-2-TRACK_INTFS_DOWN: In domain 102, vPC tracked interfaces down, suspending all vPCs and keep-alive

2013 Sep 26 20:32:17 N7KA-vdc2 %\$ VDC-2 %\$ %PLATFORM-2-MOD_PWRDN: Module 3 powered down (Serial number JAF1703ALTD)

Maintenant vous voyez que seulement N7KB (1.1.1.2) envoie les messages de keepalive à N7KA (1.1.1.1) :

```
2013-09-26 20:32:17.549161      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port: 3200
2013-09-26 20:32:18.549352      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port: 3200
2013-09-26 20:32:19.549294      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port: 3200
2013-09-26 20:32:20.549358      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port: 3200
2013-09-26 20:32:21.549303      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port: 3200
2013-09-26 20:32:22.549991      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port: 3200
```

Voici que vous voyez que l'état sur N7KB affichant la keepalive de pair a manqué :

```
N7KB-vdc2# sh vpc brief
```

Legend:

(*) - local vPC is down, forwarding via vPC peer-link

```
vPC domain id           : 102
Peer status              : peer link is down
vPC keep-alive status   : peer is not reachable through peer-keepalive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role                 : secondary, operational primary
Number of vPCs configured : 2
Track object             : 1
Peer Gateway             : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status     : Enabled (timeout = 240 seconds)
```

```
vPC Peer-link status
```

```
-----
id  Port  Status Active vlans
--  ---  -----
1   Po1   down   -
```

```
vPC status
```

```
-----
id  Port  Status Consistency Reason           Active vlans
--  ---  -----
100 Po100 up     success  success                       1
101 Po101 up     success  success                       1
```

```
N7KB-vdc2#
```

Maintenant vous commencez à recevoir des messages de pair-keepalive à partir de N7KA de nouveau après une brève période (90 secondes) :

```
<snip>
2013-09-26 20:33:42.630255      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:43.630199      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:44.630263      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:45.640201      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:46.650262      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200

2013-09-26 20:33:47.652445      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:47.660318      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200

2013-09-26 20:33:48.652768      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:48.653347      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200

2013-09-26 20:33:49.652409      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:49.652705      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200

2013-09-26 20:33:50.652423      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:50.652773      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200

2013-09-26 20:33:51.652401      1.1.1.1 -> 1.1.1.2      UDP Source port: 3200  Destination port:
3200
2013-09-26 20:33:51.652839      1.1.1.2 -> 1.1.1.1      UDP Source port: 3200  Destination port:
3200
```

Alors vous voyez le dernier état sur N7KB (afficher le pair est actif) :

```
N7KB-vdc2# sh vpc brief
```

```
Legend:
```

```
(*) - local vPC is down, forwarding via vPC peer-link
```

```
vPC domain id          : 102
Peer status            : peer link is down
vPC keep-alive status  : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role               : secondary, operational primary
Number of vPCs configured : 2
Track object          : 1
Peer Gateway         : Enabled
Peer gateway excluded VLANs : -
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status  : Enabled (timeout = 240 seconds)
```

vPC Peer-link status

```
-----  
id   Port   Status Active vlans  
--   ----   -  
1    Po1     down  -
```

vPC status

```
-----  
id   Port   Status Consistency Reason           Active vlans  
--   ----   -  
100  Po100   up     success   success           1  
101  Po101   up     success   success           1
```

N7KB-vdc2#