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Introduction

Ce document discute plusieurs scénarios communs produits où le voisin de Protocole OSPF (Open Shortest Path First) n'est pas livré en ligne comme prévu. Afin d'éviter ce type de comportement inhabituel sur les Commutateurs de la gamme Cisco Nexus 7000, veuillez à suivre les instructions et les restrictions au sujet de la couche 3 (L3) et du Port canalisé virtuel (vpc).

[Informations générales](#)

Avant que vous dépanniez des problèmes, assurez-vous que les instructions et les restrictions sont rencontrées. Référez-vous à la [conception et au guide de configuration : Pratiques recommandées pour les Ports canalisés virtuels \(vpc\) sur le Commutateurs de la gamme Cisco Nexus 7000](#) pour plus d'informations sur L3 et vpc.

La procédure utilisée afin de dépanner des questions de contiguïté OSPF sur le Nexus 7000 est semblable aux procédures pour le Cisco IOS®, mais le Nexus 7000 a des outils et des filtres plus intégrés afin d'identifier facilement la question.

La contiguïté OSPF n'est pas livré en ligne

Il y a des périodes où la contiguïté OSPF n'est pas livré en ligne. La commande de **show ip ospf neighbor** n'affiche pas le voisin.

```
R3#show ip ospf neighbor
```

```
R3#
```

Cette question pourrait être provoqué par :

- Problème de connectivité L2/L3
- OSPF non activé sur l'interface
- L'interface est définie comme passif
- Masque de sous-réseau mal adapté
- Bonjour mal adapté/complètement intervalle
- Clé mal adaptée d'authentification

- ID de zone mal adapté
- Transit mal adapté/stub/option Non-Ainsi-troncée de la zone (NSSA)

Afin d'étudier question, vérifient Connectivité, configuration, et liste de contrôle d'accès) (d'ACL/Réglementation du plan de commande (CoPP).

Connectivité du contrôle L2/L3

1. Vérifiez la Connectivité d'unicast avec le ping.

S'il y a un problème de connectivité, le découvrez s'il est dû au fournisseur de services Internet (ISP) L2, à un port physique, à un convertisseur d'interface de gigabit (GBIC), ou à un câble.

Remarque: Supposez qu'il n'y a aucun ACL/CoPP bloquant le trafic. Si la question est due au matériel défectueux ou à un câble, remplacez-le ou déplacez-le un autre port afin de dépanner.

2. Vérifiez la connectivité multicast avec le ping.

```
N7K1-RP# ping multicast 224.0.0.5 interface vlan 5
PING 224.0.0.5 (224.0.0.5): 56 data bytes
64 bytes from 5.5.5.2: icmp_seq=0 ttl=254 time=1.739 ms
64 bytes from 5.5.5.2: icmp_seq=1 ttl=254 time=1.253 ms
64 bytes from 5.5.5.2: icmp_seq=2 ttl=254 time=0.866 ms
64 bytes from 5.5.5.2: icmp_seq=3 ttl=254 time=1.045 ms
64 bytes from 5.5.5.2: icmp_seq=4 ttl=254 time=1.89 ms

--- 224.0.0.5 ping multicast statistics ---
5 packets transmitted,
From member 5.5.5.2: 5 packets received, 0.00% packet loss
--- in total, 1 group member responded ---
N7K1-RP#
```

Vérifiez que l'interface est propre et qu'il n'y a aucune baisse ou erreur avec les Ethernets de l'exposition international 1/1 commande.

```
N7K1-RP# show int ethernet 1/20 | section RX|TX
RX
 340213 unicast packets  368092 multicast packets  2 broadcast packets
 708307 input packets   233094927 bytes
 0 jumbo packets  0 storm suppression packets
 0 runs  0 giants  0 CRC/FCS  0 no buffer
 0 input error  0 short frame  0 overrun  0 underrun  0 ignored
 0 watchdog  0 bad etype drop  0 bad proto drop  0 if down drop
 0 input with dribble  0 input discard
 0 Rx pause
TX
 1374131 unicast packets  324752 multicast packets  3 broadcast packets
 1698886 output packets  196282264 bytes
 0 jumbo packets
 0 output error  0 collision  0 deferred  0 late collision
 0 lost carrier  0 no carrier  0 babble  0 output discard
 0 Tx pause
N7K1-RP#
```

3. Déterminez si ces caractéristiques relâchent des paquets sur le linecard, l'interface, ou la CPU entrante.

- ACL - D'arrivée/sortant de l'interface
- Qualité de service (QoS) - Sur l'interface

• CoPP

QoS

```
N7K1-RP# show policy-map interface ethernet 1/20
```

```
Global statistics status : enabled
```

```
Ethernet1/20
```

```
Service-policy (queuing) input: default-in-policy  
SNMP Policy Index: 301989913
```

```
Class-map (queuing): in-q1 (match-any)  
queue-limit percent 50  
bandwidth percent 80  
queue dropped pkts : 0
```

```
Class-map (queuing): in-q-default (match-any)  
queue-limit percent 50  
bandwidth percent 20  
queue dropped pkts : 0
```

```
Service-policy (queuing) output: default-out-policy  
SNMP Policy Index: 301989922
```

```
Class-map (queuing): out-pq1 (match-any)  
priority level 1  
queue-limit percent 16  
queue dropped pkts : 0
```

```
Class-map (queuing): out-q2 (match-any)  
queue-limit percent 1  
queue dropped pkts : 0
```

```
Class-map (queuing): out-q3 (match-any)  
queue-limit percent 1  
queue dropped pkts : 0
```

```
Class-map (queuing): out-q-default (match-any)  
queue-limit percent 82  
bandwidth remaining percent 25  
queue dropped pkts : 0
```

CoPP

```
show policy-map interface control-plane class test1-copp-class-critical
```

```
Control Plane
```

```
service-policy input test1-copp-policy-lenient
```

```
class-map test1-copp-class-critical (match-any)  
match access-group name test1-copp-acl-bgp  
match access-group name test1-copp-acl-pim  
match access-group name test1-copp-acl-rip  
match access-group name test1-copp-acl-vpc  
match access-group name test1-copp-acl-bgp6  
match access-group name test1-copp-acl-igmp  
match access-group name test1-copp-acl-lisp  
match access-group name test1-copp-acl-msdp  
match access-group name test1-copp-acl-ospf
```

```
match access-group name test1-copp-acl-pim6
match access-group name test1-copp-acl-rip6
match access-group name test1-copp-acl-rise
match access-group name test1-copp-acl-eigrp
match access-group name test1-copp-acl-lisp6
match access-group name test1-copp-acl-ospf6
match access-group name test1-copp-acl-rise6
match access-group name test1-copp-acl-eigrp6
match access-group name test1-copp-acl-otv-as
match access-group name test1-copp-acl-mac-l2pt
match access-group name test1-copp-acl-mpls-ldp
match access-group name test1-copp-acl-mpls-oam
match access-group name test1-copp-acl-mpls-rsvp
match access-group name test1-copp-acl-mac-l3-isis
match access-group name test1-copp-acl-mac-otv-isis
match access-group name test1-copp-acl-mac-fabricpath-isis
match protocol mpls router-alert
match protocol mpls exp 6
set cos 7
police cir 39600 kbps bc 375 ms
  conform action: transmit
  violate action: drop
module 1:
  conformed 539964945 bytes,
    5-min offered rate 5093 bytes/sec
    peak rate 5213 bytes/sec
  violated 0 bytes,
    5-min violate rate 0 bytes/sec
module 2:
  conformed 784228080 bytes,
    5-min offered rate 5848 bytes/sec
    peak rate 7692 bytes/sec
  violated 0 bytes,
    5-min violate rate 0 bytes/sec
module 3:
  conformed 5114206 bytes,
    5-min offered rate 41 bytes/sec
    peak rate 6656 bytes/sec
  violated 0 bytes,
    5-min violate rate 0 bytes/sec
```

N7K1#

Vérifiez la configuration OSPF

Employez ces commandes afin de vérifier la configuration OSPF (sous-réseau, bonjour/complètement intervalle, ID de zone, type de zone, clé d'authentification (le cas échéant), et non-passif), et assurez-vous qu'il s'assortit des deux côtés.

1. Affichez l'OSPF de passage
2. Interface du show ip ospf 5
3. Show ip ospf 5

Voici un exemple de la première commande :

```
N7K1-RP# show run ospf
```

```
!Command: show running-config ospf
!Time: Thu May 16 11:27:24 2013
```

```
version 6.2(2)
feature ospf
```

```
logging level ospf 7

router ospf 5
  router-id 5.5.0.1

interface Vlan5
  ip router ospf 5 area 0.0.0.0

interface loopback5
  ip router ospf 5 area 0.0.0.0
```

N7K1-RP#

Voici un exemple de la deuxième commande :

```
N7K1-RP# show ip ospf 5 interface
Vlan5 is up, line protocol is up
  IP address 5.5.5.1/24, Process ID 5 VRF default, area 0.0.0.0
  Enabled by interface configuration
  State DR, Network type BROADCAST, cost 40
  Index 2, Transmit delay 1 sec, Router Priority 1
  Designated Router ID: 5.5.0.1, address: 5.5.5.1
  Backup Designated Router ID: 5.5.0.2, address: 5.5.5.2
  1 Neighbors, flooding to 1, adjacent with 1
  Timer intervals: Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello timer due in 00:00:00
  No authentication
  Number of opaque link LSAs: 0, checksum sum 0
loopback5 is up, line protocol is up
  IP address 5.5.0.1/32, Process ID 5 VRF default, area 0.0.0.0
  Enabled by interface configuration
  State LOOPBACK, Network type LOOPBACK, cost 1
  Index 1
```

N7K1-RP#

Voici un exemple de la troisième commande :

```
N7K1-RP# show ip ospf 5

Routing Process 5 with ID 5.5.0.1 VRF default
Routing Process Instance Number 3
Stateful High Availability enabled
Graceful-restart is configured
  Grace period: 60 state: Inactive
  Last graceful restart exit status: None
Supports only single TOS(TOS0) routes
Supports opaque LSA
Administrative distance 110
Reference Bandwidth is 40000 Mbps
SPF throttling delay time of 200.000 msecs,
  SPF throttling hold time of 1000.000 msecs,
  SPF throttling maximum wait time of 5000.000 msecs
LSA throttling start time of 0.000 msecs,
  LSA throttling hold interval of 5000.000 msecs,
  LSA throttling maximum wait time of 5000.000 msecs
Minimum LSA arrival 1000.000 msec
LSA group pacing timer 10 secs
Maximum paths to destination 8
Number of external LSAs 0, checksum sum 0
Number of opaque AS LSAs 0, checksum sum 0
Number of areas is 1, 1 normal, 0 stub, 0 nssa
Number of active areas is 1, 1 normal, 0 stub, 0 nssa
Install discard route for summarized external routes.
Install discard route for summarized internal routes.
```

```
Area BACKBONE(0.0.0.0)
Area has existed for 1d10h
Interfaces in this area: 2 Active interfaces: 2
Passive interfaces: 0 Loopback interfaces: 1
No authentication available
SPF calculation has run 47 times
Last SPF ran for 0.000542s
Area ranges are
Number of LSAs: 3, checksum sum 0x84d4
```

N7K1-RP#

Vérifiez les messages OSPF

Sélectionnez la commande de **contiguïté d'événement-historique de show ip ospf** afin de vérifier que des messages de débogage sont envoyés et reçus par le processus OPSF.

Remarque: Les derniers messages apparaissent au dessus.

La sortie affiche tous les messages de contiguïté OSPF qui sont permutés entre les voisins OSPF. Quand une contiguïté OSPF est formée, un routeur passe par plusieurs modifications d'état avant qu'il devienne entièrement adjacent avec son voisin. Cette sortie affiche toutes les modifications d'état et négociations. S'il y a une question (unité maximum de transition (MTU), problèmes de connectivité, perte de paquets), on le reflète dans la sortie.

N7K1-RP# **show ip ospf 5 event-history adjacency**

```
Adjacency events for OSPF Process "ospf-5"
2013 May 16 10:50:58.121128 ospf 5 [9386]: : mtu 1600, opts: 0x42, ddbits:
0, seq: 0x6f40fde4
2013 May 16 10:50:58.121124 ospf 5 [9386]: : Sent DBD with 0 entries to 5.5.5.2
on Vlan5
2013 May 16 10:50:58.121114 ospf 5 [9386]: : Sending DBD to 5.5.5.2 on Vlan5
2013 May 16 10:50:58.118030 ospf 5 [9386]: : Nbr 5.5.5.2: LOADING --> FULL,
event LDDONE
2013 May 16 10:50:58.115840 ospf 5 [9386]: : Built LS Request packet for 5.5.5.2
with 1 entries
2013 May 16 10:50:58.115835 ospf 5 [9386]: : Add 5.5.0.2(0x1)5.5.0.2
(0x8000104e)(0x7ef8) (156) to LSR
2013 May 16 10:50:58.115823 ospf 5 [9386]: : Building LS Request packet to
5.5.5.2
2013 May 16 10:50:58.112201 ospf 5 [9386]: : Nbr 5.5.5.2: EXCHANGE --> LOADING,
event EXCHDONE
2013 May 16 10:50:58.112026 ospf 5 [9386]: : seqnr 0x6f40fde4, dbdbits 0x1,
mtu 1600, options 0x42
2013 May 16 10:50:58.112022 ospf 5 [9386]: : Got DBD from 5.5.5.2 with 0 entries
2013 May 16 10:50:58.111988 ospf 5 [9386]: : seqnr 0x6f40fde4, dbdbits 0x1,
mtu 1600, options 0x42
2013 May 16 10:50:58.111984 ospf 5 [9386]: : Got DBD from 5.5.5.2 with 0 entries
2013 May 16 10:50:58.110169 ospf 5 [9386]: : mtu 1600, opts: 0x42, ddbits: 0,
seq: 0x6f40fde3
2013 May 16 10:50:58.110165 ospf 5 [9386]: : Sent DBD with 0 entries to 5.5.5.2
on Vlan5
2013 May 16 10:50:58.110155 ospf 5 [9386]: : Sending DBD to 5.5.5.2 on Vlan5
2013 May 16 10:50:58.106609 ospf 5 [9386]: : Added 1 out of 1 LSAs to
request list
2013 May 16 10:50:58.106606 ospf 5 [9386]: : Added 5.5.0.2(0x1)5.5.0.2
(0x8000104e)(0x7ef8) (156) to request list
2013 May 16 10:50:58.106586 ospf 5 [9386]: : seqnr 0x6f40fde3, dbdbits 0x3,
mtu 1600, options 0x42
2013 May 16 10:50:58.106582 ospf 5 [9386]: : Got DBD from 5.5.5.2 with 1 entries
2013 May 16 10:50:58.106537 ospf 5 [9386]: : seqnr 0x6f40fde3, dbdbits 0x3,
```

mtu 1600, options 0x42
2013 May 16 10:50:58.106532 ospf 5 [9386]: : Got DBD from 5.5.5.2 with 1 entries
2013 May 16 10:50:58.104462 ospf 5 [9386]: : Built reply LSU with 2 LSAs for
5.5.5.2 128 bytes
2013 May 16 10:50:58.104439 ospf 5 [9386]: : Added 5.5.5.2(0x2)5.5.0.2
(0x80000045) (0xaf32) (156)
2013 May 16 10:50:58.104431 ospf 5 [9386]: : Added 5.5.0.1(0x1)5.5.0.1
(0x80000ecf) (0xd834) (8)(0)
2013 May 16 10:50:58.104408 ospf 5 [9386]: : Building reply LSU to 5.5.5.2
2013 May 16 10:50:58.104404 ospf 5 [9386]: : 2 requests in LSR (2 left)
2013 May 16 10:50:58.104370 ospf 5 [9386]: : Answering LSR from 5.5.5.2
2013 May 16 10:50:58.100790 ospf 5 [9386]: : Recv LSR from Nbr 5.5.5.2
2013 May 16 10:50:58.099055 ospf 5 [9386]: : mtu 1600, opts: 0x42, ddbits:
0x2, seq: 0x6f40fde2
2013 May 16 10:50:58.099051 ospf 5 [9386]: : Sent DBD with 3 entries to 5.5.5.2
on Vlan5
2013 May 16 10:50:58.099038 ospf 5 [9386]: : Sending DBD to 5.5.5.2 on Vlan5
2013 May 16 10:50:58.095072 ospf 5 [9386]: : seqnr 0x6f40fde2, ddbits 0x7,
mtu 1600, options 0x42
2013 May 16 10:50:58.095068 ospf 5 [9386]: : Got DBD from 5.5.5.2 with 0 entries
2013 May 16 10:50:58.095024 ospf 5 [9386]: : Nbr 5.5.5.2: EXSTART --> EXCHANGE,
event NEGDONE
2013 May 16 10:50:58.094895 ospf 5 [9386]: : We are SLAVE, 5.5.5.2 is master
2013 May 16 10:50:58.094890 ospf 5 [9386]: : seqnr 0x6f40fde2, ddbits 0x7,
mtu 1600, options 0x42
2013 May 16 10:50:58.094886 ospf 5 [9386]: : Got DBD from 5.5.5.2 with 0 entries
2013 May 16 10:50:58.093037 ospf 5 [9386]: : mtu 1600, opts: 0x42, ddbits: 0x7,
seq: 0x7273409a
2013 May 16 10:50:58.093033 ospf 5 [9386]: : Sent DBD with 0 entries to 5.5.5.2
on Vlan5
2013 May 16 10:50:58.093029 ospf 5 [9386]: : Sending DBD to 5.5.5.2 on Vlan5
2013 May 16 10:50:58.092915 ospf 5 [9386]: : Nbr 5.5.5.2: INIT --> EXSTART,
event TWOWAYRCVD
2013 May 16 10:50:58.092862 ospf 5 [9386]: : Nbr 5.5.5.2: TWOWAY --> EXSTART,
event ADJOK
2013 May 16 10:50:58.092763 ospf 5 [9386]: [9446]: Interface Vlan5 ---> BDR
2013 May 16 10:50:58.092757 ospf 5 [9386]: [9446]: Elected 5.5.0.2 as DR,
5.5.0.1 as BDR
2013 May 16 10:50:58.092690 ospf 5 [9386]: [9446]: This nbr 5.5.5.2 promoted
to current dr
2013 May 16 10:50:58.092687 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.2
(0x93e3524), state TWOWAY
2013 May 16 10:50:58.092683 ospf 5 [9386]: [9446]: Neighbor not declared DR,
ignoring
2013 May 16 10:50:58.092680 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.1
(0xaclf7514), state SELF
2013 May 16 10:50:58.092676 ospf 5 [9386]: [9446]: DR election starting
2013 May 16 10:50:58.092673 ospf 5 [9386]: [9446]: This neighbor is greater
than 2way
2013 May 16 10:50:58.092670 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.2
(0x93e3524), state TWOWAY
2013 May 16 10:50:58.092666 ospf 5 [9386]: [9446]: Compare done, new current
bdr 5.5.5.1
2013 May 16 10:50:58.092663 ospf 5 [9386]: [9446]: Current BDR set to this
neighbor
2013 May 16 10:50:58.092660 ospf 5 [9386]: [9446]: This neighbor is in
consideration for bdr
2013 May 16 10:50:58.092657 ospf 5 [9386]: [9446]: This neighbor is greater
than 2way
2013 May 16 10:50:58.092654 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.1
(0xaclf7514), state SELF
2013 May 16 10:50:58.092650 ospf 5 [9386]: [9446]: BDR election starting
2013 May 16 10:50:58.092647 ospf 5 [9386]: [9446]: DR/BDR Status of this router
changed, new election run

```

2013 May 16 10:50:58.092643 ospf 5 [9386]: [9446]: This nbr 5.5.5.2 promoted
to current dr
2013 May 16 10:50:58.092639 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.2
(0x93e3524), state TWOWAY
2013 May 16 10:50:58.092635 ospf 5 [9386]: [9446]: Neighbor not declared DR,
ignoring
2013 May 16 10:50:58.092632 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.1
(0xa1cf7514), state SELF
2013 May 16 10:50:58.092628 ospf 5 [9386]: [9446]: DR election starting
2013 May 16 10:50:58.092625 ospf 5 [9386]: [9446]: This neighbor is greater
than 2way
2013 May 16 10:50:58.092622 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.2
(0x93e3524), state TWOWAY
2013 May 16 10:50:58.092618 ospf 5 [9386]: [9446]: Compare done, new current
bdr 5.5.5.1
2013 May 16 10:50:58.092613 ospf 5 [9386]: [9446]: Current BDR set to this
neighbor
2013 May 16 10:50:58.092610 ospf 5 [9386]: [9446]: This neighbor is in
consideration for bdr
2013 May 16 10:50:58.092607 ospf 5 [9386]: [9446]: This neighbor is greater
than 2way
2013 May 16 10:50:58.092604 ospf 5 [9386]: [9446]: Walking neighbor 5.5.5.1
(0xa1cf7514), state SELF
2013 May 16 10:50:58.092597 ospf 5 [9386]: [9446]: BDR election starting
2013 May 16 10:50:58.092573 ospf 5 [9386]: [9446]: Current 0.0.0.0 as DR,
0.0.0.0 as BDR
2013 May 16 10:50:58.092567 ospf 5 [9386]: [9446]: Begin OSPF DR election on
Vlan5
2013 May 16 10:50:58.092432 ospf 5 [9386]: : Nbr 5.5.5.2: DOWN --> INIT,
event HELLORCVD

```

Dépannez

Si l'enquête sur la Connectivité L2/3, la configuration, et le trafic OSPF-autorisé ne découvrait pas le problème et affichait le voisin sur la liste, ouvrez une valise du centre d'assistance technique Cisco (TAC). Écrivez ces commandes et approvisionnement TAC avec les informations des deux sorties de voisins :

- Affichez le passage
- OSPF de show tech-support

Voisin OSPF coincé dans l'état de l'initialisation (INIT)

Il y a des périodes quand le voisin est coincé dans l'état Init, qui indique que le Nexus 7000 voit bonjour des paquets du voisin, mais ne voit pas son router-id dans bonjour le paquet afin de se déplacer au prochain état de bi-directionnel.

```
router2#show ip ospf neighbor
```

```

Neighbor ID      Pri   State       Dead Time   Address        Interface
170.170.5.1      1     INIT/-      00:00:34   170.170.1.1   ethernet 1/1
router-2#

```

Cette question pourrait être provoqué par :

- Un côté bloque bonjour le paquet avec l'ACL.
- Un côté traduit, avec le Traduction d'adresses de réseau (NAT), l'OSPF bonjour.
- La capacité multicast d'un côté est cassée (L2).

Terminez-vous ces étapes afin d'étudier la question :

1. Vérifiez que l'avion de contrôle de Protocole IP Multicast fonctionne.

```
N7K4# ping multicast 224.0.0.5 interface Ethernet 1/1
```

Si vous ne voyez pas l'adresse IP des voisins sur les résultats de ping, alors il y a une question. Vérifiez-le des deux côtés.

2. Vérifiez que BONJOUR des paquets sont reçus du voisin.

```
N7K4# show ip ospf 5 event-history adjacency
```

Remarque: Des paquets sortants de bonjour ne sont pas affichés.

3. Activez la contiguïté OSPF mettent au point sur chaque interface, et vérifient que bonjour des paquets sont envoyés.

```
N7K4# debug logfile debug-ospf size 10000
```

```
N7K4# debug-filter ip ospf 5 interface Ethernet 1/1
```

```
N7K4# debug ip ospf 5 adjacency detail
```

Remarque: N'oubliez pas de désactiver met au point.

```
N7K4# undebug all
```

```
N7K4# no debug-filter all
```

```
N7K4# clear debug logfile debug-ospf
```

4. Vérifiez que des paquets sont envoyés par OSPF à 224.0.0.5.

```
N7K4# debug logfile ospf_vj
```

```
N7K4# debug-filter ip mpacket interface e1/5
```

```
N7K4# debug-filter ip mpacket direction outbound
```

```
N7K4# debug-filter ip mpacket dest 224.0.0.5
```

```
N7K4# debug ip ospf 5 hello
```

```
N7K4# show debug logfile ospf_vj
```

```
N7K1-RP# show debug logfile ospf_vj
```

```
2013 May 16 11:18:55.202270 ospf: 5 [9386] (default) LAN hello in, ivl 10/40,
options 0x02, mask /24, prio 1, dr 5.5.5.1, bdr 5.5.5
.2 on Vlan5 from 5.5.5.2
```

```
2013 May 16 11:19:00.527640 ospf: 5 [9386] (default) LAN hello out, ivl 10/40,
options 0x02, mask /24, prio 1, dr 5.5.5.1, bdr 5.5.
5.2 nbrs 1 on Vlan5 (area 0.0.0.0)
```

```
2013 May 16 11:19:03.500785 ospf: 5 [9386] (default) LAN hello in, ivl 10/40,
options 0x02, mask /24, prio 1, dr 5.5.5.1, bdr 5.5.5
.2 on Vlan5 from 5.5.5.2
```

```
2013 May 16 11:19:09.515150 ospf: 5 [9386] (default) LAN hello out, ivl 10/40,
options 0x02, mask /24, prio 1, dr 5.5.5.1, bdr 5.5.
5.2 nbrs 1 on Vlan5 (area 0.0.0.0)
```

```
2013 May 16 11:19:10.406800 ospf: 5 [9386] (default) LAN hello in, ivl 10/40,
options 0x02, mask /24, prio 1, dr 0.0.0.0, bdr 0.0.0
.0 on Vlan5 from 5.5.5.2
```

```
2013 May 16 11:19:10.417602 ospf: 5 [9386] (default) LAN hello in, ivl 10/40,
options 0x02, mask /24, prio 1, dr 0.0.0.0, bdr 0.0.0
.0 on Vlan5 from 5.5.5.2
```

```
N7K1-RP#
```

Remarque: N'oubliez pas de désactiver met au point.

```
N7K4# clear debug logfile ospf_vj
```

```
N7K4# undebug all
```

```
N7K4# no debug-fil all
```

```
no debug-filter ip mpacket interface Ethernet1/5
```

```
no debug-filter ip mpacket direction outbound
```

```
no debug-filter ip mpacket dest 224.0.0.5
```

```
N7K4#
```

5. Vérifiez que le paquet est sur l'ethanalyzer.

```
N7K4# ethanalyzer local interface inband capture-filter "ip proto \ospf"
```

```
N7K1# ethanalyzer local interface inband capture-filter "ip proto \ospf"
```

```
Capturing on inband
```

```
50 packets captured
```

```
2013-05-16 11:06:34.387196      5.5.5.2 -> 224.0.0.5    OSPF Hello Packet
```

```
2013-05-16 11:06:34.397553      5.5.5.2 -> 224.0.0.5    OSPF Hello Packet
```

```
2013-05-16 11:06:38.895343      5.5.5.1 -> 224.0.0.5    OSPF Hello Packet
```

Remarque: Il doit y avoir d'un dans le contexte par défaut de périphérique virtuel (volts continu).

Dépannez

Si l'enquête sur la Connectivité L2/3, la configuration, et le trafic OSPF-autorisé ne découvre pas le problème et prouve que le voisin devient COMPLÈTEMENT, ouvrez une valise TAC. Écrivez ces commandes et approvisionnement TAC avec les informations des deux sorties de voisins :

- Affichez le passage
- OSPF de show tech-support

Voisin OSPF coincé dans un état bi-directionnel

Il y a des périodes où le voisin OSPF est coincé dans un état bi-directionnel. Ce scénario est normal dans des types de réseau de diffusion, et réduit la quantité d'inondation sur le fil. Ce scénario se produit également si tous les Routeurs sont configurés avec une priorité égale à zéro.

Remarque: Seulement des routeurs bas de gamme devraient être configurés avec une priorité de zéro ainsi ils ne participent pas à l'élection indiquée du routeur (DR).

Référez-vous [le pourquoi fait la commande de show ip ospf neighbor indiquent des voisins coincés dans l'état bi-directionnel ?](#) pour en savoir plus d'article.

Voisin OSPF coincé dans Exstart/échange

Il y a des périodes où le voisin OSPF est coincé dans l'état d'Exstart/échange.

S'il y a non-concordance de MTU entre les interfaces des voisins OSPF ou ils ne peuvent pas se cingler avec la longueur de paquet du MTU configuré dû aux supports de transmission, alors le voisin OSPF est coincé dans l'état d'exstart/échange.

```
router-6# show ip ospf neighbor
```

Neighbor ID	Pri	State	Dead Time	Address	Interface
170.170.11.7	1	EXCHANGE/ -	00:00:36	170.170.11.7	Serial2.7

```
router-6#router-7# show ip ospf neighbor
```

Neighbor ID	Pri	State	Dead Time	Address	Interface
170.170.11.6	1	EXSTART/ -	00:00:33	170.170.11.6	Serial10.6

```
router-7#
```

Cette question pourrait sont provoqué par par :

- Non-concordance de MTU - ÉCHANGE sur un routeur et EXSTART de l'autre
- Remarque: Vous pouvez configurer avec la commande d'`ip ospf mtu-ignore`.

- L'ID de routeur voisin (DÉBARRASSÉ) est identique que son voisin - EXSTART
- Unicast est cassé - ÉCHANGE Problème de MTU - ne peut pas cingler à travers avec plus qu'un paquet de certain-longueurACL bloquant l'unicast - après OSPF bi-directionnel envoi le paquet monodiffusion excepté les liens point par point (de P2P)NAT traduit le paquet monodiffusion

Terminez-vous ces étapes afin d'étudier la question :

1. Vérifiez le ping normal avec un Don't Fragment (DF) mordu sur et avec l'IP MTU maximum sur l'interface.

```
N7K4# ping 10.10.12.2 df-bit packet-size 1472
```

Remarque: Dans le Cisco IOS, quand vous sélectionnez la **commande de <size> de taille du ping x.x.x.x**, la taille se rapporte à la taille de paquets IP. Dans le Linux, vous spécifiez la charge utile de Protocole ICMP (Internet Control Message Protocol) du ping plutôt que spécifiant la taille de paquets IP comme dans le Cisco IOS. Car vous pourriez déjà savoir, le Nexus est établi sur le Linux. Le MTU est encore placé à 1,500 octets - 20 de ces octets sont l'en-tête IP et encore 8 sont l'en-tête d'ICMP. $1,500 - 20 - 8 = 1,472$ octets de la charge utile. Par conséquent, la taille réelle de datagramme IP est identique que sur le Cisco IOS, qui est de 1,500 octets.

2. Vérifiez si des paquets sont lâchés sur les interfaces entrantes avec les **Ethernets de l'exposition international 1/1** commande.

```
N7K1-RP# show int ethernet 1/20 | section RX|TX
```

RX

```
340213 unicast packets 368092 multicast packets 2 broadcast packets
708307 input packets 233094927 bytes
0 jumbo packets 0 storm suppression packets
0 runts 0 giants 0 CRC/FCS 0 no buffer
0 input error 0 short frame 0 overrun 0 underrun 0 ignored
0 watchdog 0 bad etype drop 0 bad proto drop 0 if down drop
0 input with dribble 0 input discard
0 Rx pause
```

TX

```
1374131 unicast packets 324752 multicast packets 3 broadcast packets
1698886 output packets 196282264 bytes
0 jumbo packets
0 output error 0 collision 0 deferred 0 late collision
0 lost carrier 0 no carrier 0 babble 0 output discard
0 Tx pause
```

```
N7K1-RP#
```

3. Vérifiez si CoPP relâche le paquet OSPF avec la commande de la classe **test1-copp-class-critical de contrôle-avion de show policy-map interface**.

```
Control Plane
```

```
service-policy input test1-copp-policy-lenient
```

```
class-map test1-copp-class-critical (match-any)
  match access-group name test1-copp-acl-bgp
  match access-group name test1-copp-acl-pim
  match access-group name test1-copp-acl-rip
  match access-group name test1-copp-acl-vpc
  match access-group name test1-copp-acl-bgp6
  match access-group name test1-copp-acl-igmp
  match access-group name test1-copp-acl-lisp
  match access-group name test1-copp-acl-msdp
  match access-group name test1-copp-acl-ospf
  match access-group name test1-copp-acl-pim6
```

```

match access-group name test1-copp-acl-rip6
match access-group name test1-copp-acl-rise
match access-group name test1-copp-acl-eigrp
match access-group name test1-copp-acl-lisp6
match access-group name test1-copp-acl-ospf6
match access-group name test1-copp-acl-rise6
match access-group name test1-copp-acl-eigrp6
match access-group name test1-copp-acl-otv-as
match access-group name test1-copp-acl-mac-l2pt
match access-group name test1-copp-acl-mpls-ldp
match access-group name test1-copp-acl-mpls-oam
match access-group name test1-copp-acl-mpls-rsvp
match access-group name test1-copp-acl-mac-l3-isis
match access-group name test1-copp-acl-mac-otv-isis
match access-group name test1-copp-acl-mac-fabricpath-isis
match protocol mpls router-alert
match protocol mpls exp 6
set cos 7
police cir 39600 kbps bc 375 ms
  conform action: transmit
  violate action: drop
module 1:
  conformed 539964945 bytes,
    5-min offered rate 5093 bytes/sec
    peak rate 5213 bytes/sec
  violated 0 bytes,
    5-min violate rate 0 bytes/sec
module 2:
  conformed 784228080 bytes,
    5-min offered rate 5848 bytes/sec
    peak rate 7692 bytes/sec
  violated 0 bytes,
    5-min violate rate 0 bytes/sec
module 3:
  conformed 5114206 bytes,
    5-min offered rate 41 bytes/sec
    peak rate 6656 bytes/sec
  violated 0 bytes,
    5-min violate rate 0 bytes/sec

```

N7K1#

4. Vérifiez l'échange du descripteur de base de données OSPF (DBD) avec la commande de **contiguïté d'événement-historique du show ip ospf 5** ou la commande de **contiguïté OSPF 5 d'IP de débogage**.

```

N7K1-RP# debug logfile debug-ospf size 10000
N7K1-RP# debug-filter ip ospf 5 interface Vlan 5
N7K1-RP# debug ip ospf 5 adjacency detail

```

Voici un exemple :

```

N7K1-RP# show debug logfile debug-ospf
2013 May 20 05:36:23.414376 ospf: 5 [8325] (default)      Nbr 5.5.5.2 FSM start:
old state FULL, event HELLORCVD
2013 May 20 05:36:23.414424 ospf: 5 [8325] (default)      Nbr 5.5.5.2: FULL -->
FULL, event HELLORCVD
2013 May 20 05:36:23.414438 ospf: 5 [8325] (default)      Nbr 5.5.5.2 FSM start:
old state FULL, event TWOWAYRCVD
2013 May 20 05:36:23.414450 ospf: 5 [8325] (default)      Nbr 5.5.5.2: FULL -->
FULL, event TWOWAYRCVD
2013 May 20 05:36:28.832638 ospf: 5 [8325] (default)      Nbr 5.5.5.2 FSM start:
old state FULL, event HELLORCVD
2013 May 20 05:36:28.832674 ospf: 5 [8325] (default)      Nbr 5.5.5.2: FULL -->
FULL, event HELLORCVD

```

2013 May 20 05:36:28.832695 ospf: 5 [8325] (default) Nbr 5.5.5.2: transitioning to OneWay - did not find ourselves

2013 May 20 05:36:28.832709 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start: old state FULL, event ONEWAYRCVD

2013 May 20 05:36:28.833073 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM state changed from FULL to INIT, event ONEWAYRCVD

2013 May 20 05:36:28.833120 ospf: 5 [8325] Begin OSPF DR election on Vlan5

2013 May 20 05:36:28.833140 ospf: 5 [8325] Current 5.5.0.1 as DR, 5.5.0.2 as BDR

2013 May 20 05:36:28.833177 ospf: 5 [8325] BDR election starting

2013 May 20 05:36:28.833196 ospf: 5 [8325] Walking neighbor 5.5.5.1 (0xaec59188), state SELF

2013 May 20 05:36:28.833211 ospf: 5 [8325] This neighbor is greater than 2way

2013 May 20 05:36:28.833235 ospf: 5 [8325] Walking neighbor 5.5.5.2 (0x9777584), state INIT

2013 May 20 05:36:28.833249 ospf: 5 [8325] DR election starting

2013 May 20 05:36:28.833265 ospf: 5 [8325] Walking neighbor 5.5.5.1 (0xaec59188), state SELF

2013 May 20 05:36:28.833281 ospf: 5 [8325] This nbr 5.5.5.1 promoted to current dr

2013 May 20 05:36:28.833297 ospf: 5 [8325] Walking neighbor 5.5.5.2 (0x9777584), state INIT

2013 May 20 05:36:28.833404 ospf: 5 [8325] Elected 5.5.0.1 as DR, 0.0.0.0 as BDR

2013 May 20 05:36:28.833440 ospf: 5 [8325] Interface Vlan5 ---> DR

2013 May 20 05:36:28.833456 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start: old state INIT, event ADJOK

2013 May 20 05:36:28.833474 ospf: 5 [8325] (default) Nbr 5.5.5.2: INIT --> INIT, event ADJOK

2013 May 20 05:36:28.833492 ospf: 5 [8325] (default) Nbr 5.5.5.2: FULL --> INIT, event ONEWAYRCVD

2013 May 20 05:36:28.843309 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start: old state INIT, event HELLORCVD

2013 May 20 05:36:28.843339 ospf: 5 [8325] (default) Nbr 5.5.5.2: INIT --> INIT, event HELLORCVD

2013 May 20 05:36:28.843357 ospf: 5 [8325] (default) Nbr 5.5.5.2: transitioning to OneWay - did not find ourselves

2013 May 20 05:36:28.843370 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start: old state INIT, event ONEWAYRCVD

2013 May 20 05:36:28.843386 ospf: 5 [8325] (default) Nbr 5.5.5.2: INIT --> INIT, event ONEWAYRCVD

2013 May 20 05:36:34.244541 ospf: 5 [8325] (default) Got DBD from 5.5.5.2 with 0 entries

2013 May 20 05:36:34.244567 ospf: 5 [8325] (default) seqnr 0x9247f5e, dbdbits 0x7, mtu 1600, options 0x42

2013 May 20 05:36:34.244622 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start: old state INIT, event TWOWAYRCVD

2013 May 20 05:36:34.244798 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM state changed from INIT to EXSTART, event ADJOK

2013 May 20 05:36:34.244859 ospf: 5 [8325] Begin OSPF DR election on Vlan5

2013 May 20 05:36:34.244880 ospf: 5 [8325] Current 5.5.0.1 as DR, 0.0.0.0 as BDR

2013 May 20 05:36:34.244916 ospf: 5 [8325] BDR election starting

2013 May 20 05:36:34.244935 ospf: 5 [8325] Walking neighbor 5.5.5.1 (0xaec59288), state SELF

2013 May 20 05:36:34.244949 ospf: 5 [8325] This neighbor is greater than 2way

2013 May 20 05:36:34.244965 ospf: 5 [8325] Walking neighbor 5.5.5.2 (0x9777584), state EXSTART

2013 May 20 05:36:34.244978 ospf: 5 [8325] This neighbor is greater than 2way

2013 May 20 05:36:34.244991 ospf: 5 [8325] This neighbor is in consideration for bdr

```

2013 May 20 05:36:34.245004 ospf: 5 [8325] Current BDR set to this neighbor
2013 May 20 05:36:34.245019 ospf: 5 [8325] Compare done, new current
bdr 5.5.5.2
2013 May 20 05:36:34.245033 ospf: 5 [8325] DR election starting
2013 May 20 05:36:34.245049 ospf: 5 [8325] Walking neighbor 5.5.5.1
(Oxaec59288), state SELF
2013 May 20 05:36:34.245065 ospf: 5 [8325] This nbr 5.5.5.1 promoted to
current dr
2013 May 20 05:36:34.245080 ospf: 5 [8325] Walking neighbor 5.5.5.2
(0x9777584), state EXSTART
2013 May 20 05:36:34.245094 ospf: 5 [8325] Neighbor not declared DR,
ignoring
2013 May 20 05:36:34.245202 ospf: 5 [8325] Elected 5.5.0.1 as DR,
5.5.0.2 as BDR
2013 May 20 05:36:34.245247 ospf: 5 [8325] Interface Vlan5 ---> DR
2013 May 20 05:36:34.245262 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start:
old state EXSTART, event ADJOK
2013 May 20 05:36:34.245299 ospf: 5 [8325] (default) Nbr 5.5.5.2:
EXSTART --> EXSTART, event ADJOK
2013 May 20 05:36:34.245318 ospf: 5 [8325] (default) Nbr 5.5.5.2:
INIT --> EXSTART, event TWOWAYRCVD
2013 May 20 05:36:34.245335 ospf: 5 [8325] (default) We are SLAVE,
5.5.5.2 is master
2013 May 20 05:36:34.245348 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start:
old state EXSTART, event NEGDONE
2013 May 20 05:36:34.245366 ospf: 5 [8325] (default) Preparing DBD exchange
for nbr 5.5.5.2, 387/5
2013 May 20 05:36:34.245463 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM state
changed from EXSTART to EXCHANGE, event NEGDONE
2013 May 20 05:36:34.245483 ospf: 5 [8325] (default) Nbr 5.5.5.2: EXSTART -->
EXCHANGE, event NEGDONE
2013 May 20 05:36:34.245843 ospf: 5 [8325] (default) Got DBD from 5.5.5.2
with 0 entries
2013 May 20 05:36:34.245862 ospf: 5 [8325] (default) seqnr 0x9247f5e,
dbdbits 0x7, mtu 1600, options 0x42
2013 May 20 05:36:34.245997 ospf: 5 [8325] (default) Sending DBD to
5.5.5.2 on Vlan5
2013 May 20 05:36:34.246031 ospf: 5 [8325] (default) Add 5.5.0.2(0x1)5.5.0.2
(0x80000084) (0x2c26) (109) to DBD
2013 May 20 05:36:34.246062 ospf: 5 [8325] (default) Add 5.5.0.1(0x1)5.5.0.1
(0x8000007f) (0xa3c7) (5) (0) to DBD
2013 May 20 05:36:34.246078 ospf: 5 [8325] (default) Filled DBD to 5.5.5.2
with 2 entries
2013 May 20 05:36:34.246111 ospf: 5 [8325] (default) Sent DBD with 2 entries to
5.5.5.2 on Vlan5
2013 May 20 05:36:34.246128 ospf: 5 [8325] (default) mtu 1600, opts: 0x42,
ddbbits: 0x2, seq: 0x9247f5e
2013 May 20 05:36:34.258616 ospf: 5 [8325] (default) Recv LSR from Nbr 5.5.5.2
2013 May 20 05:36:34.258634 ospf: 5 [8325] (default) schedule flood
2013 May 20 05:36:34.258674 ospf: 5 [8325] (default) Answering LSR from 5.5.5.2
2013 May 20 05:36:34.258690 ospf: 5 [8325] (default) 1 requests in LSR (1 left)
2013 May 20 05:36:34.258707 ospf: 5 [8325] (default) Building reply LSU to 5.5.5.2
2013 May 20 05:36:34.258726 ospf: 5 [8325] (default) Found requested LSA
5.5.0.1(1)5.5.0.1 for 5.5.5.2
2013 May 20 05:36:34.258791 ospf: 5 [8325] (default) Added 5.5.0.1(0x1)
5.5.0.1 (0x8000007f) (0xa3c7) (5) (0)
2013 May 20 05:36:34.258872 ospf: 5 [8325] (default) Built reply LSU with 1 LSAs
for 5.5.5.2 96 bytes
2013 May 20 05:36:34.286591 ospf: 5 [8325] (default) Got DBD from 5.5.5.2
with 2 entries
2013 May 20 05:36:34.286615 ospf: 5 [8325] (default) seqnr 0x9247f5f,
dbdbits 0x3, mtu 1600, options 0x42
2013 May 20 05:36:34.286751 ospf: 5 [8325] (default) Got DBD from 5.5.5.2
with 2 entries

```

2013 May 20 05:36:34.286784 ospf: 5 [8325] (default) seqnr 0x9247f5f,
dbdbits 0x3, mtu 1600, options 0x42

2013 May 20 05:36:34.286804 ospf: 5 [8325] (default) Found 5.5.5.1(0x2)
5.5.0.1 (0x80000004) (0x46de) (111) in DBD

2013 May 20 05:36:34.286870 ospf: 5 [8325] (default) Added 5.5.5.1(0x2)
5.5.0.1 (0x80000004) (0x46de) (111) (DO) to request list

2013 May 20 05:36:34.286889 ospf: 5 [8325] (default) Found 5.5.0.2(0x1)
5.5.0.2 (0x800000085) (0x91d0) (5) in DBD

2013 May 20 05:36:34.286917 ospf: 5 [8325] (default) Added 5.5.0.2(0x1)
5.5.0.2 (0x800000084) (0x2c26) (109) to request list

2013 May 20 05:36:34.286932 ospf: 5 [8325] (default) Added 2 out of 2 LSAs
to request list

2013 May 20 05:36:34.287046 ospf: 5 [8325] (default) Sending DBD to
5.5.5.2 on Vlan5

2013 May 20 05:36:34.287066 ospf: 5 [8325] (default) Filled DBD to
5.5.5.2 with 0 entries

2013 May 20 05:36:34.287101 ospf: 5 [8325] (default) Sent DBD with 0 entries to
5.5.5.2 on Vlan5

2013 May 20 05:36:34.287121 ospf: 5 [8325] (default) mtu 1600, opts: 0x42,
dbdbits: 0, seq: 0x9247f5f

2013 May 20 05:36:34.291760 ospf: 5 [8325] (default) Got DBD from 5.5.5.2
with 0 entries

2013 May 20 05:36:34.291789 ospf: 5 [8325] (default) seqnr 0x9247f60,
dbdbits 0x1, mtu 1600, options 0x42

2013 May 20 05:36:34.291915 ospf: 5 [8325] (default) Got DBD from 5.5.5.2
with 0 entries

2013 May 20 05:36:34.291934 ospf: 5 [8325] (default) seqnr 0x9247f60,
dbdbits 0x1, mtu 1600, options 0x42

2013 May 20 05:36:34.291953 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start:
old state EXCHANGE, event EXCHDONE

2013 May 20 05:36:34.292101 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM state
changed from EXCHANGE to LOADING, event EXCHDONE

2013 May 20 05:36:34.292124 ospf: 5 [8325] (default) Nbr 5.5.5.2: EXCHANGE -->
LOADING, event EXCHDONE

2013 May 20 05:36:34.293200 ospf: 5 [8325] (default) Building LS Request packet
to 5.5.5.2

2013 May 20 05:36:34.293231 ospf: 5 [8325] (default) Add 5.5.0.2(0x1)
5.5.0.2 (0x800000084) (0x2c26) (110) to LSR

2013 May 20 05:36:34.293262 ospf: 5 [8325] (default) Add 5.5.5.1(0x2)
5.5.0.1 (0x80000004) (0x46de) (111) (DO) to LSR

2013 May 20 05:36:34.293281 ospf: 5 [8325] (default) Built LS Request packet for
5.5.5.2 with 2 entries

2013 May 20 05:36:34.297954 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start:
old state LOADING, event LDDONE

2013 May 20 05:36:34.298069 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM state
changed from LOADING to FULL, event LDDONE

2013 May 20 05:36:34.298206 ospf: 5 [8325] (default) Nbr 5.5.5.2: LOADING -->
FULL, event LDDONE

2013 May 20 05:36:34.299179 ospf: 5 [8325] (default) Sending DBD to 5.5.5.2
on Vlan5

2013 May 20 05:36:34.299199 ospf: 5 [8325] (default) Filled DBD to 5.5.5.2
with 0 entries

2013 May 20 05:36:34.299233 ospf: 5 [8325] (default) Sent DBD with 0 entries to
5.5.5.2 on Vlan5

2013 May 20 05:36:34.299253 ospf: 5 [8325] (default) mtu 1600, opts: 0x42,
dbdbits: 0, seq: 0x9247f60

2013 May 20 05:36:38.746942 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start:
old state FULL, event HELLORCVD

2013 May 20 05:36:38.747010 ospf: 5 [8325] (default) Nbr 5.5.5.2: FULL -->
FULL, event HELLORCVD

2013 May 20 05:36:38.747024 ospf: 5 [8325] (default) Nbr 5.5.5.2 FSM start:
old state FULL, event TWOWAYRCVD

2013 May 20 05:36:38.747046 ospf: 5 [8325] (default) Nbr 5.5.5.2: FULL -->

```

FULL, event TWOWAYRCVD
2013 May 20 05:36:38.747073 ospf: 5 [8325] (default) Different BDR in hello,
invoking nbrchange
2013 May 20 05:36:38.747090 ospf: 5 [8325] (default) Neighbor
priority/options/DR/BDR value changed
2013 May 20 05:36:38.747265 ospf: 5 [8325] Begin OSPF DR election on Vlan5
2013 May 20 05:36:38.747288 ospf: 5 [8325] Current 5.5.0.1 as DR,
5.5.0.2 as BDR
2013 May 20 05:36:38.747329 ospf: 5 [8325] BDR election starting
2013 May 20 05:36:38.747348 ospf: 5 [8325] Walking neighbor 5.5.5.1
(0xaec59478), state SELF
2013 May 20 05:36:38.747362 ospf: 5 [8325] This neighbor is greater
than 2way
2013 May 20 05:36:38.747648 ospf: 5 [8325] Walking neighbor 5.5.5.2
(0x9777584), state FULL
2013 May 20 05:36:38.747662 ospf: 5 [8325] This neighbor is greater
than 2way
2013 May 20 05:36:38.747676 ospf: 5 [8325] This neighbor is in consideration
for bdr
2013 May 20 05:36:38.747689 ospf: 5 [8325] Current BDR set to this neighbor
2013 May 20 05:36:38.747705 ospf: 5 [8325] Compare done, new current bdr
5.5.5.2
2013 May 20 05:36:38.747733 ospf: 5 [8325] DR election starting
2013 May 20 05:36:38.747750 ospf: 5 [8325] Walking neighbor 5.5.5.1
(0xaec59478), state SELF
2013 May 20 05:36:38.747766 ospf: 5 [8325] This nbr 5.5.5.1 promoted to
current dr
2013 May 20 05:36:38.747782 ospf: 5 [8325] Walking neighbor 5.5.5.2
(0x9777584), state FULL
2013 May 20 05:36:38.747796 ospf: 5 [8325] Neighbor not declared DR,
ignoring
2013 May 20 05:36:38.747948 ospf: 5 [8325] Elected 5.5.0.1 as DR,
5.5.0.2 as BDR
2013 May 20 05:36:38.748004 ospf: 5 [8325] Interface Vlan5 ---> DR

```

Remarque: N'oubliez pas de désactiver met au point.

```
N7K1-RP# clear debug logfile debug-ospf
```

```
N7K1-RP# undebug all
```

```
N7K1-RP# no debug-fil all
```

Conseils d'enquête :

Look for a mal adapté des messages de MTU. Suivez le numéro de séquence et recherchez une retransmission due à la baisse DBD. Vérifiez la réception d'un numéro de séquence inattendu DBD.

Dépannez

Si l'enquête sur la Connectivité L2/3, la configuration, et le trafic OSPF-autorisé ne découvrait pas le problème et prouvait que le voisin est en ligne, ouvrez une valise TAC. Écrivez ces commandes et approvisionnement TAC avec les informations des deux sorties de voisins :

- Affichez le passage
- OSPF de show tech-support

Voisin OSPF coincé dans un état de chargement

Il y a des périodes où le voisin OSPF est coincé dans un état de chargement.

Cette question pourrait être provoqué par :

- Une demande de l'État de lien (LS) est faite, et le voisin envoie un mauvais paquet ou la corruption de mémoire existe. Sélectionnez la **mauvaise** commande de **show ip ospf** afin de voir la mauvaise publicité d'État de lien (LSA). Le **show log command** affiche le message **OSPF-4-BADLSATYPE**. Une demande LS est faite, et le voisin ignore la demande.

Si un routeur reçoit un périmé, corrompt, ou manquant le LSA, l'OSPF reste dans un état de chargement, et génère le message d'erreur **OSPF-4-BADLSA**.

Sélectionnez cette commande afin d'étudier :

```
7K1-RP# show ip ospf traffic vlan 5
OSPF Process ID 5 VRF default, Packet Counters (cleared 1d12h ago)
Interface Vlan5, Area 0.0.0.0
Total: 15214 in, 15214 out
LSU transmissions: first 88, rxmit 9(13), for req 0, nbr xmit 289801235
Flooding packets output throttled (IP/tokens): 0 (0/0)
Ignored LSAs: 0, LSAs dropped during SPF: 0
LSAs dropped during graceful restart: 0
Errors: drops in      0, drops out      0, errors in      0,
        errors out    0, hellos in      0, dbds in      0,
        lsreq in      0, lsu in        0, lsacks in    0,
        unknown in    0, unknown out  0, no ospf     0,
        bad version   0, bad crc     0, dup rid     0,
        dup src       0, invalid src  0, invalid dst  0,
        no nbr        0, passive     0, wrong area  0,
        pkt length    0, nbr changed  0, ip addr    0,
        bad auth      0,
        hellos        14957, dbds        42, lsreqs       13, lsus        108, acks        94
In:
Out: 14957, 46, 14, 110, 87
```

N7K1-RP#

Dépannez

Si l'enquête sur la Connectivité L2/3, la configuration, et le trafic OSPF-autorisé ne découvrirait pas le problème et prouvait que le voisin est en ligne, ouvrez une valise TAC. Écrivez ces commandes et approvisionnement TAC avec les informations des deux sorties de voisins :

- Fichier journal de show log
- OSPF de show tech-support