

Ritardo di 5 secondi quando il ricevitore remoto attiva la connessione per l'albero mLDP

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Introduzione

In questo documento viene descritto un ritardo di 5 secondi nell'inoltro del traffico multicast tramite la struttura del protocollo mLDP (Multipoint Label Distribution Protocol) quando un ricevitore remoto si unisce al gruppo multicast e quando il router PE in entrata esegue Cisco IOS® XR.

Premesse

Un ricevitore remoto è un ricevitore situato sulla backbone mLDP dal punto di vista della sorgente.

Il ritardo di 5 secondi è stato introdotto appositamente per via dell>ID bug Cisco [CSCvb50266](#) Ritardo di inoltro MLDP di 5 secondi al ricevitore locale quando è presente un ricevitore MVPN

Questo CDETS è stato creato per risolvere il problema dell>ID bug Cisco [CSCtg68851](#) Il passaggio da MDT predefiniti a MDT dati non è senza risultati per LC multipath

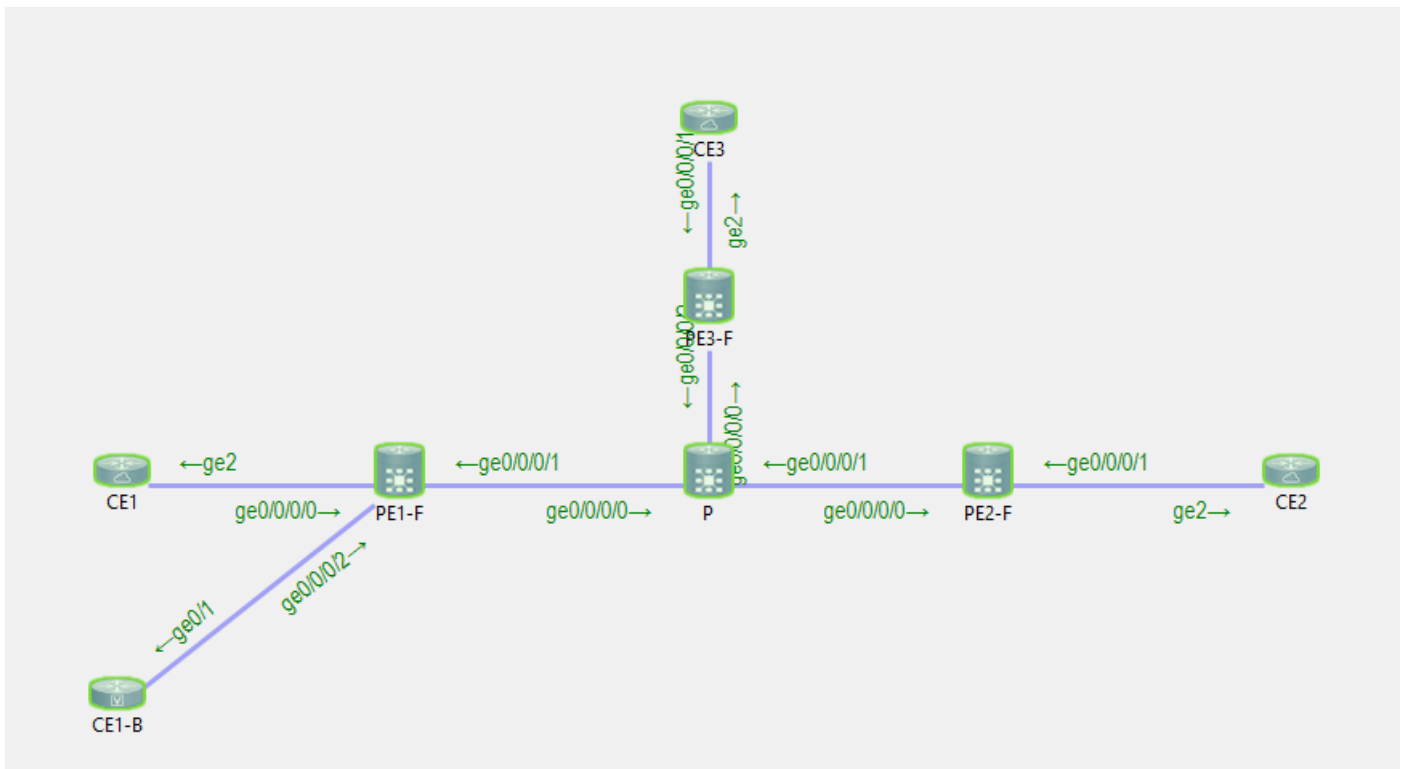
Modifiche

- Se il router PE in entrata esegue una versione IOS®-XR dopo l>ID bug Cisco [CSCtg68851](#) , il ritardo di 5 secondi è previsto.
- Se il router PE in entrata esegue una versione IOS®-XR dopo l>ID bug Cisco [CSCvb50266](#) , il ritardo di 5 secondi è presente per impostazione predefinita.

In caso contrario, l'inoltro del flusso multicast può essere velocizzato da un comando di configurazione nascosto.

Ecco un esempio.

Per una topologia di test, vedere la Figura 1.



CE1 è l'origine 10.100.1.5 per il flusso multicast 232.1.1.1.

CE2 e CE1-B sono i ricevitori per lo streaming multicast 232.1.1.1.

Test 1. Il ricevitore remoto si unisce senza ricevitore locale

Debug abilitato:

```
RP/0/0/CPU0:PE1#debug mrib vrf one route
RP/0/0/CPU0:PE1#debug mfib vrf one ipv4 encap
RP/0/0/CPU0:PE1#show debug
```

```
#### debug flags set from tty 'con0_0_CPU0' ####
ipv4 mfwf encap flag is ON with value '0x1##one'
ipv4 mrib route flag is ON with value 'one#'
```

Non è presente alcun ricevitore locale sul router PE in entrata PE1:

```
RP/0/0/CPU0:PE1#sh mrib vrf one route 232.1.1.1 10.100.1.5
No matching route in MRIB route-DB
RP/0/0/CPU0:PE1#
```

Il ricevitore remoto CE1 è in linea:

```
RP/0/0/CPU0:PE1#RP/0/0/CPU0:Feb 13 10:26:33.280 : mrib[1149]: [ 6] TID: 0xe0000010
(10.100.1.5,232.1.1.1) Added RPF* EID*, #A=1, #F=1, #MDT_A=0, RPF=10.2.1.5 [Lm F* LMI* TR*]
[Gi0/0/0/0 A*], Route Ver = 0x7ca
RP/0/0/CPU0:Feb 13 10:26:33.290 : ipv4_mfwf_partner[263]: Encap: encap id set eid: 1
(10.100.1.5,232.1.1.1)
RP/0/0/CPU0:Feb 13 10:26:33.300 : mrib[1149]: [ 6] TID: 0xe0000010 (10.100.1.5,232.1.1.1)
```

```

Updated RPF EID*, #A=1, #F=1, #MDT_A=0 [Lm F LMI* MA* TR], Route Ver = 0x7cc
RP/0/0/CPU0:Feb 13 10:26:33.310 : ipv4_mfwd_partner[263]: Encap:
ip_mfwd_mrrib_pre_process_encap_id_update: encap_id: 2, te_ole_cnt: 0, lsmid_ole_cnt: 1,
gre_ole_cnt: 0 ti_mofrr_ole_cnt: 0 flags: 0x0
RP/0/0/CPU0:Feb 13 10:26:33.310 : ipv4_mfwd_partner[263]: Encap: [2482] Encap entry created
(0xa10cb414) for eid 2 (stale N) flags 0x0
RP/0/0/CPU0:Feb 13 10:26:33.310 : ipv4_mfwd_partner[263]: Encap: [3039] RegDB entry 0xa08fd084
for LSMID 0x1d turnaround TRUE(new: Y ifh_changed N) ifhandle: b0
RP/0/0/CPU0:Feb 13 10:26:33.310 : ipv4_mfwd_partner[263]: Encap: [3533] Encap entry for eid 2
(0xa10cb414) proc done
RP/0/0/CPU0:Feb 13 10:26:33.310 : ipv4_mfwd_partner[263]: Encap: encap id update eid: 2
(10.100.1.5,232.1.1.1)

```

Non vi è alcun ritardo nell'impostare l'encap-ID sul router PE in entrata.

Questa è la voce di inoltro multicast creata sul router PE in entrata:

```
RP/0/0/CPU0:PE1#show mrrib vrf one route 232.1.1.1 10.100.1.5
```

```

IP Multicast Routing Information Base
Entry flags: L - Domain-Local Source, E - External Source to the Domain,
C - Directly-Connected Check, S - Signal, IA - Inherit Accept,
IF - Inherit From, D - Drop, ME - MDT Encap, EID - Encap ID,
MD - MDT Decap, MT - MDT Threshold Crossed, MH - MDT interface handle
CD - Conditional Decap, MPLS - MPLS Decap, EX - Extranet
MoFE - MoFRR Enabled, MoFS - MoFRR State, MoFP - MoFRR Primary
MoFB - MoFRR Backup, RPFID - RPF ID Set, X - VXLAN
Interface flags: F - Forward, A - Accept, IC - Internal Copy,
NS - Negate Signal, DP - Don't Preserve, SP - Signal Present,
II - Internal Interest, ID - Internal Disinterest, LI - Local Interest,
LD - Local Disinterest, DI - Decapsulation Interface
EI - Encapsulation Interface, MI - MDT Interface, LVIF - MPLS Encap,
EX - Extranet, A2 - Secondary Accept, MT - MDT Threshold Crossed,
MA - Data MDT Assigned, LMI - mLDP MDT Interface, TMI - P2MP-TE MDT Interface
IRMI - IR MDT Interface

```

```

(10.100.1.5,232.1.1.1) RPF nbr: 10.2.1.5 Flags: RPF
Up: 00:02:29
Incoming Interface List
GigabitEthernet0/0/0/0 Flags: A, Up: 00:02:2
Outgoing Interface List
Lmdtone Flags: F LMI MA TR, Up: 00:02:29

```

```
RP/0/0/CPU0:PE1#show mfib vrf one route 232.1.1.1 10.100.1.5 detail
```

```

IP Multicast Forwarding Information Base
Entry flags: C - Directly-Connected Check, S - Signal, D - Drop,
IA - Inherit Accept, IF - Inherit From, EID - Encap ID,
ME - MDT Encap, MD - MDT Decap, MT - MDT Threshold Crossed,
MH - MDT interface handle, CD - Conditional Decap,
DT - MDT Decap True, EX - Extranet, RPFID - RPF ID Set,
MoFE - MoFRR Enabled, MoFS - MoFRR State, X - VXLAN
Interface flags: F - Forward, A - Accept, IC - Internal Copy,
NS - Negate Signal, DP - Don't Preserve, SP - Signal Present,
EG - Egress, EI - Encapsulation Interface, MI - MDT Interface,
EX - Extranet, A2 - Secondary Accept
Forwarding/Replication Counts: Packets in/Packets out/Bytes out
Failure Counts: RPF / TTL / Empty Olist / Encap RL / Other

```

```

(10.100.1.5,232.1.1.1), Flags: EID , FMA: 0x10000 ,
Up: 00:02:48
Last Used: 00:00:01

```

```
SW Forwarding Counts: 168/168/16800
SW Replication Counts: 168/0/0
SW Failure Counts: 0/0/0/0/0
Route ver: 0x7d0
MVPN Info :-
  Associated Table ID : 0xe0000000
  MDT Handle: 0x0, MDT Probe:Y [Y], Rate:Y, Acc:Y
  MDT SW Ingress Encap V4/V6, Egress decap: 0 / 0, 0
  Encap ID: 2, RPF ID: 0
  Local Receiver: False, Turnaround: False
  Lmdtone Flags: F LMI TR, Up:00:02:48
  GigabitEthernet0/0/0/0 Flags: A, Up:00:02:48
```

Test 2. Il ricevitore remoto si unisce al ricevitore locale

In ingresso PE1 è presente un ricevitore locale:

```
RP/0/0/CPU0:PE1#show mrib vrf one route 232.1.1.1 10.100.1.5
```

```
IP Multicast Routing Information Base
Entry flags: L - Domain-Local Source, E - External Source to the Domain,
  C - Directly-Connected Check, S - Signal, IA - Inherit Accept,
  IF - Inherit From, D - Drop, ME - MDT Encap, EID - Encap ID,
  MD - MDT Decap, MT - MDT Threshold Crossed, MH - MDT interface handle
  CD - Conditional Decap, MPLS - MPLS Decap, EX - Extranet
  MoFE - MoFRR Enabled, MoFS - MoFRR State, MoFP - MoFRR Primary
  MoFB - MoFRR Backup, RPFID - RPF ID Set, X - VXLAN
Interface flags: F - Forward, A - Accept, IC - Internal Copy,
  NS - Negate Signal, DP - Don't Preserve, SP - Signal Present,
  II - Internal Interest, ID - Internal Disinterest, LI - Local Interest,
  LD - Local Disinterest, DI - Decapsulation Interface
  EI - Encapsulation Interface, MI - MDT Interface, LVIF - MPLS Encap,
  EX - Extranet, A2 - Secondary Accept, MT - MDT Threshold Crossed,
  MA - Data MDT Assigned, LMI - mLDP MDT Interface, TMI - P2MP-TE MDT Interface
  IRMI - IR MDT Interface
```

```
(10.100.1.5,232.1.1.1) RPF nbr: 10.2.1.5 Flags: RPF
Up: 00:57:15
Incoming Interface List
  GigabitEthernet0/0/0/0 Flags: A, Up: 00:57:15
Outgoing Interface List
  GigabitEthernet0/0/0/2 Flags: F NS, Up: 00:57:15
```

Debug abilitati:

```
RP/0/0/CPU0:PE1#debug mrib vrf one route
RP/0/0/CPU0:PE1#debug mfib vrf one ipv4 encap
```

```
RP/0/0/CPU0:PE1#show debug
```

```
#### debug flags set from tty 'con0_0_CPU0' ####
ipv4 mfwd encap flag is ON with value '0x1##one'
ipv4 mrib route flag is ON with value 'one#'
```

```
RP/0/0/CPU0:PE1#show mfib vrf one route 232.1.1.1 10.100.1.5 detail
```

```
IP Multicast Forwarding Information Base
Entry flags: C - Directly-Connected Check, S - Signal, D - Drop,
  IA - Inherit Accept, IF - Inherit From, EID - Encap ID,
```

ME - MDT Encap, MD - MDT Decap, MT - MDT Threshold Crossed,
MH - MDT interface handle, CD - Conditional Decap,
DT - MDT Decap True, EX - Extranet, RPFID - RPF ID Set,
MoFE - MoFRR Enabled, MoFS - MoFRR State, X - VXLAN
Interface flags: F - Forward, A - Accept, IC - Internal Copy,
NS - Negate Signal, DP - Don't Preserve, SP - Signal Present,
EG - Egress, EI - Encapsulation Interface, MI - MDT Interface,
EX - Extranet, A2 - Secondary Accept
Forwarding/Replication Counts: Packets in/Packets out/Bytes out
Failure Counts: RPF / TTL / Empty Olist / Encap RL / Other

(10.100.1.5,232.1.1.1), Flags: , FMA: 0x10001 ,
Up: 00:59:35
Last Used: 00:00:01
SW Forwarding Counts: 3566/3566/356600
SW Replication Counts: 3566/3566/356600
SW Failure Counts: 0/0/0/0/0
Route ver: 0x3410
MVPN Info :-
MDT Handle: 0x0, MDT Probe:N [N], Rate:Y, Acc:Y
MDT SW Ingress Encap V4/V6, Egress decap: 0 / 0, 0
EG count: 1
Encap ID: 0, RPF ID: 0
Local Receiver: True, Turnaround: False
GigabitEthernet0/0/0/0 Flags: A, Up:00:59:35
GigabitEthernet0/0/0/2 Flags: NS EG, Up:00:59:35

L'ID di accesso è 0 perché non è ancora presente alcun ricevitore remoto.

CE2, il ricevitore remoto è in linea:

```
RP/0/0/CPU0:PE1#RP/0/0/CPU0:Feb 13 09:13:34.390 : mrib[1149]: [ 6] TID: 0xe0000010  
(10.100.1.5,232.1.1.1) Updated RPF EID*, #A=1, #F=2, #MDT_A=0 [Lm F* LMI* TR*], Route Ver =  
0x3412  
RP/0/0/CPU0:Feb 13 09:13:34.390 : mrib[1149]: [ 22] Redistributed  
RP/0/0/CPU0:Feb 13 09:13:34.390 : ipv4_mfwd_partner[263]: Encap:  
ip_mfwd_mrib_pre_process_encap_id_update: encap_id: 6, te_ole_cnt: 0, lsmid_ole_cnt: 1,  
gre_ole_cnt: 0 ti_mofrr_ole_cnt: 0 flags: 0x1  
RP/0/0/CPU0:Feb 13 09:13:34.390 : ipv4_mfwd_partner[263]: Encap: [2482] Encap entry created  
(0xa08fd9d0) for eid 6 (stale N) flags 0x1  
RP/0/0/CPU0:Feb 13 09:13:34.390 : ipv4_mfwd_partner[263]: Encap: [3039] RegDB entry 0xa10b5404  
for LSMID 0x1 turnaround TRUE(new: N ifh_changed N) ifhandle: b0  
RP/0/0/CPU0:Feb 13 09:13:34.390 : ipv4_mfwd_partner[263]: Encap: [3533] Encap entry for eid 6  
(0xa08fd9d0) proc done  
RP/0/0/CPU0:Feb 13 09:13:34.410 : mrib[1149]: [ 6] TID: 0xe0000010 (10.100.1.5,232.1.1.1)  
Updated RPF EID*, #A=1, #F=2, #MDT_A=0 [Lm F LMI* MA* TR], Route Ver = 0x3414  
RP/0/0/CPU0:Feb 13 09:13:34.410 : mrib[1149]: [ 6] TID: 0xe0000010 (10.100.1.5,232.1.1.1)  
Updated RPF EID, #A=1, #F=2, #MDT_A=0 [Lm F LMI* MA TR], Route Ver = 0x3415  
RP/0/0/CPU0:Feb 13 09:13:34.410 : ipv4_mfwd_partner[263]: Encap:  
ip_mfwd_mrib_pre_process_encap_id_update: encap_id: 7, te_ole_cnt: 0, lsmid_ole_cnt: 1,  
gre_ole_cnt: 0 ti_mofrr_ole_cnt: 0 flags: 0x1  
RP/0/0/CPU0:Feb 13 09:13:34.410 : ipv4_mfwd_partner[263]: Encap: [2482] Encap entry created  
(0xa08fd8a8) for eid 7 (stale N) flags 0x1  
RP/0/0/CPU0:Feb 13 09:13:34.410 : ipv4_mfwd_partner[263]: Encap: [3039] RegDB entry 0xa08fd824  
for LSMID 0xc turnaround TRUE(new: Y ifh_changed N) ifhandle: b0  
RP/0/0/CPU0:Feb 13 09:13:34.410 : ipv4_mfwd_partner[263]: Encap: [3533] Encap entry for eid 7  
(0xa08fd8a8) proc done  
RP/0/0/CPU0:Feb 13 09:13:34.500 : mrib[1149]: [ 6] TID: 0xe0000010 (10.100.1.5,232.1.1.1)  
Updated RPF EID, #A=1, #F=2, #MDT_A=0 [Lm F LMI* MA TR], Route Ver = 0x3416  
RP/0/0/CPU0:Feb 13 09:13:34.620 : mrib[1149]: [ 22] Redistributed  
RP/0/0/CPU0:Feb 13 09:13:34.620 : mrib[1149]: [ 6] TID: 0xe0000010 (10.100.1.5,232.1.1.1)  
Updated RPF EID, #A=1, #F=2, #MDT_A=0 [Lm F LMI* MA TR], Route Ver = 0x3417  
RP/0/0/CPU0:Feb 13 09:13:34.620 : ipv4_mfwd_partner[263]: Encap:
```

```
ip_mfwd_mrib_pre_process_encap_id_update: encap_id: 7, te_ole_cnt: 0, lsmid_ole_cnt: 1,
gre_ole_cnt: 0 ti_mofrr_ole_cnt: 0 flags: 0x1
RP/0/0/CPU0:Feb 13 09:13:34.620 : ipv4_mfwd_partner[263]: Encap: [2482] Encap entry existing
(0xa08fd8a8) for eid 7 (stale N) flags 0x1
RP/0/0/CPU0:Feb 13 09:13:34.620 : ipv4_mfwd_partner[263]: Encap: [3533] Encap entry for eid 7
(0xa08fd8a8) proc done
RP/0/0/CPU0:Feb 13 09:13:39.570 : ipv4_mfwd_partner[263]: Encap: encap id set eid: 7
(10.100.1.5,232.1.1.1)
```

L'ID dell'encap viene impostato su 7, 5 secondi dopo la creazione dell'ID dell'encap e l'aggiornamento della base MRIB (Multicast Routing Information Base) con l'interfaccia con etichetta MDT (LMDT) per VRF (Virtual Routing and Forwarding) nell'elenco delle interfacce in uscita (OIL).

```
RP/0/0/CPU0:PE1#show mrib vrf one route 232.1.1.1 10.100.1.5
```

```
IP Multicast Routing Information Base
Entry flags: L - Domain-Local Source, E - External Source to the Domain,
C - Directly-Connected Check, S - Signal, IA - Inherit Accept,
IF - Inherit From, D - Drop, ME - MDT Encap, EID - Encap ID,
MD - MDT Decap, MT - MDT Threshold Crossed, MH - MDT interface handle
CD - Conditional Decap, MPLS - MPLS Decap, EX - Extranet
MoFE - MoFRR Enabled, MoFS - MoFRR State, MoFP - MoFRR Primary
MoFB - MoFRR Backup, RPFID - RPF ID Set, X - VXLAN
Interface flags: F - Forward, A - Accept, IC - Internal Copy,
NS - Negate Signal, DP - Don't Preserve, SP - Signal Present,
II - Internal Interest, ID - Internal Disinterest, LI - Local Interest,
LD - Local Disinterest, DI - Decapsulation Interface
EI - Encapsulation Interface, MI - MDT Interface, LVIF - MPLS Encap,
EX - Extranet, A2 - Secondary Accept, MT - MDT Threshold Crossed,
MA - Data MDT Assigned, LMI - mLDP MDT Interface, TMI - P2MP-TE MDT Interface
IRMI - IR MDT Interface
```

```
(10.100.1.5,232.1.1.1) RPF nbr: 10.2.1.5 Flags: RPF
Up: 01:04:11
Incoming Interface List
GigabitEthernet0/0/0/0 Flags: A, Up: 01:04:11
Outgoing Interface List
Lmdtone Flags: F LMI MA TR, Up: 00:03:33
GigabitEthernet0/0/0/2 Flags: F NS, Up: 01:04:11
```

```
RP/0/0/CPU0:PE1#show mfib vrf one route 232.1.1.1 10.100.1.5 detail
```

```
IP Multicast Forwarding Information Base
Entry flags: C - Directly-Connected Check, S - Signal, D - Drop,
IA - Inherit Accept, IF - Inherit From, EID - Encap ID,
ME - MDT Encap, MD - MDT Decap, MT - MDT Threshold Crossed,
MH - MDT interface handle, CD - Conditional Decap,
DT - MDT Decap True, EX - Extranet, RPFID - RPF ID Set,
MoFE - MoFRR Enabled, MoFS - MoFRR State, X - VXLAN
Interface flags: F - Forward, A - Accept, IC - Internal Copy,
NS - Negate Signal, DP - Don't Preserve, SP - Signal Present,
EG - Egress, EI - Encapsulation Interface, MI - MDT Interface,
EX - Extranet, A2 - Secondary Accept
Forwarding/Replication Counts: Packets in/Packets out/Bytes out
Failure Counts: RPF / TTL / Empty Olist / Encap RL / Other
```

```
(10.100.1.5,232.1.1.1), Flags: EID , FMA: 0x10001 ,
Up: 01:04:25
Last Used: 00:00:00
SW Forwarding Counts: 3856/3856/385600
SW Replication Counts: 3856/3856/385600
```

```
SW Failure Counts: 0/0/0/0/0
Route ver: 0x3417
MVPN Info :-
  Associated Table ID : 0xe0000000
  MDT Handle: 0x0, MDT Probe:Y [Y], Rate:Y, Acc:Y
  MDT SW Ingress Encap V4/V6, Egress decap: 0 / 0, 0
  EG count: 1
  Encap ID: 7, RPF ID: 0
  Local Receiver: True, Turnaround: False
Lmdtone Flags: F LMI TR, Up:00:03:47
GigabitEthernet0/0/0/0 Flags: A, Up:01:04:25
GigabitEthernet0/0/0/2 Flags: NS EG, Up:01:04:25
```

Il ricevitore remoto ha un ulteriore ritardo di 5 secondi nella ricezione di questo flusso multicast.

Nota: L'interfaccia LMDT è stata aggiunta immediatamente nel MRIB e anche l'interfaccia LMDT è stata aggiunta immediatamente nel MFIB con il flag F, ma con l'ID dell'encap non impostato.

L'ID di accesso nel file MFIB è stato impostato dopo il ritardo di 5 secondi.

Dopo l'ID bug Cisco [CSCvb50266](#) , il ritardo è di 5 secondi per la programmazione dell'encap-ID quando un ricevitore remoto si unisce. Questo è il nuovo comportamento predefinito.

Per verificare il comportamento, eseguire il comando **show pim vrf <> context**:

```
RP/0/0/CPU0:PE1#show pim vrf one context

PIM context information for VRF one (0x12b70184)

VRF ID: 0x60000001
Table ID: 0xe0000010
Remote Table ID: 0xe0800010
MDT Default Group : 0.0.0.0
MDT Source : (10.100.1.1, Loopback0) Per-VRF
MDT Immediate Switch Not Configured
MDT handle: 0x0(Null)
Context Active, ITAL Active
Routing Enabled
Registered with MRIB
Not owner of MDT Interface
Raw socket req: T, act: T, LPTS filter req: T, act: T
UDP socket req: T, act: T, UDP vbind req: T, act: T
Reg Inj socket req: T, act: T, Reg Inj LPTS filter req: T, act: T
Mhost Default Interface : GigabitEthernet0/0/0/0 (publish pending: F)
Remote MDT Default Group : 0.0.0.0
Backup MLC virtual interface: Null
Neighbor-filter: -
MDT Neighbor-filter: -
```

Eseguire questo comando nascosto **mdt immediate-switch** per rimuovere il ritardo di 5 secondi.

```
RP/0/0/CPU0:PE1#conf t
RP/0/0/CPU0:PE1(config)#multicast-routing vrf one
RP/0/0/CPU0:PE1(config-mcast-one)#address-family ipv4
RP/0/0/CPU0:PE1(config-mcast-one-ipv4)#mdt immediate-switch
RP/0/0/CPU0:PE1(config-mcast-one-ipv4)#commit
```

Nota: A partire dalla versione 7.4.1, il comando non è più nascosto.

```
RP/0/0/CPU0:PE1#show pim vrf one context
```

```
PIM context information for VRF one (0x12b70184)

VRF ID: 0x60000001
Table ID: 0xe0000010
Remote Table ID: 0xe0800010
MDT Default Group : 0.0.0.0
MDT Source : (10.100.1.1, Loopback0) Per-VRF
MDT Immediate Switch Configured
MDT handle: 0x0(Null)
Context Active, ITAL Active
Routing Enabled
Registered with MRIB
Not owner of MDT Interface
Raw socket req: T, act: T, LPTS filter req: T, act: T
UDP socket req: T, act: T, UDP vbind req: T, act: T
Reg Inj socket req: T, act: T, Reg Inj LPTS filter req: T, act: T
Mhost Default Interface : GigabitEthernet0/0/0/0 (publish pending: F)
Remote MDT Default Group : 0.0.0.0
Backup MLC virtual interface: Null
Neighbor-filter: -
MDT Neighbor-filter: -
```

Questo comando non viene visualizzato nella configurazione corrente:

```
RP/0/0/CPU0:PE1#show running-config multicast-routing vrf one
```

```
multicast-routing
vrf one
address-family ipv4
interface GigabitEthernet0/0/0/0
enable
!
interface GigabitEthernet0/0/0/2
enable
!
mdt source Loopback0
rate-per-route
accounting per-prefix
bgp auto-discovery mldp
!
mdt partitioned mldp ipv4 p2mp
mdt data mldp 100 immediate-switch
!
```

Non è supportato configurare sia il comando *mdt immediate-switch* che il comando *mdt data* con la parola chiave *immediate-switch*.

Di seguito è riportato un esempio di tale configurazione:

```
RP/0/RP0/CPU0:PE1#conf t
RP/0/RP0/CPU0:PE1(config)#multicast-routing
RP/0/RP0/CPU0:PE1(config-mcast)#vrf one
RP/0/RP0/CPU0:PE1(config-mcast-one)#address-family ipv4
RP/0/RP0/CPU0:PE1(config-mcast-one-ipv4)#mdt data mldp 100 immediate-switch
RP/0/RP0/CPU0:PE1(config-mcast-one-ipv4)#mdt immediate-switch
RP/0/RP0/CPU0:PE1(config-mcast-one-ipv4)#commit
RP/0/RP0/CPU0:PE1(config-mcast-one-ipv4)#end
```


RP/0/RP0/CPU0:PE1#