Exploring ldp_pwire_cword.pcapng

R1 (PE)	R7 (PE)	CE-9	CE-10	R1	LSPV Loopback	R7

📁 **ldp_pwire_cword.pcapng**

👋 LDP Hello Message

🆔 LSR ID	10.0.0.1
⏱️ Hold Time	90
🎯 Type	Hello
IPv4 🌐 Transport Address	10.0.0.1

💡 LDP Hello — periodic UDP multicast (224.0.0.2) for neighbor discovery; discovered LSRs then open a TCP session to exchange labels and session parameters

🔗 TCP (SYN)

📤 Source Port	49893
📥 Destination Port	646
Stream index	0

Frame 2 | 2020-05-03T19:59:16.229375Z

🏷️ MPLS Label 2010

🔧 EXP	6
📦 Bottom	1
⏳ MPLS TTL	255

Frame 3 | 2020-05-03T19:59:16.229617Z

🔗 TCP (ACK)

📤 Source Port	49893
📥 Destination Port	646
Stream index	0

Frame 4 | 2020-05-03T19:59:16.23138Z

🤝 LDP Initialization Message

🆔 LSR ID	10.0.0.7

🏷️ MPLS Label 2010

🔧 EXP	6
📦 Bottom	1
⏳ MPLS TTL	255

💡 LDP Initialization — negotiates session parameters (keepalive timer, label advertisement mode: DU vs DoD, path vector limit); both LSRs must agree or session is torn down with a Notification

Frame 6 | 2020-05-03T19:59:16.247144Z

🤝 LDP Initialization Message

🆔 LSR ID	10.0.0.1

💡 LDP Initialization — negotiates session parameters (keepalive timer, label advertisement mode: DU vs DoD, path vector limit); both LSRs must agree or session is torn down with a Notification

🏷️ LDP Label Mapping Message

🆔 LSR ID	10.0.0.7
🆔 LSR ID	10.0.0.7
FEC Element Type	Prefix FEC (2)
FEC Element Length	32
🏷️ Label	3

💡 LDP Label Mapping — advertises a local label binding for a FEC (prefix) to the peer; downstream LSR assigns labels and propagates upstream to build the LSP hop by hop

🏷️ LDP Label Mapping Message

FEC Element Type	PWid FEC Element (128)
.000 0000 0000 0101 = PW Type	Ethernet (0x0005)
🔗 PW ID	171
🏷️ Label	7018

⚠️ LDP Notification Message

🆔 LSR ID	10.0.0.1
🆔 LSR ID	10.0.0.1
PW Status	0x00000000
🆔 LSR ID	10.0.0.1
📋 Status	PW Status (0x28)
PW Status	0x00000000

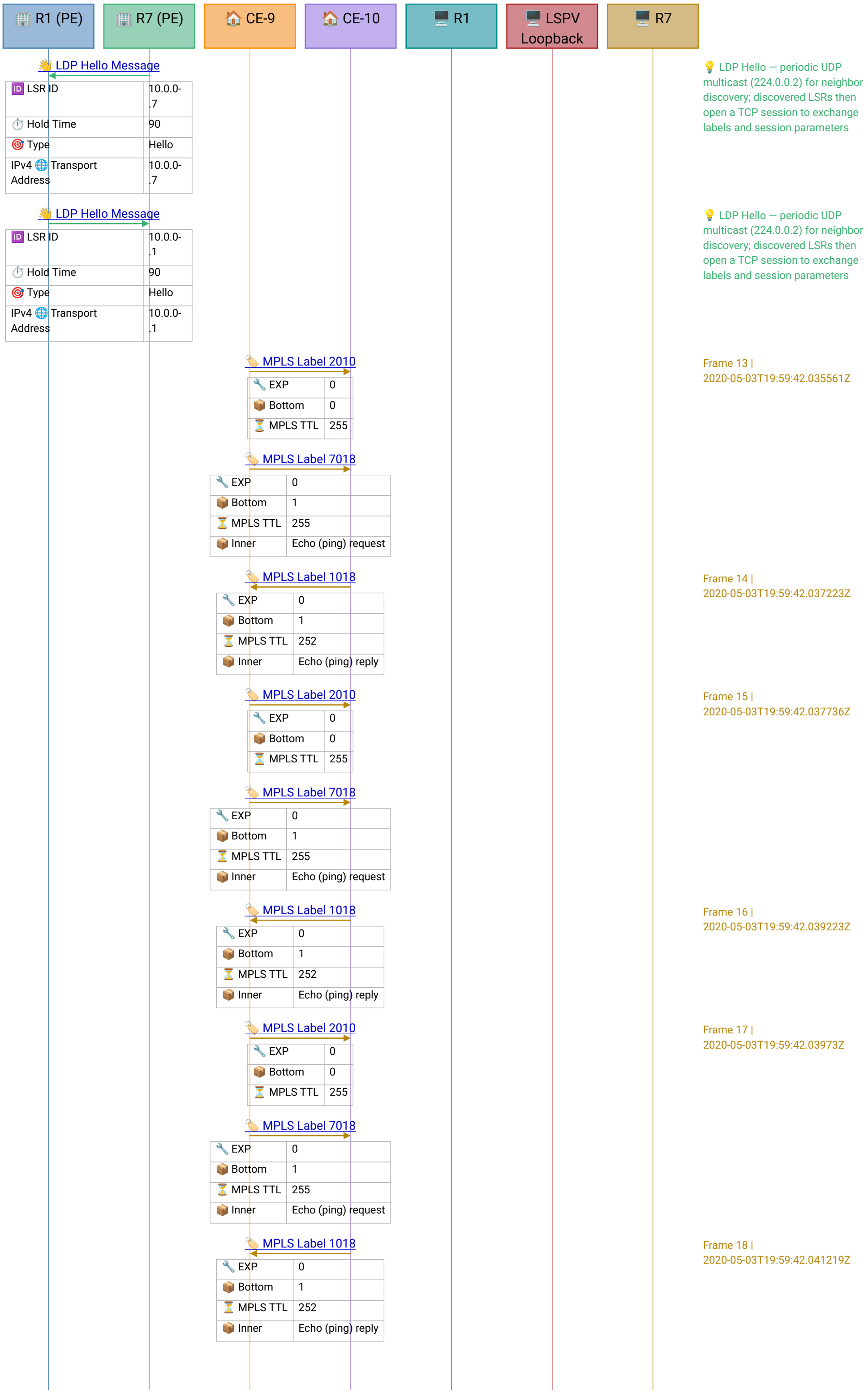
Frame 9 | 2020-05-03T19:59:16.307962Z

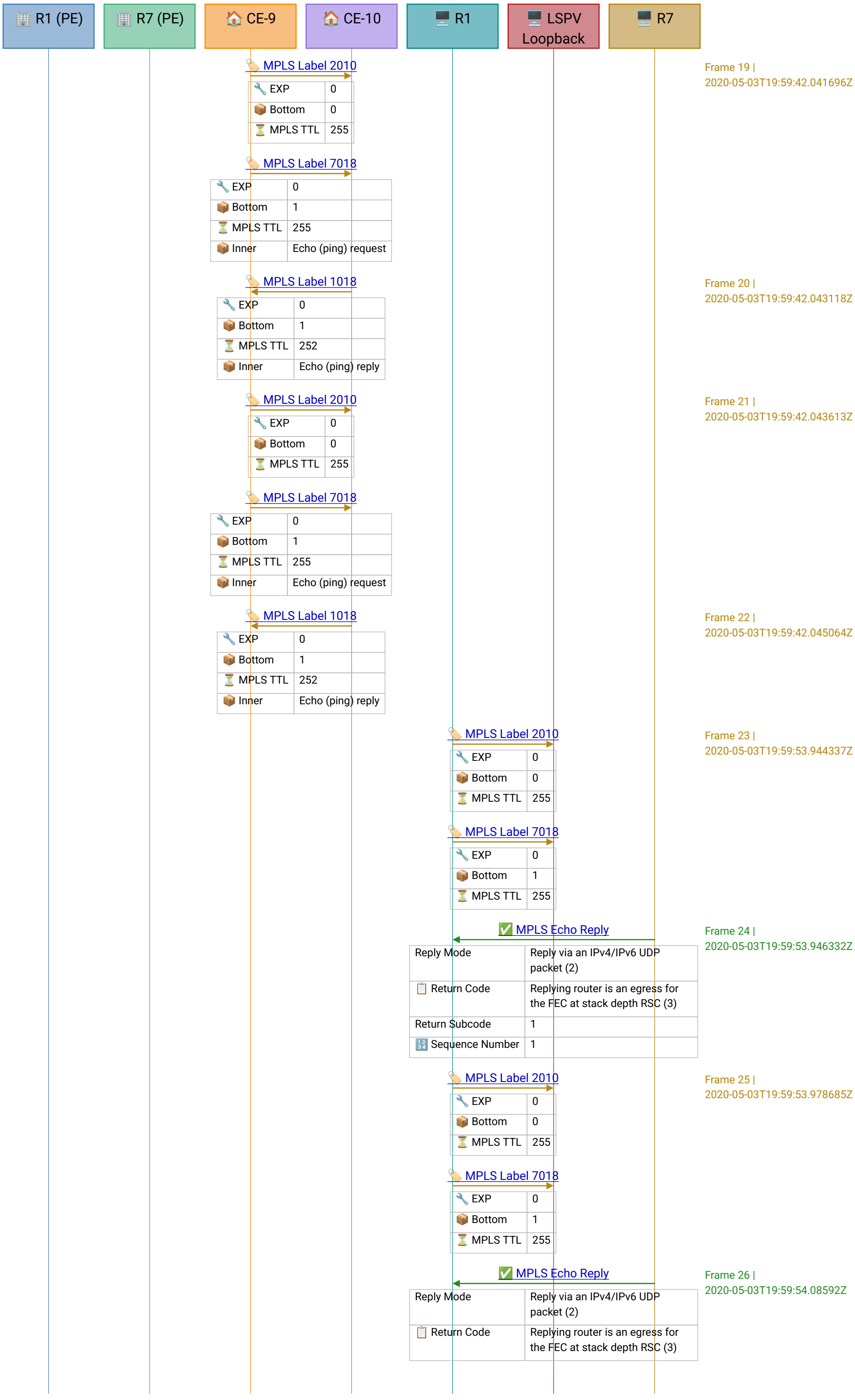
🔗 TCP (ACK)

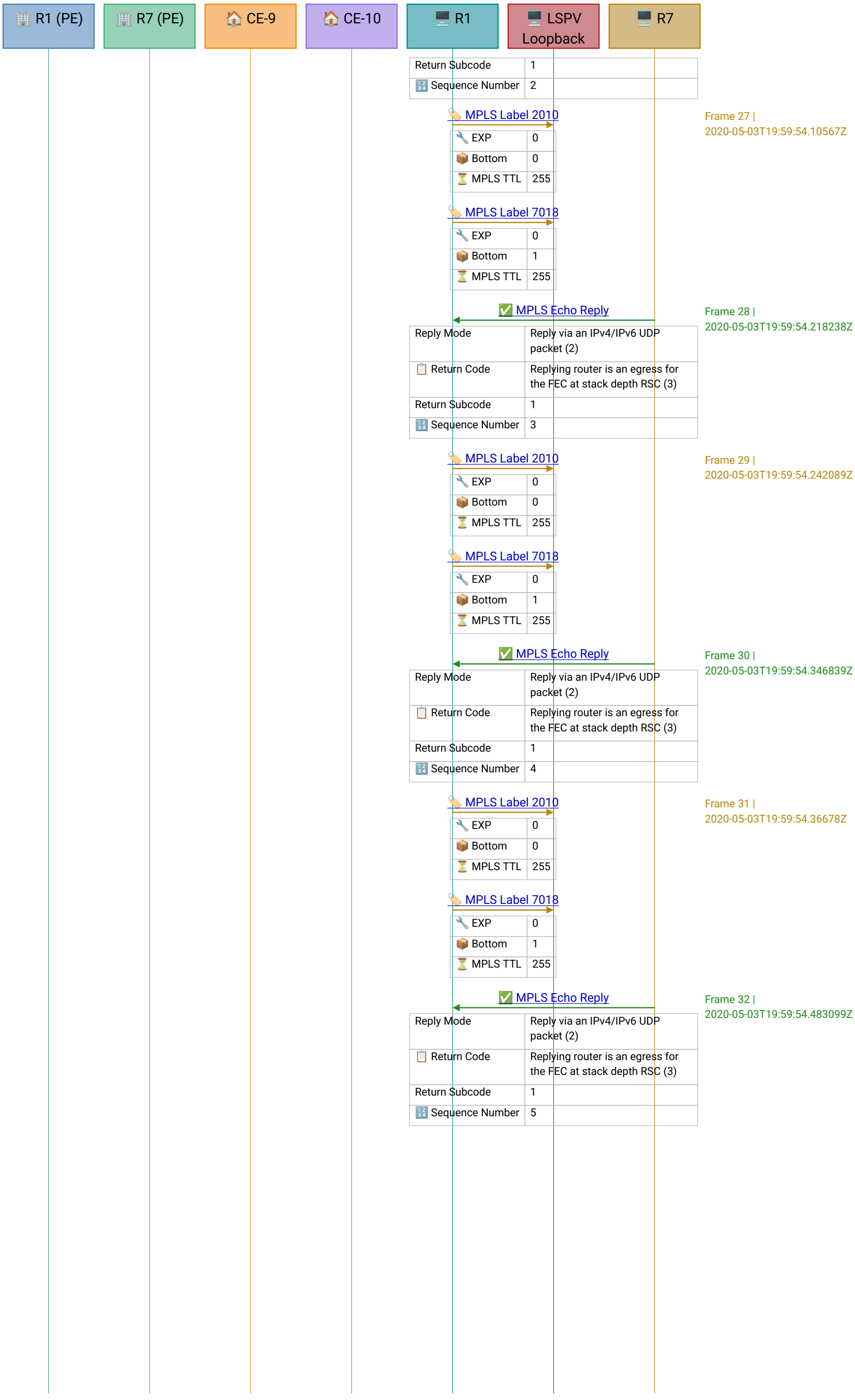
📤 Source Port	49893
📥 Destination Port	646
Stream index	0

Frame 10 | 2020-05-03T19:59:16.511619Z

Exploring ldp_pwire_cword.pcapng




R1 (PE)
R7 (PE)
CE-9
CE-10
R1
LSPV Loopback
R7
MPLS Label 2010
EXP 0
Bottom 0
MPLS TTL 255
Frame 19 | 2020-05-03T19:59:42.041696Z
MPLS Label 7018
EXP 0
Bottom 1
MPLS TTL 255
Inner Echo (ping) request
MPLS Label 1018
EXP 0
Bottom 1
MPLS TTL 252
Inner Echo (ping) reply
Frame 20 | 2020-05-03T19:59:42.043118Z
MPLS Label 2010
EXP 0
Bottom 0
MPLS TTL 255
Frame 21 | 2020-05-03T19:59:42.043613Z
MPLS Label 7018
EXP 0
Bottom 1
MPLS TTL 255
Inner Echo (ping) request
MPLS Label 1018
EXP 0
Bottom 1
MPLS TTL 252
Inner Echo (ping) reply
Frame 22 | 2020-05-03T19:59:42.045064Z
MPLS Label 2010
EXP 0
Bottom 0
MPLS TTL 255
Frame 23 | 2020-05-03T19:59:53.944337Z
MPLS Label 7018
EXP 0
Bottom 1
MPLS TTL 255
MPLS Echo Reply
Reply Mode: Reply via an IPv4/IPv6 UDP packet (2)
Return Code: Replying router is an egress for the FEC at stack depth RSC (3)
Return Subcode: 1
Sequence Number: 1
Frame 24 | 2020-05-03T19:59:53.946332Z
MPLS Label 2010
EXP 0
Bottom 0
MPLS TTL 255
Frame 25 | 2020-05-03T19:59:53.978685Z
MPLS Label 7018
EXP 0
Bottom 1
MPLS TTL 255
MPLS Echo Reply
Reply Mode: Reply via an IPv4/IPv6 UDP packet (2)
Return Code: Replying router is an egress for the FEC at stack depth RSC (3)
Frame 26 | 2020-05-03T19:59:54.08592Z


R1 (PE)
R7 (PE)
CE-9
CE-10
R1
LSPV Loopback
R7
Return Subcode 1
Sequence Number 2
MPLS Label 2010
EXP 0
Bottom 0
MPLS TTL 255
MPLS Label 7018
EXP 0
Bottom 1
MPLS TTL 255
Frame 27 | 2020-05-03T19:59:54.10567Z
MPLS Echo Reply
Reply Mode: Reply via an IPv4/IPv6 UDP packet (2)
Return Code: Replying router is an egress for the FEC at stack depth RSC (3)
Return Subcode 1
Sequence Number 3
Frame 28 | 2020-05-03T19:59:54.218238Z
MPLS Label 2010
EXP 0
Bottom 0
MPLS TTL 255
MPLS Label 7018
EXP 0
Bottom 1
MPLS TTL 255
Frame 29 | 2020-05-03T19:59:54.242089Z
MPLS Echo Reply
Reply Mode: Reply via an IPv4/IPv6 UDP packet (2)
Return Code: Replying router is an egress for the FEC at stack depth RSC (3)
Return Subcode 1
Sequence Number 4
Frame 30 | 2020-05-03T19:59:54.346839Z
MPLS Label 2010
EXP 0
Bottom 0
MPLS TTL 255
MPLS Label 7018
EXP 0
Bottom 1
MPLS TTL 255
Frame 31 | 2020-05-03T19:59:54.36678Z
MPLS Echo Reply
Reply Mode: Reply via an IPv4/IPv6 UDP packet (2)
Return Code: Replying router is an egress for the FEC at stack depth RSC (3)
Return Subcode 1
Sequence Number 5
Frame 32 | 2020-05-03T19:59:54.483099Z