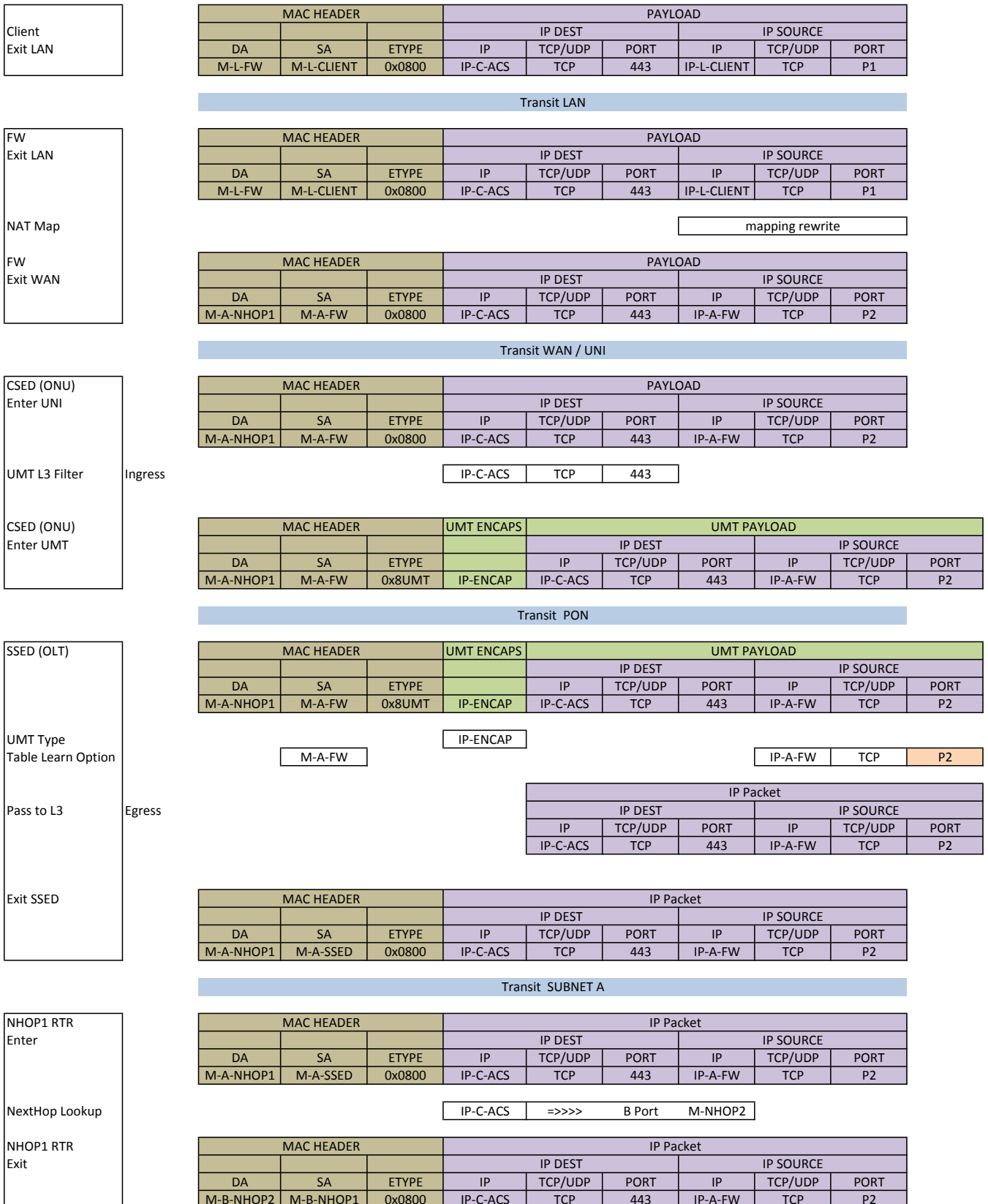


Scenario 1: UMT over PON network only, Distinguish IP TR-069 with router traversal



Transit SUBNET B

NHOP2 RTR  
Enter

NextHop Lookup

NHOP2 RTR  
Exit

MAC HEADER			IP Packet					
DA	SA	ETYPE	IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-B-NHOP2	M-B-NHOP1	0x0800	IP-C-ACS	TCP	443	IP-A-FW	TCP	P2

IP-C-ACS	=>>>>	C Port	M-C-ACS
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MAC HEADER			IP Packet					
DA	SA	ETYPE	IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-C-ACS	M-C-NHOP2	0x0800	IP-C-ACS	TCP	443	IP-A-FW	TCP	P2

Transit SUBNET C

ACS Enter

ACS MAC  
L3 stack

Pass to L3

L3 stack  
TCP stack  
ACS Process

Process Reponse

L3 to L2

ACS Exit

Match  
Match

Match  
Match  
Mach

MAC HEADER			IP Packet					
DA	SA	ETYPE	IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-C-ACS	M-C-NHOP2	0x0800	IP-C-ACS	TCP	443	IP-A-FW	TCP	P2

M-ACS	0x0800
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IP Packet					
IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
IP-C-ACS	TCP	443	IP-A-FW	TCP	P2

IP-C-ACS	TCP	443
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IP Packet					
IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

MAC HEADER			IP Packet					
DA	SA	ETYPE	IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-C-NHOP2	M-C-ACS	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

Transit SUBNET C

NHOP2 RTR  
Enter C-Port

NextHop Lookup

NHOP2 RTR  
Exit B-Port

MAC HEADER			IP Packet					
DA	SA	ETYPE	IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-C-NHOP2	M-C-ACS	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

IP-A-FW	Forward	B Port	M-B-NHOP1
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MAC HEADER			IP Packet					
DA	SA	ETYPE	IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-B-NHOP1	M-B-NHOP2	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

Transit SUBNET B

NHOP1 RTR  
Enter B-Port

NextHop Lookup

NHOP1 RTR

MAC HEADER			IP Packet					
DA	SA	ETYPE	IP DEST			IP SOURCE		
IP	TCP/UDP	PORT	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-B-NHOP1	M-B-NHOP2	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

IP-A-FW	Local	A-Port	M-A-FW
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MAC HEADER			IP Packet					
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Exit A-Port

MAC HEADER			IP DEST			IP SOURCE		
DA	SA	ETYPE	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-A-FW	M-A-NHOP1	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

Transit SUBNET A

SSED (OLT)  
Enter A-Port  
  
Table Lookup  
or  
  
UMT Type  
  
Exit SSED  
PON

MAC HEADER			IP Packet					
			IP DEST			IP SOURCE		
DA	SA	ETYPE	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-A-FW	M-A-NHOP1	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

M-A-FW	IP-A-FW	TCP	P2
M-A-FW	IP-C-ACS	TCP	443

IP-ENCAP

MAC HEADER			UMT ENCAPS	UMT PAYLOAD					
				IP DEST			IP SOURCE		
DA	SA	ETYPE		IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-A-FW	M-A-NHOP1	0x8UMT	IP-ENCAP	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

Transit PON

CSED ONU  
Enter PON  
  
L3 Match  
  
Exit UNI

MAC HEADER			UMT ENCAPS	UMT PAYLOAD					
				IP DEST			IP SOURCE		
DA	SA	ETYPE		IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-A-FW	M-A-NHOP1	0x8UMT	IP-ENCAP	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

IP-ENCAP

MAC HEADER			IP Packet					
			IP DEST			IP SOURCE		
DA	SA	ETYPE	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-A-FW	M-A-NHOP1	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

Transit UNI / WAN

FW  
Enter WAN  
  
NAT MAP  
  
Exit LAN

MAC HEADER			IP Packet					
			IP DEST			IP SOURCE		
DA	SA	ETYPE	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-A-FW	M-A-NHOP1	0x0800	IP-A-FW	TCP	P2	IP-C-ACS	TCP	443

mapping rewrite

MAC HEADER			IP Packet					
			IP DEST			IP SOURCE		
DA	SA	ETYPE	IP	TCP/UDP	PORT	IP	TCP/UDP	PORT
M-L-CLIENT	M-L-FW	0x0800	IP-L-CLIENT	TCP	P1	IP-C-ACS	TCP	443

Transit LAN