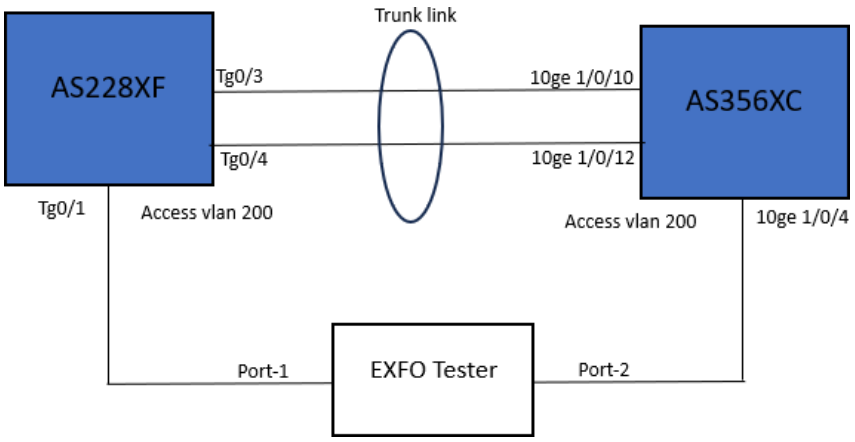
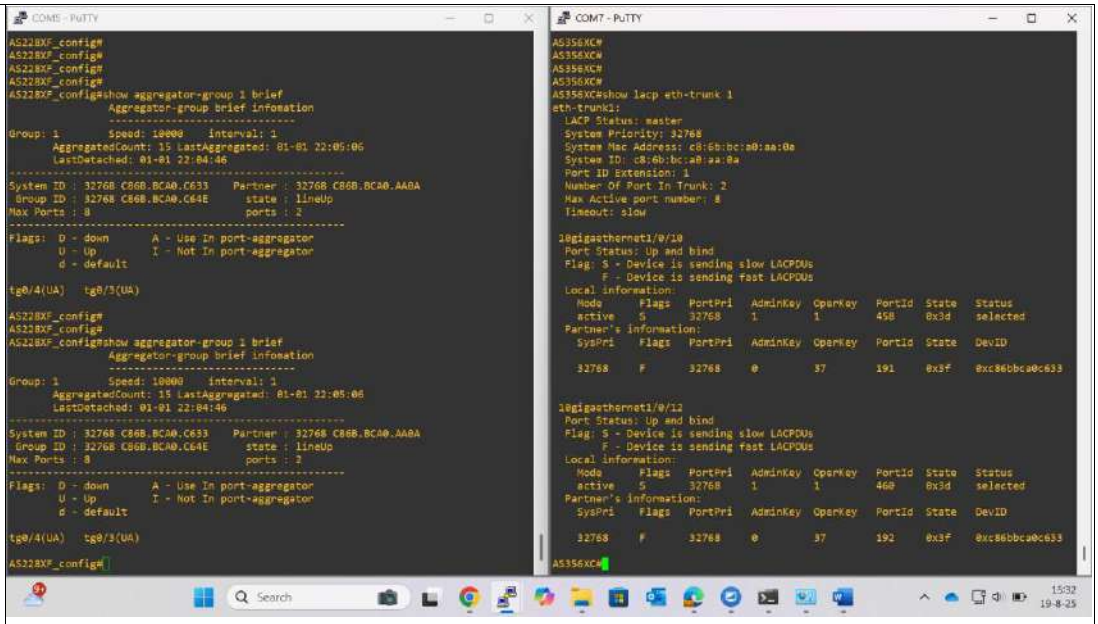
Alpha Bridge
LACP With Load-Balancing
in AS300/56/XC

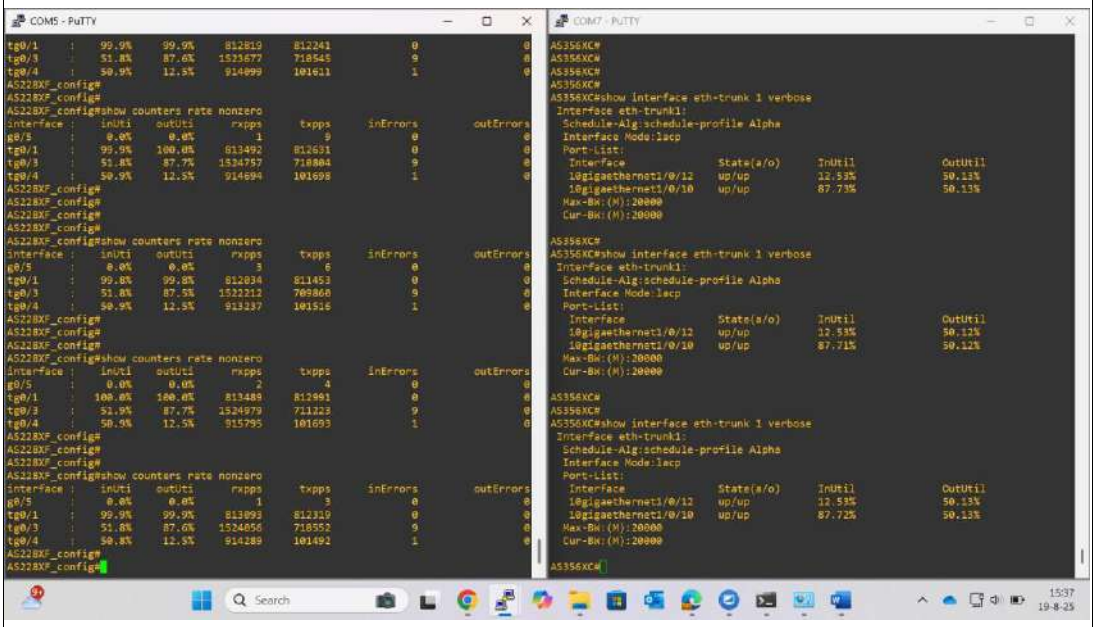
Test	LACP with load-balancing in AS300/56/XC
Test procedure	
configuration	**Configuration in AS356XC:** ! hostname AS356XC ! Vlan 1,200 ! interface vlan 200 ip address 192.168.200.241/24 ! interface eth-trunk 1 *// creating the aggregator group* mode lacp-static *// mode as LACP* port link-type trunk port trunk allow-pass vlan all load-balance schedule-profile Alpha *// assigning the load-balancing profile* ! !

	schedule-profile Alpha *// creating the load-balancing profile, Except l4 removed remaining all to match the load-balancing with AS228XF* no l2 field src-mac no l2 field dst-mac no l2 field l2-protocol no l2 field vlan no ip field src-ip no ip field dst-ip no ip field vlan no ip field protocol no ipv6 field src-ip no ipv6 field dst-ip no ipv6 field vlan no ipv6 field l4-srcport no ipv6 field l4-dstport no ipv6 field protocol no mpls field top-label no mpls field 2nd-label no mpls field src-ip no mpls field dst-ip no mpls field vlan ! interface 10gigaethernet 1/0/10 join eth-trunk 1 *// assign the interface to aggregator group* ! interface 10gigaethernet 1/0/12 join eth-trunk 1 *// assign the interface to aggregator group* ! *Note: When the load-balance profile is created, all hash fields are enabled by default. Unnecessary hash fields need to be removed.*

	Configuration in AS228XF: ! hostname AS228XF ! aggregator-group load-balance both-l4port *// enabling the load-balancing* ! interface Port-aggregator1 *// creating the aggregator group* agg-period 1 switchport mode trunk ! interface TGigaEthernet0/1 switchport pvid 200 ! interface TGigaEthernet0/3 aggregator-group 1 mode lacp *// assign the interface to aggregator group* switchport mode trunk ! interface TGigaEthernet0/4 aggregator-group 1 mode lacp *// assign the interface to aggregator group* switchport mode trunk ! interface VLAN200 ip address 192.168.200.243 255.255.255.0 no ip directed-broadcast ! ! vlan 1,200
test result	**Results for LACP with load-balancing** Aggregator ports in AS228XF and AS356XC



Utilization of the interfaces in AS228XF and AS356XC



The output utilization of each interface in AS356XC is 50%, so load is shared to all the ports equally.

Tester results

Summary | Streams | Traffic | Alarms/Errors | Logger | P1 | P2

Stream	TX Rate (Mbit/s)	RX Rate (Mbit/s)			
		Current	Average	Minimum	Maximum
1	625.00	625.00	624.99	624.99	625.01
2	625.00	625.00	624.99	624.99	625.01
3	625.00	625.00	624.99	624.99	625.00
4	625.00	625.00	624.99	624.99	625.00
5	625.00	624.99	624.99	624.99	625.00
6	625.00	624.99	625.00	624.99	625.00
7	625.00	624.99	625.00	624.99	625.01
8	625.00	624.99	625.00	624.99	625.01
9	625.00	624.99	625.00	624.99	625.01
10	625.00	624.99	625.00	624.99	625.01
11	625.00	624.99	625.00	624.99	625.00
12	625.00	624.99	625.00	624.99	625.00
13	625.00	625.00	624.99	624.99	625.00
14	625.00	625.00	624.99	624.99	625.00
15	625.00	625.00	624.99	624.99	625.01
16	625.00	625.00	624.99	624.99	625.01
Total	10000.00	10000.00			

Thresholds

Traffic statistic in tester

	Line Utilization (%)	Ethernet BW (Mbit/s)	Frame Rate (frame/s)	Frame Count
Total TX	100.0000	9869.96	812743	290837221
Total RX	100.0000	9869.96	812744	290837381

Frame Type	TX Count	RX Count
Multicast	0	179
Broadcast	0	0
Unicast	290837221	290837202
Non-Unicast	0	179
Total	290837221	290837381

Frame Size	RX Count	%
< 64	0	0%
64	179	0%
65 - 127	0	0%
128 - 255	0	0%
256 - 511	0	0%
512 - 1023	0	0%
1024 - 1518	290837202	99.9%
> 1518	0	0%
Total	290837381	

Remarks	The output utilization of each interface in AS356XC is 50%, so load is shared to all the ports equally.