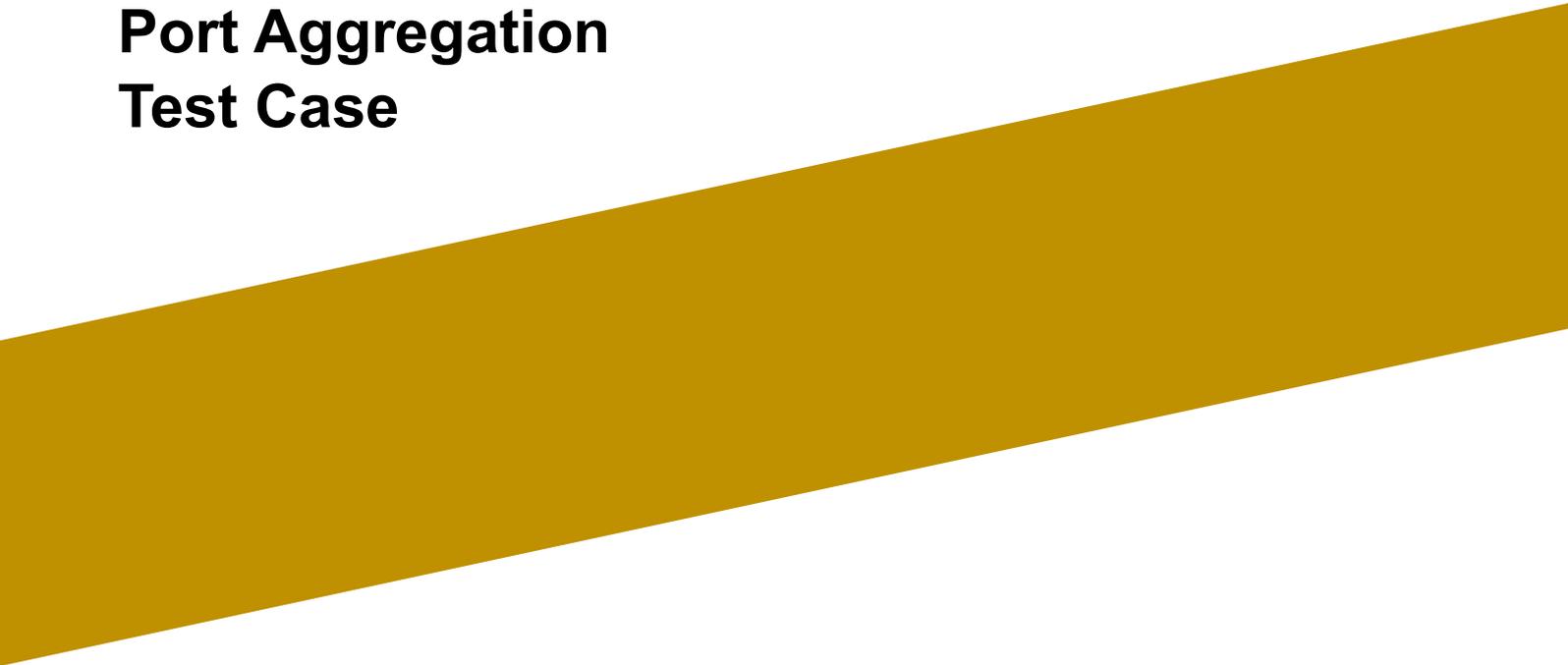
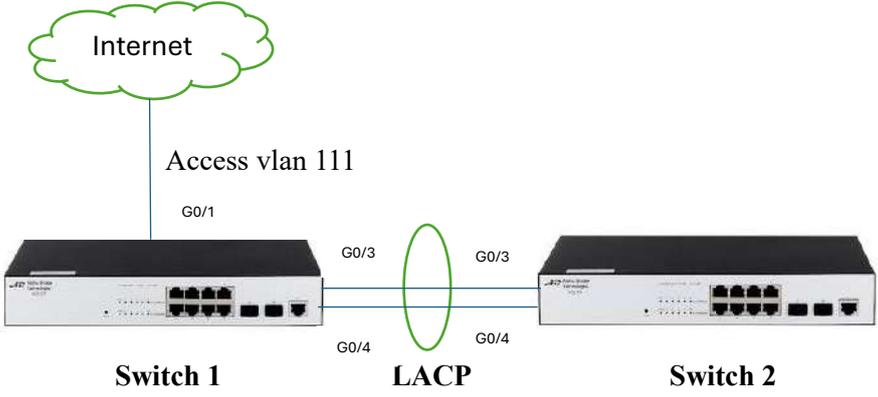


Alpha Bridge Port Aggregation Test Case



1. Port Aggregation

Testcase	Port Aggregation
<p>Procedure</p>	<ol style="list-style-type: none"> 1. Create a Port-Aggregator 1 on both switches and configure it as a trunk, allowing VLAN 111. 2. Add physical interfaces (G0/3 and G0/4) to the aggregator group using LACP mode and apply the same trunk and VLAN settings. 3. Configure access and PVID settings on required ports and apply ingress and egress rate-limiting as needed. 4. Configure VLANs and IP addresses. 
<p>Configuration</p>	<p>Switch Configuration:</p> <p>SWITCH 1:</p> <pre> interface Port-aggregator1 //creating Aggregator group. switchport mode trunk switchport trunk vlan-allowed 111 exit interface GigaEthernet0/1 switchport pvid 111 exit interface GigaEthernet0/3 aggregator-group 1 mode lacp //adding the G0/3 to aggregator group 1 with LACP mode. switchport mode trunk switchport trunk vlan-allowed 111 switchport rate-limit bandwidth 1 ingress //Applying the rate-limit upto 1% on ingress traffic of port switchport rate-limit bandwidth 1 egress //Applying the rate-limit upto 1% on egress traffic of port exit </pre>

```
interface GigaEthernet0/4
aggregator-group 1 mode lacp
switchport mode trunk
switchport trunk vlan-allowed 111
switchport rate-limit bandwidth 1 ingress
switchport rate-limit bandwidth 1 egress
exit
interface VLAN1
ip address 192.168.0.1 255.255.0.0
no ip directed-broadcast
exit

interface VLAN111
no ip address
no ip directed-broadcast
exit

vlan 1,111
exit
write all

SWITCH 2:
interface Port-aggregator1 //creating Aggregator group-1
switchport mode trunk
switchport trunk vlan-allowed 111
exit

interface GigaEthernet0/1
switchport pvid 111
exit

interface GigaEthernet0/3
aggregator-group 1 mode lacp //adding the G0/3 to aggregator group 1 with
LACP mode
switchport mode trunk
switchport trunk vlan-allowed 111
switchport rate-limit bandwidth 1 ingress //Applying the rate-limit upto 1%
on ingress traffic of port
```

```
switchport rate-limit bandwidth 1 egress //Applying the rate-limit upto 1%  
on egress traffic of port  
exit  
  
interface GigaEthernet0/4  
aggregator-group 1 mode lacp  
switchport mode trunk  
switchport trunk vlan-allowed 111  
switchport rate-limit bandwidth 1 ingress  
switchport rate-limit bandwidth 1 egress  
exit  
  
interface VLAN1  
ip address 172.168.0.1 255.255.255.0  
no ip directed-broadcast  
exit  
  
interface VLAN111  
ip address 172.168.20.10 255.255.255.0  
no ip directed-broadcast  
exit  
  
vlan 1,111  
exit  
write all
```

This command shows the status of Port-Aggregator group 1.

```
show aggregator-group 1 brief
```

SWITCH 1:

Both ports are Up (U) and Active (A) in LACP.
Confirms successful port aggregation.

```

Switch_config#write all
Saving current configuration...
OK!
Switch_config#Jan 1 00:37:28 /startup-config is wrote, TID:0baeac20
Jan 1 00:37:29 MDM-5-EXT_REGION_CREATE 806f4610: Create extend region for r
egion 1 rank 4, 7562 blocks 3543365 bytes

Switch_config#rate-limit burst-size middle
Switch_config#Jan 1 00:39:30 ALINE-5-UPDOWN: Line on Interface GigEthernet0
/4, changed state to up
Jan 1 00:39:30 ALINEPROTO-5-UPDOWN: Line protocol on Interface GigEthernet0
/4, changed state to up
Jan 1 00:39:32 ALINE-5-UPDOWN: Line on Interface Port-aggregator1, changed a
ctive state to up
Jan 1 00:39:32 ALINEPROTO-5-UPDOWN: Line protocol on Interface Port-aggregat
or1, changed state to up
Jan 1 00:39:33 ALINEPROTO-5-UPDOWN: Line protocol on Interface VLM111, chan
ged state to up
Jan 1 00:39:40 ALINE-5-UPDOWN: Line on interface GigEthernet0/3, changed st
ate to up
Jan 1 00:39:40 ALINEPROTO-5-UPDOWN: Line protocol on Interface GigEthernet0
/3, changed state to up

Switch_config#show aggregator-group 1 brief
Aggregator-group Brief Information
-----
Group: 1      Speed: 1000      interval: 30
AggregatedCount: 1 LastAggregated: 01-01 00:39:32
LastDetached:

System ID : 32768 C86B.BCA0.86B4      Partner : 32768 C86B.BCA0.D16C
Group ID : 32768 C86B.BCA0.86B8      state : lineUp
Max Ports : 0                          ports : 2
-----
Flags: D - down      A - Use In port-aggregator
      U - Up         I - Not In port-aggregator
      d - default

g0/4(UA)    g0/3(UA)
Switch_config#
  
```

Test result

SWITCH 2:

Both ports are Up (U) and Active (A) in LACP.
Confirms successful port aggregation.

```

COMS - PUTTY
Password:

Welcome to ABTPL AS210T Ethernet Switch

Switch_1>
Switch_1>enable
Password:
Access denied!

Switch_1>
Switch_1>enable
Password:
Switch_1#Jan 1 00:39:57 User admin enter privilege mode from console 0, leve
l = 15

Switch_1#show aggregator-group 1 brief
Aggregator-group brief information
-----
Group: 1      Speed: 1000      interval: 30
AggregatedCount: 1 LastAggregated: 01-01 00:39:32
LastDetached:

System ID : 32768 C86B.BCA0.D16C      Partner : 32768 C86B.BCA0.86B4
Group ID : 32768 C86B.BCA0.D170      state : lineUp
Max Ports : 0                          ports : 2
-----
Flags: D - down      A - Use In port-aggregator
      U - Up         I - Not In port-aggregator
      d - default

g0/4(UA)    g0/3(UA)
Switch_1#
  
```

Port-Aggregator1 is correctly configured, LACP is synchronized, and both links are actively forwarding traffic without issues.

Remarks	Working
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