

SW1-----SW2
4X1gb =4 GB
Full duplex throughput 4x2=8 GB

1 GB throughput =2 GB
6 GB loss

Static on (No protocol)

Dynamic:

Lacp IEEE

Pagp cisco prop

Static	PAGp	LACP	
Max 8 links	Max 8 links	Max 16 links	8-Active/8-Hot standby
stateless			

2,4,8

1:1

1:1:1:1

1:1:1:1:1:1:1:1

2:1:1:1:1:1:1:1

2:2:1:1:1:1:1:1

2:2:2:1:1:1:1:1

=====

Sw1:

conf t

ho Sw1

int range g1/0/1-4

sw trunk encap dot1q

sw mode trunk

exit

bia 0001.4268.8103

0060.2feb.bd4d

00:60:2F:21:4D:8D

SW2 (bia 00d0.bc00.3d71

SW3 0060.2feb.bd4d

MAc address - base ethernet ,Admin g0/0,1 less than lowest mac add

=====

SW2-----Static Etherchannel -----SW3

Sw2

conf t

ho Sw2

int range g1/0/1-4

```
sw trunk encap dot1q
sw mode trunk
exit
```

```
int range g1/0/3-4
Channel-group 23 mode on
exit
```

```
Sw3
conf t
ho Sw3
int range g1/0/1-4
sw trunk encap dot1q
sw mode trunk
exit
```

```
int range g1/0/3-4
Channel-group 23 mode on
exit
```

```
sh int po23
sh spa
=====
PAGP between Sw1--Sw2
```

```
SW1/Sw2
conf t
int range g1/0/1-4
sw trunk encap dot1q
sw mode trunk
exit
```

```
SW1;
int range g1/0/1-2
channel-group 12 mode desirable
exit
```

```
SW2;
int range g1/0/1-2
channel-group 21 mode desirable
exit
```

```
sh etherchannel summary
sh spa
sh int po21
=====
LACP
```

Sw1-----LACP-----SW3

```
SW1
int range g1/0/3-4
channel-group 13 mode active
```

exit

SW3

```
int range g1/0/1-2
channel-group 13 mode passive
exit
```

=====
L3-Port channel

Sw1:

```
conf t
int po12
no Sw
ip add 10.1.1.1 255.0.0.0
exit
```

```
int range g0/0-1
```

```
no sw
channel-group 12 mode active
exit
```

Sw2:

```
conf t
int po21
no Sw
ip add 10.1.1.2 255.0.0.0
exit
```

```
int range g0/0-1
```

```
no sw
channel-group 21 mode active
exit
```

```
sh ip int b | in P
sh etherchannel summary
```

00d0.ff48.1439

Src 001

Dest-- -001

000

9 1001

1 0001

000

Load balance

0 0 0 3.e404.5201

0000 0000 0000 0011 1110 0100 0000 0100 0101 0010 0000 0001

2 Link last binary bit

0 -- link0 link1
1 -- link1 link2

XOR
0 0 =0
1 1 =0
0 1 =1
1 0 =1

4 Link last binary bit

00 link0 link1
01 link1 link2
10 link2 link3
11 link3 link4

8 Link last binary bit

000 link0 link1
001 link1 link2
010 link2 link3
011 link3 link4
100 link4 link5
101 link5 link6
110 link6 link7
111 link7 link8

=====

LACPDU 30 sec Slow lacpdu
LACP fast 1 sec
Min-bundle-link 4
MAX-bundle-link 1
Fastswitchover
LACP system priority
LACP port priority

SW1 Sw2
1-----1
2-----2
3-----3
4-----4
5,6,7,8,9
10-----10

1-8 Active
9-10 stndby

SW1-----Sw2
1-----10
2-----9

```
3-----8
4-----7
16-----1
```

```
sw1
int r g1/1-16
channel-group 1 active
exit
```

```
Advanced LACP features
Sw1-----Sw2
```

```
Sw1
int range g0/0-2
channel-group 12 mode active
exit
```

```
int po12
lacp max-bundle 2
lacp fastswitchover
```

```
lacp system-priority 100
```

```
int g0/2
lacp port-priority 100
exit
```

```
=====
Router to Switch
```

```
router;
```

```
int po1
no sh
int range g0/0,g1/0
channel-group 1
no sh
exit
```