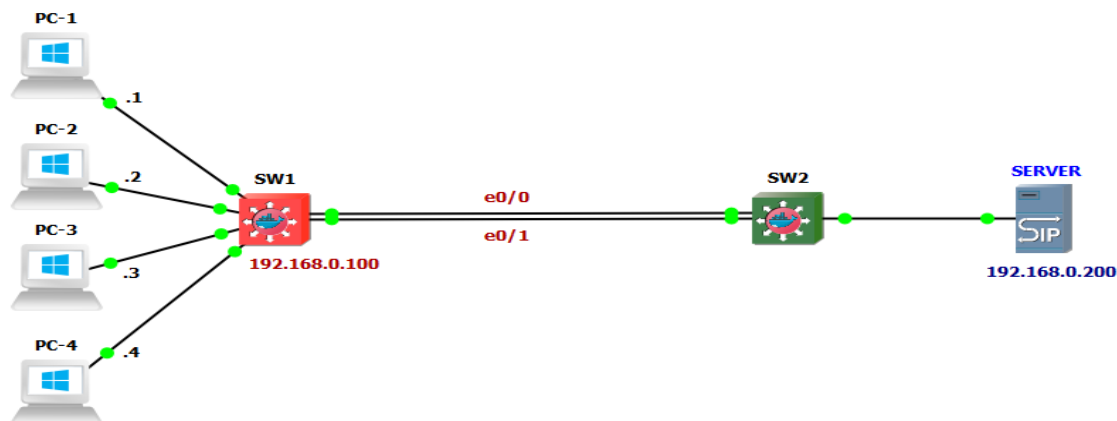


## EtherChannel Load-Balancing:

- o Etherchannel load not equally distributed across all links bundled.
- o EtherChannel provides load balancing only per frame, not per bit.
- o Values has calculated by hash algorithm, that particular port accepts.
- o A switch decides which member link a frame will traverse frame.
- o In Etherchannel flow uses of particular port cannot be controlled.
- o The hash algorithm cannot be configured or changed to load balance.
- o Only influence the load balance with a frame distribution method.
- o Which fields are considered is dependent on switch platform & configuration.
- o EtherChannel load balancing can use MAC addresses and IP addresses.
- o By default, Layer 2 packets are distributed on source & destination MAC address.
- o By default, Layer 3 packets are distributed based on source & destination IP address.

Ports in EtherChannel	Distribution across the links
2	50%:50%
3	37,5%:37,5%:25%
4	25%:25%:25%:25%
5	25%:25%:25%:12,5%:12,5%
6	25%:25%:12,5%:12,5%:12,5%:12,5%
7	25%:12,5%:12,5%:12,5%:12,5%:12,5%:12,5%
8	12,5%:12,5%:12,5%:12,5%:12,5%:12,5%:12,5%:12,5%



SW1(config)#port-channel load-balance src-mac
SW2(config)#port-channel load-balance dst-mac
SW1#show etherchannel load-balance

```

sw1(config)#port-channel load-balance ?
dst-ip      Dst IP Addr
dst-mac     Dst Mac Addr
src-dst-ip  Src XOR Dst IP Addr
src-dst-mac Src XOR Dst Mac Addr
src-ip      Src IP Addr
src-mac     Src Mac Addr

```

Method	Operation	Hash	Switch Model
src-ip	Source IP address	bits	All Models
dst-ip	Destination IP address	bits	All Models
src-dst-ip	Source and destination IP address	XOR	All Models
src-mac	Source MAC address	bits	All Models
dst-mac	Destination MAC address	bits	All Models
src-dst-mac	Source and destination MAC	XOR	All Models
src-port	Source port number	bits	6500/4500
dst-port	Destination port number	bits	6500/4500
src-dst-port	Source and destination port	XOR	6500/4500