

Агрегирование каналов



Конфигурируем Switch0

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int range fa0/1-2
      ^
% Invalid input detected at '^' marker.

Switch(config)#int range fa0/1-2
Switch(config-if-range)#channel-group 1 mode ?
    active      Enable LACP unconditionally
    auto        Enable PAGP only if a PAGP device is detected
    desirable   Enable PAGP unconditionally
    on          Enable Etherchannel only
    passive     Enable LACP only if a LACP device is detected
Switch(config-if-range)#channel-group 1 mode on
Switch(config-if-range)#
Creating a port-channel interface Port-channel 1

%LINK-5-CHANGED: Interface Port-channel1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Port-channel1, changed state to up

Switch(config-if-range)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr memory
Building configuration...
[OK]
Switch#
```

тоже самое у switch1

```
Switch>
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int range fa0/1-2
Switch(config-if-range)#channel-group 1 mode?
mode
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Switch(config-if-range)#channel-group 1 mode ?
    active      Enable LACP unconditionally
    auto        Enable PAGP only if a PAGP device is detected
    desirable   Enable PAGP unconditionally
    on          Enable Etherchannel only
    passive     Enable LACP only if a LACP device is detected
Switch(config-if-range)#channel-group 1 mode on
Switch(config-if-range)#
Creating a port-channel interface Port-channel 1

%LINK-5-CHANGED: Interface Port-channel1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Port-channel1, changed state to up

Switch(config-if-range)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr memory
Building configuration...
[OK]
Switch#
```

пингуем

```
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time<1ms TTL=128
Reply from 192.168.1.2: bytes=32 time<1ms TTL=128
Reply from 192.168.1.2: bytes=32 time<1ms TTL=128
Reply from 192.168.1.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

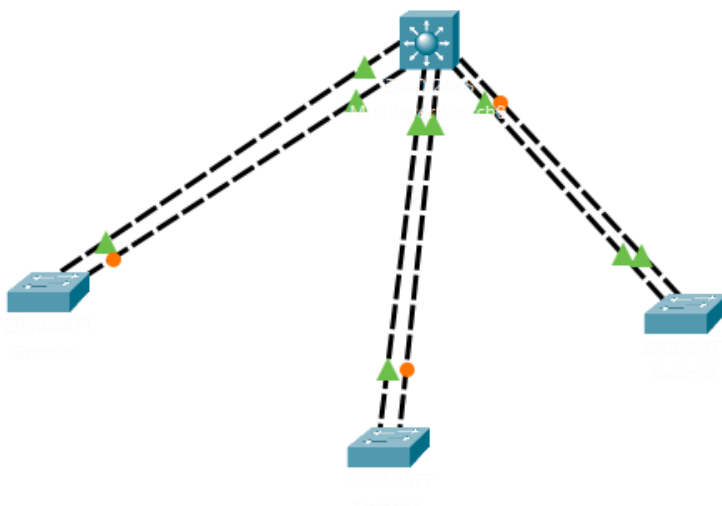
Задание: С помощью CLI в коммутующем устройстве, отключить один из кабелей между коммутующими устройствами. Что в итоге меняется?

Нечего не изменилось



ДИНАМИЧЕСКОЕ АГРЕГИРОВАНИЕ КАНАЛОВ (LACP)

построение сети



конфигурацию коммутатора 3560

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface range fastEthernet 0/1-2
Switch(config-if-range)#channel-protocol lacp
Switch(config-if-range)#channel-group 1 mode active
Switch(config-if-range)#
Creating a port-channel interface Port-channel 1

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

Switch(config-if-range)#wr memory
      ^
% Invalid input detected at '^' marker.

Switch(config-if-range)#exit
Switch(config)#wr memory
      ^
% Invalid input detected at '^' marker.

Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#wr memory
Building configuration...
[OK]
Switch#
```

Переходим в консоль Switch0:

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface range fa0/1-2
Switch(config-if-range)#channel-protocol lacp
Switch(config-if-range)#channel-group 1 mode passive
Switch(config-if-range)#
Creating a port-channel interface Port-channel 1

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

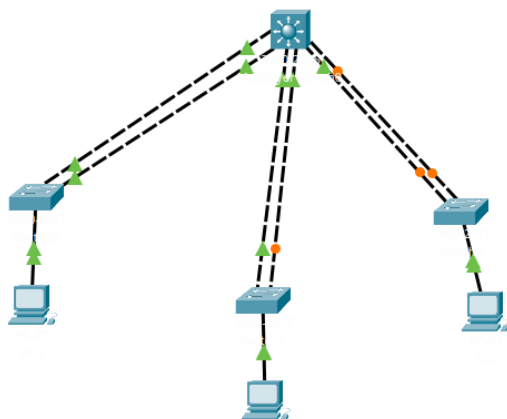
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
```

тоже делаем и для двух других

подключаем ПК к каждому Switch 2960



ПИНГУЕМ

```
C:\>ping 192.168.1.2
```

```
Pinging 192.168.1.2 with 32 bytes of data:
```

```
Reply from 192.168.1.2: bytes=32 time<1ms TTL=128
```

```
Reply from 192.168.1.2: bytes=32 time<1ms TTL=128
```

```
Reply from 192.168.1.2: bytes=32 time<1ms TTL=128
```

```
Reply from 192.168.1.2: bytes=32 time<1ms TTL=128
```

```
Ping statistics for 192.168.1.2:
```

```
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

```
Approximate round trip times in milli-seconds:
```

```
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 192.168.1.3
```

```
Pinging 192.168.1.3 with 32 bytes of data:
```

```
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
```

```
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
```

```
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
```

```
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
```

```
Ping statistics for 192.168.1.3:
```

```
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

```
Approximate round trip times in milli-seconds:
```

```
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```