# Lab 5.1-A MLS Lanbase routing

# Topo



# Adresovanie

**IPv4:**

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| **Zariadenie** | **Rozhranie** | **IPv4** |
| DLS1 | Loop 1 | 172.16.1.1./24 |
| Port 1 | 1.0.0.1/24 |
| Vlan 1000 | 192.168.255.101/24 |
| DLS2 | Loop 1 | 172.16.2.1./24 |
| Port 1 | 1.0.0.2/24 |
| Vlan 1000 | 192.168.255.101224 |
| ALS1 | Vlan100 | 192.168.100.1/24 |
| Vlan 1000 | 192.168.255.201/24 |
| ALS2 | Vlan120 | 192.168.120.1/24 |
| Vlan 1000 | 192.168.255.202/24 |

**DLS1:**

# Požadované kroky

* Premazanie prepínačov

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| **Task** | | | **Konfigurácia** | | | **Verifikácia** |
| **Príprava:**   * Premaž prepínače a rieš etherchannel trunks podľa obr. | | | | | | |
| **Etherchannel** | | | | | | |
| * Konfiguruj L2 etherchannel porty podľa obrázku (PAGP a LACP) | | | | | | |
| **PAGP** | Príklad: DLS1  Int range fa 0/7 – 8  Channel-group 2 mode desirable  Int port-channel 2  Switchport trunk encapsulation dot1q  Switchport mode trunk  Switch trunk allowed vlan none  Switch trunk allowed vlan add 1000 | | | Príklad: ALS1  Int range fa 0/7 – 8  Channel-group 2 mode desirable | auto  Int port-channel 2  Switchport mode trunk  Switch trunk allowed vlan none  Switch trunk allowed vlan add 1000 | | Sh etherchannel summary  Sh etherchannel  Sh int trunk  show spanning tree |
| **LACP** | DLS1  Int range fa 0/9 – 10  Channel-group 4 mode active  Int port-channel 4  Switchport trunk encapsulation dot1q  Switchport mode trunk  Switch trunk allowed vlan none  Switch trunk allowed vlan add 1000 | | | ALS1  Int range fa 0/9 – 10  Channel-group 4 mode active | passive  Int port-channel 4  Switchport mode trunk  Switch trunk allowed vlan none  Switch trunk allowed vlan add 1000 | | Sh etherchannel summary  Sh etherchannel detail |
| **L3 etherchannel** | | | | | | |
|  | Switch(config)# interface range fast 0/11-12  Switch(config-if-range)# no ip address  Switch(config-if-range)# no switchport  Switch(config-if-range)# channel-group 1 mode active  Switch(config-if-range)# exit  Switch(config)# interface port-channel 1  Switch(config-if)# no switchport  Switch(config-if)# ip address 1.0.0.1 255.255.255.0 | | | | |  |
| POZN: pri zmenách z jedného bonding protokolu na iný najprv v range zhoď dané fyzické porty, sprav zmeny a nahoď ich späť | | | | | | |
| **SVI a loop rozhrania** | | | | | |  |
| Vytvor na DLS danú VLAN 1000 a zaraď do nej požadované rozhrania. Priraď do SVI IP adresy z rozsahu 192.168.255.0/24 podľa dohody | | Vlan 1000  Int vlan 1000  Ip add 192.168.255.101 255.255.255.0 | | | | Show ip route |
| Na DLS rieš loops a adresovania na L3 portchannel. | | Int loop 1  Ip address 172.16.1.1 255.255.255.0 | | | |  |
| Vytvor na ALS dané VLAN 100, resp. 120 podľa obrázka ako aj VLAN 1000.  Zaraď port fa 0/5 do danej vlan. | | ALS1  Vlan 1000,100  exit  int fa 0/5  switchport mode access  switchpo acc vlan 100 | | | | Show vlan |
| Nastav SVI rozhrania s daným IP adresami na všetkých prepínačoch, aj distro aj access. | |  | | | | Show ip int brief |
| **Routing** | | | | | | |
| Over na L3 či je routing sdm. | | dls1#sh sdm prefer  The current template is "desktop IPv4 and IPv6 routing" template.  The selected template optimizes the resources in the switch to support this level of features for | | | | Sh sdm prefer |
| Over na ALS či je lan base routing sdm, ak treba reload | | Sdm prefer lanbase-routing | | | | Show sdm prefer |
| **Rieš routing** | | | | | | |
| **DLS** | | | | | | |
| Zapni na DLS routing | | Ip routing | | | |  |
| Na DLS rieš RIPv2 podľa obr. A over smerovaciu tabuľku. | | router rip  version 2  network 1.0.0.0  network 172.16.0.0  no auto-summary | | | | Sh ip protocols  Sh ip route |
| Over konektivitu z loop na dls1 na loop na DLS2 | |  | | | | #ping 172.16.2.1 source lo 1 |
| **ALS** | | | | | | |
| Over smerovaciu tabuľku | | Show ip route  Default gateway is not set  Host Gateway Last Use Total Uses Interface  ICMP redirect cache is empty | | | |  |
| Zapni na ALS routing | | Ip routing | | | | Show ip route |
| Priraď do SVI IP adresy podľa dohody | | Int vlan 1000  Ip add 192.168.255.201 255.255.255.0  Int vlan 100  Ip add 192.168.100.201 255.255.255.0 | | | | Sh ip int brie  Show ip route |
| Na ALS rieš plávajúcu default. Route podľa obr | | ALS1 príklad:  Ip route 0.0.0.0 0.0.0.0 vlan 1000 DLS1\_IP 5  Ip route 0.0.0.0 0.0.0.0 vlan 1000 DLS1\_IP 10 | | | |  |
| Over konektivitu z ALS alebo z PC | | ping 192.168.255.101 source vlan 100 | | | |  |
| Treba niečo so smerovaním riešiť aj na DLS? vyrieš | | | | | | |
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