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| **Sheridan College** | | |
| **Course** | **TELE33324: Data Network Design and Configuration – Routers and Switches** | |
| **Professor** | **Ida Leung** | |
| **Student Name(s)** | **991535676** | |
| **Table number** |  | |
| **Lab 6: Switch Configuration and ACL Application** | | |
| **Performed Date** | **25/07/2019** | |
| **Instructor's Sign** |  | **(marks)** |

**Follow the procedure to configure your topology:**

1. Reuse everything you have in lab5

Make sure every PC is pingable.

1. Configure the switch with hostname “initial\_SW\_1” and set password and timezone similar to other routers.
2. Define another group of 6PC (PC7-12) to connect to switch #1. Assign the subnet 11.0.0.0/24 to these PC and use 11.0.0.1 as gateway.
3. Convert PC1-PC6 to VLAN23 with VLAN Name “VLAN\_23” and connect PC7-PC12 to VLAN24 with VLAN Name “VLAN24”.

Can you ping from PC1 to PC7? Why?

No, and the reason is both PC are in different VLAN which prevent them communication between interfaces. Virtually both computers act as available in different network due to presence of VLAN.

1. Convert the link from SW#1 to R3 as trunk to allow both VLAN traffic.

Can you ping from PC1 to PC7 now? Why?

YES, setting up virtual interface in router acts as two different connection in same router. And router can redirect those request in both VLAN.

1. Applied the correct ACL to the interface to permit/deny following traffic:

|  |  |  |  |
| --- | --- | --- | --- |
| A-End | Z-End | Traffic type | Permit/Deny |
| PC1 | PC7 | Ping | Permit |
| PC1 | PC7 | TELENET | Deny |
| PC10 | PC4 | Ping | Deny |
| PC10 | PC4 | TELNET | Permit |
| Other PC | Other PC | Any traffic | Permit |

1. What types of ACL have you applied to your topology? Inbound or outbound?

ACL is applied on both inbound and outbound on interface GigbitEthernet0/2.23. Reason is

1) we deny ping from PC10 to PC 4

2) we deny telnet from PC 1 to PC 7

And both rules are on different direction

1. Applied the correct ACL to the R1 to permit/deny following traffic:

|  |  |  |  |
| --- | --- | --- | --- |
| A-End | Z-End | Traffic type | Permit/Deny |
| R1 | PC7 | Ping | Permit |
| R1 | PC7 | TELENET | Deny |
| PC7 | R1 | Ping | Deny |
| PC7 | R1 | TELNET | Permit |

1. What types of ACL have you applied to your topology? Inbound or outbound?

ACL is applied on inbound on interface GigbitEthernet0/2.24. Reason is

1) we deny telnet from R1 to PC 7

2) we deny ping from PC7 to R1

And both rules are on different direction



Figure Network Topology