**Lab6**

**Broadcast domains - STP**

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**The Spanning Tree protocol**

Use Packet Tracer to open the following [architecture file](https://www.cs.ubbcluj.ro/~dadi/compnet/labs/lab6-stp-vlans/lab-spanning-tree-1.pkt).

A diagram of a computer network

Description automatically generated�

Open a command prompt on 192.168.0.2 (or any other host) and ping 192.168.0.1 (or any other host). (do not ping yourself). **What is happening?**

Observe anything particular about the links? Try to figure out in Simulation mode by filtering only ICMP and ARP packets.

Enable STP or RSTP on all three switches and observe what happens with the links ?

***enable***

***conf t***

***spanning-tree vlan 1***

When multiple paths are present inside a network, loops are potentially created leading to broadcast storms � i.e. any packet and especially broadcast injected into the network loops indefinitely in the network � freezing all network activity.

The *Spanning Tree Protocol*� avoids this by creating a spanning tree over the interconnecting switches disabling some of the branches (the network ports are disabled/shutdown). Check the [details of STP](https://en.wikipedia.org/wiki/Spanning_Tree_Protocol#:~:text=The%20Spanning%20Tree%20Protocol%20(STP,radiation%20that%20results%20from%20them.) !