



Applied!

# Computer Networks

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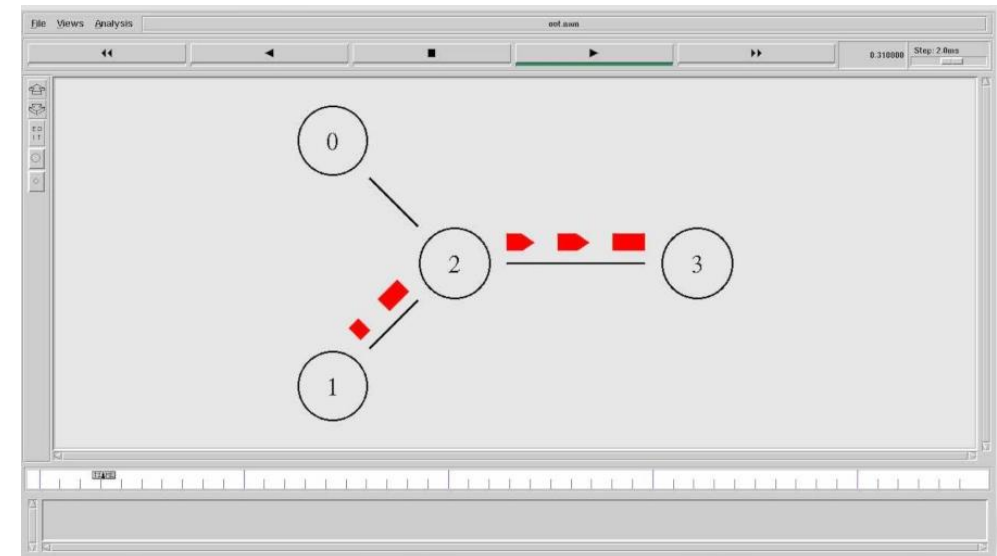
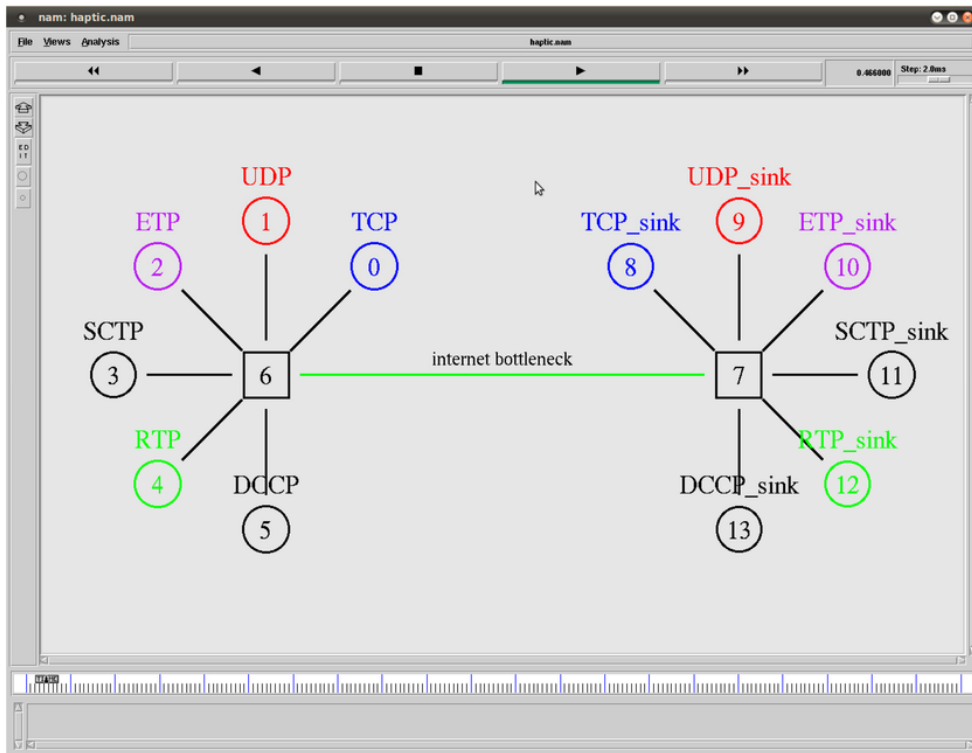
**NetworkSimulators**

# Network simulators

- Network simulators are software tools that allow users to create, configure, and analyze virtual networks without the need for physical hardware.
- They are widely used in network design, testing, and education to simulate various network scenarios, protocols, and behaviors.  
Here are some key aspects of network simulators:

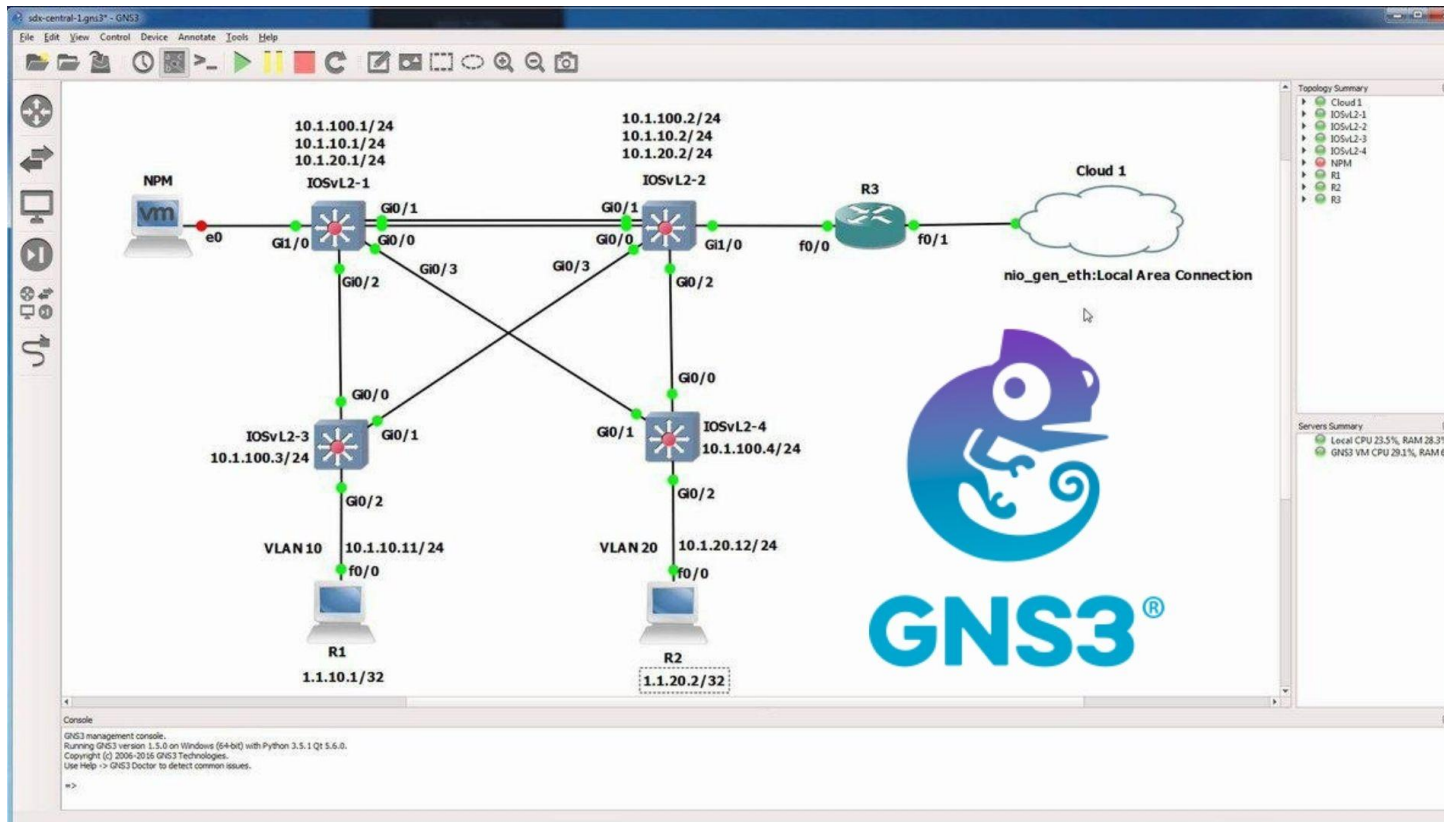
# NS-2/NS-3

- Network Simulator 2 and Network Simulator 3 are widely used for simulating network protocols and performance analysis.
- OMNeT++: A modular, discrete event simulation framework that is often used for simulating communication networks.



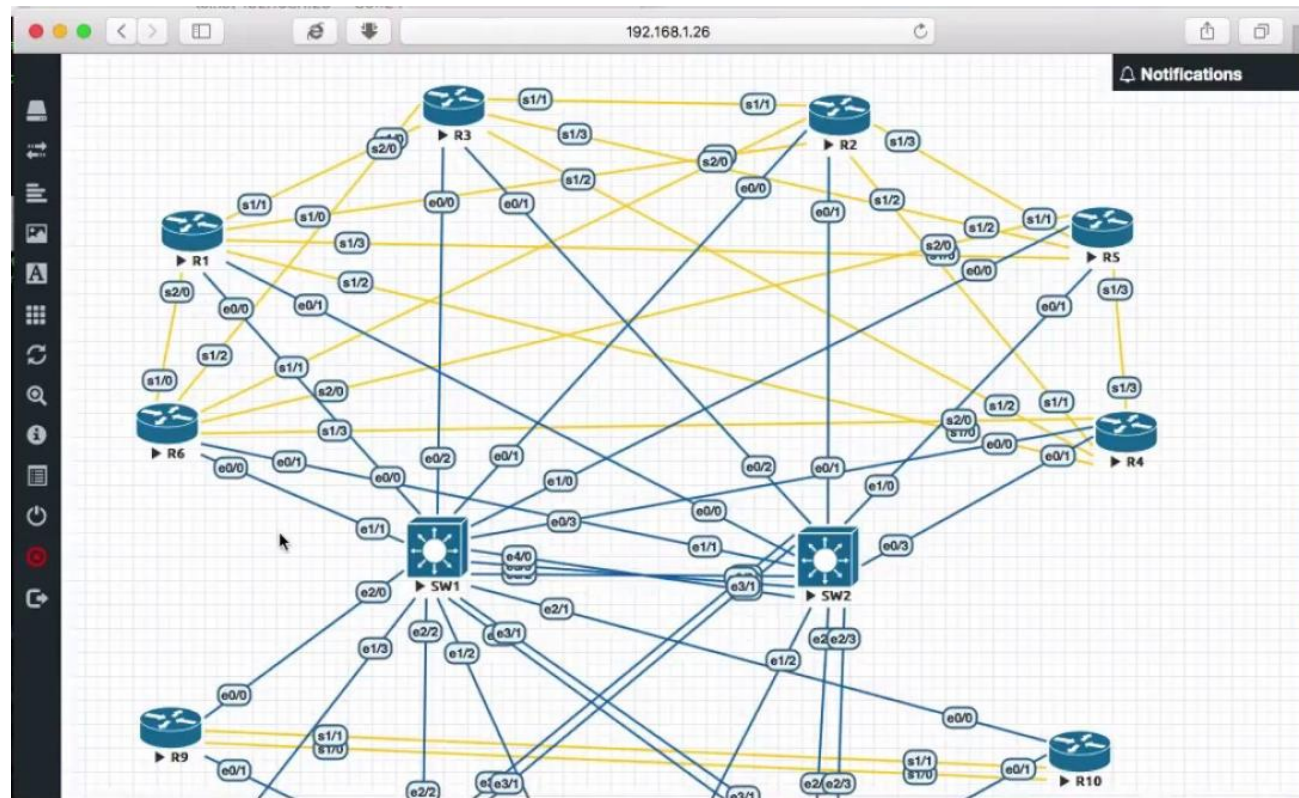
# GNS3

- Graphical Network Simulator-3
- A network simulation tool that allows users to simulate complex networks using real network operating systems (e.g., Cisco IOS).



# EVE-NG

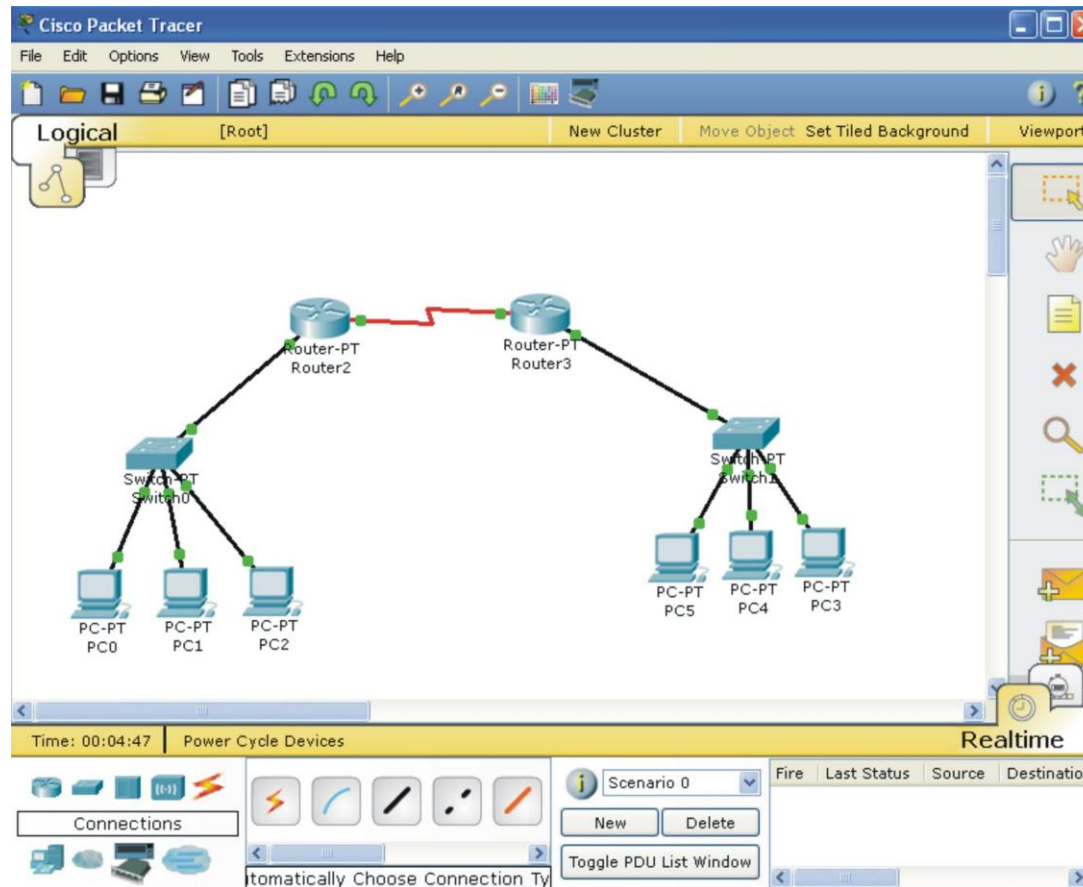
- Emulated Virtual Environment Next Generation
- A network emulator that supports multiple vendor images and allows for the creation of complex network topologies.





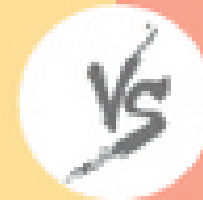
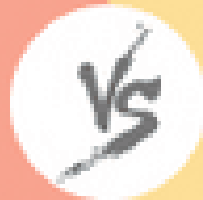
# Cisco Packet Tracer

- A network simulation and visualization tool that allows users to create network topologies and simulate Cisco devices.



# Demo





Emulator

Simulator

Real Device