



LNST Project

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Motivation

- Create a tool/test environment to easily catch regressions in network code during development
- Run test sets on multiple (hundreds) topologies involving bonding, bridge, vlan, ... automatically

Basics

- Linux Network Stack Test
- Written in python
- Configs are xml
- <https://fedorahosted.org/Inst/>

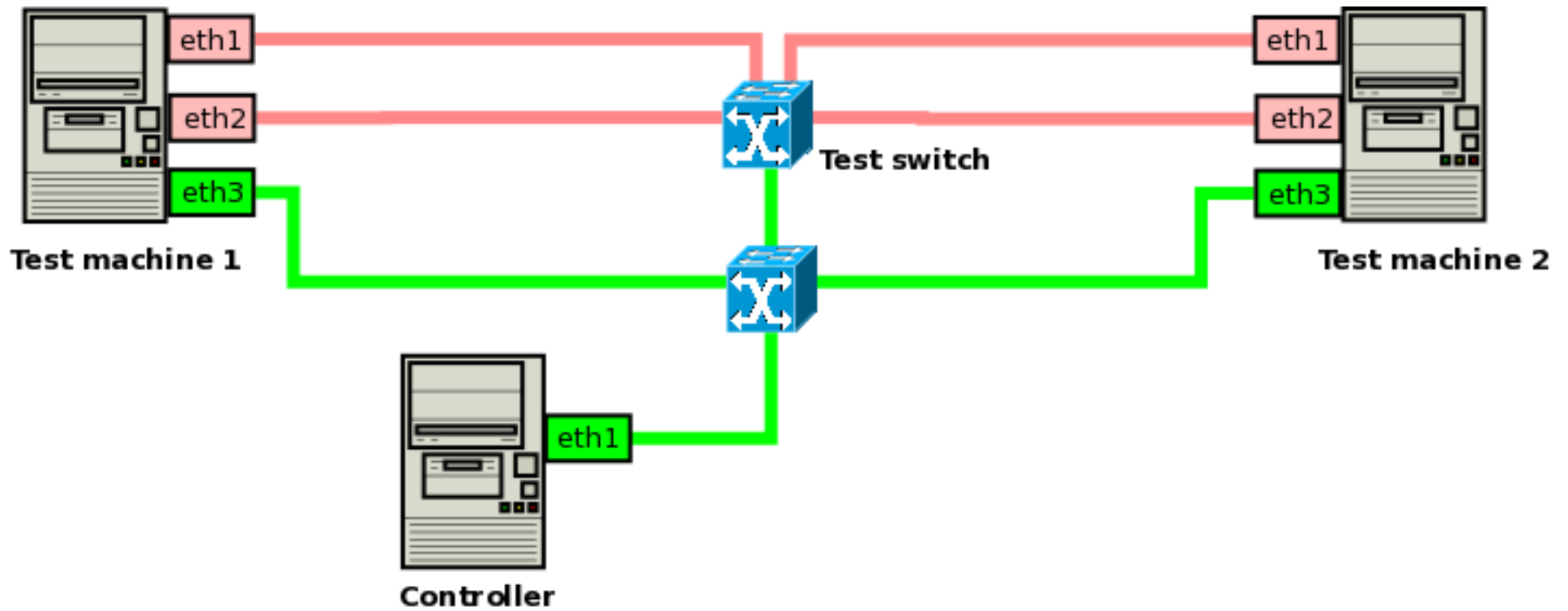
What LNST can do

- automatically configure testing network topology by xml config file
- execute implemented tests according to give command sequence (also xml)
- control the network switches during testing (e.g. port disconnections to simulate failover)

Recipe

- Consists of multiple xml (net topology configs, command sequences)
- Defines what should be done and how

Example test network infrastructure



Network infrastructure

- Controller network (**green**)
 - communication with test machines and test switches
- Testing network (**red**)
 - network traffic generated in tests executed on the test machines

“Controller”

- parses test recipe
- through xmlrpc API it configures network interfaces on test machines
- executes command sequences
 - runs commands on test machines
 - changes test switch configuration during the test execution

“Test Machine”

- listens for XMLRPC connection from the controller and performing whatever the controller says

Questions?