

Hands-on Workshop on Open vSwitch and Software-defined Networking

Ali ALSabeh, Jorge Crichigno
University of South Carolina
<http://ce.sc.edu/cyberinfra>
aalsabeh@email.sc.edu, jcrichigno@cec.sc.edu

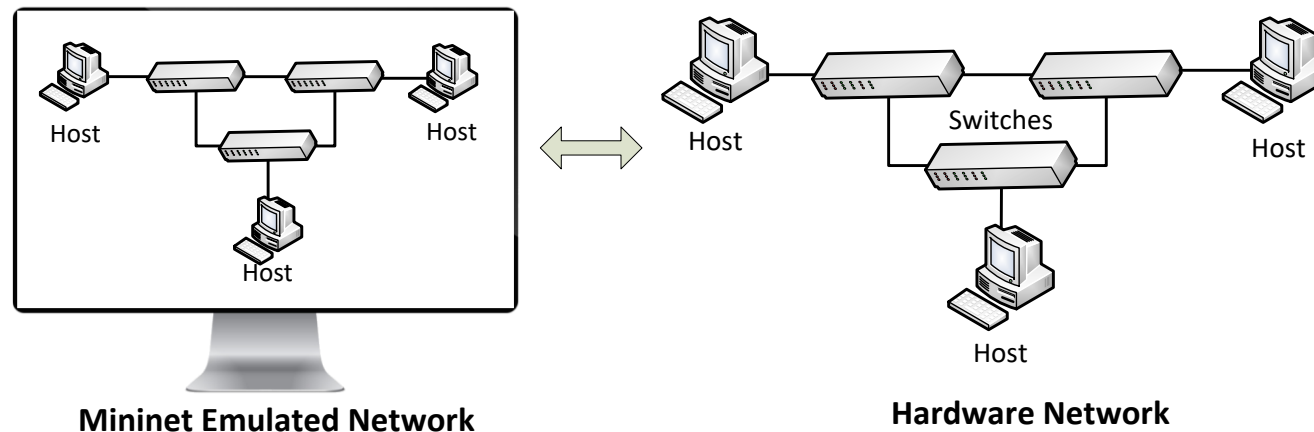
WASTC 2021 virtual Faculty Development Weeks (vFDW)
June 21, 2021

Introduction to Mininet

Lab activities are described in Lab 1, SDN Lab Series

What is Mininet?

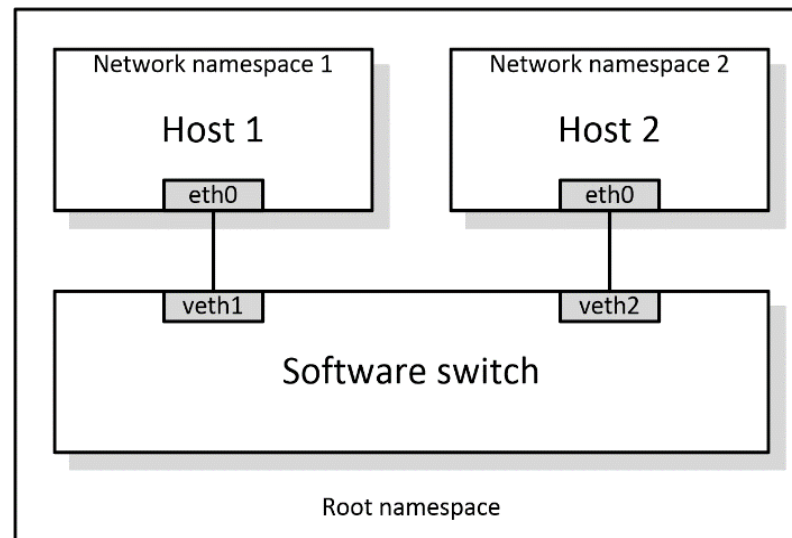
- A virtual testbed capable of recreating realistic scenarios¹
- It enables the development and testing of network protocols
- Inexpensive solution, real protocol stack, reasonably accurate



¹Mininet website, <http://mininet.org/>

What is Mininet?

- Mininet nodes are network namespaces
 - Each node has different / separate virtual interfaces, routing tables
- Nodes use the underlying protocol stack of the host device
- Nodes are connected via virtual Ethernet (veth) links, which behave as Ethernet links



Pod Design with Mininet

- A pod is a set of virtual equipment (routers, switches, etc.)
- A pod is created every time a lab reservation is made
- For the Software Defined Network (SDN) Lab series, pods are embedded into Mininet

