



RTEMS Network Testing

Efficient, Scable, Managed



Requirements

- Segmented away from your corporate or engineering network
- Partitioned so the test network can be split or grouped to meet changing network testing environment or to shared resources
- Optional VLAN support. Separate the logical network from the physical cables and switches. Aid test hardware integration with simulated networking devices
- Host administration is separated from the test engineering roles
- Multiple instances in a single host



Network Test Host (NTH)

- Unix based
- Avoid tricky and fragile firewall configurations
- Limit root activities to set up and commissioning
- VLAN support is preferred



VLAN

- Virtual LAN or VLAN support provides a simple means to logically partition networking functionality without needing to physically segment networks
- Can be enforced by IT or administration staff to protect sensitive data
- Multiple VLAN networks on a single physical link does not increase the performance, the physical medium is shared
- Separate networking test hosts can be logically joined and can share other IT infrastructure such as DHCP, syslog or NFS exports

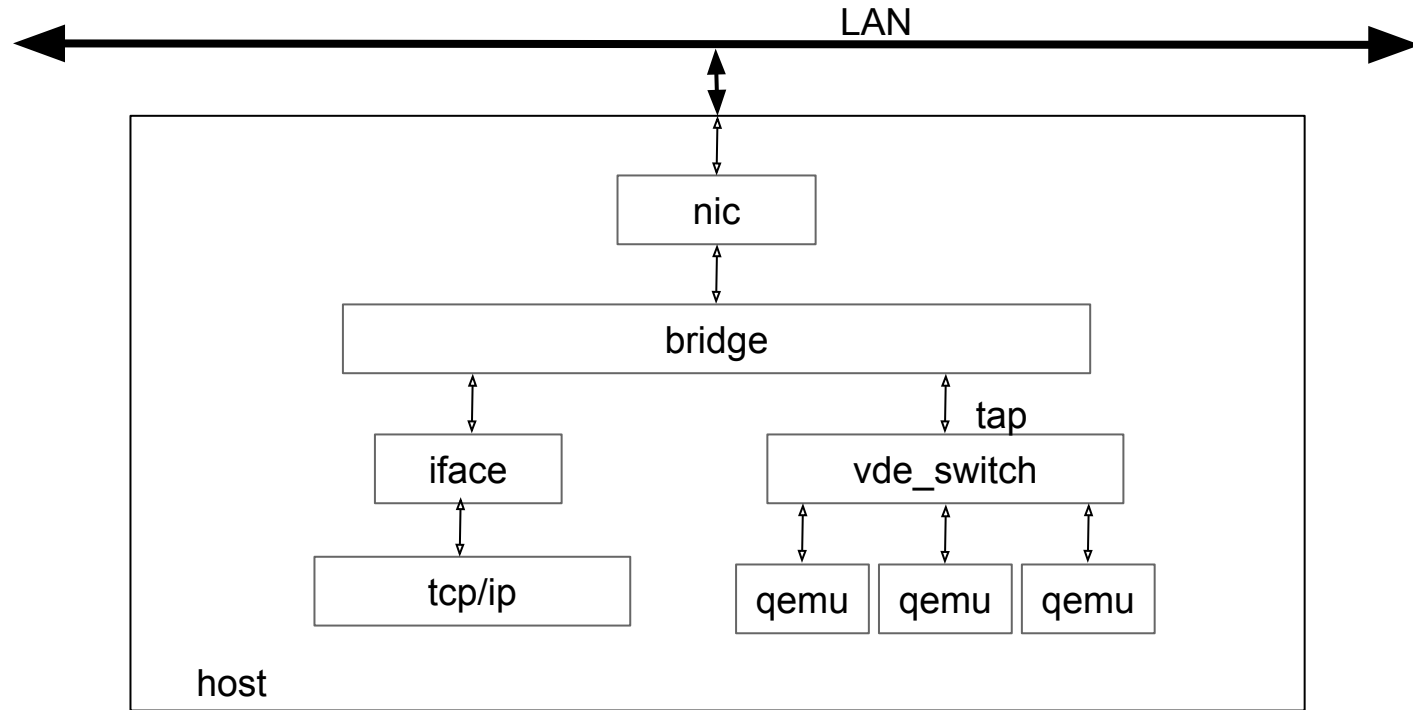


Virtual Distributed Ethernet (VDE)

- A software switch. Can be thought of as a bridge but it is a software component that is not integrated into a kernel
- Connects to a host using a single layer 2 TAP interface
- Runs as a daemon
- Can configure for user space access. Run QEMU as a user
- Can be managed and monitored using a terminal interface
- Configurable number of ports. Each QEMU has its own port
- HUB mode allows monitoring



Bridged Host





VLAN Host

