OVS on Microsoft Hyper-V

Nithin Raju and Sairam Venugopal, VMware

Open vSwitch 2015 Fall Conference
What is it?

• Collaborated effort from both VMware and Cloudbase Solutions

• Consists of:
  – Ported OVS userspace
  – Brand new Kernel Datapath driver

• All ovs-*ctl commands work on Hyper-V

• Features: VXLAN, STT (with TSO), L2/L3 header overwrite, VLAN

• Weekly IRC meeting on #openvswitch at 10 AM PST Tuesday
Status so far:

• Windows GUI Installer
• 64-Bit User Space for Windows Nano
• OpenStack Neutron ML2 + OVS Agent works on Windows
• Use Appveyor to autobuild OVS on Windows
• Primary goal has been to make it work out of the box and keep things consistent with KVM
  • Support Checksum and TCP Offloads in STT
  • Poll based packet receive
  • Use native names for adapters
Upcoming changes:

• Support Multiple NICs for Failover
  – Includes Teaming support, multiple VTEPs

• Add support for Stateful Firewall and packet recirculation
  – Implement ‘conntrack’ like module for Hyper-V

• Support Megaflows

• GRE and GENEVE tunneling

• Leverage hardware offloads for tunneling (at least VXLAN)

• Ship it in 2.5