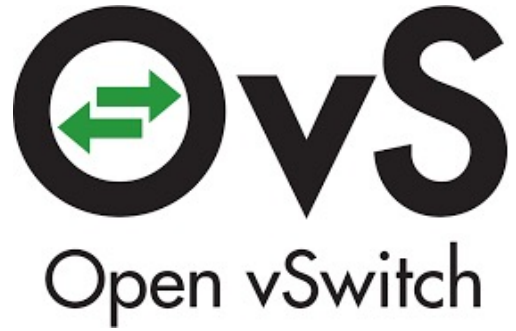Usman S. Ansari

Staff Engineer VMware
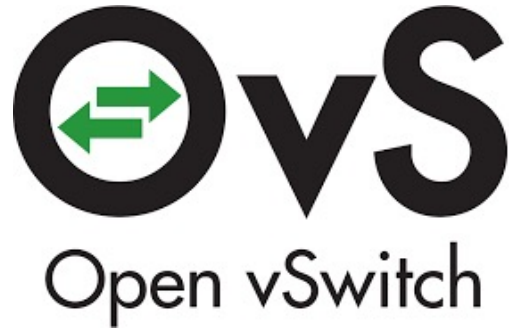
User path on Windows

- Linux and Windows shares the same code for most part
- OVS user space test
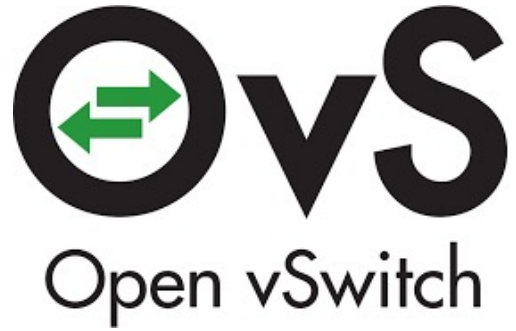
OVS functionality available on Windows

- See complete list
  https://docs.openvswitch.org/en/latest/faq/releases/

Kernel path on Windows

- Windows Open vSwitch as Hyper-V Virtual switch extension
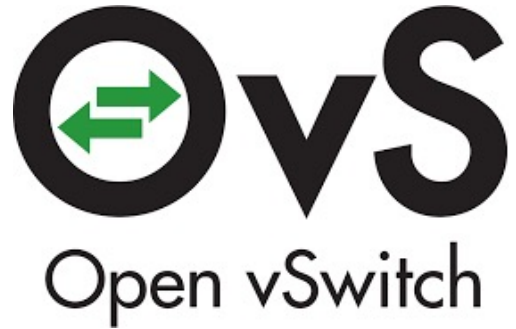
Windows support

- Emulation of netlink sockets is in lib/netlink-socket.c

- Windows netdev implementation is available in lib/netdev-provider.h

- Data-path extension is defined in datapath-windows/include/OvsDpInterfaceExt.h

- The kernel data-path on Hyper-V is provided in datapath-windows/include/OvsDpInterface.h

- Windows specific extensions are defined in datapath-windows/include/OvsDpInterfaceExt.h

From OpenVSwitch.org

```
Various blocks of the OVS Windows implementation

                                          +--------------------------------+
                                          |                                |
                                          |          CHILD PARTITION       |
                                          |                                |
   +-------+ +---------------+            | +-------------+  +-------------+ |
   |       | |               |            | |             |  |             | |
   | ovs-  | |      OVS-      |            | |  Virtual    |  |  Virtual    | |
   | *ctl  | |    USERSPACE   |            | |  Machine #1|  |  Machine #2 | | |
   |       | |     DAEMON     |            | |             |  |             | |
   +-------+-++-------------+-+            | +--+-------+-+  +----+------++ | +---------+
   | dpif- |  | netdev-    |               |    |VIF #1|        |VIF #2|  | | |Physical|
   | netlink| | windows   |               |    +------+        +------+  | |   NIC   |
   +---------+ +-----------+               |       ||               /\   | +---------+
 User    /\           /\                   |       || *#1*   *#4* || |      /\
 ========||=========||=============+-------||--------------------||--+     ||
 Kernel  ||           ||               \/                        ||  ||=====/
         \/           \/             +------+             +------+ *#5*
 +------------------------------+    |      |             |      |
 |   +---------------------+    |    |      |             |      |
 |   |   OVS Pseudo Device  |   |    |      |             |      |
 |   +---------------------+    |    |      |             |      |
 |      | Netlink Impl. |       |    |      |             |      |
 |       ----------------        |    |  I   |             |      |
 | +-----------+                 |    |  N   |             | E    |
 | | Flowtable | +-------------+ |    |  G   |             | G    |
 | +-----------+ |   Packet    | |*#2*|  R   |             | R    |
 |   +--------+  | Processing  | |<=> |  E   |             | E    |
 |   |  WFP   |  |             | | |  S   |             | S    |
 |   | Driver |  +-------------+ |    |  S   |             | S    |
 |   +--------+                  |    |      |             |      |
 |                               |    |      |             |      |
 |   OVS FORWARDING EXTENSION    |    |      |             |      |
 +------------------------------+    +------+-------------------+-----+
                                     |HYPER-V Extensible Switch *#3|
                                     +----------------------------------+
                                              NDIS STACK
```
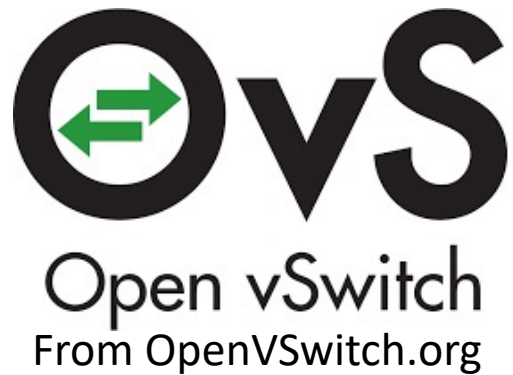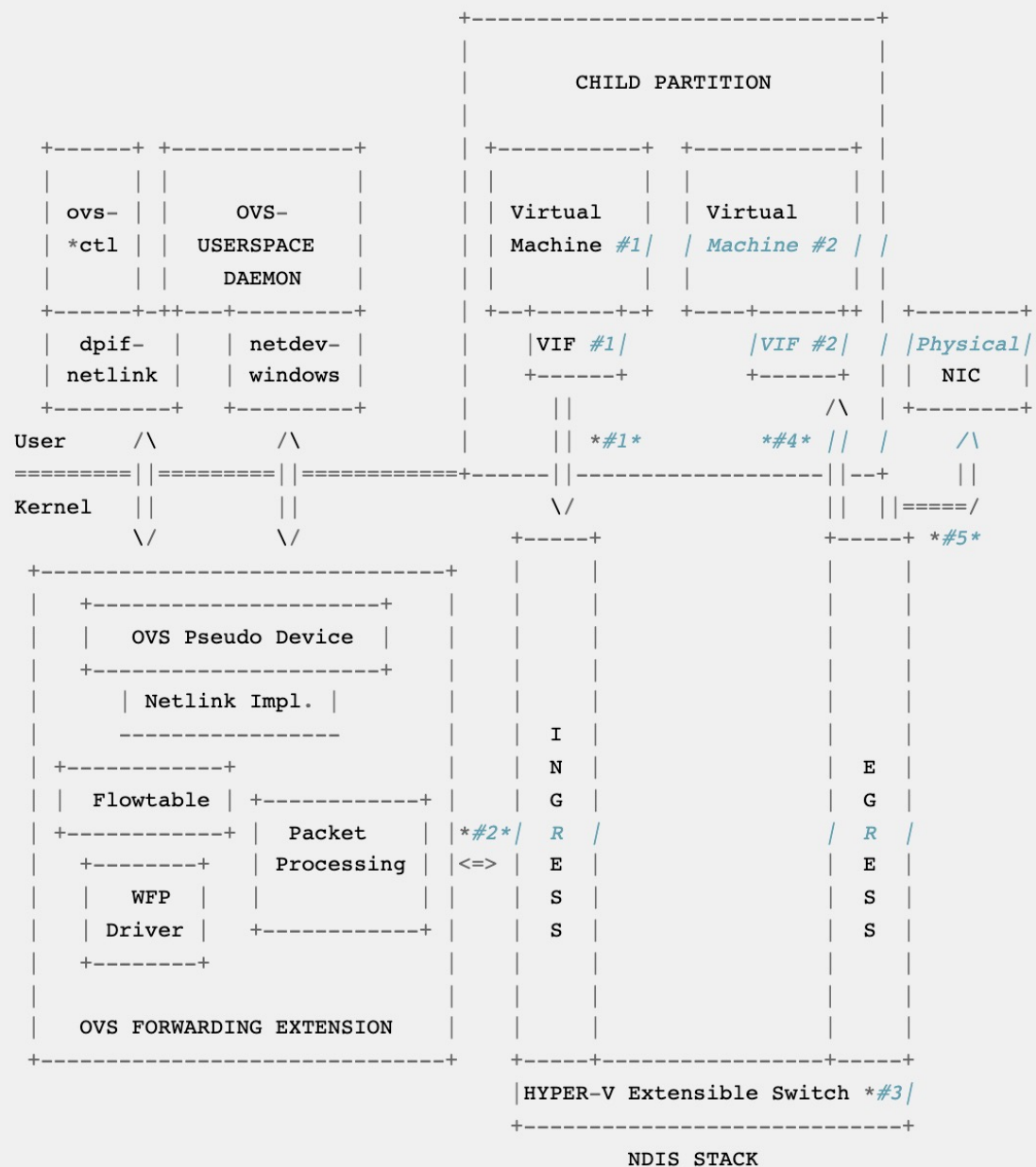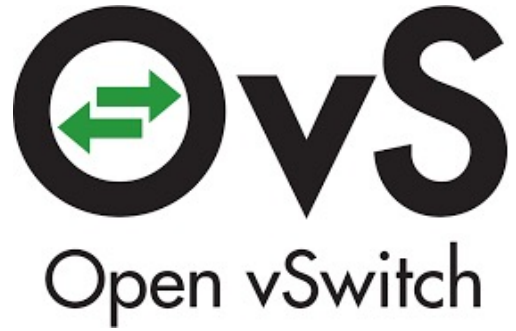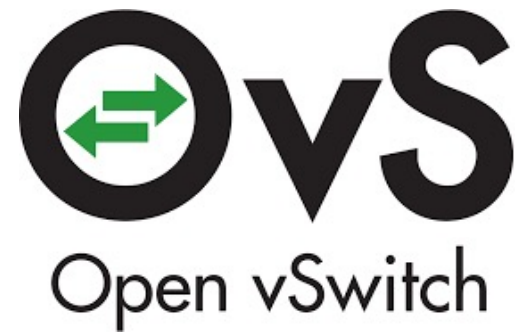
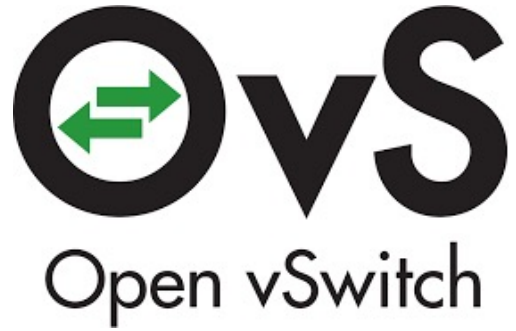The data-path of Windows OVS on Hyper-V implements

Callbacks

- Switch
- Ports

I hope I have been able to generate interest in Open vSwitch on Windows

I am looking forward to work on some of the features!

Thanks!