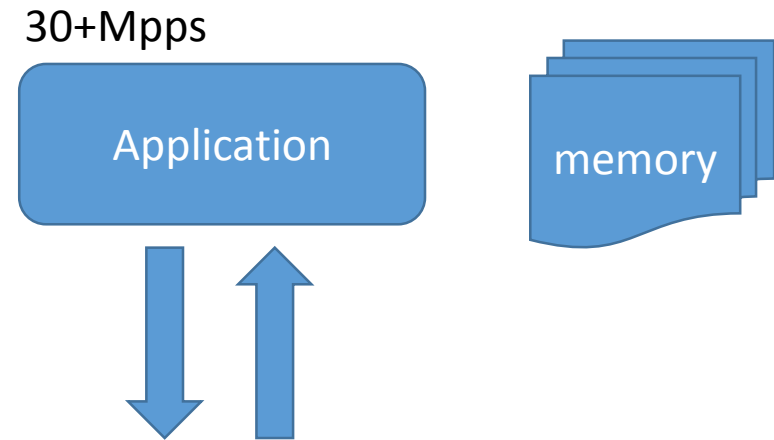


AF_PACKETv4 Details

John Fastabend, Bjorn Topel

AF_PACKET v4

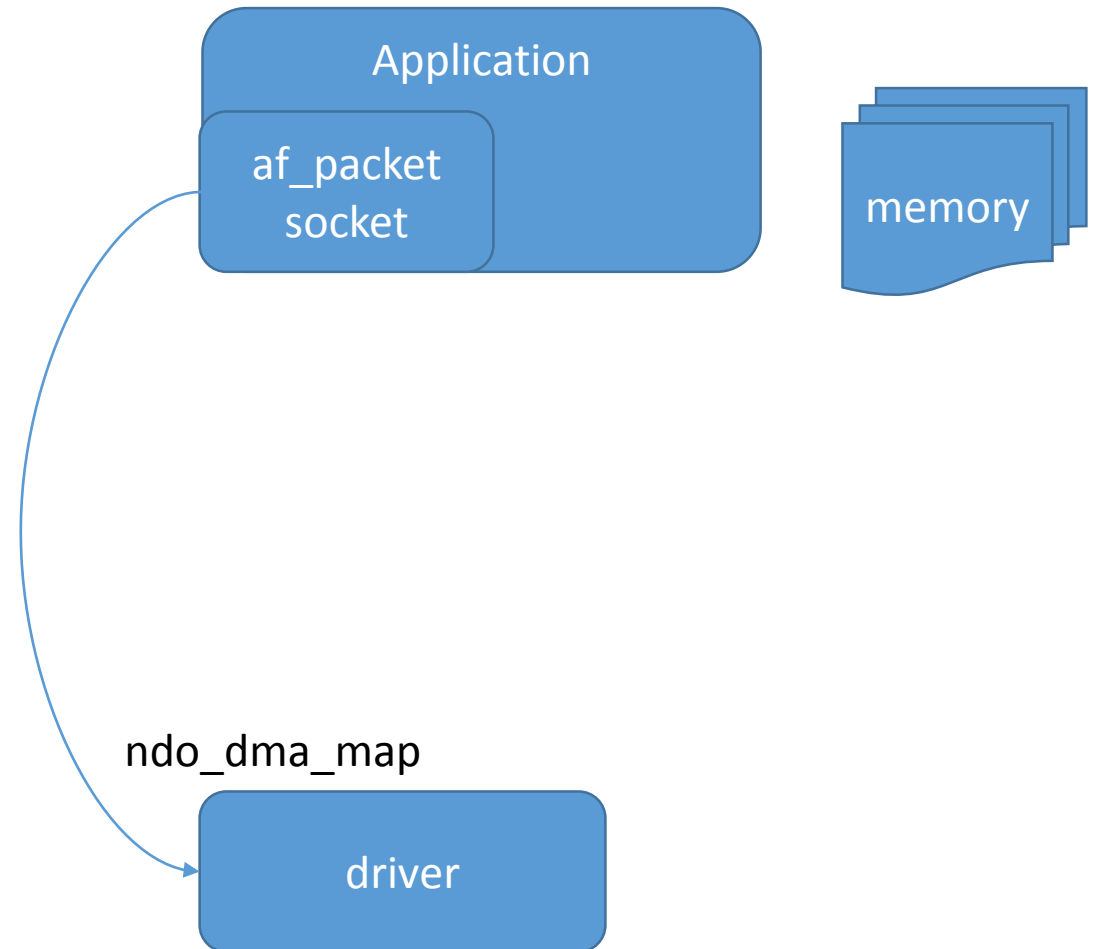
- Tcpdump, Suricata, etc.
- Add RX/TX zerocopy support



AF_PACKET v4: Initialization

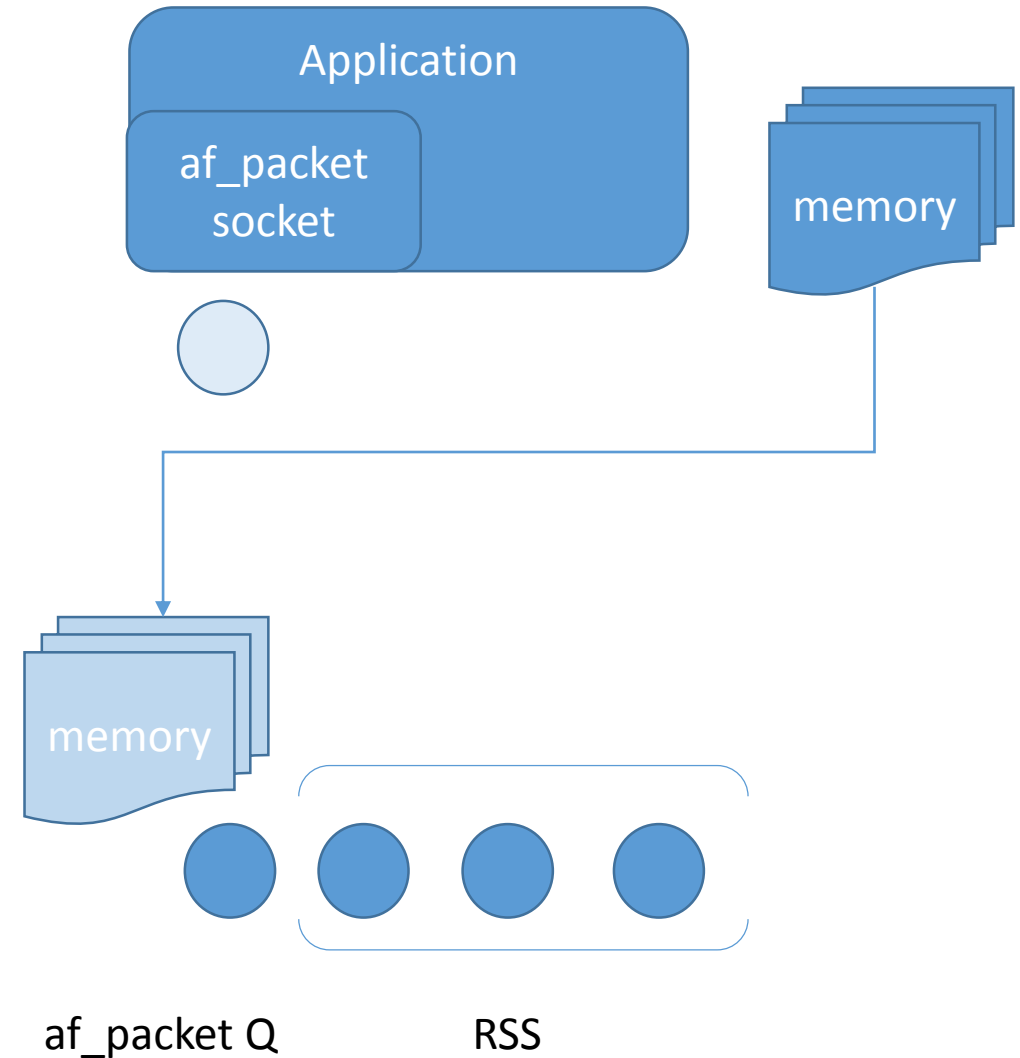
1. Application mmap() memory
2. Map memory to driver with ndo

1. mmap() memory



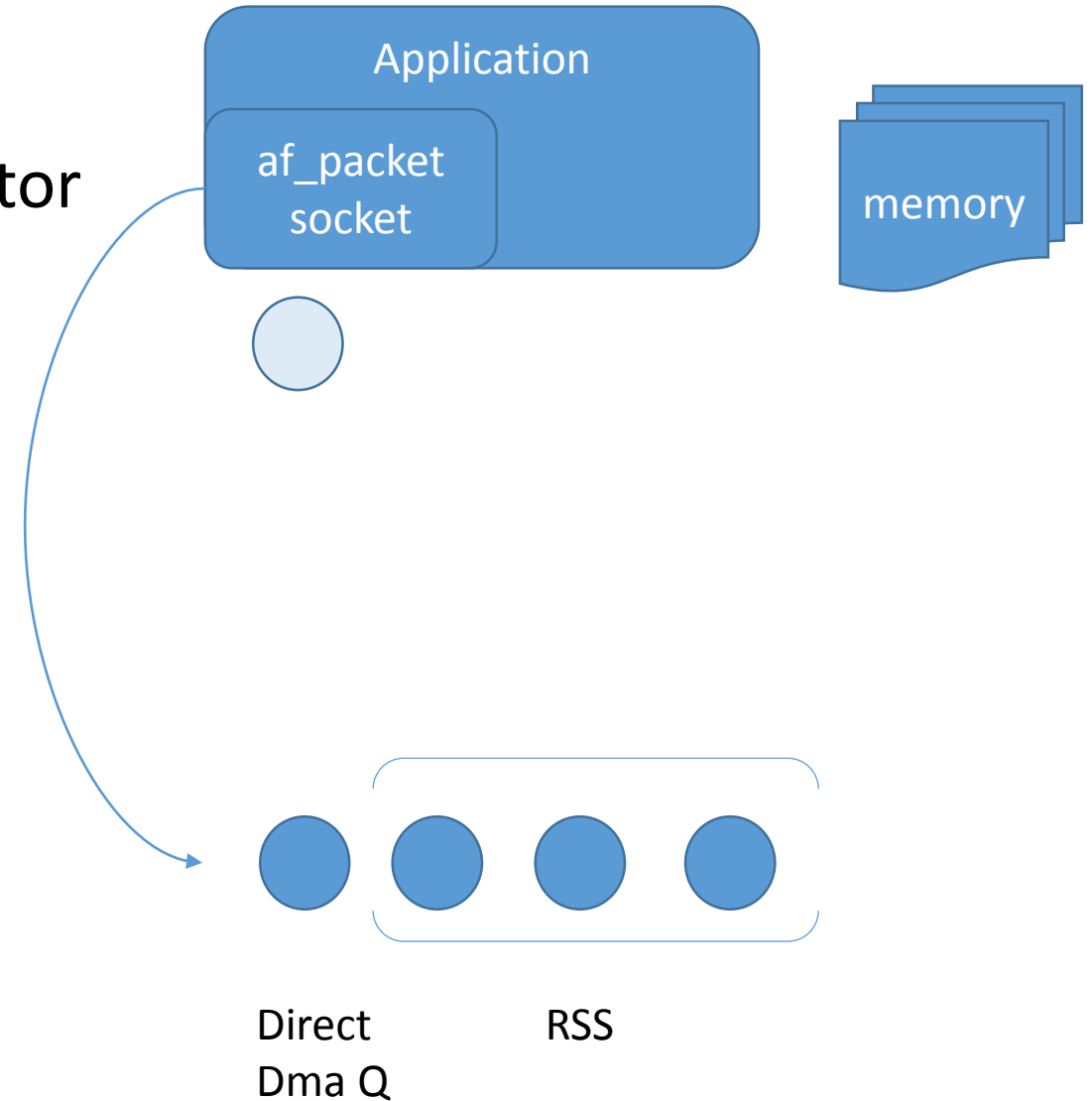
AF_PACKET v4: RX

3. Push packets to af_packet initialized ring
4. DMA packets into application memory
5. Populate virtual descriptor ring shared with application



AF_PACKET v4: TX

1. Application populate virtual descriptor ring.
2. Kick hardware with system call (for now)



AF_PACKET v4: Performance

TBD: Netdev 2.2