Isolating Functions in the System Under Test

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vswitchperf
Proposed Approach

• Baseline:
  – benchmarking with isolated resources alone, leaving some resources unused
  – Isolated resources and all resources occupied

• Next Steps:
  – Limited sharing
  – Production scenarios
  – Stressful scenarios
CPU Pinning

- Isolcpus = 2-7
- OpenStack Compute Scheduler
CPU Pinning

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- OpenStack Compute Scheduler
  - taskset <COREMASK> <EXECUTABLE>
  - taskset 0x0C ovs-vswitchd
  - (limit NIC interrupt to cores)
CPU Pinning

- Isolcpus = 2-7
- OpenStack Compute Scheduler
- `taskset <COREMASK> <EXECUTABLE>`
- taskset 0x0C ovs-vswitchd
- (limit NIC interrupt to cores)
- `nova aggregate create/set`
- `nova flavor-create <sizes>`
- `nova aggregate-add-host`
What Else can we Isolate?

- PMD (ovs config)
- Threads
- PCIe Lanes

- Verification methods (show that isolation configs worked)