

R2 Example Configuration Input Files - Unicycle Pods with OVS-DPDK Dataplane on Dell 740XD Servers

Ericsson Validation Labs

This section includes an example input file similar to that used during Ericsson Validation testing to deploy a Unicycle pod with an OVS_DPDK dataplane.

Please reference the following lab configuration [Ericsson Unicycle OVS-DPDK Validation HW, Networking and IP plan](#).

Please note the validation was performed using an additional 4th control node which had the same networking setup as the original 3 control nodes validated in R1. The additional 4th node used in the validation can be seen in the input yaml file named 'aknode29'.

```
#####
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#####

site_name: akraino-ki20
site_type: ovsdpdk-a13
ipmi_admin:
  username: root
  password: calvin
networks:
  bonded: yes
  primary: bond0
  slaves:
    - name: enp95s0f0
    - name: enp95s0f1
oob:
  vlan: 400
  interface:
    cidr: 10.51.35.128/27
    netmask: 255.255.255.224
  routes:
    gateway: 10.51.35.129
  ranges:
    reserved:
      start: 10.51.35.153
      end: 10.51.35.158
    static:
      start: 10.51.35.132
      end: 10.51.35.152
host:
  vlan: 408
  interface: bond0.408
  cidr: 10.51.34.224/27
  subnet: 10.51.34.224
  netmask: 255.255.255.224
  ingress_vip: 10.51.34.236
  maas_vip: 10.51.34.235
  routes:
    gateway: 10.51.34.225
  ranges:
    reserved:
      start: 10.51.34.226
      end: 10.51.34.228
  static:
```

```

        start: 10.51.34.229
        end: 10.51.34.236
storage:
  vlan: 23
  interface: bond0.23
  cidr: 10.224.174.0/24
  #netmask: 255.255.255.0 - Not Used
  ranges:
    reserved:
      start: 10.224.174.1
      end: 10.224.174.10
    static:
      start: 10.224.174.11
      end: 10.224.174.254
pxe:
  vlan: 407
  interface: eno3
  cidr: 10.224.168.0/24
  #netmask: 255.255.255.0 - Not Used
  gateway: 10.224.168.1
  routes:
    gateway: 10.224.168.11 #This address is the PXE of the Genesis Node.
  ranges:
    reserved:
      start: 10.224.168.1
      end: 10.224.168.10
    static:
      start: 10.224.168.11
      end: 10.224.168.200
    dhcp:
      start: 10.224.168.201
      end: 10.224.168.254
ksn:
  vlan: 22
  interface: bond0.22
  cidr: 10.224.160.0/24
  #netmask: 255.255.255.0 - Not Used
  gateway: 10.224.160.1
  local_asnumber: 65531
  ranges:
    reserved:
      start: 10.224.160.1
      end: 10.224.160.10
    static:
      start: 10.224.160.134
      end: 10.224.160.254
  additional_cidrs:
    - 10.224.160.200/29
  ingress_vip: 10.224.160.201/32
# peers:
# - ip: 10.224.160.129 #Old QFX VC VIP
# - ip: 10.224.160.131
# - ip: 10.224.160.130
#   scope: global
#   asnumber: 65001
#
# peers:
# - ip: 10.224.160.129 #Old QFX VC VIP
# - ip: 10.224.160.131
# - ip: 10.224.160.130
#   scope: global
#   asnumber: 65001
#
# peers:
# - ip: 10.224.160.129 #Old QFX VC VIP
# - ip: 10.224.160.131
# - ip: 10.224.160.130
#   scope: global
#   asnumber: 65001
#
vrrp_ip: 10.224.160.129 # keep peers ip address in case of only peer.

```

```

#Note: the neutron definition here is not used in the OVS-DPDK blueprint
# Neutron tenant networks are VXLAN encapsulated and use the enp134s0fo interface
# Neutron provider networks are VLAN based (not VXLAN encapsulated) and use the same enp134s0f1 interface
neutron:
  vlan: 24
  interface: bond0.24
  cidr: 10.224.171.0/24
  #netmask: 255.255.255.0 - Not Used
  ranges:
    reserved:
      start: 10.224.171.1
      end: 10.224.171.10
    static:
      start: 10.224.171.11
      end: 10.224.171.254
  vxlan:
    vlan: 1 # This VID indicates that VXLAN traffic will not be VLAN tagged
    interface: enp134s0f0
    cidr: 10.224.169.0/24
    #netmask: 255.255.255.0 - Not Used
    ranges:
      reserved:
        start: 10.224.169.1
        end: 10.224.169.10
      static:
        start: 10.224.169.11
        end: 10.224.169.254
  dns:
    upstream_servers:
      - 10.51.34.231
      - 8.8.8.8
    ingress_domain: vran.k2.ericsson.se
    domain: vran.k2.ericsson.se
  #gpu:
  # alias:
  #   - name: "P4"
  #     product_id: "1bb2"
  #     vendor_id: "10de"
  #   - name: "P40"
  #     product_id: "1b38"
  #     vendor_id: "10de"
  #   - name: "P100"
  #     product_id: "15f8"
  #     vendor_id: "10de"
  #   - name: "V100"
  #     product_id: "1db4"
  #     vendor_id: "10de"
  dpdk:
    nics:
      - name: dpdk0
        pci_id: '0000:86:00.0'
        bridge: br-phy
        migrate_ip: true
  storage:
    osds:
      - data: /dev/sda
        journal: /dev/sdh1
      - data: /dev/sdb
        journal: /dev/sdh2
      - data: /dev/sdc
        journal: /dev/sdh3
    osd_count: 3
    total_osd_count: 9
  tenant_storage:
    osds:
      - data: /dev/sdd
        journal: /dev/sdh4
      - data: /dev/sde
        journal: /dev/sdh5
      - data: /dev/sdf
        journal: /dev/sdh6

```

```
    osd_count: 3
genesis:
  name : aknode25
  oob: 10.51.35.144
  host: 10.51.34.232
  storage: 10.224.174.11
  pxe: 10.224.168.11
  ksn: 10.224.160.134
  neutron: 10.224.171.11
  vxlan: 10.224.169.11
  root_password: akraino,d
# bios_template: dell_r740_g14_uefi_base.xml.template
# boot_template: dell_r740_g14_uefi_httpboot.xml.template
# http_boot_device: NIC.Slot.2-1-1
masters:
- name: aknode31
  oob: 10.51.35.147
  host: 10.51.34.229
  storage: 10.224.174.13
  pxe: 10.224.168.13
  ksn: 10.224.160.136
  neutron: 10.224.171.13
  vxlan: 10.224.169.13
  oob_user: root
  oob_password: calvin
- name : aknode23
  oob: 10.51.35.143
  host: 10.51.34.233
  storage: 10.224.174.12
  pxe: 10.224.168.12
  ksn: 10.224.160.135
  neutron: 10.224.171.12
  vxlan: 10.224.169.12
  oob_user: root
  oob_password: calvin
- name : aknode29
  oob: 10.51.35.146
  host: 10.51.34.230
  storage: 10.224.174.14
  pxe: 10.224.168.14
  ksn: 10.224.160.137
  neutron: 10.224.171.14
  vxlan: 10.224.169.14
  oob_user: root
  oob_password: calvin
#workers:
# - name : aknode43
#   oob: 192.168.41.43
#   host: 192.168.2.43
#   storage: 172.31.2.43
#   pxe: 172.30.2.43
#   ksn: 172.29.1.43
#   neutron: 10.0.102.43
platform:
# vcpu_pin_set: "4-21,26-43,48-65,72-87"
kernel_params:
  kernel_package: 'linux-image-4.15.0-66-generic'
  hugepagesz: '1G'
  hugepages: 32
# default_hugepagesz: '1G'
# transparent_hugepage: 'never'
  iommu: 'pt'
  intel_iommu: 'on'
# amd_iommu: 'on'
# console: 'ttyS1,115200n8'
hardware:
  vendor: DELL
  generation: '10'
  hw_version: '3'
  bios_version: '2.8'
  bios_template:
```

```

boot_template: dell_r740_g14_uefi_httpboot.xml.template
http_boot_device: NIC.Slot.2-1-1
device_aliases:
  ## network
  - name: eno3
    key: pxe_nic01
    address: '0000:01:00.0'
    dev_type: 'I350 Gigabit Network Connection'
    bus_type: 'pci'
  - name: enp95s0f0
    key: data_nic01
    address: '0000:5f:00.0'
    dev_type: 'Ethernet 10G 2P X520 Adapter'
    bus_type: 'pci'
  - name: enp95s0f1
    key: data_nic02
    address: '0000:5f:00.1'
    dev_type: 'Ethernet 10G 2P X520 Adapter'
    bus_type: 'pci'
  - name: enp134s0f0
    key: dpdk_nic01
    address: '0000:86:00.0'
    dev_type: 'Ethernet Controller XXV710'
    bus_type: 'pci'
  ## storage - use "dmesg | grep -Pe 'sd \d:\d'" to find address of drives
  - name: /dev/sdg
    key: bootdisk
    address: '0:2.0.0'
    dev_type: 'PERC H730P'
    bus_type: 'scsi'
  - name: /dev/sdh
    key: cephjournal1
    address: '0:2.1.0'
    dev_type: 'PERC H730P'
    bus_type: 'scsi'
#   - name: /dev/sdi
#     key: cephjournal2
#     address: '0:2.2.0'
#     dev_type: 'PERC H730P'
#     bus_type: 'scsi'
#   - name: /dev/sdj
#     key: ephemeral
#     address: '0:2.3.0'
#     dev_type: 'PERC H730P'
#     bus_type: 'scsi'
disks:
#   - name : sdg
#     - name : bootdisk
#       labels:
#         bootdrive: 'true'
#       partitions:
#         - name: root
#           size: 30g
#           bootable: true
#           mountpoint: /
#         - name: boot
#           size: 1g
#           mountpoint: /boot
#         - name: var
#           size: '300g'
#           mountpoint: /var
disks_compute:
#   - name : sdg
#     - name : bootdisk
#       labels:
#         bootdrive: 'true'
#       partitions:
#         - name: root
#           size: 30g
#           bootable: true
#           mountpoint: /

```

```
- name: boot
  size: 1g
  mountpoint: /boot
- name: var_log
  size: '100g'
  mountpoint: /var/log
- name: var
  size: '>100g'
  mountpoint: /var
- name : ephemeral
  partitions:
    - name: nova
      size: 99%
      mountpoint: /var/lib/nova
genesis_ssh_public_key:
kubernetes:
  api_service_ip: 10.96.0.1
  etcd_service_ip: 10.96.0.2
  pod_cidr: 10.98.0.0/16
  service_cidr: 10.96.0.0/15
regional_server:
  ip: 10.51.34.231
```