



## Sample neutron-cisco-vts.yaml Configuration

This appendix provides typical sample configuration for different Cisco VTS deployment modes.

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### Sample “neutron-cisco-vts.yaml” for Deploying Cisco VTS Plugin with OVS Agent

```
resource_registry:

    OS::TripleO::Services::NeutronCorePluginVTS:
        /usr/share/openstack-tripleo-heat-templates/puppet/services/neutron-plugin-ml2-cisco-vts.yaml

    OS::TripleO::Services::NeutronCorePlugin: OS::TripleO::Services::NeutronCorePluginVTS

    ## Comment out below line when deploying VTS Agent on compute nodes instead of VPP/VPFA
    OS::TripleO::Services::ComputeNeutronCorePlugin: OS::Heat::None

parameter_defaults:

    #####
    ### VTS General ###
    #####

    VTSUsername: 'admin'
    VTSPassword: 'YLdKnf3qSsKA2JWQT9a0Sg=='
    VTSServer: '10.194.132.26'
    VTSVMID: '691ce4a4-dfa3-4b63-855c-5813519498da'

    #####
    ### Neutron ML2 ###
    #####

    NeutronCorePlugin: 'neutron.plugins.ml2.plugin.Ml2Plugin'
    NeutronMechanismDrivers: 'sriovnicswitch,cisco_vts'
    NeutronTypeDrivers: 'vxlan,vlan,flat'
    NeutronServicePlugins: 'cisco_vts_router,trunk'

    #####
    ### VTS Agent Config ###
```

```
#####
VTSPhysicalNet: 'phys_tenant'
#VTSRetries: 15
#VTSTimeout:
#VTSPollingInterval: 6
```

## Sample "neutron-cisco-vts.yaml" for Deploying Cisco VTS Plugin with Cisco VTS Agent

```
# A Heat environment file which can be used to enable Cisco VTS extensions, configured via
puppet

# By default the configuration has items required to deploy VPP/VPFA on all nodes + the
cisco ML2 VTS driver

resource_registry:

    OS::TripleO::Services::NeutronCorePluginVTS:
/usr/share/openstack-tripleo-heat-templates/puppet/services/neutron-plugin-ml2-cisco-vts.yaml

    OS::TripleO::Services::NeutronCorePlugin: OS::TripleO::Services::NeutronCorePluginVTS

    ## Comment out below line when deploying VTS Agent on compute nodes instead of VPP/VPFA
    #OS::TripleO::Services::ComputeNeutronCorePlugin: OS::Heat::None

    ## Disable Neutron L3 agent that conflict with VPFA
    OS::TripleO::Services::NeutronL3Agent: OS::Heat::None

    ## OVS and VTS Agent sub-section ##

    ## Disable/enable the default OVS Agent for compute and controller
    OS::TripleO::Services::ComputeNeutronOvsAgent: OS::Heat::None
    OS::TripleO::Services::NeutronOvsAgent: OS::Heat::None

    ## Disable/enable VTS agent service. VTS agent and OVS agent are mutually exclusive
    ## NOTE: The OS::TripleO::Services::VTSAgent needs to be added to the deployment role
file
    OS::TripleO::Services::VTSAgent:
/usr/share/openstack-tripleo-heat-templates/puppet/services/neutron-cisco-vts-agent.yaml

parameter_defaults:

    #####
    ### VTS General ###
    #####

    VTSUsername: 'admin'
    VTSPassword: 'YLdKnf3qSsKA2JWQT9a0Sg=='
    VTSServer: '10.194.132.26'
    VTSVMMID: '691ce4a4-dfa3-4b63-855c-5813519498da'

    #####
    ### Neutron ML2 ###
    #####

    NeutronCorePlugin: 'neutron.plugins.ml2.plugin.ML2Plugin'
    NeutronMechanismDrivers: 'sriovnicswitch,cisco_vts'
    NeutronTypeDrivers: 'vxlan,vlan,flat'
    NeutronServicePlugins: 'cisco_vts_router,trunk'
```

```

NeutronOVSFirewallDriver:
'neutron.agent.linux.iptables_firewall.OVSHybridIptablesFirewallDriver'

#####
### VTS Agent Config ###
#####

VTSPhysicalNet: 'phys_tenant'
#VTSRetries: 15
#VTSTimeout:
#VTSPollingInterval: 6

```

## Sample "neutron-cisco-vts.yaml" for Deploying Cisco VTS Plugin with VTF

```

# A Heat environment file which can be used to enable Cisco VTS extensions, configured via puppet

# By default the configuration has items required to deploy VPP/VPFA on all nodes + the cisco ML2 VTS driver

resource_registry:

    OS::TripleO::Services::NeutronCorePluginVTS:
/usr/share/openstack-tripleo-heat-templates/puppet/services/neutron-plugin-ml2-cisco-vts.yaml

    OS::TripleO::Services::NeutronCorePlugin: OS::TripleO::Services::NeutronCorePluginVTS

    ## Comment out below line when deploying VTS Agent on compute nodes instead of VPP/VPFA
    OS::TripleO::Services::ComputeNeutronCorePlugin: OS::Heat::None

    ## Disable Neutron L3 agent that conflict with VPFA
    OS::TripleO::Services::NeutronL3Agent: OS::Heat::None

    ## OVS and VTS Agent sub-section ##

    ## Disable/enable the default OVS Agent for compute and controller
    OS::TripleO::Services::ComputeNeutronOvsAgent: OS::Heat::None
    OS::TripleO::Services::NeutronOvsAgent: OS::Heat::None

    ## Disable/enable VTS agent service. VTS agent and OVS agent are mutually exclusive
    ## NOTE: The OS::TripleO::Services::VTSAgent needs to be added to the deployment role file
    #OS::TripleO::Services::VTSAgent:
/usr/share/openstack-tripleo-heat-templates/puppet/services/neutron-cisco-vts-agent.yaml

    ## VPFA Configuration Hook scripts
    #OS::TripleO::ComputeExtraConfigPre:
/usr/share/openstack-tripleo-heat-templates/puppet/extraconfig/pre_deploy/cisco_vts_vpfa.yaml

    ## Additional hook scripts for controller. Enable/disable as disctated by the scope of the deployment
    #OS::TripleO::ControllerExtraConfigPre:
/usr/share/openstack-tripleo-heat-templates/puppet/extraconfig/pre_deploy/cisco_vts_vpfa.yaml

    ## Same hook scripts as above for all nodes in one. Enable/disable as disctated by the scope of the deployment.
    OS::TripleO::NodeExtraConfig:

```

```

/usr/share/openstack-tripleo-heat-templates/puppet/extraconfig/pre_deploy/cisco_vts_vpfa.yaml

## Rsyslog client
OS::TripleO::Services::RSyslogClient:
/usr/share/openstack-tripleo-heat-templates/puppet/services/rsyslog-client.yaml
OS::TripleO::Services::Vpp: OS::Heat::None
OS::TripleO::Services::VppCompute:
/usr/share/openstack-tripleo-heat-templates/puppet/services/vpp-compute.yaml
OS::TripleO::Services::VppController:
/usr/share/openstack-tripleo-heat-templates/puppet/services/vpp-controller.yaml
OS::TripleO::Services::CiscoVpfaCompute:
/usr/share/openstack-tripleo-heat-templates/puppet/services/cisco-vpfa-compute.yaml
OS::TripleO::Services::CiscoVpfaController:
/usr/share/openstack-tripleo-heat-templates/puppet/services/cisco-vpfa-controller.yaml

parameter_defaults:

#####
### VTS General ###
#####

VTSUsername: 'admin'
VTSPassword: 'YLdKnf3qSsKA2JWQT9a0Sg=='
VTSServer: '10.194.132.26'
VTSVMID: '691ce4a4-dfa3-4b63-855c-5813519498da'

#####
### Neutron ML2 ###
#####

NeutronCorePlugin: 'neutron.plugins.ml2.plugin.ML2Plugin'
NeutronMechanismDrivers: 'sriovnicswitch,cisco_vts'
NeutronTypeDrivers: 'vxlan,vlan,flat'
NeutronServicePlugins: 'cisco_vts_router,trunk'

## DHCP Agent interface driver. Uncomment ONLY if/when deploying VPP on the controller
node(s).
NeutronInterfaceDriver: 'cisco_controller.drivers.agent.linux.interface.NamespaceDriver'

#####
### VTS Agent Config ###
#####

VTSPhysicalNet: 'phys_tenant'
#VTSRetries: 15
#VTSTimeout:
#VTSPollingInterval: 6

#####
### VPFA Config ###
#####

UnderlayIpNetworksList: '21.0.0.0/8'
VTSR_u_IPAddressList: '21.1.1.5'
#VPFAHostname: 'foo'
#NetworkConfigMethod: 'static'
#NetworkNameServerIP: ''
VifTypeCompute: 'vhostuser'
VifTypeController: 'tap'

# Set common VTS Network Gateway address or set/override it in PerNodeData below

```

```

VTSNetworkIPv4Gateway: '21.1.1.1'

PerNodeData: |
  {
    "A73EB684-FE95-084D-8260-9052DFD50EEA": {
      "cisco_vpfa::vtf_underlay_ip_v4": "21.1.1.11",
      "cisco_vpfa::vtf_underlay_mask_v4": "24",
      "cisco_vpfa::network_ipv4_gateway": "21.1.1.1"},
    "90117168-52E8-074F-A159-8186CFBF7B5C": {
      "cisco_vpfa::vtf_underlay_ip_v4": "21.1.1.12",
      "cisco_vpfa::vtf_underlay_mask_v4": "24",
      "cisco_vpfa::network_ipv4_gateway": "21.1.1.1"}
  }

#####
### VPP Configuration Parameters ###
#####

## MTU for Tun/tap interfaces
VppTunTapMtu: '9000'

##The CPUs listed below need to be part of the grub isol CPU list (configured elsewhere)
VppCpuMainCoreController: '6'
VppCpuMainCoreCompute: '6'

## Comma delimited workers list
VppCpuCorelistWorkersCompute: '7,8,9'
VppCpuCorelistWorkersController: '7,8,9'

## Avoid dumping vhost-user shared memory segments to core files
#VppVhostUserDontDumpMem: True

#####
### VTS Update Info ###
#####

VTSUpdate: 'true'

RepoProxy: 'http://<>:80/'
VTSUpgradeNewPackages: |
  "cisco-vts-puppet-tripleo", "cisco-vts-puppet-neutron",
  "monit", "cisco-vpfa-collectd-plugin", "cisco-vts-os-net-config",
  "vpp", "vpp-plugins", "vpfa", "cisco-vts-puppet-vpfa", "cisco-vts-puppet-fdio",
  "cisco-vts-os-util"

VTSUpgradeNewForgePackages: |
  "wdec-monit --version 1.1.2", "puppetlabs-limits --version 0.1.0", "saz-rsyslog
--version 5.0.0"

```

# Node Deployment Resources and Parameters

Table 1: Node Deployment Resources and Parameters

	Enable resource type in "neutron-cisco-vts.yaml" environment file	Config changes to Node Roles (/usr/share/openstack-tripleo-heat-templates/roles_data.yaml)
Cisco VTS plugin with OVS agent	<pre>OS::TripleO::Services::NeutronCorePlugin: OS::TripleO::Services::NeutronCorePluginVTS</pre>	None
Cisco VTS plugin with Cisco VTS agent	<pre>OS::TripleO::Services::NeutronCorePlugin: OS::TripleO::Services::NeutronCorePluginVTSOS::TripleO::Services::NeutronL3Agent: OS::Heat::NoneOS::TripleO::Services::ComputeNeutronOvsAgent: OS::Heat::NoneOS::TripleO::Services::NeutronOvsAgent: OS::Heat::NoneOS::TripleO::Services::VTSAgent: /usr/share/openstack-tripleo-heat-templates/puppet/services/neutron-cisco-vts-agent.yaml  OS::TripleO::Services::NeutronCorePlugin: OS::TripleO::Services::NeutronCorePluginVTSOS::TripleO::Services::ComputeNeutronCorePlugin: OS::Heat::NoneOS::TripleO::Services::NeutronL3Agent: OS::Heat::NoneOS::TripleO::Services::ComputeNeutronOvsAgent: OS::Heat::NoneOS::TripleO::Services::NeutronOvsAgent: OS::Heat::NoneOS::TripleO::Services::RSyslogClient: /usr/share/openstack-tripleo-heat-templates/puppet/services/rsyslog-client.yaml</pre>	<pre>#Add VTS agent role for Controller- OS::TripleO::Services::VTSAgent #Add VTS agent role for Compute- OS::TripleO::Services::VTSAgent</pre>
Cisco VTS plugin with VTF	<pre>Cisco VTS plugin with VTF#Enable VPFA only on controllerOS::TripleO::ControllerExtraConfigPre: /usr/share/openstack-tripleo-heat-templates/puppet/extraconfig_pre_deploy/cisco_vs_vpfa.yaml#Enable VPFA only on computeOS::TripleO::ComputeExtraConfigPre: /usr/share/openstack-tripleo-heat-templates/puppet/extraconfig_pre_deploy/cisco_vs_vpfa.yaml#Enable VPFA on all nodes - Can be used instead of the above two options.OS::TripleO::NodeExtraConfig: /usr/share/openstack-tripleo-heat-templates/puppet/extraconfig_pre_deploy/cisco_vs_vpfa.yaml</pre>	<pre>#Add VTFA+VPP+RSyslog roles for Controller- OS::TripleO::Services::VppController- OS::TripleO::Services::CiscoVpfaController- OS::TripleO::Services::RSyslogClient #Add VTFA+VPP+RSyslog roles for Compute- OS::TripleO::Services::VppCompute- OS::TripleO::Services::CiscoVpfaCompute- OS::TripleO::Services::RSyslogClient</pre>

Table 2: Parameters/Values to Populate

Populate parameters in "neutron-cisco-vts.yaml"	
Cisco VTS plugin with OVS agent	VTUsername: '<username>' VTSPassword: '<encrypted passphrase>' VTSServer: '<IP-address>' VTSVMMID: '<UUID>' NeutronCorePlugin: 'neutron.plugins.ml2.plugin.Ml2Plugin' NeutronMechanismDrivers: 'sriovswitch,cisco_vts' NeutronTypeDrivers: 'vxlan,vlan,flat' NeutronServicePlugins: 'cisco_vts_router,trunk' VTSPhysicalNet: '<physnet name>' VTUsername: '<username>' VTSPassword: '<encrypted passphrase>' VTSServer: '<IP-address>' VTSVMMID: '<UUID>'

Populate parameters in "neutron-cisco-vts.yaml"	
Cisco VTS plugin with Cisco VTS agent	<pre> NeutronCorePlugin: 'neutron.plugins.ml2.plugin.Ml2Plugin'  NeutronMechanismDrivers: 'sriovnicswitch,cisco_vts'  NeutronTypeDrivers: 'vxlan,vlan,flat'  NeutronServicePlugins: 'cisco_vts_router,trunk'  NeutronOVSFirewallDriver: 'neutron.agent.linux.ipables_firewall.OVSHybridTablesFirewallDriver'  VTSPhysicalNet: '&lt;physnet name&gt;'  VTSUsername: '&lt;username&gt;'  VTSPassword: '&lt;encrypted passphrase&gt;'  VTSServer: '&lt;IP-address&gt;'  VTSVMMID: '&lt;UUID&gt;'  NeutronCorePlugin: 'neutron.plugins.ml2.plugin.Ml2Plugin'  NeutronMechanismDrivers: 'sriovnicswitch,cisco_vts'  NeutronTypeDrivers: 'vxlan,vlan,flat'  NeutronServicePlugins: 'cisco_vts_router,trunk'  NeutronInterfaceDriver: 'cisco_controller.drivers.agent.linux.interface.NamespaceDriver'  VTSPhysicalNet: '&lt;physnet name&gt;'  UnderlayIpNewtorksList: '<u>10.10.10.0/24,50.50.0.0/16,40.40.0.0/16,42.42.42.0/24</u>'  VTSR_u_IpAddressList: '<u>10.10.10.133,10.10.10.134</u>'  # VPFA Configuration requires the assignment of an underlay IP address for the VPFA per node.  # This needs to be specified against the UUID of the target node in a JSON data blob.  # To derive the UUID, after node introspection execute the following CLI command steps:  # 1. 'ironic node-list'. Note Openstack ID of the target node  # 2. 'openstack baremetal introspection data save &lt;Openstack ID from step1&gt;   jq .extra.system.product.uuid  # 3. Note the Node UUID and use it in the json configuration blob below. Multiple nodes can be specified.</pre>



Populate parameters in "neutron-cisco-vts.yaml"	
Cisco VTS plugin with VTF	

## Populate parameters in "neutron-cisco-vts.yaml"

```

PerNodeData: |
  {
    "01289991-C0F5-204C-9A71-43A2843F225B":
    {
      "cisco_vpfa::vtf_underlay_ip_v4":
      "10.123.10.10",
      "cisco_vpfa::vtf_underlay_mask_v4":
      "24",
      "cisco_vpfa::network_ipv4_gateway":
      "10.123.10.1"},
    "37B32CF6-FB12-3742-B709-7605835C33C8":
    {
      "cisco_vpfa::vtf_underlay_ip_v4":
      "31.31.31.30",
      "cisco_vpfa::vtf_underlay_mask_v4":
      "24",
      "cisco_vpfa::network_ipv4_gateway":
      "31.31.31.1"},
    "5F107171-A2C9-0540-BF5D-D1D904E87039":
    {
      "cisco_vpfa::vtf_underlay_ip_v4":
      "10.123.35.13",
      "cisco_vpfa::vtf_underlay_mask_v4":
      "24",
      "cisco_vpfa::network_ipv4_gateway":
      "10.123.35.1"}
    }
  }

VppTunTapMtu: '8936'
VppCpuMainCoreController: '6'
VppCpuMainCoreCompute: '6'
VppCpuCorelistWorkersCompute: '7,8,9'
VppCpuCorelistWorkersController: '7,8,9'

ClientLogFilters: |
  [
    {
      "expression": "$syslogfacility-text
== 'local3' and $syslogseverity-text ==
'crit'",
      "action": "@[<IP
ADDRESS>]:514;forwardFormat"
    },
    {
      "expression": "$syslogfacility-text
== 'local3' and $syslogseverity-text ==
'err'",
      "action": "@[<IP
ADDRESS>]:514;forwardFormat"
    },
    {
      "expression": "$syslogfacility-text
== 'local3' and $syslogseverity-text ==
'warning'",
      "action": "@[<IP
ADDRESS>]:514;forwardFormat"
    },
    {
      "expression": "$syslogfacility-text
== 'local3' and $syslogseverity-text ==
'info'",

```

**Populate parameters in "neutron-cisco-vts.yaml"**

```
        "action": "@[<IP  
ADDRESS>]:514;forwardFormat"  
      }  
    ]
```

