Sample neutron-cisco-vts.yaml Configuration

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

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'
  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'

  #####################
  ### 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'
  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'

  ## 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 ###
  ##################

  UnderlayIpNewtorksList: '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 Depolyment 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	OS::TripleO::Services::NeutronCorePlugin: OS::TripleO::Services::NeutronCorePluginVTS	None
Cisco VTS plugin with Cisco VTS agent	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	#Add VTS agent role for Controller- OS::TripleO::Services::VTSAgent #Add VTS agent role for Compute- OS::TripleO::Services::VTSAgent
Cisco VTS plugin with VTF	Cisco VTS plugin with VTF#Enable VPFA only on controllerOS::TripleO::ControllerExtraConfigPre: /usr/share/openstack-tripleo-heat-templates/puppet/extraconfig/pre_deploy/cisco_vts_vpfa.yaml#Enable VPFA only on computeOS::TripleO::ComputeExtraConfigPre: /usr/share/openstack-tripleo-heat-templates/puppet/extraconfig/pre_deploy/cisco_vts_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_vts_vpfa.yaml	#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

Table 2: Parameters/Values to Populate

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

Populate parameters in "neutron-cisco-vts.yaml"	
Cisco VTS plugin with Cisco VTS agent	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'
	VTSPhysicalNet: '<physnet name>'
	VTSUsername: '<username>'
	VTSPassword: '<encrypted passphrase>'
	VTSServer: '<IP-address>'
	VTSVMMID: '<UUID>'
	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: '<physnet name>'
	UnderlayIpNewtorksList: '10.10.10.0/24,50.50.0.0/16,40.40.0.0/16,42.42.42.0/24'
	VTSR_u_IpAddressList: '10.10.10.133,10.10.10.134'
	# 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 <Openstack ID from step1>	jq .extra.system.product.uuid
	# 3. Note the Node UUID and use it in the json configuration blob below. Multiple nodes can be specified.

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'",
```

configuration

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

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