



VLAN-aware VMs

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Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	P-GW
Applicable Platform(s)	<ul style="list-style-type: none">• ASR 5500• VPC-DI• VPC-SI
Feature Default	Disabled - Configuration Required
Related Changes in This Release	Not applicable
Related Documentation	<ul style="list-style-type: none">• <i>ASR 5500 System Administration Guide</i>• <i>VPC-DI System Administration Guide</i>• <i>VPC-SI System Administration Guide</i>

Revision History

Revision Details	Release
First introduced.	21.28.M0

Feature Description

VLAN-aware VMs instances send and receive VLAN-tagged traffic over a single vNIC. VLAN-aware is useful for NFV applications (VNFs) that expect VLAN-tagged traffic, allowing multiple services served by a single vNIC. You can use VLAN-aware VMs with trunk interfaces to facilitate the automated addition and removal of networks with uninterrupted connectivity.

VLAN trunks support VLAN-aware instances by combining VLANs into a single trunked port. To implement trunks for VLAN-tagged traffic:

- Create a parent port and attach the new port to an existing neutron network. When you attach the new port, OpenStack Networking (neutron) adds a trunk connection to the parent port you created.
- Create subports. These subports connect VLANs to instances, which allow connectivity to the trunk.

Deploy a VM instance to use the MAC address that the OpenStack Networking service (neutron) assigned to the subport. The Elastic Services Controller (ESC) 5.8 version supports this VLAN-Aware VM.

Limitations:

Due to the known [RFE](#) defects from Red Hat for VLAN-aware VM over SRIOV VF, VLAN-aware has the following two limitations during deployment of VPC DI and while attaching parent ports to the VMs:

- Neutron trunk port created as part of the VLAN-aware VM configuration is in DOWN status.
- Sub Ports created with multiple VLAN IDs are in Detached state.

For more information, see the VLANs chapter in the *ASR 5500 System Administration Guide, VPC-DI System Administration Guide*, and *VPC-SI System Administration Guide*.