



# Cisco ACI VMM (VMware DVS, NSX-T & AVE) Integration Support in a VMware Environment

## Purpose

On 6 September 2018, VMware posted a knowledge base (KB) article called Cisco ACI AVE/VMM Mode Support in a VMware environment. It calls out different integration points—the Cisco ACI Virtual Machine Manager (vSphere vCenter and NSX-T) and the Cisco ACI Virtual Edge—and combines them.

The KB article may confuse our customers and partners as it incorrectly creates the impression that both Cisco ACI VMM and Cisco ACI Virtual Edge are one and the same and install components for their operation. This is not correct for VMM to work with vSphere or NSX-T all that is required from VMware is that they support the northbound APIs of vCenter and/or NSX Manager. It is important for our customers to understand the following:

- Cisco ACI VMM is a standalone integration and does not require Cisco ACI Virtual Edge to function. It simply uses the vCenter and/or NSX Manager northbound APIs.
- While Cisco ACI Virtual Edge does add extra functionality, it is not required for VMM integration to work properly. This Cisco support statement addresses the concerns raised in the KB article and reiterates Cisco's commitment to our customers and partners.

## New and Changed Information

Feature	Description
Updates to include Cisco ACI Virtual Edge integration with vSphere and NSX-T	22 September 2021
Revision throughout for clarity	14 August 2019
Format Fix	23 January 2019
Update with statement from VMware	11 October 2018
Initial publication	21 September 2018

## Update

On 8 October 2018, Cisco received communication from VMware saying that we do not require partner certification for the APIs used for Cisco ACI VMM integration or Cisco ACI Virtual Edge.

## Cisco ACI Integrations with VMware Changes in Behavior

Cisco ACI integrates with the VMware hypervisor suite of products using public APIs made available by VMware. There are three different integration points: Cisco ACI VMM Integration with vSphere vCenter , NSX-T Data Center and Cisco ACI Virtual Edge. These can be used independently, or in combination, with no mutual dependency.

### Cisco ACI VMM Integration

The Cisco ACI VMM supports integration with management software from multiple vendors using their publicly available APIs. In the case of the VMware ESXi hypervisor, this integration uses the publicly available VMware vSphere APIs to integrate directly with VMware vCenter. This integration uses a standard VMware vSphere Distributed Switch (VDS) and does not install, or indeed, require, any external software on any vSphere component.

---

Cisco TAC supports Cisco ACI VMM integration, and for this integration to work, VMware only needs to support features available through their public API. As of this writing, VMware states in their KB article that “VMware supports vSphere and all features available through the public API.”

Cisco ACI VMM integration has been supported since 2013. There are numerous customers using this integration in production.

### Cisco ACI & NSX-T VMM Integration

Beginning with Cisco ACI Release 5.1(1) and later releases, Cisco ACI integration with VMware NSX-T Data Center is supported. VMware NSX-T Data Center allows administrators to provision network services for ESXi environments. VMware NSX-T Data Center uses an NSX manager and integration is similar to that of other virtual machine managers (VMMs). Cisco ACI uses the publicly available NSX Manager APIs to integrate directly with NSX-T.

### Cisco ACI Virtual Edge

Cisco ACI Virtual Edge is a virtual switch designed and supported by Cisco. It can provide connectivity between Virtual Machines (VMs) on a hypervisor. Cisco ACI Virtual Edge is an alternative to VMware’s native virtual switch, VDS and offers additional functionality. A few of the features provided by Cisco ACI Virtual Edge are VXLAN, application-level visibility, granular policy configuration, and control for virtual workloads.

## Response

- Customers can choose to use Cisco ACI VMM integration with or without Cisco ACI Virtual Edge.
- Cisco ACI VMM integration can be deployed with Cisco ACI Virtual Edge, VMware VDS, or NSX-T.
- Cisco has supported and will continue to support the above listed integrations.
- In order to have Cisco ACI VMM integration with vSphere/NSX-T to be fully supported VMware only needs to support features available through their public API.

## Summary

Cisco TAC should be the first point of contact if you experience any issues with Cisco ACI VMM or Cisco ACI Virtual Edge integration. Cisco understands and supports our customers’ choices, and stands behind our products. Cisco will continue to provide support to our customers who have purchased Cisco Technical Support, and Cisco will collaborate with VMware support teams if that should be necessary to resolve any problems.

## Links

- [Cisco Application Centric Infrastructure Best Practices Guide](#)
- [Cisco ACI and VMware NSX-T Data Center Integration](#)
- [Introducing the Cisco Application Centric Infrastructure \(ACI\) Virtual Edge](#)

© 2021 Cisco Systems, Inc. All rights reserved.