



Introduction

This chapter contains the following topics:

- [Introduction](#), page 1
- [New Features in 8.1](#), page 1
- [Linux Kernel-based Virtual Machine \(KVM\)](#), page 2
- [Features Not Supported on Cisco Virtual WLC](#), page 2
- [KVM Prerequisite for Hosting Virtual WLC \(vWLC\)](#), page 3

Introduction

Prior to release 7.3, Wireless LAN (WLAN) controller software ran on dedicated hardware you were expected to purchase. The Virtual Wireless LAN Controller (vWLC) runs on general hardware under an industry standard virtualization infrastructure. The vWLC is ideal for small and mid-size deployments with a virtual infrastructure and require an on-premises controller. Distributed branch environments can also benefit with a centralized virtual controller with fewer branches required (up to 200).

vWLCs are not a replacement of shipping hardware controllers. The function and features of the vWLC offer deployment advantages and benefits of controller services where data centers with virtualization infrastructure exist or are considered.

Advantages of the vWLC:

- Flexibility in hardware selection based on your requirements.
- Reduced cost, space requirements, and other overheads since multiple boxes can be replaced with single hardware running multiple instances of virtual appliances.

New Features in 8.1

The new features in 8.1 are:

- Support for Linux KVM
- Support for RTU licensing

Linux Kernel-based Virtual Machine (KVM)

This document is an update for vWLC based on the CUWN 8.1 software release and the support for Linux Kernel-based Virtual Machine (KVM). KVM is supported in Cisco Wireless Release 8.1.102.0 and later releases.



Note After KVM is deployed, it is recommended that you do not downgrade to a Cisco Wireless release that is older than Release 8.1.102.0.

VMware support is discussed in separate document and is not relevant in this document.

Features Not Supported on Cisco Virtual WLC

Following are some of the features not supported on Cisco vWLC:

- Internal DHCP server
- TrustSec SXP
- Access points in local mode
- Mobility/Guest Anchor
- Multicast



Note FlexConnect local-switched multicast traffic is bridged transparently for both wired and wireless on the same VLAN. FlexConnect access points do not limit traffic based on IGMP or MLD snooping.

- High Availability
- PMIPv6
- Workgroup Bridges
- Mesh (use Flex + Bridge mode for mesh-enabled FlexConnect deployments)



Note Outdoor APs in the FlexConnect mode are supported.

- Application Visibility and Control (AVC)
- Client downstream rate limiting for central switching

KVM Prerequisite for Hosting Virtual WLC (vWLC)

Following are the KVM prerequisites for hosting vWLC:

- Minimum of 2 G memory
- Minimum of 1 vCPU
- Minimum of 2 network interfaces
- Required storage of 8 G
- Network device model is "virtio"
- The physical devices connected to Open vswitch bridge should not have any IP addresses configured on it.

For more information, refer to [KVM resource](#).

