



solution brief

Ruckus vSZ-D (Virtual SmartZone Data Plane)

VSZ-D - THE BENEFITS

Introduction

With the Virtual SmartZone Data Plane (vSZ-D), the Ruckus Virtual SmartZone platform launches sophisticated data plane capabilities in a virtualized form factor that enables tunneled WLANs architectures. This is an industry-first, truly differentiated and distinguished offering that provides compelling architecture flexibility that translates into business benefits for varied deployment scenarios.

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vSZ-D - the Benefits

Solution Overview

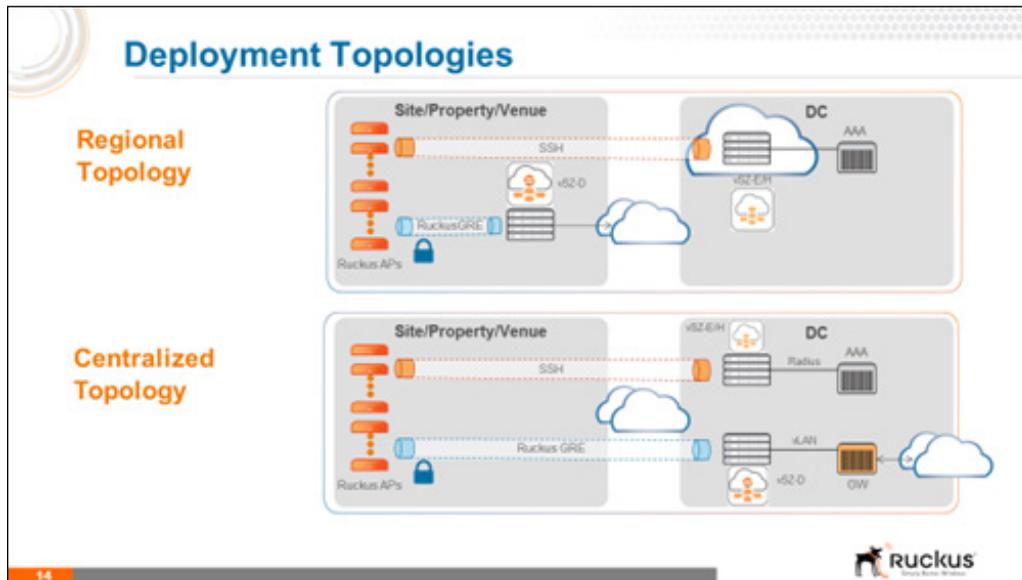


Figure 1 - vSZ-D deployment examples

vSZ-D is designed as a complementary data plane management solution for networks that need the benefits associated with WLAN tunneling. The vSZ platform provides configuration and monitoring for Ruckus APs and the vSZ-D. A vSZ cluster can manage multiple vSZ-D instances either co-located or distributed across sites. Client data traffic from a WLAN that has tunneling enabled will be securely tunneled from Ruckus AP to the vSZ-D simplifying control of secured data flows and avoiding complex local network management. Because of vSZ-D's design, there is a deployment flexibility not available previously.

Figure 1 is an example of both regional and centralized vSZ-D deployment options. The Regional topology highlights an architecture where the vSZ is centrally located in the data center whereas the vSZ-D is remotely deployed on premise selectively where needed.

The Centralized topology depicts an architecture where the vSZ and the vSZ-D are collocated (or co-hosted) in a centralized data center for central data aggregation.

Features/Benefits of vSZ-D

vSZ-D is an example of a Networks Functions Virtualization (NFV) conformant solution where the data plane functions are completely decoupled from the control plane function. This provides deployment flexibility as these NFV components are no longer bound by physical hardware or geographic location. The table below highlights some of the key features of the vSZ-D

Featured	Benefit
Secure Data Plane Tunneling	Manages creation of aggregated user data traffic through secure tunnels
Flexible and Scalable Deployment Architectures	Ability to service distributed and centralized network configurations
Deployment and operational simplicity	Simple integration and management with vSZ platform installations
Site Level QoS and Policy control	Service policy management and data stream QoS

¹ Will be supported in a post version 1 release

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Use Cases

Not all Wi-Fi traffic needs to be tunneled within the network. A lot of the data is transmitted on the local network without aggregation or encryption and routed directly out to the internet from that site.

However, there are a number of cases where tunneling user data can be indispensable.

Case 1: Wireless VoIP and Video Services

Network VoIP traffic is often targeted back to a PBX located on a different subnet within the network. In such a case, voice traffic is better managed via the data tunneling and aggregation capabilities of vSZ-D where it can securely traverse the network, transparently crossing layer-2 subnet boundaries with appropriate QoS priorities preserved.

Case 2: Guest Wireless Services in Hospitality and other businesses

For businesses that provide guest Wi-Fi/Internet service, tunneling user data makes sense from a data security perspective. Having a product like vSZ-D simplifies managing this data across a network by logically segregating it and securing it from corporate traffic and controlling all the network resources that may be accessed by this class of users.

Case 3: Managing IoT Traffic

A growing class of network data belongs to the new IoT (Internet of Things) devices. These are typically intelligent network nodes that are used for monitoring the status of equipment (heating/air conditioning, doors/windows for building access, location of expensive equipment, or video/audio data streams from security equipment). This information is typically homerun back to a monitoring center for analysis and archiving. This class of information is most often operation critical with restricted access. Wi-Fi is now being used as a backhaul for these IoT devices and having a vSZ-D simplifies partitioning and prioritizing this traffic independently from the other internet data traffic.

Case 4: Minimize Cost of Scaling

To deploy and manage a distributed network or a multitude of such networks, replication of resources is often a requirement. Multiple controller hardware is typically required at each serviced site where tunneling of data is needed.

As the size and numbers of sites grow, this can become extremely expensive quickly. If a virtual controller platform is installed at a central location, inexpensive vSZ-D solutions running on standard COTS hardware can be deployed at those managed sites where tunneling of Wi-Fi traffic maybe needed. Ruckus vSZ-D can now simplify these types of deployments and more importantly do so at a significant lower CAPEX.

Simple And Flexible Deployment

From a deployment perspective, the vSZ-D has been designed on the principles of minimal configuration.

Support for vSZ-D requires Ruckus vSZ controller platforms to be on version 3.2. From this point, deployment involves two straightforward manual steps:

1. Installing vSZ-D on the target VM system and configuring it to point to the "hosting" vSZ platform.
2. When prompted on the vSZ GUI, the operator can authorize the vSZ-D to associate with that network

Everything else in the install sequence is automatic. Management and monitoring the vSZ-D is performed at the vSZ GUI.

Because vSZ-D is virtualized, scaling the network becomes a simple matter of deploying on the right hardware platform or add an additional instance at a new site or at the data center and associating it with the central vSZ platform.

Summary

vSZ-D provides a new flexibility not previously available to construct a flexible network designed to securely tunnel user data traffic, simplify IT overhead and lower TCO/CAPEX costs. This product is another tool from Ruckus to bring you "Simply Better Wireless."

Interested in learning more about Ruckus vSZ-D? Request a contact your local or regional Ruckus Authorized Reseller for information.