

VNS Application Edge

Solution brief

Easily manage application life-cycle and multicluster deployments at the network edge.



If you have applications that demand low latency and localized processing or both, hosting them at the network edge could optimize application and network performance and reduce your opex. That's what Verizon Virtual Network Services (VNS) Application Edge empowers you to do – and more.

VNS Application Edge is your on-premises Co Managed Kubernetes platform with the characteristics of a cloud and an orchestration tool. The solution optimizes application performance and automates the deployment and operation of Kubernetes clusters and containerized applications at the edge at scale. Additionally, you can easily manage your existing applications and cluster environments in public and private clouds by bringing them under the control and management framework of the VNS Application Edge solution. Application life cycle and cluster management across heterogeneous and multicloud environments is easy through a single-pane-of-glass portal.

The solution accelerates an enterprise customer's application modernization journey and enhances the end user's application experience. Let VNS Application Edge help you improve application performance, manage the application life cycle and use bandwidth efficiently.

Kubernetes cluster and application management at the network edge

VNS Application Edge is a Co Managed service option now available on the VNS universal customer premises equipment (uCPE) platform. It enables you to automate the management and deployment of containerized applications on the VNS uCPE platform, even in complex and multicluster environments. By placing applications on VNS uCPE at the network edge, the service can also help improve application performance.

Because VNS Application Edge puts the network connectivity and applications on the same box, you don't have the complexity of managing separate network and application infrastructures.

Also, depending on the application, bandwidth at the remote site could be used more efficiently if the application takes advantage of the ability to preprocess the data and transmit only the important information in a compact form to public or private cloud locations. On-premises data sent to a data center or the cloud can also be aggregated.

Additionally, VNS Application Edge makes containerized application management easier by providing:

- A user-friendly portal hosted on your uCPE, public cloud or anywhere on your WAN, giving your operations and application development teams node cluster, container and application-level visibility
- Security and governance/role enforcement and logging control for application life-cycle management
- Monitoring support and proactive issue notification through a single-pane-of-glass portal
- Automated Kubernetes upgrades and software patches across multiple locations for a consistent user experience globally
- Best-of-breed operational support from Verizon

"Kubernetes has become a popular platform for building cloud-native applications, but the key constraints are lack of adequate skills and mature DevOps practices to operationalize and succeed with large-scale, production-grade deployments."¹

When VNS Application Edge makes sense

VNS Application Edge is a good choice for enterprises and systems integrators interested in simplifying life-cycle management, especially when using or migrating to Kubernetes containerized applications that can benefit from being located at the network edge. These include applications that require low latency or near real-time data processing or that regularly process large amounts of on-premises data aggregated to the cloud.

Some industry applications suited to VNS Application Edge include:

- Retail for inventory management, store analytics and customer digital engagement
- Medical equipment remote monitoring, equipment diagnostics and in-hospital equipment repair by the manufacturer
- Finance for virtual teller and video chat applications
- Energy/utility for instrumentation and telemetry data analytics and remote repair
- Manufacturing for augmented reality and assisted assembly

VNS Application Edge benefits

- View and manage multiple Kubernetes clusters across cloud and on-premises environments via a user-friendly portal
- Easily scale containerized application multicluster deployments
- Add opportunities for real-time data analysis and decision-making at the network edge using artificial intelligence (AI) and machine learning (ML)
- Provide management of the Kubernetes platform and network to ensure that all components work together
- Enable new immersive experiences for applications like virtual reality and 4K content delivery networks
- Improve application performance and user experiences
- Improve time to market by deploying applications faster
- Increase efficiency and reduce in-house costs for training, staff and monitoring tools for containerized application life-cycle management
- Provide security and governance/role enforcement and logging control for application life-cycle management

- Leverage application programming interfaces (APIs) and command line interface (CLI) capabilities that integrate with application management tools, such as Terraform and Ansible
- Streamline application life-cycle management with tools that can monitor and quickly configure any clusters wherever they are in the WAN
- Alleviate the burden of managing application and network infrastructures separately

Why Verizon

Verizon's VNS platform has a rich partner ecosystem, with multiple virtual network function (VNF) combinations that can be mixed and matched without vendor lock-in. We're one of the world's largest, seamlessly connected global IP networks. Our expertise is built on managing 500,000+ security, network and hosting devices and 4,000+ customer networks in 150+ countries.

Learn more:

To learn more about VNS Application Edge, contact your Verizon Business Account Manager or visit verizon.com/business/products/networks/virtual-network-services/vns-application-edge/

