EXTENDING NSX SD-WAN BY VELOCITYCLOUD TO MICROSOFT AZURE

As more and more workloads migrate to the cloud, limited WAN bandwidth, quality, and cost of private links are becoming a big concern to enterprise IT. The rise of IaaS and PaaS through providers such as Microsoft Azure further adds the need for IT to look for scalable, secure and optimized access to IaaS/PaaS from remote branches. Legacy VPN technologies offered by vendors to access Azure are complex, time consuming and often lack enterprise grade performance and security.

VMware NSX SD-WAN by VeloCloud
VMware NSX SD-WAN by VeloCloud aggregates available branch WAN connections such as Internet Broadband, MPLS private lines, wireless LTE, and performs dynamic application aware per-packet link steering and path conditioning to deliver enterprise class quality for the most demanding applications. In addition, NSX SD-WAN has a unique globally distributed cloud gateways infrastructure, that brings SD-WAN to the doorstep of major cloud providers, such as Azure. The single pane of glass management orchestrator portal simplifies the deployment and monitoring efforts from hundreds of lines of CLI box by box to a couple of clicks on the user-interface from one source and distributes to all branch sites.

Extending NSX SD-WAN to Microsoft Azure
NSX SD-WAN on Azure enables enterprises to rapidly and cost-effectively leverage world-class NSX SD-WAN capabilities within their Azure deployments. NSX SD-WAN on Azure combines the elasticity and flexibility of the Azure Cloud with the same optimization, security, simplified operations, and uncompromised user-experience NSX SD-WAN provides for the most demanding networks and applications in the world.

This solution brief examines the various use cases for NSX SD-WAN on Azure. Joint development between NSX SD-WAN and Azure has resulted in several compelling use cases that not only support the immediate needs of today’s enterprises and service providers, but also the ongoing evolution from legacy computing infrastructures to enterprise cloud data centers.

Simple Design and Availability
Virtual NSX SD-WAN Edge by VeloCloud can be simply enabled with a few clicks and deployed from Azure Marketplace globally as a single instance or multiple instances in a cluster with support for dynamic routing.

Virtual NSX SD-WAN Edges on Azure are designed for hybrid cloud deployments including a private circuit into the SD-WAN overlay directly into Azure via the Express Route.

Multiple Virtual NSX SD-WAN Hub Edges can be clustered on Azure for multi-gig throughput and horizontal scaling. Redundant VPN tunnels to Azure can be created with IKEv2 based VPN. NSX SD-WAN now supports IKEv2 tunneling per Microsoft requirements.

NSX SD-WAN can connect to Microsoft Azure in the following three ways:
Over-the-Top Internet Only
IPSec from NSX SD-WAN Gateways by VeloCloud to Azure VNet VPN Gateway can be created. This scenario is most commonly used for customers with Internet links from their branches and for those who want a hub-less design. Both IKEv1 and IKEv2 (3.1) options are available.

Over-the-Top Hybrid
Virtual NSX SD-WAN Edge can be deployed on Azure VNet extending all of NSX SD-WAN’s capabilities, including NSX SD-WAN Dynamic Multi-Path Optimization (DMPO) from NSX SD-WAN Edges to Azure VNet. This scenario is most commonly used in a hybrid deployment with Azure.

Provider Network Based
A dedicated network connection to Azure VNet VPN Gateway leveraging Azure Express Route from SP core can be created to take advantage of NSX SD-WAN capabilities.

NSX SD-WAN Orchestrator by VeloCloud
For each of the scenarios mentioned above, orchestration, management, and monitoring are critical aspects. NSX SD-WAN Orchestrators provide users with the same level of reliability and security as they have enjoyed with NSX SD-WAN Edges.

Summary
VMware NSX SD-WAN by VeloCloud mitigates major WAN challenges today with unique application aware dynamic multi-path optimization technologies and advanced cloud infrastructure. It can also be extended to the public cloud with NSX SD-WAN Edge presence in Microsoft Azure with a range of use cases to ensure consistent and outstanding user-experience.