

SOLUTION OVERVIEW

Delivering the Highest Quality of Experience for Microsoft Office 365

Increase end user productivity for Office 365 through optimized application performance and higher network reliability with the Aruba EdgeConnect SD-WAN edge platform

Silver Peak was acquired by Aruba, a Hewlett Packard Enterprise company, in 2020. You may see references to Silver Peak in this document.

THE MODERN ENTERPRISE WAN TODAY

With the increasing use of cloud-based applications, overall demands for more bandwidth, and the requirement for branch WAN simplification, many organizations have deployed SD-WAN technologies to prioritize and manage application traffic while tapping the benefits of fast and inexpensive internet connectivity.

The adoption of cloud-based services such as Infrastructure-as-a-Service (IaaS) and Software-as-a-Service (SaaS) has rapidly changed the way end-users and businesses connect to applications and workloads. As the adoption of SaaS applications for business-critical services continues to increase and the workforce becomes more distributed, the traditional method of backhauling traffic to corporate HQ/data center for security inspection and egress to the internet results in high latency and congested links. This leads to a poor user experience. In addition, traditional router-centric network architectures and MPLS services were not designed to support cloud-based services. In addition, backhauling SaaS and enterprise applications over this type of hub-and-spoke network architecture is costly and complex to manage.

DELIVERING A BETTER BRANCH OFFICE USER EXPERIENCE FOR MICROSOFT OFFICE 365

Microsoft Office 365 is a distributed Software-as-a-Service (SaaS) application suite that provides productivity and collaboration solutions through a diverse set of micro-services and applications, such as Exchange Online, SharePoint Online, Skype for Business Online, Microsoft Teams, Exchange Online Protection, and many others. Office

KEY BENEFITS

- Improve Office 365 application performance using Aruba centrally orchestrated business intent overlay policies and secure local internet breakout capabilities
- Deliver unprecedented application visibility and performance for Office 365 through First-packet iQ™ application classification and automated integration with the new Office 365 REST API
- Increase operational efficiency, reduce latency and provide secure network connectivity for Office 365 by dynamically steering traffic to the nearest Office 365 service front door

365 is also one of the most widely adopted SaaS application suites and hence user experience is key. To deliver the highest quality of experience for Office 365, Microsoft recommends that organizations enable secure local internet breakout for their Office 365 application traffic directly from their branch offices. The use of local breakout eliminates the latency incurred by backhauling cloud-destined traffic back to headquarters-based data centers, improving application performance for end users.

To connect users to Office 365 applications, IT organizations must direct their traffic to the Microsoft Global Network. The Microsoft Global Network supports several hundred points of presence (PoPs) around the globe. Within the Microsoft Global Network are interconnected data centers where customers' Office 365 data is stored and replicated. Customers must connect users to these global data centers via the Microsoft Global Network PoPs in order to access their respective Office 365 applications and data.

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DELIVERING THE HIGHEST QUALITY OF EXPERIENCE FOR MICROSOFT OFFICE 365



Microsoft Office 365 Connectivity Principles recommend that organizations architect their WAN to enable their branch locations to forward traffic directly to the nearest Microsoft Global Network PoP. By doing so, customers can achieve optimal Office 365 connectivity and performance by reducing the round-trip time (RTT), thus minimizing latency. For more information on Microsoft Office 365 connectivity guidelines please refer to the Office 365 Connectivity Principles.

ARUBA EDGECONNECT SD-WAN EDGE PLATFORM “WORKS WITH OFFICE 365”

The Aruba EdgeConnect SD-WAN edge platform has been independently tested and certified to support the Microsoft Office 365 Connectivity Principles and provide reliable connections directly from branch office locations to the nearest Office 365 front door. This local breakout provides the lowest latency and results in the highest application quality of experience for end users. As a result of the independent testing, the EdgeConnect platform has been inducted into the Microsoft Office 365 Networking Partner Program and has been given the official “Works with Office 365” designation. By supporting the new Office 365 REST API, EdgeConnect enables secure internet traffic breakout for latency sensitive traffic directly from the branch office to the Office 365 front doors using the Office 365 endpoint data. Office 365 endpoint data is a global list of IP addresses and fully qualified domain names (FQDN) that is continuously updated and made available on a regular basis through the Office 365 REST API.

In order to support the Office 365 Connectivity Principles, the First-packet iQ application classification engine uses real-time machine learning to identify and classify Office 365 traffic on the first packet, dynamically steering the traffic to the closest Office 365 front door. By using EdgeConnect application-driven business and security policies, centrally configured using Aruba Orchestrator, the most optimal path is used to direct Office 365 traffic, eliminating the potential for wasted bandwidth and performance bottlenecks. EdgeConnect traffic steering and monitoring capabilities provide easy policy administration of Office 365 detection on the first packet to enable local egress and visibility into the flow.

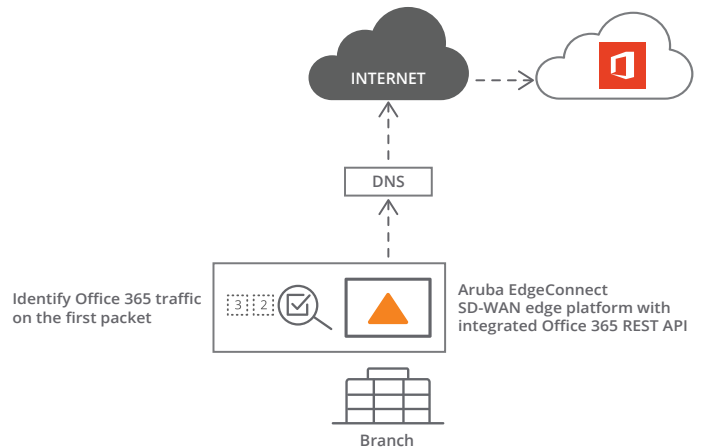


Figure 1: Local Egress of Office 365 using Aruba EdgeConnect SD-WAN

To further optimize connectivity, Office 365 Connectivity Principles recommend reducing any latency incurred through DNS requests and enabling the DNS system to resolve the request to a locally optimal service entry point. The EdgeConnect SD-WAN edge platform performs local DNS resolution and caches the DNS records thus avoiding connection to a distant or busy DNS server. If using a cloud proxy, for example: Zscaler Internet Access, EdgeConnect perform DNS at the proxy. By combining the local DNS resolution and local internet egress directly from the branch office, network traffic destined for Office 365 can connect directly to Office 365 front end servers located as close as possible to the user.

EASE OF DEPLOYMENT

EdgeConnect offers a fully-automated solution through the Office 365 REST API integration. This makes Office 365 networking optimization extremely easy to deploy including simplified configuration, automatic creation of all the necessary low-level DNS and data traffic-steering policies, and NAT and firewall rules. The integration correlates EdgeConnect appliance locations with the closest Office 365 PoPs. Aruba continuously learns and discovers new PoPs and/or IP addresses and automatically reconfigures EdgeConnect if a new, closer Office 365 PoP becomes available without requiring any manual intervention by IT.

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As a close and longtime Microsoft partner, Aruba offers customers a modern SD-WAN solution to make it easy to adopt recommended connectivity principles to optimize latency-sensitive Office 365 applications. In summary, Aruba provides customers the ability to locally breakout their Office 365 traffic directly from all of their branches to minimize latency and always deliver the highest quality of experience to end users.

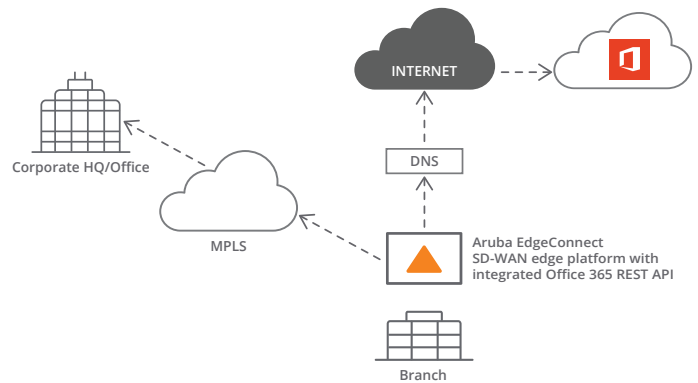


Figure 2: Aruba Office 365 SD-WAN Solution