VMware Recognized for

2021

Market Leadership

Global SD-WAN

Vendor Industry

Excellence in Best Practices

FROST & SULLIVAN

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. VMware excels in many of the criteria in the SD-WAN Vendor space.

Growth Strategy Excellence

VMware continues to lead the global SD-WAN market in terms of deployed sites and revenue. The company has consistently ranked as the market leader (based on revenues) in Frost & Sullivan's global SD-WAN vendor research since 2017.

> *"VMware sells to enterprises through a network of channel partners globally that includes NSPs, MSPs, VARs, system integrators and 270 telecom service providers."*
>
> ***- Roopa Honnachari, VP of Research***

The company's SD-WAN gateways offer a superior alternative to traditional WAN deployments for customers looking to connect to clouds in an optimized and secure manner. VMware sells to enterprises through a network of channel partners globally that includes Network Service Providers (NSPs), Managed Service Providers (MSPs), Value-added Resellers (VARs), system integrators and 270 telecom service providers.

Product Differentiation

VMware SD-WAN is unique in the market. The company's Network of Cloud Services approach that has SD-WAN gateways strategically distributed across 150 global Points of Presence (PoPs). The globally distributed PoPs dramatically bridge the gap between users and cloud and SaaS-based applications, and consist of a rich ecosystem of partners that includes:

- Multi-Cloud and Cloud Infrastructure as a Service (IaaS) (e.g., AWS, Azure, Google Cloud, Alibaba Cloud, Oracle, Equinix)
- Unified Communications as a Service (e.g., Zoom, Microsoft Teams, RingCentral)
- Security (e.g., Zscaler, Check Point, Netskope, Menlo Security)
- Service Providers (e.g., AT&T, T-Mobile, Telstra)
- Access Anywhere (e.g., Eero, Transatel)
- Edge (e.g., AWS Outposts, Azure Private MEC, Lenovo)
- 5G (e.g., AWS Wavelength, Azure for Operators, ASOCS)

In a recent Frost & Sullivan cloud survey, "increase application availability" was rated the #1 reason businesses deploy cloud. The COVID-19 pandemic will further strengthen businesses' dependence on cloud to improve business continuity. Traditional WAN architectures such as MPLS VPNs, which are widely used by enterprises to connect their globally distributed enterprises, do not provide an efficient way to connect the ever-increasing remote working workforce to cloud-based applications. MPLS WAN architecture assumes that all business-critical applications reside in the enterprise data center, to which branches connect over a private WAN. Hence, branch network traffic is still routed via headquarters or hub locations (to ensure data security and compliance), thus adding delays.

> *"Since the entire value proposition of SASE is to deliver networking and security functions in a cloud model, and closer to the user, the diversity of VMware partners hosting the SASE PoPs ensures that users have optimized and secure connectivity, no matter where they are located and what applications they are trying to access."*
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As hybrid work gains traction and remote workers are increasingly accessing cloud applications over internet links, the inefficient "hairpin" model of traffic being routed via the enterprise data center no longer applies. VMware SD-WAN Gateways offer optimized paths for users accessing cloud IaaS and SaaS applications, as they are located at major POP locations around the world, eliminating the need to backhaul traffic to the data center.

Implementation Excellence

The gateway approach combined with strong integration of security features is enabling the company to adapt quickly to provide Secure Access Service Edge (SASE) solutions. VMware's network of PoPs hosts 3000+ stateless, horizontally scalable Gateways. Each of these PoPs will combine networking (SD-WAN) and security functions to act as a SASE PoP.

Since the entire value proposition of SASE is to deliver networking and security functions in a cloud

model, and closer to the user, the diversity of partners hosting the SASE PoPs ensures that users have optimized and secure connectivity, no matter where they are located and what applications they are trying to access. While not all VMware PoPs are SASE PoPs today, the company is in the process of converting the PoPs into SASE PoPs, which will enhance the company's competitiveness in the market.

Technology Leverage

As enterprise users and devices continue to be distributed, the biggest challenge for IT teams is the lack of visibility into endpoints to detect, analyze, and remediate network operations. The complexity of network management will be even more pronounced as the remote working trend continues and the number of IoT devices increases. The concept of a self-healing WAN has been at the core of the SD-WAN discussion since its inception, owing to its roots in software-defined networking (SDN). Vendors and providers alike are investing and integrating artificial intelligence (AI) and machine learning (ML) tools to deliver on the promise of application-aware or intent-based networking to automate routine network operation tasks, set policies, measure network performance against set targets, and respond and rectify the networks as needed.

VMware Edge Network Intelligence is a vendor-agnostic AIOps solution that employs ML algorithms and big data analytics to process high volumes of data from a wide range of network, device, and application sources at the Gateways. The AIOps solution can pinpoint with clarity whether a perceived application problem is due to issues with the local Wi-Fi network, broadband network, WAN, network services, or with the application. This greatly simplifies network operations and management for IT teams. While the solution available today is capable of predicting and notifying IT staff of events, future plans include incorporating robotic process automation to eliminate manual intervention, and instead have the WAN self-correct.

Conclusion

With the arrival of SD-WAN, organizations are finally able to transform their WANs to keep up with IT transformation initiatives, which are heavily cloud-centric. However, security planning is most often done separately, thus derailing network and IT initiatives. More organizations are realizing that, for their digital transformation plans to succeed, holistic thinking about networking, security and cloud deployments is required. VMware, with its strong SD-WAN solution, combined with the deployed and planned global reach of SASE PoPs, and deep data analytics and intelligent network management features, continues to lead the market in terms of revenue share. In recognition of its strong overall performance, VMware earns Frost & Sullivan's 2021 Global Market Leadership Award in the SD-WAN vendor market.

What You Need to Know about the Market Leadership Recognition

Frost & Sullivan's Market Leadership Award recognizes the company that achieved the greatest market share resulting from outstanding performance, products, and services.

Best Practices Award Analysis

For the Market Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Growth Strategy Excellence: Company demonstrates an ability to consistently identify, prioritize, and pursue emerging growth opportunities

Implementation Excellence: Company processes support efficient and consistent implementation of tactics designed to support the strategy

Brand Strength: Company is respected, recognized, and remembered

Product Quality: Products or services receive high marks for performance, functionality, and reliability at every stage of the life cycle

Product Differentiation: Products or services carve out a market niche based on price, quality, or uniqueness (or some combination of the three) that other companies cannot easily replicate

Technology Leverage: Company is committed to incorporating leading-edge technologies into product offerings to enhance product performance and value

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers are proud to own the company's product or service, and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and of high quality

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Engine™

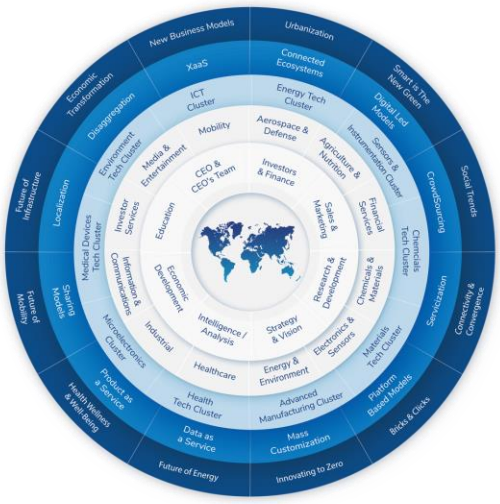
Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.
Learn more.

Key Impacts:

- **Growth Pipeline:** *Continuous Flow of Growth Opportunities*
- **Growth Strategies:** *Proven Best Practices*
- **Innovation Culture:** *Optimized Customer Experience*
- **ROI & Margin:** *Implementation Excellence*
- **Transformational Growth:** *Industry Leadership*

The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.



Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)