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2020 BEST PRACTICES AWARD

AT&T

**2020 NORTH AMERICAN
MANAGED SD-WAN SERVICES
MARKET LEADERSHIP AWARD**

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Background and Company Performance

Industry Overview

The North American managed software-defined wide area network (SD-WAN) services market is in the growth phase of the product life cycle. Across industries, businesses are embracing these services as an integral part of their WAN transformation strategy, largely to gain cost and operational efficiencies. North American market revenues for 2019 exceeded $1.7 billion, with more than 160,000 SD-WAN sites operational today.

Cost-effective branch site connectivity, fast deployment times, centralized network management, and optimized cloud connectivity are some the drivers for managed SD-WAN adoption. Particularly, cloud has been gaining traction among global businesses, with 75% of global IT decision-makers agreeing with the statement "the cloud is the most integral part of our digital transformation strategy" in Frost & Sullivan's 2019 Cloud Survey. In the same survey, 37% of respondents indicated they currently use a hybrid cloud. As enterprise applications get distributed across multiple clouds, SD-WAN enables enterprise IT to predefine business policies through the SD-WAN controller, to specify which cloud applications are suitably accessed directly through the Internet versus backhauled to a hub site.

However, as SD-WAN deployments have increased in the last 3 years, businesses realize that installing and managing multiple SD-WAN sites is complex. The process can be daunting when it involves multiple transport and access providers from across the globe. A managed service provider with the expertise and technology needed to integrate disparate operations and management systems from various access providers can help address the complexity. Hence, fully managed SD-WAN services continue to gain traction.

Market Leadership

Growth Strategy Excellence

Frost & Sullivan's ongoing analysis confirms that AT&T has emerged as the market leader in the North American Managed SD-WAN Services Market. The company has the largest deployment of SD-WAN sites in North America, and leads the market in terms of revenue share for the full year 2019. Based on the growth pipeline in terms of contracted sites (not yet deployed) and deals closed in the three quarters of 2020, the company is well positioned to retain its growth momentum.

AT&T offers customers the choice to deploy over-the-top (OTT) SD-WAN (using a VMware SD-WAN appliance), network-based SD-WAN (using a FlexWare device), or a hybrid of the two. The company added Cisco SD-WAN to its mix of SD-WAN offerings in July 2020. The service is available as fully managed and co-managed options.

Implementation Excellence

Based on the learnings from the initial phase of SD-WAN deployments, according to our discussions with businesses and service providers, it has become clear that many businesses struggle with SD-WAN solutions at their branch sites. Commonly stated challenges include trouble with LAN discovery and lack of knowledge by the staff at branch

site to even connect the appliance and carry through the basic steps. Therefore, most businesses deploying SD-WAN prefer working with a managed service provider that can deploy and manage the SD-WAN solution at all the sites and ensure consistent performance.

As a long-time leader in the business network services space, AT&T understands the level of complexity involved in designing global WANs. Keeping this in mind, AT&T created the Expert Engineer role to provide customers with high-touch solution support.

With AT&T managed SD-WAN, customers also have access to integrated service experience (ISE) resources that offer superior post-sale support. The ISE is a 24x7, global command and control center that offers a single point of contact and accountability. Responsibilities include first touch resolution, prioritization of critical incidents and ownership until resolution, and root cause analysis and service improvement plans, to list a few, while aligning with IT Service Management (ITSM) governance & lifecycle support.

Technology Leverage

While the market is currently flooded with purpose-built SD-WAN appliances, the network function virtualization (NFV)-based universal customer premises equipment (uCPE) approach is clearly gaining prominence. The cost of the uCPE and the complexity of service chaining were two challenges service providers faced in the approach in the past, which resulted in businesses choosing the easier approach of installing an SD-WAN appliance. That trend is changing fast. The uCPE price has declined by more than 50% in the last two years, and service providers have invested in network management tools and orchestration platforms to enable seamless service chaining. The ability to deploy multiple key network functions in virtual formats—routing, security, WAN optimization, session border controllers—is of immense value to businesses in terms of reducing appliance sprawl, network scalability, and manageability.

The investments AT&T has made in SDN and NFV positions the company strongly as businesses speed up their digital strategies. The AT&T FlexWare Device eliminates the need for a separate CPE and allows businesses to seamlessly integrate SD-WAN (and other VNFs – routing, WAN optimization, security, SBCs) functionality into their WAN architectures, thus driving additional revenue growth while creating customer stickiness. The company's SDN-based network on-demand offering gives customers the ability to procure dynamic bandwidth across AT&T Switched Ethernet, AT&T MPLS VPN, and AT&T Dedicated Internet services to increase flexibility in WAN provisioning.

Customer Purchase Experience

Multiprotocol label switching (MPLS) and Ethernet WAN services are deeply embedded in business WAN networks, and SD-WAN is challenging the status quo of these technologies. While some customers have chosen to create hybrid SD-WAN networks by adding broadband links to MPLS or Ethernet WANs, others have chosen to disconnect private networks and instead utilize a combination of broadband, dedicated Internet access (DIA), and wireless links.

AT&T's focus on offering hybrid networking solutions, which allows customers to grow at a pace their WAN infrastructure calls for, has been a successful strategy. Customers have a broad range of network service choices (DIA, broadband, wireless, Ethernet, MPLS, and IP VPN) with SD-WAN that creates customer stickiness.

AT&T's hybrid approach, with pricing ranges from low-priced IPsec sites to medium-priced SD-WAN sites to higher-priced MPLS sites, enables AT&T to target a wide scope of customer segments by giving them the choice to deploy services that best suit their price points and application requirements. The hybrid approach is particularly significant to drive managed SD-WAN adoption as businesses of all sizes re-assess and optimize their technology spend to recover from the impact of COVID-19.

Brand Strength

AT&T is the leading communication service provider in the U.S. markets with a broad range of solution offerings and deep expertise in the network services space. The company has received recognition for its excellence by several industry publications. The most recent recognition includes winning J.D. Powers 2020 Business Wireline Satisfaction Study (four years in a row), and being named the World's Most Admired Telecommunications Company by Fortune Magazine for the fourth year in a row.

Conclusion

Frost & Sullivan applauds the way that AT&T has excelled among all the criteria described above to capture the highest market share in 2019.

In recognition of the company's efforts, Frost & Sullivan is proud to bestow the 2020 Market Leadership Award in the North American Managed SD-WAN services market to AT&T.

Significance of Market Leadership

Ultimately, growth in any organization depends on customers purchasing from a company, and then making the decision to return time and again. Loyal customers become brand advocates, brand advocates recruit new customers, and the company grows, and then attains market leadership. To achieve and maintain market leadership, an organization must strive to be best in class in 3 key areas: understanding demand, nurturing the brand, and differentiating from the competition.

Understanding Market Leadership

Driving demand, strengthening the brand, and differentiating from the competition all play critical roles in a company's path to market leadership. This three-fold focus, however, is only the beginning of the journey and must be complemented by an equally rigorous focus on the customer experience. Organizations that demonstrate best practices, therefore, commit to the customer at each stage of the buying cycle and continue to nurture the relationship once the customer has made a purchase. In this way, they build a loyal, ever-growing customer base and methodically add to their market share.

Key Performance Criteria

For the Market Leadership Award, Frost & Sullivan Analysts focused on specific criteria to determine the areas of performance excellence.

Criterion	Requirement
Growth Strategy Excellence	There is a demonstrated ability to consistently identify, prioritize, and pursue emerging growth opportunities.
Implementation Excellence	Processes support the efficient and consistent implementation of tactics designed to support the strategy.
Brand Strength	The brand is respected, recognized, and remembered.
Product Quality	The product or service receives high marks for performance, functionality, and reliability at every stage of the life cycle.
Product Differentiation	The product or service has carved out a market niche, whether based on price, quality, or uniqueness of offering (or some combination of the three) that another company cannot easily duplicate.
Technology Leverage	There is a commitment to incorporating leading-edge technologies into product offerings for greater product performance and value.
Price/Performance Value	Products or services offer the best value for the price, compared to similar offerings in the market.
Customer Purchase Experience	Customers feel they are buying the optimal solution that addresses both their unique needs and their unique 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.

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate Award candidates and assess their fit with best practices criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP		OBJECTIVE	KEY ACTIVITIES	OUTPUT
1	**Monitor, target, and screen**	Identify Award recipient candidates from around the world	• Conduct in-depth industry research • Identify emerging industries • Scan multiple regions	Pipeline of candidates that potentially meet all best practices criteria
2	**Perform 360-degree research**	Perform comprehensive, 360-degree research on all candidates in the pipeline	• Interview thought leaders and industry practitioners • Assess candidates' fit with best practices criteria • Rank all candidates	Matrix positioning of all candidates' performance relative to one another
3	**Invite thought leadership in best practices**	Perform in-depth examination of all candidates	• Confirm best practices criteria • Examine eligibility of all candidates • Identify any information gaps	Detailed profiles of all ranked candidates
4	**Initiate research director review**	Conduct an unbiased evaluation of all candidate profiles	• Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles	Final prioritization of all eligible candidates and companion best practices positioning paper
5	**Assemble panel of industry experts**	Present findings to an expert panel of industry thought leaders	• Share findings • Strengthen cases for candidate eligibility • Prioritize candidates	Refined list of prioritized Award candidates
6	**Conduct global industry review**	Build consensus on Award candidates' eligibility	• Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates	Final list of eligible Award candidates, representing success stories worldwide
7	**Perform quality check**	Develop official Award consideration materials	• Perform final performance benchmarking activities • Write nominations • Perform quality review	High-quality, accurate, and creative presentation of nominees' successes
8	**Reconnect with panel of industry experts**	Finalize the selection of the best practices Award recipient	• Review analysis with panel • Build consensus • Select recipient	Decision on which company performs best against all best practices criteria
9	**Communicate recognition**	Inform Award recipient of Award recognition	• Announce Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10	**Take strategic action**	Upon licensing, company is able to share Award news with stakeholders and customers	• Coordinate media outreach • Design a marketing plan • Assess Award's role in strategic planning	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of the research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, resulting in errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, helps clients accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's growth team with disciplined research and best practices models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit http://www.frost.com.