SD-WAN Managed Services 2021–2022 RadarView

Enabling business agility and digital transformation at speed with SD-WAN

Report Excerpt

December 2021
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About the report

1. SD-WAN adoption is rising as it has evolved from a technology designed to reduce costs and enhance operational efficiency to being a driver of enterprise digital transformation. Large businesses with a global presence are leading the adoption because of increasing use of cloud and digital services.

2. SD-WAN in convergence with 5G is set to disrupt the wide area network (WAN) connectivity models. With a surge in cyberattacks, zero-trust security has become a priority for enterprises. This has increased the adoption of the Secure Access Service Edge (SASE)-based security model.

3. SD-WAN Managed Services 2021–2022 RadarView aims to provide a view into market trends and developments and best practices to help build a granular understanding of the SD-WAN ecosystem. We also provide our recommendations for enterprises and detailed information on the key players in the market.

4. Avasant evaluated over 40 providers using a rigorous methodology across three key dimensions: practice maturity, partner ecosystem, and investments and innovations. It recognized 25 vendors that brought the most value to the market over the last 12 months.

5. This report also highlights key trends in the market and Avasant’s viewpoint on the road ahead for enterprises leveraging managed SD-WAN services over the next 12 to 18 months.
Defining SD-WAN Managed Services

Applying SDN technology to connect an overlay network of enabled devices to an underlay infrastructure.

Avasant’s SD-WAN Managed Services RadarView covers service providers with end-to-end offerings spanning network management, network security, performance management, and support of physical and virtual customer premises equipment (CPE).

Source: Avasant Research
Executive summary
Key SD-WAN services trends shaping the market

<table>
<thead>
<tr>
<th>SD-WAN adoption is rising owing to rapid adoption of cloud and digital services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>•</strong> SD-WAN has become a key pillar of post-pandemic enterprise digital transformation, with 25% of organizations are investing and 29% of organizations are considering investing in the technology.</td>
</tr>
<tr>
<td><strong>•</strong> Large organizations with a global presence are leading the adoption. As per the Computer Economics Technology Trends 2021 report, 52% of large organizations have deployed SD-WAN while 42% are implementing or expanding the use of this technology.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>The public sector witnessed the highest growth in SD-WAN adoption</th>
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<tbody>
<tr>
<td><strong>•</strong> The public sector (67%) has the highest growth in adoption, followed by healthcare and life sciences (38%) and retail and CPG (28%). Manufacturing continues to lead adoption, accounting for one-fifth of SD-WAN implementations in the 12 months ending September 2021.</td>
</tr>
<tr>
<td><strong>•</strong> Increasing adoption of cloud services and IoT (further accelerated by the pandemic) and demand for higher network bandwidth are driving the growth of SD-WAN in public sector enterprises.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Convergence of SD-WAN &amp; 5G technology enabling new connectivity models</th>
</tr>
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<tbody>
<tr>
<td><strong>•</strong> Because of higher speeds and lower latency, 69% of enterprises realize the potential of 5G. About 15% of businesses have been building 5G solutions.</td>
</tr>
<tr>
<td><strong>•</strong> Convergence of SD-WAN and 5G is set to disrupt enterprise WAN connectivity as it can supplement or, in some cases, replace traditional branch network connectivity (MPLS/internet broadband). 5G links are simple and can be provisioned in branch locations quickly.</td>
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<table>
<thead>
<tr>
<th>SASE adoption gaining traction as enterprises secure cloud-based architectures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>•</strong> Rapid transition to remote/hybrid working and the need to deliver cloud-based applications to a distributed workforce, are among the reasons there has been an 85% increase in cyberattacks since March 2020. As security becomes a priority, SASE adoption is gaining prominence among enterprises.</td>
</tr>
<tr>
<td><strong>•</strong> SASE benefits include identity-based zero-trust network access, reduced TCO by eliminating additional security appliances and hardware, and enhanced workforce performance.</td>
</tr>
</tbody>
</table>
## SD-WAN adoption: The path forward

### Choose a value-driven business case for migration to SD-WAN
- Businesses should choose SD-WAN to lay a foundation for business sustainability and transformation. Creating a structured business case should be the first step in an enterprise SD-WAN migration journey.
- SD-WAN solutions meet the challenges and address the growing need for cloud-based applications. As software-as-a-service (SaaS) applications are designed to be much nimbler and have more efficient consumption methods, they need a modern internet-centric network solution, SD-WAN, to truly shine.

### Carefully evaluate SD-WAN platforms and managed services providers
- With numerous SD-WAN platform vendors in the market, enterprises need to evaluate critical features such as zero-touch provisioning and application awareness before selecting the right SD-WAN platform for their businesses.
- Ability to offer end-to-end managed services, ease of deployment, and flexible pricing are the top three factors to consider when selecting a managed services provider.

### Choose the right deployment model based on cost and control trade-off
- As SD-WAN solutions vary widely in terms of their architecture and the way they interoperate with the existing infrastructure, enterprises should select the deployment model based on their needs and criteria such as reliability, optimization, security, and cost.
- Organizations can select one or more available deployment models, including do it yourself (DIY), comanaged, fully managed, and SD-WAN as a service.

### Proactively address challenges associated with SD-WAN implementation
- Like every other technology implementation, SD-WAN comes with its own set of challenges. Complex network environments, SD-WAN platform complexity, incorporation of automation, security control and compliance, and lack of expertise in designing and deploying POCs are some concerns.
- Enterprises need to proactively address these challenges to realize maximum benefits from their SD-WAN implementation.
Avasant recognizes 25 top-tier service providers offering managed SD-WAN services
Lay of the land
SD-WAN has become a key pillar of post-pandemic enterprise digital transformation

Adoption is rising, with 25% of organizations are investing and 29% of organizations are considering investing in the technology

### Key drivers

- The pandemic accelerated the use of public and private SaaS/PaaS/IaaS services.
- With the shift to remote/hybrid working, enterprises are focusing on cloud deployments of network functions and resources such as connectivity, VPNs, and security.
- Network and application performance have become key for organizations to maintain high levels of employee productivity and end-user satisfaction.
- SD-WAN solution can optimize traffic with dynamic protocols to speed up the application performance.
- Surge of network traffic on traditional WAN infrastructure is resulting in increase in operating cost for enterprise.
- SD-WAN solutions offer the flexibility to pick and mix access technologies, carriers, hardware, and other network components, to reduce cost of operation.

### Enterprise SD-WAN adoption stages

- **In place, increasing**: 15%
- **In place, no further activity**: 19%
- **Implementing**: 10%
- **Considering**: 29%
- **No activity**: 27%

Source: Avasant Research, Computer Economics Technology Trends 2021 report
Large organizations with a global presence are leading the adoption due to increasing use of cloud and digital services. 52% of large organizations have deployed SD-WAN, and 42% are implementing or expanding the use of this technology.

SD-WAN adoption and investment rates by organization size

<table>
<thead>
<tr>
<th></th>
<th>Adoption rate</th>
<th>Investment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>24%</td>
<td>19%</td>
</tr>
<tr>
<td>Midsize</td>
<td>42%</td>
<td>23%</td>
</tr>
<tr>
<td>Large</td>
<td>52%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Source: Avasant Research, Computer Economics Technology Trends 2021 report

Sample enterprise implementation examples

**MARS**
Mars collaborated with Orange Business Services to implement its Flexible SD-WAN, LAN, and security solutions to connect its more than 125K associates across 460 sites in over 80 countries.

**HANES Brands Inc**
Hanes Australasia, with 500 retail stores across five countries, collaborated with Telstra to design and implement a Cisco Meraki-managed SD-WAN solution.

**PHOENIX Pharmahandel**
PHOENIX Pharmahandel deployed SD-WAN solutions across its 152 distribution centers to enable medicines and health products to reach quickly and safely in 26 European countries.

**JENSEN HUGHES**
Jensen Hughes deployed a VMware SD-WAN solution, managed by GTT, and onboarded its sites in the US as well as remote branches in Europe, Asia, and the Middle East.

Computer Economics defines organization size based on revenue: Small ($20 million–$350 million), midsize ($350 million–$1 billion), and large (more than $1 billion)

*Indicative list of examples
Manufacturing constituted one-fifth of SD-WAN implementations during the last 12 months.

*Arrows indicate YOY increase/decrease in implementation of SD-WAN for an industry

Source: Avasant Research, Avasant SD-WAN Managed Services RadarView Survey, June–September 2021
The public sector had the highest growth in adoption followed by healthcare and life sciences and retail and CPG.

<table>
<thead>
<tr>
<th>Top three industries with highest YOY growth in SD-WAN adoption</th>
<th>Enterprise implementation example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public sector</strong>&lt;br&gt;67%&lt;br&gt;The public sector has been slow to adopt SD-WAN because of compliance and security standards.&lt;br&gt;However, increasing cloud services and IoT adoption (accelerated by the pandemic), and demand for higher bandwidth, are forcing public sector enterprises to reassess their strategies around SD-WAN adoption.</td>
<td>AT&amp;T Business implemented an SD-WAN solution with VMware devices for New Zealand Trade and Enterprise, with 700 employees in 50 locations across 30 countries, to set up a reliable and secure network infrastructure.</td>
</tr>
<tr>
<td><strong>Healthcare and life sciences</strong>&lt;br&gt;38%&lt;br&gt;The network infrastructure of healthcare and life sciences enterprises faced a lot of challenges during the pandemic because of increased delivery of remote/tele healthcare services.&lt;br&gt;These enterprises are adopting SD-WAN to achieve better network uptime and bandwidth and enhanced application performance.</td>
<td>Saber Healthcare Group, with over 120 facilities, migrated from legacy MPLS to SD-WAN by implementing a VMware VeloCloud SD-WAN solution. This significantly increased network visibility, management, and QoS.</td>
</tr>
<tr>
<td><strong>Retail and CPG</strong>&lt;br&gt;28%&lt;br&gt;Post pandemic, retail enterprises are undergoing massive digital transformation initiatives.&lt;br&gt;Adoption of SD-WAN is helping these enterprises with use cases such as setting up pop-up stores and AR/VR-enabled shopping by providing better network bandwidth and network uptime.</td>
<td>Lotte Group, with more than 50 affiliates and R&amp;D centers, implemented a Cisco SD-WAN solution to streamline IT line costs and centralize control of 17 domestic locations with greater flexibility and reliability.</td>
</tr>
</tbody>
</table>

Source: Avasant Research
Implementation of SD-WAN is driving business outcomes for enterprises

**Technology risk-reward analysis**

- **Low risk/low reward**
  - SCM
  - E-commerce
  - AI
  - Mobile applications

- **Low risk/high reward**
  - SD-WAN

- **High risk/low reward**
  - HCM
  - RPA
  - Business and data analytics

- **High risk/high reward**
  - ERP
  - CRM
  - IoT

**Key business outcomes**

- **Reduction in network OPEX and increased cost savings**
  - An American clothing and accessories retailer collaborated with HCL to migrate 2,100 sites across Canada, North America, and Mexico to Cisco Viptela SD-WAN. This resulted in a 60%–70% annual cost savings.

- **Increased network availability and enhanced application performance**
  - TATA Communications deployed managed SD-WAN with dual MPLS and internet links for a global materials solutions provider, significantly improving application performance and network performance enhancement.

- **Lower network complexity and increased agility and security**
  - Lumen implemented a managed Versa Network SD-WAN solution for a US-based transportation company with sites in 30 states. This enhanced network performance and reliability, control, and visibility of all sites.

**Sample case study**

*Indicative list of examples

**ROI success rate**: The percentage of adopters that break even or obtain positive ROI on their investment.

**Cost success rate**: The percentage of adopters that came in at or at less than budget for total cost of ownership (TCO).

The chart ranks each technology by economic experience, which is the combination of the two.

Source: Avasant Research, Computer Economics Technology Trends 2021 report
Convergence of SD-WAN and 5G is set to disrupt enterprise WAN connectivity models

About 18% of enterprises are implementing or have 5G in place, while 69% see a potential use for the technology.

Benefits of SD-WAN with 5G

**Higher data speed, lower latency, and greater bandwidth**
- 5G can cut latency in communications to as low as 1 millisecond end-to-end. It can reach an average speed up to 100bps, which is about 10x faster than its predecessor, 4G.
- 5G can support around 1M devices per square km, while 4G can support around 4K devices per square km.

**Replace/support traditional network connectivity**
- Wireless connection can supplement or, in some cases, replace traditional branch network connectivity (MPLS/internet broadband).
- Wireless connection links are simple and can be provisioned in branch locations quickly.

**Reduced operational cost and increased savings**
- With SD-WAN and 5G, enterprises can realize lower operational costs because of transport independence across different connect types and increased WAN bandwidth capacity.

Q: Please indicate your awareness and/or plans for 5G.

- In place, 3%
- Implementing, 15%
- Don’t see need, 20%
- Possible use, 69%
- Not familiar, 1%

Source: Avasant Research, Computer Economics Technology Trends 2021 report
SASE adoption is increasing as security becomes a priority for enterprises in the post-pandemic era

Due to the need to deliver cloud-based applications and resources to a distributed workforce, there has been an 85% increase in cyberattacks since March 2020. This is forcing enterprises to adopt robust zero-trust security models to secure their infrastructure.

What is Secure Access Service Edge (SASE)?

- SASE combines network and security functions with WAN capabilities and is delivered as a single cloud-delivered offering.
- Security services are integrated including firewall as a service (FWaaS), secure web gateway (SWG), cloud access security broker (CASB), and zero-trust network access (ZTNA).
- Cannot have SASE without SD-WAN, since SD-WAN is one of the components of the SASE framework.

SASE ecosystem providers

*Indicative list of examples

Source: Avasant Research

SASE key benefits

- Ensures identity-based zero-trust network access by offering flexible and consistent security and reducing network complexities.
- Reduces the total cost of ownership as SASE minimizes or, in some cases, eliminates the use of additional security appliances and hardware.
- Being a cloud-delivered offering, SASE helps enhance workforce performance and productivity, irrespective of their work locations.
Managed services providers are expanding and augmenting their SD-WAN services offerings

<table>
<thead>
<tr>
<th>Key areas</th>
<th>Sample investments by MSPs in the last 12–15 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding services and support for new SD-WAN and SASE solutions</td>
<td>In the last 12 months, BT launched managed SD-WAN services based on VMware VeloCloud and Fortinet SD-WAN solutions.</td>
</tr>
<tr>
<td>Augmenting network automation and orchestration capabilities</td>
<td>HCL continues to invest in its AI-based network automation tool, DRYICE NetBot, to perform intelligent network operations.</td>
</tr>
<tr>
<td>Developing industry-specific solutions</td>
<td>IBM integrated its Cloud Network Intelligent Control Center (CNICCC) with its MultiNetwork Intelligent SD-WAN offering to deliver network automation and orchestration capabilities.</td>
</tr>
<tr>
<td></td>
<td>AT&amp;T launched a Cisco SD-WAN solution with Federal Information Security Modernization Act (FISMA) compliance for public sector customers.</td>
</tr>
<tr>
<td></td>
<td>TCL has identified four industry cohorts (production-focused businesses, financial institutions, knowledge-based companies, and last mile enablers) to develop verticalized SD-WAN solutions.</td>
</tr>
</tbody>
</table>

~30% of the overall MSP investment budget is going toward IP and asset development in the next 12–15 months

Source: Avasant Research; Avasant SD-WAN Managed Services RadarView Survey, June–September 2021

*Indicative list of examples
The path forward
Enterprises need to prioritize business factors over technology while considering migration to SD-WAN

A structured business case is the first step in a digital-first enterprise SD-WAN migration journey.

**Build case for SD-WAN based on delivering real enterprise value**

- Showcase strategy to replace obsolete hardware and associated support systems
- Identify opportunities for revenue upsell after network transformation
- Present cost reduction analysis, including network maintenance, technical sites, and operations
- Calculate transition risks during the optimization process

**Calculate the cost of financial engineering of the SD-WAN service and long-term benefits**

- Evaluate cost for network transformation or modifying CPE
- Calculate the impact of revenue loss while decommissioning legacy networks
- Calculate cost savings across router operational expenses, firewall purchases, and WAN optimization
- Contact the potential vendor for a quote and calculate pricing based on requirements

**Evaluate managing own SD-WAN in-house or opt for managed services providers**

- Choose a DIY or managed service provider model evaluating all the TCO elements of DIY and OPEX-based services
- For DIY, consider investments in IT, resourcing, skilling, and people
- For managed services, calculate costs for additional functionality and scaling up
- Consider connectivity to cloud/SaaS services for the application ecosystem
Evaluate platform features based on needs while selecting the SD-WAN vendor

Key SD-WAN platform features to be considered:

<table>
<thead>
<tr>
<th>#</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cloud hosted as a service model</td>
</tr>
<tr>
<td>2</td>
<td>Zero-touch provisioning</td>
</tr>
<tr>
<td>3</td>
<td>Dynamic multipath optimization</td>
</tr>
<tr>
<td>4</td>
<td>Multiple connection types</td>
</tr>
<tr>
<td>5</td>
<td>Network agnostic virtual overlay</td>
</tr>
<tr>
<td>6</td>
<td>Security service function chaining</td>
</tr>
<tr>
<td>7</td>
<td>Integration to network orchestrator</td>
</tr>
<tr>
<td>8</td>
<td>Application visibility and performance monitoring</td>
</tr>
<tr>
<td>9</td>
<td>Multicast and quality of service (QoS) features</td>
</tr>
</tbody>
</table>

Top six SD-WAN platforms based on the share of deployments by MSPs in the last 12 months:

- Cisco: 35%
- Viptela: 15%
- Meraki: 14%
- VMware: 12%
- Silver Peak: 10%
- Fortinet: 9%

Source: Avasant Research, Avasant SD-WAN Managed Services RadarView Survey, June-September 2021
SD-WAN managed services provider evaluation criteria for enterprises

End-to-end service offerings followed by ease of deployment and pricing are the top criteria for enterprises.

**Typical SD-WAN vendor evaluation criteria**

**End-to-end service offerings**
- Start with preparing a clear business case
- Visibility into network underlays

**Transition/ease of deployment**
- POC and pilot deployment with test and validation programs
- Integrated process automation to ease implementation

**Pricing**
- Low-cost customer edge devices
- Savings by reducing infrastructure costs

**Geographical spread of points of presence**
- Distributed PoPs provide high performance and are secure
- Better accessibility and visibility

**Quality of managed services**
- Service availability
- Packet delivery ratio
- Transit delay

**Network Diversity**
- Better orchestration, routing, and bandwidth/availability
- Centralized policy management
- Improved transport service

Source: Avasant Research, Avasant SD-WAN Managed Services RadarView Survey, June–September 2021
Enterprises must choose the right deployment model

<table>
<thead>
<tr>
<th>Deployment Model</th>
<th>Description</th>
</tr>
</thead>
</table>
| Do it yourself/third-party integrator | - Enterprise IT or third-party integrator purchases and deploys the SD-WAN appliances  
- Enterprises retain control of procurement and design, and eliminate MSP-related costs  
- Resource-intensive, and a high level of expertise required within the enterprise |
| Comanaged                         | - Service provider/system integrator deploys and manages SD-WAN  
- Enterprises partially configure and self-manage applications and security policies  
- Appropriate SLAs for uptime & performance  
- May require customers to pay for additional functionalities |
| Fully managed                     | - MSP usually partners with an SD-WAN vendor to add SD-WAN services to its portfolio  
- Highly dependent on the responsiveness of a single MSP contract  
- Pricing is available in one-year/multiyear service  
- Helps reduce IT staff costs for the enterprises |
| SD-WAN as a Service               | - Provider usually makes SD-WAN service available on its own private network  
- Customer is responsible for managing the service, and provides flexibility to scale with a lower TCO & zero CAPEX  
- Works with applications at on-premises, cloud, & SaaS with deployment in hours or days |

SD-WAN solutions vary widely in terms of their architecture and how they interoperate with existing infrastructure.
Proactively address challenges associated with SD-WAN implementation

<table>
<thead>
<tr>
<th>Typical challenges</th>
<th>How to resolve</th>
</tr>
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<tbody>
<tr>
<td><strong>Complex environments</strong></td>
<td>• Complexity of building a next-generation WAN that includes multicloud connectivity, edge and cloud security, network and application optimization, and hybrid connectivity</td>
</tr>
<tr>
<td>• Managing multiple WAN links and existing MPLS</td>
<td></td>
</tr>
<tr>
<td>• Compatibility issues and complexity in design documentation</td>
<td>• Pilot deployment with a predefined success principle to ensure 100% alignment with customer expectations</td>
</tr>
<tr>
<td>• Standardized design templates to deliver solutions in a repeatable method</td>
<td>• Agile and accurate automated network</td>
</tr>
<tr>
<td><strong>Embedding automation</strong></td>
<td>• Incorporating automation technologies for automated provisioning, policy mirroring, topology mapping, network self-healing, and providing a single-pane window of management for centralized process of input-based auto-remediation to the deployment and operation</td>
</tr>
<tr>
<td><strong>Security control and compliance</strong></td>
<td>• Use a dedicated list of automation tools and frameworks to enable automation. Take advantage of centers of excellence (CoEs) and innovation labs</td>
</tr>
<tr>
<td>• Direct internet access for applications such as O365 is increasing the security risk level</td>
<td></td>
</tr>
<tr>
<td>• Accessing public cloud and data center applications directly via internet, it becomes pivotal for enterprises to design a tiered approach towards ensuring security</td>
<td>• Orchestrate between multiple systems and allow enterprises to automate time-consuming changes and configuration tasks and execute self-healing workflows</td>
</tr>
<tr>
<td><strong>Deploying POCs and lack of expertise</strong></td>
<td>• SD-WAN security uses elements such as IPSEC, VPN tunnel, next-generation firewalls (NGFWs), and microsegmentation of application traffic</td>
</tr>
<tr>
<td>• SD-WAN is a fast-evolving space, and not all customers have in-house experts who can design, deploy, and manage a complex environment on a global scale</td>
<td></td>
</tr>
<tr>
<td>• Most SD-WAN customers are unclear, and deployments start with a limited physical deployment (POC) to understand the actual benefits</td>
<td>• SASE model enables enterprises to have integrated security and best of security enforcement with distributed policy enforcement points</td>
</tr>
<tr>
<td><strong>Experts evaluate vendors, codesign the network, conduct POCs, build the right deployment model, design the migration strategy, and enable roll out and life cycle management</strong></td>
<td></td>
</tr>
<tr>
<td>• Tracking the procurement progress aligned with change management and actual deployment</td>
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</tr>
</tbody>
</table>

Source: Avasant Research, Avasant SD-WAN Managed Services RadarView Survey, June–September 2021
RadarView overview
Avasant’s SD-WAN Managed Services RadarView assesses service providers across three critical dimensions:

**Practice maturity**
- This dimension considers the current state of the service provider’s SD-WAN managed services practice in terms of its strategic importance to the provider, the maturity of its offerings and capabilities, and client engagements.
- The width and depth of the client base, usage of proprietary/outsourced tools and platforms, and quality of talent and execution capability are all important factors that contribute to this dimension.

**Partner ecosystem**
- This dimension typically assesses the nature of the ecosystem partnerships that the provider has entered into, the objective of the partnership (codevelopment and co-innovation), and its engagement with solution providers, startup communities, and industry associations.
- The kind of joint development programs around offerings, go-to-market approaches, and the overall depth in partnerships are all important aspects.

**Investments and innovation**
- This dimension measures the strategic direction of investments and the resultant innovations in its offerings and commercial model and how it aligns with the future direction of the industry.
- Overall strategic investments, both organic and inorganic, in capability and offering growth, technology development, human capital development, and thought leadership, along with the innovations that the service provider develops with its partners, are critical aspects.
Avasant based its analysis on several sources:

**Public disclosures**
- Publicly available information such as Securities and Exchange Commission (SEC) filings, annual reports, quarterly earnings calls, and executive interviews and statements

**Market interactions**
- Discussions with enterprise executives leading digital initiatives and influencing service provider selection and engagement

**Provider inputs**
- Inputs collected through an online survey and structured briefings in June–September 2021

Of the over 40 SD-WAN managed services providers assessed, the final 25 featured in RadarView for 2021–2022 are:

Note: Assessments for Aryaka, AT&T, BT, Cato Networks, Duetsche Telekom, GTT, Hughes, Lumen, Masergy, Microland, NTT, Telstra, Verizon, and Windstream were conducted based on public disclosures and market interactions only.
AVASANT

SD-WAN Managed Services 2021–2022
RadarView
Avasant has recognized SD-WAN managed services providers in four classifications:

**Leaders** show consistent excellence across all the key dimensions of the RadarView assessment (practice maturity, partnership ecosystem, and investments and innovation) and have had a superior impact on the market as a whole. These service providers have shown true creativity and innovation and have established trends and best practices for the industry. These service providers have proven their commitment to the industry and are recognized as thought leaders that set the standard for the rest of the industry to follow. Leaders display a superior quality of execution and a reliable depth and breadth across verticals.

**Innovators** show a penchant for reinventing concepts and avenues, changing the very nature of how things are done from the ground up. Unlike leaders, innovators have chosen to dominate in a few select areas or industries and distinguish themselves based on superior innovation. These radicals are always hungry to create pioneering advancements in the industry and are actively sought after as trailblazers redefining the rules of the game.

**Disruptors** enjoy inverting established norms and developing novel approaches that invigorate the industry. These service providers choose to have a razor-sharp focus on a few specific areas and address those at a high level of granularity and commitment, which results in tectonic shifts. While disruptors might not have the consistent depth and breadth across many verticals like leaders or the innovation capabilities of innovators, they exhibit superior capabilities in their areas of focus.

**Challengers** strive to break the mold and develop groundbreaking techniques, technologies, and methodologies on their way to establishing their unique position. While they may not have the scale as service providers in other categories, challengers are eager and nimble and use their high speed of execution to great effect as they scale heights in the industry. Challengers have a track record of delivering quality projects for their most demanding Global 2000 clients. In select areas and industries, challengers might have capabilities that match or exceed those of the service providers in other categories.
Wipro profile
Introduced Home is the New Branch solution for remote working. Focuses on AIOps and automation for network management and orchestration.

Practice overview
- Practice size: 5,000+
- Active since: 2016
- Active clients: 40+
- Externally certified resources: 1,150+
- Delivery highlights: Two CoEs in India and the US

Key IP and assets
- #WANFreedom: An end-to-end solution for SD-WAN services
- Multi Domain Orchestrator: A platform to orchestrate and manage enterprise network
- CoDNi (Cognitive Digital Network Infrastructure): A platform for application integration and deployment automation
- Insightix™ Network: A platform for consulting, assessments, and transformation

Client case studies
- For a global manufacturing company, Wipro deployed Palo Alto (CloudGenix) SD-WAN integrated with Zscalar services. At first, pilots were performed at 10 sites, with implementation extended to over 400 sites worldwide. WAN costs decreased by 40%, bandwidth availability increased by 40%, and the company gained faster troubleshooting with improved visibility.
- Wipro delivered WAN transformation and vendor consolidation using #WANFreedom for an optical and reprography manufacturing company with a complex WAN environment of about 100 vendors spanning over 40 countries. Vendor consolidation costs were cut by approximately 30%. Operations costs are expected to be reduced by 20%.
- For a consumer product company in phase 1, Wipro provided advisory services on various SD-WAN products and created a proof of concept with sample sites. In phase 2, it delivered SD-WAN as a Service with the finalized SD-WAN vendor. Operational costs decreased by approximately 30% and bandwidth availability increased by 40%.

Key partnerships
- Platform/technology partners
  - CISCO
  - VERSA
  - veloCloud
  - VMware
  - Silver Peak
  - Palo Alto
- Security partners and others
  - FORTINET
  - JUNIPER
  - Check Point
  - Zscaler

Sample clients
- A global manufacturing company
- An optical and reprography manufacturing company
- An Italian automotive manufacturer
- A consumer product company
- A financial services company
- A global pharmaceutical company
- A multinational chemical company

Industry coverage
- Aerospace & defense
- Banking
- Financial services
- Government
- Healthcare & life sciences
- High-Tech
- Insurance
- Manufacturing
- Nonprofits
- Retail & CPG
- Telecom, media & entertainment
- Travel & transportation
- Utilities & resources
Wipro: RadarView profile

### Analyst insights

#### Practice maturity

- Wipro has undergone organizational restructuring and is currently running with two Global Business Lines (GBLs): iDEAS (integrated digital, engineering and application services) and iCORE (cloud infrastructure, digital operations, risk and enterprise cyber security services). Managed SD-WAN services, which was started in 2016, is a part of the Digital Network Services group within the Cloud and Infrastructure Services (CIS) service line.
- Wipro offers SD-WAN services through its #WANFreedom offering and covers the entire value chain, including consulting, design, implementation, and managed services. It offers SD-WAN managed services based out of Cisco (Viptela and Meraki), Palo Alto-Cloud Genix, Silver Peak, and Versa Networks. Wipro offers cloud connectivity to major cloud services providers, including AWS, GCP, Microsoft Azure, IBM, and Oracle.
- Key platforms and accelerators in its portfolio include Insightix Network (for network consulting and assessment), Multi Domain Orchestrator (network orchestration and management), and CoDNi (Wipro HOLMES based platform for orchestration and can be integrated with APIs and ITSM).
- During Covid, Wipro launched the Home is the New Branch solution as a part of #WANFreedom offering to enable secure remote work for enterprises.

#### Partnership ecosystem

- Wipro has forged strategic partnerships with major OEMs across areas, including SD-WAN platform vendors (Cisco, Aruba, Silver Peak, VMware-VeloCloud, Palo Alto), security and firewall (Fortinet, Zscalar, Juniper, Blue Coat, Radware, Check Point), network orchestration and automation (HPE, Cisco), and telecom service providers (Verizon, AT&T, Telstra, BT, Vodafone, TATA Communications).
- With more than 25 years, Wipro has forged a 360-degree partnership with Cisco and leverages Cisco’s solutions and platforms across areas, including network transformation, data center, and cloud, IoT, security, 5G, UC&C. In February 2021, Wipro launched a dedicated Cisco Business Unit.
- Wipro expanded its partnership with Palo Alto Networks by adding Prisma Access to its managed SD-WAN offering to deliver managed SASE.

#### Investments and innovation

- Wipro Venture makes investments in early-to-mid stage startups such as CloudKnox, Moogsoft, Avamo, and collaborates with them to build solutions and services. It is leveraging the Moogsoft AIOps platform to enable cognitive and AI/ML-based network operations for SD-WAN.
- Wipro continues to invest in its two CoEs (Bengaluru, India and Mountain View, USA) for product development, testing, validation, and integration. It is also investing in bringing innovation in areas such as zero ops and self-healing.
- Expanding strategic partner ecosystem, developing verticalized solutions, increasing SASE propositions are some of the key focus areas for Wipro. With a strong focus on AIOps and automation, it plans to increase the percentage of work done by BOTs in SDWAN from 23% to 40% in the next 12-15 months.
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