CREATING A NEW NETWORK EDGE

THE NEXT STAGE OF THE JOURNEY TO DIGITAL TRANSFORMATION 2.0

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Becoming digital-first is mandatory to compete in today’s environment

Becoming digital-first entails making “digital” a central part of an organization’s business strategy, which requires enterprises to undertake the journey to the next phase of digital transformation: DX 2.0. This requires a radical rethinking of an organization’s business processes: how it interacts with its customers, how it drives operational excellence, how it approaches innovation, and how it decides which technologies to use as the foundation.

**THE ENTERPRISE DIGITAL TRANSFORMATION JOURNEY**

### Digital Transformation 1.0
- Mobility, big data, social media, early-stage IoT, and internet ubiquity
- One-off initiatives; recognized, but not widely adopted
- Digital incorporation
- Built on legacy architecture

### Digital Transformation 2.0
- 74% of companies with digital transformation initiatives in process
- AI, AR/VR, machine learning, advanced IoT, predictive analytics, robotics
- Digital-first
- Built on software-defined
The network architecture must change to support this transformation journey

A key part of this journey to DX 2.0 is the buildout of an advanced network based on SDN principles

This advanced network must be agile and flexible enough to allow an enterprise to host its apps and data across multiple clouds at the lowest cost and with superior performance.
The network Edge is emerging as the new nerve center of the enterprise

- The Edge is growing exponentially, multiple devices require connectivity and legacy infrastructure cannot accommodate these demands.
- The Edge enables greater reach to more customers (internal & external). Connectivity provides instant accessibility. This forces organizations to rethink and rearchitect ways to engage audiences efficiently.
- The network Edge is where enterprises have the most to gain from adopting advanced networking capabilities and undertaking this journey to DX 2.0.

**STRATEGIC IMPORTANCE OF BUSINESS EDGE**

Q. According to IDC, “The edge” denotes computing processing actions that are performed outside of the centralized IT datacenter. Please rate your agreement with the following statements:

- More devices
  - My organization is supporting far more devices, servers, and applications in remote/branch locations than ever before
  - 81%

- Complex needs of remote locations
  - My organization’s network needs to have the flexibility to address the complex business needs in local/remote/branch locations
  - 78%

- Intelligence at the core
  - In my organization, intelligence is increasingly pushed to the edge
  - 68%
Ethernet Adoption Trend: Today and in 12 months

IDC’s 2018 Enterprise Networking Advantage Survey indicates that:

- Ethernet WAN is emerging as the preferred method for WAN connectivity
- SD-WAN adoption is increasing: 57% of respondents have plans to continue using or increase SD-WAN usage over the next 12 months
- Hybrid network topology is growing at the expense of hub and spoke

Q. Please indicate your organization’s use of these access types today and over the next 12 months

- Ethernet WAN service
  - Currently use and will increase use over the next 12 months: 41%
  - Currently use and will maintain same use over the next 12 months: 40%
  - Currently use but will decrease use over the next 12 months: 11%
  - Do not currently use but plan to use over the next 12 months: 3%
  - Don’t Know: 4%

- Legacy private line (point-to-point or hub-and-spoke)
  - Currently use and will increase use over the next 12 months: 30%
  - Currently use and will maintain same use over the next 12 months: 28%
  - Currently use but will decrease use over the next 12 months: 22%
  - Do not currently use but plan to use over the next 12 months: 15%
  - Don’t Know: 1%

- IP VPN CPE-based
  - Currently use and will increase use over the next 12 months: 29%
  - Currently use and will maintain same use over the next 12 months: 31%
  - Currently use but will decrease use over the next 12 months: 13%
  - Do not currently use but plan to use over the next 12 months: 10%
  - Don’t Know: 4%

- SD-WAN
  - Currently use and will increase use over the next 12 months: 28%
  - Currently use and will maintain same use over the next 12 months: 29%
  - Currently use but will decrease use over the next 12 months: 16%
  - Do not currently use but plan to use over the next 12 months: 11%
  - Don’t Know: 4%

- IP VPN MPLS
  - Currently use and will increase use over the next 12 months: 22%
  - Currently use and will maintain same use over the next 12 months: 27%
  - Currently use but will decrease use over the next 12 months: 11%
  - Do not currently use but plan to use over the next 12 months: 20%
  - Don’t Know: 10%

n = 703 IT respondents. Source: IDC's Enterprise Networking Advantage Survey, June 2018
The Digital Journey Index

IDC created a four-level index to characterize companies based on how successfully they leverage advanced data networks (e.g. SD-WAN) to obtain a business advantage on the spectrum of DX 2.0. IDC calls organizations that are further along in this journey of adopting SDN to build such an intelligent, dynamic, flexible, and high-performance network “Disruptors” or “Disruptive Networkers.”

<table>
<thead>
<tr>
<th>Legacy</th>
<th>Aspirational</th>
<th>Disruptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of enterprises</td>
<td>15%</td>
<td>34%</td>
</tr>
<tr>
<td>Digital Maturity</td>
<td>Little to no digital strategy; approximately 48% have no digital plans</td>
<td>Completed a few digital projects and are evaluating more</td>
</tr>
<tr>
<td>SD-WAN Status</td>
<td>Learning about and evaluating SD-WAN</td>
<td>Still learning, some POCs in place, some limited use</td>
</tr>
<tr>
<td>% of enterprises that currently use SD-WAN and plan to increase use over the next 12 months</td>
<td>22%</td>
<td>16%</td>
</tr>
<tr>
<td>% of enterprises that characterize their enterprise WAN as leading edge</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>WAN technology</td>
<td>Ethernet WAN, fiber, and CPE-based VPN; increasing use of CPE-based VPN and MPLS</td>
<td>Ethernet WAN, fiber, CPE-based VPN, private lines; planning increased use of fiber and MPLS</td>
</tr>
<tr>
<td>Cloud usage</td>
<td>Little, but slowly evaluating; lacking skills and expertise</td>
<td>Moderate usage and investments</td>
</tr>
<tr>
<td>Hybrid network usage</td>
<td>Little</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Legacy organizations have not committed to DX. They are limited in their network access capabilities and WAN technologies, which in turn is limiting their ability to take advantage of cloud services.

Aspirational networkers aim to take advantage of more DX opportunities; however, there is still more work to do, including adding networking capabilities and investing in such technologies as SD-WAN.

Opportunistic organizations are committed to DX. They have made the necessary investment in networking technologies to include SD-WAN. They are investing in cloud services and hybrid networking solutions.

Disrupters are using the business goals facilitated by DX to drive networking strategy. They are heavily invested in all types of networking technologies but are moving to SD-WAN to capture the benefits of cloud services.
Efficient connectivity at the Edge enables Digital 2.0

Workers at the business edge who have always-on, intelligent, high-speed access to apps and data to support their customer interactions are more productive and drive higher customer satisfaction and higher revenue growth for the business. Companies using advanced data networks to embrace DX 2.0 gain measurable business advantages. They see a:

- 38% improvement in customer satisfaction
- 28% increase in revenue
- 26% increase in employee productivity

**BUSINESS KPIs OF COMPANIES IN DIFFERENT DX LEVELS**

**Q. Over the past two years, what has been your company’s change in percentage for business KPIs?**

- **Customer satisfaction**
  - Disrupter: 7%
  - Opportunistic: 17%
  - Aspirational: 26%
  - Legacy: 38%

- **Employee productivity**
  - Disrupter: 8%
  - Opportunistic: 12%
  - Aspirational: 18%
  - Legacy: 26%

- **Revenue growth**
  - Disrupter: 7%
  - Opportunistic: 12%
  - Aspirational: 16%
  - Legacy: 28%

Disruptive Networkers improve performance across all KPI’s

Disruptive Networkers are more satisfied with network performance attributes than other segments

Q. How satisfied are you with your organization’s network performance on these attributes?

- Simplification/ease of WAN management
- Improving the performance and deployment of applications at remote locations
- Reducing the amount of time that IT staff manages the WAN

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Disrupter</th>
<th>Opportunistic</th>
<th>Aspirational</th>
<th>Legacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simplification/ease of WAN management</td>
<td>100</td>
<td>96</td>
<td>93</td>
<td>27</td>
</tr>
<tr>
<td>Improving the performance and deployment of applications at remote locations</td>
<td>97</td>
<td>69</td>
<td>59</td>
<td>35</td>
</tr>
<tr>
<td>Reducing the amount of time that IT staff manages the WAN</td>
<td>99</td>
<td>77</td>
<td>66</td>
<td>38</td>
</tr>
</tbody>
</table>

(n = 703 IT respondents. Source: IDC’s Enterprise Networking Advantage Survey, June 2018)
Take steps to become “Digital-First”

Disruptive networkers are customer-centric, have a cloud & API-first driven mindset, and understand the need to re-architect their infrastructure to support digital transformation. This is an ongoing process and SD-WAN is just one component.

Enabling efficient connectivity at the edge empowers the enterprise to service their customers in faster, more creative ways than previous generations.

People, Process & Technology: Digital transformation requires all 3 in order for change to happen. By only focusing on 1 component (SD-WAN), enterprises risk missing the mark.
Optimize your strategy

Take a few minutes to explore where your organization sits on the Digital Journey index and receive a free customized report with recommendations for how you can optimize your strategy for better business performance.

Where are you on your digital journey?

See how you stack up to your peers, and receive a free customized report to help advance your digital-first strategy.

START SURVEY
Methodology

• The findings in this infobrief are derived directly from IDC’s May 2018 Enterprise Networking Advantage Survey, which sought to identify the quantitative business advantages can be gained by using leading-edge software-defined networking.

• For this study, IDC conducted research with 703 IT/telecom professionals, director-level and up, who had strategic insight/knowledge of their enterprise WAN and network resources, and 99 interviews with C-level respondents in a line-of-business (LOB) role. Respondents work at U.S. midsize and large companies (firms with 250+ employees) that have at least 10 locations. Respondents came from organizations that represent a mix of industries, with an emphasis on healthcare, retail, and banking.