Setting the Stage

Cisco and IDC partnered to understand the current and future market with respect to Digital Transformation (DX) adoption and network maturity. This IDC InfoBrief aims to summarize the results of this study and will help you take a forward step toward realizing your organization’s DX objectives.

Methodology

IDC surveyed 2,054 global respondents to establish current and planned levels of network readiness across five major network categories. The survey also gauged relative performance across key business metrics, pain points, and adoption of digital capabilities to provide a strong basis for peer comparisons. In addition, IDC interviewed 25 organizations to quantify how more advanced network capabilities are driving business benefits.
Executive Summary

Digital Transformation (DX) is a reality

Simply put, DX is the approach by which enterprises drive changes in their business models and ecosystems by leveraging digital competencies.

2/3rds of organizations are stuck at stage 2 of their 5-stage DX journey.

The primary obstacle to achieving greater maturity in digital transformation is technology and organizational readiness...

...including network readiness.

45% of organizations globally, plan to have a digital-ready network within 2 years.
Why a Digital-Ready Network?

Most of today’s networks were designed to provide fast, reliable connectivity but not to meet the new demands that digital transformation will inevitably make on them.

A network that is truly digital-ready is a network that can dynamically align with the ever-changing needs of the enterprise, including new business relationships, technology innovations, applications, devices, services, threats, disruptions, regulations, environmental factors, and market influence.

Where to Start?

1. Understand your organization’s digital business roadmap, and the resulting network capabilities that it will require.

2. Assess how digital-ready your network is today and where it needs to be.

3. Plan your digital network journey to align to your business needs.

Digital Network Readiness Model

- Best Effort
- Manual
- Semi-Automated
- Automated
- Self-Driving

- 1
- 2
- 3
- 4
- 5

Expect to achieve stages 4 or 5 in 2 years.
Where Are Customers On Their Digital Transformation (DX) Journey?

Digital Transformation (DX) is the approach by which enterprises drive changes in their business models and ecosystems by leveraging digital competencies.

Where are customers in their DX journeys today?

2/3 of companies are at stages 2 or 3 in their overall DX journey.

What are their challenges?

The most difficult step for organizations is moving to stage 4 – Digital Transformer.

The primary obstacle is technology and organizational readiness, including network readiness.
Organizations With More Digital-Ready Networks...

...have 2-3x the number of digital capabilities

Organizations with More Mature Networks Deploy More Digital Capabilities

Average 3.9
Stage 1: Best Effort 2.9
Stage 2: Manual 3.6
Stage 3: Semi-Automated 4.4
Stage 4: Automated 5.5
Stage 5: Self Driving 7.0

Increasing Network Maturity

n=2,054
Business Outcome Improvements by
Digital Network Readiness Stage

The 25 organizations interviewed were able to:

- Reduce the time to bring a new branch online by **52%**
- Reduce the time to market for new services by an average of **41%**
- Increase the percentage of network staff time allocated for new projects by an average of **239%**

### Business Outcome Improvements by Moving to the Next Digital Network Readiness Stage

<table>
<thead>
<tr>
<th>Agility</th>
<th>1 to 2</th>
<th>2 to 3</th>
<th>3 to 4</th>
<th>4 to 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced time to bring new branch on-line</td>
<td>26%</td>
<td>6%</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td>Reduced time to market for new products and services</td>
<td>5%</td>
<td>26%</td>
<td>40%</td>
<td>12%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Innovation</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced time keeping the lights on</td>
<td>12%</td>
<td>18%</td>
<td>22%</td>
<td>76%</td>
</tr>
<tr>
<td>Increased time for new initiatives</td>
<td>159%</td>
<td>103%</td>
<td>49%</td>
<td>61%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer experience</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased performance of critical applications</td>
<td>12%</td>
<td>9%</td>
<td>22%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Network Infrastructure Annual Savings per User by Network Readiness Stage

The 25 organizations interviewed were able to:

- Reduce WAN telecom costs by an average of 21%, saving $61 per user per year.

- Reduce their costs associated with deployment, support, and management of network systems by 30%, saving $332 per user per year.

<table>
<thead>
<tr>
<th>Network Maturity Stage</th>
<th>Reduction of WAN costs</th>
<th>Reduction of network infrastructure support staff costs</th>
<th>Reduction of network infrastructure costs</th>
<th>Cumulative savings from prior stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2</td>
<td>$242</td>
<td>$142</td>
<td>$60</td>
<td>$40</td>
</tr>
<tr>
<td>2 to 3</td>
<td>$552</td>
<td>$206</td>
<td>$85</td>
<td>$35</td>
</tr>
<tr>
<td>3 to 4</td>
<td>$935</td>
<td>$263</td>
<td>$86</td>
<td>$54</td>
</tr>
<tr>
<td>4 to 5</td>
<td>$1,297</td>
<td>$242</td>
<td>$552</td>
<td>$935</td>
</tr>
</tbody>
</table>

Organizations With More Mature Networks...

The 25 organizations interviewed are achieving benefits of over $188K per 100 users per year by advancing their digital network readiness.

**Stronger Digital Network Readiness Leads to Millions of Dollars in Benefits**

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
<th>Average Annual Benefit (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enablement of new services and applications</td>
<td>4%</td>
<td>$12.3M</td>
</tr>
<tr>
<td>New customers</td>
<td>21%</td>
<td>-</td>
</tr>
<tr>
<td>Security and risk mitigation</td>
<td>32%</td>
<td>-</td>
</tr>
<tr>
<td>Faster time to market</td>
<td>43%</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Revenue Growth</strong></td>
<td></td>
<td><strong>$12.3M</strong></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>12%</td>
<td>$3.8M</td>
</tr>
<tr>
<td>IT staff</td>
<td>41%</td>
<td>-</td>
</tr>
<tr>
<td>Security and risk mitigation (lost productivity)</td>
<td>44%</td>
<td>-</td>
</tr>
<tr>
<td>Improved business processes</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Reduced Costs</strong></td>
<td></td>
<td><strong>$3.8M</strong></td>
</tr>
</tbody>
</table>

(\% Average annual benefit per organization)

How Can You Navigate Your Digital Network Journey?

**Digital Network Readiness Model**

1. Learn more

2. Where Are Your Peers
   - **Get your network ready for digital**
     - IDC Digital Network Readiness Survey customer survey and research
     - Read Results

3. Where Are You
   - **Map your own network readiness and next steps**
     - Cisco DNA Readiness Advisor on-line self assessment
     - Take assessment

4. Get Started
   - **Plan your journey**
     - Cisco DNA Readiness Planner guided assessment and report
     - Request assessment

Source: Cisco Digital Network Architecture (DNA) Advisor Program
Why a Digital Network Readiness Model?

The evolution to a fully software-delivered architecture is a multi-faceted, multi-year journey, with multiple stakeholders.

**CIO**
- Drive network platform as an enabler (not obstacle) for digital disruption

**IT/Network Architect**
- Navigate network transformation journey aligned to business needs

**LOB**
- Ensure digital initiatives can be implemented without delay

**CISO**
- Ensure network security evolves to protect against emerging digital transformation risks
So What Does a Digital-Ready Network Entail?

Bringing disparate network trends and innovations together to support digital era needs

While also addressing the main networking concerns of IT leaders, including:

- Managing security risks
- Reducing operational complexity
- Supporting business initiatives

n = 2,054
Source: IDC’s Digital Network Readiness Survey, 2016
Where Are You On Your Digital Network Journey?

Jointly developed by Cisco and IDC, the Digital Network Readiness Model helps you identify where you are on your digital network journey.

The model covers five core network categories that drive DX success:
- Architecture
- Automation
- Security
- Service Assurance
- Analytics

Cisco Digital Network Readiness Model

1. Best Effort
3. Semi-Automated
4. Automated
5. Self-Driving

From ...
- Fragmented
- Manual
- Hardware-centric

... to
- Adaptive
- Automated
- Software-centric
How Ready is Your Network Today? And Where do You Need to Be?

The Cisco Digital Network Readiness Model aims to help your IT planners and architects assess, plan and track their journey to a network that meets the emerging needs of the digital era. Identify your current network maturity – from Best Effort to Self-Driving, across the five core network categories.

<table>
<thead>
<tr>
<th>Network Categories</th>
<th>Stage</th>
<th>Best Effort</th>
<th>Manual</th>
<th>Semi-Automated</th>
<th>Automated</th>
<th>Self-Driving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>1</td>
<td>Siloed, hardware/device-centric</td>
<td>End-to-end, hardware/device-centric</td>
<td>Hybrid-hardware/device-centric and software-centric</td>
<td>End-to-end, software-centric</td>
<td>Fully integrated, software-centric, policy-driven</td>
</tr>
<tr>
<td>Automation</td>
<td>2</td>
<td>Manual device configuration</td>
<td>Basic configuration automation</td>
<td>Controller-based per-domain automated provisioning</td>
<td>Controller-based, network-wide automated provisioning</td>
<td>Automated provisioning of devices in self-organized, self-diagnosing and dynamically updated network</td>
</tr>
<tr>
<td>Security</td>
<td>3</td>
<td>Fragmented policy and limited device detection</td>
<td>Centralized policy and basic access controls</td>
<td>Unified policy management and dynamic enforcement</td>
<td>Rapid threat containment</td>
<td>Continuous self-learning threat control</td>
</tr>
<tr>
<td>Analytics</td>
<td>5</td>
<td>Individual device visibility</td>
<td>Alarm-triggered device-level insights</td>
<td>Global centralized insights</td>
<td>Adaptive and preventive insights</td>
<td>Automated and predictive insights</td>
</tr>
</tbody>
</table>

Source: Cisco Digital Network Readiness Model
Where are other Organizations on Their Digital Network Journey?

**Planned Network Readiness**
45% of large and midsize organizations worldwide plan to achieve advanced network readiness within two years.

**Segment Readiness**
Maturity levels are comparable across mid and large-sized organizations.

**Organizations intend to make their networks more digital-ready over the next 2 years**

- **Best Effort** (1)
- **Manual** (2)
- **Semi-Automated** (3)
- **Automated** (4)
- **Self-Driving** (5)

- **63%** of global organizations are at stages 1 and 2 today
- **14%** are at stages 4 & 5 today
- **45%** Expect to achieve stages 4 or 5 in 2 years

n = 2,054
Source: IDC’s Digital Network Readiness Survey, 2016
Where are other Organizations on Their Digital Network Journey?

Globally, organizations large and small are making their networks digital ready, fast. 

3x growth in digital readiness over next 2 years.

- 45% of respondents worldwide are at stages 1 and 2 today.
- 49% expect to achieve stages 4 or 5 in 2 years.
- 46% in APJ, 49% in EMEA, 36% in Latin America, 43% in NA.
- 14% in APJ, 11% in EMEA, 13% in Latin America, 17% in NA.

Source: IDC’s Digital Network Readiness Survey, 2016
Organizations’ Network Readiness Today Across 19 Subcategories

The 5 network categories depicted in the digital network readiness model are further divided into 19 subcategories.

Today, the least mature capability is cloud-ready networking and most mature is network-related regulatory compliance.

<table>
<thead>
<tr>
<th>Network Category</th>
<th>% of Organizations Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Architecture Approach</td>
<td>20</td>
</tr>
<tr>
<td>Cloud-Ready Networking</td>
<td>16</td>
</tr>
<tr>
<td>Network Virtualization</td>
<td>20</td>
</tr>
<tr>
<td>Network Life Cycle Management</td>
<td>22</td>
</tr>
<tr>
<td>Network-Related Regulatory Compliance</td>
<td>28</td>
</tr>
<tr>
<td>Network-Enabled Service Assurance Approach</td>
<td>20</td>
</tr>
<tr>
<td>LAN/WLAN (Access) Performance</td>
<td>21</td>
</tr>
<tr>
<td>WAN Performance</td>
<td>22</td>
</tr>
<tr>
<td>IoT Application Assurance</td>
<td>20</td>
</tr>
<tr>
<td>IT / Network Operational Insights</td>
<td>19</td>
</tr>
<tr>
<td>Platform For Customer Insights</td>
<td>21</td>
</tr>
<tr>
<td>Platform For Workforce and Business Insights</td>
<td>18</td>
</tr>
<tr>
<td>Network Visibility and Threat Detection</td>
<td>23</td>
</tr>
<tr>
<td>Network Policy and Enforcement</td>
<td>21</td>
</tr>
<tr>
<td>Secure Public Cloud Access</td>
<td>22</td>
</tr>
<tr>
<td>Secure Mobile Access</td>
<td>19</td>
</tr>
<tr>
<td>Programmable Network Devices</td>
<td>18</td>
</tr>
<tr>
<td>Network Automation</td>
<td>22</td>
</tr>
<tr>
<td>Day 2 Programmability</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: IDC’s Digital Network Readiness Survey, 2016
n=2054 for all but Q7, 17, 18, 19 (n=512) and Q13 (n=1291)
Navigate Your Own Digital Network Journey

Learn more about how Cisco Digital Network Architecture (DNA) can help you. www.cisco.com/go/dna