GLOBAL MACRO TRENDS

Solving Digital Transformation Challenges
INTRODUCTION

Macro Trends Are Prioritizing the Need for Interconnection

The Global Interconnection Index (GXI) shows how the convergence of key global trends and COVID-19 are creating unforeseen pressures on an organization's ability to digitally transform.

The collective influence of these trends, along with external forces like COVID-19, are creating significant challenges to efficiency, scalability and security. These challenges can only be met by creating a digital foundation that is fundamental to transformation—one that leverages digital interconnection on a secure, agile global business platform. The following pages dive into the key challenges of these trends, requirements for their resolution and the value derived from that solution.

Macro Trends

1. Digital Business
2. Urbanization
3. Cybersecurity
4. Data Volumes and Compliance
5. Business Ecosystems
MACRO TREND 1
Digital Business
Growth Is Driving the Need for Network Optimization

70% of new value created over the next decade will be based on digitally enabled business models

Challenge
As organizations transform their traditional lines of business, they are being asked to reduce costs and become more efficient while accelerating the development of new insights.

Need
Transform the network architecture while distributing digital infrastructure in strategic locations to support local interconnection between user services, data, clouds and ecosystem partners. This drives a need for network optimization and scaling across regions.

Business Results
60% reduction in transport costs, 30% reduction in latency and 10x increase in interconnection bandwidth.

MACRO TREND 2

Urbanization
Expansion Is Driving the Need for Hybrid Multicloud Transformation

By 2030, urban areas are projected to house 60% of people globally, and the number of cities with populations between 1 and 5 million will grow to nearly 600.

Challenge
Urbanization is driving an increase in population centers needing digital engagement; however, a recent trend has been migration out of cities due to COVID-19. This is causing an expansion in the overall digital edge, which has broadened to more markets as people spread out.

Need
Deploy on a globally consistent, scalable digital platform to enhance local interaction. This drives a need for hybrid multicloud transformation across regions.

Business Results
70% reduction in connectivity costs to clouds, greater connectivity choice and reduced complexity.2

MACRO TREND 3

Cybersecurity

Threats Are Driving the Need for Global Distributed Security

DDoS attacks have grown more than 270% year over year while 30% of companies are being challenged by thousands of insecure devices connecting daily without IT oversight.

Challenge

As COVID-19 transforms business and increases digital demands, organizations have found centralized, HQ-based security models cannot adapt to new threats at the rate and scale required, forcing a need for distributed models.

Need

Develop best practices to distribute security controls and infrastructure at digital exchanges. Establish consistent governance across users, resources and data exchanges. This drives a need for global distributed security via interconnection.

Business Results

Policy governance, reduction in audit costs and increased capacity across distributed presence.

### MACRO TREND 4

#### Data Volumes and Compliance

Growing Complexity Is Driving the Need for Distributed Data

While data is growing at a compound rate, less than 3% of that data currently created is being analyzed for enterprise intelligence.

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Need</th>
<th>Business Results</th>
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<tbody>
<tr>
<td>Demand for local data analysis and data exchange to support digital workflows is outpacing organizations’ ability to classify, secure, transport and process data across regions.</td>
<td>Meet requirements for edge computing, cloud analytics and exchange across data marketplaces as well as AI/ML (machine learning) ecosystems with a data model based on interconnection. This drives a need for distributed data for compliance and new strategic value.</td>
<td>Reduction in data transport, localized processing and IOPS (input/output operations per second) costs for cloud adjacent solutions, with increased data insights.</td>
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MACRO TREND 5

Business Ecosystems

Connectivity Is Driving the Need for Application Exchange

By 2025, 80% of digital leaders will see the positive impact of connecting to multiple ecosystems, including improving their value to end customers.

Challenge
Maintaining end customer value and relevance with inflexible ecosystem models and inefficient connectivity greatly limits growth, innovation and the generation of new value.

Need
Access an agile digital infrastructure platform providing the highest density of secure connections and the richest global ecosystems. This drives a need for application exchange in digital ecosystems to support real-time engagement.

Business Results
On-demand, low-latency connectivity to enhance digital engagement and dynamically drive new value.

The Five Stages Digital Leaders Follow to Create a Competitive Advantage

As macro trends converge, companies can leverage interconnection to address their needs and solve IT challenges.

- **Network Optimization**
  - Network Hub
  - Transform WAN architecture by removing the distance through an initial hub deployment. Expand capabilities to the edge and optimize last-mile connectivity.

- **Hybrid Multicloud**
  - Network and Cloud Hub
  - Connect to multiple clouds in strategic locations with high concentrations of cloud and network providers and establish a second hub for business continuity. Scale capability across regions.

- **Distributed Security**
  - Network, Cloud and Security Hub
  - Distribute secure infrastructure and edge services to support DDoS/WAF, CASB, SASE and other capabilities across hubs. Secure digital interaction locally.

- **Distributed Data**
  - Network, Cloud, Security and Data Hub
  - Deploy edge computing to support AI and machine learning solutions for local analytics of large pools of data. Establish cloud adjacent data infrastructure to leverage cloud analytics and ecosystem exchange.

- **Application Exchange**
  - Network, Cloud, Security, Data and Exchange Hub
  - Build out digital infrastructure at strategic exchange points for real-time participation in data marketplaces, industry exchanges and B2B real-time processing.
Position Your Business for Whatever Is Next

Looking to create a competitive advantage? Here's how to get there.

Learn More

451 Research - Strategies for Next-Gen Architecture

Next Steps

GXI Vol. 4 Forecast and Data