# Hyper-Connected Bare Metal Infrastructure Enables Innovative Agile Digital Capabilities

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# Accelerating Enterprise Digital Resiliency Through Network Agility

For an organization to execute digital transformation successfully and become what IDC calls a "Future Enterprise," it must create a modern, hybrid network focused on interconnections to multiple cloud providers and service providers.

**Over the last few years enterprises have prioritized digital transformation, but today, most have accelerated to maintaining digital infrastructure resiliency to create competitive advantage by embracing the following:**

✓ **Digital resiliency:** According to the IDC Digital Infrastructure Resiliency Index*, digital leaders consistently achieve higher levels of business outcomes in comparison to digital laggards. This means that digital leaders — those organizations that use digital technologies and new business to aggressively disrupt their industries — are effectively able to maintain operations and high service levels when confronted with unexpected disruptive events, shifting consumption trends, cybersecurity threats or natural disasters.

✓ **Building agility:** Organizations are now developing comprehensive digital strategies to ensure they can dynamically respond to future business landscape changes and evolving requirements.

✓ **Rethinking innovation:** A scalable hybrid infrastructure is key to ensuring networks can quickly support increasing demands and changing business goals. Hybrid and multicloud connectivity, software-defined interconnection, and network functions virtualization-based (NFV) automation and orchestration are providing organizations with highly sought after agility and flexibility.

**Connectivity is the key foundational enabler of digital initiatives and has never been more critical.**



*The index reflects the results of a weighted analysis of a set of eight predictive assessment questions that IDC's research has shown are strongly associated with positive business outcomes associated with a robust digital infrastructure architecture and operating model spanning datacenter, public cloud, and edge platforms and services. The index identifies four levels of digital infrastructure resiliency.

# Dynamic Connectivity: A Key Strategic Requirement for Digital Enterprises

## Flexible Interconnection Is a Key Strategic Requirement for Enterprise Digital Transformation

The Future of Connectedness is the **timely movement of data across networks** to create seamless digital experiences for people, things, applications, and processes.

Interconnection is the backbone of the digital economy, and a central tenet of the modern digital enterprise. It allows leaders to:

▶ Overcome a complex, fragmented infrastructure that spans private and public environments

▶ Place infrastructure in strategic locations to enable the most secure and seamless movement of workloads

▶ Access essential digital and business ecosystems in near-real time

▶ Simplify with software-defined, edge-to-cloud automated implementation and management

Achieving interconnection means an organization must re-architect to deliver the best connection for each business location requirement and create an application-centric network which supports the best low-latency end-user experience for each application.
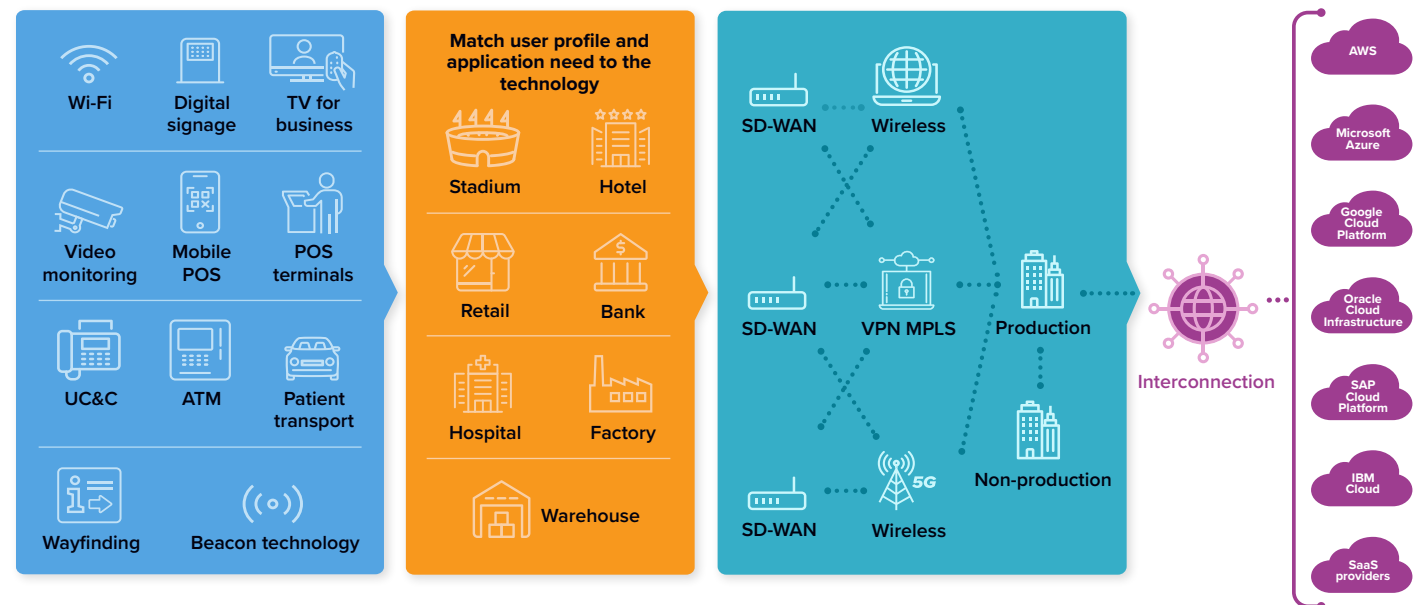


**Private and multicloud connectivity is now part of the traditional network core:** 47% of CIOs reported they will increase investments in cloud connect and interconnection services during 2023. Approximately 32% of CIOs will focus resources on primary cloud and 40% will spend resources on a multicloud model to share more data and insights. Applications and/or operations with partners, for an SAP installation, will continue to be a top priority during 2023 and 2024.

Source: IDC's *Future Enterprise Resiliency & Spending Survey*, February 2021

# A Seamless Orchestrated Approach Between the Edge and Core Digital Infrastructure

Traditional hub-and-spoke architectures built on legacy networking topologies require significant changes to meet current and future networking requirements. Routing traffic away from the edge when the destination is not the corporate datacenter creates unnecessary latency. Companies are orienting around a distributed approach to digital infrastructure to access cloud platforms from strategic locations for interconnecting to SaaS, network, and cloud service providers around the globe.

**To compete, enterprises need digital infrastructure that:**

- ✓ Is on-demand and present in all locations where interconnection and data transfer is a priority

- ✓ Enables agile access to IT services and connections to ecosystem/vertically aligned partners

- ✓ Is easily consumed through portals and APIs that can adapt at the speed of software

- ✓ Optimizes budget and spend requirements through opex consumption models

**TRADITIONAL HUB-AND-SPOKE ARCHITECTURE**
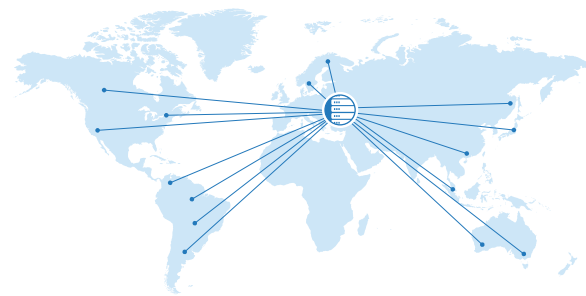
**REGIONAL HUBS LEVERAGING INTERCONNECTION TO LEADING NETWORK AND CLOUD SERVICE PROVIDERS**
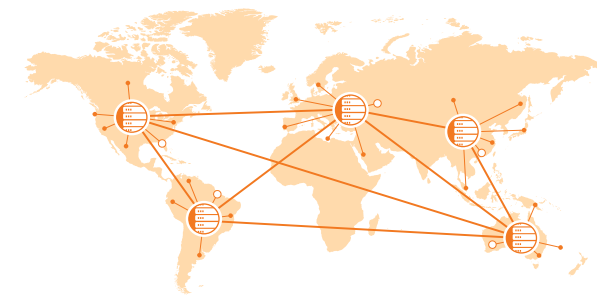
> To become increasingly adaptable and resilient, companies are turning to interconnection-dense, edge datacenter providers to create regional hubs in markets where business-critical data intersects to drive their digital transformation initiatives forward. Leveraging edge capabilities, and bare metal assets from resources from a global digital infrastructure company like Equinix provides enterprises with agility and speed in provisioning new sites. This saves users the time and capital expenditure to stand up new distributed sites.

# The Benefits of a Multicloud Network Using Distributed Digital Infrastructure

Using distributed digital infrastructure has far-reaching business benefits, including better resource utilization, improved adaptability, and flexibility to use best-in-class platforms.

**LIMITATIONS BEFORE** undertaking a hybrid, distributed approach:

▶ A one-size-fits-all model to architecture

▶ Not utilizing on-demand solutions

▶ Heavy dependence on legacy in-house IT infrastructure

▶ Extended technology implementation and ROI timeline

▶ Siloed, project-focused digital transformation

**ADVANTAGES AFTER** creating a multicloud network with global digital infrastructure:

▶ Automated policy-based networking supporting distributed workloads

▶ On-demand, high availability and scalable capabilities

▶ Software-defined low code optimization to simplify management

▶ Flexible and agile options for business continuity to alternate platforms

# The Network Modernization Journey

**Organizations focused on creating interconnections using distributed digital infrastructure can follow these transformational steps:**

**1**

**Optimize the network**

▶ Right-size network investments to create on-demand, scalable network connectivity

▶ Use software-defined networking

▶ Implement network orchestration

▶ Use network traffic prioritization

**2**

**Deploy interconnected digital infrastructure**

Interconnections should be driven by a software-defined architecture to facilitate real-time collaboration across the IT ecosystem to optimize operations and enhance business agility and business outcomes.

▶ Utilize colocated network hubs.

▶ Leverage AI capabilities to optimize cloud operations, data analytics, and security and compliance strategies.

▶ Implement endpoint security management.

**3**

**Leverage available ecosystems**

Interconnect with:

▶ Network service providers

▶ Cloud service providers

▶ IT infrastructure providers

▶ Business partners

**4**

**Leverage available ecosystem marketplaces**

▶ Gain proximity to relevant business communities and marketplaces.

▶ Seize new opportunities in the digital value chain.

▶ Leverage ecosystems of providers, SaaS and B2B partners for new capabilities and digital services.

▶ Access industry-specific, API-based applications supporting collaboration, innovation and business agility.

**An agile, flexible approach to the network makes changes and operations manageable, scalable, and predictable while reducing costs. Organizations can capitalize on their digital transformation investments and see top-line benefits.**

# Considering AT&T & Equinix Metal

- ✓ **Designed to lower latency to and from users on the digital edge:** bare metal to cloud, bare metal to colocation, and bare metal to internet.

- ✓ **Intended for organizations seeking to expand their global reach** with a unified cloud and edge strategy without disrupting their business.

### Accelerated Deployment:
Equinix Metal is adjacent to cloud on-ramps and offers additional access to the AT&T network from Equinix IBX datacenters, with direct connections to AT&T WAN services and prebuilt AT&T Ethernet. A full end-to-end deployment can be up and running in an hour.

### Secure Dedicated Infrastructure:
Offers 100% dedicated single-tenancy to isolate sensitive workloads and access hardware-level security protocols.

### Access to the AT&T/Equinix Partner Ecosystem:
Intended to allow companies to discover and reach anyone on demand — cloud, sellers, partners, vendors, customers, and employees — through one connection.

### Navigating Challenges:
▶ Providers must offer timely provision of servers.

▶ Can be complicated to set up and configure resource updates.

▶ Most appropriate for use cases requiring latency-sensitive and demanding processing requirements. Otherwise, resources may be underutilized.

# Application Optimization, Leveraging Bare Metal, and Containerization Are Important to Enterprises

✓ According to IDC, **80% of enterprise CIOs will spend the same or more on IT investments** during 2024 compared with 2023.

✓ **Security, application optimization, and investment in AI technologies** are top areas that will be immune to budget cuts during 2024.

✓ Digital enterprises that **work with AT&T and Equinix Metal** may see the following benefits:

▶ Flexible security and cloud orchestration for multicloud networking at scale through AT&T's Software-Defined Network

▶ A strong suite of policy and process automation, along with seamless consolidated management and monitoring

▶ The ability to leverage API integration and infrastructure as code for automation and efficient management of application functions

▶ Potential savings on internet-based cloud egress of up to 75% through AT&T Fiber access and Equinix hybrid cloud integrations

▶ Inherent security of a private network to meet data sovereignty requirements and to reduce exposure of sensitive data

▶ Global digital infrastructure with a presence in 64 metros across 32 countries

▶ 250+ datacenters, access to diverse interconnection capabilities, and a suite of digital services

# About the Analyst

**Courtney Munroe**
Research Vice President,
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Courtney Munroe is responsible for supporting IDC's continuous research on global telecommunications trends . His core research includes the evolution of WAN networking to software-defined hybrid WAN, and the impact of digital transformation on the WAN architecture. His research focus also includes consumer and enterprise networking requirements and analysis of the communications service provider strategies as they transform to implement new business models .

**More about Courtney Munroe**

# Message from the Sponsor



**Expand your reach with
Agile Secure Bare Metal infrastructure**

✓ AT&T & Equinix Metal offer class-leading communications solutions on the most interconnected global datacenter platform.

✓ AT&T and Equinix Metal deliver global, secure, interconnected, integrated, and on-demand infrastructure where and when it's needed. As part of Platform Equinix, digital businesses can deploy new services faster with hybrid public and private cloud infrastructure.

✓ Most importantly, Equinix Metal is ready to deploy in minutes, not months. No forced virtualization and no multitenancy means enhanced security. Available in 24+ global locations.
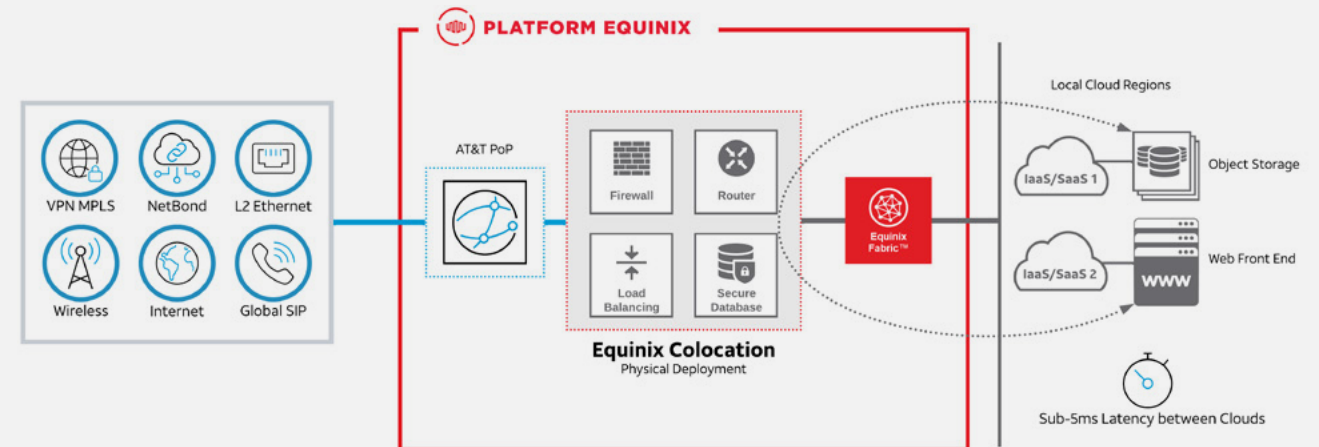
**Contact us to learn more about Equinix Metal
with Monitoring and Reporting by AT&T**

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