



EQUINIX

WHERE OPPORTUNITY CONNECTS

LEVERAGE THE DIGITAL EDGE
SOLVING CRITICAL
DIGITAL BUSINESS
CHALLENGES THROUGH
INTERCONNECTION

AN EXECUTIVE STRATEGY GUIDE



Abstract 3

Achieving digital business agility 4

Today’s interconnected world 5

Interconnection Oriented Architecture™ 6

The IOA™ digital strategy 7

Do it with Platform Equinix® 8

ABSTRACT

This white paper seeks to educate business leadership on the rapid emergence and impacts of digital disruption and the importance of re-architecting IT infrastructure in response. The paper describes exciting new collaboration and business models and how to leverage digital ecosystems on a global platform for digital business. It explains how an Interconnection Oriented Architecture™ (IOA™) empowers businesses to react in real time and adapt quickly to change, creating new value and growth opportunities.

If you're like most companies today, you're scrambling to adapt to a seismic shift in the way business is conducted. One of the most obvious signs of this is in the way your customers and partners now want to engage with you. Today's customers and associates no longer wish to visit branches or reach businesses via a phone call, and they're definitely not interested in sending letters through the postal service. They want to communicate via modern digital channels—mobile, chat, social and intelligent products. Nearly every enterprise understands this and is adapting to the new digital landscape, but many feel they aren't moving fast enough or going far enough, and for the most part, they're right.

That's because this metamorphosis is about more than the technologies themselves. What's really impactful is the pace at which customers are shifting to these technologies and the range and scope of the new expectations they're generating. Trading complicated silos for interactive systems of digital services is creating an environment of connectedness, linking people, processes, data and things in entirely new ways. The resulting network effects, as they're called, are in turn catalyzing exciting new business models, and even unbundling entire industries.¹ In fact, new digital business models are the main reason why more than half of the companies on the Fortune 500 list have disappeared since the year 2000.²

The stakes are indisputably high. Yet, in an astounding 45% of companies, digital disruption is not considered a board-level concern.³ Further, 43% either don't acknowledge the risk or feel they haven't sufficiently addressed it. But, while the threat is very real, so is the opportunity. Companies that have successfully re-architected their infrastructures to take advantage of today's data-driven, IoT-enabled, multi/hybrid cloud world are significantly outperforming their peers on just about all financial measures.⁴

Architects: Learn how to re-architect for the digital edge. Visit the IOA Playbook.



1. New Paths to Customer Value: Disruptive Business Models in the Digital Vortex, Global Center for Digital Business Transformation, November 2015.

2. Pierre Nanterme, CEO, Accenture (<https://www.weforum.org/agenda/2016/01/digital-disruption-has-only-just-begun/>)

3. Digital Vortex: How Digital Disruption is Redefining Industries, by Bradley, Loucks, Macaulay, Noronha, and Wade, Global Center for Digital Business Transformation, June 2015.

4. The Digital Advantage: How digital leaders outperform their peers in every industry, Capgemini Consulting (https://www.capgemini.com/resource-file-access/resource/pdf/The_Digital_Advantage_How_Digital_Leaders_Outperform_their_Peers_in_Every_Industry.pdf)

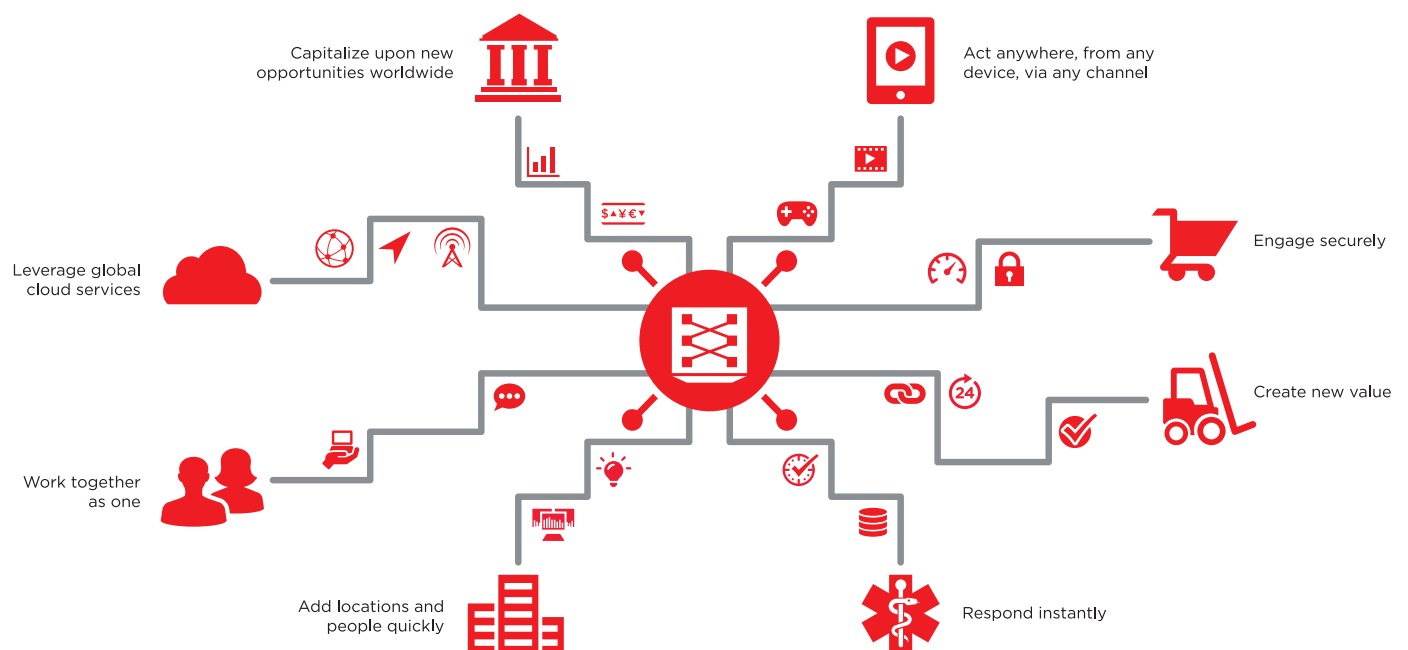
ACHIEVING DIGITAL BUSINESS AGILITY

Enterprise customers who have addressed transformation are doing something radically different—something that lets them quickly dominate if not eviscerate the markets they're in. What's their secret? These enterprises are closely observing platform businesses like Airbnb, Amazon and Facebook. They're learning from this model and seeing how it can be applied to their own situations. Enterprises that have created platforms within their business—like GE's Predix, for example—are essentially mimicking the two-sided markets of platform businesses, whereby two distinct user groups provide each other with beneficial network effects. These interconnection approaches to networking people, organizations and resources in ecosystems generate enormous value.

In fact, it's these ecosystems of users that signify market dominance. Savvy businesses are building digital platforms that will enable them to join a digital economy based on computing technologies that leverage collaboration to dramatically reduce the production cost of their goods and services.⁵ The result is the emergence of a zero marginal cost economy, in which the cost of a product can be divided into two parts.⁶ Creating these (now essential) platforms requires a robust technological infrastructure that makes possible new modalities of work: those that are virtual, social and able to spawn transformative interactions.

While these exchanges may eventually occur in a multicloud environment (on the internet), for the foreseeable future, a hybrid IT approach is both more sensible and more realistic. The goal is to establish a distributed infrastructure that allows you to bridge a pure cloud world with a physical data center. Success requires a phased approach, and a hybrid platform can help you bridge that gap. Adding a platform model to your business can certainly create new economic angles for the business, but more important is understanding how digital disruptors are attacking incumbents and how you can respond, by shifting to a hybrid platform that will allow you to collaborate globally with customers, partners and employees—thereby disrupting others.

More interconnection equals greater competitive advantage



5. <https://thenextweb.com/entrepreneur/2014/09/06/end-ownership-zero-marginal-cost-economy/>

6. <https://thenextweb.com/entrepreneur/2014/09/06/end-ownership-zero-marginal-cost-economy/>

TODAY'S INTERCONNECTED WORLD

Traditional IT has gotten a bit beat up in recent times, straining to remain adept and relevant in the digital era. The good news is, traditional IT, with some clear adjustments in process and implementation, can rise again to prominence in the business, beginning with greatly improving internal customer satisfaction. In fact, enterprise IT professionals have crucial resources that can be repurposed to create a digital transformation platform. These include “hard assets, brands, global distribution, customer relationships, data and decades of institutional know-how.”⁷ The question for organizations that want to take the leap isn't when to transform. **It's how.**

Until recently, the path to digital transformation was relatively murky. Even the definition has been incredibly inconsistent, ranging from “going paperless” to “the application of digital technology in all aspects of human society.”⁸ Incumbents that wanted to embark on such a journey were typically asked to choose which parts of the value chain they wanted to transform, from the business model to the structure, people, processes, IT capabilities and offerings, to the engagement model.⁹

Not only is there no longer any time for a piecemeal approach like this, but more importantly—there's no need. Now there's an easier and far more intuitive way to achieve digital business agility. Modern digital businesses leverage a mix of traditional on-premises applications and new SaaS and mobile apps that leverage public cloud platforms for immediate scale and global flexibility. In other words, there's no need to walk away from your long-standing on-premises assets. It's more sensible to leverage a platform-neutral networking architecture that allows you to place services and controls closer to customers, employees, partners and ecosystems, and easily blend new and existing resources to empower the new experiences you bring to market.





To compete as digital businesses, organizations must understand and re-architect IT for a digital edge, placing strategic control points where users, clouds, networks and digital ecosystems meet. It's in these regional nodes that you can directly and securely interconnect ecosystem partners or users doing business, analyzing data and engaging with customers, partners and other entities—all in real time.

Build your digital edge alongside the largest industry ecosystems on Platform Equinix, the global platform for digital business. It's an interconnection-first approach to architecting your digital platform, and its industry best practices are known as an Interconnection Oriented Architecture (IOA) strategy. An evolution of the model IT already knows and is skilled to manage, IOA prescribes: shortening the distance between users

and services, interconnecting ecosystems for localized exchanges and strategically placing analytics adjacent to form a distributed digital edge.

An IOA approach helps organizations provide fast, high-throughput, low-latency connectivity by simplifying network topologies—pushing centralized, point-to-point extensions out via a distributed model at the digital edge. It allows businesses to seamlessly deliver applications and enhanced services to users, partners and providers via increasing points of engagement across an increasingly distributed coverage area.

Four steps to building a digital platform

- **1 NETWORK: Simplify the Topology**
Localize traffic via communication hubs
- **2 SECURITY: Create Security Guardrails**
Overlay a mesh of distributed security services
- **3 DATA: Establish a Data Fabric**
Deploy tiered storage and data sets adjacent
- **4 APPLICATIONS: Integrate via Intersection Points**
Overlay distributed integration services

7. World Economic Forum White Paper Digital Transformation of Industries: In collaboration with Accenture, Digital Enterprise, January 2016.

8. Digital Business Transformation: A Conceptual Framework, Global Center for Digital Business Transformation, June 2015.

9. Digital Business Transformation: A Conceptual Framework, by Michael Wade, Global Center for Digital Business Transformation (an IMD and Cisco initiative), June 2015.

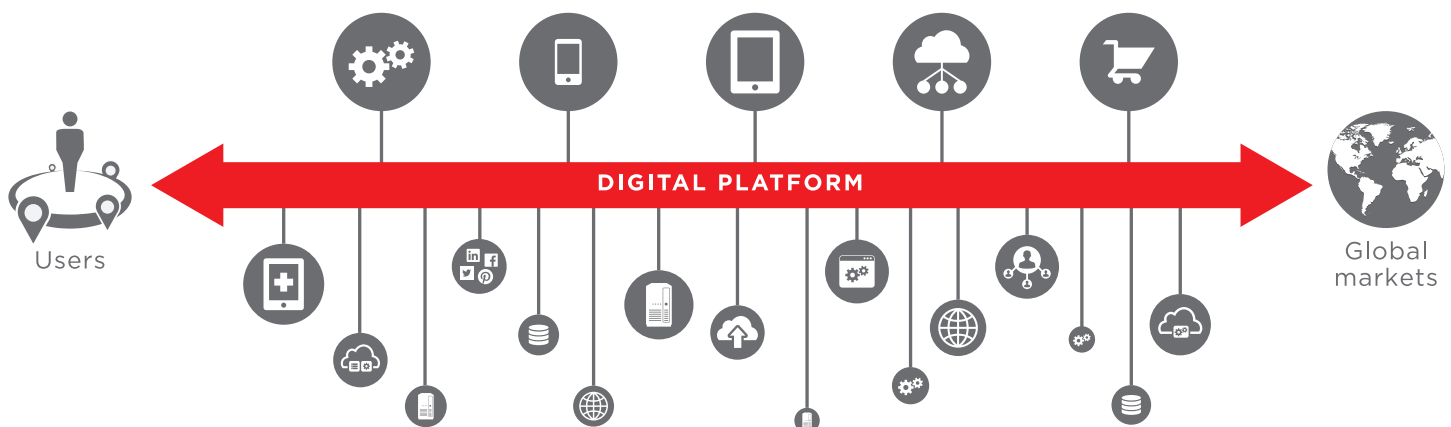
INTERCONNECTION ORIENTED ARCHITECTURE

An IOA is a proven architectural framework that businesses can use to build an interconnected enterprise—directly and securely connecting people, locations, clouds and data. By shifting your fundamental IT delivery architecture from siloed and centralized to interconnected and distributed, an IOA framework enables the following business benefits:

- **Speed:** Cut establishment of connections from months to hours by architecting for connections across users, carriers and clouds
- **Scalability:** Support more connections and workloads across more global locations, while lowering unit costs
- **Performance:** Create superior, differentiated customer experiences and improve employee productivity by optimizing network topology
- **Choice:** Mix and match connectivity models to fit changing consumption and service needs
- **Security:** Bypass the public internet and place security services closer to users
- **Innovation:** Capture new revenue opportunities using real-time analytics across your network, and rapidly assemble new business and technology capabilities irrespective of existing network paradigms

How does it work?

An IOA strategy essentially flips IT architecture, putting the focus on where the action is—at the edge, where businesses interact with thriving ecosystems. It simplifies topology, reducing complexity and interconnecting analytics, IoT, digital payments and other digital services. It also boosts security without sacrificing accessibility. Finally, an IOA framework deploys a hybrid footprint, moving you away from the paradigm of the centralized data center. This allows you to leverage APIs to create interactive workloads at the digital edge, resulting in engaging and potentially valuable commerce and collaboration models.



Leverage IOA to deliver a digital platform and enable global business capabilities

THE IOA DIGITAL STRATEGY

Business benefits of IOA

Customers experience real cost savings and business benefits from an IOA strategy. A direct connection to network service providers dramatically reduces bandwidth costs, network incidents and outages. It also reduces labor costs associated with troubleshooting such issues and lets you quickly provision resources on a reliable and proven platform, saving considerable development time. A secure and direct connection to cloud providers means you can pursue your cloud strategy more effectively, eliminating costs related to deploying applications. Finally, migrating applications to multiple clouds reduces data center costs and eliminates the need for future data center expansion.

More profound than these benefits, however, is the access to new opportunities that interconnection makes possible. When data can travel unencumbered—with little to no risk of congestion, delay, loss, damage or prohibitive cost—rich, new ecosystems and interconnections can evolve. These in turn can give rise to creative and lucrative business models never before imagined.

“With Equinix and their facilities, many of the service providers and partners that my company needs to do business with are already there. So by investing to build and connect my enterprise into an Equinix facility, I immediately unlock the opportunity for my business to directly connect to a number of services.”
— VP of Data Center, Network, Storage Services

Putting IT back in control

The first step toward reaping the rewards of a digital economy is building a digital edge and adopting a digital platform that gives you the tools you need to design, deploy and tailor an IOA framework. Doing so allows you to enable business model innovation by:

- Directly and securely interconnecting your communications, ecosystems and data, enabling control and transparency across globally connected data centers and provider-neutral marketplaces
- Disintermediating legacy networking and IT deployments, strategically rewiring one node at a time
- Benefiting from multiple connectivity options, exchanges and cloud capabilities
- Combining the right networks, clouds and IT services with the right applications and workloads for the best user experience
- Deploying closer to high-density traffic, and closer to your users, for better customer experience and performance
- Connecting to everyone who matters, via a single marketplace
- Adapting in real time, speeding growth and increasing value to customers
- Creating new interconnection and data models with a digital platform that removes traditional architectural constraints to optimize connectivity, leverage ecosystems and put IT back in control

DO IT WITH PLATFORM EQUINIX

At Equinix, we have the financial muscle, commitment to scale and network, and ecosystem density to help enterprises achieve digital fluency and begin to release trapped value. We combine technology, interconnection, critical-mass communities and industry expertise to form Platform Equinix, the global platform for digital business that facilitates the speed, global scale and security needed for business in the digital era. Build your digital edge alongside the largest industry ecosystems on Platform Equinix to reach everywhere, interconnect everyone and integrate everything.

Equinix is home to thousands of companies in dozens of industries that come to us for the power of interconnection. We curate vital ecosystems that enable new and exciting ways of doing business and unlocking value including:

- Access to 1,700+ networks and 2,900+ cloud/IT service providers (including Cisco, Amazon Web Services, Microsoft Azure/Office 365, Google Cloud Platform, IBM SoftLayer, Oracle Cloud and VMware vCloud Air)
- With 270,000+ connections between our customers, we are the world's leading global interconnection platform
- Local capacity in 200+ locations in 52 metro cities in 24 countries, all interconnected through the world's largest internet exchanges—lowering the barrier to foreign markets and regional services



REACH EVERYWHERE

Deploy digital infrastructure anywhere you need to be

COVERAGE
Scale across 24 countries and 52 metros

RELIABILITY
Depend on 99.9999% availability

SERVICE EXCELLENCE
Rely on globally standardized, high-quality operations and support



INTERCONNECT EVERYONE

Discover and reach anyone on demand, through one connection to the world

ECOSYSTEMS
Access the largest ecosystem of customers, partners and suppliers

PERFORMANCE
Create secure, direct, low-latency connections physically or virtually

DYNAMIC
Manage your connection portfolio in real time across the Equinix footprint



INTEGRATE EVERYTHING

Activate your digital edge through leading technology tools, partners and services

EXPERTISE
Use our packaged solutions of professional services to design, implement and optimize

CONTROLS
Leverage software services to secure, view and manage your hybrid environment

ENABLEMENT
Accelerate your digital business with leading technology partners at Equinix

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About Equinix

Equinix, Inc. (Nasdaq: EQIX) connects the world's leading businesses to their customers, employees and partners inside the most-interconnected data centers. In 52 markets across five continents, Equinix is where companies come together to realize new opportunities and accelerate their business, IT and cloud strategies.

In a digital economy where enterprise business models are increasingly interdependent, interconnection is essential to success. Equinix operates the only global interconnection platform, sparking new opportunities that are only possible when companies come together.