# Fast IT: Accelerating Innovation in the IoE Era

*The IT organization itself must become both a source and a facilitator of disruptive innovation — pivoting with the company as it changes business models on the fly, and responding to a dynamic world of increased complexity and new sources of value.*

## The Need for Speed: Fast IT

Today's IT organization is challenged as never before. Operational costs are rising as budgets fall. Pervasive mobility and an explosion in connected devices are supercharging complexity. And business users are bypassing IT to access cloud-based services. Further heightening CIO stress is an ever-changing landscape of new security threats.

Of course, technology is also a critical component of any organization's success. It is essential for IT organizations to change on a fundamental level if they are to help their companies innovate and seize new opportunities.

Today, IT must execute a step change in operating efficiency (costs), business enablement (agility), and security. The IT organization itself must become both a source and a facilitator of disruptive innovation — pivoting with the company as it changes business models on the fly, and responding to a dynamic world of increased complexity and new wellsprings of value. This requires a new model for IT, which we call *Fast IT.*

By implementing a Fast IT model, IT can potentially capture a 20 to 25 percent reduction in costs. These savings can be redeployed to address new capabilities, freeing IT to innovate and become a trusted partner with the lines of business to drive business outcomes. This evolution will enable more agility and speed for business transformation. And through the connection of people, process, data, and things, it will create an organization that is truly ready to compete in the Internet of Everything (IoE) economy.

## The Big Question:
## How Can IT Accelerate Innovation?

To understand the extent to which IT organizations are helping bring about the transformation required to take advantage of IoE, and which factors are holding them back, Cisco undertook a multipronged research effort. We surveyed more than 1,400 senior IT leaders, conducted in-depth interviews with IT luminaries, and leveraged our own work with customers who are implementing IoE solutions. The study revealed important insights into the changes needed to succeed in an IoE world.

### Key Challenges for the CIO

- **IoE Is Supercharging IT Complexity – and IT Challenges:** While there has always been a high level of complexity in IT, IoE is supercharging that complexity. Cloud, Big Data, and other IoE drivers create opportunities for innovation, but their added complexity can hamper it. Eighty percent of executives surveyed see IoE as a "significant" or "very significant" challenge for their organizations. **Implication:** The old way of doing things won't work in the IoE era.

- **Apps Are the Oxygen of the Business (but Can Smother IT):** The proliferation, criticality, and interdependence of applications are all dramatically increasing. Application downloads will reach 138 billion worldwide in 2014 (Gartner, 2013). Ensuring application health is an increasingly essential role for IT. One of the greatest application challenges is provisioning enterprise applications at scale – rated a 7.5 out of 10 (10 being most significant) by survey respondents. According to Cisco's Padmasree Warrior, "Infrastructure needs to serve up functionality such as policy, quality of service, traffic prioritization, and so forth. Then, it must optimize all the resources to deliver against what the application needs." **Implication:** Innovation and agility are stifled if IT is unable to deploy and manage applications efficiently.

- **Lines of Business Are Taking IT into Their Own Hands:** Research revealed that nearly half (46 percent) of total IT spending now occurs outside the confines of the corporate IT organization. Shadow IT is coming out of the shadows and cannot be ignored. Jaimie Capella of Corporate Executive Board believes that having shared responsibility for technology is a good thing for the business: "Technology is not IT's problem alone, much in the same way that talent is not solely HR's responsibility." **Implication:** IT needs to embrace the shared responsibility model and reimagine the IT–LoB partnership.

- **Service Orchestration Has Been CIOs' "White Whale":** Ninety percent of IT executives surveyed said they agreed that IT organizations should be brokers, or "orchestrators," of services, applications, experiences, and new capabilities. They also conceded that this was the number-one area where they were falling short. **Implication:** IT leaders understand the need to take on the service orchestrator role – but costly, unwieldy, inadequately secured infrastructure is holding them back.

IT leaders understand the need to take on the service orchestrator role – but costly, unwieldy, inadequately secured infrastructure is holding them back.

Companies currently devote less than 20 percent of total IT spending to transformation-oriented initiatives — so the savings from Fast IT amount to a doubling of the IT organization's contribution to the firm's overall "innovation capacity."

## Fast IT: The Way Forward

- **IoE Demands a New Operating Model:** Ninety percent of respondents agreed that "agile" IT infrastructure models were the way of the future. Zeus Kerravala of ZK Research shared his firm's latest data, explaining that "IT shops now devote upwards of 80 percent of the total IT spend to 'keeping the lights on,'" with a worsening trend line in recent years. This lockup of IT spend pushes innovation to the margins of the IT portfolio, leaving little budget or human capital to drive better business outcomes. **Implication:** Without addressing fundamental complexity challenges, any effort to drive IT transformation will be a recipe for failure.

- **A Fabric of Clouds Provides the Platform for Change:** Cloud is a key element of the Fast IT story — the dominant model moving forward will be based on hybrid-cloud infrastructures (a fabric of clouds). The key goal is to access the optimum cloud model for any business challenge, as it arises. Respondents said their ability to derive value from cloud and new applications is hampered by the state of their enterprise networks — with two-thirds agreeing that they are not realizing the value of cloud. **Implication:** The ability to shift workloads throughout a hybrid cloud-based fabric of connections — while assuring compliance and security — will underpin a new platform for service delivery enhancements, increased productivity, and business agility.

- **Intelligence "at the Edge" Enables the Real-Time Business:** All those devices and sensors connected via the mobile cloud will generate torrents of data. Enterprises must leverage data — whether it is at rest in the data center or real-time data in motion at the network edge. Data in motion has a shorter shelf life, and gives the business the power to deliver transformational insights by operating in real time. Steve Lucas, president of SAP Platform Solutions, says: "Big Data is perhaps the area in which IT can play the most central role in business innovation." **Implication:** Context-aware, real-time IT services will provide the next battleground for customer mindshare and employee productivity.

- **In the IoE Era, the Security Perimeter Is Ever Expanding:** When we "connect the unconnected" with IoE, new security threats inevitably materialize. Seventy-three percent of respondents expect security threats to increase in severity over the next two years. **Implication:** Fast IT must deliver security via a platform-driven approach in which all infrastructure domains, devices, applications, and services are integrated to enable greater intelligence, automation, and efficacy of threat detection.

- **IoE Can't Afford to Be Seen as the "Department of No":** IoE is not just about data and things — it's also about people and process. Several of our industry luminaries identified culture and leadership as the most critical components of the Fast IT transformation, saying that IT's transformation will be a journey. According to Zeus Kerravala of ZK Research, "Culturally, IT organizations often get stuck in these models of 'If it ain't broke, don't fix it.' Frankly, those are very dangerous words. Technology doesn't stand still, nor should IT departments." **Implication:** CIOs must lead by example, demonstrating a "service partner" mentality so that grassroots innovations can flourish.

- **Capturing the "IoE Dividend":** IT and the vendor community have already done a heroic job of lowering total cost of ownership (TCO), but another very significant wave of TCO improvements is at hand. Cisco estimates a 20 to 25 percent improvement in IT costs as a result of Fast IT. This IoE dividend can be redeployed to address new business capabilities. **Implication:** Companies currently devote less than 20 percent of total IT spending to transformation-oriented initiatives — so the savings from Fast IT amount to a doubling of the IT organization's contribution to the firm's overall "innovation capacity."

## What Are Some Examples of How Cisco Is Helping Customers Achieve Fast IT Now?

- **In the data center:** Cisco® UCS® is a perfect example of the kind of integrated infrastructure that is eliminating complexity and enabling agility. Its integration of network, compute, and storage provides the foundation for pervasive management automation and orchestration for physical or virtual systems, significantly reducing the management burden on IT.

- **Cisco's Intercloud strategy** is providing the seamless fabric of clouds CIOs need to deliver a platform for change.

- **Cisco Application Centric Infrastructure's programmability** delivers the superior application performance and agility IT departments need to support the massive increase in the number of applications, while also providing the intelligent network foundation to enable the cloud, mobile solutions, and platform-based security.

- **Customers can accelerate their ability to harness the value of analytics** by leveraging Cisco's UCS Common Platform Architecture for Big Data — now with UCS systems at the core and at the edge; powerful data virtualization software (a product of Cisco's Composite acquisition); and Cisco's emerging analytics solutions for retail, service provider, collaboration, contact center, and the network.

- Cisco offers a wide range of **Connected Mobile Experiences solutions,** helping employees be more productive than ever, and providing end customers with breakthrough experiences.

- And, Cisco's leading, **platform-based approach to security** delivers security designed for the IoE era, with comprehensive protection before, during, and after an attack.

**To view the full "Fast IT Study Findings" report, please visit:**
**http://cs.co/9003WW5X**

This research confirms that IT cannot deliver innovation at the pace IoE requires with the IT model they have today. But business is not waiting for IT. Amazon is not cheaper or better — it's just faster.