Where IT infrastructure and business strategy meet

CIOs and CTOs should take the lead in explaining how IT infrastructure creates business value—especially in challenging times.

Jeffrey Hughes and James Kaplan

The scale of corporate IT infrastructure has increased dramatically over the past decade and a half. At many companies, it has moved from basements with a few dozen servers to sophisticated data centers with thousands or tens of thousands of them. Networked storage hardly existed in the early '90s but today consumes tens of millions of dollars in large IT organizations.

There are good reasons for this expansion. Infrastructure runs the applications that process transactions, handles the customer data that yield market insights, and supports the analytical tools that help executives and managers make and communicate the decisions shaping complex organizations. In fact, infrastructure has made possible much of the corporate growth and rising productivity of recent years.

Yet the very ubiquity of these computing, storage, and networking technologies makes some executives regard IT infrastructure as a commodity. That's a mistake. Yes, components such as servers and storage—even some support processes, like the monitoring of applications—have been commoditized. Even so, an effective infrastructure operation creates value by making sound choices about which technologies to use and how to integrate them. A technology product purchased from a vendor may be a commodity, but the ability to bring together hardware, software, and support to provide the right combination of cost, resiliency, and features for a new application isn't.

Especially now, when every expenditure and budget item receives careful scrutiny, infrastructure leaders must engage with business executives and application developers to expose potential sources of value, agree on priorities, and measure not only the cost but also the impact of infrastructure.

Sources of value
There's ample evidence that the creative use of infrastructure has helped leading companies to make themselves more efficient, redefine their business models, and improve the customer experience.

Real-time data collection. Insurance companies in Britain and the United States use GPS devices and sensors to record the speed of cars and even the damage to them. In manufacturing, radio frequency identification (RFID) tags now provide insights into the way goods move through supply chains and thus reduce inventory levels. In both cases, infrastructure supports and manages the sensors and other devices needed to capture information reliably and inexpensively.

Large-scale analytics. Pharmaceutical companies and manufacturers deploy low-cost computing grids that, respectively, make it possible to develop and test drugs and to develop products that would have been inconceivable even a decade ago.

Speed to market. Across industries, fast reaction times give companies advantages such as the ability to set up sales offices in rapidly growing territories quickly, to give customers strong off-site support for their initiatives, or to meet demand for services when online interactions surge. The best infrastructure units can support all of these goals—and more.

The customer experience. The best retailers and service providers let their customers interact with them via cell phones, call centers, and kiosks, as well as in person. To get the customer experience right, companies must be able to switch and route consumers across different types of networks flexibly. Only a well-tuned infrastructure can provide that kind of flexibility.

Employees' productivity. Managerial, sales, technical, professional, and clerical personnel do most of their work on the corporate infrastructure, from desktop productivity tools to smartphones. Infrastructure organizations that aspire to create value must make decisions about issues such as how to balance security with ease of use, where to deploy videoconferencing equipment, and which types of personal devices make the most sense.

Developers' productivity. Too many applications developers spend up to a third of their time as amateur systems engineers: they devote hours to consulting with server and network teams, grappling with incompatibilities, and struggling to choose technologies that bridge the gaps. That time could be better used modeling applications for business processes or writing code. One investment bank created a virtual-development environment, freeing up tens of thousands of developer hours each year.

Engaging with the business

What must you do to make business leaders understand the value of infrastructure—without seeming to be protecting your turf? We've found that several approaches work well.

Be credible on the basics. Now more than ever, business leaders demand solid execution on costs and service levels before they will seriously consider moving to the next level. They see value creation and innovation as a complement of efficiency, not a substitute for it.

Understand the pain points. Infrastructure touches every part of a business. Use that central position to figure out which groups struggle with analytics, need to open (and close) sites more quickly and cheaply, or have the greatest need to get more value from their development teams.

Be proactive. Go to business leaders with ideas that they can evaluate and refine—*before* they ask for them.

Retain funds for R&D. Even in tight times, the ability to offer IT infrastructure innovations regularly, before the business demands them, protects you against being seen as a purveyor of commodities.

Invest in talent. Supplement your team's depth in technical and operational matters by adding financial and business analysis skills. To do so, you'll have to invest in working to develop employees who can explain the IT infrastructure's business value and work with business partners to deliver it.

The IT infrastructure organization can be positioned not just as an efficient taker of orders but also as a partner in determining and executing a company's business strategy. *Q*

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