



The growth of smaller vendors helps to fill some important technology gaps, but this raises a number of issues for enterprises. Through 2018, half the cost of implementing IoT solutions will be spent integrating various IoT components with each other and with back-end systems. Enterprises should look to larger vendors to integrate the offerings of smaller vendors into their solutions. To differentiate their offerings, vendors must provide software for specific verticals to help enable IoT technologies, rather than generic solutions.

Privacy concerns are also a major inhibitor; therefore, existing cybersecurity policies and procedures will need to undergo changes to support the IoT. Increased competition is driving enterprises toward rapid adoption of IoT with shorter procurement and sourcing cycles, leaving less time for sourcing executives to address cybersecurity.

### **Businesses Must Understand the Landscape, Practicalities and Ethics of IoT**

With the [IoT](#) comes a new generation of ethical and technical hurdles for business to overcome. These risks increase with greater proliferation of IoT development activities throughout the enterprise.

The use of smart machines that can learn, for example, will lead to a new level of decision making from CIOs and other board members, focused on how to develop or adopt ethical programming, and what impact that will have. As greater degrees of automation are enabled by IoT, and autonomous functioning is allowed, consideration must be given to these issues. After all, we are fast approaching the day when devices will start buying and selling on our behalf in a **digital** business.

### **The Impact of the Internet of Things**

The decisions we make today could affect strategies and outcomes years down the line. Those currently planning [smart city](#) solutions, for example, will require a clear understanding of market evolution to assess long-term sustainability. Planners will require multiagency models to form policy, plan the IT infrastructure and create goals to reduce pollution, improve traffic flow and the lives of citizens.

How CIOs manage this potentially massively expanded role and array of technology is critical. Investment in technology and data repositories are just two issues, while handling a legislative avalanche of security, compliance and environmental issues will also tax time and resources. Licensing will also increase in complexity as “things” demand more software and proprietary services to manage them.

Makers must leverage this opportunity to create ecosystems and create packaged solutions to thrive in a competitive market. They need to move beyond the “box” mentality, and consider the extra revenue opportunities from licensing-controlled embedded software and applications. At the same time, major players will need to partner, acquire or invest in startups to remain competitive and inventive.

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