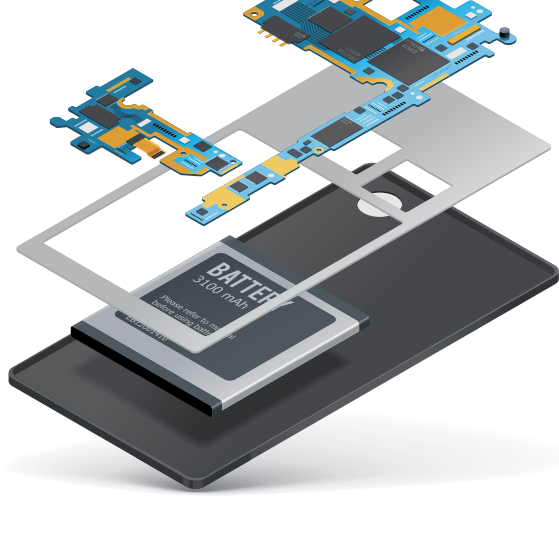


# 5 BARRIERS TO BUILDING THE BEST CONNECTED PRODUCTS

Highlights from Harvard Business Review Analytic Services report, “Bridging the Gap in Digital Product Design,” sponsored by Jama Software



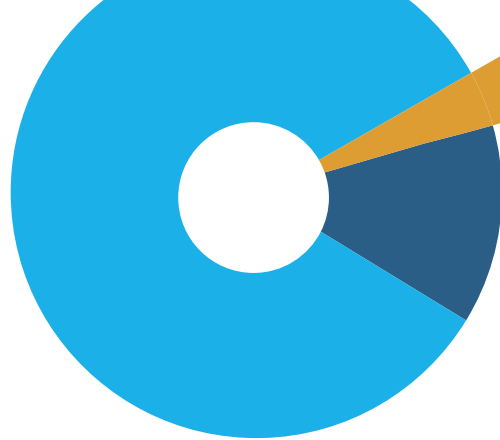
Smart homes. Autonomous vehicles. Jet engines that signal when they need maintenance.

Regardless of industry, the process and pace of product development is changing as physical products are infused with digital technologies to create a more connected world.

## HARDWARE AND SOFTWARE CONVERGENCE

**86%**

of business and IT leaders are either developing smart products or planning to



Only 2% of business and IT leaders are doing nothing to implement smart, connected products

## CONTENTS UNDER PRESSURE

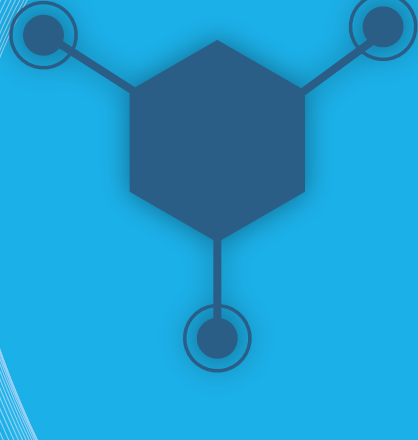


**89%**

of business and IT leaders expect somewhat or significant increases in time-to-market pressure from implementing digital technologies

## TOP FIVE CHALLENGES OF GOING DIGITAL

### 1 Platform & Ecosystem Thinking



**Smart products must work within a diverse ecosystem of connected products — now and in the future.**

“From the perspective of a product developer, particularly the intersection of hardware and software, the ecosystem is one of the biggest issues. Any solution is part of a larger environment and infrastructure.”

Allan Frank  
Chief Digital Officer and Cofounder, The Hackett Group

### 2 Conflicting Methodologies



**Traditional design methodologies often conflict with agile methodologies required for digital transformation.**

“There is an inherent dichotomy in how hardware and software engineers see the world — and how the world sees them... There is a constant pull between the hardware and software teams and their goals are not always the same.”

Jonathan Sweedler  
VP of Hardware Engineering, Nvidia Corp.

### 3 Attracting Qualified Talent



**Managers often encounter difficulty recruiting and hiring qualified talent for digital transformation.**

“The modern workers implementing digital technologies expect their work environments and tools to reflect the innovation that they’re counted on to create.”

Jennifer Jaffe  
Vice President of Product, Jama Software

### 4 Securing Customer Data



**Sensors gathering large amounts of customer data require serious effort to manage and secure.**

“Who owns the data, and who has the right to do something with it — these are issues to resolve in addition to worrying about securing it. If your product or service gathers a lot of data, you’d better be ready to handle it.”

Hans Brechbühl  
Executive Director, Glassmeyer/McNamee Center for Digital Strategies at the Tuck School of Business at Dartmouth

### 5 Immature Developing Methods



**Methodologies for co-developing physical products, software, and other digital elements are not fully established.**

“You can’t ask software developers to operate in a hardware method and mode any more than you can do the opposite. You really need to have an intentional plan to integrate these teams together.”

Jennifer Jaffe  
Vice President of Product, Jama Software

## FACING THE CHANGE

To combat these challenges and improve their ability to implement digital technologies, business and IT leaders plan to:



**52%**

Partner with software companies and others



**45%**

Adopt new development methodologies



**35%**

Make acquisitions

These findings come from a Harvard Business Review Analytic Services study of nearly 300 business and IT leaders across a wide range of industries and locations worldwide, all of whom work for organizations that have either begun to digitize physical products or are planning to do so soon.

**Download your free copy of the full report, “Bridging the Gap in Digital Product Design,” today for more insights.**

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