



# BETTER, SMARTER, FASTER:

## ACCELERATING INNOVATION ACROSS THE ENTERPRISE

Change is the only constant in the technology-driven economy, and for organizations that want to stay competitive, product innovation needs to keep pace. What does it take to deliver better products to market sooner? Read this guide to get a look at the ways leading companies are accelerating technical advances in their organizations. You'll discover the business benefits of speeding up the pace of invention and process improvement, especially when it comes to product development. You'll also see how businesses failing to transform their approach run the risk of delivering products that their customers don't want—and that the market no longer needs. Read on to learn about the technology solutions that can enable faster, more disruptive innovations—and get five key recommendations for success.

## FAST AND FURIOUS: THE NEW ECONOMIC REALITY

What are the leading factors causing the accelerated pace and relentless drive for innovation across so many industries today? It's a combination of issues that's causing many businesses to feel like they need to pick up the pace. According to a recent survey from Forrester Research, the top three drivers for acceleration are the need to reduce costs, improve capabilities, and meet the escalating expectations of customers. (Fig. 1)

**FIG.1 NEED FOR SPEED DRIVE**



Source: Forrester Research, Forrsights Budgets and Priorities Tracker Survey, Q2 2012

The accelerating rate of technology change is also having a significant impact. Look around: Refrigerators are run by software. Watches measure heart rate. Cars drive themselves. Even the vending machines in the break room are equipped with sensors that alert the mother ship when they're running low on cans of Rockstar. Objects are getting smarter.

According to a recent report on disruptive technologies from the McKinsey Global Institute, there has been a 300% increase in connected machine-to-machine devices over past five years. As software becomes more and more embedded into technology, the rate of innovation accelerates. Software can do so much more, so much faster—and it can also evolve much more rapidly. Think about cars rolling off of computerized assembly

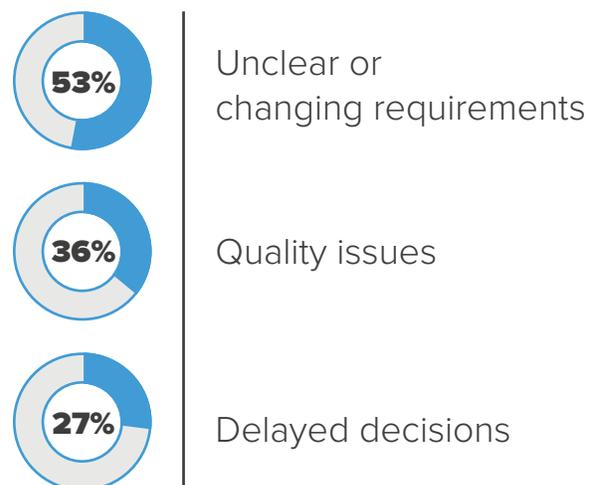
lines: software controls the engine, the safety features, the GPS networks, the air conditioning, the windshield wipers. Every day, more features are being developed with software-driven controls.

This new reality means that every large company, across every industry, is becoming a technology company. But many organizations are having a hard time keeping up with the rapidly accelerating pace of change, especially when their teams are working in silos using outmoded systems. Product delivery is plagued by (what should be) preventable delays. In a survey conducted by Forrester Research on behalf of Jama Software, “unclear or changing requirements” was the most common reason cited for product delays.

It's no surprise to see communication issues as well. Reasons such as delayed decisions, coordination problems and shared resource conflicts are preventable, but they happen all the time. In many companies, collaboration only occurs when the right people finally find time in their overscheduled days for a one-hour conference call—and then, half the time is wasted going over why past decisions were made without everyone's approval.

This isn't the way to do business in the new economy. Fortunately, there's a better way. A way that makes it possible to innovate, and do it faster than the competition.

**FIG.2 MOST COMMON REASONS FOR PRODUCT DELAYS**



Source: a commissioned study conducted by Forrester Research on behalf of Jama Software, Sept, 2013.

What does accelerated innovation really mean? There are three dimensions to it:

#### GETTING THE TIMING RIGHT:

Delivering a product to market sooner than the competition is key to gaining a significant advantage, but ensuring perfect timing is also critical. Sometimes the market isn't quite ready for the next big idea.

#### CONTINUALLY LISTENING:

Products are designed to meet customer needs. But those needs change, and understanding what customers want today as well as tomorrow is important, as is getting feedback throughout the process.

#### TAKING INCREMENTAL STEPS:

Spending years to make improvements and releasing big, feature-laden updates, with long periods of silence in between, is a great way to deliver a fantastic product at the wrong time to an audience that's moved on.

Let's take a look at how some of the most innovative companies are making the leap into the fast-forward workplace and discover the traits that enable accelerated innovation.

## THE FRUITS OF THEIR LABORS: APPLE AND BLACKBERRY

It wasn't so long ago when it seemed as if there was a BlackBerry clipped to every belt and purse. In 2007, BlackBerry stock was selling at an all-time high of \$230 per share. But something else happened that year—Apple introduced the iPhone. Things changed in a hurry, and we all know what came next. But why did it happen that way?

For many years, BlackBerry was an innovative leader in the mobile industry, building revolutionary communications devices like two-way pagers and phones with two-way radio. Because of built-in security features and push email, they came to own the smartphone market—especially in the business world. When the iPhone arrived, BlackBerry assumed that large enterprises and governments would be hesitant to adopt consumer-level devices.

It was a textbook case of the Innovator's Dilemma: too much focus on their core business. BlackBerry claimed that the upstart iPhone was irrelevant, and the sales were too small to notice. But a funny thing happened with the upstart iPhone. Those enterprise and government employees often came home at night, put down their BlackBerry devices, and picked up their fun, easy-to-use iPhones. Before long, people decided that they wanted that usability at work, too. And enterprise leaders figured out that they could save a lot of money if their workers were willing to pay for their own mobile devices.



### DELOITTE CASE STUDY: Tight Timelines and Public Pressure

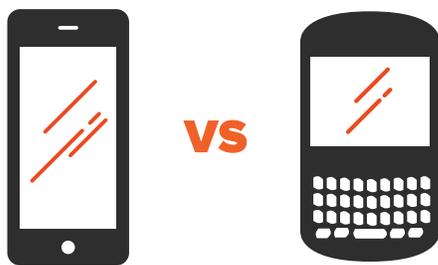
When Deloitte was asked by the state of Montana to overhaul the software system used to manage public assistance eligibility, they knew it would be a massive undertaking. The team was spread out around the globe across multiple time zones. After spending several years identifying the system needs and system requirements, there were over 10,000 requirements and 5,000 test cases. And of course, the deadline was extremely tight.

The team at Deloitte had to act fast without sacrificing accuracy or quality of their work. This software system would be responsible for a vital project for the state government: enabling disability benefits and assistance for people in need. Deloitte quickly realized that the old way of working, with spreadsheets, documents, and email, simply wouldn't do.

Using Jama for collaborative requirements and test management, Deloitte produced a high-quality product while reducing risk. In addition to delivering an effective product faster, Deloitte was able to maintain full traceability through the process, to ensure the design requirements were met and the test coverage was appropriate.

Along the way, clear communication and transparency made it possible for Deloitte to deliver a complex project faster. Deloitte also developed best practices for repeatable processes during the project, which they can use on similar projects for other states.

There are many reasons for the rise of the iPhone and the fall of BlackBerry, but one of the most significant issues was a failure on BlackBerry's part to pivot fast enough to stay a step ahead of the curve. BlackBerry launched products that were late to market and missed the mark with consumers. They took three years to release a new operating system. They focused on features they thought their customers were looking for, like security and longer battery life, while failing to deliver what people actually wanted, like a camera, or a wide array of useful apps.



Meanwhile, Apple had been busy monopolizing the consumer market and becoming the benchmark for smartphone usability. They had also managed to quickly iterate and improve their enterprise security. And since they already had a strong user following, they were able to move quickly into the enterprise market. After all, business users are also consumers, and when given the choice, they quickly opted for the iPhone.

Apple also had something else going for them: the ability to manage massively complex projects and coordinate with multiple teams. According to Tony Fadell, a former Apple executive who worked on the iPhone, the project was not unlike the first moon mission. In an interview with *The New York Times*, he put it this way: "I'm used to a certain level of unknowns in a project, but there were so many new things here that it was just staggering." (He started his own company, Nest, in 2010—more about that later.) Apple apparently created multiple working prototypes of the device, each with its own hardware, software and design elements.

The ability to develop complex projects like the iPhone demands more than simple

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The ability to develop complex projects like the iPhone demands more than simple collaboration.

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collaboration. It takes the ability to manage a complicated product throughout its lifecycle—from initial concept to market launch—and collaborate across multiple teams to make it happen. Apple has proven that collaborating and managing complexity is no object. If they can continue to innovate and accelerate their product cycle, Apple will be able to stay ahead of the competition. If not? Well, there's always another upstart on the horizon.



## **STRATOS GLOBAL CASE STUDY:**

### Long Distance Connections with JIRA

Stratos Global is best known providing the iridium phone service for in the some of the most remote places on Earth. Their biggest product delivery challenge was with documentation. Business users had their documents and technical teams had their own systems. Their teams were using spreadsheets and email to bridge the communication gap, and vital information was lost.

When Stratos started using Jama integrated with its JIRA Connector, teams came together. Requirements stayed together. Business analysts increased their efficiency, and collaboration improved. Stakeholders felt empowered to prioritize and track progress. The analysts work in Jama and the developers use JIRA for task management and issue tracking. This integration saves Stratos time and ensures the entire organization is in sync on the latest scope and status of what they're building. That level of insight across the whole organization is a critical aspect of the product development process.

## A RISING STAR IN THE GALAXY

Samsung is out to prove that it's ready to take the lead in delivering what's new and cool. Young Sohn, president and chief strategy officer of device solutions of Samsung, recently put it this way: "We see tremendous opportunities and transformations over the next five years driven by Big Data centered around mobility, cloud, and the Internet of Things, and Samsung will be a significant part of this revolution."

But what does that mean for consumers? According to Samsung, it's about taking into account user and reviewer feedback when getting ready to deliver new software updates. Samsung is using that insight to deliver incremental innovation, rather than making users wait a year for new features. Samsung is also more responsive when it comes to improving its mobile devices through software updates. After the Note 10.1 launched, it quickly received a software update with a new version of Android and many other new features including a voice assistant. Speed is critical. People want what they want, when they want it, and Samsung is willing to deliver.

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The pace of change isn't showing signs of slowing down in the mobile landscape.

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That's an approach that's been paying off so far—sales of Samsung's products remain solid, but some products, such as their smart watch, have received lukewarm reception in the marketplace. Who is the next disruptor on the mobile horizon?

There are likely quite a few. The pace of change isn't showing signs of slowing down in the mobile landscape. In the United States, approximately 30 percent of web browsing and 40 percent of social media use is happening on mobile

devices. By 2015, more people will be using the web on a wireless device than a wired one, according to the McKinsey report. It's clear that the companies that come out ahead are the ones with the fastest reflexes when it comes to responding to rapid shifts in the marketplace.



### **SPACEX** **CASE STUDY:** Managing the Outer Limits of Complexity

Successful product delivery depends on making sure all of the teams working together are in alignment. Is everyone clear about what problems they're solving, and why it's valuable to their customers—and ultimately to the business? Without clear communication and context, many organizations run the risk of accelerating delivery—but for the wrong product.

Space Exploration Technologies (SpaceX) designs, manufactures and launches the world's most advanced rockets and spacecraft for customers such as NASA, SES, and Iridium. Without a doubt, developing launch requirements for sending spacecraft and satellites into space is a complex operation. SpaceX needed a way to manage multiple launch requirements and provide visibility to their customers—while also managing customer expectations. They also needed a way to handle the inevitable (and multiple) changes to those requirements as well as many other important details. And in order to meet aggressive schedules, they had to find a way to eliminate re-work by creating common assets one time and reusing them to support parallel development efforts.

With Jama, SpaceX was able to improve communication with its customers. That level of visibility translated into significantly increased customer satisfaction. SpaceX can now quickly turn around requirements for review and approval, and increase engineering efficiency as well. Both customers and SpaceX teams are happier because everyone is in sync on the latest plans and project status. Team members are freed from attending endless meetings and managing cumbersome spreadsheets, so they can spend more time and energy on design and development.

## COMPETITION IS HEATING UP

Innovation is key to success, even for industries that have often been resistant to transformation. And it doesn't take a lean startup mentality to make it happen, although it helps. Consider the humble thermostat. It's a product design that stayed pretty much the same for decades. When Nest, a start-up founded by a group of engineers and designers (and many former Apple employees, including Tony Fadell), unveiled a "smart" home thermostat, many people were underwhelmed. But they quickly discovered that the energy saving features (and sleek design) made an ordinary control switch into an object of desire.

Internet-connected thermostats were around before Nest's version, just like there were digital music players before the iPod. Industry giant Honeywell had been working on programmable thermostats for decades, and they've recently produced a smart Wi-Fi thermostat with something they've discovered something consumers really want—voice control. But like the iPod, the Nest thermostat was so much more ingenious than anything else on the market, with a focus on design, smart systems that learn and adapt, and user-friendly features, it seemed like something entirely new—and truly innovative.

Nest encourages collaboration—the product teams continually gain insights from customers on the features people want most. The most frequently requested product suggestions can quickly be incorporated. For example, people whose homes got a lot of direct sunlight noticed the temperature controls were consistently out of balance.

So Nest invented a feature that senses when the device is in direct sunlight and automatically adjusts so it reads and sets the correct temperature. This feature, like other upgrades to the products, was delivered through an overnight upgrade via Wi-Fi.

## DRIVING INNOVATION THROUGHOUT YOUR BUSINESS

What do these stories have in common? Innovation, yes, but it goes beyond that. In today's economy, every company is a technology company, and speed is a driver across every industry. Mobile and cloud computing are raising expectations—people demand results faster. According to O'Reilly, Amazon, the leader in public cloud infrastructure, deploys every 11.6 seconds. What does it take to invent new ideas and improve product development—and do it faster than ever before?

Clearly there are several moving parts to creating an enterprise that enables and embraces accelerated innovation. Apple continues to demonstrate the almost uncanny ability to understand what customers want and make extraordinary products in order to meet their needs now and in the future. But it also takes comprehensive integration—the ability to manage massively complex projects across teams—to deliver groundbreaking products. And by creating multiple prototypes, they're able to iterate and fine-tune every offering in order to hit the fast-moving target of customer demand.



### BUSINESS AS USUAL

- Create a system of record
- Work laboriously on a 3-5 year roadmap
- Release big, feature-rich updates
- Try to control change
- Quality equals fewer defects
- Keep short-term focus on projects
- Deliver what they asked for yesterday
- Decide hard costs are what counts
- Use agile to do the wrong things faster
- Track changes for CYA audit trails

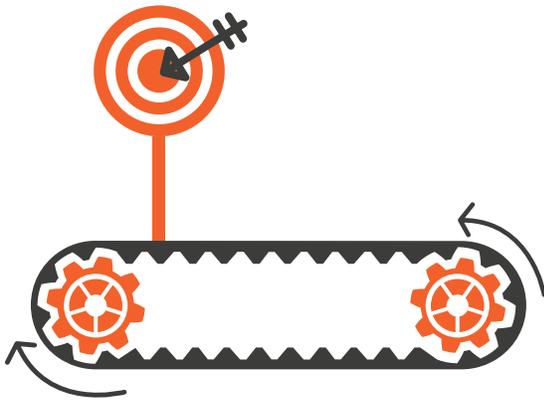


### BUSINESS ACCELERATED

- Leverage a system of engagement
- Go to market faster with smaller feature sets
- Iterate with rapid feedback loops
- Embrace change
- Build the right product
- Have a long-term vision of products
- Deliver what they really need tomorrow
- Realize the cost of lost opportunities
- Use the right method for the right product
- Track changes to see where the threads lead

The ability to pivot quickly, and react to opportunities faster than the competition, like Samsung, makes it possible to continually deliver the right product at the perfect moment and continually deliver upgrades and new features. Nest also shows the value of acceleration by delivering more value—like thermostat upgrades people have been asking for—as quickly as possible.

And what enables this level of integration and acceleration for leading organizations? Empowerment. When you give your teams the power to continually understand the context of what they're doing and why they're doing it throughout the product development process, they'll be better equipped to embrace change. They'll always know the potential impact of everything they're doing, and they'll be able to trace the impact of every alteration and every decision. With a seamlessly integrated system, every team across every process will be able to react quickly, collaborate effectively, and innovate their approach.



Successful companies spend a lot of time listening to customers and keeping them in the feedback loop in order to make sure their products hit the moving target. Collaboration with customers as well as stakeholders across the organization—with clear lines of communication and sign off—is also critical. And in order to get the right people in sync, it's important to break down operational silos that prevent members of product development teams from acting in harmony. That way, teams can also spend less time planning what they'll need to do, and more time actually doing it.

## HOW INTEGRATION POWERS INNOVATION

Functional groups such as development and quality assurance (QA) often use different solutions to help them organize how they'll get their work done. The problem is, they usually get the information about what they're doing and why they're doing it from static documents that don't change easily—and they're often out of date as soon as they're created. If changes do occur, they arrive through emails, instant messaging, or random conversations in hallways.

What happens next is something that can wreak havoc on the best-laid plans—vital changes are never communicated to the people who need to know about them. Decisions get made without including necessary stakeholders and subject matter experts. And of course these ad-hoc decisions usually fail to take into account the downstream impact.



### ARCHERPOINT CASE STUDY: Winning the Rally Race

With changes to product plans, it's important to understand the impact downstream—and to assess the costs against the benefits. Maintaining a steel thread from business value to detailed requirement to estimated level of effort enables better informed decision making at any point during the process.

ArcherPoint designs and implements complex custom projects for a wide range of industries. Teams at ArcherPoint use Rally Agile enterprise resource planning implementation projects.

Now that ArcherPoint is using an integrated project management platform, project scope and budget are based on a thorough understanding of the needs of the client. In fact, ArcherPoint has completely transformed its project management processes, enabling a level of business analysis that sets the company apart—and ahead—of the competition.

In order to work together well, people need to collaborate using a system that gives them the right amount of context for the problems being solved. So important building blocks, like requirements, are always available to every stakeholder throughout the development process. And that needs to happen inside the software they use every day. If someone has to open and log in to a separate solution to make an update, or weigh in on a decision, they might decide to do it later... or never. But how can you link disparate workspaces and tools effectively? It takes seamless integration between the systems teams use most.

Smarter organizations are becoming product-focused, instead of project-focused, turning IT from a cost center into an innovation partner. This approach makes it possible to turn ideas into profitable products—and do it more often, more predictably.

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## Product delivery is one of the most important things that a company does.

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And don't underestimate the importance of using the right tools. Adding the wrong instrument to your process will just add more complexity—and more aggravation for your teams. The right product delivery solution makes it possible to tap into talents of everyone who is invested in building and delivering great products across your organization.

Product delivery is one of the most important things that a company does. And yet, it's often managed in an ad-hoc, tactical way with out-of-date management tools that aren't very collaborative. Discussions get lost, people get out of sync and projects fail. But with the right product delivery platform, you can deliver the right products to market—and do it faster than the rest. With a structured collaboration environment, you can provide greater context—and comprehensive insight—into what the team is building and why.

Of course, you don't become Amazon.com overnight. When your business is iterative and

agile, innovation is part of the process. But to gain that kind of agility, you also need the right systems to support a very different way of doing business. How can you gain insight into what customers want today and tomorrow, get buyoff from all key stakeholders and collaborate across teams?

Here are five things you can do to pick up the pace of acceleration in your business.

## PICK UP THE PACE

1

Get customer feedback quickly:

Use mock-ups and prototypes to get your ideas into the world faster. Test out theories, try out new features and refine detailed requirements with every release cycle.

2

Make meetings matter more:

Scheduling a meeting to get everyone up to speed is a waste of everyone's time. Use collaboration tools that give your teams the information they need in advance, so you can make the most of every real-time interaction.

3

Iterate to innovate:

Iterate early and often—including within a development cycle. Just make sure you have the right solutions in place to keep the entire team aligned, or someone is likely to get left behind.

4

Collaborate every chance you get:

Product delivery is a business problem that goes beyond development. From concept to launch, it requires collaboration from everyone: analysts, developers, customers and stakeholders. Get them working together and you've got a formidable force on your side.

5

Give teams the power of context:

Understanding the framework of what everyone is doing and why they're doing it—and of course, how it all fits together—is key to success throughout the product development process. Provide an easy way for your teams the ability to gain the knowledge they need.

## START YOUR INNOVATION ENGINES

Finding the right product delivery solution isn't easy—there are a lot of different features to take into account. However, many innovative companies are finding that there are several key elements to look for in order to choose a solution that can power effective products—and empower efficient teams.

When considering a solution for your business, here are five key questions to ask:

- 1** Does the solution easily connect the right people with right data?  
It takes integrated, structured collaboration to give everyone the kind of comprehensive insights they need—in real time—so they can understand what their teams are building and why.
- 2** Are robust two-way integrations fundamental to the solution?  
Bi-directional data sharing is powerful enabler to faster delivery and increased innovation, especially when you can connect to commonly used solutions such as JIRA, Rally and HP Quality Center.

- 3** Does it enable collaborative, reusable requirements management?

When you have a robust solution for requirements management and end-to-end product delivery, it's possible to build highly complex products faster. The ability to reuse requirements can also help you reduce risk and control costs.

- 4** Can the solution provide comprehensive testing features?

In order to ensure test coverage and improve quality, it's important to be able to link test cases to requirements, run test plans and log related defects—while maintaining real-time visibility into overall product quality.

- 5** Will the solution support the diverse needs of multiple industries?

Every industry has its own set of challenges. This is true whether it's a question of regulatory compliance and security for financial services, government or health care, or the need to handle massively complex products, as is the case for aerospace, software or telecommunications. The right solution must be flexible as well as customizable enough to meet the needs of every type of organization.

The Jama Product Delivery Platform can help you answer “yes” to these questions and give you the tools you need meet the future of accelerated innovation with confidence. Visit <http://www.jamasoftware.com> to learn how easy it can be to manage constant change, iterate throughout every phase of defining, building and testing, and deliver better products faster. Check out additional case studies to learn how leading organizations get results using Jama. And if you're ready to see Jama in action, download a free trial or schedule a live, personalized demo to discover the benefits of collaborative product delivery—and see for yourself how to transform the way you deliver products.

## GLOSSARY

### AGILE:

As a mindset instead of a development process, it's about how a team solves problems rather than whether the team uses sprints and user stories.

### DISRUPTIVE INNOVATION:

An invention or improvement that helps create a new market and value network, eventually going on to upset an existing market and value network.

### INNOVATOR'S DILEMMA:

A term coined by Clayton Christensen in his 1997 book by the same name, it suggests that successful companies can focus too much on current customer needs, and fail to adopt new technology or business models that will meet customers' unstated or future needs.

### INTERNET OF THINGS:

First proposed by Kevin Ashton in 1999, it refers to a world where objects are integrated into an information network.

### PRODUCT DELIVERY:

People working together to design and build products that solve problems and create business value.

### STEEL THREAD:

A system's primary function is like a consistent thread that runs through it, like a steel thread that runs through the fabric of your process.

### SYSTEMS OF RECORD:

Tools, records, and systems organizations traditionally used to build their business processes. Can often be used for CYA.

### SYSTEMS OF ENGAGEMENT:

Solutions and tools that build on existing investments in systems of record by providing web-based access, connectivity across multiple hardware and software platforms, and collaboration.

### TRACEABILITY:

The ability to verify the history, location or application of an item by means of documented recorded identification.

## ABOUT JAMA SOFTWARE

From concept to launch, the Jama product delivery platform helps companies bring complex products to market. By involving every person invested in the organization's success, the Jama platform provides a structured collaboration environment, empowering everyone with instant and comprehensive insight into what they are building and why. Visionary organizations worldwide, including SpaceX, The Department of Defense, VW, Time Warner, GE, United Healthcare and Amazon.com use Jama to accelerate their R&D returns, out-innovate their competition and deliver business value. Jama is one of the fastest-growing enterprise software companies in the United States, having exceeded 100% growth in each of the past four years, during which time both Inc. and Forbes have repeatedly recognized the company as a model of responsible growth and innovation. For more information please visit <http://www.jamasoftware.com>.