

## An Executive's Checklist To Fostering A Strong Developer Experience For Business Growth

Software is an expression of the business.<sup>1</sup> So much so, that 75% of IT and business executives say that their companies' ability to compete is directly related to their ability to release quality software quickly. But great software doesn't magically appear — developers must build it. For this reason, developers are among companies' most strategic assets. Thus, it's no surprise that three out of four executives consider a strong developer experience important to their business strategy execution. After all, happy developers are productive developers. The trouble? Traditional software development processes are rife with handoffs, delays, low-value deliverables, and wait times.<sup>2</sup> Rising architecture complexity, team silos, and fragmented developer tools are exacerbating these issues and eroding the developer experience (DevEx).

DevEx represents the skills, tools, frameworks, and methodologies aimed at creating, maintaining, and enhancing code throughout the software delivery lifecycle from creation through production and improving developer productivity both individually and collectively.

Like other employees, what developers need to feel engaged is an environment that is conducive to their productivity.<sup>3</sup> If your company, like most, depends on software to compete, focusing on removing obstacles to your developers' productivity is one of the best investments your company can make. Forrester designed this checklist to help IT and business executives deliver an ideal DevEx through six key steps:

## **1. Take stock of the current state of your DevEx.**

Customer-obsessed firms differentiate themselves by understanding their customer journeys and identifying opportunities to create more value for the customer and, in turn, the business.<sup>4</sup> Because the customer experience depends so much on the employee experience, understanding and enhancing employee journeys is critical. This is especially true in the case of developers: 69% of leaders agree that a good DevEx results in a better customer experience. Unfortunately, the satisfaction of developers trails that of the average employee. Thankfully, 71% of leaders agree that they need to better understand and support developer processes. The first step to understanding your company's DevEx is talking to the developers themselves. Listen to their input to not only demonstrate empathy, but also learn from their expertise and map their work journeys. Employee journey mapping can reveal systemic factors that inhibit employees' effectiveness in their daily work — factors that lie outside any individual employee's control.<sup>5</sup> As part of this exercise, identify where business value is created and lost.

## **2. Internally define the ideal DevEx state for your developer team.**

During your discovery efforts, you will surely uncover a host of DevEx obstacles. Our study suggests that legacy platforms/developer tools, difficulty integrating new tools, and manual processes will likely top the list. The study also uncovered that growing architecture complexity, including securing all elements of software development, delivery, and operations, as well as managing multicloud, open-source, and Kubernetes considerations, is moderately or significantly inhibiting the DevEx of more than three out of five firms. To drive a common understanding and purpose, IT and business executives must work together with developers to design a more effective

DevEx that mitigates these challenges. Everything developers create must ultimately be in service to the business; using value streams can help make the connection. Value streams, in a development and operational context, connect business hypotheses to digitally enabled solutions for the customer. These solutions — and subsequent client satisfaction — ultimately result in higher business value. Thus, your ideal state should elevate both DevEx and business outcomes like increased Net Promotor Score<sup>SM</sup> (NPS) scores, higher customer engagement levels, repeat purchases, attracting new customers with a new product, and more.<sup>6</sup> What changes would have the highest impact based on your organization's DevEx health and business goals?

### **3. Address gaps between your current and desired DevEx holistically.**

Next, leaders will need to take an honest look at the people, process, and technology considerations that separate their DevEx aspirations from their current reality. Given the decentralized nature of many software development teams, it's not uncommon to see developer process improvements tackled in a reactive, piecemeal fashion. True development transformation needs and deserves a proactive, holistic strategy — one that unifies technology investments, addresses teams' needs, and has the support of senior leaders. Indeed, the absence of a defined DevEx strategy and ownership is one of the top hurdles to DevEx improvement in our research. Clearly define a strategy that includes the investments needed to realize your goals, as well as a timeline for achieving them, to boost your odds of success. If your organization is still in the early stages of this journey, you're in good company. While 94% of decision-makers say they have a DevEx strategy, just 27% describe it as mature.

### **4. Enhance DevEx processes with modern application delivery (MAD) practices.**

After you've assessed and addressed gaps in your DevEx, it's time to apply some value stream thinking to create a baseline, measure your progress, and then continue to improve. Plot each step of the process on a value stream map with a focus on understanding the intersection of people within the process, including manual handoffs and approvals (i.e., steps

that can hinder the flow of value).<sup>7</sup> Assess where your platforms are helping versus hindering this flow. Capture lean metrics, such as process time and lead time, to assess operational efficiency. Use observability tools to indicate impact in production. At the end of the day, value stream thinking ties an objective with an outcome and uncovers how efficiently your team can deliver outcomes. A team that is simply focused on closing stories may not deliver the intended impact. MAD and value stream practices can help strike and maintain the right process balance.<sup>8</sup>

## **5. Identify the technologies that can support your DevEx improvements goals.**

For information workers, technology is the main resource enabling productivity. When this technology is slow or fails, it can lead to disengagement and ultimately hinder the business's growth.<sup>9</sup> The link between the technology environment and DevEx is pronounced. The most important job factor to developers is the languages, frameworks, and technologies they'll work with.<sup>10</sup> Yet, the most significant DevEx obstacles are tools. Developer tools must enhance rather than inhibit DevEx. Consider whether better enabling the areas below would optimize your DevEx (decision-makers in our research believed these are the most impactful):

- 1. Automation.** Automation in the form of DevOps tools and capabilities has had a profound impact on both the reliability of software delivery as well as its ability to restore sanity to developers' lives, so it's no surprise that application deployment automation was listed as the top capability expected to improve DevEx in our study.
- 2. Open source.** Access to open-source software — which has been a critical force in driving innovation throughout the software industry — is another high-impact area. It's crucial to provide your developers with access to a curated set of open-source software products and components that can be trusted and that have a strong community to support them.

**3. Application templates and guardrails.** For many developers, getting started and onboarding is the hardest part. DevEx that includes application templates for configuring services, managing dependencies, or accessing libraries, goes a long way to helping developers not only get a jump start, but also get started in the right direction, so that they can start delivering value sooner.

## **6. Measure and monitor progress for continuous improvement.**

DevEx health and business health go together. Effective DevEx should evolve in response to changing realities, so executives must have a pulse on their DevEx on an ongoing basis. This includes identifying and monitoring a set of success metrics and willingly adjusting your DevEx strategy based on their performance. Many traditional development organizations measure software delivery teams on productivity instead of earned value. Developers are measured on lines of code or function points completed. But not all lines of code are equal. Software projects can generate plenty of code but not much business value. To modernize your approach, trade productivity metrics for value metrics.<sup>11</sup>

A notable area that sets apart the minority of organizations that describe their DevEx strategy as mature is that they are more likely to use business value metrics to evaluate the success of their software development team (59% versus 46%) and more likely to say they've been successful at meeting the business value metrics they set (80% versus 47%). For instance, mature companies are at least 20 percentage points more likely than other companies to say they're successful at meeting stakeholder expectations around innovation, competitive positioning, customer satisfaction, and revenue growth. However, you don't need a mature strategy to realize value from DevEx improvements. On average, about half have already realized revenue, developer productivity, and developer job satisfaction improvements from their DevEx investments, and over 80% believe they're on track to realize a host of other benefits including shorter feature release cycles, improved customer satisfaction, and faster time-to-market.

## METHODOLOGY

VMware commissioned this study to understand the business value of a strong developer experience.

To explore this topic, Forrester conducted a global online survey with 651 IT/engineering and line-of-business enterprise leaders.

To read the full results of this study, please refer to the Thought Leadership Paper commissioned by VMware titled, “Elevating The Developer Experience.”

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<sup>1</sup> Source: “Embrace Modern Application Development Techniques,” Forrester Research, Inc., August 2, 2021.

<sup>2</sup> Ibid.

<sup>3</sup> Source: “Forrester’s EX Index: A Deeper Look At The Data,” Forrester Research, Inc., March 4, 2020.

<sup>4</sup> Source: “The Future Of Work Starts Now,” Forrester Research, Inc., August 2, 2021.

<sup>5</sup> Ibid.

<sup>6</sup> Net Promoter, NPS, and the NPS-related emoticons are registered U.S. trademarks, and Net Promoter Score and Net Promoter System are service marks, of Bain & Company, Inc., Satmetrix Systems, Inc. and Fred Reichheld.

<sup>7</sup> For an example of a value stream map, please see: [https://www.forrester.com/pimages/forrester/imported/forresterDotCom/Research/121391/121391\\_10q.gif](https://www.forrester.com/pimages/forrester/imported/forresterDotCom/Research/121391/121391_10q.gif)

<sup>8</sup> Source: “Get MAD With Value Stream Management,” Forrester Research, Inc., February 19, 2020.

<sup>9</sup> Source: “Forrester’s EX Index: A Deeper Look At The Data,” Forrester Research, Inc., March 4, 2020.

<sup>10</sup> Source: “Digital Transformation Requires Development Transformation,” Forrester Research, Inc., December 29, 2020.

<sup>11</sup> Ibid.

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