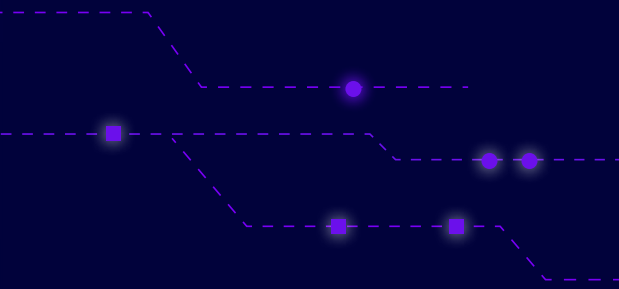


Ebook



# How Enterprise Integration Technology Solves the Talent Shortfall



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## High-Tech talent is in low supply

According to the [US Bureau of Labor Statistics](#), the highly coveted software developer ranks in the top four of the most in-demand professions in 2022, a trend that's expected to continue for the next 10 years.

In fact, the shortage of skilled developers is identified as one of the biggest business challenges in 2022, with close to [200,000 difficult-to-place openings](#) expected in the US alone.

By 2030, it's estimated that the US could lose [\\$162B worth of revenues annually](#) unless more high-tech workers are found. These losses relate to delayed IT projects, slower rollouts of new services and offerings, delays in upgrades to user experiences, and other business-critical initiatives.

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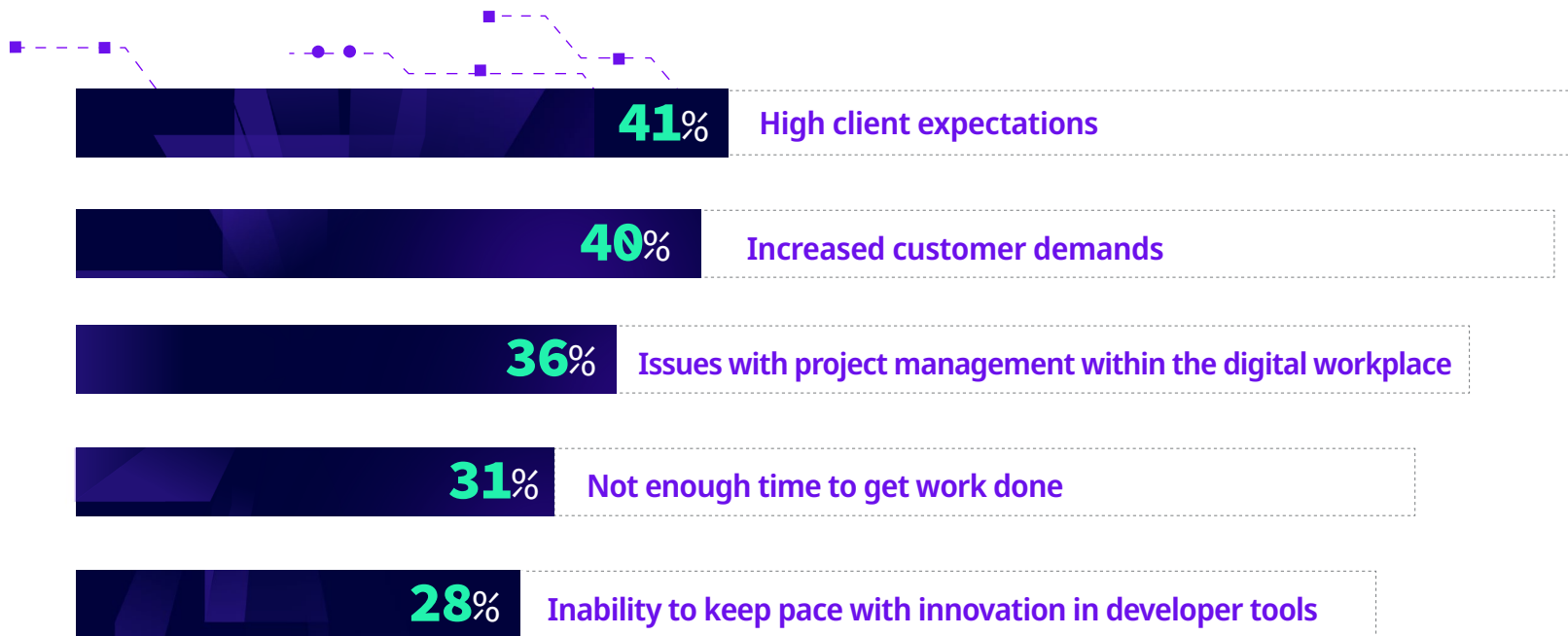
are projected for US companies unless more high-tech workers are found

Something has to give. But it shouldn't be your company's digital transformation and future success. This ebook examines how you can leverage integration technology to augment existing resources, offloading endless cycles of maintenance and other low-value work so your technology teams can focus on helping the business grow and prosper, despite the global skills shortage.

## How we got here

The life of a software developer isn't an easy one. Considered an essential service for most businesses that rely on technology to deliver experiences and products, these skilled workers face a multitude of challenges:

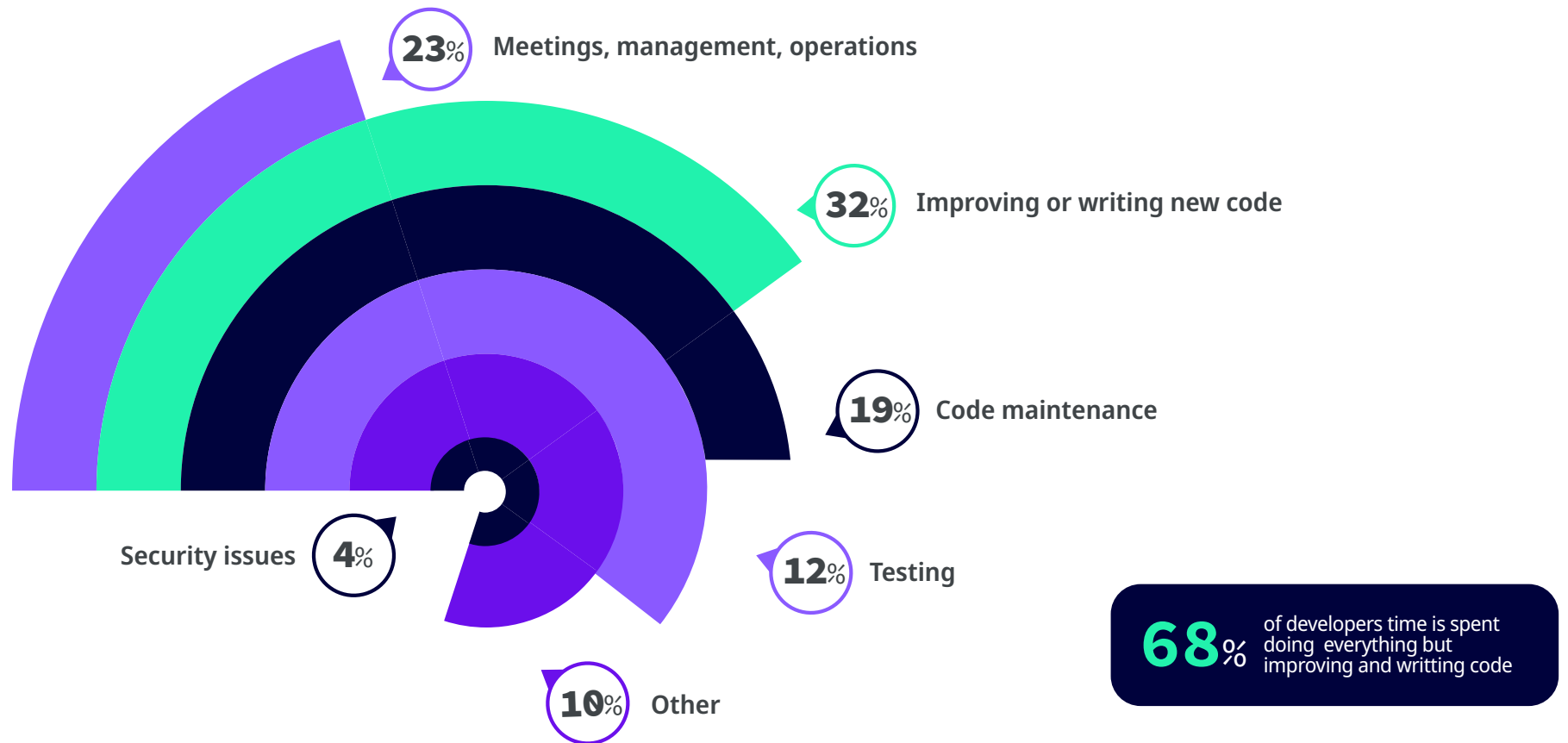
### Biggest software development challenges in 2022

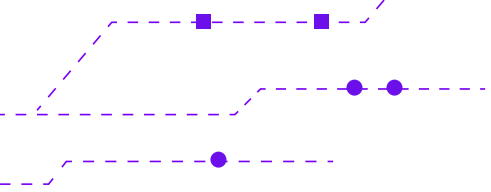


[Reveal Survey Report](#)

It doesn't help that the work is less than inspiring, with developers investing more time maintaining, testing, and securing existing code versus writing or improving it:

## How developers are spending their time





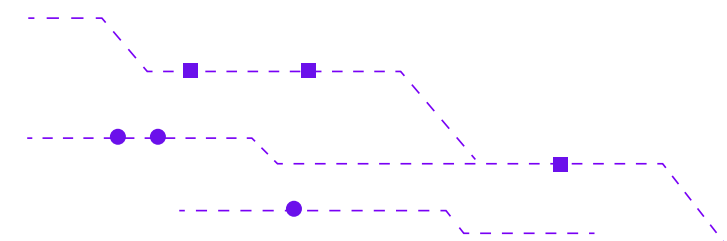
With uninspiring work and increasing demands, retention is an ongoing issue for many organizations.

The current state of the employment market is another critical factor, presenting a perfect storm of conditions to further challenge our access to talent.

For example, gig economies have taken a significant toll. In 2020 we saw a [24% increase](#) of people shifting to this work model versus previous years. This unprecedented growth continues unabated. In 2023, the gross volume of the gig economy is expected to reach [\\$455.2 billion USD](#).

According to the [State of the Developer Nation](#), the world is responding. Although there were 26.8 million active software developers in the world at the end of 2021, experts predict this number will reach 45 million by 2030 as more people pursue courses and certifications to become software developers.

These growth numbers are impressive and will definitely shift the supply balance for junior developers in the medium-term. However, the supply of senior software specialists will remain relatively static. And it's this segment we need most to support the business.





# 58%

Employees that will need  
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## How we can do more

Many organizations are responding by making significant changes to how they attract and retain these skilled workers. Recruitment is becoming more competitive, benefits are expanding in an effort to differentiate and attract the very best, and compensation is increasing at eye-watering rates.

Along with hiring, we must also proactively train and upgrade our existing workforce. According to Gartner, [58% of employees](#) will need new skill sets to do their jobs successfully. Within the specialized field of software development, especially given the speed of technology advancements, it's likely this number is much higher.

Although these are all practical changes that will improve talent hiring and development in the long-term, any meaningful results will take time, causing serious delays to important innovation initiatives the business needs today in order to grow and remain successful into the future.

As we wait for the talent pool to catch up, it's imperative that we optimize the workforce we already have. Rather than continually but our heads against a chronic shortfall of skilled workers, we must innovate. By using digital platforms, low-code technologies, business intelligence, and a shift to cloud-based infrastructure, we can reduce overloaded work schedules, streamline operations, improve user experiences, and save money.



# The answer: to integrate, we innovate

With little time and even fewer resources, we don't have the luxury of rebuilding the entire operation. Instead, we must efficiently connect our current reality with our future plans, integrating systems and data in the cloud to support the success of the business. And we must do all of this using our existing technology teams.

With enterprise integration platforms as a service (eiPaaS), we can achieve these results, quickly and cost-effectively.

The modern integration architecture of eiPaaS expedites digital transformation and cloud migration projects, for a more responsive and agile environment. Data from different systems is integrated into a single, unified view of the business, further accelerating the pace of innovation.

Prior to eiPaaS, integrating new solutions or tools was a heavy lift for development teams. Work had to be completed with little or no disruption to the business. Updating systems for new features, bug fixes, or other integrations was critical, but also inconvenient.

The eiPaaS model optimizes productivity, creating efficiencies across the business:





**Low code:** With simpler workflows, in-house teams focus on the highest-value work. Less experienced team members manage basic tasks, offloading these activities from the specialists. Repetitive tasks are easily automated.



**Data and system agnostic:** Instead of road blocking cloud migrations, legacy systems co-exist seamlessly with contemporary applications. Time-consuming work is eliminated and project deadlines are consistently achieved.



**Cloud native architecture:** Distributed, scalable, flexible cloud platforms require less support and minimal maintenance so developers can focus on adding value to the business by building new code and improving customer experiences.

The efficiencies don't stop here. Some eiPaaS vendors include development, go-live support, and ongoing maintenance to further lighten the load for internal technical teams.

# eiPaaS best practices for your organization

Modern eiPaaS systems apply a Build, Run, Operate model to support our digital transformation objectives and help us build our business case for cloud migration:

## **BUILD**

Use pre-configured components with easy drag and drop capabilities for even the most complex situations. This low-code approach dramatically reduces errors and implementation time so fewer hands can produce more work.

**The Build stage should include:**

- Native, code-free connectors to easily create pipelines
- Persistence and data storage (object store) for additional efficiencies such as implementing a transaction queue
- Flexible trigger conditions for each pipeline
- Event-driven architecture for a fully asynchronous and resilient environment where events are managed, correlated, and re-executed based on your business requirements





## RUN

Integrations run in seconds from development to test to production. Each integration is quickly deployed and fully segregated to ensure performance and security. Monitoring and logging are automatically configured. With speedy process automation, repetitious work is handled by the technology versus your development teams.

### The Run stage should include:

- A 100% cloud-native and fully automated environment with no need to manage the underlying infrastructure
- Container-based architecture orchestrated through Kubernetes with pipelines deployed via replicas
- Process isolation so each replica does not affect the performance of others

## OPERATE

Pipeline monitoring is automatically enabled with no administrative action required. This allows your internal specialists to stay focused on the highest value work.

### The Operation stage should include:

- An interactive, visually enhanced dashboard that graphically displays a pipeline's execution behavior with access to execution logs and other data
- Detailed and informative logs for runtime, request message and pipeline response, with the ability to create new logs based on your business requirements
- Automated, real-time alerts including integration with third-party ticket management and monitoring solutions for immediate resolution





# The four step cloud migration process to empower a lean development team

Lean development teams need defined processes to help enable them to execute efficiently. Regardless of your specific technology stack and integration strategy, here are four critical steps to help you prepare for your cloud migration and digital transformation initiatives with eiPaaS:

## 1 Build a plan

Although this seems pretty straightforward, you'd be surprised at the number of organizations that find themselves stuck mid-way through their cloud migration. Since these projects often support urgent business objectives, it's not uncommon to see a rush to implement.

Before you kick off any work, meet with different stakeholders, define the scope of the work, and apply a timeline based on internal resources, budget, and other factors.

This pre-work should include capturing the baseline metrics of your environment to map asset and application workloads. Understanding how data flows between applications is a critical component in the success of your cloud migration.

Leverage your eiPaaS platform to manage a tandem integration model where legacy on-premises and new cloud systems coexist, working simultaneously and ensuring seamless communication.

## 2 Start small, stay simple, think big

Migrating to the cloud is an exciting initiative, especially given the potential upside for the business. As a result, we often attempt to do everything all at once. With limited resources, this pace of work is difficult to sustain.

Your strategy must consider the interests of the business and the criticality of the affected systems that will be migrated. Select a less critical application or business case to begin, then shift to core applications as the project progresses.

## 3 Test and remediate

Throughout your migration, continually test to identify and remediate issues using your on-premises production environment as a reference.

This model obviates the need to create scenarios or test masses since all data is already integrated. Risk is reduced and time to value shortened, creating a scenario of zero downtime for a successful migration.

This data also informs key performance indicators (KPIs) such as page load and response times, availability, CPU and memory usage, and conversion rates. Use the data to measure your cloud migration KPIs, and when necessary, make adjustments.

## 4 Be prepared for anything

As technology evolves, so will your cloud migration strategy. Consider how you will adjust to new information and requirements as they arise. Even within the first few weeks of your project, you may be required to add or delete components and systems you've already configured.

The eiPaas event-driven architecture minimizes the time and resources you'll need to carry out the work. With built-in decoupling capabilities, response times are much faster, easily supporting the integration of new products and services as needed.





# How Digibee helps solve the talent shortfall

Your cloud migration is one of the most important business initiatives your organization will undertake. With eiPaaS, you can subsidize resource shortfalls and use your existing in-house team of specialists to support your journey to the cloud.

Digibee is an eiPaaS solution that bridges the gap between current systems and new technologies. We help you connect data and platforms that have never been connected before, regardless of underlying silos or legacy infrastructure. With Digibee, you can:

1. Optimize productivity across all team members—regardless of seniority and experience
2. Seamlessly integrate new and legacy systems for a unified operation in the cloud
3. Easily implement smart technologies and other innovations to remain competitive in the market

Contact us for more information or to [schedule a demo](#).

## Reach out for a demo

For more information or to arrange a demo, connect with us at [contact@digibee.com](mailto:contact@digibee.com) or visit our website at [digibee.com](https://digibee.com).

