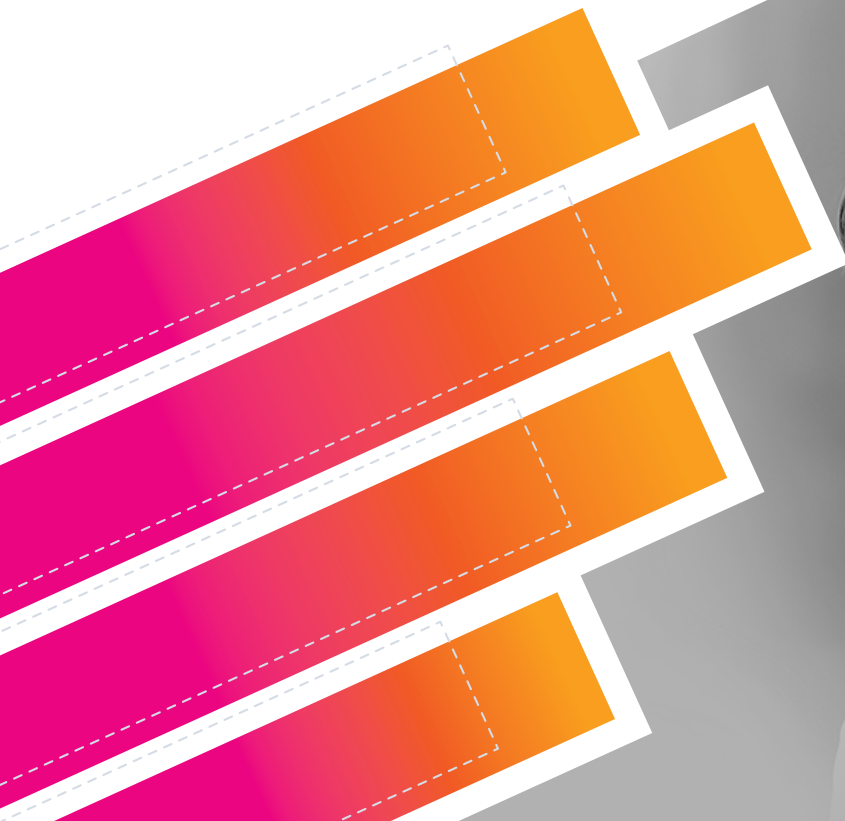


Get to Yes: Use Data for Strategic App Modernization

How to empower developers
with a data foundation that pays
dividends on your cloud journey



Can I effectively prioritize legacy applications for modernization?
Can I be sure refactoring an application will improve customer experience? Can I see how an application is being used by customers and identify the next features to develop?

Developer teams have critical questions like the ones above as they spearhead application modernization efforts for their organizations. Without a way to unite data across environments and avoid data silos, leaders may not be able to answer confidently. But a data foundation helps leaders give a strong “yes” to these questions by giving developers access to the data and tools they need to modernize, manage and troubleshoot applications.

As organizations have come to understand, there are considerable tradeoffs involved in modernizing existing applications to leverage the flexibility and scalability of the cloud. The variety of paths to modernize alone can be daunting. Do you rehost as is, replace legacy apps and infrastructure, replatform applications in the cloud with minor changes, or completely rebuild them to be cloud-native?



On this journey, there are both technical and business factors to consider, especially when it comes to business-critical applications. Keeping apps on-prem risks an inability to scale, while lifting and shifting is relatively simple but does not take full advantage of the power of cloud. Refactoring is effective, as well as expensive and time-consuming. Leaders and their teams are being forced to make difficult tradeoffs quickly, as they try to adapt to the needs of their rapidly evolving organizations and shifting market forces.

In this challenging environment, two things stand out to get to “yes” and ensure developers have end-to-end visibility and the ability to take action: the pivotal role of data and the importance of using the right tools to leverage it.

Organizations need a data foundation they can rely on to support their digital transformation initiatives.

Failed modernization projects are already commonplace — according to a recent Boston Consulting Group study, **70% of digital transformations fall short** despite **80% of organizations having planned to accelerate their transformation initiatives**. But the hurdles will not (and should not) stop organizations from continuing the shift to modern application architecture. Data can help all levels of the organization make application modernization decisions and execute successfully.

The business imperative

Cloud transformation is accelerating as more and more organizations seek to end their reliance on outdated systems that can't adapt in fast-changing environments and unpredictable market conditions.

This shift is apparent when it comes to digital touchpoints with customers. Apps that once played a supporting role are now key business drivers, hastened by the leap in digital engagement caused by the COVID-19 pandemic. [According to McKinsey](#), the digitization of customer interactions has been accelerated by several years — two out of three customer touchpoints are now digital. If digital experiences are not reliable, convenient and secure, it could mean millions of dollars lost through customer churn, negative reputational consequences and losing the edge against competition.

As [Stefan Van Der Zijden, VP analyst at Gartner, has noted](#): “For many organizations, legacy systems are seen as holding back the business initiatives and business processes that rely on them. When a tipping point is reached, application leaders must look to application modernization to help remove the obstacles.”



Three app modernization challenges you'll likely face

So what should you expect when modernizing apps? On the way to achieving transformational benefits like speed, scalability and flexibility, most organizations face several challenges that must be overcome.

Complexity

Highly flexible applications built using cloud-native technologies are necessary to stay competitive. But modernization efforts lead to more complexity, with more cloud services to monitor and troubleshoot, often across multiple cloud providers. There are new potential points of failure and gaps in systems, compounded by the fact that some new apps will continue communicating with legacy systems. Apps at all stages of modernization need to work with each other (both legacy and those built using cloud-native technologies), making it harder to monitor, secure and troubleshoot across IT, security and development.

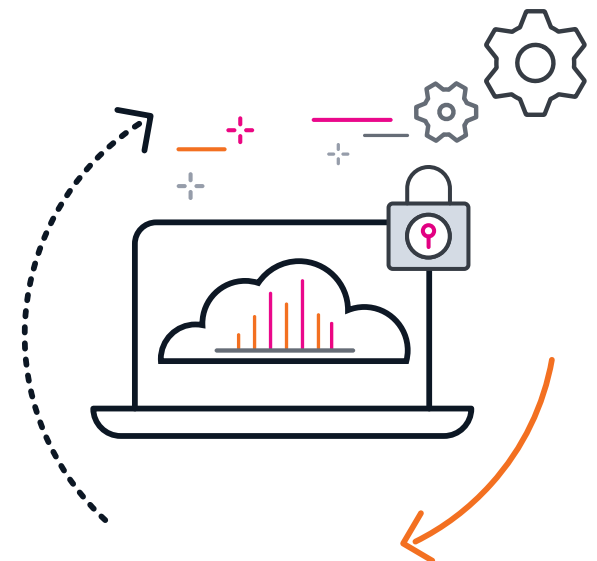
Visibility

Compounding these challenges, organizations often lack the full picture. They cannot see all aspects of user interactions or what is happening on the backend, resulting in a lack of speed and agility when it comes to modernization. For example, developers end up spending more time finding and addressing issues instead of focusing on developing new features, reaching new markets and driving business outcomes. Additionally, the proliferation of tools to manage different systems creates silos of information, gaps and blindspots, which can lead to slower troubleshooting and remediation. Without access to the right data, it becomes near impossible to optimize app modernization efforts. Modernization can quickly become a process of tacking on more and more without a clear understanding of how it all works together.

Security

As app modernization efforts progress, risk compounds as security teams have to protect sensitive data flowing across an expanded attack surface composed of a growing number of third-party tools and services. In addition, traditional security approaches are heavyweight and require security professionals, which slows down development in an agile, DevOps world. It's critical for security to be incorporated throughout the full development process to deliver secure applications at the pace of DevOps. Security is such a critical issue that it was identified in [a recent 451 Research survey](#) as the top public cloud challenge facing organizations.

But managing complexity, visibility and security and the risks they generate is possible and should not deter organizations from their transformation journeys. Here's how you can get app modernization right.



Tackling app modernization head-on with data

From pre-migration prioritization and planning, to ensuring effective migration to the cloud, to monitoring and securing apps post-migration, teams need a data foundation.

A comprehensive data foundation provides centralized access to all relevant data and gives consistent security and observability across environments. Leaders need to make sure the teams responsible for securing, operating and innovating are empowered with access to the same data, wherever it resides.

Having the right data foundation helps organizations identify the right apps to update, such as those not meeting customer performance expectations. Organizations can take full stock of their legacy applications, including their stress points, performance requirements and dependencies, so leaders can decide which application needs to be tackled right away and select the right approach. And once on that journey, data is the key driver for success, as it helps optimize and validate changes and remediate any issues that occur amid transformation. In short, centrally accessible data can help provide insights into bottlenecks in application delivery; identify redundancies, infrastructure challenges, and security and compliance issues; and even help developers roll back an update if necessary. It also provides user insights that inform how to improve customer experiences and application features.

Point solutions alone cannot do this and actually can add to the complexity problem due to their disjointed nature. A true data foundation provides end-to-end data coverage in one place for quick, effective action — whether it's from new cloud-native applications built using microservices, or three-tiered monoliths sitting in on-premises data centers.

The only way to create a data foundation is with an extensible data platform that supports virtually unlimited use cases. Centralized, contextual visibility allows all teams to work from the same data across systems to reduce manual work and drive investigation and rapid time-to-action. Cloud demands more alignment and collaboration than ever, and application modernization will only be effective if teams take a holistic approach to solve problems together while relying on consistent data.

The importance of observability

As mentioned above, a key element of a strong data foundation is observability, which is a must for successful application modernization efforts. Observability is the evolution of monitoring in the cloud era, making it possible to spot problems and opportunities across on-prem, hybrid and multicloud environments at even the most granular level. Observability helps to accelerate problem detection and resolution, increase visibility across complete systems, tighten alignment between development, security and operations teams, and accelerate application development and deployment.

In fact, a recent [ESG report](#) found observability leaders are more than twice as likely as other organizations to have a tighter grasp on applications down to the code level. Additionally, these leaders are nearly three times as likely to enjoy better visibility into application performance. To top it off, they report 60% more new services, products and revenue streams compared to organizations just beginning to dabble in observability.

The trend toward observability is also positively affecting security. Organizations can reduce blind spots and stop security threats in their tracks, whether in development or once apps are deployed. The same report found that observability leaders were 2.3 times more likely to experience full visibility into their security posture.

What should leaders do?

To approach application modernization strategically, leaders need to consider it part of a broader business transformation and unlock the power of their data. Leaders need a data solution that will help them “get to yes” with their builders by providing end-to-end system visibility and the ability to take action, specifically by enabling developers to:

- **Prioritize their modernization efforts.** Pinpoint where app performance is falling short and identify cost-effective approaches to modernize.
- **Go to market faster.** Free up DevOps teams to innovate and accelerate releases.
- **Deliver reliable digital experiences.** Ensure apps are high-performing and resolve issues faster.
- **Establish a unified security posture.** Secure applications at all stages of modernization, from development to production.
- **Optimize costs.** Gain transparency into cost, usage and capacity to minimize operational and cloud costs.



Mastering modernization with data

[Care.com](#) is an outstanding example of getting modernization right. As an online platform that users rely on to find family care, Care.com needed to be able to investigate and resolve incidents on its platform speedily and allow developers to quickly release new features with greater confidence. But that was a big ask considering it had 13 years' worth of disparate systems inherited from acquisitions — plus initiatives to refactor its monolithic architecture into microservices. To address these challenges, it sought to establish a unified data foundation. The results speak for themselves: Where solving a problem may have taken an hour or more before modernizing, the team now finds and fixes issues within minutes.

Additionally, a strong data foundation helped launch new initiatives, like Care.com's back-to-school push: “We had a hard deadline, brand new architecture and a lot of firsts, including the first time releasing anything on Kubernetes and the first time using gRPC services,” says Sean Schade, principal architect at Care.com. “I don't think we would have been able to release our features [before] because we wouldn't have had the ability to see if the product was working and troubleshoot any unforeseen issues.”

All it takes is the right approach to modernization armed with the right data-centric solution.



Get started today.

Learn how you can **effectively tackle app modernization on your cloud journey.**

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22-22069-Splunk-Get to Yes-Use Data for Strategic App Modernization-EE-106

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