

Observability:

A critical business initiative for an organization's strategy to succeed in digital transformation

Outline

Businesses have been undergoing a seismic shift in how they interact with their customers. An increase in online interactions and engagement has forced organizations to rethink how to effectively serve customers and grow the business. The emergence of highly scalable cloud infrastructure and cloud-native applications along with efforts to embrace and adopt these transformational technologies have been top of mind for leaders.

The COVID-19 pandemic has accelerated the timeline for digital transformation across all industries. Businesses have had to transform overnight and that rapid shift has been felt across all the digital experiences that an organization has to offer, whether customer-facing or employee-facing. This increased reliance on digital experiences has also forced organizations to reconsider their traditional siloed monitoring tools, leaving blind spots, and instead consider a more modern approach: implementing observability as a strategic business initiative.

Key business problems solved by observability



Developer, DevOps, and SRE productivity



High reliability



Cost-performance optimization



Unified management for cloud-native and monolithic apps



Rapid recovery



Minimize release and operations cost

Source: EMA

Digital transformation requires a new approach

A recent [MIT Sloan study](#) shows that being a “fast follower” isn’t really an option anymore and companies that haven’t evolved as fast as their peers have found themselves lagging behind. This new digital age has also drastically transformed the expectations customers and employees have when interacting with organizations, forcing businesses to be proactive about application performance and delivering meaningful experiences to delight customers.

Business transformation is possible only through the accelerated adoption of technology spanning hybrid cloud complemented with the development of distributed applications. This rapid increase in the asynchronous development of services for distributed modern applications has resulted in no single team or individual having a complete picture of all the dependencies in production environments. The amount of telemetry data (metrics, logs, and traces) generated within organizations has increased exponentially and is often siloed in different tools, forcing development and operations teams to spend too much time triaging problems. Swivel chair investigation of application performance issues results in higher mean time to detect (MTTD) and mean time to repair (MTTR), reduced developer productivity, and slower innovation.

As a result, businesses need a single platform to collect, analyze, and correlate the increasing volume of telemetry data, along with the ability to use machine learning to detect and surface anomalies. An observability solution should also be able to deliver meaningful insights and connect business and operational KPIs, enabling teams to analyze and correlate all of their telemetry data to answer questions. Over the long term, organizations will also reap rewards around faster innovation and an improved digital experience for customers.

Software releases
with observability



70%
faster



4x
more
features

Source: EMA

Accelerating your observability journey to achieve operational efficiency

Recent research by [Enterprise Management Associates \(EMA\) group](#) indicates that observability is the number-one challenge for DevOps teams in 2021 and is fast becoming a critical business initiative. The report showed that operations and development teams spend 50% of their time determining the root cause of problems. In addition, teams that focus on observability are able to develop 70% faster and maintain increased product velocity with four times the number of features. EMA also found that collectively, observability-related efforts in CNCF (Cloud Native Computing Foundation) rank at the top of the interest list for the community. Observability is a true competitive advantage for highly innovative teams that can automate tedious, manual tasks, understand their data to deliver actionable insights, and speed up application development.

The exponential increase in data, developer tool sets, and cloud services has forced organizations to consider multiple factors in order to succeed. Working with modern technologies doesn't just involve a technology choice — it also necessitates the development of new skill sets and evolution-adoption of processes. Teams have to evolve their thinking from a limiting pre-provisioned data center approach to the cloud world, where on-demand scaling is possible, both horizontally and vertically. However, lack of proper planning and traditional methodologies in cloud adoption might generate significant costs resulting in failed projects. Similarly, different cloud, software, and architecture choices also require organizations to hire for those new and often unique skill sets. In an increasingly competitive and software-driven world, this transformation is tricky and complex. The right culture and thought process has to be established for it, along with the technological choices. Observability is critical to the success of this evolution, as it provides end-to-end visibility across your entire environment.

Top five causes of application downtime and performance



37%

Changes



31%

Code bugs



16%

Migrations



11%

Security



5%

Upgrades

Source: EMA

According to EMA, the top five causes of application downtime and performance degradation are: changes, code bugs, migrations, security, and upgrades.

While observability may appear to be a daunting goal for organizations, those that start down that path can reap rewards from operational as well as financial and business perspectives. The complexity of software architecture both in the cloud and on-premises will continue to grow. The amount of data growth generated by your applications will be exponential, and teams are already overwhelmed with the current volume. Organizations need an observability solution that can scale to growing needs, provide complete visibility across environments, and proactively detect and surface anomalies before they negatively impact customers and the business.

The key to long-term success will be the ability to automate and get insights into your application environments as well as a full and in-depth understanding of your customers' digital experience. Observability is the solution that delivers in-depth visibility for your applications and helps organizations tie their business and operational KPIs together. Creating a customer experience-first culture and developing observability expertise takes time, but delivering top-notch digital experiences consistently for your customers is truly an effort worth undertaking.

To learn more about observability, visit us at elastic.co/observability.