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Application Experience Analytics Services

The emerging market demands and how
service providers can address them



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Executive Summary

Across your customer base, there's a clear, compelling need for digital business transformation. There's also another commonality: Organizations are running into challenges as they set out to pursue this transformation. Application experience analytics services are emerging as a strategic way for service providers to help customers address their critical challenges and accelerate their digital business transformation. This paper offers an in-depth look at the customer challenges and requirements—and how service providers can profit by delivering these analytics services.

Introduction: The Criticality of User Experience and Digital Transformation

The digital transformation imperative

Today, software innovation is what's fueling business innovation. In industries as diverse as manufacturing, financial services, retail and health care, applications are increasingly defining the customer's experience. Applications are how products, services and value are delivered—and how business gets done.

In every sector, software innovation will continue to accelerate, disrupting markets and competitive landscapes with increasing rapidity. To keep pace and thrive in their markets, companies will need to deliver innovative applications with increasing scale, speed and quality. To meet these objectives, organizations will need to embark on a fundamental digital business transformation.

The criticality of user experience

Ultimately, the success of digital transformation and market innovation will be defined by one key aspect: the user experience.

Each digital interaction offers a business the chance to delight a customer—or lose one. Businesses have seconds to deliver a positive experience that's differentiated from the other options available. They must address the expectations of a user community that is accustomed to intuitive, fast, engaging and stable application experiences—and increasingly unforgiving when those expectations aren't met. Even slight delays or subpar experiences can immediately get a customer to move to the next alternative. Further, the damage of a single negative user experience can quickly escalate as low user rankings and critical comments are disseminated.

It is for these reasons that employing application experience analytics is emerging as such a vital imperative. The following sections offer an in-depth look at a market survey that illustrates how organizations are contending with the imperatives for digital transformation, including the challenges they are encountering as they embark on these initiatives. The paper then takes a detailed look at how these challenges are creating widespread demand for application experience analytics services and creating significant opportunities for service providers.

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Digital Transformation: Customer Priorities, Requirements and Challenges

To gain a better understanding of how organizations are progressing in their digital transformation, CA conducted a survey of 200 IT decision makers, application owners and application developers.¹ The following sections examine some of the key findings from this survey.

Universal consensus: digital transformation investment and benefits

This survey vividly illustrates that enterprises are making digital transformation a priority and investing accordingly. The overwhelming pressure on organizations to digitalize has resulted in nearly all (96 percent) of respondents' organizations investing more in digital initiatives in the past 12 months.

The survey explored the drivers for this increased investment. All respondents are expecting at least one benefit by embracing digital practices. One of the primary motivators is revenue growth, with 99 percent of respondents feeling that their organizations would increase revenue through digital transformation. Further, they're expecting revenue to increase substantially, by an average of 21 percent.

In addition, more than half (54 percent) of respondents expect to attract new customers and the same percentage anticipates IT cost reductions. More than a third (34 percent) feel that embracing digitalization will help them remain competitive in their markets.

Challenges are also universal

However, while there's this widespread increase in investment and a universal consensus in expectations around digital transformation's benefits, there's also a consistent picture of challenges being confronted. Ninety percent report encountering business challenges, and 91 percent have seen technological challenges when trying to embrace digitalization.

Organizations are struggling with speed to market (44 percent) and technological complexity (42 percent). These technical challenges stem in large part from the burgeoning complexity of today's environments, which now have APIs, microservices, containers, cloud services and a number of other elements being combined with legacy infrastructures. These complex, interdependent environments present many points of failure.

Further complicating matters are the diverse systems of engagement that have to be supported. For today's businesses, each distinct application needs to be available on web browsers, multiple mobile device platforms and, increasingly, wearable devices. For each platform, multiple operating systems and version variants may need to be supported. Further, for each specific application, multiple releases will always need to be supported at any given time.

Organizations are also contending with new operational requirements. Digital transformation and execution requires the effective collaboration of individuals across an array of groups, including design, development, IT operations, DevOps, marketing, innovation centers and business leadership. These efforts are being stifled by many organizations' current approaches, which are characterized by siloed tools, teams and workflows. Further, silos exist not only between internal teams, but among increasingly complex networks of outsourced service providers, cloud providers and hosting providers.

94 percent indicate they need to improve the way they measure the customer experience.

These new technological and operational realities are creating a skills gap in many organizations. When asked about their challenges in trying to improve digital experiences, 35 percent said they lack the in-house technical skills required.

The lack of visibility into user experience—and the costs

When it comes to visibility and insights into the digital experience, there’s also a widespread consensus and it isn’t a good one. Eighty-eight percent say they lack insight into the digital experience, and 94 percent indicate they need to improve the way they measure the customer experience. There can be a clear conclusion as to the impact of this lack of visibility: Only 21 percent completely agree with the statement that customers are satisfied.

The Business Opportunity for Service Providers

The statistics uncovered by the survey paint a very clear picture: Digital transformation is a key initiative, but significant obstacles are standing in the way. One of the chief hurdles is a lack of visibility into the digital experience. Again, 94 percent of respondents indicated that they needed to improve the way they measure the customer experience. Service providers with a range of backgrounds can help in addressing these widespread requirements.

By delivering application experience analytics services, service providers can gain a foothold in an expanding market that’s seeing broad-based and increased investment. In addition, they can provide high-value, strategic services that address a critical demand for insights into the user experience, and therefore help support customers in pursuing a key strategic objective: digital transformation. As a result, these analytics services can represent an optimal first step for many service providers looking to move out of commoditized markets and into the strategic digital transformation services arena, which can set the stage for long-term success.

Figure A.

In the application economy, success will increasingly be defined by the user experience.



When the user's experience suffers, locating the cause of the issue can be like finding a needle in a haystack.

Analytics Services: Key Customer Requirements

Application experience analytics services provide vital insights that enable customers to improve the user's digital experience. The survey polled users on their current analytics approaches and found that they're lacking in the following areas:

- Insight into the customer journey from one channel to another (42 percent).
- Performance analytics for monitoring transactions from the user device to the back end (36 percent).
- Developer analytics for crashes and application flow optimization (32 percent).

The following sections offer a look at each of these areas.

Insights into customer journeys across channels

In an e-commerce scenario, a user may be browsing offerings on a smartphone, and then switch to a laptop to complete a purchase. If an analyst is looking at data from various reporting silos, it may be difficult to identify that the browsing behavior on the phone and the purchase on the laptop were from the same person. Further, without strong, unified visibility, it will be difficult, if not impossible, to ascertain why the user made this change. Was it a poor experience or bug that was encountered on the phone? Are the mobile shopping features poorly designed?

By combining user behavior data with operational performance metrics, analysts can better understand how and where customers are using applications, and, if they encounter a poor experience, quickly determine the root cause so it can be addressed, before other users are affected.

Performance analytics

Modern application infrastructures are composed of a diverse mix of legacy, on-premises systems, APIs, cloud services and more, which creates a complex path for transactions to travel. Each element in the application environment can be generating its own data and be tracked with a unique tool. When the user's experience suffers, locating the cause of the issue can be like finding a needle in a haystack.

Figure B.

Analytics can provide holistic visibility into the performance of various aspects that affect the user experience.

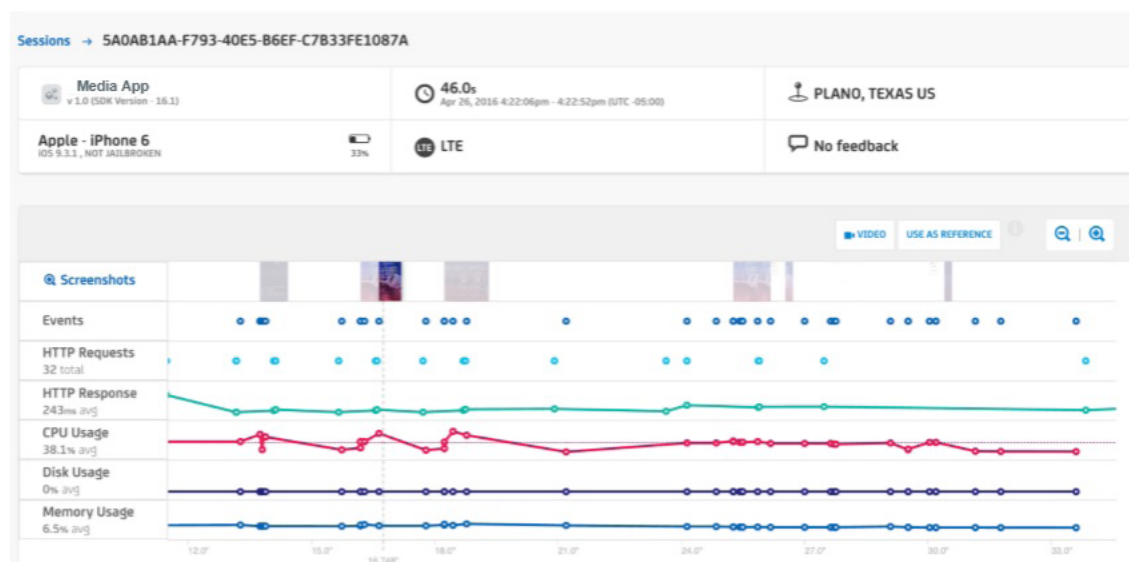
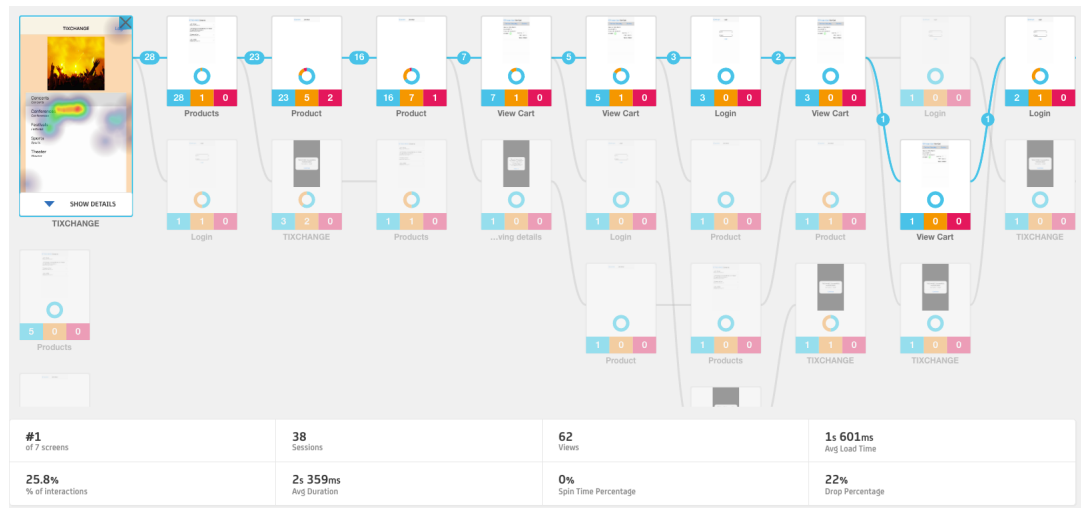


Figure C.

Heat maps offer intuitive insights into user engagement with applications.



Application experience analytics services offer the opportunity to marry outside-in user experience data and an inside-out view of how each element is performing. By offering this holistic visibility, your customers can more quickly locate specific design, code or architectural issues—and drill down to get all the details needed to address them.

Through strong analytics, service providers can offer comprehensive visibility, from user devices through to mainframes and cloud services. Through the insights delivered, customers will know where to focus their limited resources so they can make the biggest impact on the user experience.

Usage analytics

When you can examine performance, crash and usage data together, you can get a holistic view of users' journeys through your applications. Through robust analytics services, you can provide clients with capabilities like session replay, screen heat maps, navigation analysis and more. With this rich user experience data, you can help customers track how users access an application, how often, how frequently they switch between channels and how often they're affected by performance issues, errors or crashes.

These insights are critical to understanding whether or not bad design, code, infrastructure or other aspects are having a negative impact on users. By providing these usage analytics, you can deliver the insights needed to improve specific areas that will have the biggest impact on customer retention and satisfaction. By helping your customers understand how users interact with an application, and when and why they encounter issues, you can help provide insights for improving the design and flow of applications in subsequent releases.

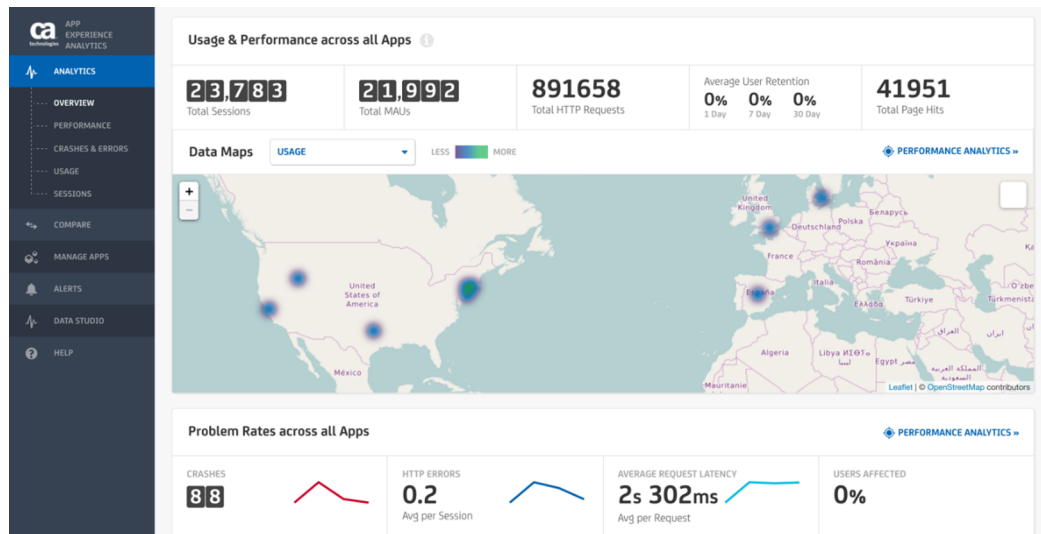
Groups That Gain Value from Analytics

Application experience analytics services can deliver value to key groups across the enterprise:

- **Innovation centers.** In today's markets, the successful innovators will be the ones that focus on the user experience. Organizations need to define what an optimal user experience looks like, deliver on that experience, track and optimize engagement and continue to iterate. Application experience analytics will

Figure D.

Robust analytics solutions offer at-a-glance views of usage across a range of dimensions, including region, network/carrier and more.

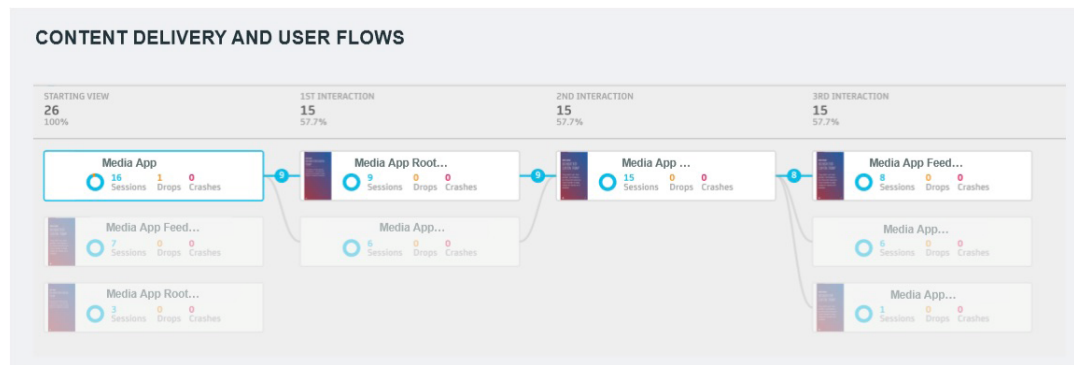


therefore be critical. These analytics can provide visibility into customers' likes and dislikes, what keeps them engaged and how these aspects are changing, which will provide invaluable insights for defining innovation road maps and tracking success along the way.

- **Operations.** With effective analytics, operations teams get the vital insights they need to track and manage the performance of their applications. They can monitor such factors as whether an API call made it to the data center, whether it was completed and, if so, the complete round-trip response time.
- **Developers.** Application experience analytics can provide invaluable intelligence for developers, including details on where users encounter crashes, activity logs that help pinpoint code issues and so on. All these aspects can be invaluable in boosting developer productivity and fueling enhanced development, design and delivery.
- **DevOps teams.** By leveraging analytics not only in production applications but across the development pipeline, DevOps teams can establish a real-time feedback loop that fuels optimized application quality and team productivity. Contextual application usage insights enable DevOps teams to more quickly address quality issues and more intelligently define future enhancements.
- **Business leadership.** Today, application issues are business issues. Analytics equip business leaders with the essential insights they need to track the business performance they're receiving from their applications. With these services, they can gain capabilities for analyzing funnels, conversions, transactions, customer segments, retention rates, abandonments and more. They can also do predictive analytics based on trend data, so they can better preempt customer issues and capitalize on emerging opportunities.
- **Application owners.** For application owners, application experience analytics deliver insights that can help fuel improved adoption, engagement and conversions. As opposed to limited, pre-production testing, these analytics reveal how the entire user community interacts with an application. Analytics can cover such topics as application design, engagement and intuitiveness. Your analytics services can offer capabilities for doing A/B or multivariate testing, navigation analysis and custom event tracking. With these capabilities, application owners can more effectively track how users are engaging with applications.

Figure E.

Analytics can provide invaluable insights into the user's journey.



How Customers Benefit

By delivering comprehensive application experience analytics services, service providers can offer the following benefits to customers:

Realize fast time to value

Help your customers quickly start leveraging sophisticated application experience analytics, so they can quickly harness its benefits in their businesses. By relying on your services, customers can avoid the laborious, multimonth effort of setting up analytics capabilities internally. Not only does this reduce upfront cost but it minimizes the opportunity costs associated with the delay in gaining critical application experience insights. Organizations can get started more quickly and leverage an optimized implementation that yields useful insights on day one.

Improve service levels

These services help customers triage and fix performance issues faster by segmenting performance and analytics by various dimensions, including network/carrier, location, operating system and device type. Customers gain the insights they need to preempt issues, reduce downtime, enhance performance and optimize the end user's experience. Your customers gain the peace of mind that comes with predictable, reliable service levels and dedicated, 24/7/365 support.

Enhance cost efficiency and predictability

Through advanced analytics, customers will be able to reduce costs by minimizing the frequency and duration of outages—and all the efforts associated with triage and emergency calls. Customers can leverage the vital analytics they need to optimize digital business operations. By employing your services, your customers can leverage application experience analytics as an ongoing operational expense versus capital investments, and therefore gain increased budgetary predictability. Customers eliminate the upfront and ongoing cost of procuring, implementing, supporting and hosting application experience analytics platforms internally.

Boost revenue retention and growth

These analytics provide the visibility that's essential to delivering a seamless customer experience across channels. By enhancing user experiences, your customers will reduce the financial risks associated with negative user ratings. Through these services, you give customers the insights they need to speed the delivery of the most important features and services, so they can accelerate revenue growth.

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Optimize business outcomes

Application experience analytics go beyond data on crashes; they provide visibility into the complete user's journey, from initial download to completed transactions and return visits. These analytics enable customers to analyze the application experience across various dimensions, including usage metrics as well as user engagement, activity and retention. By gaining granular visibility into user issues, activities and habits, your customers can more intelligently support DevOps initiatives, manage ongoing application enhancements and speed delivery to customers. Using these insights to optimize the user journey, your clients can enhance offerings and services, retain and attract new customers, increase revenue, achieve faster resolution times and speed digital business transformation.

Strengthen staff's strategic focus

Help your customers' internal teams offload all the effort associated with managing analytics implementation, maintenance and reporting—so they can focus on innovating applications and other strategic efforts. By leveraging advanced analytics services, customers' internal staff members don't have to manage tool or vendor selection, procure or host application experience analytics software or handle ongoing tool maintenance.

How Service Providers Benefit from Adding Application Experience Analytics to Their Portfolio

The business imperative for application experience analytics

In recent years, traditional, infrastructure-centric managed services have become highly competitive and increasingly commoditized. At the same time, in the application economy, customers are increasingly focused on digital transformation and application experience.

In response, many service provider executives are exploring strategies for adapting their service portfolios to support digital transformation. However, while the need to deliver these strategic digital transformation services is clear, many are struggling with the steps needed to make this a reality. Toward that end, application analytics services can represent an ideal starting point. These analytics represent a key ingredient that can help accelerate customers' digital business transformation. As a result, these services represent a pragmatic way to start responding to customers' digital transformation requirements.

By delivering higher-level, higher-value, application-experience-focused services, service providers can stay aligned with customers' shifting priorities, and stay relevant to customers over the long term. Through these services, service providers can leverage their expertise, expand out of highly commoditized markets and address a critical market demand. Quite simply, service providers can gain market share through delivering these analytics services—or risk losing market share to those that do.

The business benefits you can realize

When you add high-value application experience analytics to your service catalog, your organization can:

- **Increase revenues.** By delivering application experience analytics services, you'll address an urgent and growing demand in your markets. Take advantage of more cross-sell and up-sell opportunities within your existing accounts, and win bigger, more complex and more profitable deals with new clients.

- **Strengthen account control.** Through these analytics offerings, you'll gain the ability to deliver more strategic, comprehensive services that offer more business-level benefits. These services will enable you to deliver value and establish relationships across the business, including with development teams, application owners, innovation centers and digital business staff. Consequently, these services can help you significantly expand your visibility and improve loyalty within your existing accounts.
- **Enhance margins.** By delivering application experience analytics services, you can provide premium, high-value offerings that command higher pricing, particularly compared to more commoditized, infrastructure-centric services. As a result, these analytics services can help you realize maximum profits and revenue growth.

Potential Service Offerings

Service providers can offer an array of services that support customers in realizing their application experience analytics objectives. They can provide complete services for setting up, implementing, managing and optimizing analytics on an ongoing basis. These offerings can include some or all of the following services:

- **Configuration and setup.** Service providers can help with all the efforts associated with implementing analytics. This can include directory integration and setting up administrator and user permissions. This can also include platform integration and configuration, establishing alarm thresholds and escalation policies and more.
- **Application wrapping.** In deploying analytics platforms, each application to be tracked needs to go through a wrapping process, that is, adding the code required for analytics to be generated and captured. It is important to recognize that this is an ongoing effort: Each time a new release of an application is delivered, it will need to be wrapped. Service providers can help with wrapping on an ongoing basis. They can do application wrapping for customers' internally sourced applications. They can also act as an intermediary, working on behalf of their customers to assist third-party development organizations or ISVs with wrapping.
- **Analytics.** Services can include capturing, batching, categorizing, analyzing and disseminating analytics. To provide maximum customer value, these analytics should cover the top three customer requirements outlined above: cross-channel analytics, performance analytics and usage and user-experience analytics. Service providers can offer to provide these analytics over specified intervals, including daily, weekly and monthly.
- **Customizable, role-based dashboards and reports.** Service providers can deliver dynamic, contextual dashboards that give customers visibility into the entire digital user experience. They can provide a mix of pre-packaged dashboards and offer assistance with developing and delivering customized dashboards that are tailored to specific users and roles, including developers, application designers, application owners, operations, innovation teams and business leadership.
- **Capture, analysis of alerts.** Service providers can assist with development, setup and ongoing refinement of thresholds and alerts. They can also handle monitoring, fielding and filtering alerts, and even investigating and remediating issues.

Application experience analytics services can represent a natural evolution for many different types of service providers.

Application Experience Analytics Services: A Logical Evolution for Many Service Providers

Application experience analytics services can represent a natural evolution for many different types of service providers. Service providers can leverage their existing people and processes while expanding their service catalog, and deliver compelling analytics services that help customers optimize the experience their applications deliver. The following sections offer a sampling of various types of service providers and examples of the ways they can adapt to support analytics services.

Reseller and early-stage managed service providers

Application experience analytics services can be optimal offerings for resellers looking to expand into managed services and for early-stage managed service providers (MSPs) that are looking to grow their offerings and sales. These service providers can pursue a few potential approaches:

- **Project-based services.** These businesses can start with offering project-based services, for example, aiding with initial implementation, application wrapping and the like. They can also be available to assist with services on an as-needed basis, for example, when a new release needs to be wrapped or a new dashboard is required. With a solid analytics platform, these providers can build off these one-time projects to offer ongoing managed services.
- **Analytics-as-a-service offerings.** Service providers can leverage application experience analytics platforms, and package these as subscription-based offerings for customers. On top of these offerings, they can also layer project-based services, such as implementation and configuration services, as well as recurring managed services, such as monitoring, maintenance, remediation and reporting offerings.
- **Land and expand.** Service providers can use application experience analytics as a strategic entry point into new accounts, and then offer additional services to expand in those accounts over time. Often, these analytics will highlight issues in back-end infrastructures. When these issues arise, service providers can use that as an opportunity to offer the customer additional services, such as application performance management (APM) or infrastructure monitoring, that help customers pinpoint issues in back-end environments.

Established MSPs with infrastructure monitoring experience

Application experience analytics services can present significant opportunities for MSPs that offer traditional IT infrastructure managed services, such as network and server monitoring. These MSPs can expand their offerings while leveraging their expertise in tracking, analyzing, aggregating and distributing monitoring data.

MSPs can add an application experience analytics tool to their environment, then leverage their existing expertise and workflows, for example, with proactive monitoring and escalation processes. These analytics can provide an optimal complement to infrastructure management platforms and ultimately equip customers with end-to-end monitoring of their entire ecosystem, from the mobile device to cloud services and back-end mainframe. MSPs can provide various tiers of services, including monitoring and reporting, maintenance and remediation and proactive management and optimization.

These analytics can provide an optimal complement to infrastructure management platforms and ultimately equip customers with end-to-end monitoring of their entire ecosystem.

Established MSPs with APM experience

If an MSP provides APM services, application experience analytics services can be a great way to expand offerings and increase customer value. With application experience analytics services, MSPs can provide even more insights into the user journey. With this extensive visibility, customers can uncover ways to enhance performance of the application infrastructure and services customers receive.

Established service providers with application development experience

Service providers with application development services are well-positioned to harness application experience analytics services in their businesses. They are highly qualified to help with the initial configuration and application wrapping efforts, and they can use this as a starting point to deliver analytics services on an ongoing basis. Further, they can leverage their expertise and the insights from analytics to help customers initiate or refine their DevOps initiatives.

Service providers that offer application broker services can extend the relationships they've established working as intermediaries between customers and other third parties. These service providers can work with the customer and third-party developer to help with wrapping, and they can also play an integral role in leveraging analytics to most intelligently improve upcoming road maps and development efforts.

Global systems integrators and global service providers

With strategic consulting organizations that are accustomed to selling into business leadership, and technical implementation staff that are accustomed to working with IT decision makers, many global systems integrators (GSIs) and global service providers (GSPs) are well-positioned to deliver application experience analytics services. GSIs and GSPs are well-versed in the requirements associated with technical implementation, but even more important, they're uniquely qualified to help bridge the silos that exist in many organizations, including between business and technology teams and between different technology groups. This ability to bridge silos will also be invaluable in helping customers manage analytics and leverage their insights across complex networks of outsourced service providers, cloud providers and hosting providers.

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With CA App Experience Analytics, your organization can quickly and efficiently deliver the sophisticated analytics services that customers urgently need today. The solution powers winning services by providing these capabilities:

- Mobile app analytics
- Web and mobile APM
- Crash analytics
- User experience and design analytics

Click here to register for your 30-day free trial.

Advanced Tools Critical to Successful Services

For service providers looking to capitalize on the potential of application experience analytics, the analytics platform deployed can be a make-or-break factor. To find a tool that will help maximize your success, look for the following key characteristics:

- **Comprehensive, flexible environment support.** If an analytics solution only supports a limited number and type of applications and platforms, it will place significant constraints on your addressable market for analytics services. Look for platforms that provide extensive support for applications and platforms, including web, mobile and wearables.
- **Robust, comprehensive analytics.** The level of analytics delivered has a direct impact on the value customers receive. To provide maximum value, look for platforms that offer support for cross-channel analytics, performance analytics and usage and user-experience analytics.
- **Operational efficiency.** When it comes to service profitability, your analytics platform can either be a significant advantage or major inhibitor. Look for capabilities like SaaS delivery, efficient multitenancy support, automation and centralized consoles, which are all integral to operational efficiency and high margins.
- **Scalability.** If your analytics services succeed, you'll need them to scale—and do so quickly, efficiently and cost-effectively. Look for analytics platforms that offer the scalability that enables long-term growth, both within accounts and across customer accounts.

Conclusion

Application experience analytics services represent a key way for many service providers to address an urgent customer demand and deliver strategic services that position their businesses for long-term growth. To find out how you can harness the tools and resources your organization needs to deliver high-value, differentiated and profitable analytics services, be sure to learn more about the CA App Experience Analytics managed service offering (MSO). This MSO is a complete, packaged bundle that provides the products, sales playbook and presentation, marketing guide, white-label collateral and business enablement resources you need to build and deliver successful application experience analytics services. To get started, see the **CA App Experience Analytics solution brief**.



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