

Best Practices for Successful Digital Experience Management

An ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) White Paper

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Best Practices for Successful Digital Experience Management

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Best Practices for Successful Digital Experience Management

Executive Summary

Expectations for digital user experience have never been higher, and the bar is constantly being raised by an ever-demanding, sophisticated audience of internal and external users. Simultaneously, the complexity involved in IT monitoring is skyrocketing with cloud technology and Agile development. To succeed, enterprises need a comprehensive digital experience management (DEM) solution that addresses the key use cases across IT and the business and enables the company to ensure an excellent user experience for every business-critical application in their portfolio. Accomplishing this is easier said than done. This paper reviews the principles and best practices to enable IT to survive this perfect storm where rising expectations meet escalating complexity.

Introduction

This report leverages recent research on digital, user, and customer experience management that underscores the many dimensions of digital experience optimization.¹ Backing this research is EMA's consulting best practices. These principles and practices include a focus on a broad range of stakeholders and domains, multifaceted technology requirements, support for cloud and DevOps, insight into business as well as IT performance, and strong hooks into automation for remediation and infrastructure optimization. In part because of these multidimensional requirements, digital experience management can become a catalyst for unifying IT priorities and advancing IT's role in effecting business transformation.

Research Background

The research for this report was conducted in Q4 2016 and targeted North American companies with at least 250 employees. All 152 respondents were directly involved in digital, user, and customer experience management within their organizations. The respondents were drawn from both business and technical disciplines, across a wide range of IT experience, with 20% in an executive role. The most prevalent vertical industries in the research were *high-technology software*, *manufacturing*, *service providers*, *finance*, and *retail*, in that order.

The Relationship Between Digital, Customer, and User Experience

Digital experience management (DEM) has grown from its roots in network monitoring and application performance management (APM) to become a critical component of IT service delivery and IT-to-business alignment. With cloud, containers, and microservices, managing performance is more complex in today's IT environment than it was five years ago. Simultaneously, users—including customers, employees, partners, and suppliers—are demanding more sophisticated, timely, and effective business services through a variety of digital channels. The combination of these forces is an underlying driver for an evolving DEM strategy.

Digital experience management (DEM) is the analysis and optimization of application service delivery to end users/consumers in support of business outcomes, service performance, and application design. This includes both real-time and historical/trending considerations.

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¹ "User, Customer and Digital Experience: Where Service Performance and Business Performance Come Together," EMA, February, 2017.

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Digital Experience Management Must Cover Internal and External Users

Digital experience management covers both internal users and external users, such as customers, partners, or suppliers. EMA's research shows that although all companies surveyed focused on some elements of customer or user experience management, the vast majority focused on DEM, including both internal and external users.

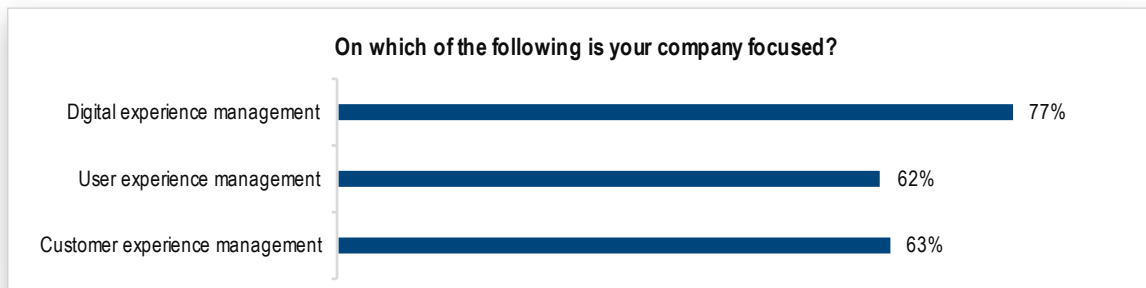


Figure 1. Company Priorities for DEM

Focusing on both internal user experience management (UEM) and external customer experience management (CEM) is integral for a successful DEM implementation. DEM projects need to be structured to include both UEM and CEM data, and toolset choices should reflect both priorities.

Just as the building blocks of monitoring and APM have become more routine functions for IT, EMA believes that DEM will continue to subsume UEM and CEM as companies strive for a more comprehensive view of the digital experience for all users. Vendor solutions that embrace this larger vision of DEM will continue to enjoy advantages across IT and business stakeholders, unifying Operations, IT service management teams (ITSM), and Development for additional insights into usage, relevance, and performance.

DEM Is a Shared Responsibility, but Driven by Executive IT

DEM requires buy-in and execution across IT silos. In our research, when asked which group drives the overall DEM strategy, 44% of respondents answered an IT executive or a dedicated DEM team. No other category received more than 5% of the responses. The cross-silo nature of DEM makes it unlikely to be driven by grassroots efforts in any one technology silo. Executive leadership is needed to align overworked IT silo managers and directors by providing focus and resources to effectively implement a successful DEM process.

It is a critical best practice for DEM initiatives to be actively managed and supported by the executive team.

DEM requires buy-in and execution across IT silos.

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DEM Use Cases

The most active use cases for DEM span the range of IT and business teams, as shown in Figure 2.

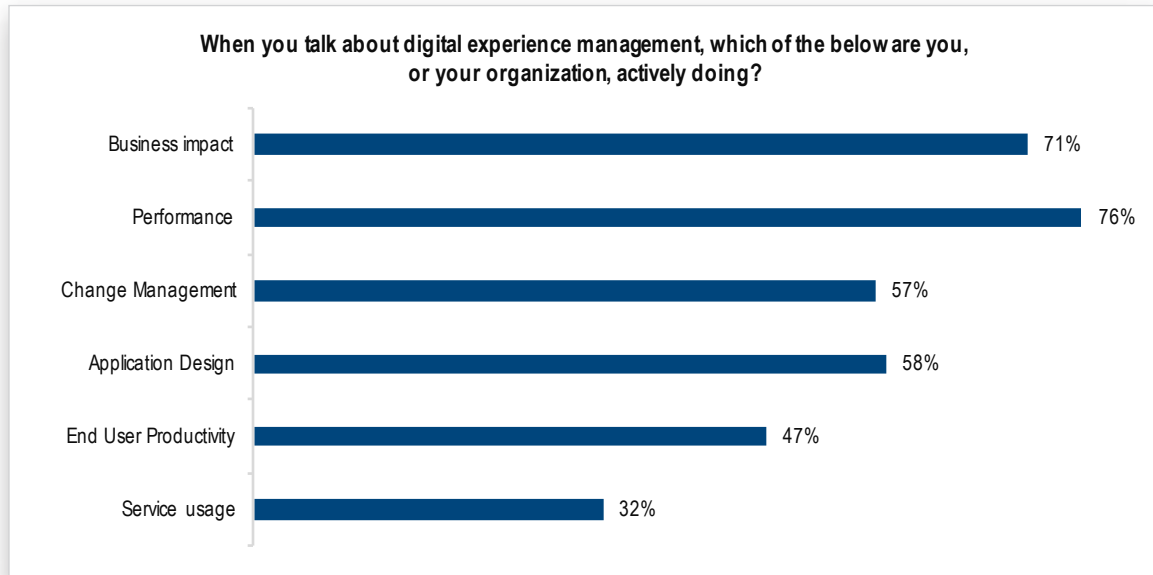


Figure 2. Most Active Use Cases for DEM

Effective digital experience management should ideally **address all use cases** in a manner that optimizes the many dimensions and interdependencies of DEM data.

- **Business impact** is monitoring and optimizing the effective delivery of business services based on user interactions and business outcomes.
- **Performance** is monitoring and optimizing the effective delivery of business services to end users.
- **Change management** and performance management are intrinsically linked, and change management can provide critical insights into DevOps and release management.
- **Application design** is also tested through DEM data, which can become invaluable in identifying issues in navigation and other application design factors that impact performance.
- **End-user productivity** is a core testing ground for DEM, as well as a place where the proverbial “rubber hits the road” when human beings interact with business applications. It is also a critical metric for DEM success.
- **Service usage** is invaluable in assessing application relevance and impact, both in terms of planning for costs and in terms of application portfolio planning—so that both business and IT stakeholders have common ground for assessing what’s really needed in their application portfolio.

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DEM Is Relevant Across the Full Application Portfolio

Companies are concerned about DEM for every application in their portfolio. As shown in Figure 3, companies are most likely to consider external cloud SaaS applications to be business critical (24%). However, every other major application type is *also* considered “most business critical” by a significant percentage of respondents. The fact that no single application dominates this graph points to the heterogeneous value proposition of DEM.

Companies are concerned about DEM for every application in their portfolio.

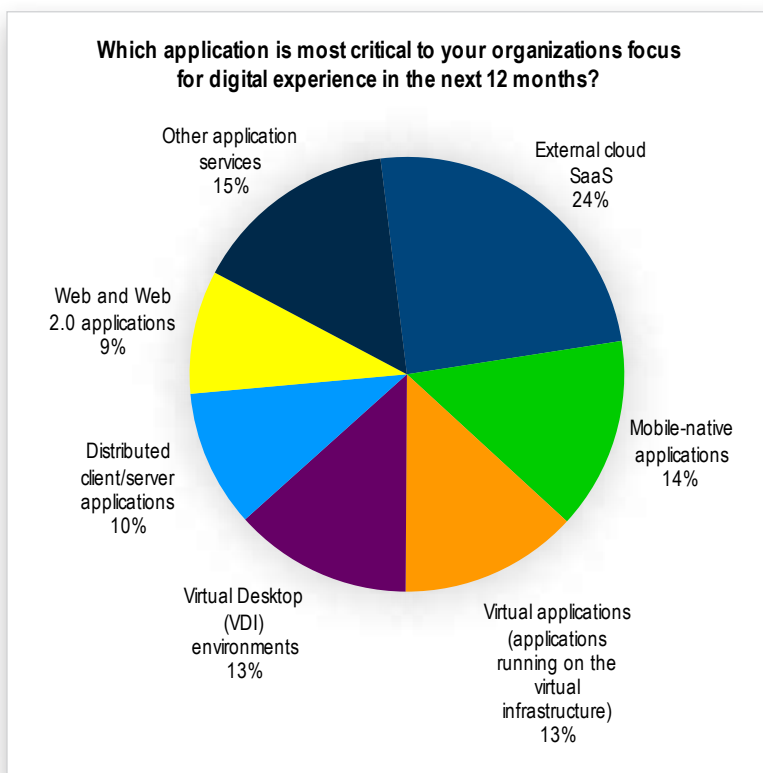


Figure 3. The Value of DEM Across the Application Portfolio

EMA’s research and consulting efforts show the expanding scope and engagement of DEM.

DEM requirements extend into the various silos of the IT infrastructure as well as to the broad portfolio of applications in use across the enterprise.

The Impacts of Cloud on DEM

One of the most important factors in shaping DEM initiatives is the increasing reliance on public cloud for critical application delivery. In 2016, EMA research found the following:

- 45% of companies are using external SaaS to deliver at least one production application.
- 85% of companies reported that cloud technology is making DEM more important to their organization.

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The overwhelming reliance on cloud-delivered applications, as shown above, highlights many of the daunting management challenges facing IT. The ability to monitor the technology stack of each step of the application process now relies on *external service providers or APIs*. This creates gaps in the process flow that are vulnerable to errors and degradation of service. DEM should provide an evolving solution to this challenge by looking at the end-to-end experience of application users.

Any successful DEM implementation must include an integrated solution for monitoring and managing the cloud.

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Why Companies Are Failing at DEM

While successful implementations may provide a good template for other companies to follow, EMA research also profiled organizations that are struggling with their DEM initiatives. *Overwhelmingly, the number one point of failure was ineffective DEM tools and instrumentation.* As shown in Figure 4, DEM solutions were least effective with root-cause analysis, communicating business impact, capturing usage, and understanding third-party service impacts.

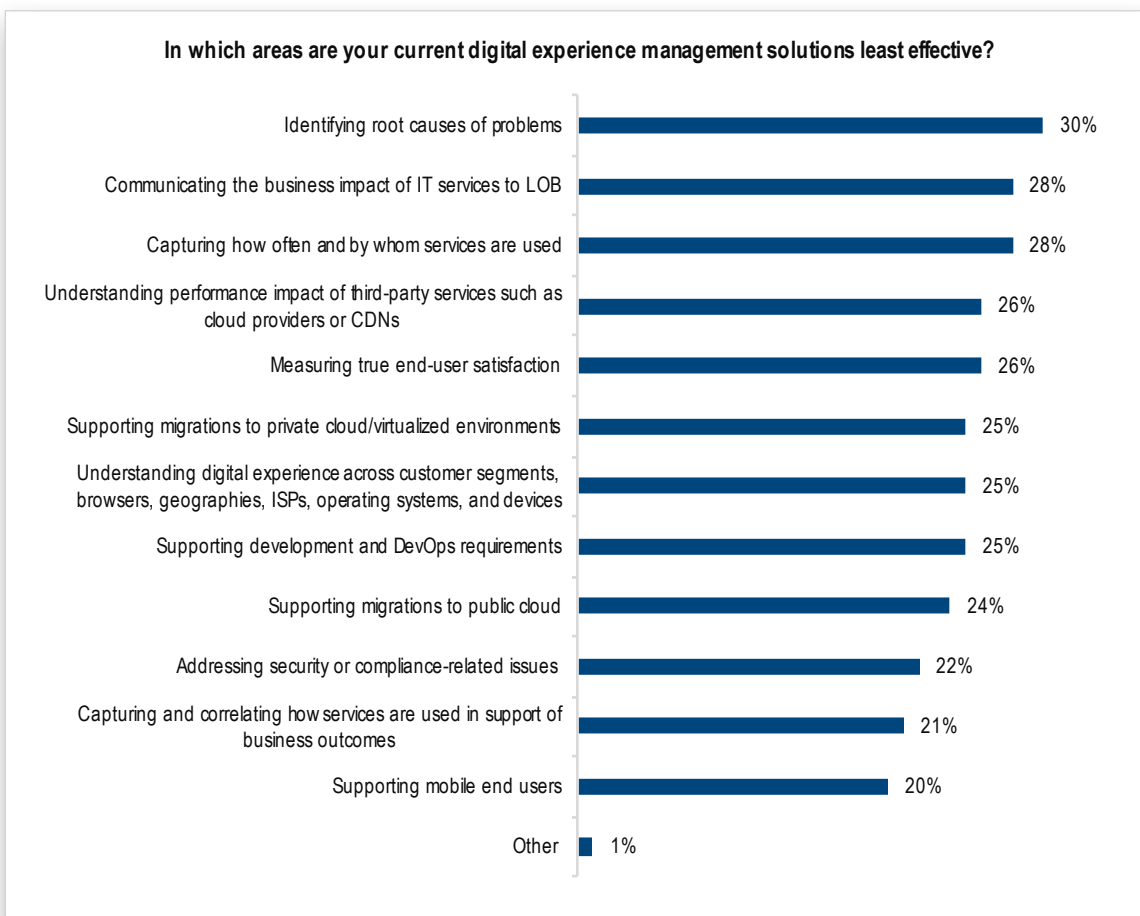


Figure 4. DEM Points of Failure

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For a successful DEM initiative, IT must choose tools that gather and analyze DEM metrics from across the full IT infrastructure and, equally important, the business. While identifying the root cause of problems is the number one challenge overall, and clearly a technical one, communicating business impact of IT services to the LOB is a close number two. These responses support EMA's advice to keep both IT and the business focused on the long-term advantages of DEM.

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Making It All Happen With the Right Technologies

Within the group of survey participants (all of whom were involved in DEM in some capacity), EMA found a surprisingly high level of maturity, with most companies either actively using a DEM solution (70%) or in the process of implementing a solution (22%). But what does an effective “DEM solution” really require?

Beyond Silos to the Big Picture

Many traditional monitoring tools provide siloed root-cause data from infrastructure devices and services. However, the critical view—the top-down correlation of all this data—is increasingly provided by the DEM toolsets. *The DEM view shows the overall application performance across the full infrastructure, as well as the end-user experience and business impacts.* This view should include drill-down capabilities to pinpoint problems, while providing mechanisms for filtered alerts to appropriate stakeholders across all of IT.

Metrics and Analytics

Metrics and analytics are the core foundations of DEM, so they are central to assessing DEM solutions. A key requirement for a successful DEM strategy is being able to *gather the metrics necessary to perform meaningful, timely analysis.*

Our survey found the following three technical metrics as most important to DEM:

- response time per transaction
- level of risk/security
- availability

In contrast, the top categories of DEM business metrics were:

- external SLAs
- service desk OpEx cost savings
- business process improvements

Monitoring Instrumentation, Integration, and Technologies

While most companies (37%) instrument the data center, a more comprehensive monitoring approach is required for DEM. The EMA survey shows a more heterogeneous approach being taken, with 27–29% of respondents also instrumenting workstations, cloud, mobile, and other endpoints.

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Many DEM tools are integrated with other enterprise solutions to correlate distinct types of metrics. *EMA encourages an integrated approach to instrumentation and analysis as it provides significantly more robust DEM than any standalone solution.*

Figure 5 shows that companies also use a wide mix of monitoring technologies to gather data, based on the type of application being monitored.

- For public cloud applications, end-to-end transactional reconstruction and synthetic transactions were leading DEM methodologies.
- Network traces, instrumented metrics, and desktop agents were the most common methods of DEM monitoring for internally developed applications.

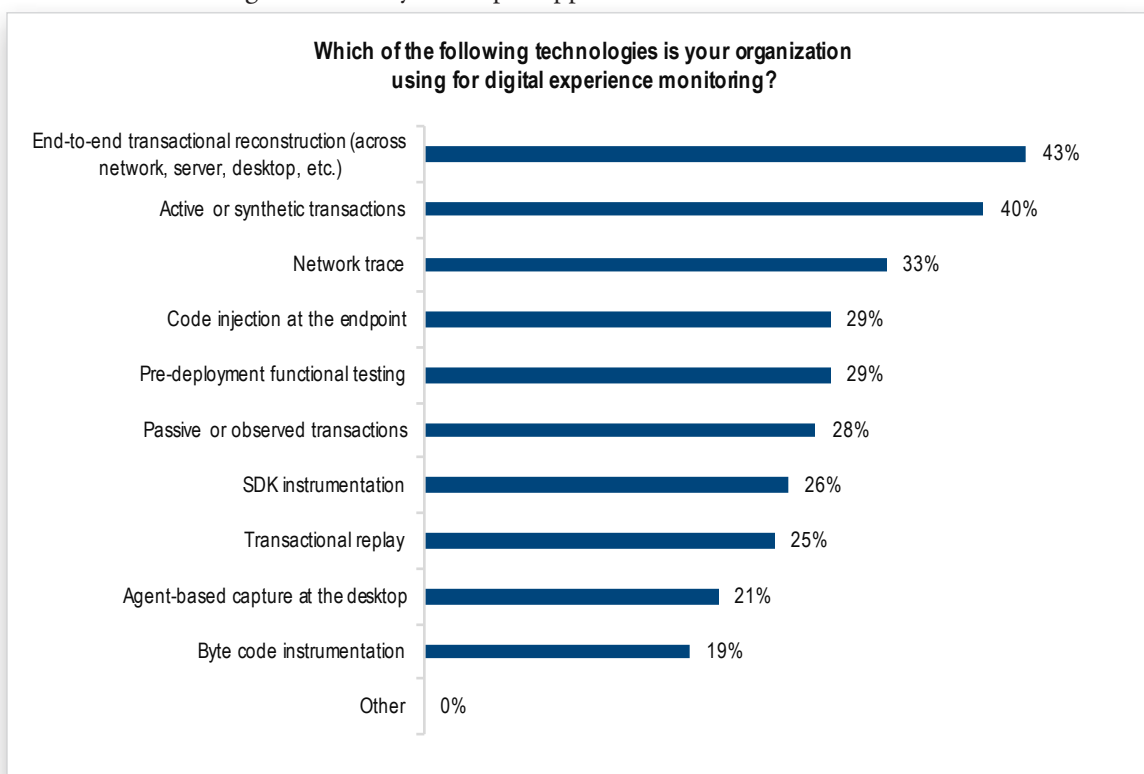


Figure 5. DEM Monitoring Technologies

EMA believes that endpoint agent-based capture is a high-growth area as it can combine insights on application performance; issues with endpoints, including mobile; and visibility into usage, user preferences, and user behavior. This combination of visibility can be critical in planning for value and relevance when it comes to IT business services.

The biggest takeaway from this research section is that companies should monitor digital experience from the broad range of perspectives that enable organizations to cover all application types for all users.

EMA encourages an integrated approach to instrumentation and analysis

Companies should monitor digital experience from a broad range of perspectives.

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EMA Perspective

DEM implementations run the gamut from measuring end-user experiences with cloud-based applications to service desk incident ticketing to determining business ROI for new in-house corporate applications. As such, measuring the challenges, successes, and failures of a DEM project requires a checklist that ensures both breadth and depth.

One of the top challenges for DEM is *communicating the business impact of IT services to the LOB* (28%). This ties back to our original premise that DEM both requires and facilitates the unification of IT in support of business transformation. It requires unified insights across IT, and between IT and the business, to bring all the dimensions of what EMA calls the “transactional stage” together in a meaningful, consistent, timely, and compelling manner.

But optimizing the *transactional stage* also requires in-depth insights across the full infrastructure. At the most granular level, respondents reported that *identifying root causes of problems* (30%) and *understanding the performance impact of cloud providers* (26%) were significant DEM challenges. In parallel, these reflect the current operational focus of many large IT departments.

Rounding out the top five DEM challenges from the survey are two that directly address the core value proposition of DEM:

- Measuring true end-user satisfaction (26%)
- Capturing how often and by whom services are used (28%)

The heterogeneity of these responses show the scope of DEM to transform IT across traditional silos, spanning both technical and business domains.

Conclusion: Making DEM Work

EMA hopes that the principles and practices outlined above provide a framework for successful DEM implementation. Here are our top 10 conclusions:

1. DEM projects must be driven by senior management—ideally with CIO or CEO oversight. Consider a dedicated DEM team as projects mature.
2. Process and dialog are critical, including those across IT, and those between IT and business stakeholders.
3. DEM benefits many IT silos and requires that all applications in the portfolio be included.
4. Huge gains in efficiency are possible with solutions that provide broad monitoring and advanced automation.
5. DEM capabilities should reach across the full IT infrastructure stack, supporting and unifying multiple stakeholders in decision-making and active response.
6. Begin with a few critical use cases, but plan for a wide breadth of use cases as DEM matures. Don't let your technology and human investments fall short, but invest in platforms for growth.
7. Don't fall into the trap of technology for technology's sake. Choose a DEM toolset that also delivers metrics important to your business stakeholders.
8. Your DEM investments should be cloud-ready and easily expandable to other trends such as Agile, DevOps, software-defined WAN (SD-WAN), and mobile.
9. Budget appropriately—respondents report an IT budget increase of 50% or more for “very effective” DEM.
10. Don't ignore DEM. Understanding the internal and external user experience, is mission-critical for all businesses to survive in the digital age.

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Succeeding in DEM With Riverbed

Without comprehensive monitoring, IT is not able to specifically pinpoint where problems are occurring. Without the top-down view of the user experience, users are impacted and IT is unaware that the end-to-end experience is failing.

Riverbed (www.riverbed.com/digital-experience-management) is unique in its multidomain support of DEM, and the company's vision is well aligned with the needs of a next-generation enterprise DEM operation. Riverbed's technologies monitor the full range of end-user devices, including mobile and VDI, as well as applications, networks, and infrastructure components. This data is shown on a single dashboard for comprehensive DEM that can be used by technical staff and business executives alike. Riverbed provides a fully integrated but optional solution for DevOps addressing coding bottlenecks, performance issues, and business visibility. Likewise, Riverbed's SD-WAN solution offers greater agility and operational efficiency to support the rapid innovation and change that characterizes digital business. Both DevOps and SD-WAN are critical growth areas for many forward-looking companies.

EMA recommends that enterprises looking for an integrated DEM solution consider Riverbed. EMA believes that Riverbed's overall cross-silo/cross-business vision provides a critical step in unifying IT in its goal to provide a superior digital experience for all end users.

Don't ignore DEM. Understanding the internal and external user experience, is mission-critical for all businesses to survive in the digital age.

About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals, and IT vendors at www.enterprisemanagement.com or blogs.enterprisemanagement.com. You can also follow EMA on [Twitter](#), [Facebook](#), or [LinkedIn](#).

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