

Powering Innovation and Growth with Digital Enterprise Management

Transform IT to drive success in the era of digital business



Table of Contents

- 1 EXECUTIVE SUMMARY
- 2 WHAT IS THE DIGITAL ENTERPRISE?

DIGITAL ENTERPRISES ACROSS INDUSTRIES

3 THE ANATOMY OF THE DIGITAL ENTERPRISE

WHY IT MANAGEMENT IS NOW MORE IMPORTANT—AND DIFFICULT—THAN EVER

Rapid innovation

Real-time operations

Massive scalability and complexity

Making sense of data

4 MODERNIZE IT WITH DIGITAL ENTERPRISE MANAGEMENT

Digital Service Management (DSM)

Digital Enterprise Automation

Digital Service Assurance

Digital Infrastructure Optimization

Analytics, Policy, and Orchestration - a shared foundation

- 6 THE VALUE OF DIGITAL ENTERPRISE MANAGEMENT –
 AN INSURANCE INDUSTRY CASE STUDY
- 7 CONCLUSION

Executive Summary

Industries of all kinds are being transformed by digital services that bring companies closer to their customers while streamlining and simplifying operations. Powered by a more agile approach to application development and new hybrid infrastructures, this shift greatly accelerates innovation—but also poses new management challenges. Traditional IT management disciplines, while still critical, must be extended and adapted for this new era of digital business.

This white paper discusses Digital Enterprise Management (DEM), a set of IT solutions designed to make digital business fast, seamless, and optimized, from mainframe to mobile to cloud and beyond.

In this way, IT can embrace a more strategic role in the enterprise and drive growth and competitiveness by delivering the innovative digital services customers demand, with the experience and quality they deserve.

DIGITAL ENTERPRISE ADVANTAGES

Companies that are more digitally advanced perform significantly better financially than companies that are less digitally mature.*

1 26%

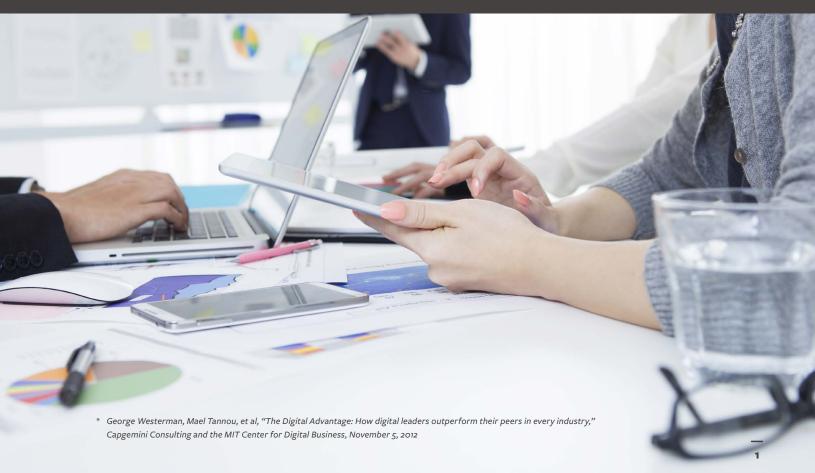
increase in productivity

12%

increase in valuation

1 9%

increase in revenue to asset ratio



WHAT IS THE DIGITAL ENTERPRISE?

A digital enterprise is an organization that has embraced a digital service mindset for both new and existing services, using technology to power and transform almost every aspect of its internal operations and external relationships.

The digital enterprise has emerged rapidly in recent years, driven in large part by the dramatic evolution of consumer services. Not long ago, people typically worked through intermediaries to access goods and services, whether a travel agent, a retail clerk, a loan officer, or the secretary in a medical office. Today, digital services erase the distance between consumers and companies, allowing people to access whatever they need directly, in real time, using devices they can carry with them anywhere. Human-centric design and personalization increase both customer and employee satisfaction. On the back end, these requests are fulfilled automatically, and the intelligence gathered along the way fuels continuous optimization to help the company support its workforce and serve its customers even more effectively.

For IT, the digital enterprise model enables both classic benefits such as the efficiency, repeatability, and predictability made possible through automation, as well as new forms of value. By connecting consumers and suppliers in real time, enabling seamless collaboration among work teams, and using data and analytics to guide decision-making, digital services greatly increase ability. IT is positioned like never before to help reinvent major elements of the business in a matter of weeks, not years.

The seamless convenience of digital services also carries a risk for businesses, however. If a company can't provide the best possible experience—including real-time responsiveness with an outstanding experience—in many cases a customer can switch all too easily to an alternative. If a ride-sharing app can't respond instantly to a traveler's request for a trip to the airport, a competitor is just a tap away—and that customer may never return. Downtime is clearly unacceptable, but even slow time or a marginal degradation in performance can add up to thousands of lost customers.

DIGITAL ENTERPRISES ACROSS INDUSTRIES

The term "digital enterprise" can first bring to mind the image of a born-digital company built on a single app or service—a startup designed to create or disrupt markets, not an established incumbent. In reality, almost every company is already at least somewhat digital, using technology to change the way people access services and the way the business operates.

Consider the way digital services have transformed the customer lifecycle. Prospects use customer-facing digital services to learn about a company and its products, such as online content, live demos, webinars, and quote generators. Once an individual has expressed an interest, marketing automation services come into play to form a behavioral and demographic profile and subscribe the prospect to follow-up campaigns, with real-time optimization based on the customer's response to each interaction. Orders for products and services are fulfilled digitally as well, whether through a subscription or licensing service for digital media, or distribution, point-of-sale, e-commerce, supply chain management, and inventory management services for retail. After the sale, customer relationship management services such as loyalty and support programs sustain and nurture the relationship to maximize lifetime customer value.



Even a traditional industry such as agriculture has been transformed almost beyond recognition by digital services. Tractors, combines, and seed drills are now sold as part of complete digital systems that also include elements such as online seed portals and marketplaces; services to connect producers with equipment manufacturers, suppliers, distributors, and other farmers;

and digital services built into the equipment itself, such as GPS-guided steering and planting to ensure optimal seed positioning. Indeed, while new companies often bring a digital-first mindset for new services, the same is increasingly true for established companies as well, as they work actively to convert existing customer-facing systems and processes to digital services.

In fact, it's those industries that have not historically been shaped by digital technology that are witnessing some of the most profound disruption—just consider the impact of Uber on the taxi industry, Warby-Parker in eyeglasses, and Casper in mattresses. Throughout the economy, eagle-eyed entrepreneurs are spotting opportunities for the wholesale reinvention of highly traditional business models.

THE ANATOMY OF THE DIGITAL ENTERPRISE

The definition of a digital enterprise maps closely to the strategic imperative faced by companies in every industry today: using technology to transform your business model; build new and better relationships with customers, employees, partners, and suppliers; and reinvent the workplace, its processes, and the infrastructure it runs on. This transformation is quickly becoming essential for survival in today's fast-moving markets.

Businesses that fail to rethink their relationship to technology and leverage it to drive differentiation risk falling behind competitors who have.

The technology strategy of a well-developed digital enterprise encompasses four key areas:

- **Digital services:** The building blocks of the digital enterprise, digital services define and shape the company's operations and relationships. Whether intended for internal or external customers, digital services are designed to provide a human-centric, consumer-style user experience. They can be requested, fulfilled, modified, and retired in a fully automated fashion, and can be consumed from any location with real-time performance optimization.
- Agile applications: These are the primary means of consuming digital services and the foundation of the digital workplace.

 To maximize employee productivity and satisfaction, the digital enterprise provides apps and applications that are highly intuitive, accessible on any device, and easily adapted to changing requirements.
- Infrastructure: The digital enterprise runs on diverse technologies, from mainframe to mobile, from hybrid cloud to the Internet of Things. This infrastructure must be open, scalable, stable, agile, cost-effective, and entirely transparent to consumers.
- Policy and data: Comprehensive and thoughtful policy defines the rules and operational capacity of digital services, and data is
 the substance of each service, which may change frequently. For instance, for airline customers, policy determines check-in time
 and items allowed on board, and data informs passengers of flight status and upgrade eligibility.

WHY IT MANAGEMENT IS NOW MORE IMPORTANT—AND DIFFICULT—THAN EVER

Given the strategic role of digital services in business today, **it's impossible to overstate the importance of IT operations management to guarantee the performance, integrity and agility of digital infrastructure and applications.** The ability to innovate quickly, operate flawlessly, and bring new efficiency to processes and relationships is now paramount. IT must be able to leverage technology effectively to drive competitive advantage, and enable the continuous adaptation of business models, infrastructure, and processes to stay ahead.

Rapid innovation

The applications through which many digital services are consumed have evolved dramatically. Just a few years ago, the typical online banking app might have changed once a month at most. Now, many apps are updated weekly or even daily to maintain differentiation and retain customers. This accelerated cycle also includes the policies and data incorporated into the apps, such as the flight schedules, carry-on rules and rates, and U.S. Transportation Security Administration regulations provided through an airline's app. The high standard for consumer digital services applies within the organization as well; employees expect features and processes designed around their own needs to empower greater productivity, and will accept nothing but the best possible user experience.

Rapid innovation also places new pressure on governance. As developers push to deliver innovation, IT operations often struggles to keep up with necessary change management processes. To avoid becoming a bottleneck, IT needs to be able to support agile development without sacrificing visibility, control, and auditability.

Real-time operations

Architects, developers, and administrators must master the art of delivering ultra-reliable technology-driven services across a diverse and complex infrastructure—and do so with blazing fast performance. Traditional best practices for performance and availability remain essential, but now they must be applied across more diverse platforms, including third-party infrastructures where IT can exert little or no direct control. To avoid the costs, inefficiencies, and risks of siloed management, IT must manage this heterogeneous environment holistically, with consolidated visibility and management across resources of all kinds and of all ownership. In balancing the unique requirements of each digital service for cost, security, performance, and availability, IT must be able to use data to identify the best resource for each service—and move apps and their associated policies and data from one environment to another quickly and easily when a better option becomes clear.

Massive scalability and complexity

The scale and complexity of digital enterprise infrastructure is truly unprecedented, from the data center, to the cloud, to endpoints of all descriptions, to the embedded systems that make up the Internet of Things.

To retain appropriate control, manage configurations, and facilitate the flow of data across this expansive portfolio, IT must make a strategic investment in automation that goes beyond the tactical use cases of past years.

Making sense of data

Modern digital technology generates vast volumes of data, both structured and unstructured. The need for this data to be effectively organized, managed, and understood has driven the rise of an entire industry dedicated to the storage, manipulation, and analysis of "big data." But IT operations teams also stand to benefit from the information revolution; contained in the digital exhaust of the various systems and processes they manage lie the keys to further opportunities for driving continual improvement and optimization. IT must maintain a critical focus on developing skills for handling data and unlocking its intrinsic value, supported by cutting-edge analytics systems.

MODERNIZE IT WITH DIGITAL ENTERPRISE MANAGEMENT

Digital Enterprise Management is BMC's set of IT solutions designed to make digital business fast, seamless, and optimized. Comprising groundbreaking best practices and best-in-class software solutions, the goal of Digital Enterprise Management is to help companies build a rock-solid, high-performance platform to support continuous innovation in the digital enterprise. In this way, IT can deliver the services customers and employees need at the lowest possible cost, with the best possible experience, to drive differentiation, productivity, and growth.

Digital Enterprise Management is built on four core disciplines: Digital Service Management (DSM), Digital Enterprise Automation, Digital Service Assurance, and Digital Infrastructure Optimization.



Digital Service Management (DSM)

Traditional approaches to IT service management (ITSM) have been highly process-driven and focused largely on the data center. To access IT services, people had to submit tickets to the service desk, then wait through typically long cycles with little or no control or visibility of their own. DSM shifts to a more modern, human-centric model with a consumer-style experience. Instead of filling out forms or navigating complex portals, people request services and support using natural language, with any needed profile data captured automatically. Social features make it simple for people to tap into the collective knowledge of their peers, just as they would get travel, product, or restaurant recommendations from their friends on a social networking site. Designed to fit the way we work today, DSM makes all IT services available from anywhere, on any device, with a personalized experience tailored to the user's role and needs. Instead of narrowing the options available, IT acts as a trusted service broker, making it possible to provide the best-fit service for each scenario—whether corporate or third-party—in real time.

ITSM remains relevant and essential, of course. DSM builds on established ITSM best practices and extends them across the diverse environment of the digital enterprise so IT can apply proven incident, problem, and change management processes holistically across resources of all kinds.

Digital Enterprise Automation

In the past, automation has been seen as a tactic to reduce cost and simplify processes. In the digital enterprise, automation must be embraced in a more strategic, comprehensive, and integrated capacity to orchestrate and automate the configuration of devices, servers, networks, workloads, middleware, cloud, big data, applications, and the Internet of Things. This makes it possible for IT to put more power in the hands of business users—for example, by giving them simple ways to provision entire services themselves, including internal and hybrid resources as well as the policies required for effective compliance and risk management. Able to make their own changes to digital services in real time with minimal technical skills, line-of-business personnel can maintain business agility without relying on IT intervention. Services can be built, integrated, and updated automatically by the people who understand the business best—the definition of business-IT alignment.

Digital Service Assurance

The scope of service assurance has increased vastly as IT works to maintain performance and availability for critical infrastructure across the enterprise. To assure the quality of digital services at scale, IT needs to make better use of data—not just traditional monitoring and capacity management data, but also new sources, such as social media posts by customers describing their experiences with the company's digital services. This more complex challenge requires IT to take an analytics-first approach, using more sophisticated methods such as machine learning and sentiment analysis to identify emerging problems. With the nearest competitor only a tap away, digital businesses rely on IT to respond to issues in real time to minimize service disruptions and meet customer expectations for a great experience every time.

Digital Infrastructure Optimization

The rapid growth of digital infrastructure can lead to huge amounts of redundancy and inefficiency. With cloud services making it easy to throw infrastructure at problems, business users can neglect vital industrial best practices in their rush to bring new resources online. To prevent sprawl and waste, IT needs to maintain a sharp focus on infrastructure optimization—getting more out of available resources at the lowest cost, with the best scalability. This includes eliminating unnecessary expenditures for hardware, software, cloud services, mainframe licenses, virtual infrastructure, and more. Capacity analysis and planning can help IT identify the most efficient way to meet projected demand, making it possible to defer purchases, lower operating costs, and prevent sprawl without sacrificing performance or scale.

Analytics, Policy, and Orchestration – a shared foundation

In the fullest realization of Digital Enterprise Management, each of these disciplines should share a common operating model, repository, analytics engine, and workflow to ensure that all data captured can be leveraged in area easily and in real time. If a policy changes for one app or service, this single, centralized source of truth would make information about the update instantly available to IT operations management tools and processes across the environment as a coordinated change made automatically. This shared foundation will be essential for achieving simple, holistic management for the digital enterprise.

THE VALUE OF DIGITAL ENTERPRISE MANAGEMENT - AN INSURANCE INDUSTRY CASE STUDY

We can find one of the many examples of the disruptive impact of digital technology in the world of insurance, with some providers starting to offer 100 percent custom, personalized policies created on demand, on the go, from an app. The experience for the customers is easy, rapid, and totally seamless, from configuring the policy and getting a quote to payment and documentation.

Behind the scenes, though, there's a lot going on. When a new product campaign exceeds expectations and the marketing team chooses to accelerate the program, all of the necessary cloud infrastructure has to be added in real time, without service disruption or degradation, to ensure that the customer experience remains world-class.

By taking a Digital Enterprise Management approach, IT can empower marketing professionals to add capacity to the service from a simple, consumer-like interface no matter where they are. While IT uses multiple hybrid cloud providers to run the insurance app service itself, the best-fit, optimal-cost services are brokered to the requesting employee automatically. With the correct authorizations and approvals in place, provisioning of the additional capacity is done in real-time, including systems management to monitor and guarantee the customer experience.

For the business, this rapid scalability means that the marketing campaign can achieve its full impact to generate sales without being constrained by technical limitations. From the perspective of those using the service, a seamless, high-quality experience makes the kind of positive impression needed to win and retain loyal customers.

An Insurance Industry Case Study

EMPLOYEE

Marketing is empowered to add service capacity to meet demand.

IT OPS

Automation guarantees immediate provisioning against policy with no service disruption.

SERVICE PROVIDER

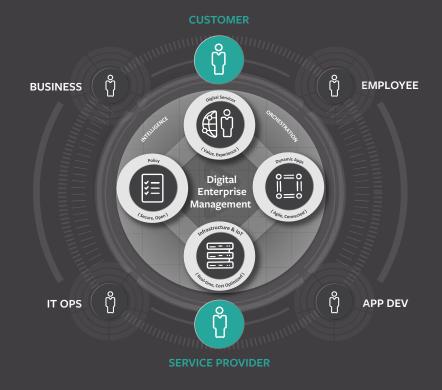
Multiple cloud service providers coordinate to deliver service in real time.

BUSINESS

The business receives updated service performance and utilization data.

CUSTOMER

The customer enjoys an outstanding user experience with minimal latencies.



CONCLUSION

As digital services transform industries, markets, and businesses, IT must enable rapid innovation and ensure performance and availability while dealing with massive scalability and complexity. **Digital Enterprise Management provides the agility, real-time optimization, and high quality of experience IT needs to meet the demands of internal and external customers.** A holistic approach to manage digital services, infrastructure, and policy, Digital Enterprise Management encompasses four crucial disciplines:

- Digital Service Management to extend ITSM best practices across hybrid environments, provide a consumer-like experience
 for users, and make a wide range of digital services easily available across the enterprise
- **Digital Enterprise Automation** to enable business users to provision, manage, and update their own services without sacrificing compliance or risk management
- Digital Service Assurance to maintain performance and availability at scale through an analytics-first approach
- **Digital Infrastructure Optimization** to get more out of resources at the lowest cost, with the best scalability, to prevent waste and sprawl

By adopting a Digital Enterprise Management approach, IT can deliver the rapid innovation needed for success in the era of digital business, ensure an outstanding experience for both customers and internal users, and keep the entire enterprise operating at its best.



FOR MORE INFORMATION

To learn more and find out how BMC can help you in your journey to becoming a digital enterprise, please visit **bmc.com/dem**

BMC is a global leader in software solutions that help IT transform traditional businesses into digital enterprises for the ultimate competitive advantage. Our Digital Enterprise Management set of IT solutions is designed to make digital business fast, seamless, and optimized. From mainframe to mobile to cloud and beyond, we pair high-speed digital innovation with robust IT industrialization—allowing our customers to provide intuitive user experiences with optimized performance, cost, compliance, and productivity. BMC solutions serve more than 15,000 customers worldwide including 82 percent of the Fortune 500°.

BMC - Bring IT to Life



