

Cognitive Service Management

Embrace the Future of Service Management



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Executive Summary

From the impact of disruptive technologies to the imperative of digital transformation, businesses today must find new ways to innovate or risk being left behind. While data flowing rapidly between the Internet of Things and multi-cloud computing environments brings tremendous opportunity, there's also a great deal of complexity. Artificial intelligence (AI) and machine learning (ML) are part of the new wave of solutions capturing the minds of enterprise leaders to respond to these new opportunities and complexities. Digitally literate leaders who are highly cognizant of this wave, are jumping in headfirst and applying AI and ML to solve real business challenges—making enterprise goals of enabling cost savings via smarter operations and decision making come to fruition.

BMC Cognitive Service Management (CSM) addresses the complexities of multi-cloud computing by applying intelligence, automation, and predictive capabilities. CSM

employs a differentiated approach with a more holistic point of view for the enterprise.

Cognitive Service Management, the most cutting-edge stage of IT service management (ITSM) evolution, represents a powerful way to drive change in your organization without “ripping and replacing” your current infrastructure. By combining the latest in artificial intelligence and machine learning with your existing investments, Cognitive Service Management provides an actionable path to greater value, powered by the technology of the future.

CSM marks a new era of service delivery for:

1. Intelligent user experiences
2. Speed through automation of repeatable processes
3. Cost savings across service delivery



INTRODUCING COGNITIVE SERVICE MANAGEMENT

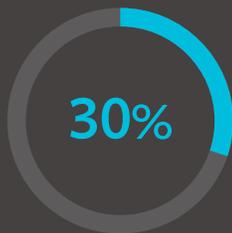
ITSM is a well-known discipline for managing the information systems that deliver value to your customers and employees. Like most of IT, ITSM initiatives must evolve to meet the changing demands of business today—and into the future. For IT Service Management, that means bridging support for traditional data center environments with the reality of a multi-cloud, multi-channel, and multi-device world.

But it's also imperative to look to emerging technologies, like artificial intelligence and machine learning, for opportunities to drive scalability, efficiency, productivity, and cost savings. This latest evolution of ITSM is called Cognitive Service Management, and it's at the forefront of innovation and experience in ITSM today.

The Future Has Arrived: Why Traditional ITSM Is No Longer Enough

Disruptive technologies—including cloud, mobile, Internet of Things (IoT), and big data—are driving dramatic changes to how we do business, what's technologically possible, and how people interact with technology. No organization remains unaffected, regardless of size or industry, but those who don't proactively address the opportunities and challenges of our new world will fall behind. By the year 2020, customer experience is expected to take over price and product as the key brand differentiator. As a result, many businesses today are focused on digital transformation and how to leverage these new technologies to enhance user experiences.

A recent **IDC report** showcases the impact of emerging technologies on digital transformation:



By 2018, companies investing in IoT-based operational sensing and cognitive-based situational awareness will see 30% improvements in cycle times of impacted critical processes.



By 2019, 40% of IT projects will create new digital services and revenue streams that monetize data.



By 2019, 5% of revenue will come through interaction with a customer's digital assistant.

Business metamorphosis is a lofty and important goal, and also easier said than done. Digital transformation relies heavily on IT, but must be a company-wide initiative from the C-suite to the experts in the trenches. It must grow from people and processes as well as tools and technology, and depend on the intangibles—leadership, buy-in, patience, passion—as much as the solutions that power it.

Top Three Digital Transformation Challenges



Multi-cloud – IT departments no longer have their workloads only running in their existing data centers, but across multiple public and private cloud environments.



Multi-device – Companies must manage more than just IT devices and assets. This goes well beyond BYOD. IoT is becoming increasingly relevant and everything will become connected within the device mesh.



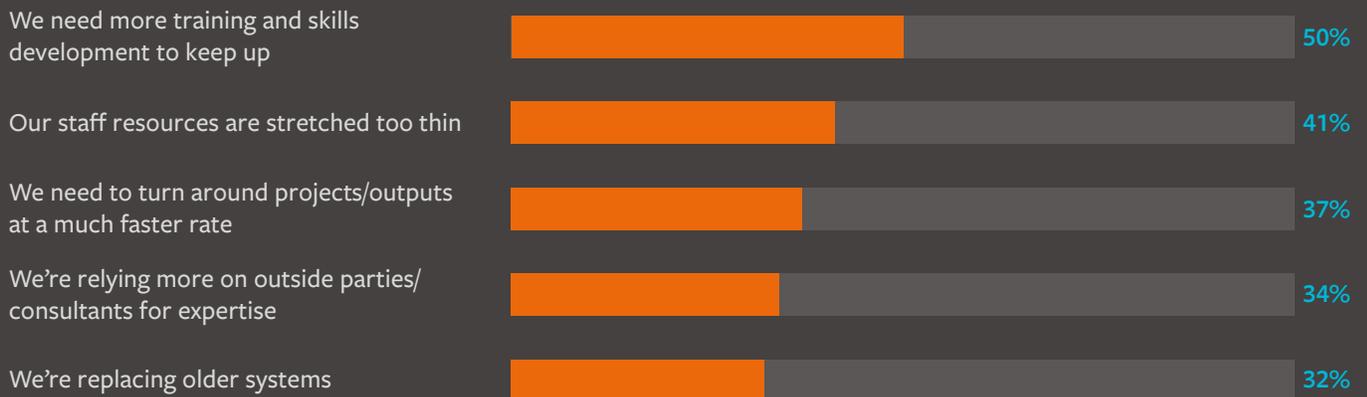
Multi-channel – Your customers and employees want services provided through the channel they find most relevant, whether it's e-mail, phone, chat, or social media.

In addition, a successful digital transformation strategy must account for the current state and what’s coming next for the future of work. The pace of technology moves almost too fast to keep up, but one thing is certain: artificial intelligence (AI) and machine learning will be a part of it. In fact, this “future” has arrived; AI and machine learning already power many of the most sophisticated systems in the industry, from relatively simple chatbots to incredible feats of cognitive business. ITSM is no exception.

DIGITAL TRANSFORMATION AND ITSM

ITSM plays a pivotal role in supporting digital transformation. In a recent study from **Forbes Insights**, a majority of executives indicated that ITSM is either “extremely important” or “close to extremely important” to their enterprises’ cloud computing, mobile, and big data initiatives, primarily through transparency and productivity. The same study, however, also found that keeping up with the demands of digital transformation introduces significant challenges.

What is the impact of this transformation?



To overcome these obstacles and truly achieve digital transformation, organizations must change on two fronts, digitizing both the way services are delivered and the human and business components of service delivery. Both of these shifts require us to look at ITSM in a new way.

REQUIREMENTS FOR NEXT-GENERATION ITSM: THE FUNDAMENTALS OF DIGITAL TRANSFORMATION

Traditional ITSM focuses on service excellence and expanding self-service capabilities in the context of legacy infrastructure environments. While these goals remain relevant, the surrounding context has changed and ITSM must pivot.

While IT teams may not be aware of every single shadow IT application used by the business, CIOs understand the implications of the multi-cloud world. Your current ecosystem likely spans a plethora of on-premises and cloud applications of all types, including private, public, hybrid, and managed. Your volume of cloud apps continues to grow, from Gmail and Office 365 to best-of-breed solutions for each business unit and IT—and the rate of change is only increasing.

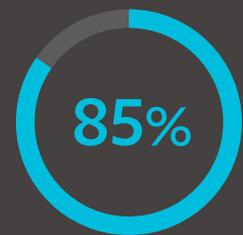
Multi-Cloud is Here to Stay



By the end of 2017, the average company is expected to have moved 59% of the IT environment to the cloud.



75% of workloads are being run in the cloud.



85% of enterprises have a multi-cloud strategy.

Modern ITSM systems have several things in common, including the ability to:

- Support legacy data center infrastructure as well as emerging multi-cloud environments
- Manage all applications, regardless of location, holistically from a single pane of glass
- Deliver a seamless user experience across all devices and channels
- Scale quickly and easily with the demands of your business
- Provide deep visibility into all of your assets, on-premises and in the cloud
- Support security best practices across your multi-cloud ecosystem
- Offer increasing levels of intelligence, up to and including AI and machine learning, to drive scalability, automation, speed, productivity, and cost savings

Like digital transformation as a whole, the process of achieving every element on this list can seem overwhelming. Any organization, however, can begin to move towards next-generation ITSM with the right strategy and the right toolkit.

STAGES OF ITSM MATURITY: THE PATH TO THE COGNITIVE ENTERPRISE

Every organization occupies a different point on the spectrum of ITSM maturity, from a basic help desk to service management powered by the latest in AI and automation. Most enterprises, however, fall into three main buckets on their journey to digital transformation:

- Standard ITSM practices
- Managing multi-cloud and multi-channel complexity in the digital enterprise
- Applying emerging technologies to become a cognitive enterprise

1. **Standard ITSM** forms the backbone of service management and delivery for the online enterprise. From core service desk capabilities to the CMDB, the service catalog to ITIL® processes, ITSM empowers your IT team and end users to work more efficiently and productively.

If you currently run a straightforward help desk, you have countless ways to add value with the critical capabilities mentioned above. If you're already taking advantage of the fundamentals of enterprise ITSM, it's time to tackle multi-cloud with digital service management (DSM).

2. **The digital enterprise** goes a step beyond traditional ITSM by enabling organizations to make the transition to a heterogeneous landscape. In today's multi-cloud, multi-device, and multi-channel environments, DSM provides the foundation for digital enterprises to drive the business forward while optimizing costs.

In addition to supporting diverse environments, digital enterprises internalize the consumerization of IT. It goes beyond managing services to delivering a human-centric experience that enables users to request and even provide their own services on the device and/or channel of their choosing.

3. **The cognitive enterprise** represents the next stage of the journey to digital transformation and the current apex of ITSM evolution. It embraces cognitive technologies, AI, and automation to meet new expectations for service delivery.

Journey to the Cognitive Enterprise



COGNITIVE SERVICE MANAGEMENT: ITSM FOR THE FUTURE, TODAY

Cognitive Service Management (CSM) is the next phase of a natural evolution of ITSM that incorporates the most sophisticated technology of today and tomorrow. CSM takes the fundamentals of ITSM to new heights on the journey to the cognitive enterprise.

What do we mean by the cognitive enterprise? Here's how we define it at BMC:

The cognitive enterprise is an organization in which businesses apply predictive intelligence and automation to people, processes, and technology to deliver the ambient experiences of the future.

For leading businesses, becoming a cognitive enterprise is anything but a pipe dream. It's critical to differentiate and win in today's digital world, and Cognitive Service Management makes that a reality through powerful service management enabled by automation and AI.

Cognitive Service Management in Practice

CSM marks a new era of service delivery, marked by three key characteristics:

1. Simplification of user experience
2. Speed through automation of repeatable processes
3. Cost savings across service delivery

AI and automation enable CSM, but the resulting user experience is anything but robotic. By making use of service-aware operations, tools, and process automation, CSM enables enterprise services that are:

- **Intelligent:** Big data and predictive analysis provide fast and accurate results
- **Conversational:** Virtual agents understand your queries
- **Personalized:** Chatbots deliver relevant and targeted information

CSM is not an all-or-nothing approach. An organization may choose to focus on any one of the tenets or technologies mentioned above. It's rarely realistic to jump straight into cognitive enterprise territory; instead, CSM offers the framework to explore innovations like chatbots, use AI to drive automation, leverage existing AI platforms (e.g., "How can we bring Cortana into ITSM?"), and more.

Business Benefits of Cognitive Service Management

Introducing cognitive technologies into your ITSM initiative amplifies the benefits of your existing ITSM or DSM program with outcomes including:

- **Enhanced customer and employee experience** – Digital technology, when applied strategically, can fundamentally advance human productivity. This includes the productivity

of a company's customers as well as their employees, since both put a premium on their time. When IT and business leaders partner on digital workplace initiatives like CSM, they create engaging employee experiences, increase employee retention, and improve the productivity of the workforce. Embedding and enabling cognitive capabilities revolutionizes the people-centric experiences of the future.

- **Increased speed through efficiency and productivity** – To be efficient, ITSM solutions must support use cases in a heterogeneous environment. Cognitive Service Management capabilities like virtual agents assist IT and the business to complete tasks faster and improve productivity and agility across their service delivery experiences. It also drives efficiency through best practices and out-of-the-box integrations to discover, model, and manage services across these environments in real time.
- **Greater cost savings** – CIOs must demonstrate more value to lines of business beyond keeping critical systems running. This may include new revenue streams, operational efficiencies, and outcome-based business models, all of which can be bolstered by CSM to drive value and cost savings to the bottom line for the business.

The BMC Approach to Cognitive Service Management

At BMC, we are dedicated to your ITSM success no matter where you are on the maturity spectrum. If you are focused on service management excellence, navigating the move to multi-cloud, ready for the opportunities of AI, or somewhere in between, we're here to ensure you meet your business goals.

As a result, our approach to Cognitive Service Management is open, flexible, and modular. Your ITSM program should evolve at your pace. Whether you want to add a single chatbot as a trial run or scale tier-one service across your organization with virtual agents, we can support and integrate those features on your timeline, with your existing investments and your choice of technology.

With BMC, each element of Cognitive Service Management can be independently consumed in a "mix and match" model. You're never forced to buy something that you won't use, nor do you need to "rip and replace" your old system to take advantage of the latest features. Choose from solutions focused on end users, agents, the technology platform, or any combination thereof to design the system that best addresses your requirements on the path to the cognitive enterprise.

Cognitive Service Management from BMC reflects our expertise in ITSM and the innovation of the industry's leading cognitive technology providers. Instead of trying to build a cognitive intelligence platform in-house, we partner with the best in the industry, like IBM® Watson™, to give our customers the most sophisticated data science integrated with proven, award-winning ITSM.

The result? You'll have the knowledge, technical prowess, and open approach to strategically and successfully add cognitive intelligence to your IT operations.

As your organization progresses on your journey to the cognitive enterprise, BMC offers cognitive capabilities at every level of service delivery. By integrating AI and automation into our industry-leading solutions, BMC turns the CSM vision into reality.

CONCLUSION

Every IT organization, regardless of maturity, faces the mandate to deliver greater business value, faster and at lower cost. BMC's wide spectrum of ITSM offerings, culminating in Cognitive Service Management, meets these needs every step of the way. From enabling business transformation to integrating emerging technologies like AI into the enterprise to accelerating each layer of service delivery, from UX to speed to savings, Cognitive Service Management extends your ITSM initiative into the future.

FOR MORE INFORMATION

To learn more about Cognitive Service Management, visit bmc.com/it-solutions/cognitive-service-management.

BMC is a global leader in innovative software solutions that enable businesses to transform into digital enterprises for the ultimate competitive advantage. Our Digital Enterprise Management solutions are designed to fast track digital business from mainframe to mobile to cloud and beyond.

BMC digital IT transforms 82 percent of the Fortune 500.



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