The Autonomous Digital Enterprise: What does it mean for your business?

bmc

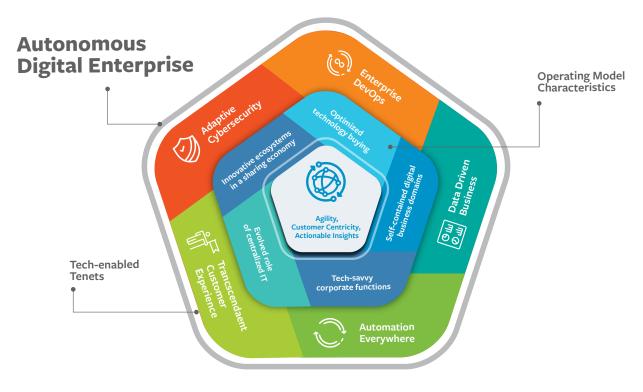# Table of Contents

Executive Summary

Over the next five to ten years, a combination of technological, socioeconomic, and geopolitical trends will create a new normal for organizations, a state in which every company will be a tech-driven company. All industries will experience seismic changes as technology, data, devices, and ever-expanding networks converge to transform every aspect of work and life.

We're already seeing the spawning of new industries and reinvention of existing ones, forcing enterprises to adapt and evolve. As we move forward, technology will drive the business versus being the utility it has traditionally been.[1]

How will your organization fare in this new and shifting landscape? A successful organization of the future will evolve into an Autonomous Digital Enterprise (ADE), where intelligent, interconnected systems operate with minimal human involvement across every facet of the organization and its ecosystem of partners. The ADE is growth-oriented and delivers value with competitive differentiation enabled by agility, customer centricity, and actionable insights. The function of people in the enterprise will evolve to new roles that require human judgement and support the autonomous systems that run the business. Work in the future will shift as technology takes on the menial and repetitive tasks across the business and employees shift to higher-value responsibilities.

Systematically working towards this goal by establishing and improving capabilities across five core technology enablers, as well as instituting the requisite operating model changes, will put your organization on the path to becoming an ADE.

Autonomous Digital Enterprise

Operating Model Characteristics

Tech-enabled Tenets

Adaptive Cybersecurity

Enterprise DevOps

Data Driven Business

Automation Everywhere

Transcscendaent Customer Experience

Optimized technology buying

Innovative ecosystems in a sharing economy

Self-contained digital business domains

Evolved role of centralized IT

Tech-savvy corporate functions

Agility, Customer Centricity, Actionable Insights

[1] As of the date of first publication of this document, the novel coronavirus COVID-19 has caused major declines in global markets, with full consequences not yet known.

Five Technology-Enabled Tenets of an Autonomous Digital Enterprise

To help you get there, we've identified five technology areas where you should be investing your resources and partnerships as you look ahead to 2025 and beyond:

1. A transcendent customer experience

Create real connections by making technology feel more human and giving employees what they need to create better customer experiences. Some ways to do that include:

- **Integrating and securing customer data:** Invest in a secure big-data infrastructure as the foundation for full-lifecycle management and potential monetization of customer data.

- **Journey analytics and orchestration for a frictionless experience:** Use an integrated ecosystem of customer experience tools to understand the entire customer journey and capture value from journey-related investments.

- **Mobile devices as the primary online interaction channel:** Providing an unbeatable mobile-first experience will become even more important across many sectors and industries.

- **Moving from a reactive to a proactive customer experience:** Identify specific differentiated use cases with the appropriate machine learning (ML) and other artificial intelligence (AI) techniques to help anticipate customer needs.

- **Do-it-yourself as the first choice in customer service:** Provide digital customer solutions that support brand engagement according to the customer's preference. Invest in AI, augmented/virtual reality (AR/VR) technology, and virtual assistants to enrich customer experience (CX) in both B2B and B2C.

- **Judicious blend of human and technology engagement:** Leverage AI and ML to know when the human element is needed. Invest in enriching the employee experience (EX) so frontline employees are augmented by digital tools to deliver a transcendent customer experience.

2. Automation everywhere

Organizations that are well on the path to becoming ADEs share one key characteristic—their customer interactions and operations are radically automated. This results in lower costs, fewer errors, much faster execution, fewer mundane tasks for employees, and ultimately, better customer experiences. They embrace the idea of technology as a complementary business function that works with—not in place of—human workers. Moving to automation everywhere means watching the line between IT automation and business automation fade as the following come to the forefront:

- Hyperautomation enables machines to automate business processes by automatically following a set of procedures and minimizing human involvement and errors at the confluence of digitization, connectivity, and AI.

- Operations automation offers solutions for preemptive and reactive remediation capabilities that are enabled by observable insights and automated actions. It combines application performance management (APM) and traditional IT infrastructure monitoring (ITIM) solutions into a full stack application and infrastructure performance management (AIPM) solution. It begins with a foundation of full-stack monitoring as a basis for AIOps-enabled observable insights as the next set of additive capabilities, extending to auto-remediation and self-healing driven by actionability.

- Enterprise service management (ESM) is the evolution of traditional service management beyond IT to deliver services via a structured system with an automated process framework for fulfillment.

- AI is at the heart of automation everywhere, spanning AI-enabled process automation, AIOps for observability that leads to actionability, and collaborative AI within ESM.

3. Enterprise DevOps

This is a natural evolution that extends the principles of software DevOps to surrounding processes, including release planning, change management, product operations, and more, to optimize for the rapid and continuous delivery of software applications and services. It is a set of continuous improvement principles, as well as cultural and behavioral changes that rely on a frictionless environment for success.

4. A data-driven business

A data mindset and analytical capabilities will be the most significant factors in determining future success. Considerations in creating a data-driven business include:

- Exponentially more data from many sources: Capture new data from IoT, social media, and customer engagement systems, in addition to traditional data sources.

- Value from data assets: Treat data like any other asset and look for opportunities to monetize that asset with high-value business use cases.

- AI and analytics to extract value from data assets: Create predictive models with ML systems that can be used to optimize, improve, guide, and execute actions. More importantly, leverage the right set of technologies for the business use case under consideration.

5. Adaptive cybersecurity

Security processes evolve to include functions that can automatically sense, detect, react, and respond to access requests, authentication needs, and outside and inside threats, and meet regulatory requirements. It combines AI-enabled solutions with a crowdsourcing environment, employs security-integrated DevOps (DevSecOps), uses cloud-native infrastructure and services, and adopts mature access and authentication practices with a zero-trust framework.

Technology—particularly when bolstered by AI and ML smarts—is a major tenet of an ADE. However, technology is only one piece, and on its own, it will not get you to the desired state. Operational changes are a must if you want to become an ADE.

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Five Operating Model Characteristics of an Autonomous Digital Enterprise

To be successful, you'll need to transform your operating model into one characterized by these five factors:

1. **Innovation ecosystems in a sharing economy**

A network of internal, traditional, and non-traditional relationships that innovate collaboratively to deliver new products and services to market.

2. **Self-contained digital business domains**

The self-contained "business-within-the-business" that integrates multiple functions responsible for end-to-end delivery with full accountability, and little-to-no reliance on the rest of the company.

3. **Optimized technology buying**

The natural evolution of organizations that eases technology purchasing and integration across the organization, in partnership with central IT, to support the day-to-day activities and operations of the business.

4. **Evolved role of centralized IT**

The shift from traditional IT service delivery to being responsible for digital transformation through Centers of Excellence that deliver technology to support innovation initiatives across the company.

5. **Tech-savvy corporate functions**

An enterprise-wide work transformation initiative that leverages technology for intimate collaboration across digitally-enabled functions to support greater business efficiencies and increase productivity and worker engagement and satisfaction.

How BMC Will Help You Become an Autonomous Digital Enterprise

Your journey to an ADE will not be static or sudden. It requires your organization to take the progressive steps to leverage more automation and AI/ML capabilities to support the evolution and maturity of the technology-enabled tenets. Building on the strengths of today's success, you will need to continue to run your business as it evolves and reinvent your operations for the future.

BMC has a portfolio of solutions, expertise, and partnerships to support your path to an ADE. Organizations across industries can easily leverage the scale, resilience, and reliability of the BMC portfolio to "reinvent" their businesses.

The **transcendent customer experience** comes to life with **BMC Helix** and **BMC Automated Mainframe Intelligence (BMC AMI)**. BMC solutions help ensure that your organization can leverage its differentiated business data with key insights across its technology, tools, and employees to deliver customized experiences. With increased automation that enables the delivery of predictive insights at the right time through technology integrations that leverage even more contextual data, BMC will be a critical asset as your ADE strives to provide the ultimate customer experience.

The second tenet, **automation everywhere**, starts with **BMC AMI**, **Control-M**, and **TrueSight** to bring IT and business automation even closer. AI is at the foundation of BMC products that enable enterprise automation today, with a vision of bringing observability and actionability even closer together in the ADE.

With **enterprise DevOps** still on the horizon for many organizations, **BMC Helix**, **Control-M**, and **BMC AMI** can help extend the business and development processes across your organization for greater speed and flexibility and a frictionless environment that focuses on growth today. Looking ahead, the ability to apply automation principles—and increase the applicability of BMC Helix across DevOps and business requirements—while ensuring AI-driven automation for applications in both distributed and mainframe systems (with Control-M and BMC AMI) will speed your organization's transformation.

A **data-driven business** centers on **Control-M** and **BMC AMI** to bring together more data sources from across the organization for the specific insights that uncover opportunities and new revenue streams. As your organization continues to increase the amount of data leveraged to make decisions for its business, Control-M and BMC AMI become critical AI/ML enablers across internal, ecosystem-owned, and third-party applications to leverage the data that drives every ADE.

The ability to successfully implement **adaptive cybersecurity** starts with ensuring the integrity of business-critical data and that it is collected, stored, and used with a zero-trust framework. Mainframes are a vital piece of the business, processing millions of transactions and storing some of an organization's most sensitive data. BMC AMI mainframe security solutions offer reassurance with the intelligent software, services, and skills that organizations need to automatically sense, detect, and react—with a vision to incorporate DevSecOps across all infrastructure for every ADE.

Start or accelerate your journey with:

BMC Helix	The end-to-end, intelligent service and operations software-as-a-service (SaaS) platform that offers choice and flexibility.	**Supports:** 1. Transcendent customer experience 2. Automation everywhere 3. Enterprise DevOps
TrueSight	Intelligent IT and cloud operations for a more agile enterprise that delivers fast, secure, and cost-effective services.	**Supports:** 1. Automation everywhere 2. Enterprise DevOps
Control-M	Application workflow orchestration and automation to transform your business and accelerate IT modernization.	**Supports:** 1. Automation everywhere 2. Enterprise DevOps 3. Data-driven business
BMC Automated Mainframe Intelligence (BMC AMI)	AI/ML and predictive analytics help make the most of your business data by identifying and remediating problematic IT events before they impact the business.	**Supports:** 1. Transcendent customer experience 2. Automation everywhere 3. Enterprise DevOps 4. Data-driven business 5. Adaptive cybersecurity

The BMC portfolio supports your company's efforts to run and reinvent with AI/ML capabilities across hybrid IT and multi-cloud to support enterprise-wide DevOps and automation by:

- **Accelerating application development and deployment** for strategic mandates and business transformations.

- Providing **actionable insights** with BMC AMI and BMC Helix to preemptively correct potential problems.

- Deploying a **flexible infrastructure** that is optimized for speed, cost, and risk.

As a partner in the ongoing process of enterprise transformation, BMC brings the technology-enabled tenets of the ADE to life with a full suite of offerings and professional services and a global ecosystem at every stage.

Conclusion

The technology tsunami will continue to transform every aspect of work and life. The convergence of people, technologies, data, devices, and ever-expanding networks will create immense opportunities for the organizations that can be agile and customer-centric, and use actionable insights across the business.

The organizations that will succeed and win over the next five to ten years are already well on their way to becoming an Autonomous Digital Enterprise. They have employed the operating models that capitalize on the ADE's technology-enabled tenets to stay ahead of the disruptions that threaten others.

For more information

To learn more about the Autonomous Digital Enterprise, please visit bmc.com/ADE.