CONTENTSTACK ✕ aws

Reducing the risk
of AI adoption
with Contentstack
and AWS

Contents

Introduction:
## The rise of generative AI in modern business

Businesses today are increasingly turning to AI to drive innovation and provide fully integrated, seamless experiences for their customers, across all channels and devices. AI market size is expected to reach $407 billion by 2027. Additionally, in a recent McKinsey Global Survey on AI, 65 percent of businesses surveyed said their organizations are regularly using generative AI—a figure that is nearly double the percentage from the firm's previous survey less than a year ago.

By taking advantage of generative AI and large language models (LLMs), businesses can spend more time on innovation by using AI to save time, simplify operations, automate processes, scale content production, and deliver the personalized experiences their customer's demand.

The importance of a secure and scalable infrastructure

The typical legacy content management system (CMS) was built for deploying static content to a single webpage and was not designed to support an omnichannel deployment for mobile apps, smartwatch apps, websites, and other digital channels. A truly successful AI adoption requires a modern and secure infrastructure that integrates with an organization's existing technology stack and tools.

In addition, as businesses have invested in personalization solutions, they still struggle to execute personalization at scale and lack the ability to accelerate and scale content production to keep pace with demand.

$407 Billion
Expected AI market size by 2027

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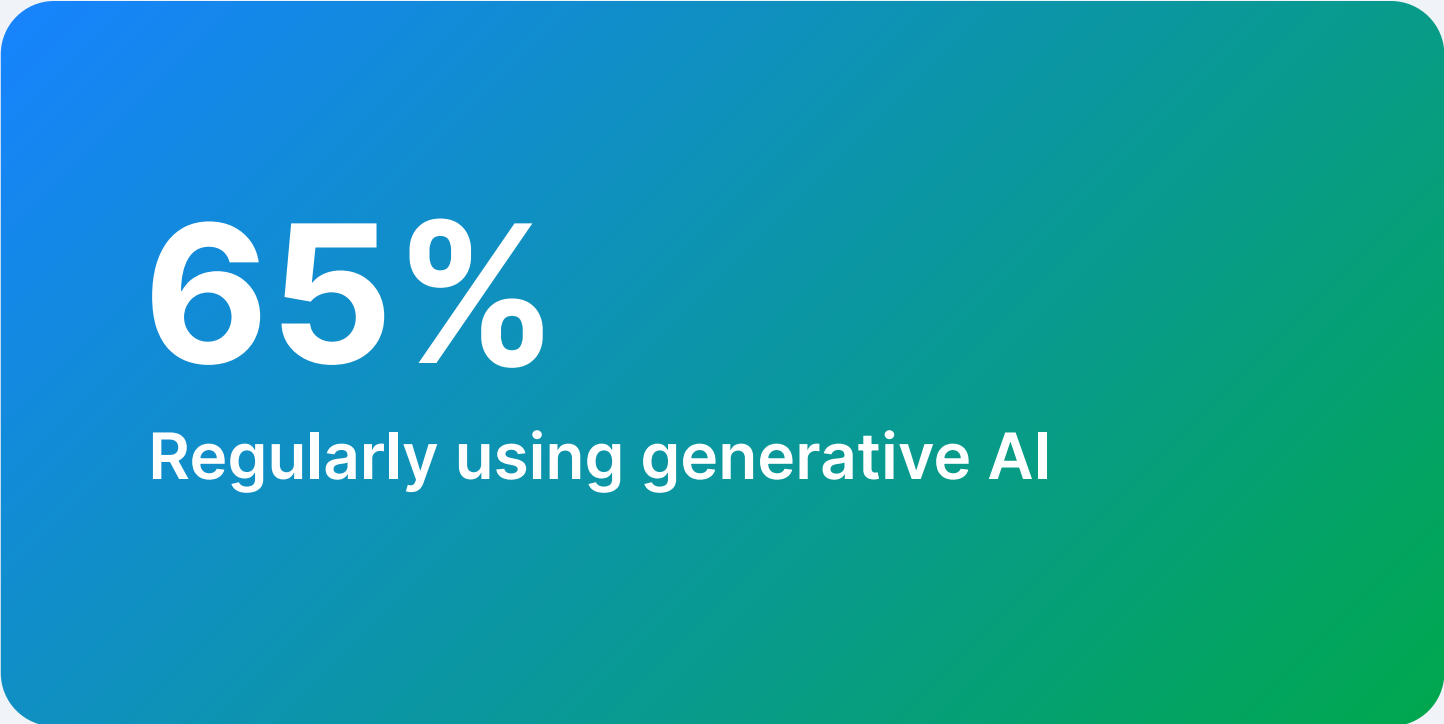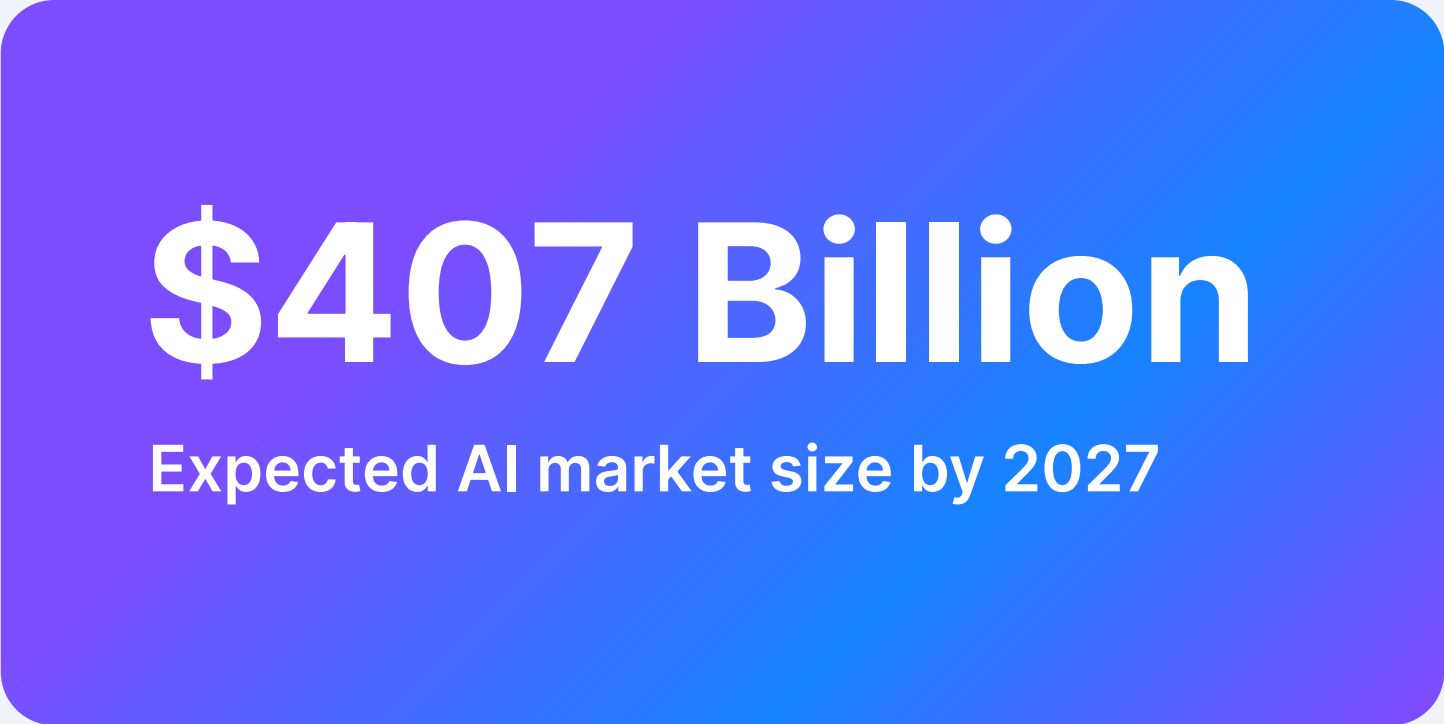
Understanding the challenges of AI adoption

As more businesses see the value of generative AI, they are also discovering that AI adoption does not come without risk. Some of today's most common risks and concerns include inaccurate content and the challenge of data management. These issues can negatively impact everything from customer journeys to coding and creative content. Other key challenges are:

Data security and privacy concerns

AI solutions are managing ever-increasing volumes of sensitive, often personal data. Without a solid data security strategy in place, organizations are at risk of unauthorized access to data, causing privacy concerns and even identity theft.

Integration complexities

Businesses increasingly need to tell different stories to different audiences, and they want to use AI to automate personalization and segmentation processes. However, integrations with third-party AI solutions are highly complex and often costly.

Compliance and regulatory roadblocks

Ensuring that the right data protection measures are in place to guarantee compliance with regulations is not always simple, especially as AI regulations and standards are always evolving.
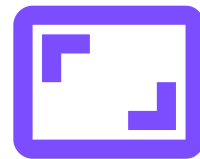
Scalability and performance issues

As businesses struggle to quickly deliver content to multiple channels, they are limited by the scalability and performance challenges of their legacy CMS. Adopting AI at scale is sometimes not possible because smaller organizations don't have large AI teams and the data science resources required to deploy and maintain complex AI solutions.

Contentstack and AWS:
A strategic partnership

[Contentstack](#), a leading digital transformation provider, helps global businesses overcome the challenges of adopting AI solutions. Contentstack provides a [headless CMS](#)—a microservices backend architecture that arranges and controls content without the need for a front end or presentation layer. As a result, businesses can make updates in a single centralized location and create experiences quickly, address massive tech backlogs, deliver value to their own customers, and create new or increased revenue streams while saving time and money.

As an AWS Partner, Contentstack has worked closely with AWS from day one to support its solutions. Amazon Web Services (AWS) are critical to Contentstack's success as a business, whether it's the core technology underlying its platforms or getting early access to new AI products and services. Contentstack powers its platform by integrating with proven, cutting-edge AWS AI services such as [Amazon Bedrock](#), which offers a choice of foundational AI models to help build powerful generative AI applications.

Contentstack drives generative AI use cases including:

AI Assistant

Used for idea generation, translations, brainstorming, summarizing, outlining, keywords, and fact-checking.

Contentstack Automate

Used for querying databases, Retrieval-Augmentation Generation (RAG), and prompt-chaining.

Brand Kit

Serves as a centralized repository for your organization's brand identity and guidelines, offering a comprehensive array of product details and overall brand persona.

Personalize

Easily tailor content to customer preferences and behaviors with the power of automation and brand-relevant AI.

Enabling
seamless integration

Contentstack and AWS help businesses mitigate the risk of AI adoption by providing a unified AI platform that integrates seamlessly with their solutions.

The Contentstack and AWS platform includes editing tools that offer direct interaction with an AI model for content optimization and idea generation, plus AI connectors that automate repetitive processes to ensure reliability and trusted outcomes. The platform also offers the following capabilities:

API-driven architecture for smooth connectivity. Contentstack's headless CMS uses an API-first system to enable integrations with other systems, helping businesses better connect the experiences on each system.

Interoperability with existing systems and third-party services. Easy integration means businesses can seamlessly weave new technology into the application development process, reducing the burden on developers.

Headless CMS
Your engine for creating experiences everywhere

AWS   Azure   Google

Key outcomes

By integrating with existing content management and AI systems, the Contentstack and AWS platform provides key outcomes that include:
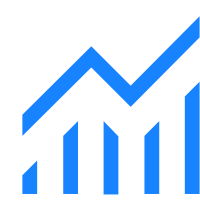
Better accuracy

Through built-in AI connectors, businesses can add advanced AI capabilities to automated workflows to automate routine tasks, ensuring accuracy and consistency.

Flexibility

The Contentstack platform is set up as a large toolbox with tight integration with third-party tools, so developers can choose the technology that fits their needs.

Increased developer productivity

By acting as a central nervous system for digital ecosystems, the Contentstack platform integrates with application development systems to drive productivity for both engineering and content teams.
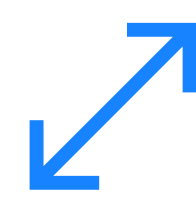
Scalability

Even if a business has a personalization system in place, it still may not be able to use it in a way that aligns with the organization's operational capacity. But Contentstack is designed to make it easy to scale personalization capabilities on demand.
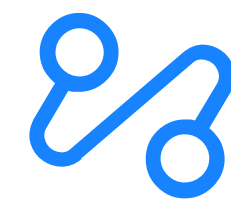
Streamlined content delivery

Contentstack's solutions use AI LLMs to help businesses generate content variants and unique, audience-based segments that enable them to respond in a highly relevant and contextual way. This eliminates some of the bandwidth challenges involved in telling hundreds of stories to different audiences.
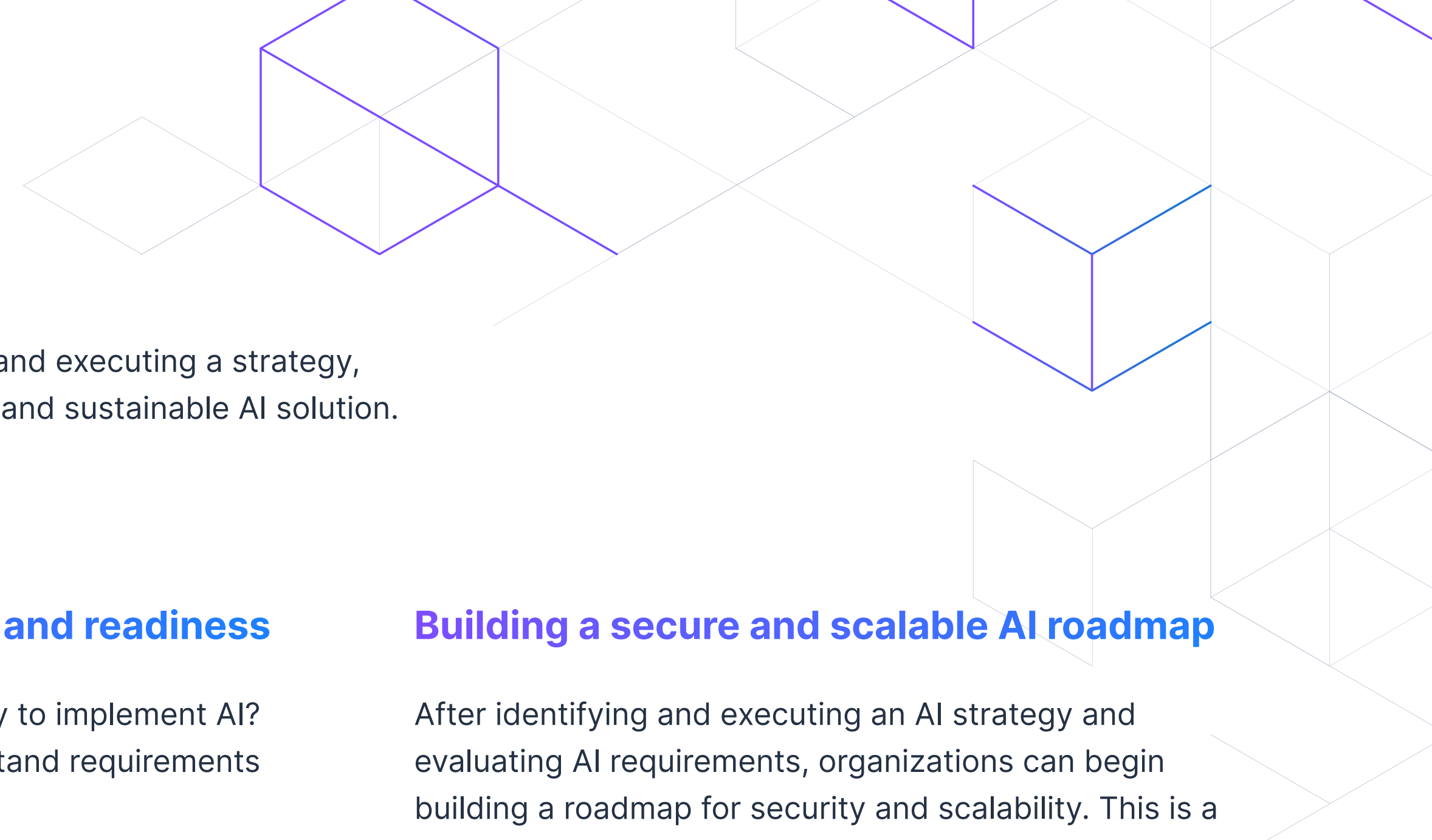
Best practices for enterprises

There is no fast, simple way to overcome the risk of AI adoption. It is a process that includes identifying and executing a strategy, carefully evaluating an enterprise's specific AI requirements, and finding the best way to build a scalable and sustainable AI solution.

Below is guidance to lead enterprises along every step of their AI adoption journeys.

Strategic planning and execution

Before adopting and benefiting from AI, enterprises need to plan and execute a strategy and identify use cases to support that strategy. This requires each enterprise to:

- Discover and prioritize AI applications that drive the most financial and operational impact.

- Leverage expert technical consultation to pinpoint opportunities for AI to drive value and ensure the organization has the right tools in place.

- Closely align generative AI use cases to the organization's strategic business values.

- Think about how to use AI to address long-term content strategy goals.

- Make AI adoption impactful with focused, strategic use case development.

Steps for evaluating AI needs and readiness

How does an enterprise know it's ready to implement AI? Here are some steps to take to understand requirements and simplify AI integration:

- Identify how much time the business spends on manual, repetitive tasks for content creation and management.

- Think about how to measure ROI for an AI solution.

- Navigate AI integration complexities with a structured, clear approach.

- Access specialized AI tools and resources tailored to the enterprise's business needs.

- Understand how to achieve faster, more effective AI implementation within the enterprise.

Building a secure and scalable AI roadmap

After identifying and executing an AI strategy and evaluating AI requirements, organizations can begin building a roadmap for security and scalability. This is a critical step toward scaling AI solutions across different departments and content types. To create an AI roadmap that establishes a foundation for long-term AI success:

- Utilize repeatable frameworks and processes for continuous AI evolution.

- Determine how to use LLMs to best generate content that is relevant and contextual to its audience.

- Measure and optimize ROI with expert insights and best practices.

Fast-tracking
AI adoption

By taking advantage of the [Contentstack AI Accelerator](#), organizations can accelerate AI adoption by deploying AI in 45 days. The AI Accelerator blends AI-powered capabilities with comprehensive educational resources and expert support.

The AI Accelerator includes:

✓ Software connectors to build AI automations

✓ 5,000 pre-built automations

✓ Access to tools and resources to help ensure that the enterprise is fully equipped to implement AI

✓ Consulting services

✓ Self-paced courses that can help determine which LLMs and automations are most effective for an enterprise's specific marketing requirements

✓ Access to tools and resources including AI Assistant, workshops, and courses
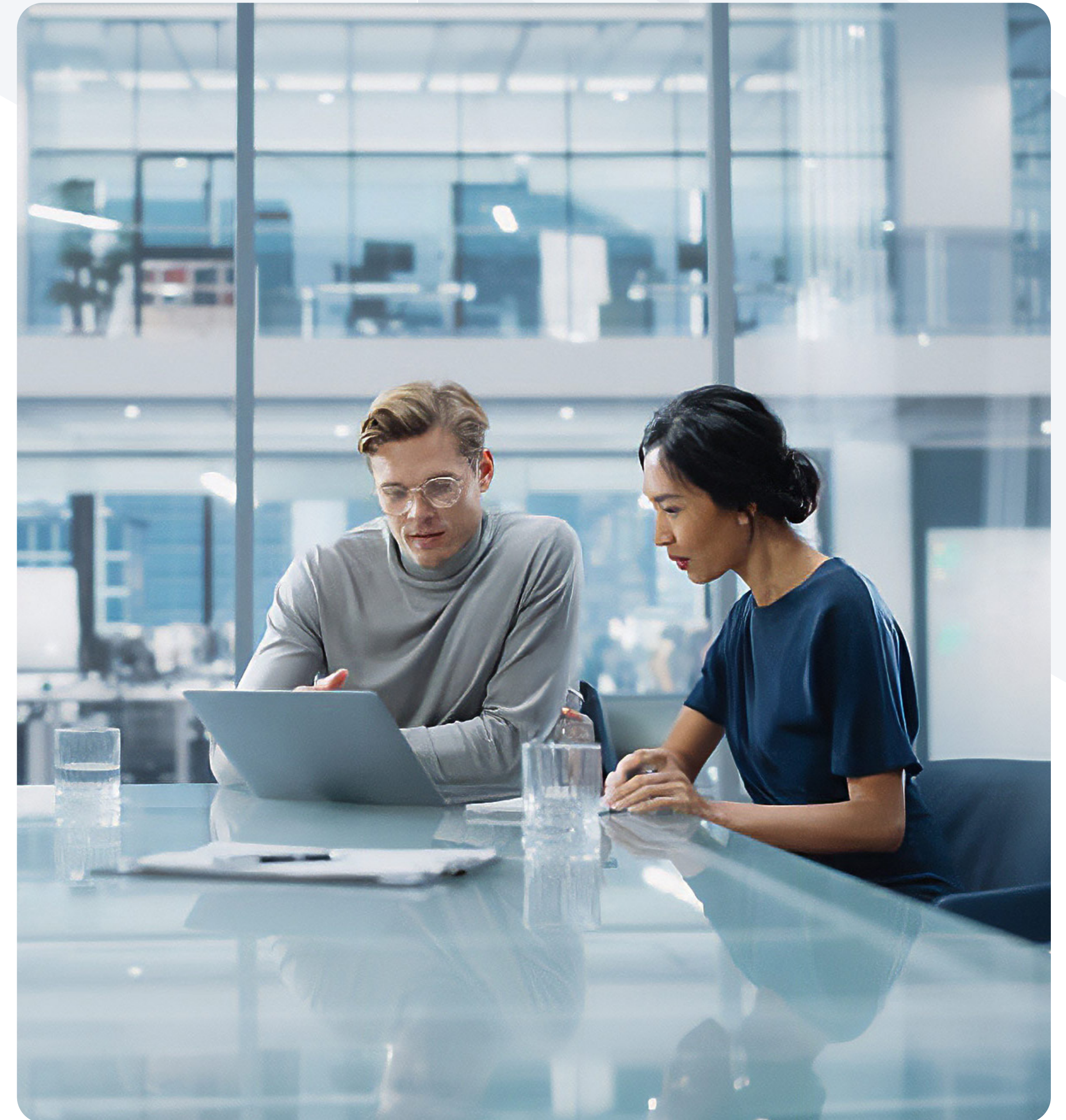
AI Accelerator also includes the following features:
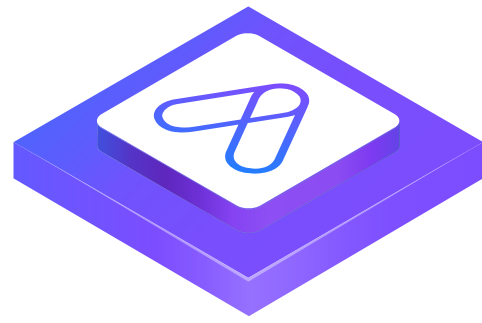
Task automation

The Contentstack Automate platform helps enterprises automate repetitive tasks between two or more apps without the need to code. A visual workflow builder that uses an automation-based trigger and action system, it speeds up content delivery, integration, and operations lifecycles with advanced automation.

With Automate, enterprises can inform an app to perform a specific action when an event happens in another app. As an example, organizations can create automations to send Slack notifications when a Contentstack entry is created, updated, published, or deleted.
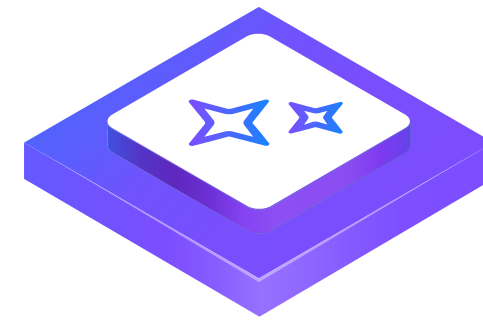
Brand-aware AI

Contentstack Brand Kit, which sits on top of AI Assistant, is a writing assistant that produces brand-relevant, AI-generated content at scale. The AI Assistant is a powerful natural language processing app that efficiently processes, transforms, and generates content that applies a brand's guidelines, styles, and preferences—ensuring all generated content aligns perfectly with the brand identity for a cohesive audience experience.

Brand Kit also adds the following critical functions to the headless CMS:

- **Knowledge Vault.** A repository of brand assets—such as documents, customer insights, and platform context—that the LLM uses to supplement its knowledge and ground its output.

- **Voice Profiles.** Customizable rules that shape AI content's tone, style, and language, with flexibility based on audience, intent, or channel. These profiles come from the individual, team, or task in progress and include audience segmentation.
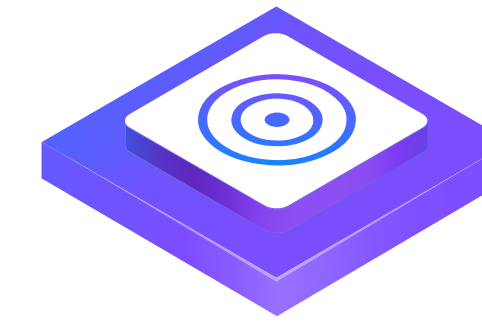
Integrated personalization engine

Contentstack Personalize is an A/B/n testing and segmentation engine that removes some of the obstacles of implementing and operationalizing personalized content. As a native capability of the headless CMS, Personalize helps marketers experiment with content variations to understand what resonates with audiences.

Marketers can use Personalize to build meaningful connections with near limitless iterations of targeted content by using AI to scale across audience segments. By customizing marketing content in real time based on individual user data and engagement history, marketers can deliver relevant brand experiences.

Conclusion

AI is everywhere today, and companies are under pressure to embrace it to deliver more personalized experiences that differentiate their businesses. To overcome the risk of AI adoption, start by identifying and executing a strategy, evaluating AI requirements, and implementing a scalable and sustainable AI roadmap.

AI is here to stay. Ensure your tech stack is equipped with the right tools to keep up.

Learn how to reduce the risk of AI adoption with Contentstack.

GET STARTED