

April 2026

From cost center to intelligence hub: How AI is transforming the contact center

Contents

3	Executive summary: The contact center as a source of enterprise insight
4	The rise of AI-powered contact centers: Why the shift goes beyond technology
5	What it takes to build an AI-enabled contact center
7	How organizations are using AI-powered contact centers
10	Experience the next phase of customer experience

Executive summary: The contact center as a source of enterprise insight

Customer experience has never mattered more, and the role of the contact center is changing just as quickly. Once seen as a necessary cost, it is becoming a critical source of customer insight.

Customers expect immediate, personalized and frictionless interactions on every channel. At the same time, service organizations are dealing with rising volumes, more complex customer journeys and growing pressure on agents.

Traditional contact center models were not designed for this environment, but AI is ushering in a new era of customer engagement. When applied through cloud-native platforms such as Amazon Connect, AI enables organizations to move from reactive support to more proactive, insight-driven customer experiences.

Many organizations are already seeing results, including reduced handling times and improved resolution rates. However, the full value comes from a broader shift — when organizations rethink how they design customer journeys, connect data and support human agents.

With the right strategy and the support of partners such as NTT DATA, any organization can move beyond short-term improvements and build scalable, adaptive contact centers equipped to generate ongoing customer insight.



The rise of AI-powered contact centers: Why the shift goes beyond technology

For decades, the contact center has carried more weight than almost any other system in the enterprise. It's where customers are proactively engaged to explore new products, services or information — and where they turn reactively when something goes wrong. It's the place where revenue is generated or protected in moments of friction, where policy meets reality and where trust is an imperative.

Over the years, business leaders added channels, tools and automation around the edges, but this only bought time and added limited capabilities. Service delivery still depended on people using fragmented systems to manually execute tasks.

Now, AI is rapidly changing how organizations manage customer engagement, while widespread cloud adoption is enabling more flexible and integrated service environments.

The scale of change is already clear:

- The market for AI technologies in customer service is projected to grow from about **\$12 billion in 2024** to nearly **\$48 billion by 2030**.¹
- In the customer experience market, **59%** of organizations now use intelligent call routing, **57%** use conversational AI and **38%** use agentic AI.²
- The immersive experience market is set to reach **\$58.3 billion by 2028**, at a compound annual growth rate of **7.8%** from 2025.³
- Conversational AI can resolve **60%–70%** of routine inquiries, according to NTT DATA's own observations.

Solving the legacy challenge

As AI and cloud technologies evolve, data becomes more connected and real-time decisions are made more often. This has the potential to transform the contact center into a key source of customer insight, loyalty and differentiation.

However, many legacy environments were not built for always-on, omnichannel expectations. As a result, fragmented data, siloed channels, limited visibility and high agent effort create friction for both customers and employees.

Cloud-based platforms address these challenges by enabling the creation of unified environments where channels, data, automation and analytics work together. Solutions like Amazon Connect by Amazon Web Services (AWS) provide flexible, composable architectures that support more consistent and responsive customer experiences.

¹ MarketsandMarkets. [AI for Customer Service Market](#). Feb 2025.

² Omdia. [The State of Digital CX 2025: Survey analysis](#). 7 May 2025.

³ Statista. [AR & VR — Worldwide](#). Updated in April 2026.

What it takes to build an AI-enabled contact center

To succeed with AI-powered customer engagement, organizations need to change how they design, manage and learn from customer interactions.

It involves four key capabilities:

Capability	How NTT DATA enables it
1 Intelligent automation	We reduce contact volumes and effort by deploying intelligent routing, virtual assistants and automated workflows across channels. Technologies such as Amazon Lex support natural-language customer experiences, and Amazon Connect AI agents can understand, reason and take action.
2 Agent augmentation	We improve the performance of human agents through real-time guidance, GenAI (which provides instant transcription, contextual recommendations and automated summaries) and integrated knowledge support. Tools like Amazon Bedrock and Amazon Connect Contact Lens can reduce the manual effort involved in these activities.
3 Unified customer data and insights	Personalized customer service depends on connected, real-time data. We break down silos by integrating systems to create a single, contextual view of the customer. Amazon Connect enables this level of integration across systems with comprehensive analytics.
4 Continuous optimization	We keep improving customer experiences by applying AI-powered analytics. Sentiment analysis, quality monitoring and predictive insights create feedback loops that help organizations refine customer engagement over time.



Responsible AI includes human oversight

As the adoption of AI in contact centers increases, responsible implementation becomes essential.

Transparency, human oversight and strong data practices ensure that AI improves customer trust.

With a human-in-the-loop approach, the technology supports, rather than replaces, human judgment, and the risk of hallucinations, inappropriate responses or policy violations is minimized.

Organizations should establish clear governance frameworks — ranging from defined ownership of AI systems to model lifecycle management and auditable decision-making — so that AI-driven outcomes can be monitored, explained and continuously improved.

AI models must also be regularly evaluated for bias and fairness, particularly in areas such as routing, prioritization and recommendations.

Furthermore, responsible AI requires robust data governance, including the protection of personally identifiable information, secure data handling and compliance with regulations such as the European Union's General Data Protection Regulation.

Amazon Connect : A platform for modern customer engagement

Originally developed by AWS to support their own global customer operations, Amazon Connect is a cloud-native, composable contact center platform, purpose-built for modern, AI-driven customer engagement at scale. Designed with flexibility and innovation in mind, it enables organizations to deliver seamless, personalized experiences while evolving to remain aligned with business needs. It includes:

- **Elastic, scalable infrastructure** automatically adjusts to fluctuating demand, ensuring high availability and cost efficiency without the need for complex capacity planning.
- **Deep integration with AI** enables conversational intelligence, GenAI use cases and predictive insights to improve both customer and agent experiences.
- **True omnichannel engagement** supports voice, chat and digital messaging channels within a unified platform to provide consistent, connected customer journeys.
- **Real-time and historical analytics** offer actionable insights into customer interactions, agent performance and operational metrics to support continuous improvement.

By combining the scalability of cloud with advanced AI capabilities, Amazon Connect enables you to transform a traditional contact center into an intelligent engagement hub that delivers faster, more personalized and more efficient customer service.



How organizations are using AI-powered contact centers

Organizations in many industries are already using Amazon Connect to deliver more intelligent customer engagement. They're using the technology to streamline workflows and to gain new real-time insights into their customer base.

AI-powered self-service

To reduce call volumes and make contact centers more responsive, conversational AI can handle high-volume, routine inquiries such as billing, order status and account updates.

Real-time agent assist

Human agents often navigate multiple systems during complex live interactions. AI tools support these agents by surfacing knowledge, suggesting next steps and generating summaries. This improves productivity and consistency.

Intelligent routing and journey optimization

AI-driven routing uses intent, history and sentiment to match customers with the most appropriate agent, which improves resolution rates and reduces the need to transfer customers between agents.

Proactive engagement and outreach

AI can anticipate customers' needs based on their behavior, history and signals such as sentiment or usage patterns. Proactive notifications, reminders or offers reduce inbound demand while improving customer satisfaction.

"Voice of the customer" insights

AI-powered analytics can extract themes, sentiment and emerging issues from customer interactions at scale. These insights help organizations identify product issues,

Automated quality management and compliance

AI can evaluate all customer interactions against predefined criteria and flag risks, compliance issues or coaching opportunities. This means less manual quality assurance is required, while consistency and regulatory adherence improve.

Personalized experiences at scale

When contact centers combine real-time data with AI-driven recommendations, they can tailor interactions to individual customers to enable more relevant conversations and improves conversion rates.

Post-interaction insights and continuous learning

AI-generated summaries, tagging and analytics turn every interaction into structured data. Organizations can use this to update knowledge bases and improve both automated and human performance.



How NTT DATA makes this transformation possible

Delivering an AI-powered contact center requires more than technology. It also involves strategy, design, integration and ongoing optimization.

NTT DATA supports this through:

- CX strategy and human-centered design
- Deep expertise in Amazon Connect and AI services
- Industry-specific solutions tailored to regulatory and operational requirements
- End-to-end transformation lifecycle support, from strategy, design and implementation to continuous improvement

NTT DATA brings a unique advantage to this transformation with decades of experience running and operating global contact center environments, giving deep insight into how customer engagement platforms must function.

NTT DATA offers a distinct edge in this transformation, grounded in decades of hands-on experience managing global contact center environments — and a clear understanding of what it takes for customer engagement platforms to truly perform.

Transforming customer experience at a European retail and commercial bank

A major European bank wanted to modernize their customer engagement model to meet rising demand for seamless, omnichannel experiences. But delivering that meant more than adding new channels. The bank needed one platform that could bring everything together, use AI in meaningful ways and still meet strict regulatory demands.

NTT DATA implemented an AI-powered omnichannel engagement platform powered by Amazon Connect. It now supports more than 360 contact flows, connects with six core banking systems and enables over 2,000 agents to work across voice, messaging, video and outbound campaigns.

What sets this approach apart is how GenAI is woven into everyday operations. Customers can resolve more on their own through smarter self-service, agents get real-time guidance during interactions, post-call documentation is handled automatically, and quality checks are faster and more consistent. Behind the scenes, advanced analytics and forecasting tools help the bank plan resources more accurately and keep service levels high.

The platform is backed by a managed services model that combines strong operational governance with continuous, AI-driven improvement, allowing the bank to keep evolving its capabilities as its digital strategy matures.

What changed:

- Customers enjoy a more consistent, joined-up experience across channels.
- Agents work more efficiently, with AI support handling routine tasks.
- Workforce planning is more accurate and easier to manage.
- Compliance is strengthened through built-in monitoring and data controls.
- The bank now has a scalable platform that can adapt and grow over time.

This use case shows how financial institutions can modernize customer engagement at scale while maintaining the highest standards of security, compliance and operational resilience.

NTT DATA's industry expertise, combined with the flexibility of Amazon Connect, enables organizations to move beyond the limitations of legacy contact centers and adopt intelligent, cloud-native engagement models. Apart from delivering a more efficient workforce and satisfied customers, this lays the foundation for ongoing innovation, advanced analytics and the integration of AI-driven capabilities.

Enabling autonomous service at scale with NTT DATA and AWS

Autonomous service requires more than automation. It also demands cloud-scale infrastructure, advanced AI capabilities and governance frameworks leaders can trust.

Through an expanded strategic collaboration, NTT DATA and AWS combine deep service transformation expertise with AWS's secure, resilient cloud and advanced GenAI and agentic AI services. Together, we enable organizations to redesign high-volume service journeys, embed AI as an execution layer and orchestrate outcomes end to end.

Built on AWS's elastic digital foundation and guided by NTT DATA's industry expertise, data and governance capabilities, autonomous service can:

- Scale without linear workforce growth
- Maintain resilience during peak demand
- Improve continuously through real-time insight into completion rates, exceptions and performance patterns.
- Embed governance, security and compliance by design.

The result is a shift from human-executed services at scale to software-delivered operations by design — secure, responsible and measurable in economic impact.

For leaders ready to move beyond incremental optimization, NTT DATA and AWS provide a structured path from vision to enterprise-scale execution.



Experience the next phase of customer experience

While many organizations are embedding AI into their customer experience strategies to improve the speed and efficiency of their contact centers and offer hyperpersonalized services, the bigger challenge remains using AI-enabled insights to guide their interactions and decisions, both operationally and strategically.

Amazon Connect provides the platform to overcome this challenge. With the right strategy and the support of NTT DATA, you can build an adaptive and efficient contact center that always meets your customers' evolving expectations.



Visit nttdata.com to learn more.

NTT DATA is a \$30+ billion business and technology services leader in AI and digital infrastructure. We accelerate client success and positively impact society through responsible innovation. As a Global Top Employer, we have experts in more than 70 countries. NTT DATA is part of NTT Group.



