

# How AI Agents Reshape Customer Support in Fintech

Leverage AI-powered agents to create seamless user journeys.



# Introduction

Fintech is growing fast, but customer support expectations are rising even faster. AI-powered agents are essential for financial institutions that want to offer fast, dynamic customer service.

McKinsey<sup>[1]</sup> estimates that AI-driven solutions could generate up to \$1 trillion in additional annual value for the global banking sector, with customer service transformation playing a critical role. AI agents are already making an impact by reducing service costs and handling complex inquiries. Beyond efficiency, AI-driven insights<sup>[2]</sup> help financial services create personalized experiences that strengthen customer relationships and build trust.

This ebook explores how fintech firms can leverage AI agents to enhance customer service, cut costs, and manage risks, with actionable insights and real-world examples.

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# The new standard for fintech support: Why AI-driven customer service is no longer optional

Fintech companies disrupted the financial industry by doing what traditional banks wouldn't—leverage technology to offer seamless, customer-first experiences.

Brands like N26 and Klarna grew rapidly by automating core processes from the start, making banking more accessible and payments more flexible. Today, fintech users expect the same level of personalization and convenience from customer support.

**The challenge?** Scaling support without compromising on accuracy, compliance, or customer experience. AI-powered agents offer a path forward, but not all solutions meet fintech's unique demands.

Customers expect instant, intelligent responses—82%<sup>[3]</sup> demand immediate resolutions, while 78% want more personalized interactions. At the same time, fintechs must ensure security, reliability, and strict regulatory compliance. The wrong solution can lead to frustrated users, regulatory risks, and inefficiencies that slow growth.



80%

**of businesses<sup>[4]</sup>** use AI as a core technology within their organization



59%

**of banks<sup>[5]</sup>** are already leveraging the power of AI to improve customer engagement



48%

**of customers<sup>[6]</sup>** are willing to switch brands to get better customer service

AI-based customer experience can:

- Boost marketing-based revenue by 10%
- Reduce operations costs by 13%
- Increase customer satisfaction by up to 20%<sup>[2]</sup>

Fintech companies looking to scale need support solutions that keep up with their evolving, automation-driven models. AI-powered agents are designed for it. They help manage growing customer demands while ensuring compliance and seamless integration with existing systems.

In the following sections, we'll explore what fintech companies should prioritize in AI-driven support, implementation challenges, and how the right AI agent can drive both operational efficiency and long-term customer loyalty.

## How AI agents are used in fintech

In the fintech industry, AI agents move beyond automation. They enhance the complete customer experience (CX) through instant support and personalized interactions.

While traditional banks rely on rigid systems that only allow for synchronous communication on select channels, AI-based platforms continuously learn, adapt, and offer human-like conversation whenever, wherever.

### What are AI agents and how do they differ from AI chatbots?

While AI chatbots are designed primarily for handling conversations, such as answering FAQs and processing customer inquiries, AI agents operate with a higher level of autonomy.



**AI agents** are able to have human-like conversations like an AI chatbot, but they can also detect context and intent. But what truly sets them apart from chatbots is their ability to make independent decisions, adapt to user behavior, and execute complex, multi-step tasks without human help.

**AI chatbots** typically use natural language processing (NLP) and machine learning (ML) to improve their responses over time, but they're often limited just to chat and simple tasks, like website navigation and collecting customer info. In contrast, AI agents go further by analyzing real-time data, taking proactive actions, and integrating with a customer relationship management (CRM) system and other software.

AI agents are generally more versatile and capable of managing tasks beyond conversation, such as:

- executing transactions
- personalizing recommendations based on user history
- autonomously resolving customer issues.

AI agents are a natural fit for fintech companies; they not only handle FAQs but also manage high-value financial inquiries with real context awareness. Unlike rigid scripts, they adapt to conversations, offering relevant advice and personalized recommendations.

They're also fast to deploy and cost-effective—building an in-house solution requires significant investment, while cloud-based AI offers a plug-and-play approach that integrates seamlessly with existing tools.

Security and compliance are another advantage. With built-in encryption and regulatory adherence, cloud-based AI agents remove the burden of maintaining compliance, ensuring data protection is always up to date.

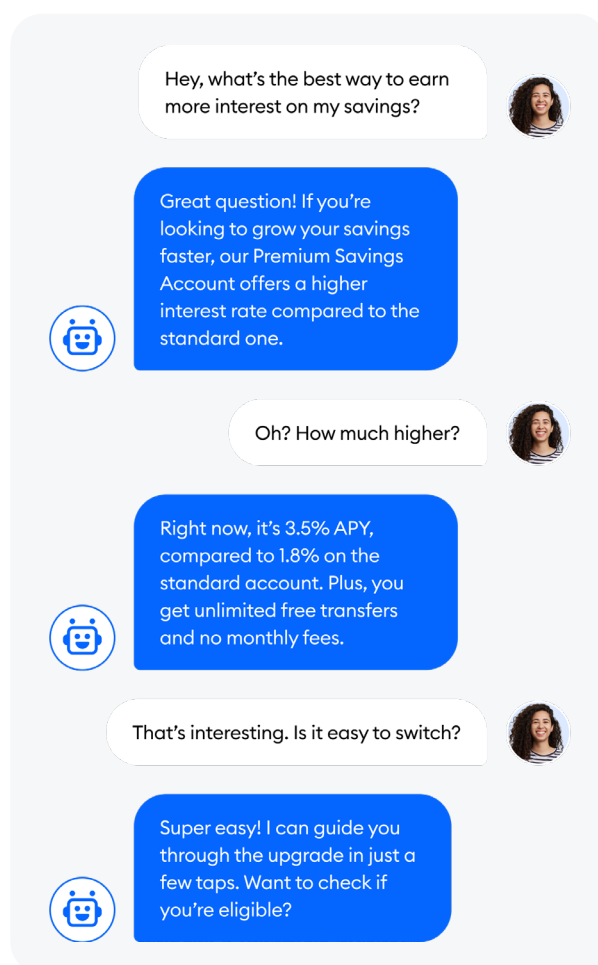
## Use case 1

### AI in sales and growth for fintech.

Fintech companies are constantly looking for ways to grow, whether through referrals, up-sells, or better product recommendations. AI agents can help drive these efforts by acting as smart sales assistants, engaging customers in real time.

Take referrals, for example. Many fintech apps, like N26, regularly remind users about cash bonuses for referring friends. AI can make these campaigns more effective by reaching out at the right moments, like when a user is actively engaging with the app or has just completed a positive transaction. Instead of a generic message, the AI can personalize the pitch, increasing the chances of a successful referral.

The same applies to product recommendations. If a customer frequently checks savings-related content, an AI agent like Lyro could highlight premium accounts with higher interest rates. Someone browsing investment options? The AI can suggest accounts that align with their interests. It's a way to make offers feel relevant rather than intrusive.

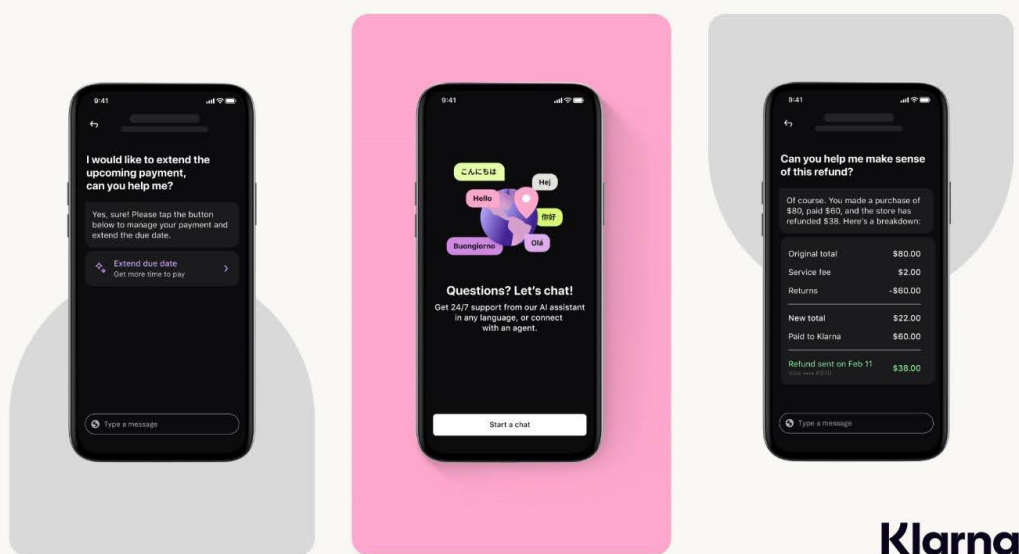


Beyond that, AI agents help convert site visitors into customers by answering questions, guiding sign-ups, and even nudging users toward upgrades—all without waiting for human support. It's like having a 24/7 digital sales team that knows exactly what customers need, when they need it.

## Use case 2

## AI-powered customer service.

Fintech firms expanding their customer base must scale support without increasing costs.



**Klarna**

[Klarna's](#) AI assistant, powered by OpenAI, handled two-thirds of all customer service chats<sup>[7]</sup> within its first month, performing the equivalent work of 700 full-time agents.

One of AI's biggest success areas in fintech is customer support. As demand for 24/7, omnichannel service grows, AI agents are becoming essential. They can handle repetitive inquiries, resolve issues, and even manage transactions.

Fintech companies can then provide faster, more efficient service while human agents focus on higher-value interactions.

Legacy banking models still rely on massive call centers and frustrating phone trees. Even major banks like Chase require customers to call separate hotlines for different banking needs—an outdated, time-consuming process.

In contrast, fintech brands provide seamless, instant support directly within their website or mobile app using AI agents, lowering the barrier for customer service and keeping customers loyal.

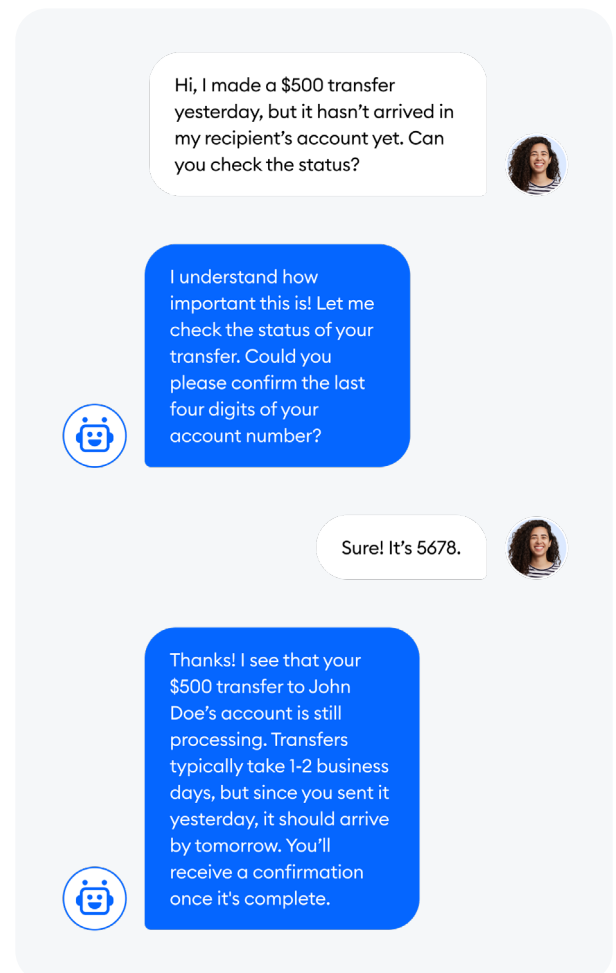
### Use case 3

### AI-powered omnichannel support.

Customers no longer engage with financial services through a single touchpoint—more than half use three to five channels<sup>[8]</sup> in a single journey.

Whether switching between mobile apps and live chat, or moving from self-service to an agent, they expect a seamless experience. Fintechs that prioritize 24/7, omnichannel support simultaneously improve convenience and boost resolution times.

[Tidio's AI agent, Lyro](#), operates across multiple channels, including web, email, and social apps. By integrating with existing customer service workflows, Lyro ensures that users receive instant, context-aware responses no matter where they engage. This omnichannel approach keeps interactions consistent and allows fintech businesses to meet customers where they are—whether on a website, in an app, or via messaging platforms.



However, many financial institutions struggle to meet these expectations. Some attempt to be present on every channel but end up overwhelmed, managing inquiries from multiple inboxes, delaying responses, or leaving customer requests unanswered. Others lean too heavily on automation, making it frustratingly difficult for customers to reach a human agent when needed.

The key is not just supporting every channel, but strategically optimizing the right ones. AI-powered agents and automation help fintech companies strike this balance by offering a reliable conversational AI assistant that can handle inquiries while recognizing when a human touch is necessary.

By ensuring smooth transitions to the right agent at the right time, AI agents provide the scalable yet personalized support that businesses have long sought since chatbots first emerged.



# The role of AI agents in customer experience

AI agents help improve customer experience in financial services by making interactions faster, smarter, and more cost-effective.

With advancements in Generative AI (Gen AI), AI agents now offer personalized recommendations and seamless user experiences that meet rising customer expectations.

## Personalization that enhances customer engagement

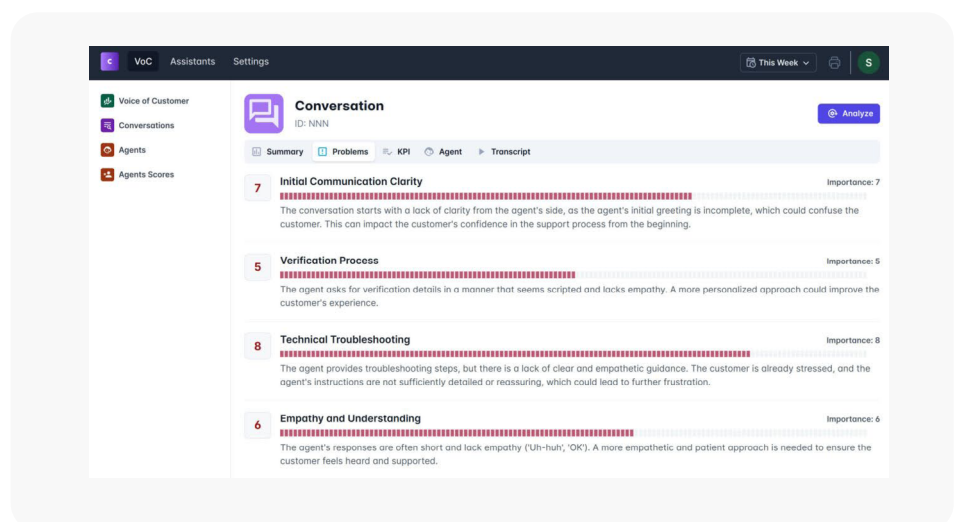
Customers expect real-time, tailored interactions. AI agents give fintechs a competitive advantage by providing fast, intelligent, deeply tailored customer experiences at scale.

An AI agent leverages transaction data, behavior patterns, and user preferences when helping customers. Instead of giving generic responses, AI agents now act as intelligent advisors, guiding customers through complex financial decisions.

Financial institutions can also use Gen AI to automate communication and marketing campaigns<sup>[9]</sup>, increasing engagement and customer loyalty.

Proactive AI agents guide users through complex financial processes, such as loan applications, investment decisions, and payment verifications. AI-driven personalization is already proving effective. A UK-based bank using AI-powered recommendations saw a fivefold increase in click-through rates<sup>[10]</sup> for lending offers.

Crescendo's "Augmented AI" model, for example, provides 24/7 chat and voice support, resolving inquiries faster than traditional service teams while maintaining a human-like experience.



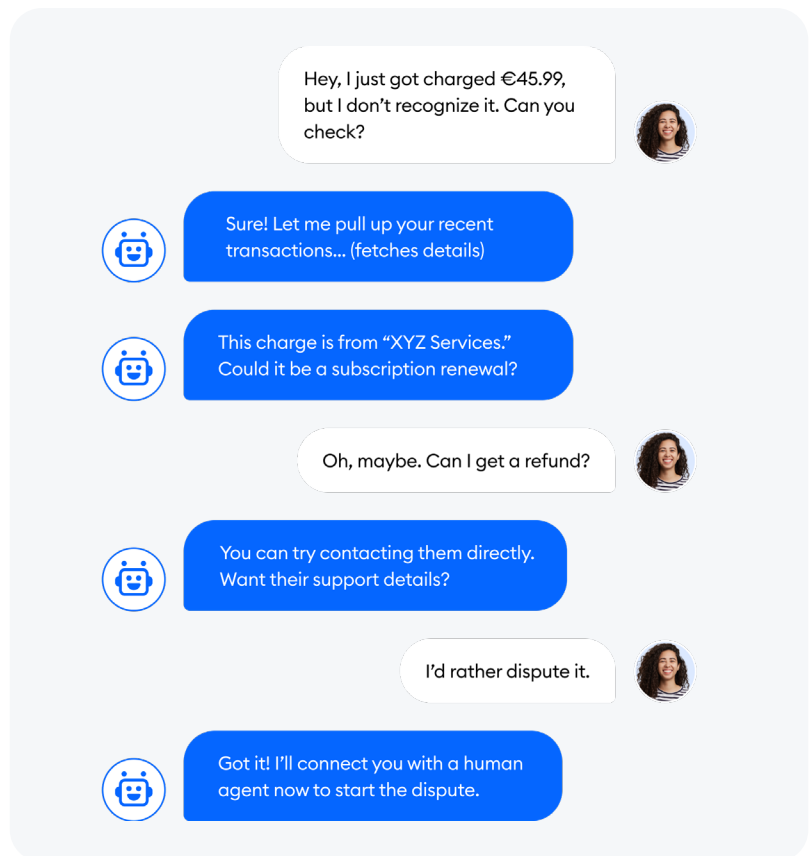
Crescendo's AI is fine-tuned to a brand's unique voice and knowledge base, enabling it to deliver highly contextual responses and escalate complex cases to human agents when needed.



By automating repetitive tasks, the model allows human agents to focus on complex issues, enhancing overall service quality.

Lyro AI is another tool that seamlessly blends AI-driven automation with human support. It provides 24/7 chat assistance and adapts to a company's brand voice, delivering relevant responses. Lyro is designed to understand complex inquiries and ensure customers always feel heard.

It handles repetitive questions and can solve issues on its own, helping human agents focus on more nuanced customer needs. This improves service efficiency while keeping engagement personal.



When a query requires human input, Lyro AI Agent smoothly transfers the conversation to a human agent. This balance between automation and human oversight allows fintech companies to scale while maintaining high-quality service.

This reduces customer frustration and enhances engagement, demonstrating that AI can boost efficiency<sup>[1]</sup> while maintaining a personal touch.

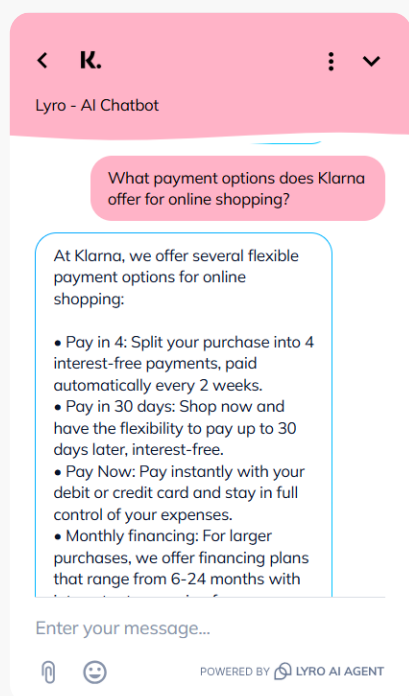
## Efficiency that drives ROI

Scaling customer support in fintech is expensive. Hiring and training a single representative can cost thousands per month, not including benefits and turnover.

The average yearly salary for a support agent is \$45,000, plus additional expenses such as benefits, onboarding, and training time. In contrast, Tidio's Plus plan, which includes Lyro AI Agent, costs \$749 per month, making it over 80% more cost-effective than hiring a single full-time agent.

AI agents handle thousands of messages without increasing costs, reducing the need for additional human agents. Fintech companies implementing AI-driven automation have cut operational expenses by 13% while increasing revenue by 10% or more<sup>[2]</sup>.

Beyond cost, Lyro provides immediate value. It learns from existing support data and responds instantly with accurate, context-aware answers. A new or temporary human agent, on the other hand, requires weeks of training, relies on knowledge base articles, and needs time to become fully productive. Lyro eliminates these inefficiencies by delivering consistent, high-quality support from day one.



**Klarna example** from [Lyro AI agent's Playground page.](#)

## Seamless omnichannel experiences

Fintech customers are active messaging users. Whether it's in apps, on websites, via social media, or on messaging platforms, customers are chatting across the web.

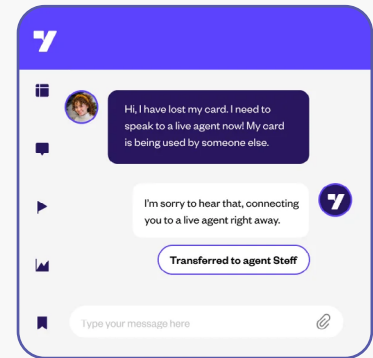
An AI agent ensures continuity across channels, integrating into banking systems, CRMs, and customer support workflows.

Traditional support systems silo conversations. In contrast, AI-powered omnichannel platforms allow customers to start a conversation on one channel, like email, and continue it on another, such as website chat, without losing context.

Customers prefer this asynchronous messaging approach; they can engage at their convenience and don't need to repeat themselves when switching between channels.

AI agents also reduce friction in customer interactions by delivering instant resolutions and personalized support.

Companies like [Yellow.ai](#) are advancing omnichannel AI support for enterprises by integrating chat, email, and voice into a single AI-first inbox, ensuring a smooth customer experience across all platforms.



## Reducing risk while ensuring compliance.

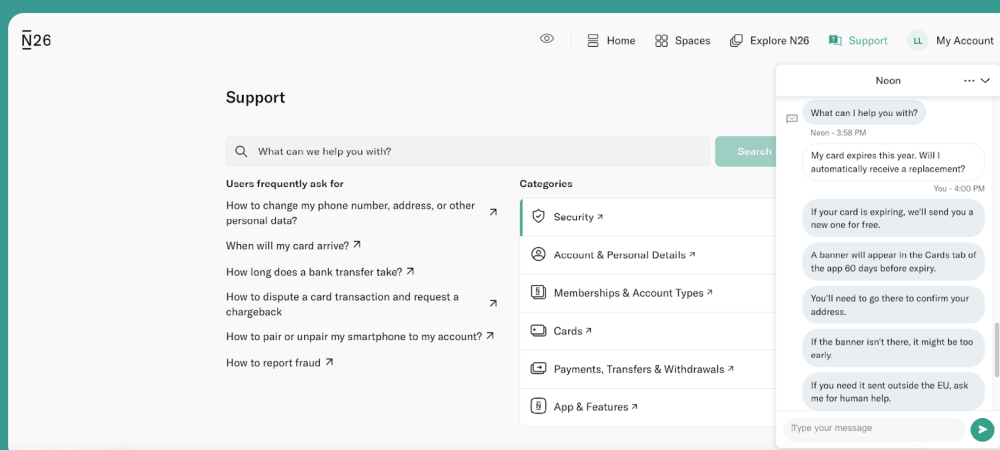
AI agents in fintech must comply with strict data privacy and security regulations, which vary by region. In the EU, GDPR enforces strict data protection laws, including explicit user consent and the right to be forgotten.

In the U.S., financial institutions must follow GLBA (Gramm-Leach-Bliley Act) and CFPB (Consumer Financial Protection Bureau) guidelines to ensure secure handling and disclosure of customer data.

To mitigate risks and maintain compliance, AI-powered support solutions must offer robust security features, like end-to-end encryption with TLS protocol, secure data storage, role-based access controls, and two-factor authentication (2FA). Additionally, encrypted backups and audit logs provide transparency and protection against unauthorized access.

## Scaling with AI: how N26 automated service requests

N26, Europe's leading mobile bank, struggled to keep up with customer support as it grew rapidly. Operating in multiple markets and offering service in five languages, N26 needed an AI-driven solution to improve efficiency without compromising data protection or customization.



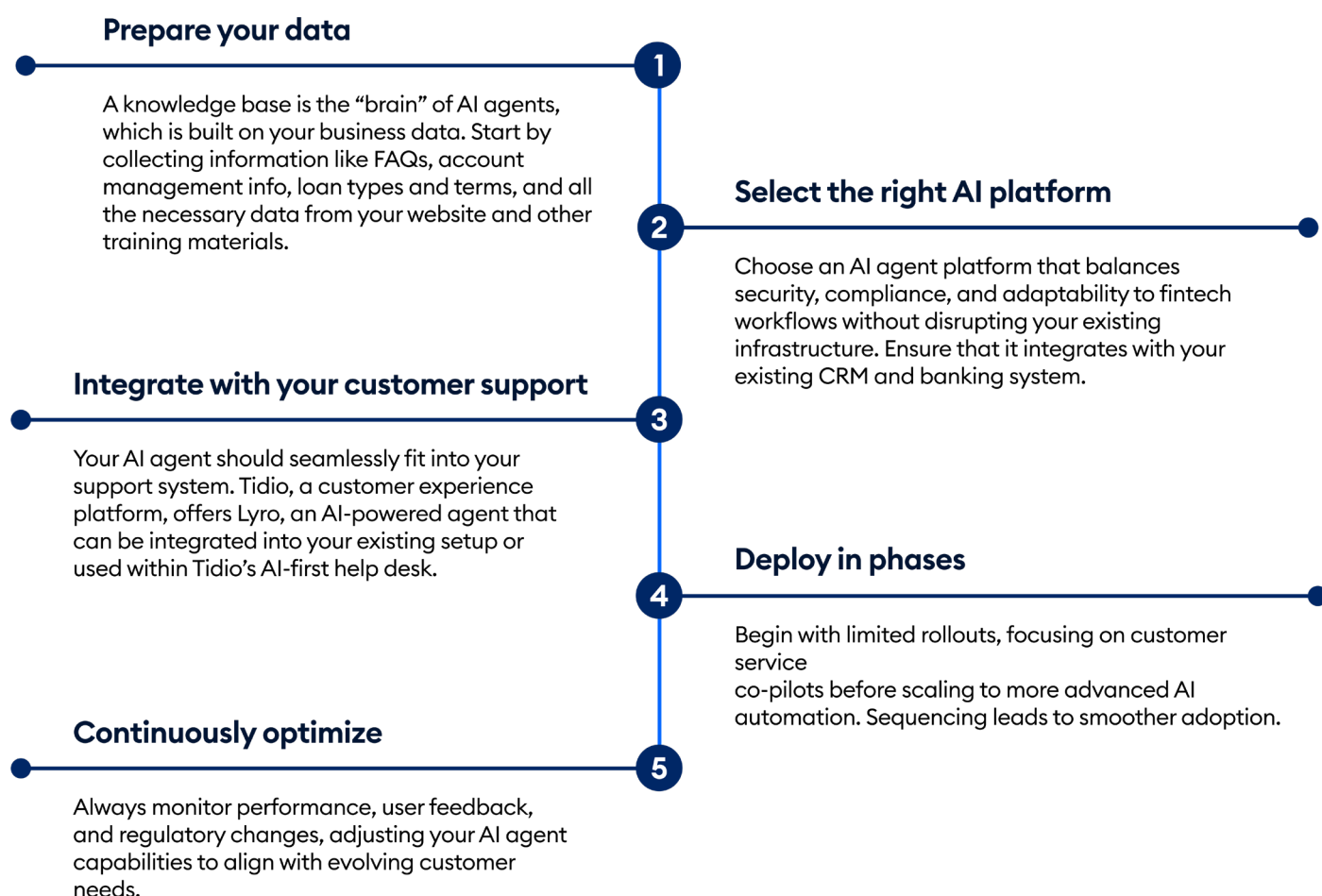
# N26

By deploying Rasa's AI assistant<sup>[12]</sup>, N26 automated 20% of customer service requests within weeks, handling complex issues such as lost credit card reports and account security concerns. Unlike rigid rule-based systems, their AI agent leveraged machine learning to engage in natural conversations, continuously improving its responses over time.

# How to get started with a fintech AI agent

Successfully integrating an AI-powered agent into your fintech platform can be simple, but requires planning.

While every implementation differs, these key steps guarantee a structured, high-impact rollout.



# The future of fintech support is AI-driven

The question is no longer if fintech companies should implement AI, but how soon they can successfully get started. AI-powered agents in fintech customer support offer intelligent and scalable solutions that drive efficiency and boost customer experiences, this is clear.

## So what's holding your business back?

Financial leaders leveraging AI are already saving on support costs, serving more customers faster, and creating loyal, long-term relationships. Fintech already goes against the norm of traditional banking, and this should be evident in how it supports its customers too.

## Take the next step

Discover how Tidio's Lyro AI Agent can transform your customer experience while ensuring compliance and seamless integration. Book a demo today and see firsthand how AI strengthens your fintech support strategy.

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