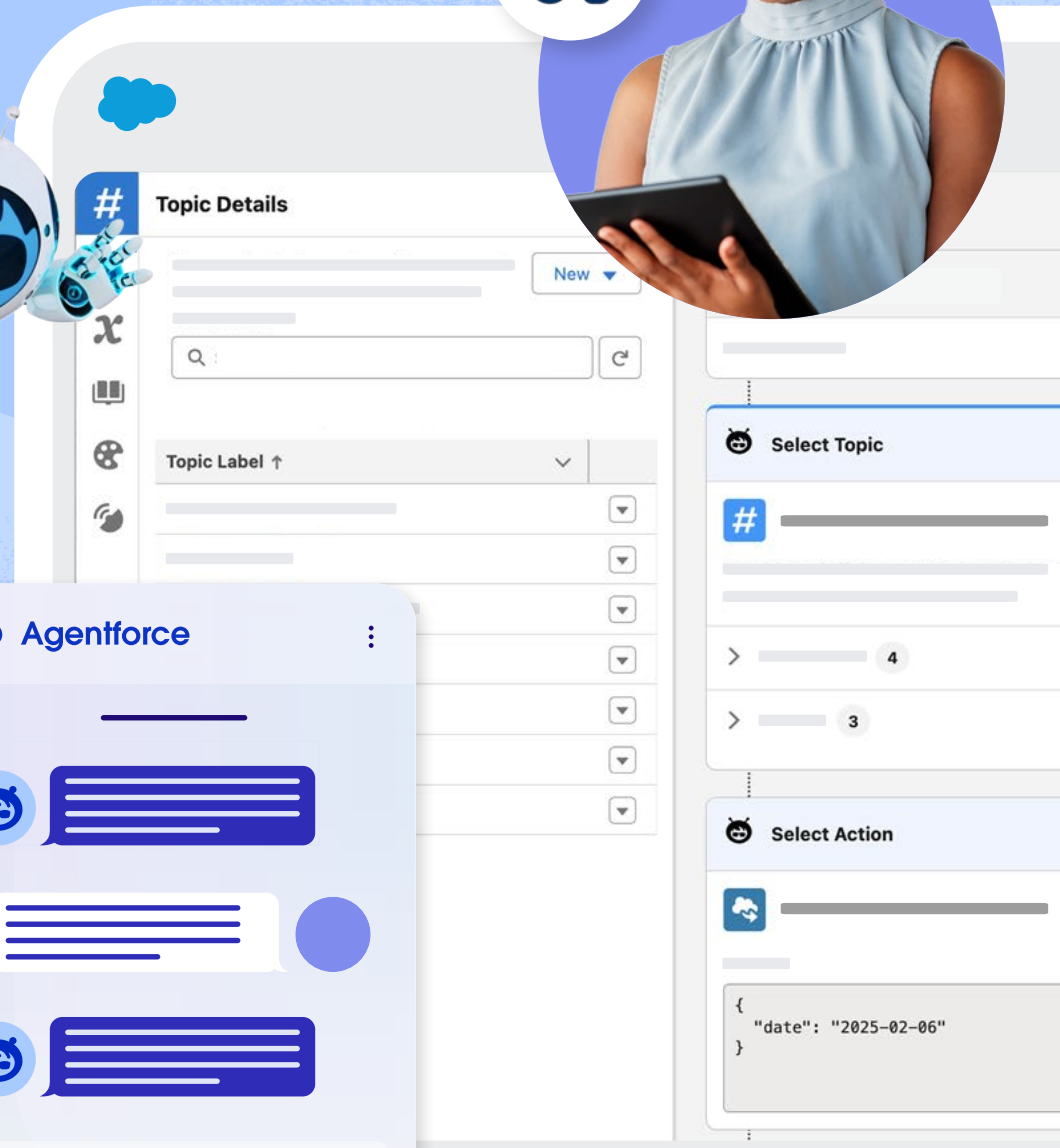
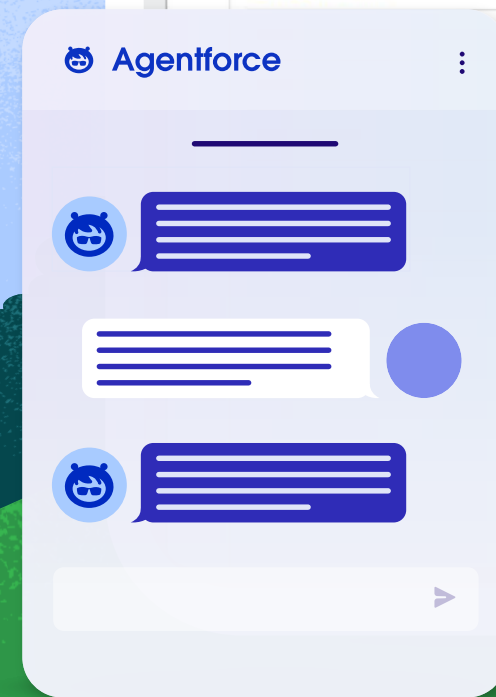




FOURTH EDITION

State of IT: AI and App Development

Insights and trends from 2,000+ IT and
development leaders in the agentic AI era.



A Note from Salesforce on AI and App Development

AI is reshaping everything – not just what we build, but how we build it. Why? Because AI has the power to accelerate innovation and unlock real business impact. It's a once-in-a-generation opportunity – and IT is at the heart of it.

Across industries, teams are racing to integrate AI – not just to experiment, but to move faster, work smarter, and stay ahead. For many, that starts with rethinking application development itself. From embedding AI into apps to deploying autonomous agents, organizations are finding new ways to streamline operations, deepen customer insights, and deliver the responsive experiences today's users expect.

But this transformation isn't easy. Success with AI and modern app development requires clean, accessible data, built-in security, and infrastructure that can support both modern architectures and AI workloads.

To better understand how organizations are navigating this shift, We surveyed more than 4,000 IT leaders worldwide – including over 2,000 responsible for software development. The findings reveal a tightrope walk between innovation and risk. Teams are building AI expertise while modernizing critical systems – often on tech stacks that weren't designed for today's era of widespread AI adoption and development.

At the same time, the role of IT continues to evolve. While implementing technology and overseeing governance has always been a core responsibility, these areas are now critical drivers of business strategy. Today's IT leaders are business partners and innovation drivers, guiding their organizations through change while strengthening technical foundations.

This report explores the realities, challenges, and opportunities facing IT and development leaders today. We hope it helps you navigate this complex landscape – and turn today's disruptions into tomorrow's competitive advantage.



What You'll Find in This Report

Salesforce surveyed over 4,000 IT decision-makers worldwide – including over 2,000 overseeing software development – to uncover insights into:

- The increasing demands on IT teams driven by rapid growth in AI-related projects.
- How AI agents are becoming critical tools for business success today and in the future.
- Why data quality, security, and privacy are essential foundations for successfully integrating AI agents into businesses.

Unless cited otherwise, data in this report is from a double-anonymous survey conducted from December 24, 2024 through February 3, 2025. The survey generated 4,275 responses from IT decision makers – including 2,173 specializing in software development – across North America, Latin America, Asia-Pacific, and Europe. See page 28 for survey demographics.

Due to rounding, not all percentage totals in this report equal 100%. Comparison calculations are made from total (not rounded) numbers.



2,173 software development
decision-makers surveyed worldwide

^{† ‡} Single Sample Groups

Contents

Executive Summary 05

Chapter 1: Introduction 06

Chapter 2: AI Agents Emerge as the Future of Business 11

Chapter 3: Delivering Trusted AI on a Foundation of Data and Security 17

Chapter 4: Redefining IT Roles in the Age of Agentic AI 22

Salesforce's Take 26

Survey Demographics 28



Executive Summary

IT has hit an inflection point. The AI boom is pulling teams in multiple directions as they handle increasingly complex projects, faster timelines, higher expectations, and growing pressure to deliver business value. And they're doing all this while keeping the lights on and the security team happy.

Autonomous AI agents are here – and they're more than a nice-to-have. They've become essential for staying competitive. The companies embracing these agents are seeing real improvements: better customer experiences and more efficient operations that allow teams to focus more on high-value, strategic work.

But rolling out autonomous AI agents takes more than just buying new tech. Businesses need the right foundations to build effectively – high-quality data, flexible infrastructure, and clear privacy standards – to ensure their agents are reliable, scalable, and ready for the real world. That's why today's IT landscape looks so different – and so much more demanding. The pressure is real, and the numbers show it:

- 1 IT teams are underwater:** Project requests surged 18% year-over-year, driven in part by AI adoption – with 38% of new applications now incorporating AI capabilities.
- 2 AI agents are essential:** 83% of developers believe AI agents are fundamentally changing how businesses operate, while 78% worry they'll be left behind without them.
- 3 Data quality is critical:** 86% of IT leaders believe data quality makes or breaks AI effectiveness, and CIOs are allocating an average of 20% of their budgets to data infrastructure and management.
- 4 The skills landscape in IT is shifting:** 82% of developers see AI literacy becoming a non-negotiable skill, and say that projects with an AI component will require increased collaboration with business partners.



1

Introduction



IT is Stretched Thin as Organizational Demand Soars

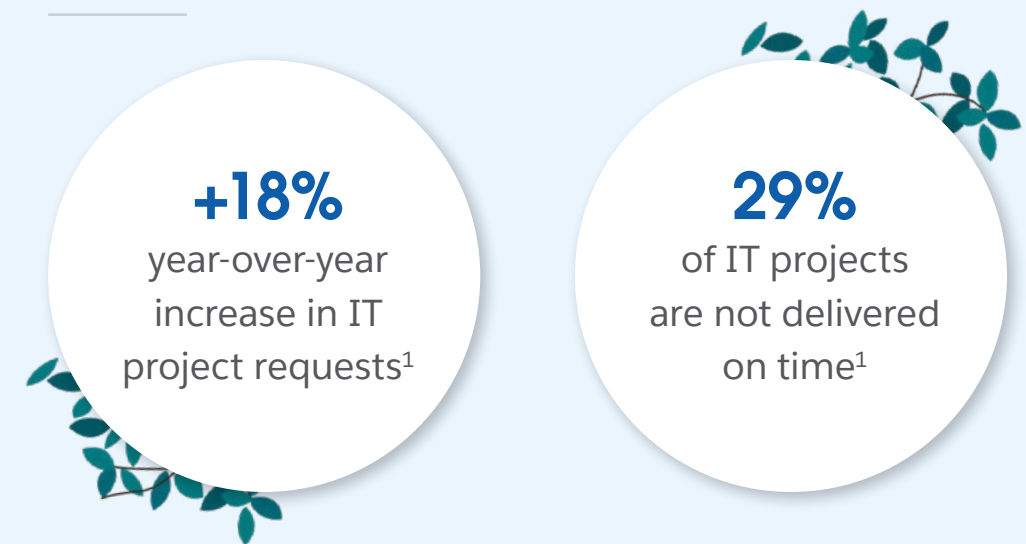
IT teams are drowning in work. Digital transformation hasn't slowed down – it's accelerated – and project requests have jumped 18% compared to last year. Teams are running flat out just to keep up, let alone get ahead.

Nearly one in three IT projects (29%) miss their deadlines, creating constant tension with business stakeholders.

When we asked why development has become so challenging, the top answers pointed to a perfect storm of issues:

- Security and compliance requirements that grow more complex by the day
- Shifting or unclear business priorities
- Data trapped in departmental silos, making integration a nightmare
- Development processes that feel increasingly outdated
- Team structures that create bottlenecks instead of breakthroughs

The result? IT departments pushed to their breaking points as they try to deliver more with the same – or sometimes fewer – resources.



¹ Salesforce Mulesoft Connectivity Benchmark Report, January 2025.

Top Factors That Slow Application Development

- 1 Security, privacy, and compliance concerns
- 2 Lack of alignment or clarity on business priorities
- 3 Lack of system of data integration
- 4 Insufficient development processes
- 5 Suboptimal organizational structures

01

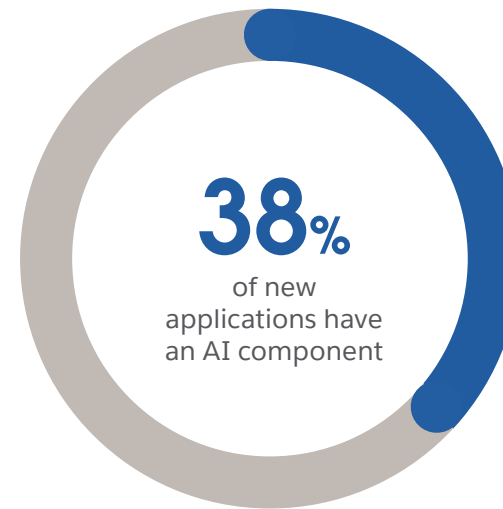
IT is Stretched Thin as Organizational Demand Soars

AI has transformed the technology landscape. Already, nearly 40% of apps have an AI component, a share that is certain to grow. This isn't just a tech trend – it's become table stakes for companies focused on efficiency, innovation, and staying competitive.

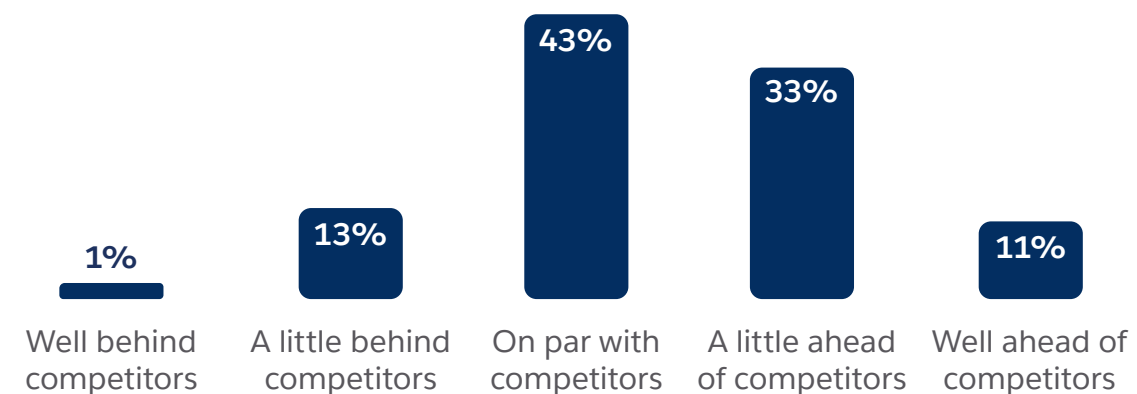
But here's a sobering reality: many organizations may be overestimating their progress. More than half of CIOs (57%) admitted they're just keeping pace with competitors – or worse, falling behind – when it comes to AI implementation. That should set off alarm bells in boardrooms everywhere.

The message is clear: organizations need to get serious about their AI strategy or risk watching competitors pull ahead.

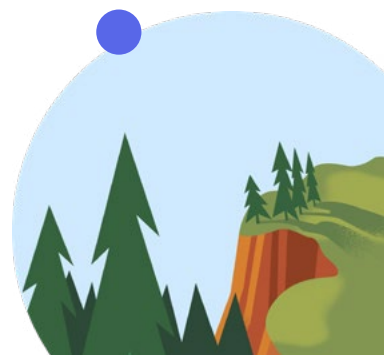
Success won't come from half-measures – it requires thoughtful investment across the board: AI capabilities, data foundations, infrastructure modernization, and helping teams build new skills.



How CIOs Assess Their AI Progress¹



¹ Salesforce CIO Dilemma Research, October 2024.



Investments in Scale, Efficiency, and Security Ramp Up

So how are IT teams tackling this surge of AI complexity? They're doubling down on the fundamentals: scaling development, driving operational efficiency, and strengthening security. Many of these efforts aren't new, but they're accelerating fast. Most IT organizations expect budget increases, giving teams more resources to handle expanding responsibilities and ensure quality at scale.

Low-code and no-code platforms, once on the periphery, have moved to the center of the IT strategy. These tools serve two crucial purposes:

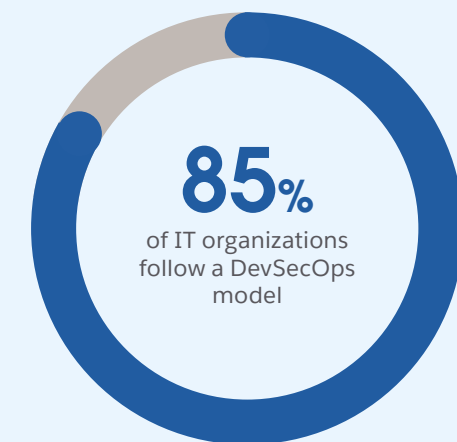
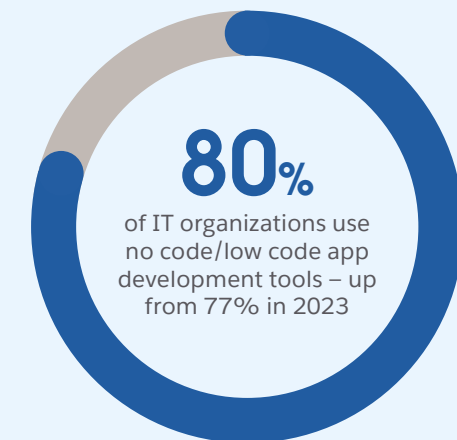
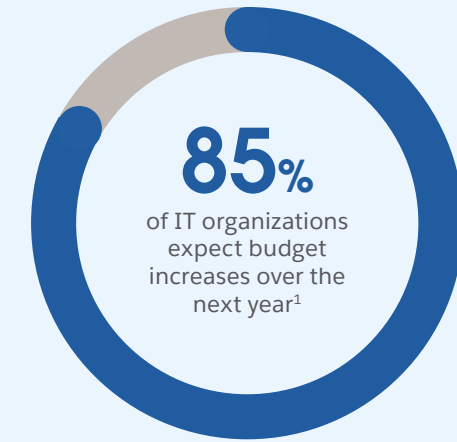
- 1 They boost developer productivity through reusable components, built-in integrations, and pre-built AI functionality*
- 2 They democratize development by allowing business users to build and iterate solutions without writing code**

But speed alone isn't enough. As teams adopt faster development cycles, it's critical that IT maintains rigor around testing and security to minimize risk. **Security has evolved from a final checkpoint to a constant presence throughout development with DevSecOps.**

Within that model, testing plays an even more vital role – not only validating performance, but catching edge cases early, safeguarding user data, and verifying that AI behaviors are ethical, trustworthy, and align with business intent. Together, these investments aren't just helping IT teams keep up – they're laying the groundwork for long-term innovation.

* 77% of developers agree the use of low-code/no-code app development tools help scale AI development.

** 77% of developers agree the use of low-code/no-code app development tools help democratize AI development.



¹ Salesforce Mulesoft Connectivity Benchmark Report, January 2025.

IT Can Unlock Human Potential and Redefine the Customer Experience with AI

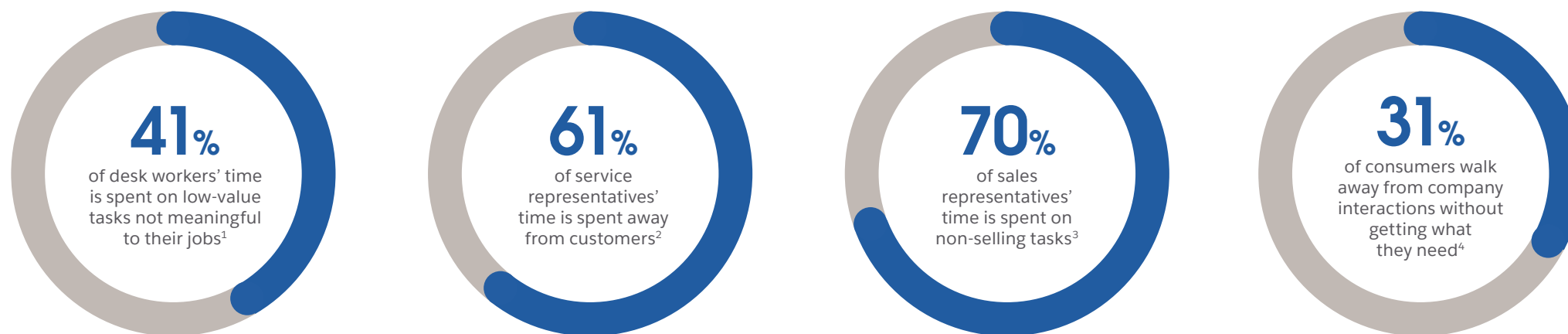
The workplace productivity problem has reached a breaking point:

- The average office worker loses 41% their day to low-value tasks¹
- Customer service representatives spend just 39% of their time helping customers²
- Sales teams devote only 30% of their time to actually selling³

No wonder one in three customer interactions leaves people frustrated and problems unresolved.⁴

This helps explain why IT leaders are doubling down on AI to free employees from digital busywork. By automating the routine and repetitive, organizations support their people to focus on what humans do best: solving complex problems, building relationships, and creating experiences that keep customers coming back.

Most Employees Spend the Majority of Their Time on Low-Value Work



¹ Salesforce Slack Workforce Index, February 2024.

² Salesforce State of Service, April 2024.

³ Salesforce State of Sales, July 2024.

⁴ Salesforce AI Consumer Experience Snapshot Research, October 2024.

2

AI Agents Emerge as the Future of Business



02

IT is Ramping Up on Agents

AI agents have moved from theoretical concept to practical reality with remarkable speed.

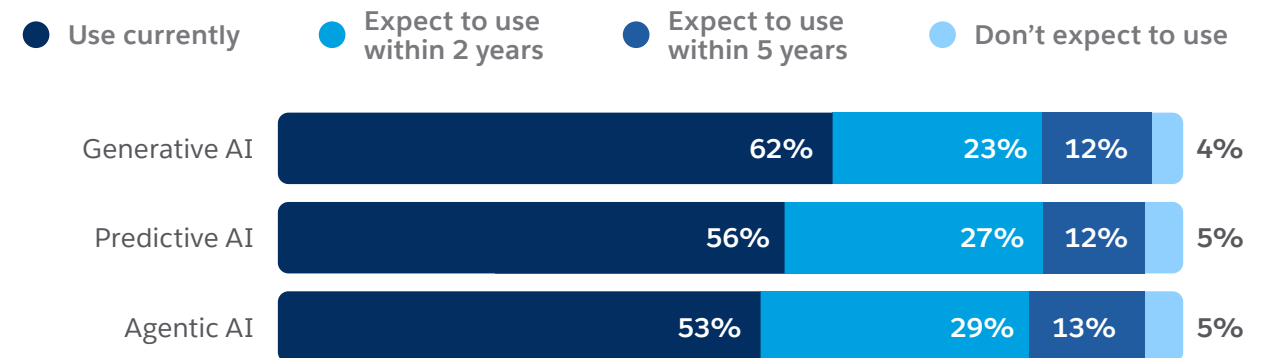
A striking 82% of IT leaders told us they're either using AI agents now or plan to within two years.

But there's a catch: understanding AI agents conceptually is very different from knowing how to build them effectively.

The majority of developers report at least a basic understanding of AI agents and how they can be used. However, with nearly half of developers not feeling fully confident in how AI agents actually work, organizations may struggle to successfully implement and get the full value of the technology.

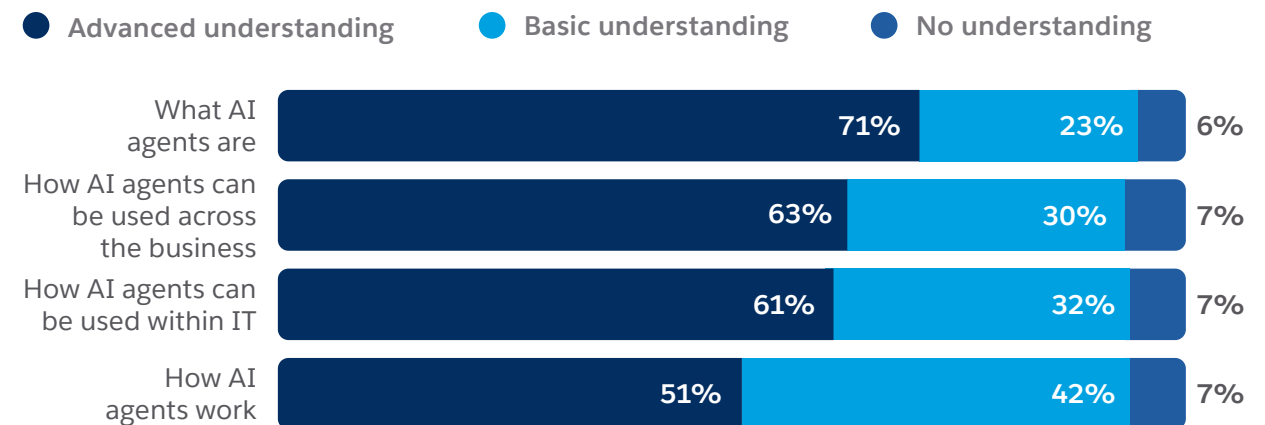
Companies that invest in their developers and help them truly understand agent architecture, prompt engineering, and integration patterns are better set up for success. Without this specialized knowledge, AI agents remain more promise than reality.

IT Organizations' Use of the Following Types of AI¹



¹Percent based on all State of IT survey respondents (including developer and security decision-makers).

How Developers Describe Their Understanding of AI Agents



Who Developers Believe Are Prioritizing AI Agents



02

Agents Unlock Development Speed, Efficiency, and Innovation

AI agents are poised to do more than just improve workflows – they're reshaping how development teams deliver business impact.

According to developers, AI agents are expected to significantly boost application development speed (63%), operational efficiency (63%), and even creativity and problem solving (62%). This signals a fundamental shift in how developers create value.

From faster app delivery to improved quality and more strategic decision-making, developers see AI agents as key enablers of progress across a wide range of areas. For organizations, the question isn't whether AI agents will drive transformation – it's how quickly they can be embedded into core development processes.

Developers Bet Big on AI Agents

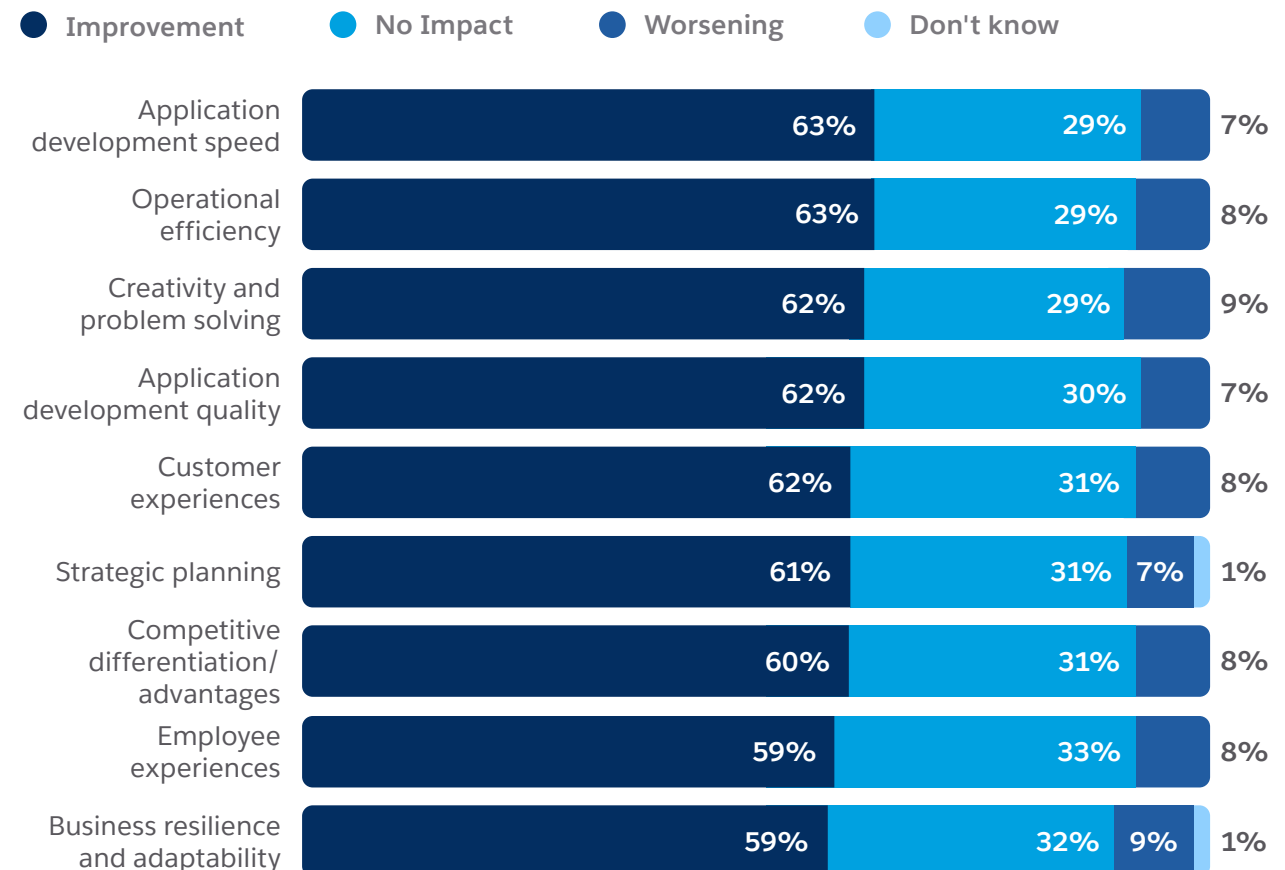
83% say AI agents will be central to business and IT operations

85% say AI agents are key to digital transformation

81% say AI agents will be as essential to app dev as traditional software tools

78% say companies will lose their edge without AI agents

Developers' Expected Impact from AI Agents



02

AI Agents Are Taking Hold Across the Business – But Readiness Varies

IT leaders see opportunities for autonomous AI agents across every part of the organization – not only offering predictive insights, but automatically taking action on tasks for sales, finance, HR, and more.

Customer service and marketing lead adoption, leveraging automation and personalization to improve experiences and outcomes. Other departments may face more hurdles around data preparedness, such as data or system integration, or need greater organizational alignment before seeing similar benefits.

By first assessing each department's readiness for AI, IT leaders can identify where implementation is most feasible and prioritize the highest-impact use cases – delivering real value without stretching teams that aren't yet prepared.

CIOs’ Ranking of Departments Across AI Criteria¹

	Number of AI Use Cases	Enthusiasm about Implementing AI	Preparedness for AI Implementation
1	Customer service	Marketing	Human resources
2	Marketing	Sales	Finance
3	Sales	Finance	Sales
4	Finance	Human resources	Customer service
5	Human resources	Customer service	Marketing

¹ Salesforce CIO Dilemma Research, October 2024.

Salesforce's Take: How Businesses Can Use AI Agents

AI agents address a wide spectrum of business challenges, from routine administrative tasks to complex processes requiring data analysis and personalized interactions.

By automating these activities, organizations free their people to focus on strategic work and meaningful human connections – improving both operational efficiency and satisfaction for employees and customers alike.

Examples of Agent Use Cases Around the Business

- Order and Shipping Management
- Product and Service Information
- Financial and Transactional Support
- Technical Support and Troubleshooting
- Knowledge Assistance
- Account and Membership Management
- Scheduling and Appointment Management

[LEARN MORE >](#)



Spotlight: The Future of Work is Humans + Agents

AI excels at processing data and handling repetitive tasks, allowing humans to focus on creativity, emotional intelligence, and complex problem-solving. We're already seeing the impact: desk workers using AI agents spend 26% less time on administrative tasks, freeing them up for more strategic and meaningful work.¹

Despite fears about AI replacing jobs, 72% of executives expect AI to have either a positive or neutral effect on hiring – signaling that most leaders see AI as an enabler, not a replacer. Forward-thinking organizations are being intentional about where to draw the line:

- Which tasks can be safely handed off to AI
- Which decisions must remain in human hands
- Where AI and human collaboration creates the most value

The same mindset shows up in consumer expectations. People are more comfortable letting AI handle simple tasks like scheduling, but still prefer human involvement for things like financial decisions or personalized communication.

The payoff is powerful: AI takes on routine work, people focus on high-value activities, and organizations unlock new levels of performance.

It's no surprise that 82% of developers see this human-AI partnership as the real competitive advantage — greater than the sum of its parts.

AI Adoption Shifts Tasks, Not Jobs



¹ Salesforce Slack State of Work, May 2025.

Consumer Comfort with AI Agent Use Cases²



² Salesforce State of the AI Connected Customer, October 2024.

3

Delivering Trusted AI on a Foundation of Data and Security



03 Confidence in Data Quality is Hindering AI Ambitions

The adage “garbage in, garbage out” is extremely relevant for organizations looking to implement AI in their operations.

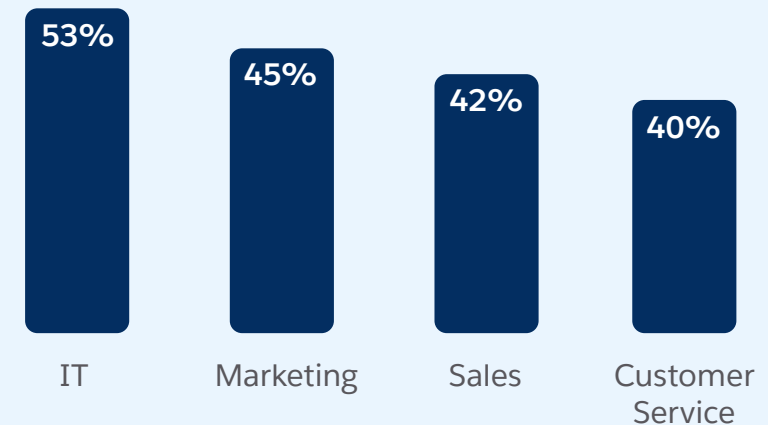
Despite 86% of IT leaders acknowledging that AI is only as good as its data, only 53% fully trust their organization's data accuracy – and business stakeholders are even less confident.

Many organizations struggle with fragmented information landscapes – siloed applications that prevent synthesizing insights at scale.²

IT teams are tackling these limitations by prioritizing data infrastructure and integration. While excitement around AI capabilities is high, many organizations are strategically allocating more budget to building and managing reliable data foundations – understanding that strong data infrastructure is a prerequisite for AI success.³

This reflects a growing recognition that without accessible, high-quality data, even the most sophisticated AI will underperform.

Departments With Full Confidence In Their Data's Accuracy¹



¹ Salesforce State of Data and Analytics, November 2023.

Only **29%** of an average enterprise's 897 applications are integrated²

CIOs allocate an average of **20%** of IT budgets to data infrastructure and management, versus **5%** to AI³

² Salesforce Mulesoft Connectivity Benchmark Report, January 2025.

³ Salesforce CIO Dilemma Research, October 2024.

03

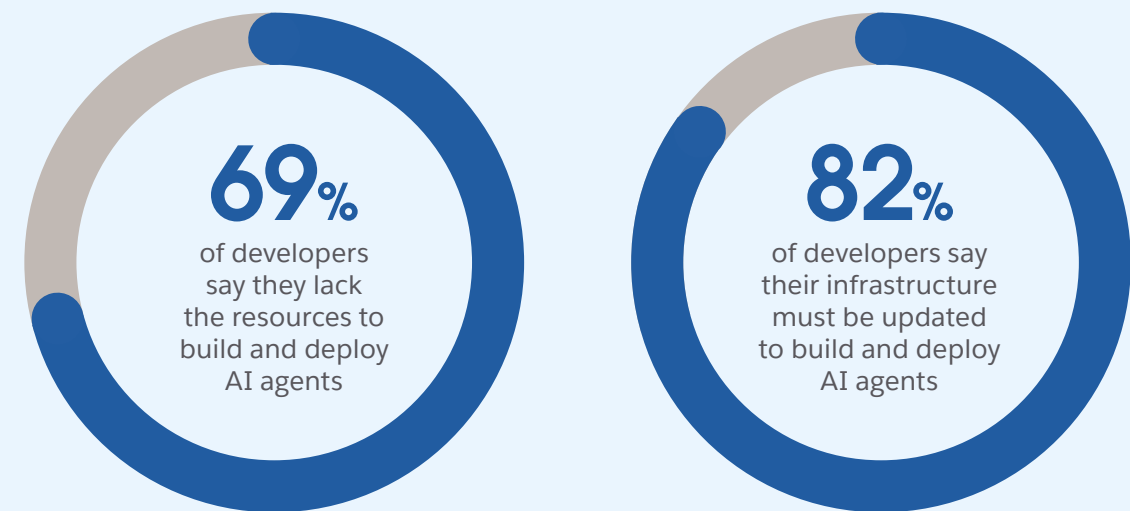
AI Agent Readiness Demands a Modernized Tech Stack

Implementing AI effectively requires more than just good data. Organizations also need robust infrastructure, sophisticated security, and deployment systems that don't require a Ph.D. to operate. Without these elements working together, even the best data won't translate into AI that actually helps your business.

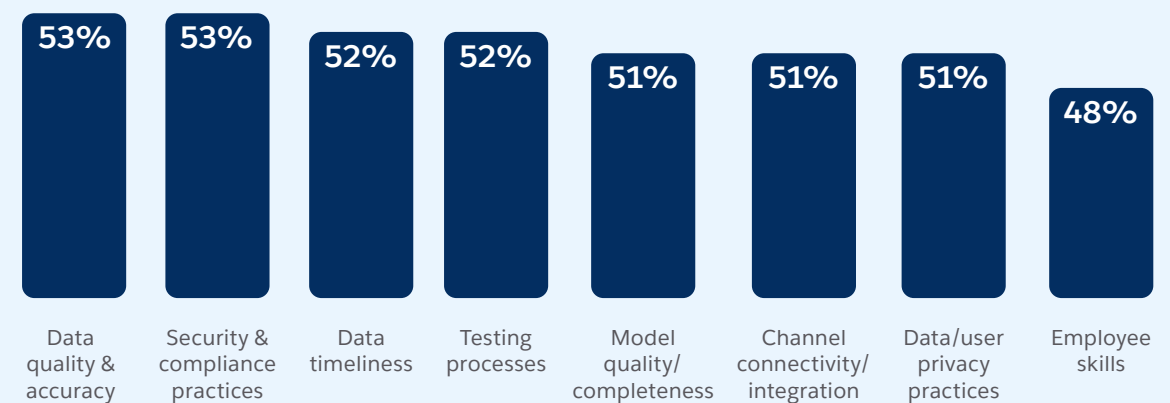
The readiness gap is significant: 69% development teams recognize they lack the resources to build and deploy AI agents effectively.

This indicates that many organizations need to improve multiple parts of their technology ecosystem – from data architecture to security controls to user experiences – in order to support AI agents at scale and unlock their full potential.

AI Agents Are Here – But Most Organizations Aren't Ready



Areas Where Developers Say Their Organizations Are Ready for AI Agents



03

Security and Privacy Become More Ingrained in the Development Process

As AI becomes integral to core business operations, security and privacy have evolved from final checkpoints to ongoing priorities.

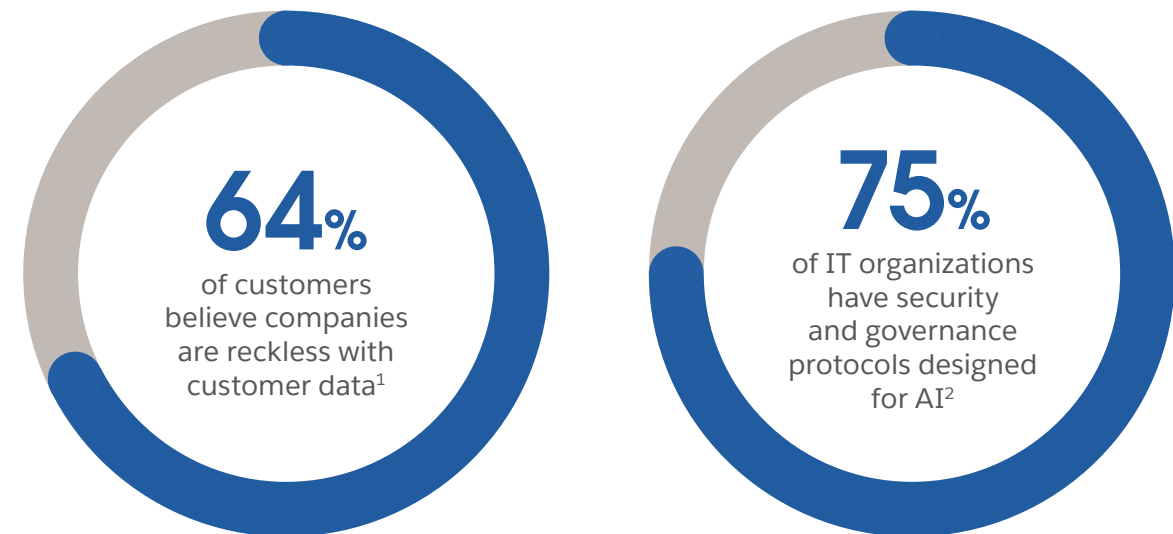
With 61% of customers believing that AI advancements make it more important for companies to be trustworthy, yet only 41% trusting businesses to use AI ethically¹, customer trust in the way companies use AI remains fragile.

Customers have significant concerns about data handling and ethical use of advanced technologies. IT leaders must treat security and privacy as foundational requirements and take a proactive stance to stay ahead of emerging threats, protect sensitive information, and build customer confidence when developing and implementing AI.

¹ Salesforce State of the AI Connected Customer, October 2024.

² Percent based on all State of IT survey respondents (including developer and security decision-makers).

Customer Data Concerns Rise, Driving New AI Security Efforts in IT



What Developers Prioritize When Developing and Implementing AI Agents

- 1 Scheduling appointments
- 2 Creating more personalized content
- 3 Providing advice



Spotlight: DevSecOps Prepares Teams for AI Agent Deployment

Today, 85% of IT organizations have adopted DevSecOps methodologies¹ – the practice of integrating security into every phase of development rather than treating it as a separate step.

This practice is becoming essential in the age of AI – accounting for dynamic, real-time decision-making and complex data interactions that can introduce new types of vulnerabilities, not just securing static code or traditional APIs.

These secure development practices accelerate innovation by reducing the disruptions caused by late-stage fixes. They ensure that AI agents handling sensitive or mission-critical functions have appropriate safeguards built in from the start. By bringing development, security, and operations teams together in continuous feedback loops, **DevSecOps prepares organizations for the unique challenges of AI agent adoption.**

It's no coincidence that organizations with established DevSecOps practices report greater confidence in their AI agent initiatives.

IT Leaders Who Agree with the Following Statements¹

Orgs with DevSecOps vs. Orgs Without

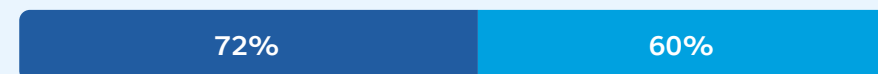
● Respondents with DevSecOps ● Respondents without DevSecOps

Our security and governance protocols are designed for AI



14% more likely

We're fully compliant with regulatory requirements



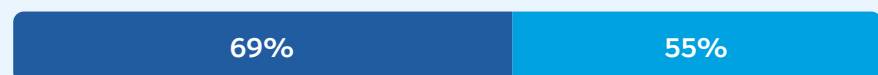
20% more likely

We can implement AI securely



20% more likely

We can implement AI on a timeline that meets business needs



25% more likely

Our testing processes are fully prepared for AI



29% more likely

We can deploy AI with the right permissions/protocols



31% more likely

We've had a security incident in the past year



17% more likely

¹ Percents and calculations based on all State of IT survey respondents (including developer and security decision-makers).

4

Redefining IT Roles in the Age of Agentic AI



04

Developers Are Shifting from Writing Code to Governing It

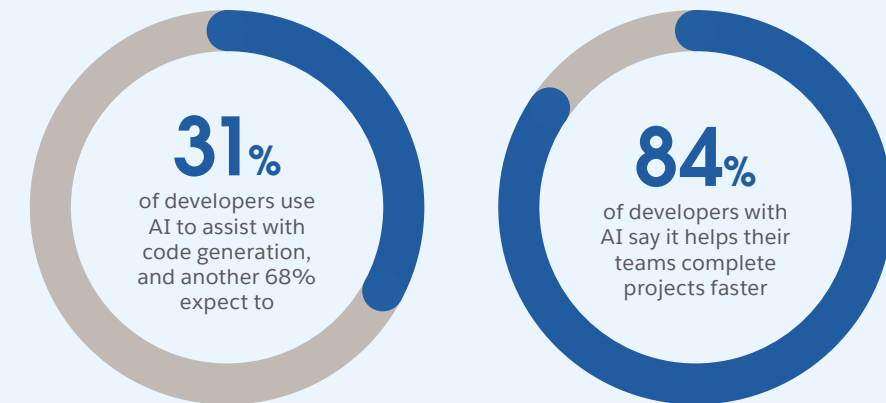
Developers aren't simply typing out every line of code anymore, they're partnering with AI to get the job done. Nearly a third of developers already use AI for code generation assistance, with most others planning to adopt this practice. Those who have made the shift report completing projects significantly faster.

No-code and low-code platforms have gained remarkable traction, with 80% of developers believing these tools help scale AI development.

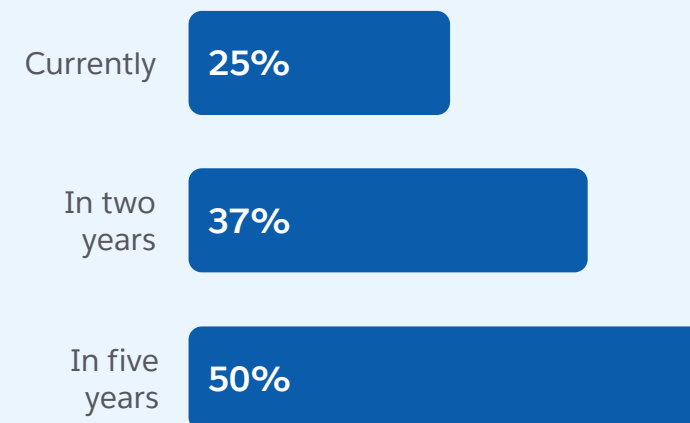
But this transition brings new challenges that require careful management:

- AI-generated code needs thorough review for accuracy, security issues, and potential bias
- Teams require stronger oversight processes and documentation to maintain quality
- Development methodologies must evolve to incorporate AI collaboration effectively

This changing landscape demands developers with strong critical thinking and strategic oversight abilities. Technical professionals increasingly serve as orchestrators who guide and optimize AI-driven solutions rather than creating everything from scratch.



Developer Estimates of AI-Generated Code Over Time



"Agentic AI on Salesforce lets us configure functionality using natural language instead of writing code. That shift allows us to focus on productivity, speed, and ease of deployment – especially during phase one where we're emphasizing no-code implementations."

SAMUEL ABRAHAM
HEAD OF REVENUE TECHNOLOGY, THE REALREAL



04

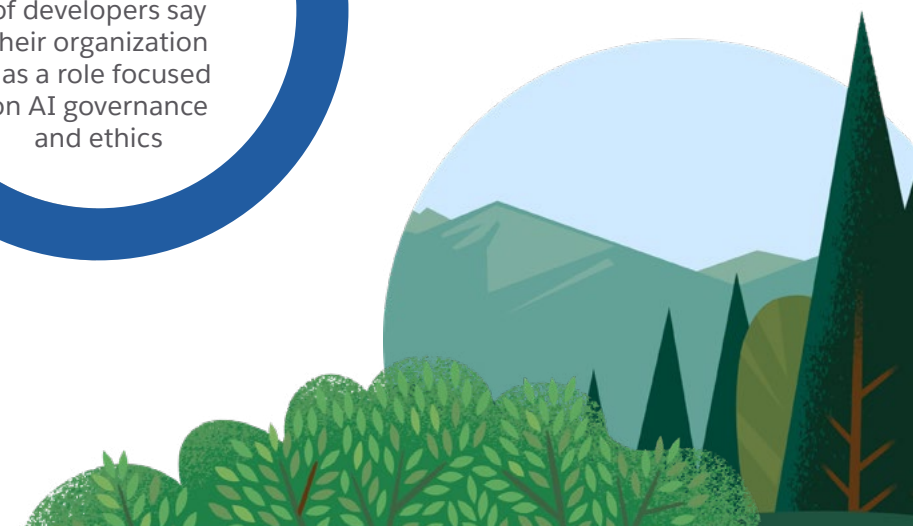
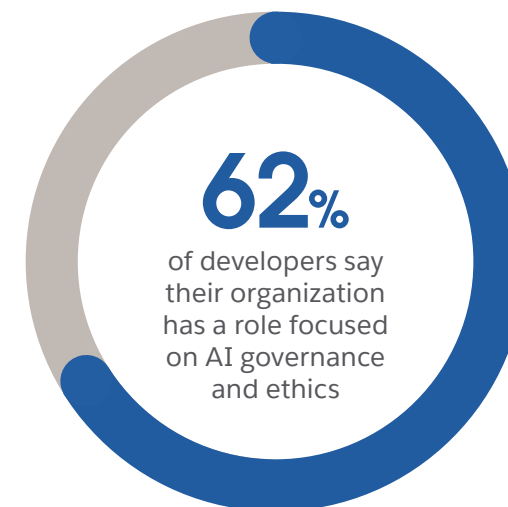
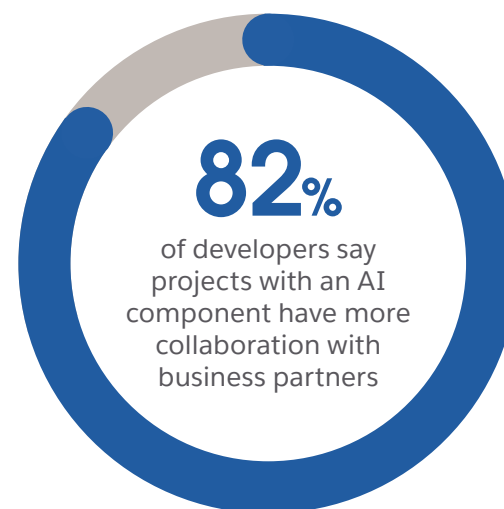
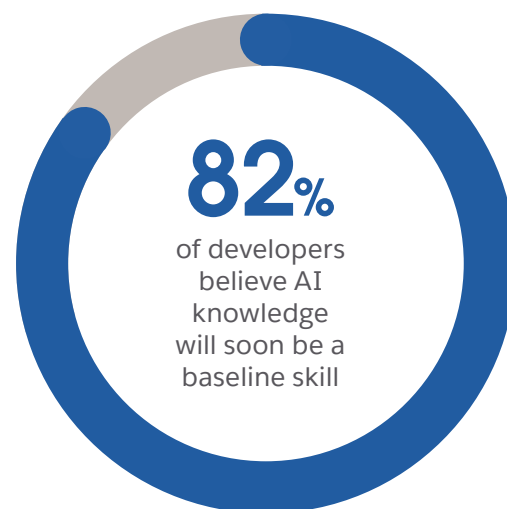
AI is Reshaping IT Roles and Creating New Skill Demands

As AI agents become central to operations, IT leaders are reassessing the skills their teams need. Traditional development expertise now blends with knowledge of AI governance, data literacy, and collaboration with business stakeholders. Cross-functional engagement has become the norm as business teams increasingly rely on IT's guidance to achieve business goals.

These evolving roles create new hiring imperatives. Many organizations are developing specialized positions focused on AI governance, ethics, and risk management – areas once considered peripheral but now essential for responsible AI deployment.

As AI becomes integral to business strategy, success increasingly depends on professionals who bridge technical expertise with strategic thinking to ensure AI agents deliver measurable impact.

AI is Driving New Skills, Structures, and Partnerships



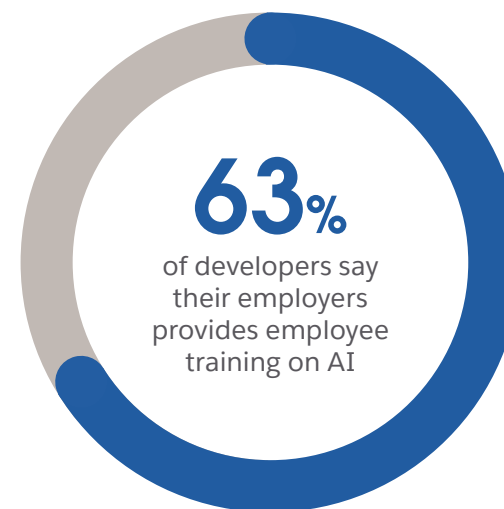
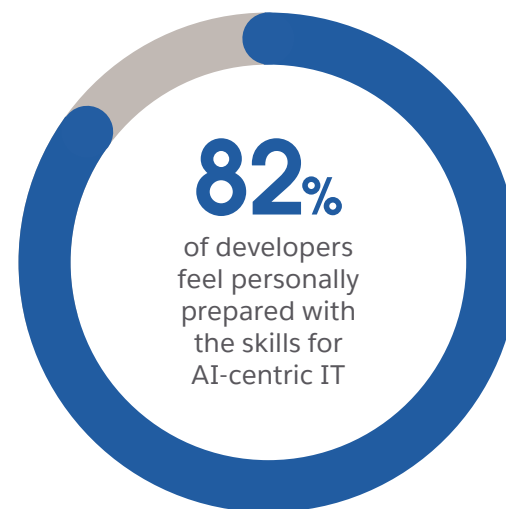
04

Training in AI Ethics, Data, and Collaboration is Now a Must-Have

AI's growing influence has prompted a fundamental rethinking of workforce development. Formal AI training programs have become increasingly common, addressing both the technical skills needed to develop AI systems and the strategic capabilities required to align them with business goals. Learning paths typically cover AI ethics, data management, and cross-functional collaboration approaches.

As teams develop these specialized skills, organizations can implement AI more effectively while ensuring responsible deployment practices. Continuous learning has become essential, enabling IT professionals to stay relevant in the rapidly evolving AI landscape and positioning teams to address emerging challenges while maintaining competitive advantage through ongoing innovation.

Developers are Leading the AI Learning Curve – Employers Are Catching Up



Salesforce's Take



Salesforce's Take:

Tomorrow's Leaders Are Building AI Agents Now

As AI continues to transform how businesses operate, IT leaders play a pivotal role in shaping what comes next. From delivering intelligent applications and autonomous AI agents to modernizing development practices and building robust data and security foundations, success depends on strategic alignment and continuous improvement.

Several key trends will define the path forward:

- 1 AI agent-led business evolution:** We'll continue to see AI agents augment employees, enable better customer experiences, and help businesses deliver higher revenue by transforming the way they operate.
- 2 Modern application development with built-in AI:** Teams are shifting from traditional development cycles to faster, AI-powered approaches that rely on low-code tools, reusable components, and integrated agent functionality. Alongside this acceleration, rigorous testing and validation have become essential – ensuring AI-powered applications are not just fast to deploy, but reliable and secure.
- 3 Integrated data ecosystems:** Data integrity and seamless integration across platforms will remain the critical enablers of AI success. Organizations are doubling down on architecture modernization, governance frameworks, and real-time data access to support both app development and AI use cases at scale.
- 4 DevSecOps maturity:** As applications evolve and threats grow more sophisticated, proactive security and privacy measures will become table stakes for any AI-focused organization. Embedding security and testing into every stage of development helps teams deploy faster without sacrificing trust or compliance.
- 5 Ongoing skill development:** AI will continue reshaping job functions and required capabilities, demanding continuous learning, deeper collaboration, and organizational commitment to ethical AI practices.

We believe that by embracing these imperatives – innovating responsibly, upskilling and reskilling team members, and creating environments where human talent and AI technologies truly complement each other – IT leaders can position their organizations for sustainable growth in an AI-driven world.



Survey Demographics



Survey Demographics

Country

Australia	N=74, 3%
Belgium	N=50, 2%
Brazil	N=100, 5%
Canada	N=100, 5%
France	N=100, 5%
Germany	N=100, 5%
India	N=100, 5%
Indonesia	N=75, 4%
Ireland	N=50, 2%
Israel	N=50, 2%
Italy	N=100, 5%
Japan	N=100, 5%
Mexico	N=100, 5%
Netherlands	N=100, 5%
New Zealand	N=26, 1%
Nordics (DK, FI, NO, SE)	N=100, %
Portugal	N=50, 2%
Singapore	N=50, 2%
South Korea	N=100, 5%
Spain	N=100, 5%
Switzerland	N=50, 2%
Thailand	N=62, 3%
United Arab Emirates	N=50, 2%
United Kingdom	N=100, 5%
United States	N=250, 12%

Industry

Architecture, engineering, and construction	N=99, 5%
Automotive	N=175, 8%
Communications	N=29, 1%
Consumer goods	N=117, 5%
Energy and utilities	N=87, 4%
Financial services	N=214, 10%
Government/public sector	N=91, 4%
Healthcare	N=118, 9%
Life sciences and biotechnology	N=96, 4%
Manufacturing	N=188, 9%
Media and entertainment	N=59, 3%
Nonprofit	N=45, 2%
Professional and business services	N=90, 4%
Retail	N=179, 8%
Supply chain and logistics	N=109, 5%
Technology	N=312, 15%
Travel and hospitality	N=59, 3%

Seniority

C-level executive	N=161, 8%
Vice president or equivalent	N=1,008, 47%
Director or equivalent	N=968, 45%

Company Size

Enterprise (>3,500 employees)	N=1,246, 58%
Mid-Market (200-3,500 employees)	N=778, 36%
Small and Medium (<200 employees)	N=113, 5%



Ready to Learn More?



Leverage Your Data to Build Your Agentforce

Make data actionable to take advantage of AI, automation, and analytics.

[GET THE WHITEPAPER >](#)



The Low-Code Playbook

Empower your development team to build your Agentforce quickly and securely with low-code tools.

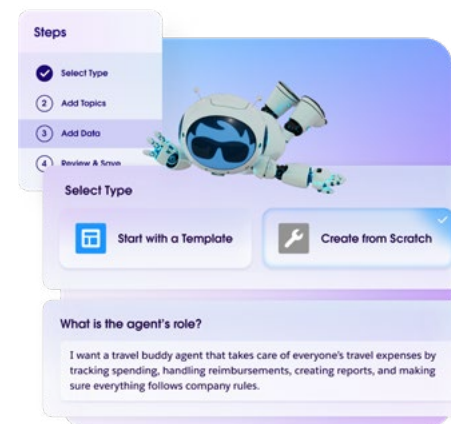
[GET THE PLAYBOOK >](#)



The Salesforce DevSecOps Guide

Learn how a strong DevSecOps strategy can help you scale efficiently, test changes safely, and deliver your Agentforce fast.

[GET THE GUIDE >](#)



Dive into the world of AI Agents

See what sets Agentforce apart from other Agentic AI and what it can do for your organization.

[EXPLORE AGENTFORCE >](#)



The information provided in this report is strictly for the convenience of our customers and is for general informational purposes only. Publication by Salesforce does not constitute an endorsement. Salesforce does not warrant the accuracy or completeness of any information, text, graphics, links, or other items contained within this guide. Salesforce does not guarantee you will achieve any specific results if you follow any advice in the report. It may be advisable for you to consult with a professional such as a lawyer, accountant, architect, business advisor, or professional engineer to get specific advice that applies to your specific situation.