



Intelligent Apps

Rich, Adaptive and personalized
user experience AI-enabled Apps

ACT

Sept 2024



Market insights

Innovation, cost and value drive increasing popularity of intelligent apps.

“Human language is the new UI layer, bots are like new applications, and digital assistants are meta apps. Intelligence is infused into all of your interactions.”

- Satya Nadella,
CEO of Microsoft



AI comes to life in apps.
Data comes to life in apps.
Apps do not exist without developers!

Microsoft

By 2026, 30% of new applications will use AI to drive personalized adaptive user interfaces, up from less than 5% today.

Gartner

Intelligent applications recommend or automate actions instead of just providing analysis, so they can drive improvements — including better personalization, more efficient use of resources, improved accuracy, increased automation, more finely grained responses and decision support. Customers are increasingly demanding these types of intelligent outcomes.

Gartner

Companies using intelligent apps can reduce operational costs by up to 25%

Forrester

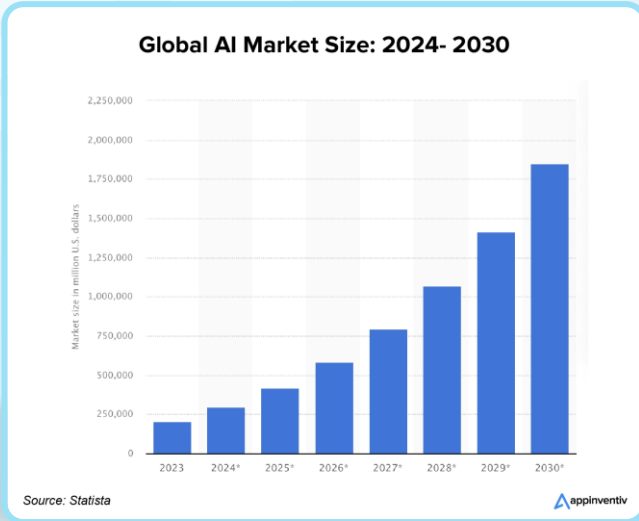
By finely tuning AI models and integrating autonomous micro-agents, Intelligent Applications shift the software’s objective from assistance to action, affording them the ability to not only reason, learn, remember, perceive, and communicate, but modify their interactions with users or other systems.

<https://www.neudesic.com/blog/intelligent-applications-definition/>

Neudesic
IBM



Challenges to fully realizing the benefits of Intelligent apps



The global intelligent apps market size was estimated at USD 27.03 billion in 2023 and is expected to grow at a CAGR of 30.6% from 2024 to 2030.

- **Increased Efficiency and Productivity**
- **Enhanced Decision Making**
- **Personalized User Experience**
- **Improved Customer Service**
- **Proactive Maintenance and Support**
- **Predictive Analytics for Business Growth**



Shortage of skilled developers



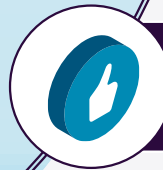
Legacy app and data architectures



Long release cycles

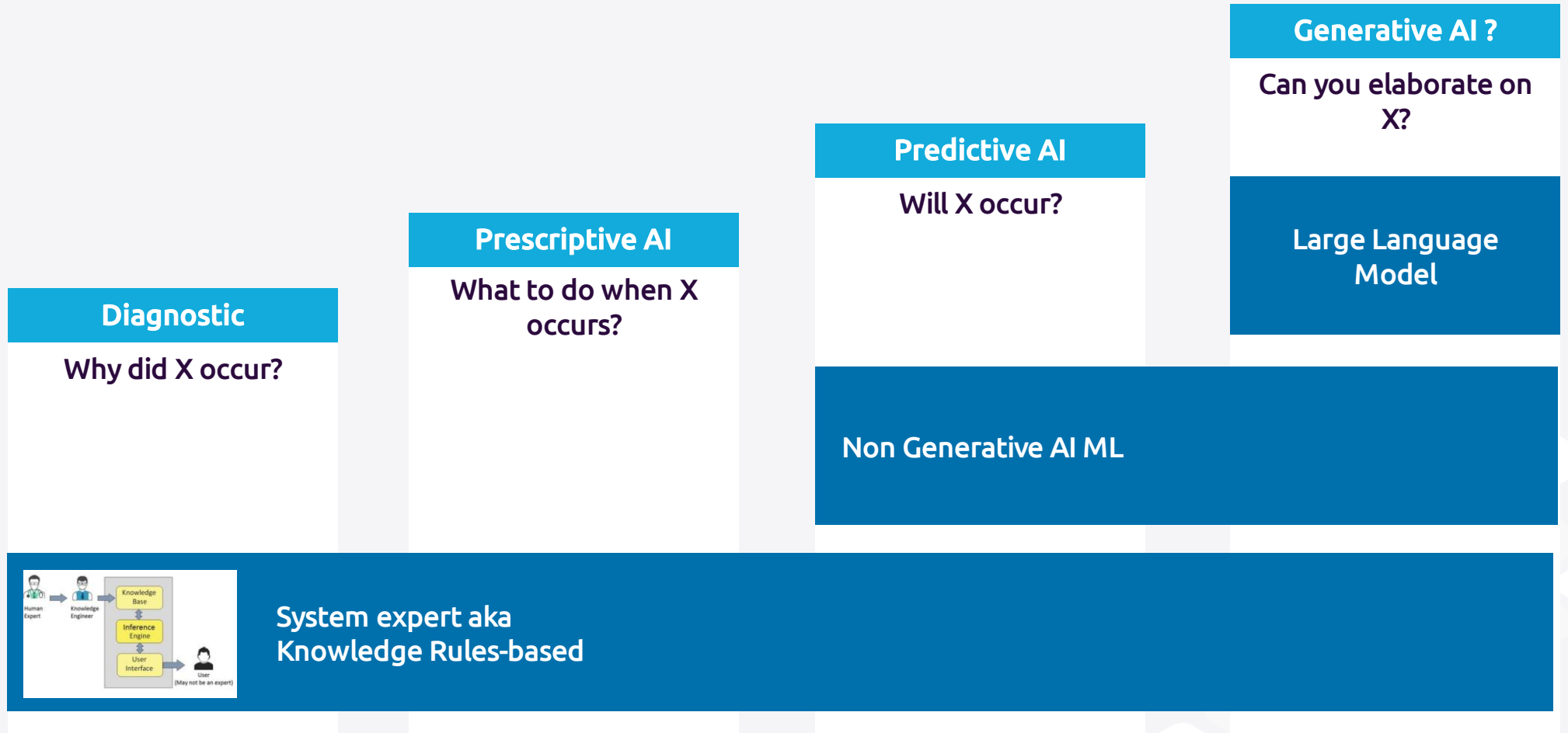


Growing security threats



Aligning use cases to business outcomes

Evolution of machine intelligence



Modern Apps Transitioning to Intelligent Apps

Positioning of Intelligent Apps with / on top of Modern Apps

Generative AI makes apps truly intelligent

Intelligent apps

- Natural language interaction
- Data-driven, personalized experiences that improve over time
- Quickly deliver new features

Modern apps

- Modern app development principles
- Microservices-based architecture
- Rapid innovation with CI/CD

1Bn

New logical apps forecasted to be created by 2028¹

80%

"By 2026, more than **80% of enterprises will have used generative AI APIs, models and/or deployed GenAI-enabled applications** in production environments, up from less than 5% in 2023"²

89%

Enterprises accelerating or maintaining application modernization investments over the next year³

Intelligent apps are transforming the market, driving significant innovation in how businesses interact with data, automate tasks, and leverage AI to create personalized user experiences.



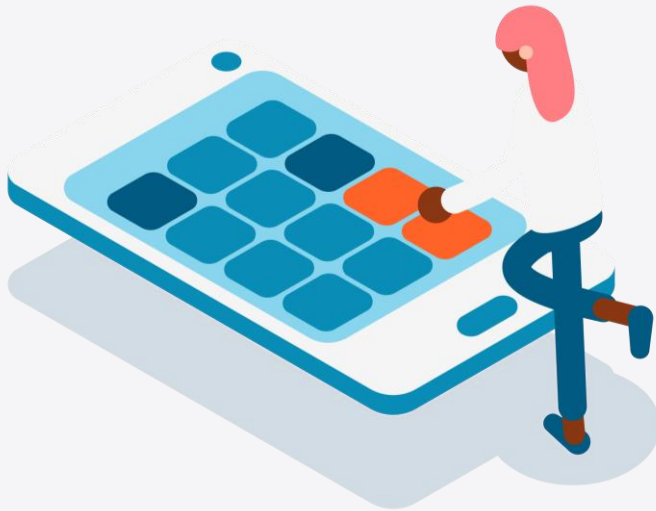
Key Components of Intelligent Apps:

- **Data Sources:** Real-time data ingestion from diverse sources (IoT, social media, enterprise data).
- **AI Models:** Machine learning algorithms and deep learning models.
- **Cloud Infrastructure:** Scalable and secure platforms like AWS, Azure, Google Cloud.
- **User Interface:** Seamless integration with mobile and web apps for an intuitive user experience.

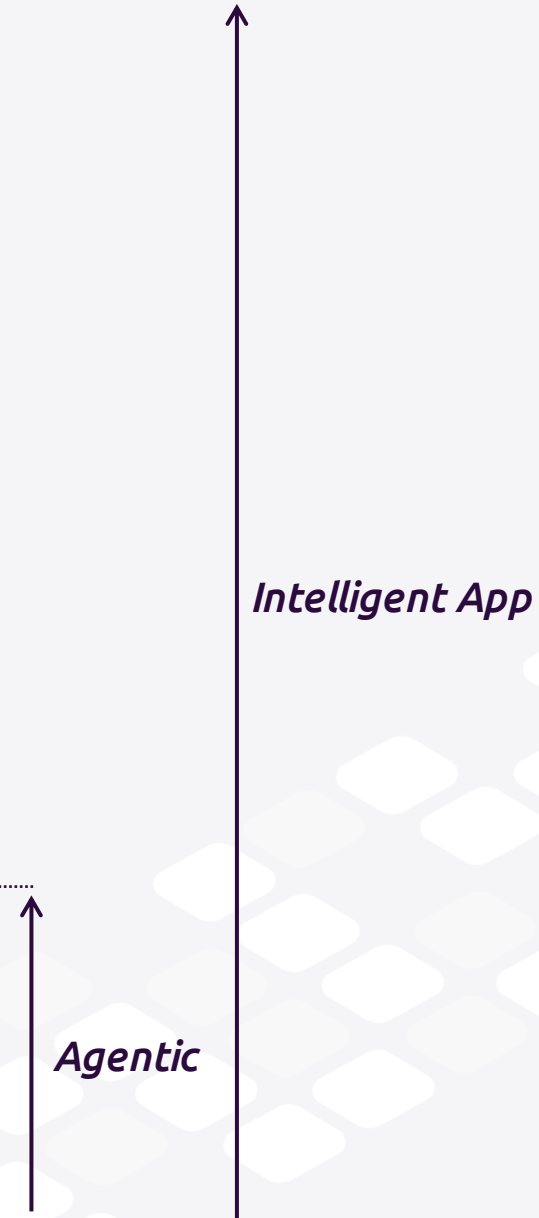
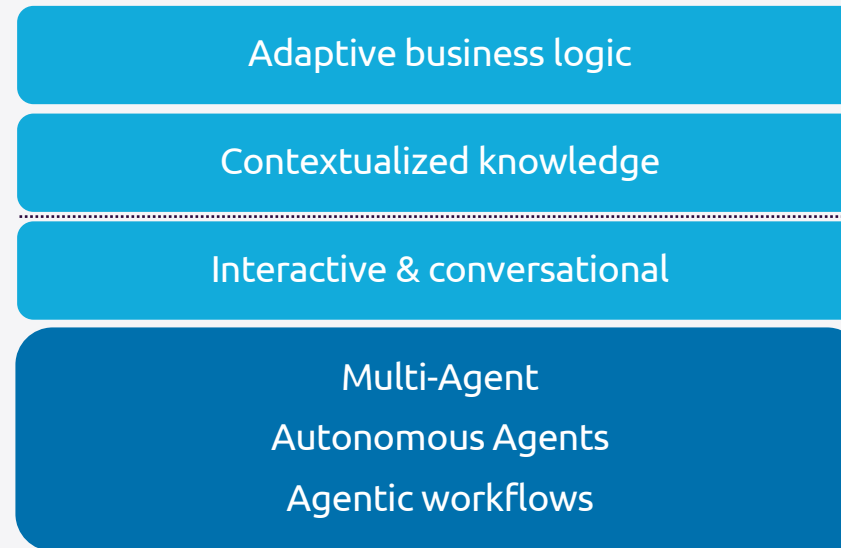
Business Benefits

- 1. Increased Efficiency:**
Automate repetitive tasks, reducing manual efforts by **30%-40%** (Gartner).
- 2. Enhanced Decision-Making:**
Data-driven insights enable **50%** faster decisions (Gartner, 2023).
- 3. Cost Savings:**
Companies using intelligent apps can reduce operational costs by up to **25%** (Forrester, 2022).
- 4. Improved Customer Experience:**
AI-driven personalization boosts customer retention by **15%** (Gartner, 2022).
- 5. Revenue Growth:**
Businesses using AI apps report an average revenue increase of **8%-10%** within the first year (IDC, 2023).

Intelligent App attributes



Optimization	Rules & heuristics
Immersive Interfaces	Self healing
Real time flow	Data driven model
Graph & Workflow	Connected products
Non generative Machine Learning	Generative AI
Singular experience	Simulation



Intelligent Apps Scenarios

Build custom copilots

Automate repetitive tasks

Gather deeper insights

Create engaging and human-like interactions

Accelerate decision-making processes

Reshape existing apps



Focus on Client Benefits

Cost Savings

Future-Proofing

Competitive Advantage

Revenue Growth



Intrinsic features of Intelligent App Approach

- **Cloud-Native Excellence:** Designed and optimized for scalable, resilient, and high-performance managed cloud services.
- **AI-Driven Innovation:** Intelligent app development with AI at its core, delivering smarter solutions with predictive and adaptive capabilities.
- **Continuous Testing Intelligence:** Integrated, intelligent testing across the lifecycle to ensure seamless functionality and performance.
- **DevSecOps First:** Embedding security and operational excellence into every step, making DevSecOps a foundational practice, not an afterthought.
- **Integrated Security Development:** Advanced security analysis and proactive development embedded throughout the pipeline.
- **Data-Driven Decisions:** Seamless integration with app data and analytics for informed decision-making at speed and scale.
- **Global-Ready Compliance:** Built with regional compliance, governance, and scalability to cater to a global audience.
- **Accelerated Delivery:** Automated pipelines and intelligent tools for faster, iterative releases.

Intelligent Apps Methodology For ADC

Capgemini



Value Realization with Intelligent Apps

Intelligent apps bring several benefits to businesses and users alike.

Increased Efficiency and Productivity

- An Intelligent app automates repetitive tasks thereby reducing the workload on human employees. This automation leads to increased efficiency and allows employees to focus on more strategic and value-added activities.

Enhanced Decision Making

- An intelligent app provides real-time data analysis and predictive modeling which enables businesses to make data-driven decisions. By analyzing vast amounts of data these intelligence applications can uncover insights and trends that human analysis may overlook. For instance, an intelligent sales forecasting app analyzes historical sales data to predict future demand, assisting businesses in optimizing inventory management and production planning.

Personalized User Experience

- Intelligent applications offer personalized user experiences based on individual preferences and past interactions. These apps can tailor content by analyzing user data with recommendations and interfaces to each user's specific needs.

Improved Customer Service

- Intelligent applications can enhance customer service by providing quick and accurate responses to inquiries. Chatbots powered by AI and natural language processing algorithms can understand and respond to customer queries by providing 24/7 support. Additionally, intelligent apps can analyze customer feedback and sentiment to identify areas for improvement in products and services.

Proactive Maintenance and Support

- An intelligent application can monitor and analyze data from connected devices to detect issues or anomalies in real-time. By leveraging predictive analytics these intelligent mobile apps can identify potential failures or maintenance needs before they occur.

Predictive Analytics for Business Growth

- The intelligent app enables businesses to leverage predictive analytics to forecast trends and identify growth opportunities. By analyzing historical data and market trends these apps can provide insights into customer behavior along with the market demand and emerging trends. This information empowers businesses to make proactive decisions and stay ahead of the competition.

Innovation and Competitive Advantage

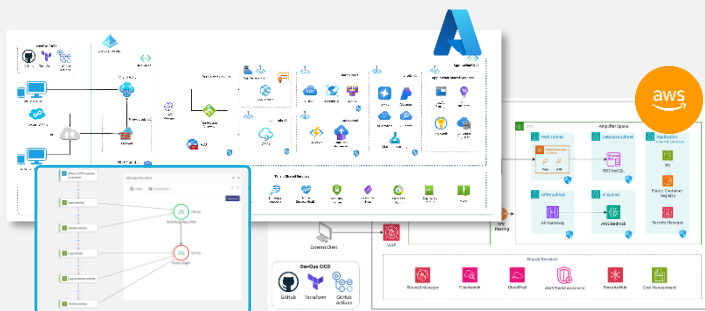
- Intelligent applications foster innovation by leveraging AI and ML technologies. By automating tasks and delivering personalized experiences these intelligent apps collect information and enable businesses to differentiate themselves in the market. Organizations that embrace intelligent apps can gain a competitive advantage by offering unique and innovative solutions to their customers.

Intelligent Apps Accelerators

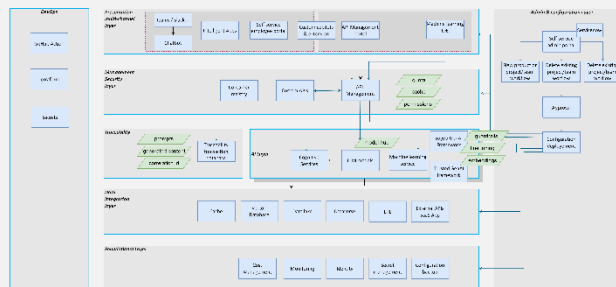
Empowering innovation with our cutting-edge accelerators and tools



AI App Platform and Cloudfoundation



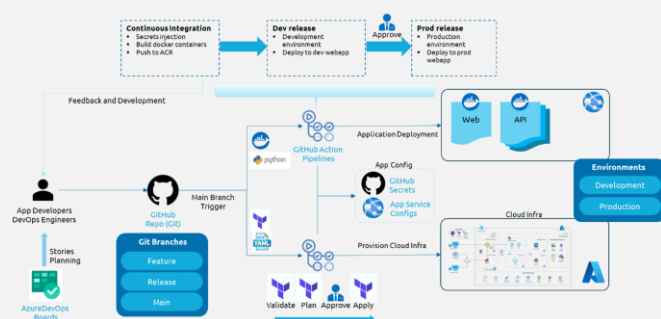
Enterprise AI App Logical Architecture



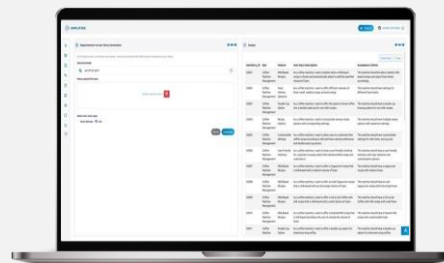
Jumpstarts

- Custom Single usecase GenAI Website (Amplifier Lite)
- Improve business process with Low code for performance
- Create custom O365 Copilot for employees' interactions
- Conversational agents for clients experience
- Empower your workforce with Copilot
- Integrate application in Teams for employees experience
- Workflow, business logic & agent application
- Contextualization for personalized experience
- Enterprise Search Knowledge management & Search to Decision & Action
- Empower your workforce with custom plugins

DevSecOps Framework



Amplifier for SE



Amplifier Foundation

GUARDRAILS API

1. Validation Check
2. Sanitization Check
3. Profanity Check
4. Length Check
5. Encoding Check
6. Character Set Check
7. Duplicate Check
8. Contextual Check

SCORING API

1. Jailbreaks
2. Prompt Injections
3. Coherence Score
4. Readability Score
5. Toxicity Score
6. Sentiment Score
7. Bias Check Score

TOOLS

1. Langchain
2. OpenAI
3. Bedrock



Questions We solve for Customers

- How to leverage organization's data to get insights and recommendations?
- How to infuse AI and GenAI in organization's new and existing applications to achieve high customer satisfaction and business growth?
- How to automate repetitive and mundane tasks to get more cost efficiency?
- How can we incorporate personalized user experiences into our organization's applications?
- Can we leverage AI to reduce release cycles for organization's apps for effective GTM?
- Which AI Models are suitable for organization's use cases?
- Can we build a quick prototype of the organization's use cases? And after successful prototyping, how to go from pilot to production?
- How to govern, monitor and optimize the AI Apps for efficient observability?



About Sogeti

Part of the Capgemini Group, Sogeti makes business value through technology for organizations that need to implement innovation at speed and want a local partner with global scale. With a hands-on culture and close proximity to its clients, Sogeti implements solutions that will help organizations work faster, better, and smarter. By combining its agility and speed of implementation through a DevOps approach, Sogeti delivers innovative solutions in quality engineering, cloud and application development, all driven by AI, data and automation.

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of 340,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering, and platforms. The Group reported in 2023 global revenues of €22.5 billion. Get the Future You Want.

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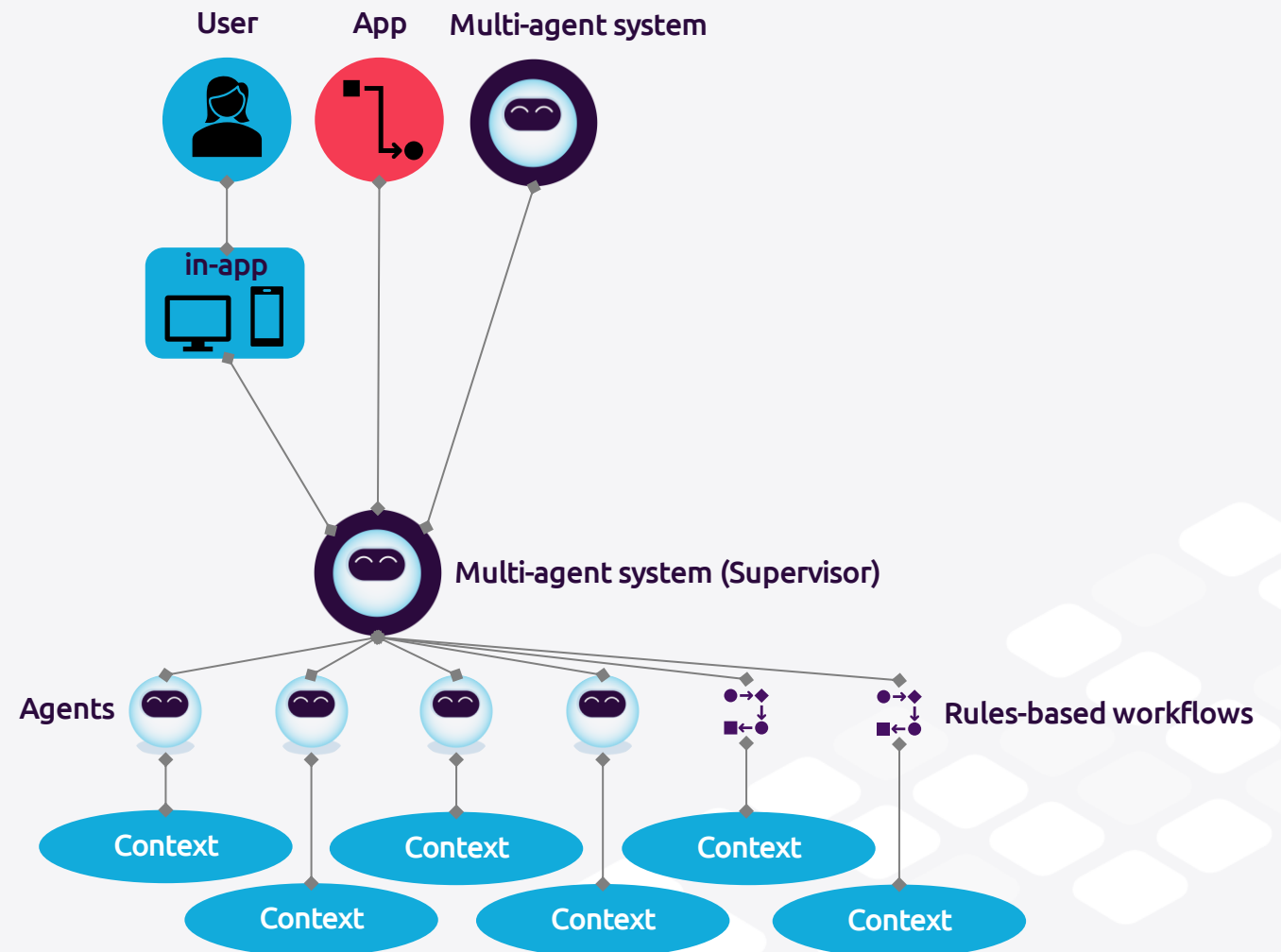
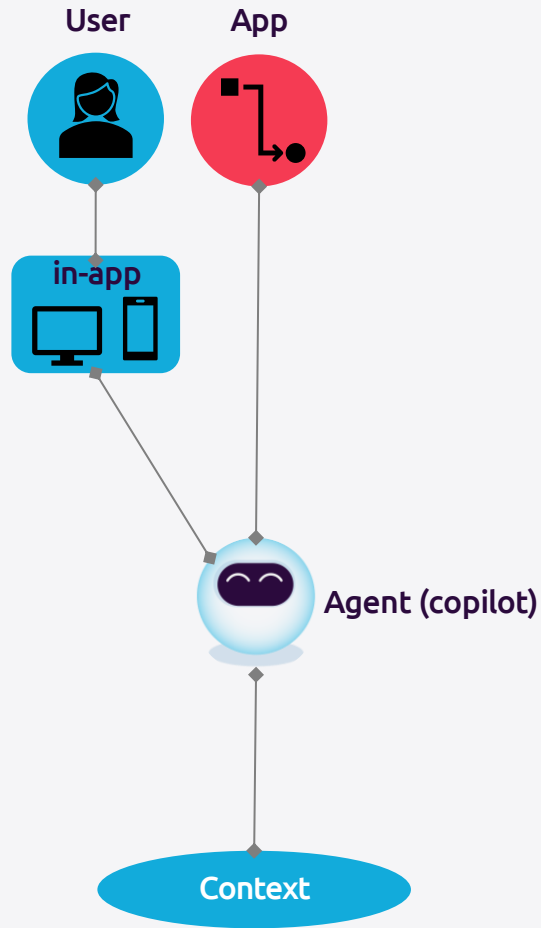


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Single agent (copilot) to multi-agent systems

Switch from single agent (copilot) to multi-agent systems



Multi-agent system

By example

