

MAFspire – Agents with Superpowers



.NET

dot.net/download



AI & Cloud
Ready



Intelligently
Productive



Always
Performant



Modern &
Secure

The Opportunity for Agentic AI is growing

50% of companies using generative AI will launch agentic AI pilots or POC by 2027.¹

By 2028, at least **15% of day-to-day work decisions** will be made autonomously through agentic AI, up from 0% in 2024.²

1. Autonomous generative AI agents | Deloitte Insights

2. Gartner® 2025 Top Strategic Technology Trends E-Book, Gene Alvarez and Tom Coshov, 2024, [emt.gartnerweb.com/ngw/globalassets/en/information-technology/documents/trends/2025-top-tech-trends-ebook.pdf](https://www.emt.gartnerweb.com/ngw/globalassets/en/information-technology/documents/trends/2025-top-tech-trends-ebook.pdf). GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.

Build intelligent apps, intelligently



Agentic Apps

Infuse AI into your .NET apps



Cloud



Web



Desktop



Mobile



Games



IoT



Aspire

Build, test, and
deploy seamlessly
from code to cloud



Agentic DevOps

AI-powered agents operating
as a member of your
dev team



Visual Studio



Visual Studio Code



GitHub



Azure

Applications

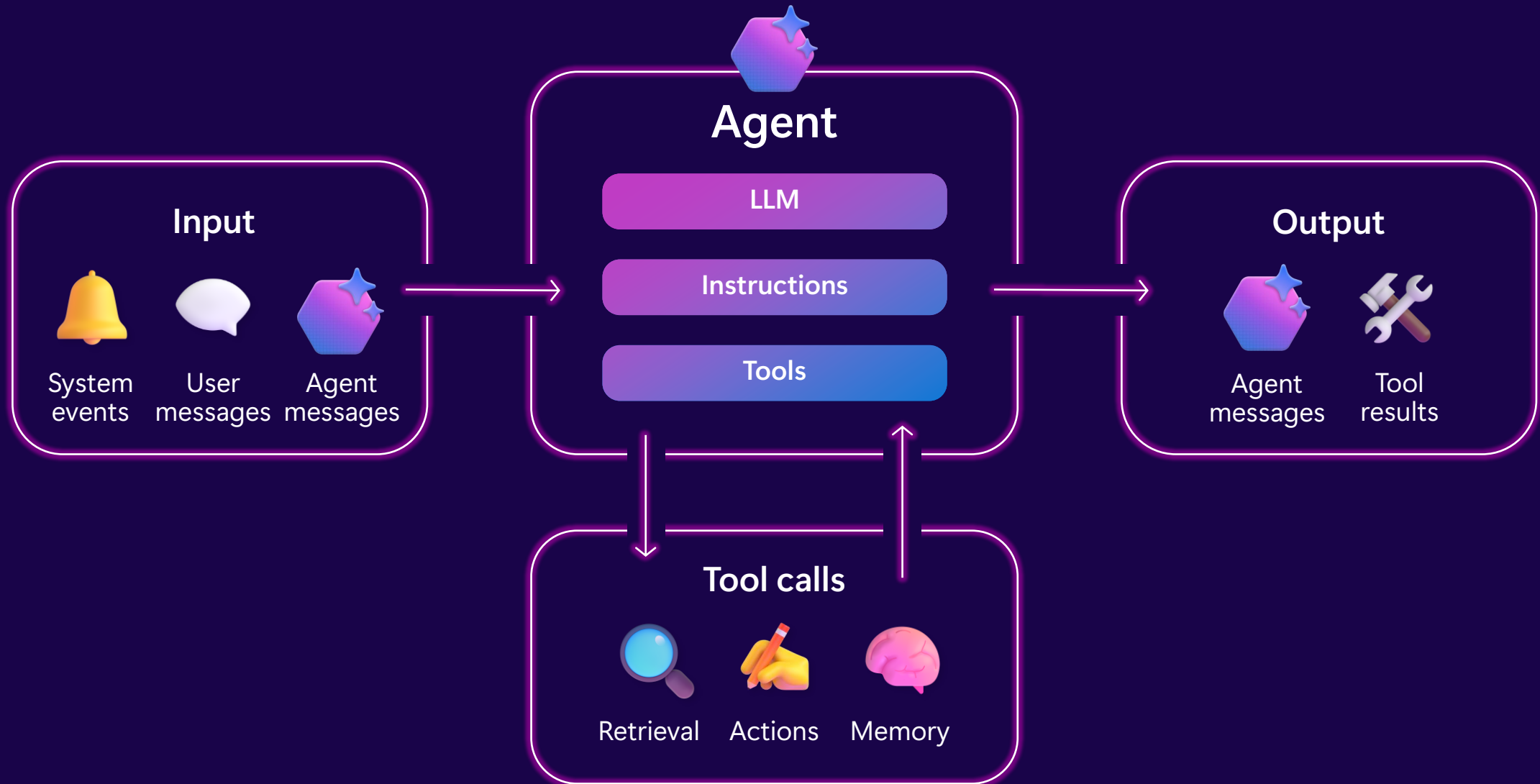
Tools

Agentic Apps

Infuse AI into your .NET apps



What are agents?



.NET Agentic Apps



AI-first design



Composable
& modular




Data-centric




Resilient &
scalable

Generative AI Applications Built on .NET


Topics I thought you'd enjoy



I'll explain game theory

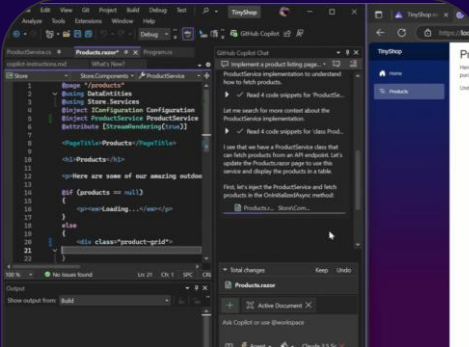



Core exercises that don't need equipment





Discover epic sports triumphs


Microsoft Copilot experiences



GitHub Copilot assisted coding



Xbox Copilot for Gaming




Should I report my side gig?

Yes, the IRS requires you to report income earned from the gig economy, even if the income is:

- From part-time, temporary, or side work
- Not reported on an information return

H&R Block Tax Assist



Microsoft Copilots Powered by .NET

Unlike previous tools, AI Agent can...

 reason,  act and  learn

AI Ecosystem



Microsoft's agent frameworks

Orchestrate agents with **AutoGen**, **Semantic Kernel**,
Foundry SDK and **M365 Agents SDK**



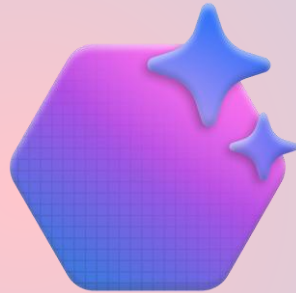
AutoGen

State-of-the-art
multi-agent
research SDK



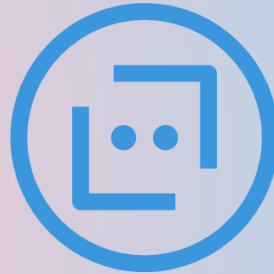
Semantic Kernel

OSS AI service
and agent
orchestrator



Foundry SDK

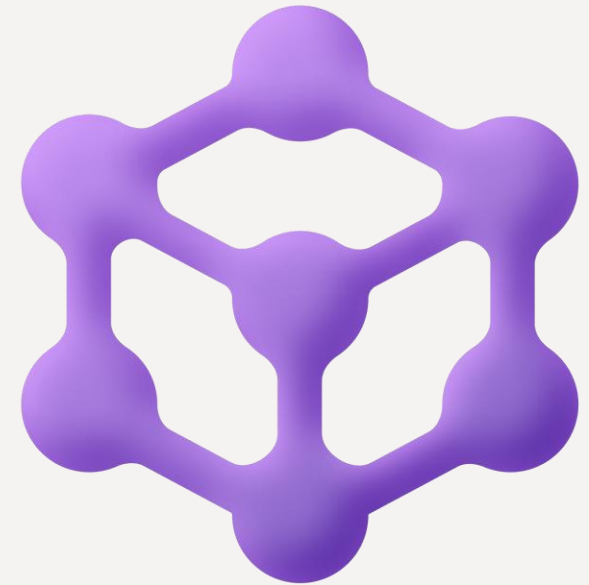
API for Foundry
Agent Service



M365 Agent SDK

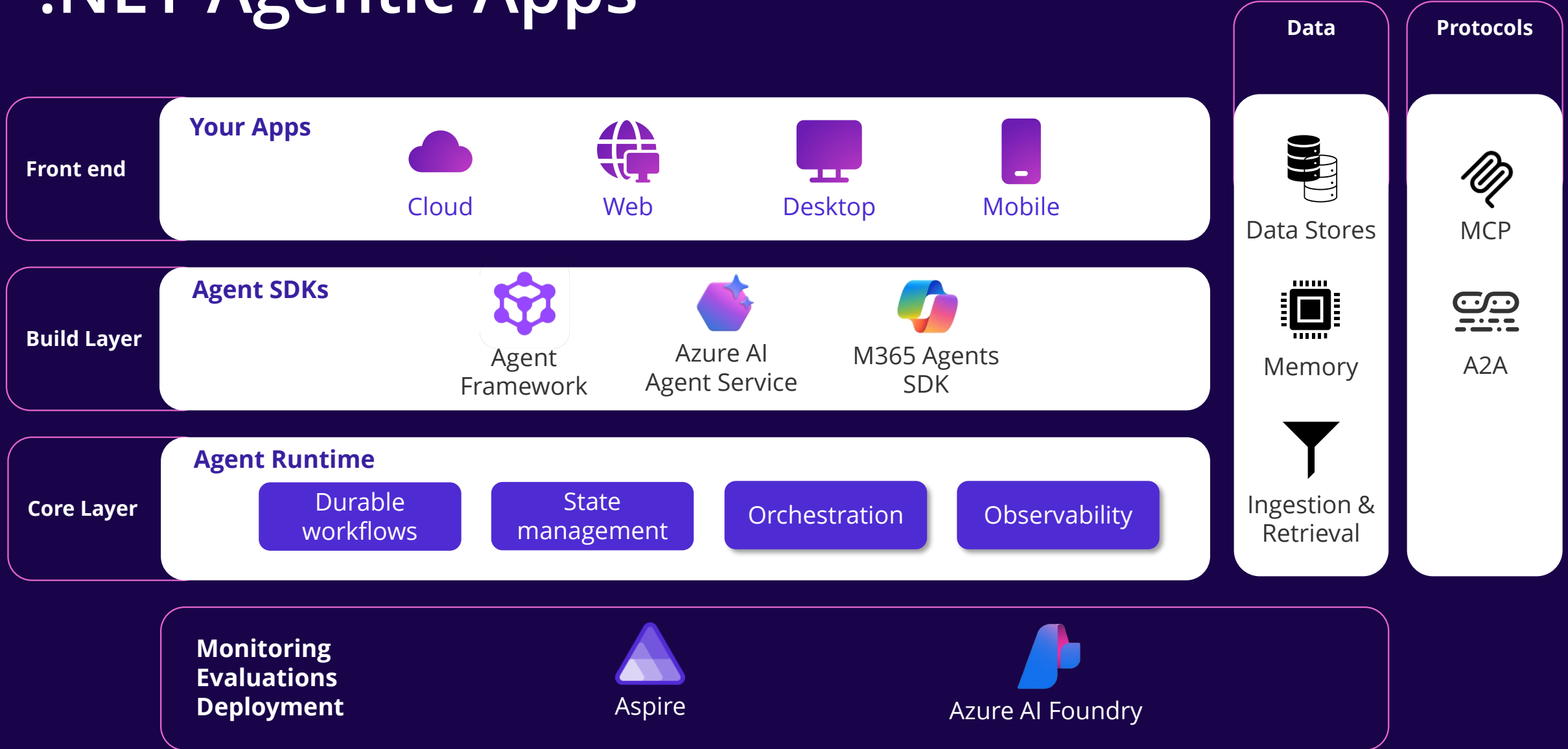
API for Foundry
Agent Service

Unified Agent Development



Microsoft Agent Framework

.NET Agentic Apps





Azure AI Foundry

 Copilot Studio

 Visual Studio

 GitHub

 Foundry SDK



Foundry Models

Foundry Agents

Azure AI Search

Azure AI Services

Azure Machine Learning

Azure AI Content Safety

Foundry Observability



Cloud



Azure



Azure Arc



Foundry Local

Edge

Security • Identity • Management

Control



Azure Kubernetes Service



Azure App Service



Azure Container Apps



Azure Functions



Serverless



Authoring Tools

Visual Studio

GitHub

Knowledge

 Microsoft Fabric

 Azure Cosmos DB

 SharePoint

 Microsoft Graph

 Azure AI Search

 Microsoft Bing

Enterprise Trust

VNet deployments

OBO Auth

BYO-resources

Managed identities

Agent Catalog

Ready-made agents to kickstart your agent workforce

Microsoft Agent Framework

Client SDKs for enterprise and production agentic systems

Agent Framework

Foundry SDK

M365 Agents SDK



Agent Service

Deploy and manage agents with fully-managed runtime

Multi-agent workflows

Built-in threads

Long-term memory

Evaluation

Tracing & Monitoring

Governance + Safety

Foundry Models

Azure Direct Models

 OpenAI

 DeepSeek

 Llama

 Grok

 Mistral

Azure Ecosystem Models

 Phi

 Cohere

 stability ai Stability

Industry Models

Foundry Labs

Muse

Magentic-One

Aurora

OmniParser

Open Ecosystem

Protocols

 A2A

 MCP

 OpenAPI

Connectors

 Google VertexAI

 Amazon Bedrock

 CrewAI

 LangChain

 ElasticSearch

 Pinecone

 Logic Apps

 Azure Functions

.NET AI Libraries

Microsoft.Extensions.AI

Streamline AI integration with our unified APIs

Common AI Abstractions

Standard Middleware

Interoperability and Extensibility

MCP Microsoft Ecosystem



Copilot Studio



Foundry Agent



VS Code



Visual Studio



Windows



GitHub Copilot



Microsoft
Teams



Agent
Framework

MCP Clients & Hosts



neo4j



Tools



Community



Enterprise



Windows

Registry



Azure API
Management



Azure Functions



C# MCP SDK



Microsoft
Connectors

Build Local & Remote MCP Servers



Model Context Protocol

MCP from Anthropic enables seamless Integration between LLM Apps and external data sources

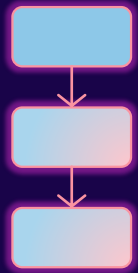
MCP C# SDK

- Microsoft is building an official MCP SDK for C#/.NET
 - <https://github.com/modelcontextprotocol/csharp-sdk>
- Seeded from an open source package mcpdotnet
- Goal is to faithfully implement the MCP spec (which is still evolving)
- Used by many Microsoft products adding support for MCP servers

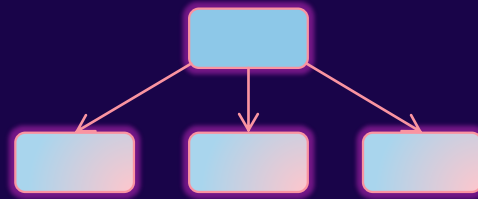
Why Multi-Agent?

Multi-Agent Orchestration Patterns

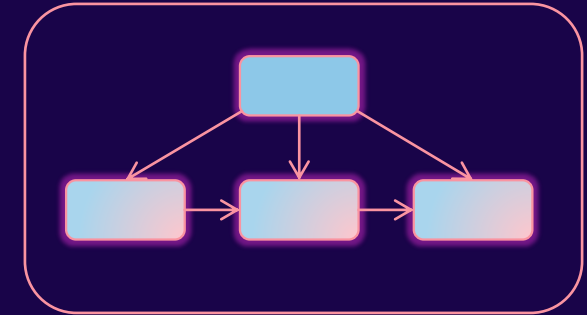
Sequential



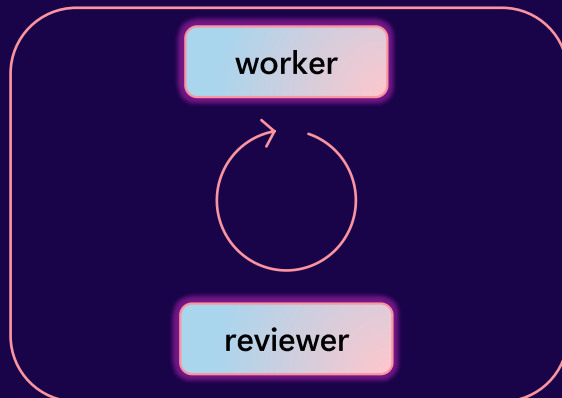
Concurrent



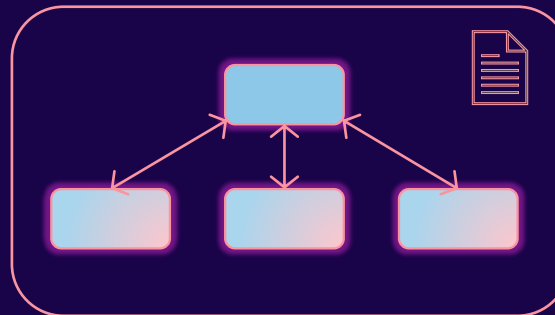
Handoff



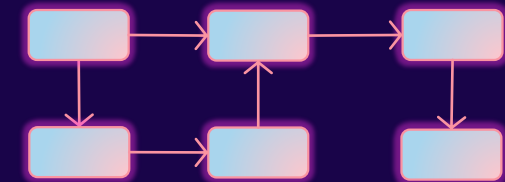
Group Chat



Magentic

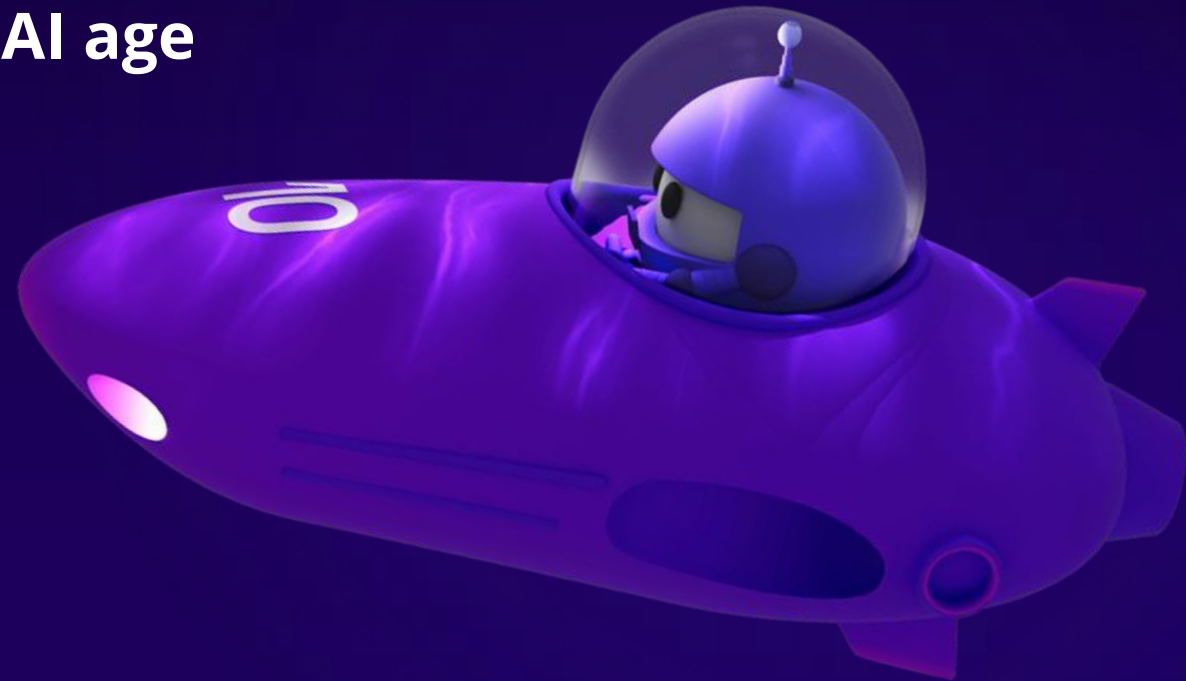


Workflow Process



Aspire

Accelerating app development for the AI age



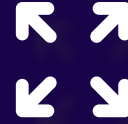
Every App Needs



Observability



Resiliency



Scalability



Manageability

.NET gives you a lot



Observability

Built in metrics with dimensions

DI integration for metrics

Better Logging support
(faster, can object serialization)

Enrichment

Redaction

Testing fakes for Logging & Metrics



Resiliency

New Polly based
resiliency packages

SignalR Stateful Reconnect



Scalability

AOT
(increased density)

Performance

Chiseled Ubuntu



Manageability

Certificate auto-rotation
support in Kestrel



Aspire



Code-first
control



Modular &
extensible



Observability
from the start



Flexible
deployments

Aspire lets developers just be developers again



"We onboarded our intern in an afternoon instead of a couple of weeks"



"We've been able to package our own security and data code standards to share internally"



"With the dashboard, we were able to test our telemetry flow locally without waiting weeks for our full deployment"



"We don't have to have a bicep expert to deploy our apps"

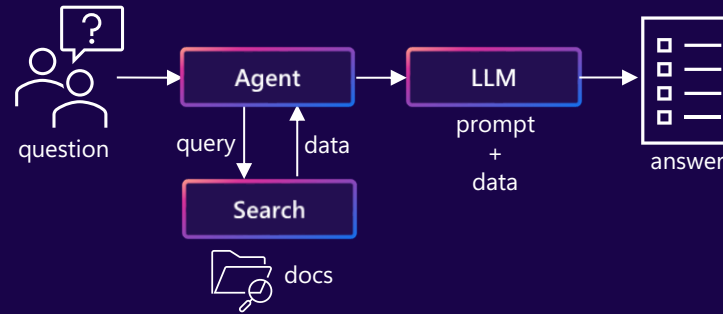
Spectrum of Agentic Solutions



No Agent

Very narrow one shot task

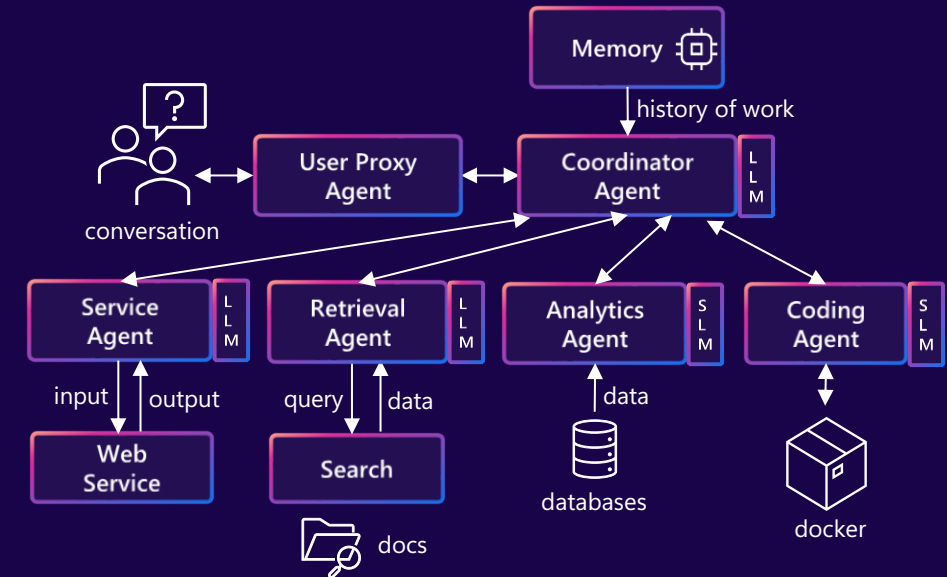
Ex: log to JSON



Single Agent

Very clearly scoped iterative task

Ex: providing an answer with supporting evidence to a complex question



Multi-agent Systems

Wide scope complex use case requiring diverse skills

Ex: Propose 2 Instagram marketing campaigns including assets that would leverage the top 2 recent trends in our past quarter US Sales to boost our mailing list user base and predict the impact of each campaign

Web Development



ASP.NET Core

Your Full Stack Web Platform for .NET



Web UI



APIs



Data



Server

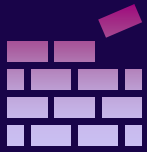


Security



Tooling

Build AI-powered web apps with ASP.NET Core



Microsoft.Extensions.AI

AI primitives and building blocks
for .NET



Evaluations

Evaluate the quality & safety of
your AI apps



VectorData

Integrate with vector DBs for
semantic search & embeddings



AI templates

Out-of-the-box guidance with
code ready to go



C# MCP SDK

Extend AI apps with new tools &
data



Semantic Kernel

Multi-agent workflows
and orchestration

dot.net/ai

ASP.NET Core focus areas for .NET 10



**Easier to create
secure apps**



**App observability
and diagnostics**



**Targeted
performance
improvements**



**Address top pain
points**

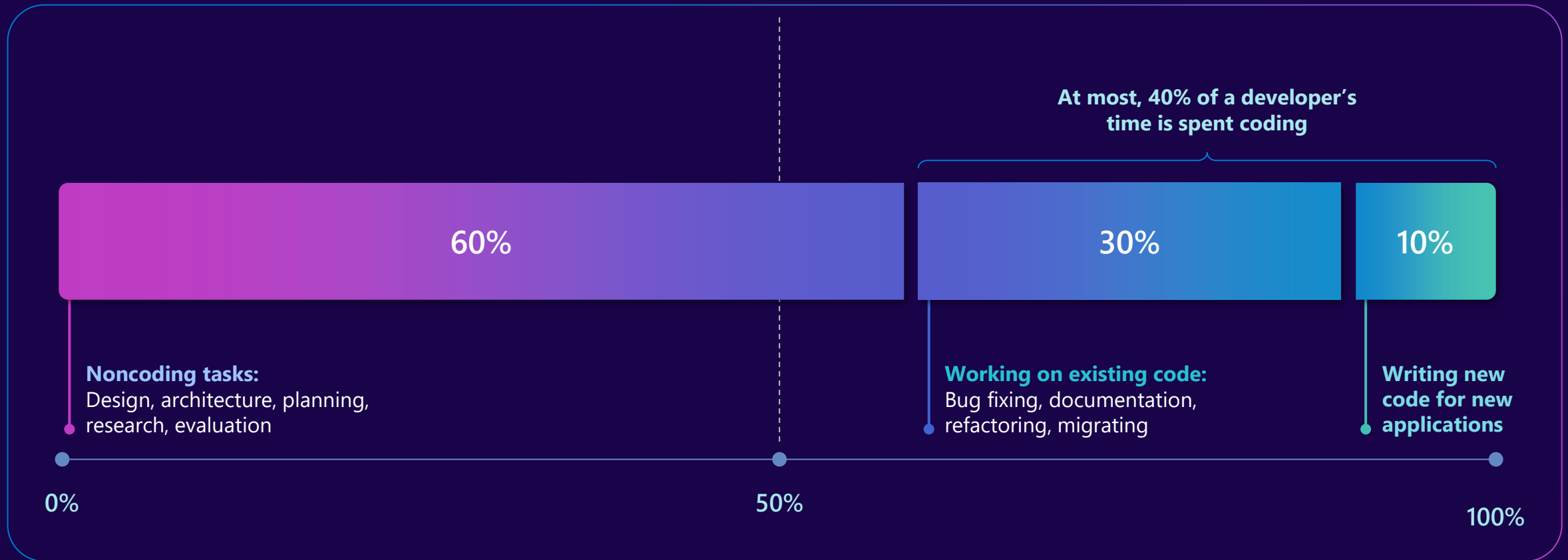
Agentic DevOps

**AI-powered agents operating as a
member of your dev team**



Developers spend a lot of time on noncoding tasks

Writing new code takes only a fraction of a developer's time



Emerging Tech: AI Developer Tools Must Span SDLC Phases to Deliver Value, Gartner

Evolving DevOps



DevOps

"Union of **people, process, and technology** to enable continuous delivery of value to end users."

DevSecOps

"Union of **people, process, and technology with security** as a shared responsibility to enable continuous delivery of value to end users."

Agentic DevOps

AI-powered agents operating as a member of your dev team to **automate, optimize, and accelerate every stage** of the software development lifecycle.

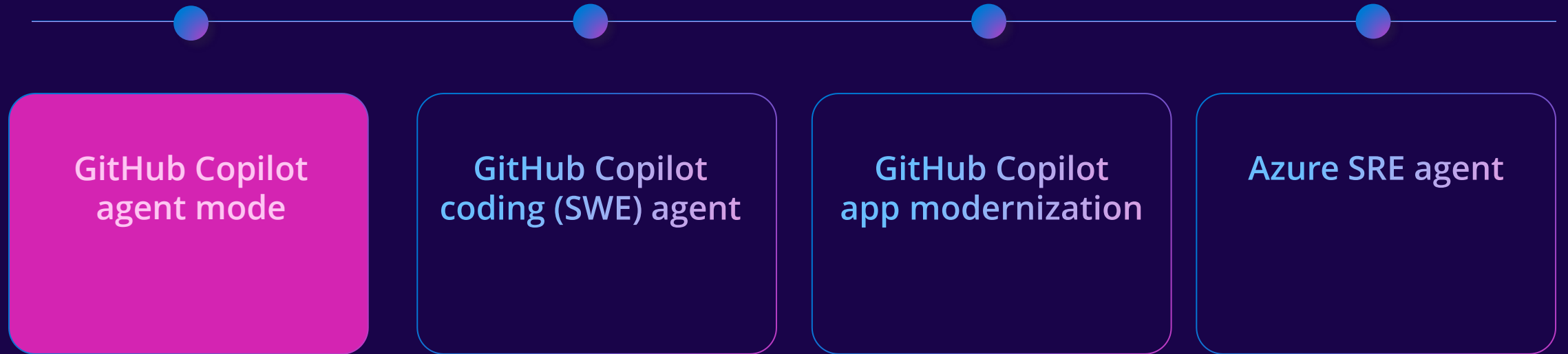
Agentic DevOps

AI-powered agents operating as a member of your dev team—automating, optimizing, and accelerating every stage of the software lifecycle.

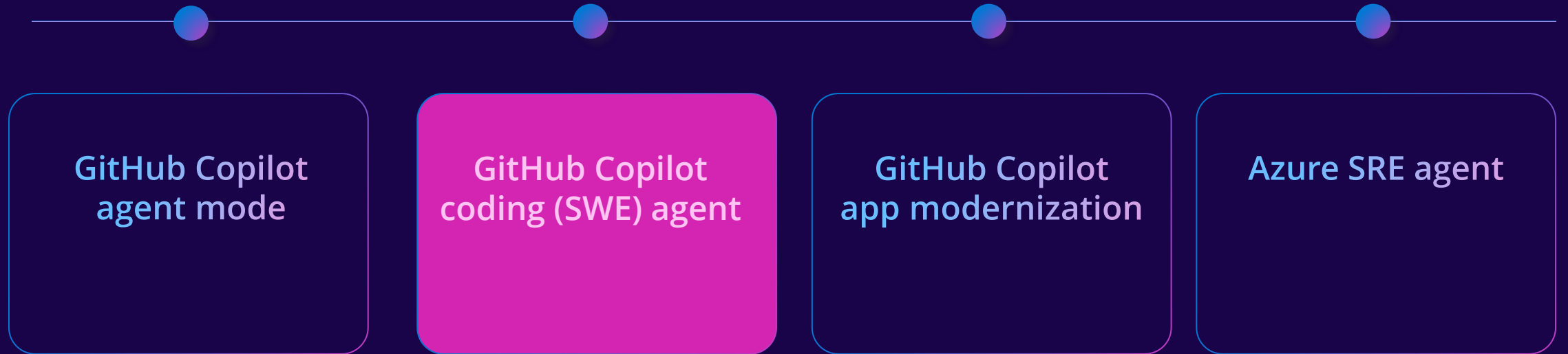
Autonomous and semi-autonomous agents work together to solve routine and complex tasks, bringing apps to market faster, increasing code quality and security, removing repetitive development tasks, reducing technical debt and reframing the economics of maintaining apps in production.

Through Agentic DevOps, developers orchestrate a series of agentic services, with the freedom to focus on higher value creative work.

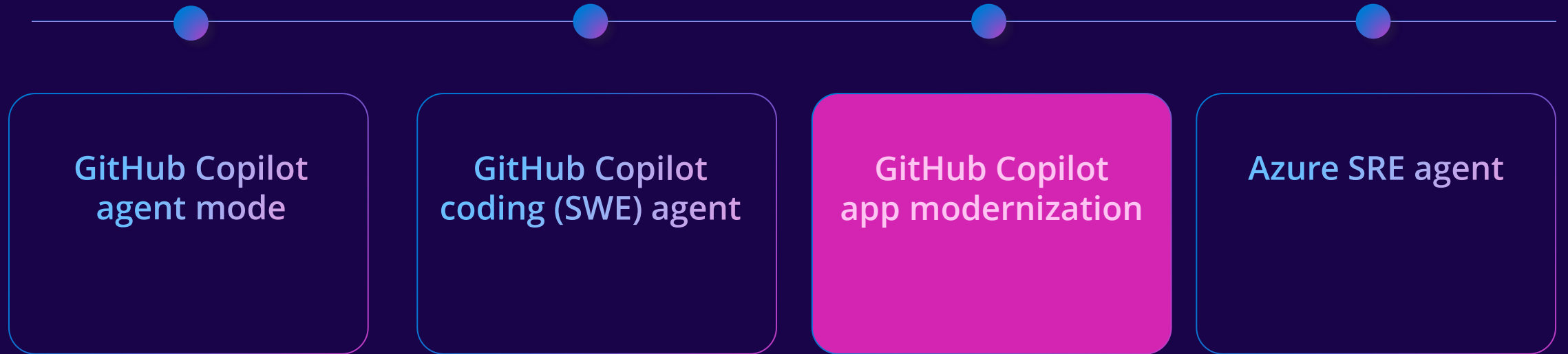
Agentic DevOps



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.NET

Ready for the future



AI & Cloud
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THANK YOU!!!

Speaker Name

Speaker Role

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