

An abstract graphic composed of numerous thin, overlapping blue lines that form a complex, swirling, and somewhat circular shape. The lines vary in density and direction, creating a sense of motion and depth. The graphic is centered on the page and serves as a background for the main text.

Generative AI:
**What's Under the Hood,
What's Possible, and What's Next**

The technical evolution and business
impact of generative AI

About me



Ben Gilman - CTO



Contents



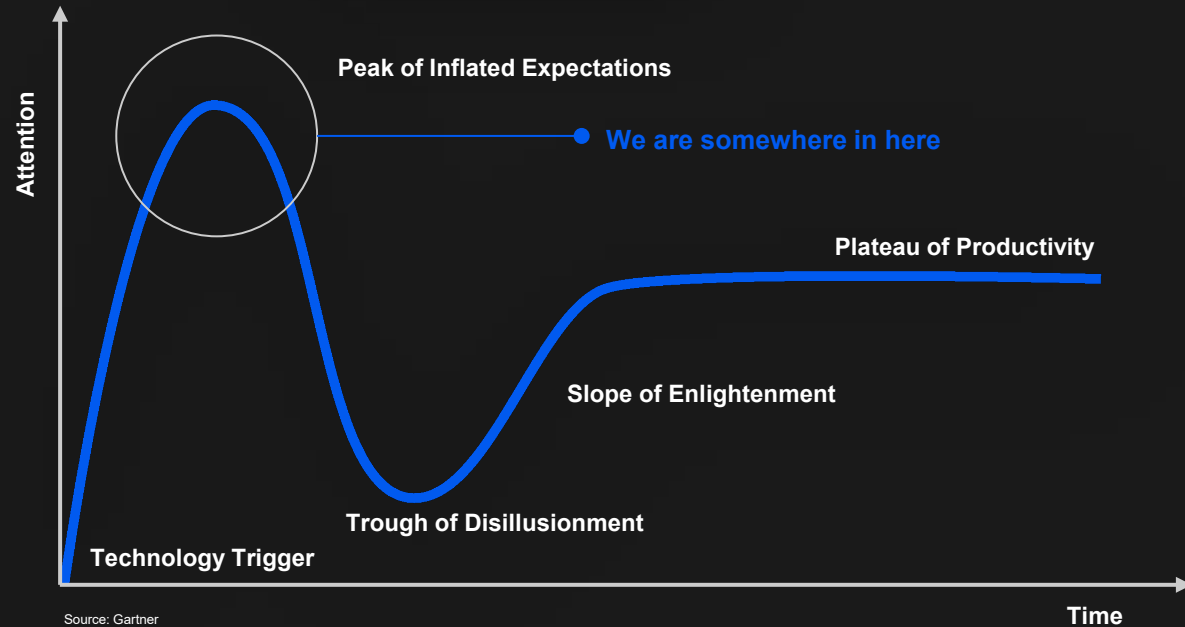
- 1** From Hype to Infrastructure
- 2** Going Beyond the Prompt
- 3** AI with ROI
- 4** Q&A

From Hype to Infrastructure

From Copy to Copilots to Co-Workers



The Hype Cycle



From Party Trick to Power Tool



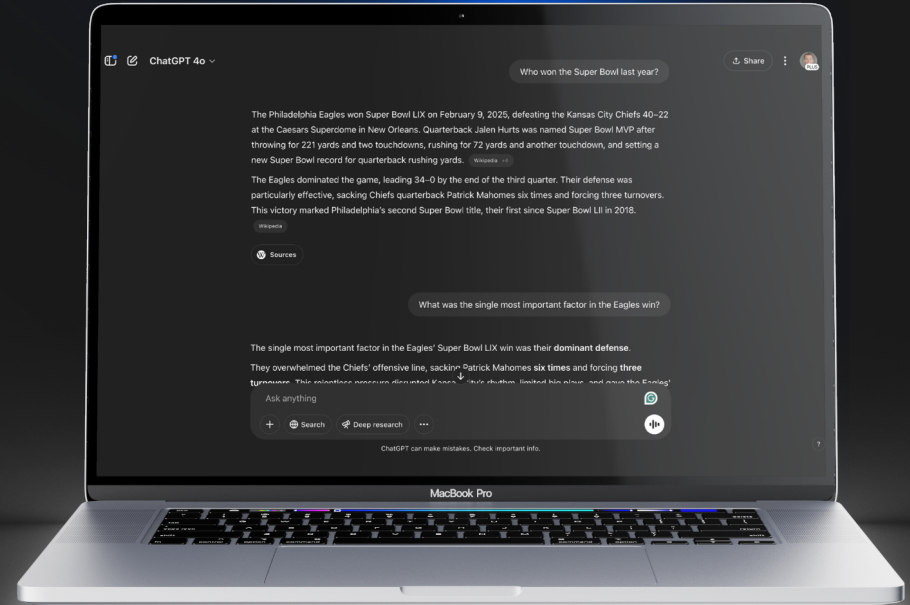
2023 - NL Chat



Impressive demos

2024 - RAG & Reasoning

2025 - Agents



From Party Trick to Power Tool



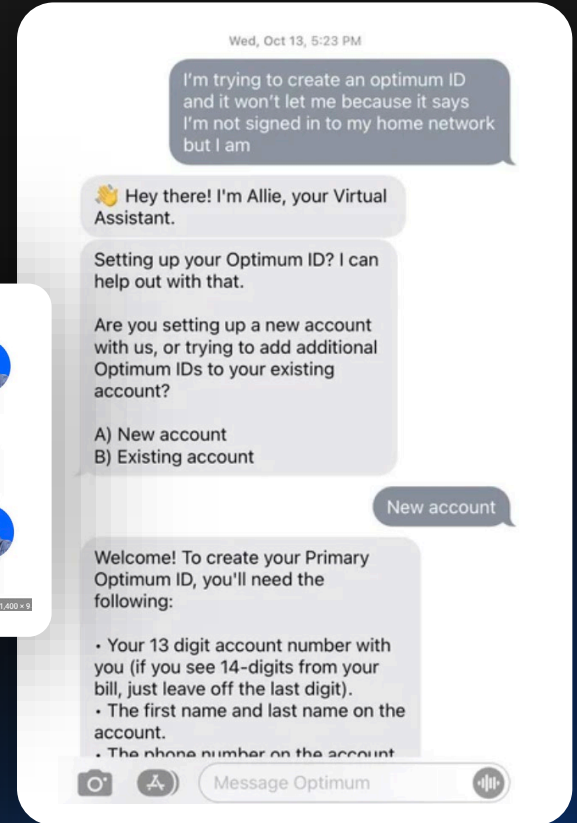
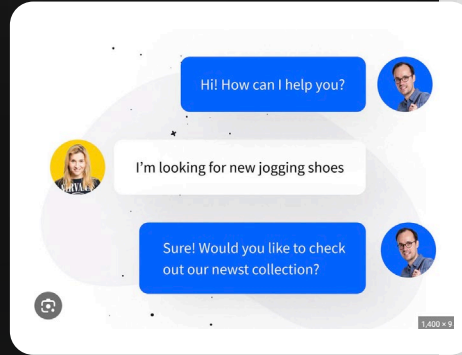
2023 - NL Chat

2024 - RAG & Reasoning



Enterprise curiosity

2025 - Agents



From Party Trick to Power Tool



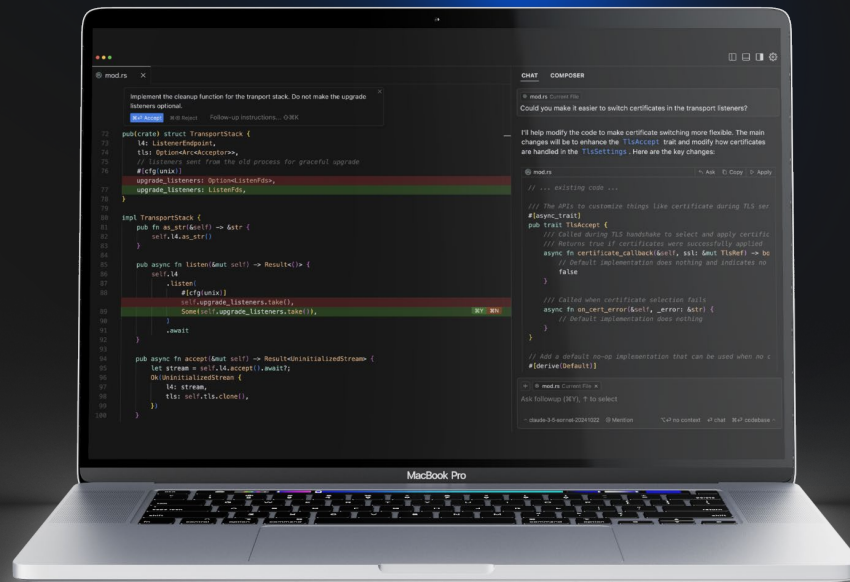
2023 - NL Chat

2024 - RAG & Reasoning

2025 - Agents



Business-critical infrastructure

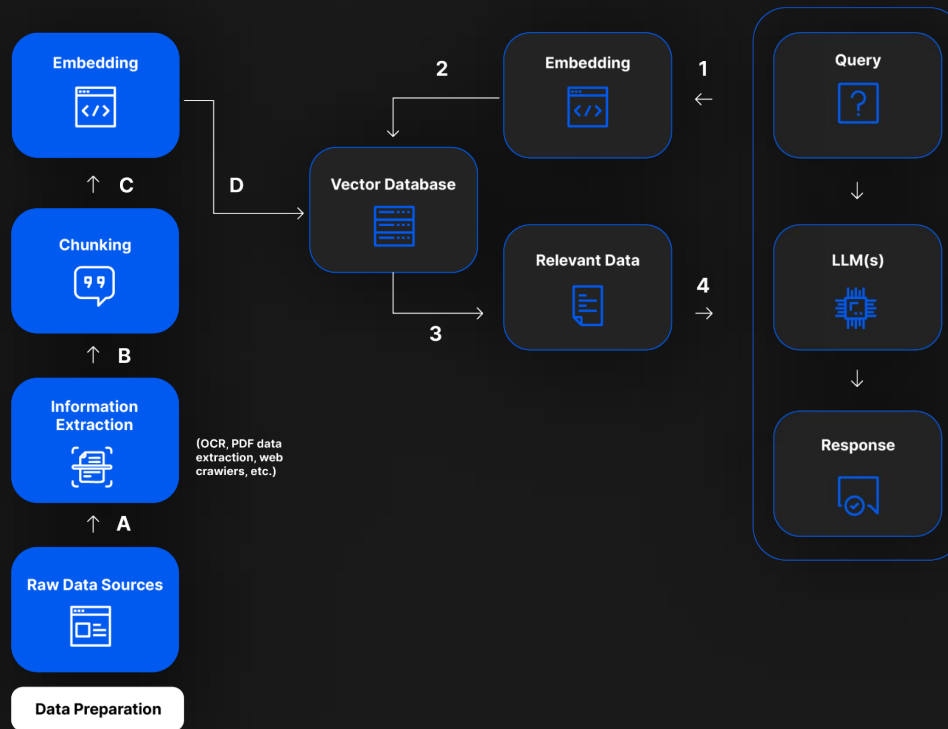


Going Beyond the Prompt

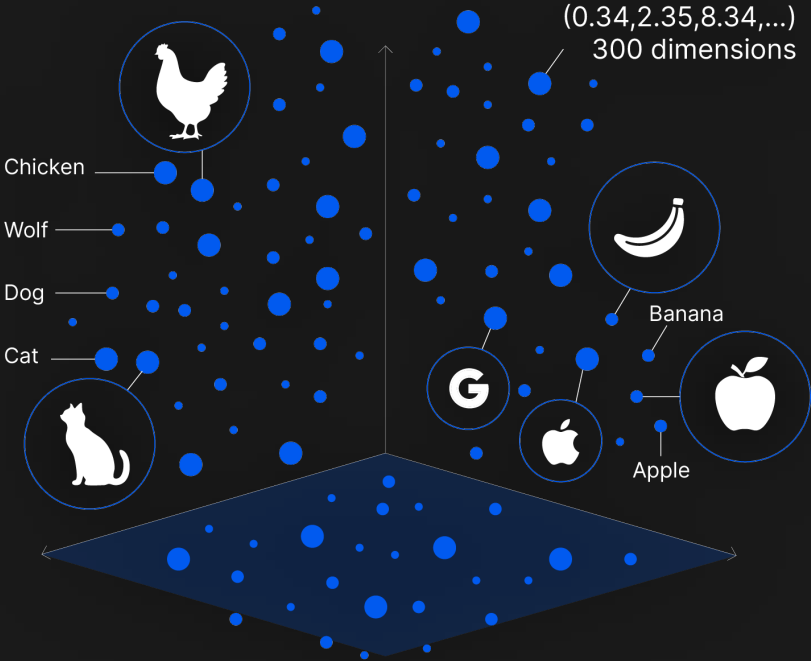
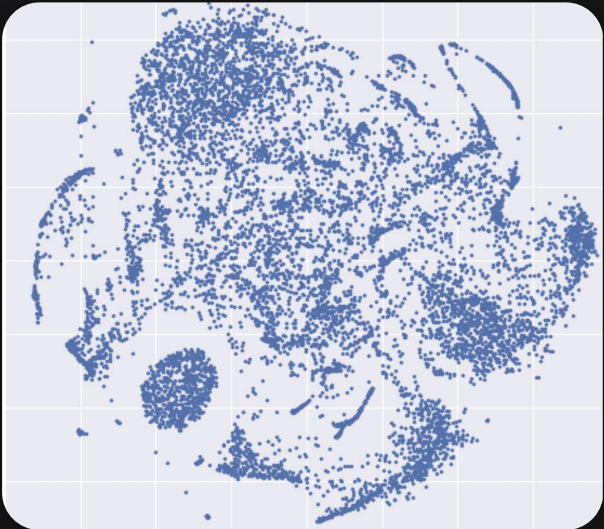
What's Behind the Prompt 2023: *NL Chat*



What's Behind the Prompt 2024: *RAG*



Example: *Vector Database*



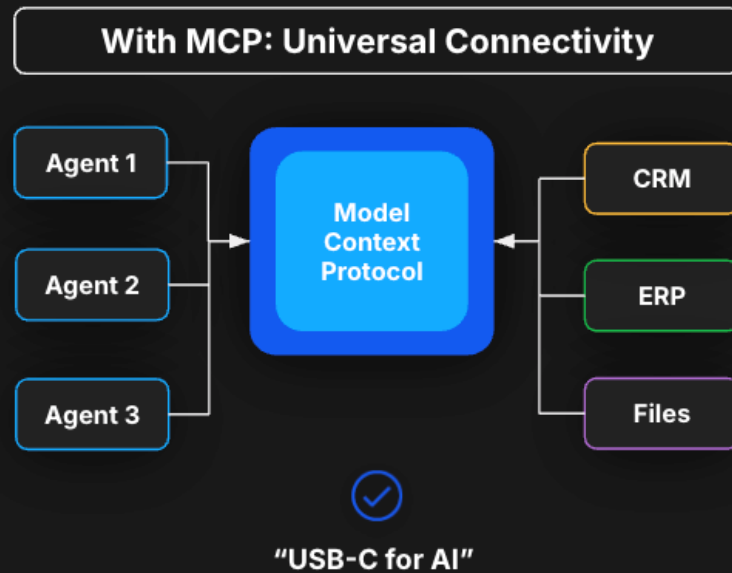
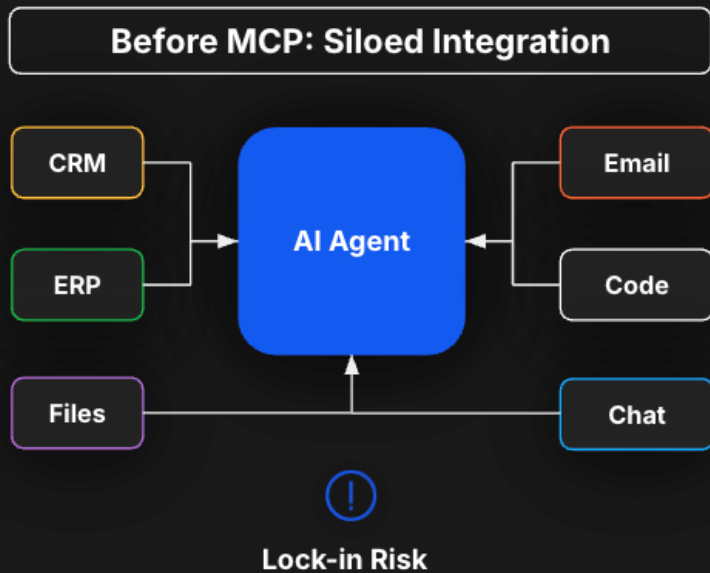
What's Behind the Prompt 2025: *Agents*



What's Behind the Prompt 2025+: *MCP*



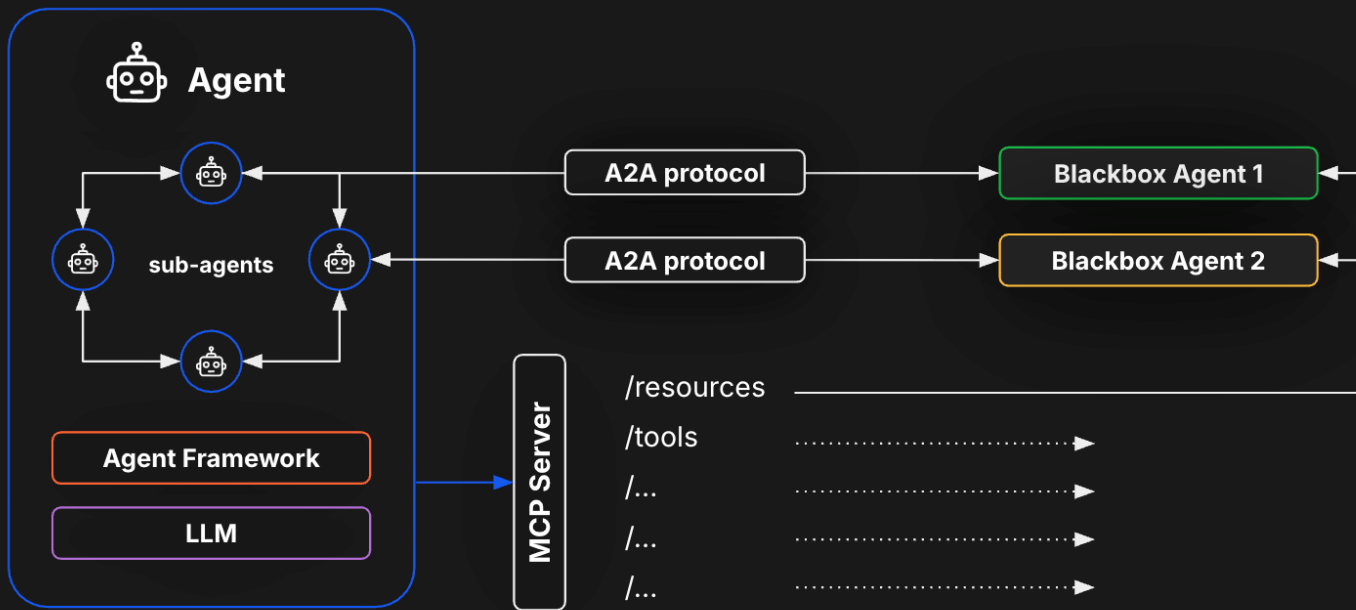
Model Context Protocol



What's Behind the Prompt 2025+: *A2A*

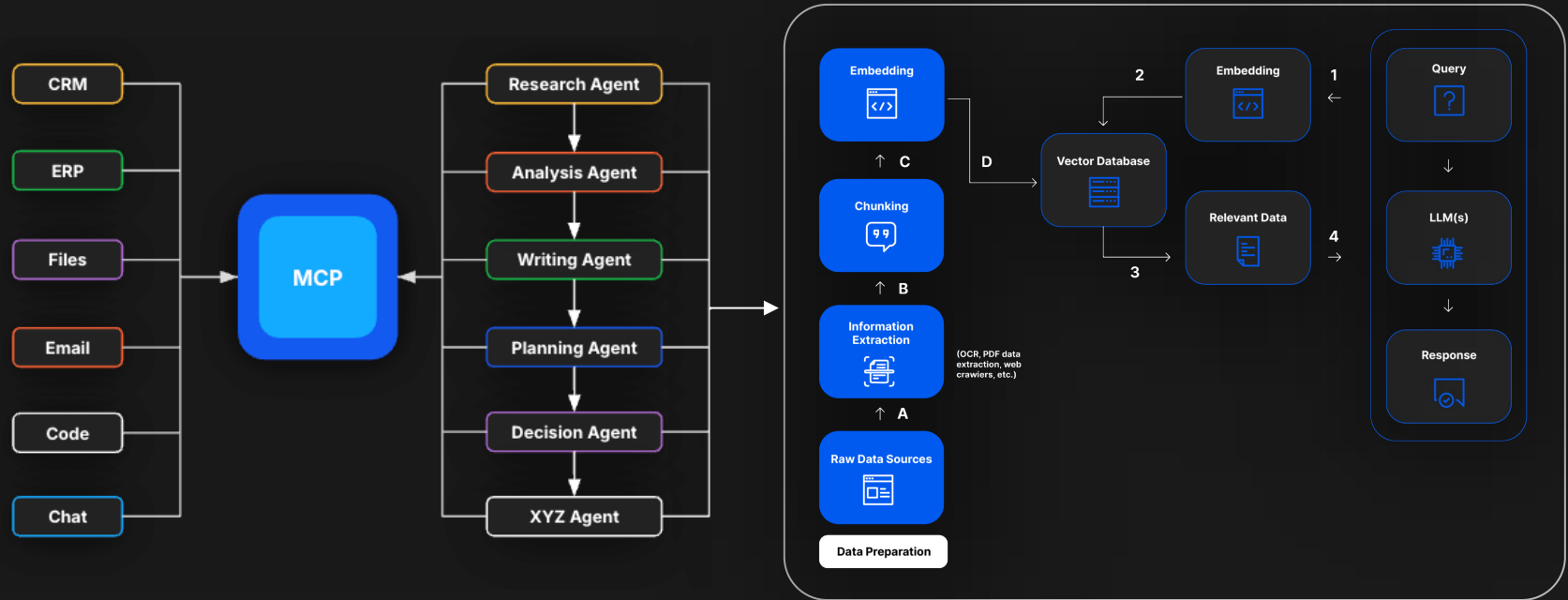


Agent-to-Agent



What's Behind the Prompt 2025+:

Interoperability



AI with *ROI*



The Challenge

Systems are more complex
and teams are expected to do
more with less.

Applications have significantly
more features than just two
years ago.

Traditional workflows
can't keep up.

Our Solution

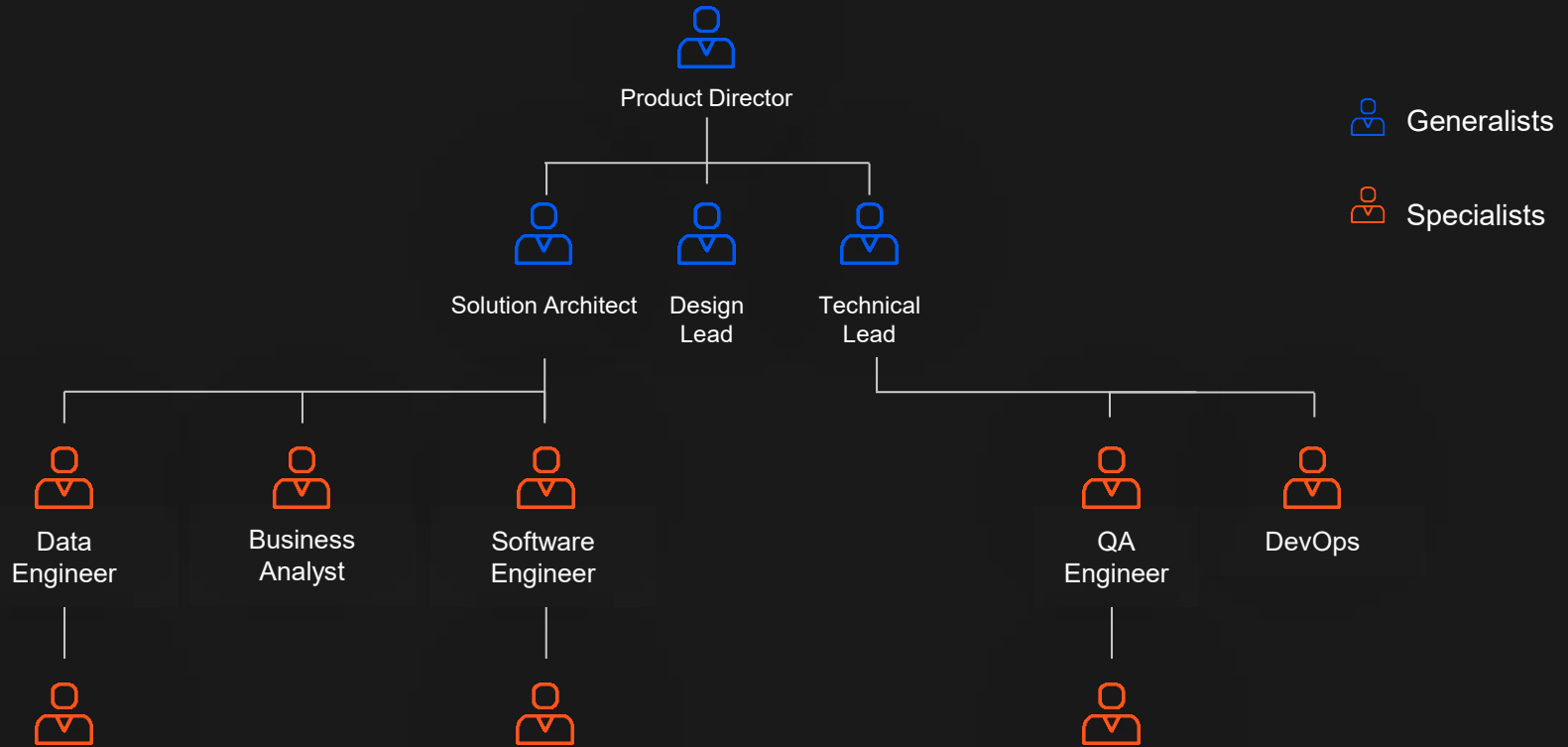
AI agents handle low-level
tasks, while experts guide
the process.

25% faster delivery
+
33% fewer resources
=
50% efficiency increase

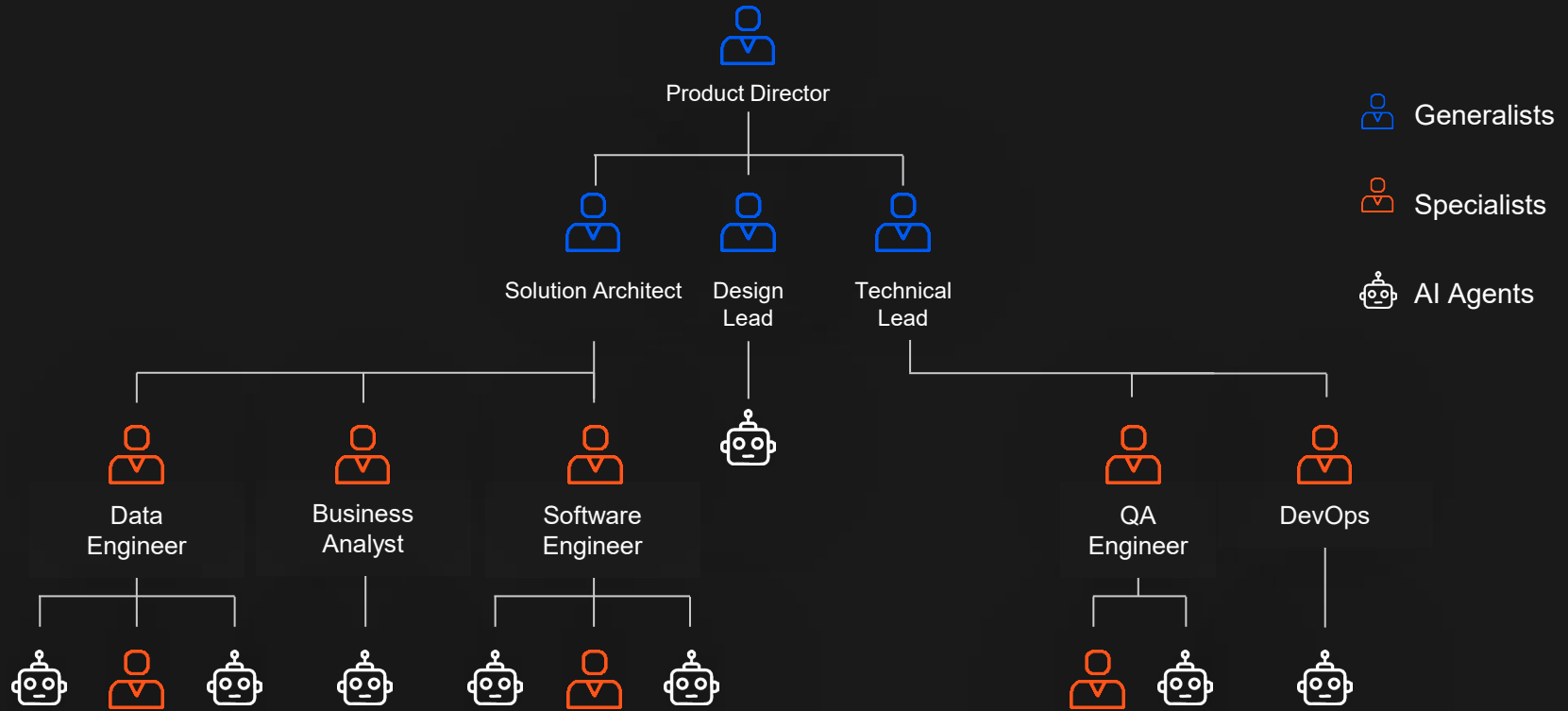


**The AI-first methodology that enables our
people, processes, and tools to deliver
*better results faster.***

DB90: The *traditional* digital team structure



DB90: The *new* digital team structure



DB90: Build faster, *build better*



DB90 speeds up software development by using AI tools, guided by experts, to handle time-consuming tasks. This boosts productivity, reduces repetitive work, shortens time to market, and improves software quality.

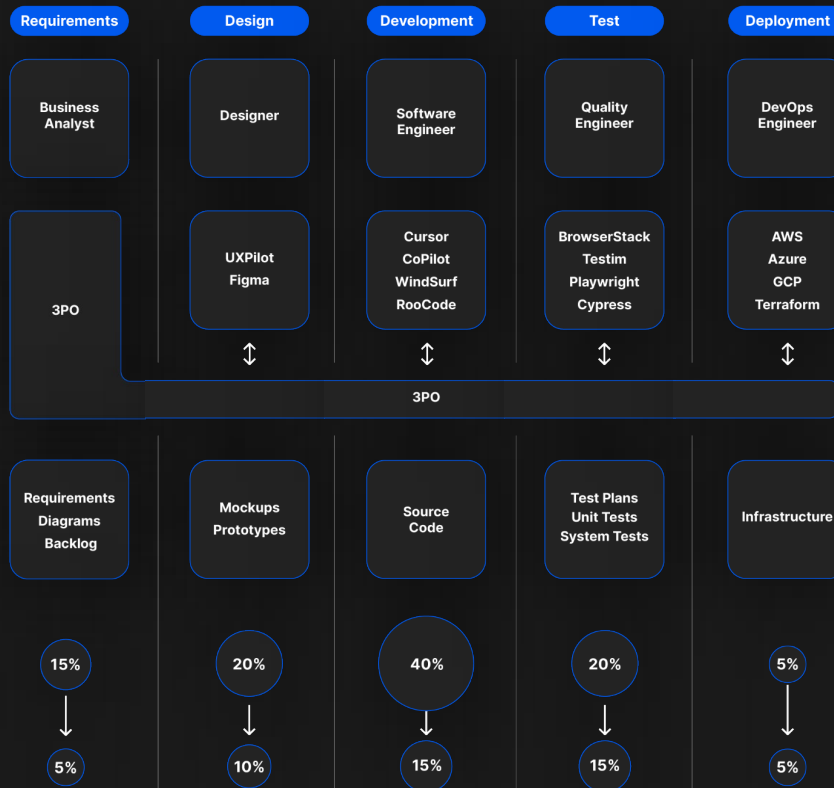
Operators
Human experts operate the AI tools

AI Tools
Tools provide custom interfaces for operators to engage the AI agents

Artifacts
Similar to traditional SDLC

Efficiency Gains
50% efficiency gain

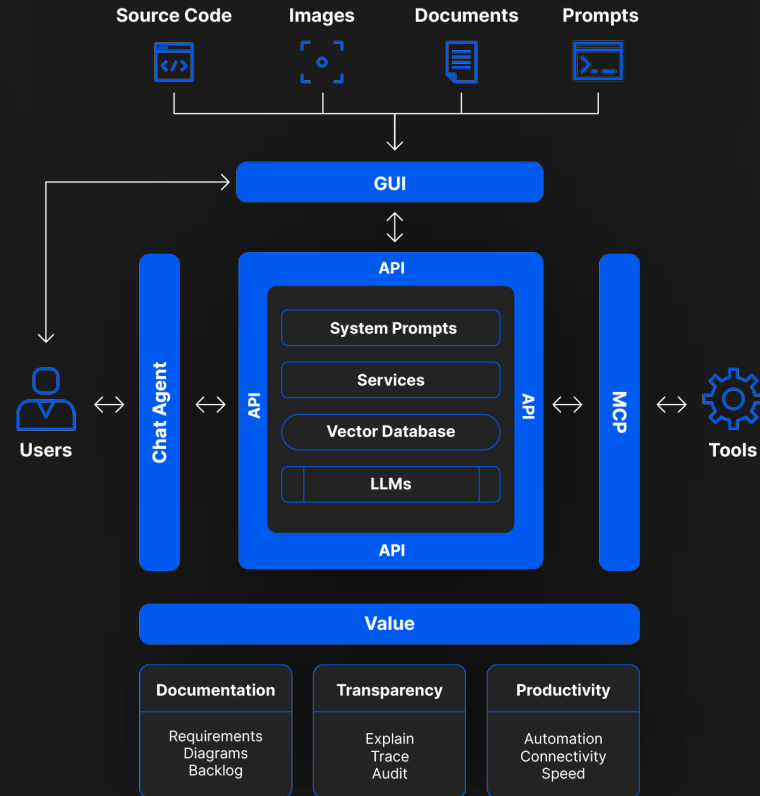
100% → 50%



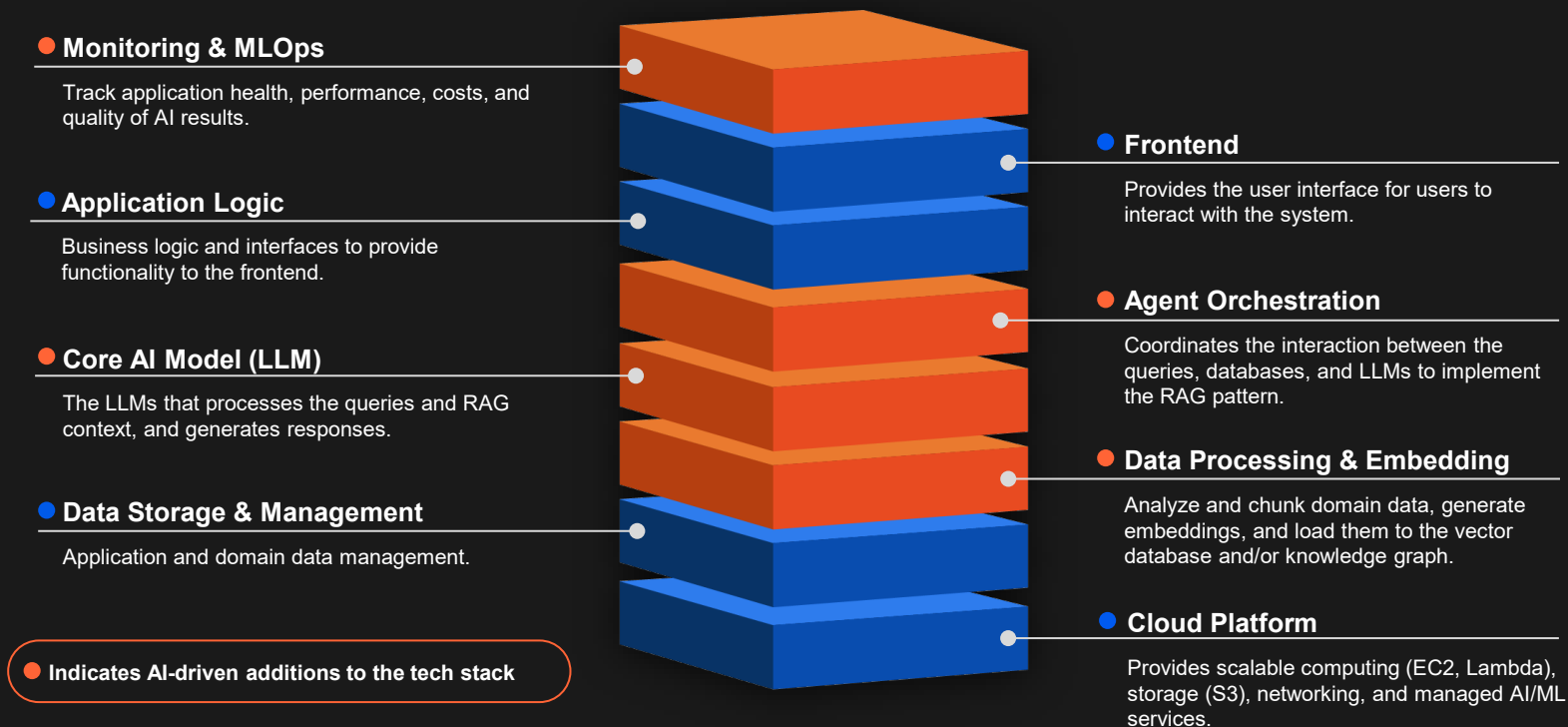
3PO: *AI-First* Software Modernization Tool



3PO speeds up kickoff, captures requirements faster, and helps teams get started quickly—so you can start building or modernizing faster with less effort.



The New AI Stack: It's Not Just Models



Deterministic vs Probabilistic Systems



Deterministic systems

- ⌚ Predictable outputs
- ⌚ Same input = same output
- ⌚ Rules are hand-coded
- ⌚ Traditional software

$$2 + 2 = 4$$

Probabilistic systems (like genAI)

- ⌚ Output is based on probability
- ⌚ Same input \neq same output
- ⌚ Learns from data patterns
- ⌚ Generative AI systems

$$2 + 2 = ?$$

Compounding Rate of Change



Dimensions



Algorithms



Chips



Data Centers

Rate of Change

1 year

2 years

4 years

Results

Algorithms

x

Chips

x

Data Center

= 1,000,000 better

AI Strategy in One Slide:

Start Smart, Scale Fast, Stay Ready



Where to Start

- ① Identify 1–2 high-friction tasks ripe for automation
- ① Use your company's data to ground the model (RAG > fine-tuning)
- ① Measure speed, accuracy, cost-per-call
- ① Pilot for impact, not perfection



Build vs. Buy

- ① Ask yourself:
 - Is this core IP or internal productivity?
 - Do we need full control or fast time-to-value?
 - Do we have (or want to build) AI expertise in-house?
- ① Mix custom + off-the-shelf where it makes sense



Org Readiness

- ① Emerging roles to plan for:
 - Prompt Engineers → optimize model inputs
 - AI Product Managers → own outcomes
 - LLMops Engineers → monitor & improve model performance
 - AI Governance → manage risk, compliance, and trust

Q&A



Where Can AI Move the Needle for You?



Ben Gilman

ben.gilman@dualbootpartners.com