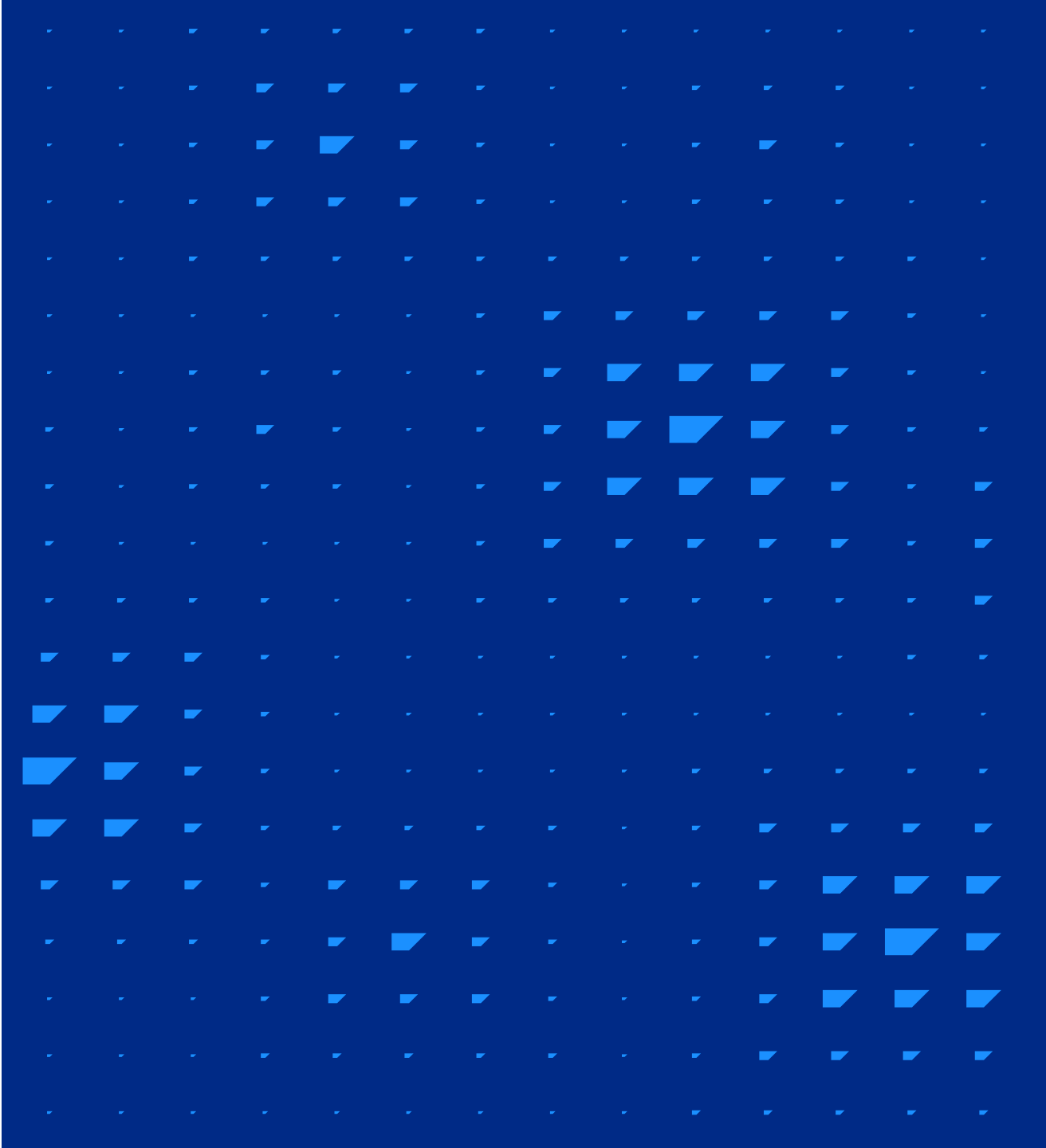




Building Modern CAP Applications with Best Practices & AI

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June 2026



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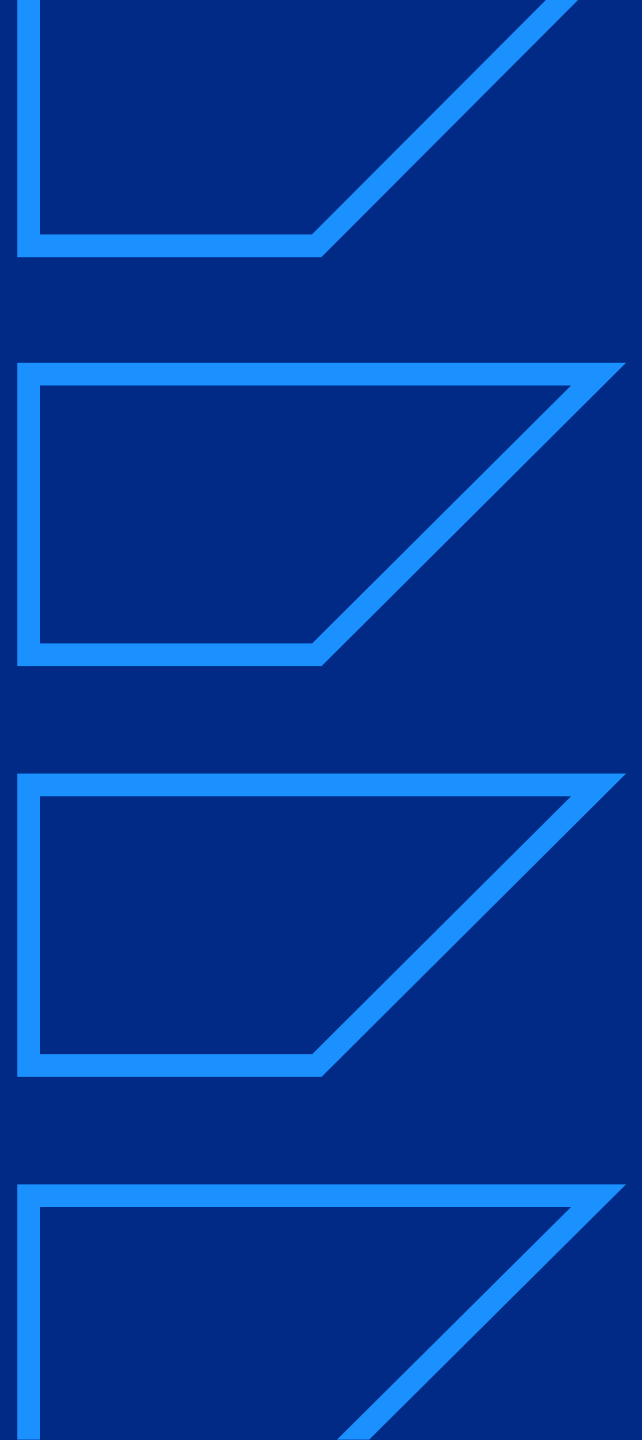
Agenda

01 Intro

02 AI-Assisted CAP Development

03 AI-Powered CAP Apps

04 Outlook



CAP AI Strategy

AI-assisted CAP Development

Public documentation on **CAPIRE** as most important asset for coding agents

...guided by **MCP Development Server**

...augmented by curated set of **Skills** *

...

AI-powered CAP Apps

Build **CAP-based agents** while profiting from CAPs enterprise qualities *

Use AI capabilities like **RPT-1 (AI Core)** out-of-the-box

Support **Fiori Smart UI Features** out-of-the-box

Enable any CAP App to be consumed by Agents via **MCP Adapter** *

First-class support for **Embeddings** enabling semantic search & RAG use cases

...

Following CAP Best Practices

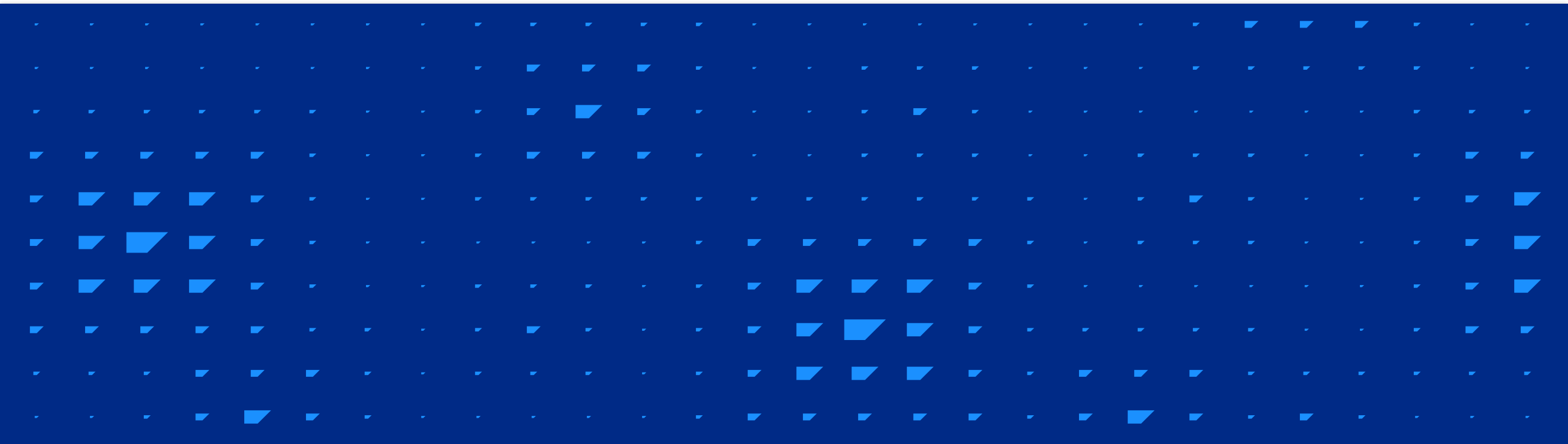
Out-of-the-box: zero config, low entry barrier

No lock-in: industry standards (MCP, A2A)

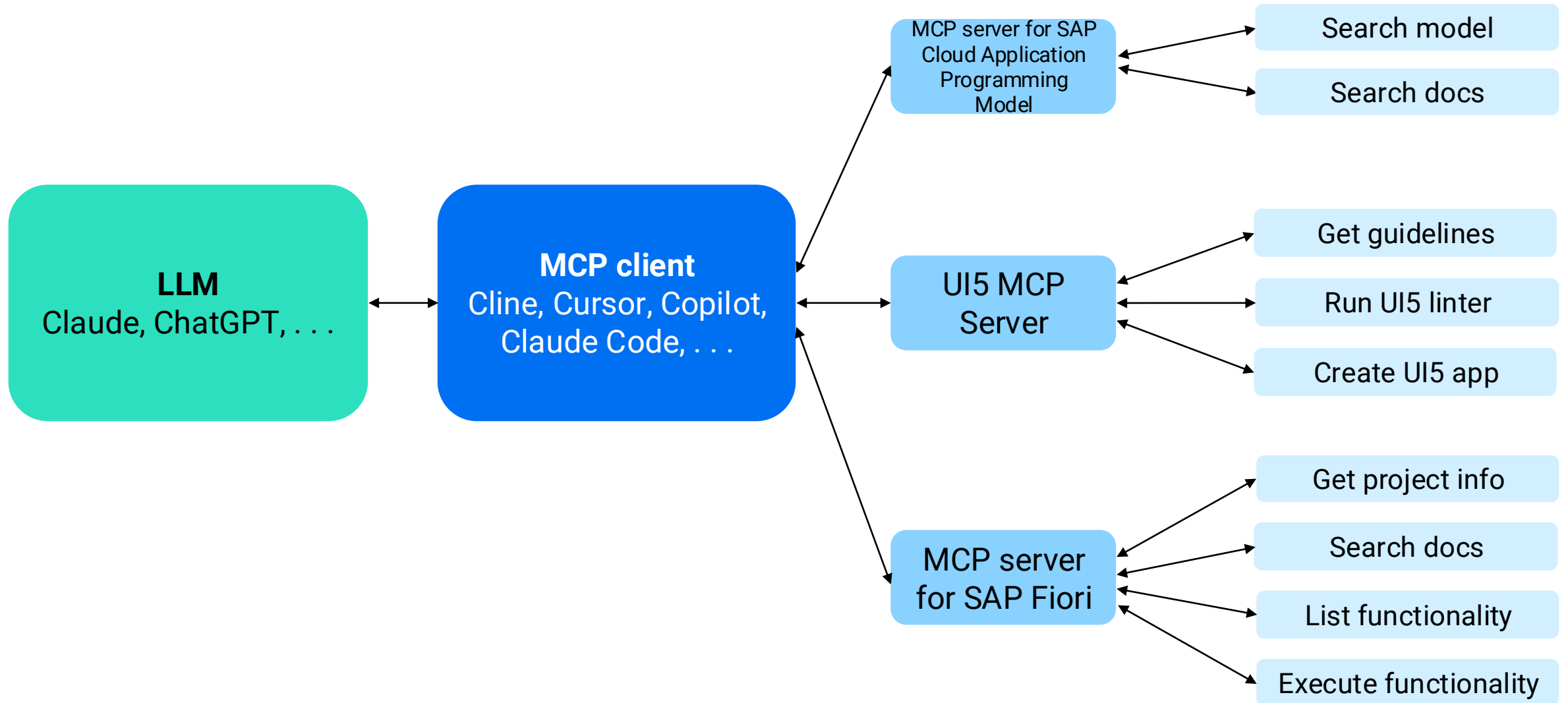
CALESI-fied: everything is a service, local development, extensible

Reality check: validated with SAP frontrunners

AI-assisted CAP Development



MCP servers for Golden Path development on SAP BTP



Skills Library

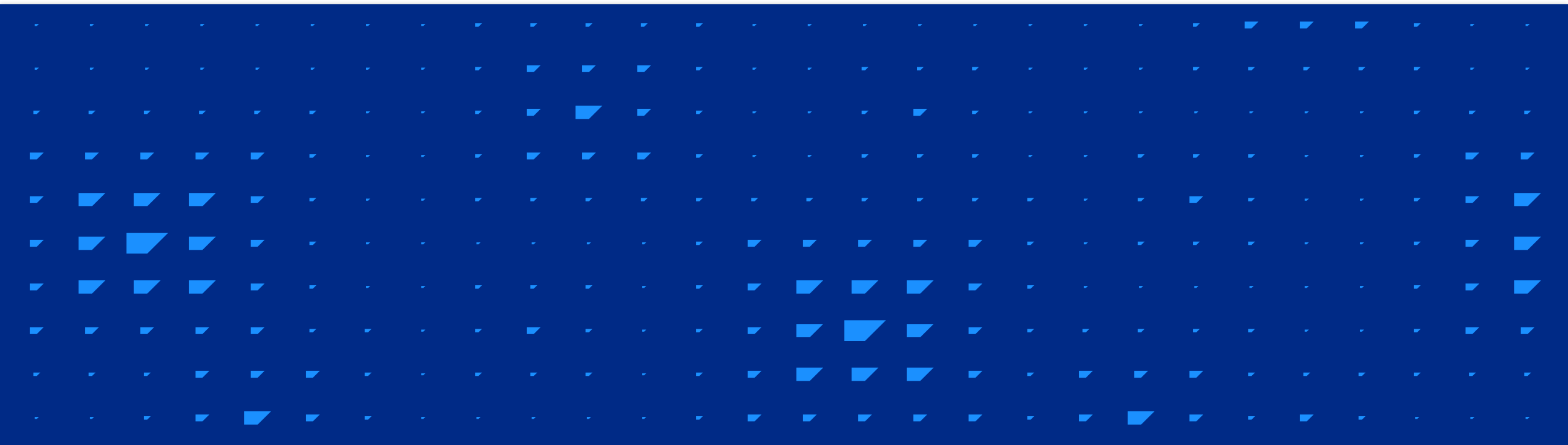
Set of skills helping agents to build state of the art CAP apps:

	With skill	Without skill
Best Practices	Latest best practices	Inconsistent projects, tutorial guides, training cutoff dates
Features	Includes latest features	Training cutoff dates
Workflows (like adding remote services)	Clear sequence on how to achieve it best	Potentially different sequence in every run
Options	Skills define one way to solve a task that works well	Documentation shows all possible ways



Blog: [Teaching AI Agents Best Practices: A Skills Workspace for CAP Development](#)

AI-powered CAP Applications



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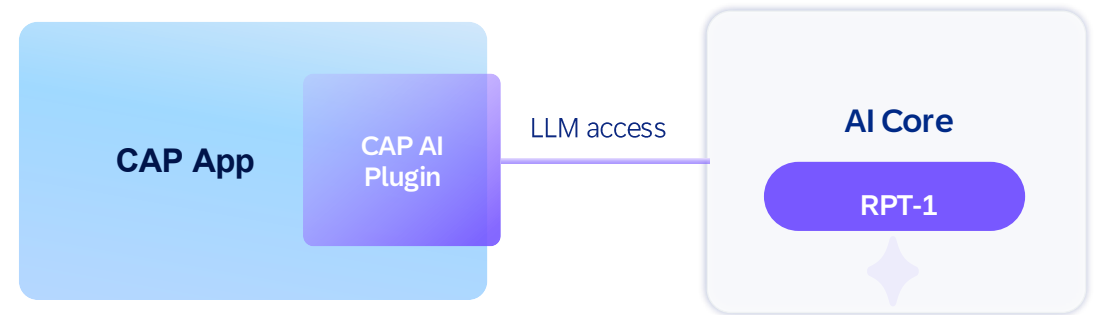
Reality check: validated with SAP frontrunners

* This is the current state of planning and may be changed by SAP at any time.

CAP AI Plugin

Effortlessly infuse AI capabilities in CAP applications

- Builds on SAP's AI Core and RPT-1, which are rather low-level though
- [@cap-js/ai](https://github.com/cap-js/ai) plugin helps integrate it with minimal configuration
- Out-of-the-box **AI Input Assistance** for SAP Fiori Elements UIs



The screenshot shows a SAP Fiori Elements UI for a book. The main content area has a 'Description' section with a rich text editor toolbar and a text area containing the following text: "Jane Eyre /ɛər/ (originally published as Jane Eyre: An Autobiography & Co. of London. The first American edition was published the following year, including her growth to adulthood and her love for Mr. Rochester. The development is told through an intimate, first-person narrative, which is based on a sense of Christian morality at its core and is considered by many to be a classic of religion and feminism."

Below the description is a 'Book details' section with the following fields:

- Title: * Jane Eyre
- Genre: Drama (11)
- Author: * Charlotte Brontë (107)
- Stock: 20

A dropdown menu is open over the 'Stock' field, displaying a list of currency recommendations. The menu title is "Recommendation based on your business data." The list is divided into two sections: "Recommendations" and "Others".

Recommendations
Pound (GBP)

Others
Peseta (ADP)
Dirham (AED)
Afghani (AFA)
Afghani (AFN)
Lek (ALL)
Dram (AMD)
W.Ind.Guilder (ANG)
Kwansa (AOA)
New Kwansa (AON)
Kwansa Reajust. (AOR)
Arg. Peso (ARS)
Shilling (ATS)

The dropdown menu is currently set to 'GBP'.

Vector Embeddings Support

Enabling semantic search, RAG, recommendations

- `Vector` datatype for embeddings
- `vector_embedding()` function to store embeddings on-write
- APIs for Java and Node.js to do similarity searches
- See [documentation](#)

Benefits

- First-class support in CDS and runtimes
- Apart from SAP HANA, works with SQLite and H2

```
extend Incidents with {  
    embedding : Vector = vector_embedding(  
        'Title: ' || title || ', Summary: ' || summary,  
    ) stored;  
}
```

```
// Compute embedding for user question Java  
var query = CQL.val(  
    "Any incidents with solar inverters this month? How were they resolved?");  
var embedding = CQL.vectorEmbedding(query, TextType.QUERY, "SAP_GXY.20250407");  
  
// Compute similarity between user question and incident embeddings  
var similarity = CQL.cosineSimilarity(CQL.get(Incidents.EMBEDDING), embedding);  
  
// Find Incidents related to user question ordered by relevance  
Select.from(INCIDENTS)  
    .columns(i -> similarity.times(100).as("relevance"),  
            i -> i.ID(), i -> i.title(), i -> i.summary(), i -> i.date())  
    .where(i -> similarity.gt(0.75))  
    .orderBy(i -> i.get("relevance").desc());
```

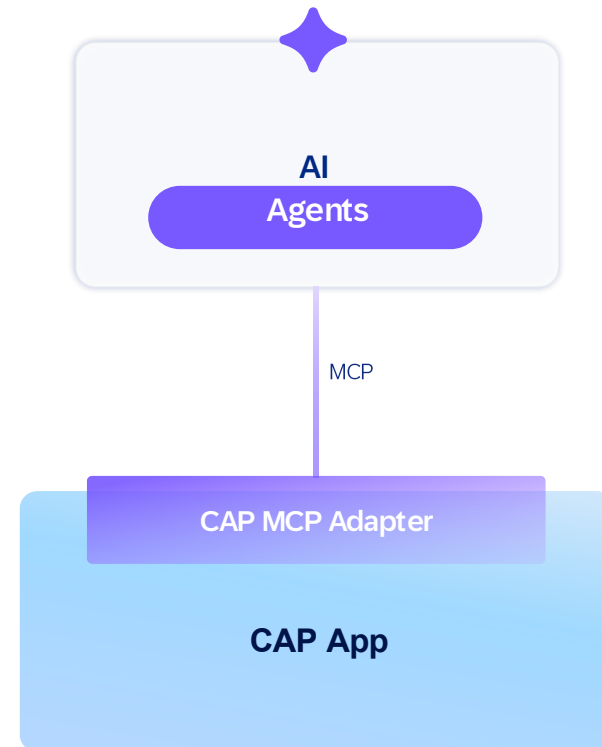
CAP MCP Adapter

Expose data/services of any CAP application via MCP protocol

- MCP is de-facto industry standard protocol for service access in the agentic AI world
- CAP MCP Adapter is a **protocol adapter** that allows to expose CAP services via MCP protocol (just as any other protocol, i.e. OData, REST, GraphQL, etc.)
- Just use the **@mcp** annotation

Benefits:

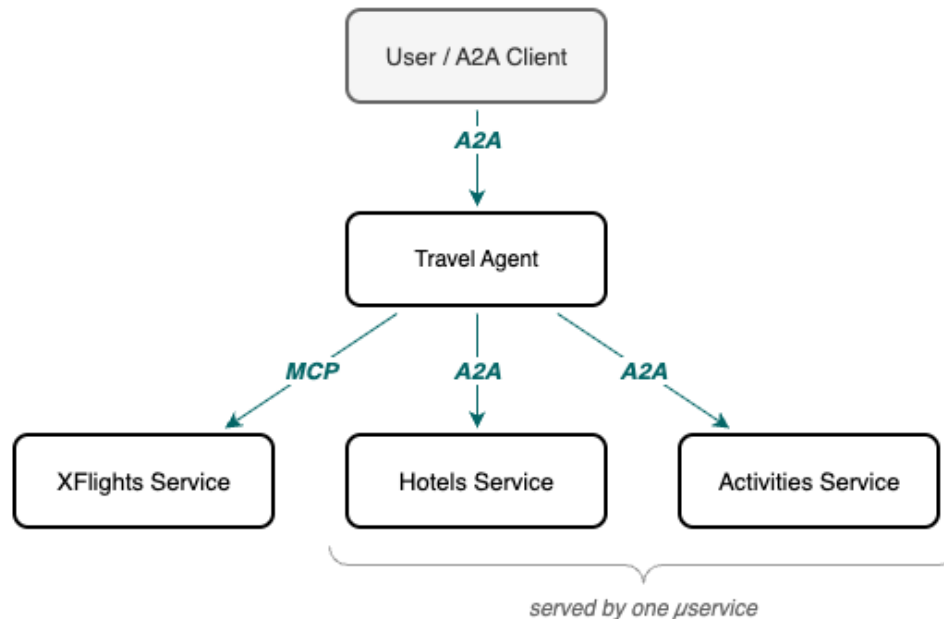
- Make use of CAP's enterprise capabilities ootb
- Intent/declarative, instead of writing code
- Enables any (brownfield) application to be consumed by agents



CAP-based Agents

- Agentify existing CAP apps with @a2a
- Easily create markdown-based agents

Travel Agent Scenario



completed compliant

All Booked! Your Paris Weekend is Confirmed!

FLIGHTS - CONFIRMED

Outbound Flight

- **Booking ID:** ebc2d276-0d2f-48de-9f50-f997bfcdc9e5
- **Flight:** EA0500 on May 28, 2026
- **Route:** JFK → CDG (Paris)
- **Time:** Departs 19:00, arrives 08:15 (May 29)
- **Price:** €3,890
- **Status:** CONFIRMED

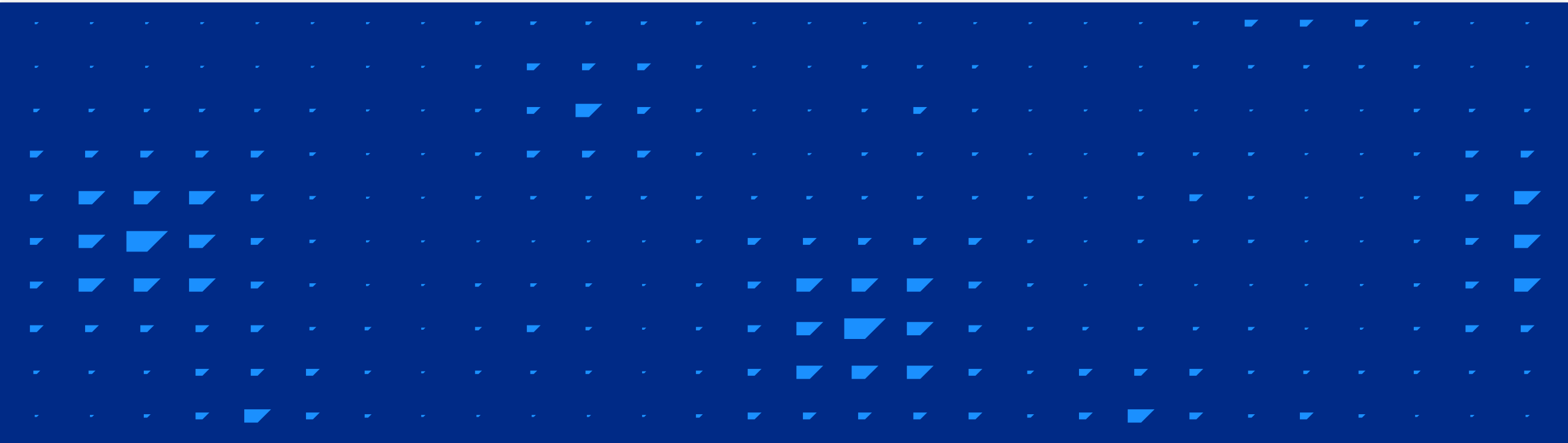
Return Flight

- **Booking ID:** d88a9ea3-f8d9-44bb-bae0-c23efa511ccb
- **Flight:** EA0501 on May 29, 2026

Plan a trip — coordinat...

Type a message or JSON...

Outlook



Why AI Adoption is Breaking Today



Execution Without Outcomes

95%

of AI pilots failed to deliver measurable ROI

MIT GenAI Divide Report, 2025



The Context Gap

42%

say lack of high-quality, proprietary data blocks AI adoption

IBM, 2025



Governance Paradox

24%

of firms can monitor what their agents are doing

Cisco, Jan 2026



Joule Studio

A unified, AI-first development environment for creating agents, apps, and workflows.



Joule Studio

Build Trusted Custom Agentic Solutions



Intent Based Development

No Code to Pro Code | Any Tool, Many Frameworks | Agents, Apps & Workflows



Business Context

SAP Knowledge Graph | SAP Domain Models | SAP Data, Processes & Apps



Trusted Governance

Agent Observability | Process Insights | Managed Runtime

For further information see the [Joule Studio product page](#).

Mark your Calendar!



- The next **CAP Customer Roundtable** is planned for June 17, 2026, 10:00 AM CEST. Further information: [CAP Customer Roundtable](#)
- [Code Connect](#) takes place from **July 13 to 16, 2026** in St. Leon-Rot, Germany or online.

Code Connect is THE SAP developer conference combining:

- July 13: CodeJam Sessions
- July 14: [UI5con](#) – the UI5 community event
- **July 15: [reCAP](#) – one day all around CAP**
- July 16: [HANA Tech Con](#) – the HANA community event

Thank you.

