

Agentic Orchestration

Long-Running AI Agents in
Enterprise Architectures

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A fundamental transformation

CAMUNDA

“

“Agentic AI systems are poised to not only become the backbone of the knowledge economy but will completely redefine how organizations operate and compete.”

FORRESTER®

”

I am sorry...

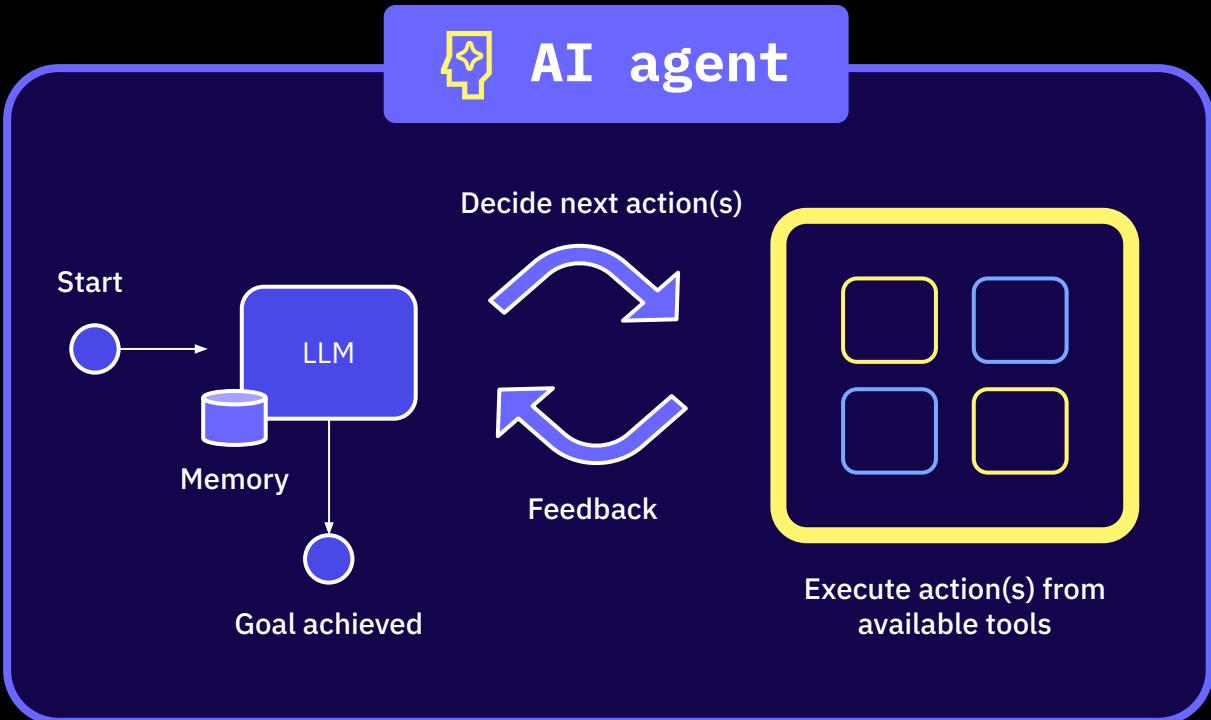


What is
Agentic AI?

AI Agents

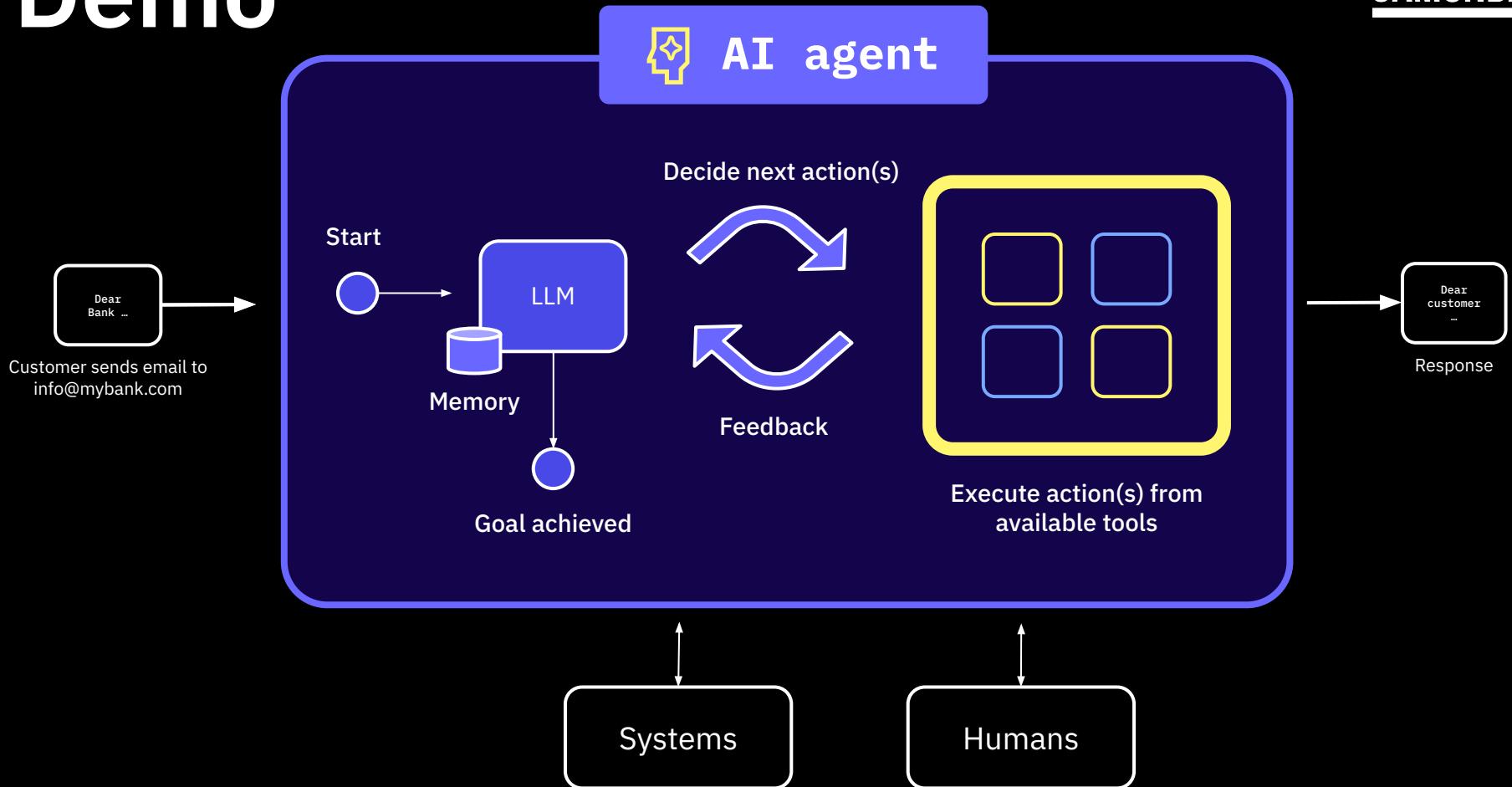


Perform
multiple steps
to achieve a
complex goal.
They
orchestrate!



Demo

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Live demo



Building agents with BPMN

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The screenshot shows the configuration of an AI Agent named "Account Support". It includes fields for "Name" (Account Support), "Model provider" (OpenAI), "System prompt" (a template for the AI's responses), and "Secrets" (containing the OpenAI API key). A dashed blue line connects this interface to the BPMN diagram on the right.

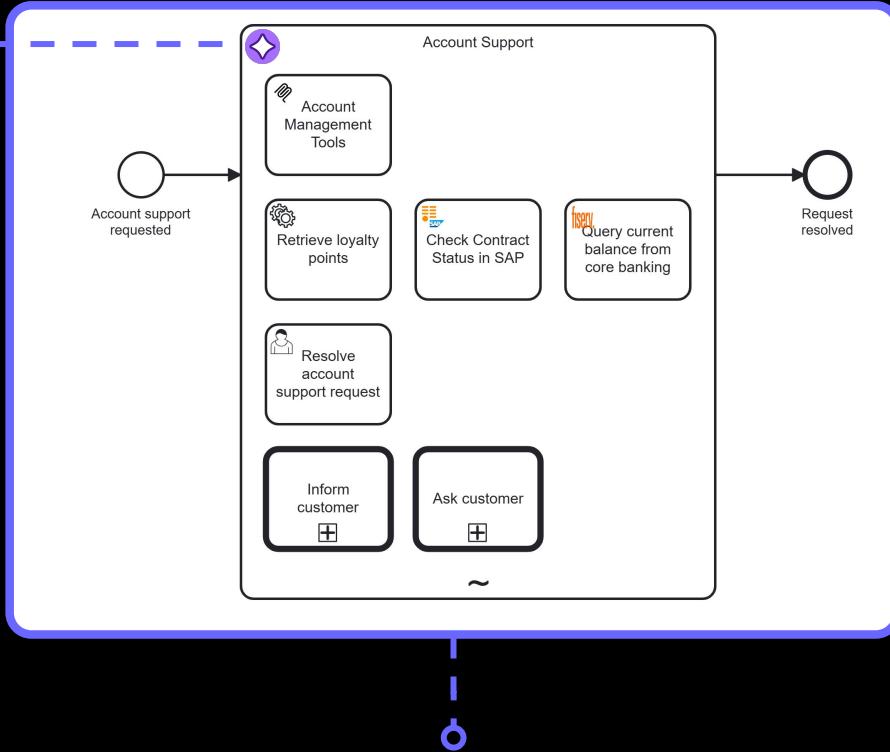
AI AGENT
Account Support

General
Name
Account Support

Model provider
Provider
OpenAI
Specify the LLM provider to use.
OpenAI API key *fx*
{{secrets.OPEN_API_KEY}}

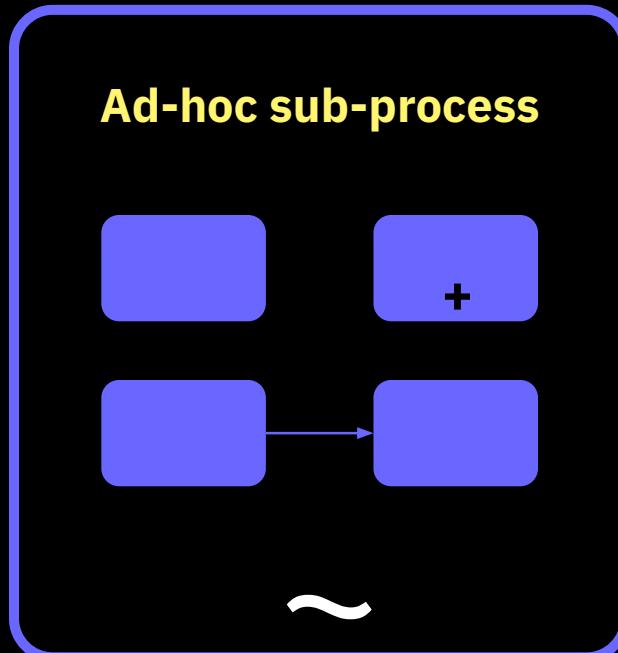
System prompt
System prompt *fx*
= "You are TaskAgent, a helpful chat agent that handles customer conversations using domain knowledge and the tools provided at runtime."

The agent is configured with **LLM provider, prompt, and additional features.**



Agents can be long running

Ad-hoc sub-process – Why it's perfect for Agentic Orchestration



Capabilities

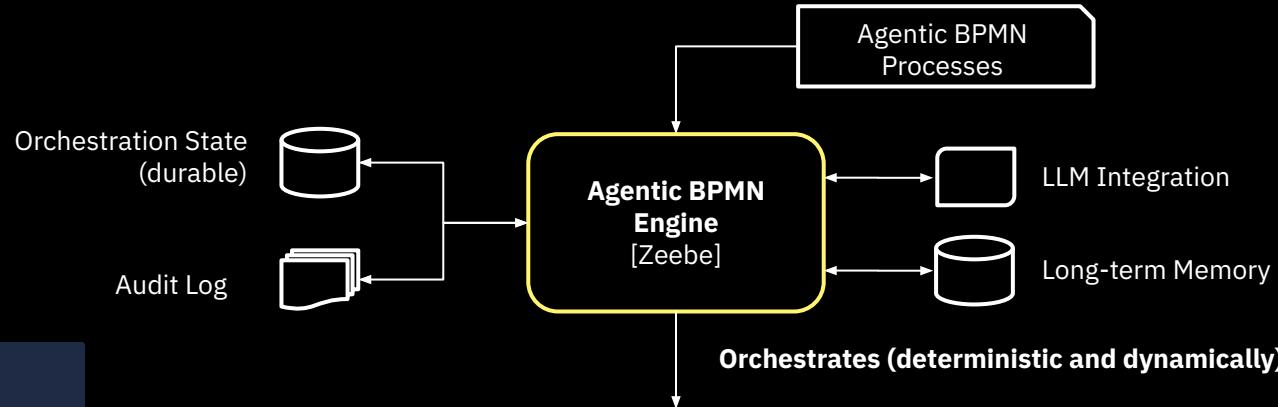
- Exposes a palette of tasks without prescribing sequence or which task must run.
- Agent (human or AI) decides at runtime which tasks to execute and in what order.
- Can contain nested subprocesses (ad-hoc or event-based)
→ enables multi-agent planning and real-time reactions.
- Persists state and progress in Zeebe
→ safe for long-running, interruptible work.

Use Cases

- Human case-management
- AI task- or case-agents

Agentic BPMN Engine (Camunda 8.8)

CAMUNDA



tools

Humans in the Loop

AI-based Automation Patterns

Traditional Automation Patterns

(Supervisor or Task Worker)

Agents

AI computer use

...

RPA

Document Automation

Decision Automation

...

System Integrations (APIs, Events, Documents, Data)

REST

Messaging

MCP

A2A

SOAP

IMAP

SMTP

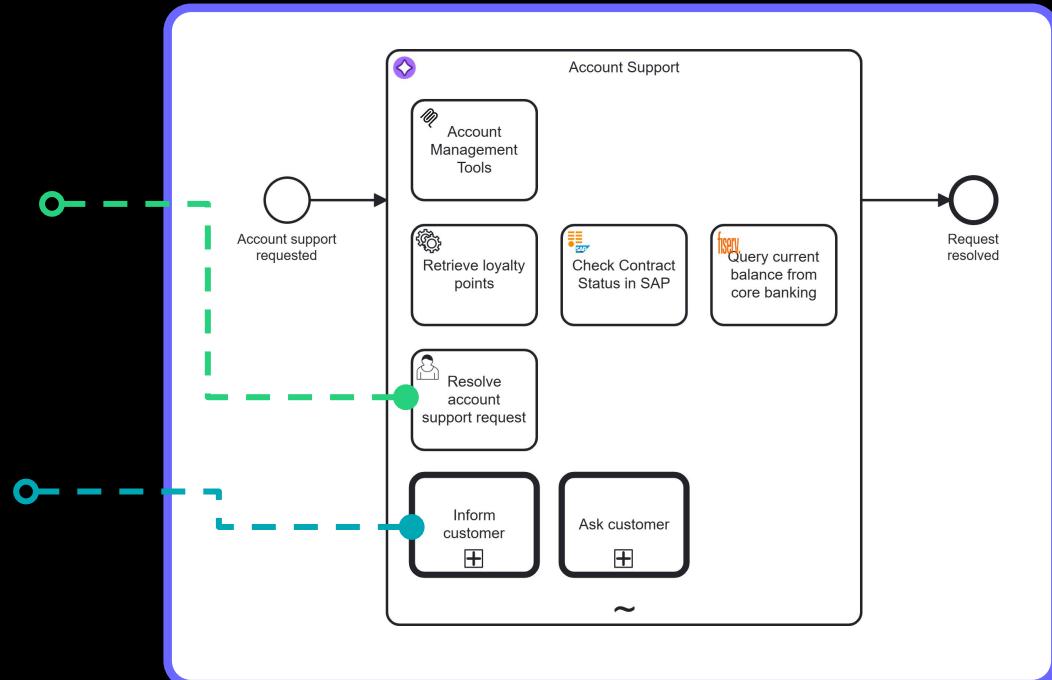
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Building agents in BPMN

CAMUNDA

Omnichannel employee engagement:
Agents can interact with the employees

Omnichannel customer engagement:
Agents can interact with the customer



Meet employees where they are

CAMUNDA



Stay focused



Act fast



Collaborate in context



Improve efficiency

Examples

Camunda Tasklist

All open tasks

Loan underwriting
Loan Application

Task Process

Loan underwriting

Customer

- ID: 851098765
- Name: Brandon Case
- Email: brandon.case@gmail.com

Loan

- Amount: USD 50,000.00
- Terms: 48 months

Risk assessment

Risk class: Low

MS Teams

Chat Home Tasks Processes Incidents

AI & Market Expansion

Loan underwriting

Customer

- ID: 851098765
- Name: Brandon Case
- Email: brandon.case@gmail.com

Loan

- Amount: USD 50,000.00
- Terms: 48 months

Risk assessment

Risk class: Low

Risk assessment: Based on the applicant's credit history, income stability, and debt-to-income ratio, the overall risk assessment is Low.

SAP

Camunda SAP BTP Plugin

Loan underwriting

Customer

- ID: 851098765
- Name: Brandon Case
- Email: brandon.case@gmail.com

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- Amount: USD 50,000.00
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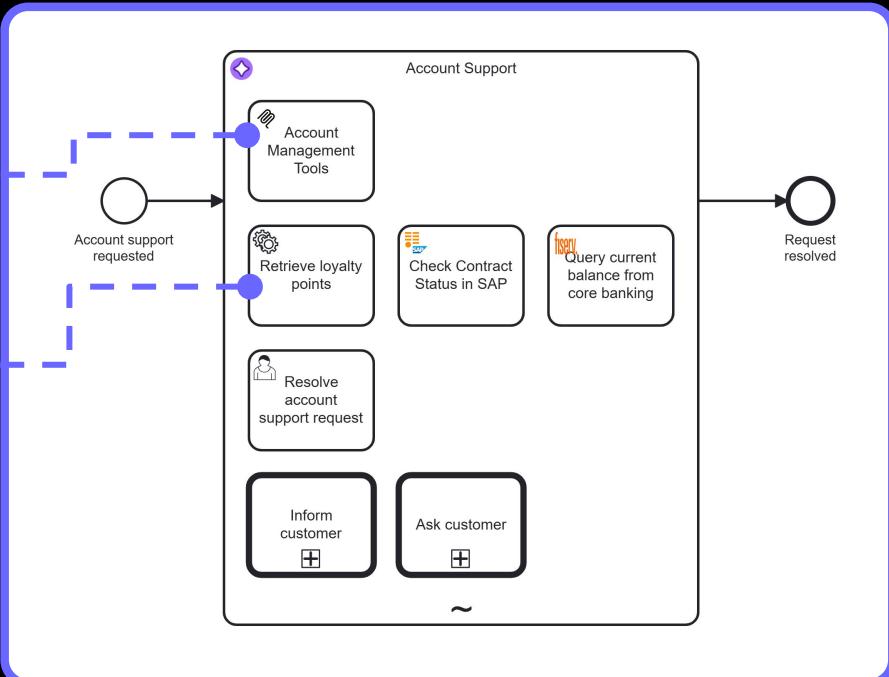
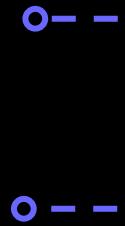
Building agents in Camunda

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MCP can be used locally or remote.
Tools are discovered dynamically,
but can be governed.

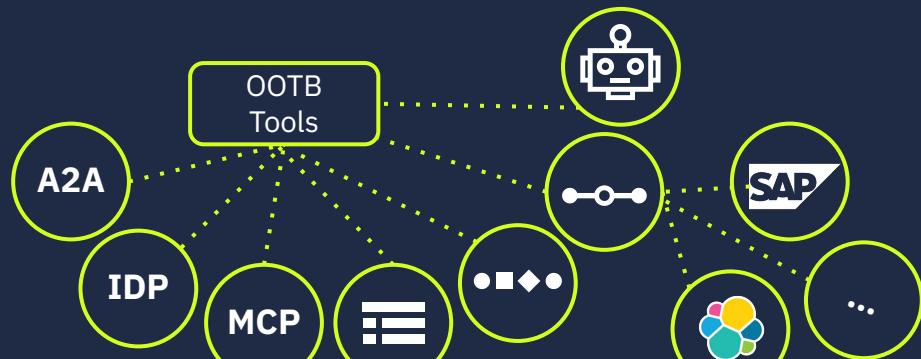
Everything available in BPMN
and Camunda can be a tool



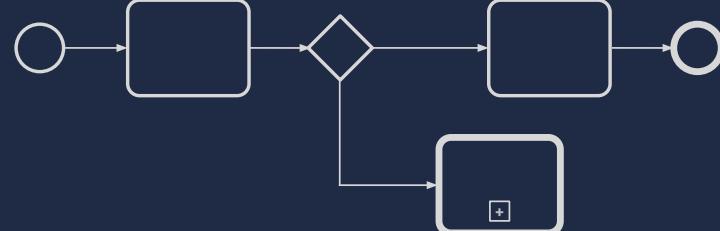
Everything can be a tool

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Camunda OOTB Automations



BPMN Process as tool



Classic Protocols

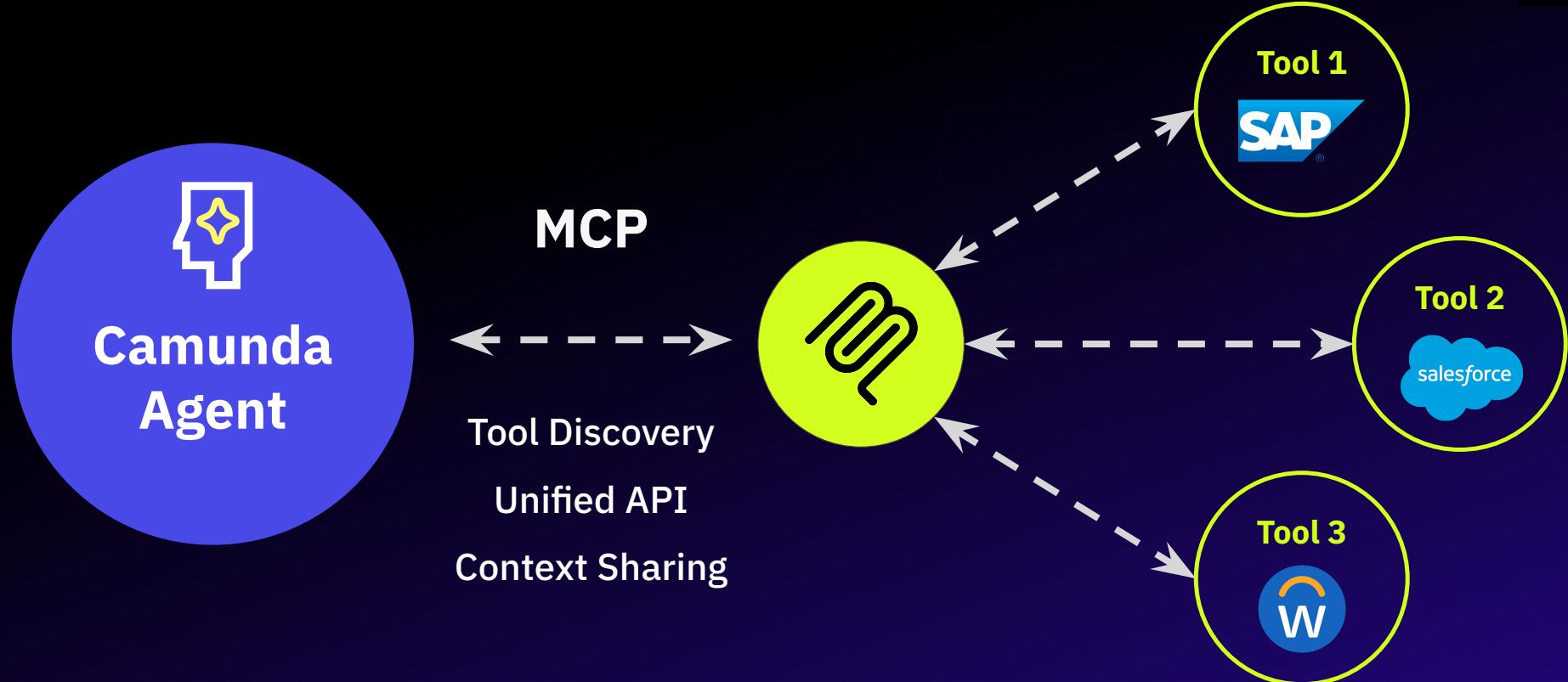


Pro Code Job Worker as tools



MCP Model Context Protocol

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A2A Agent to Agent

CAMUNDA



Camunda
Agent

A2A



Standardized
Secure
Reliable context + state
Zeebe durability



Low
code

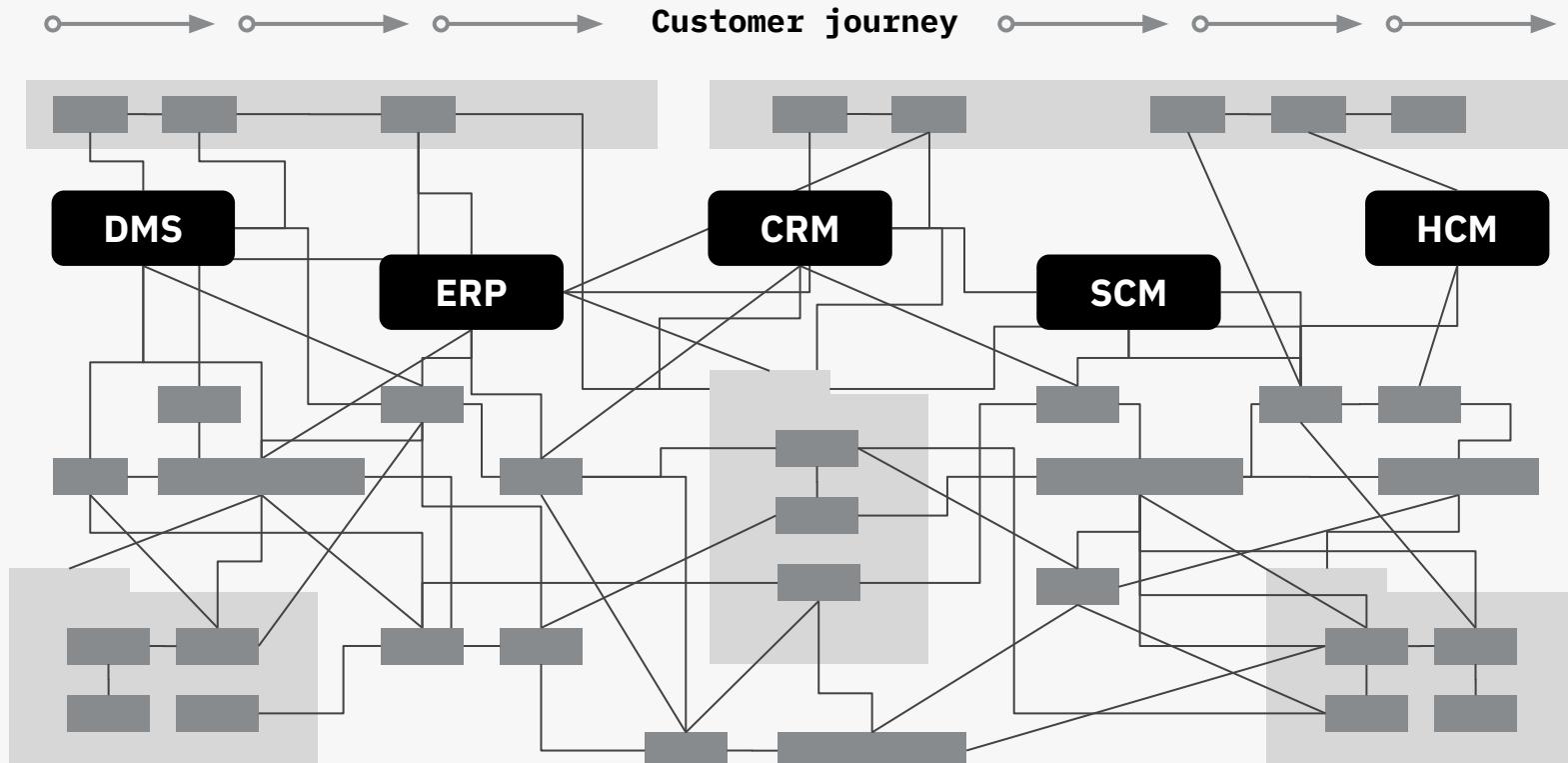
Pro
code

Scaling agents in the enterprise



Just throw in agents?

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Unleash the agents?

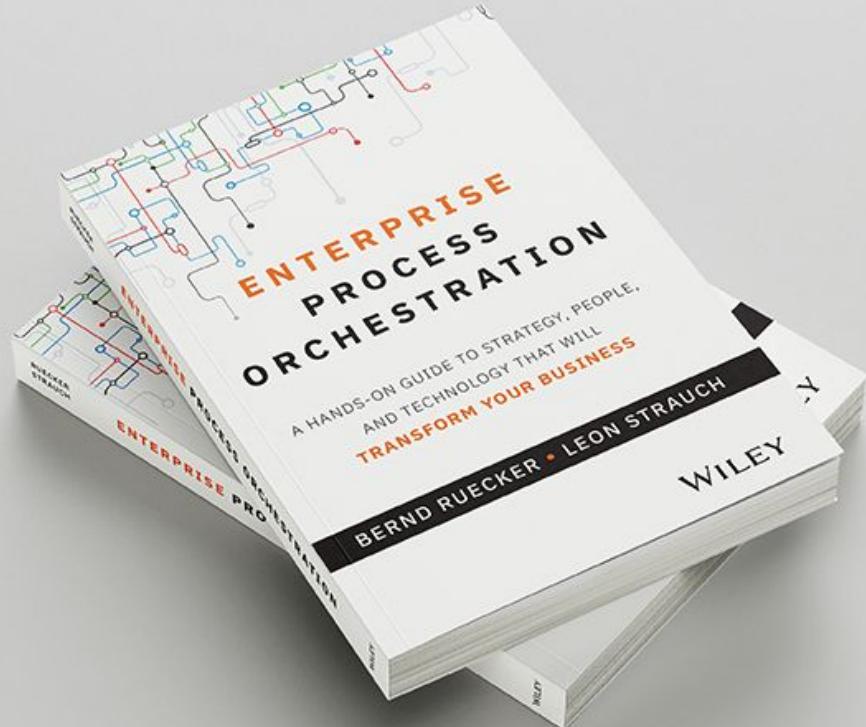


Learn from proven patterns:

Enterprise Process Orchestration

Topics include:

- Process orchestration as a centerpiece for IT strategies
- Enterprise architecture
- Business architecture
- Team topologies
- Platform play and adoption acceleration



Business architecture

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L3: Strategic
end-to-end
processes

Bank Support (Retail)

L4: Business
Capabilities

Sorted by
Domains

Shown in the
example

Customer & Account Servicing

Customer Data Management

Account Servicing & Maintenance

Card Servicing & Maintenance

Account Support

Card Support

Loan Servicing

Loan Offering

Loan Servicing

Loan Support

Financial
Transaction
Handling

L5: Integration
Capabilities/Tools

Card Management

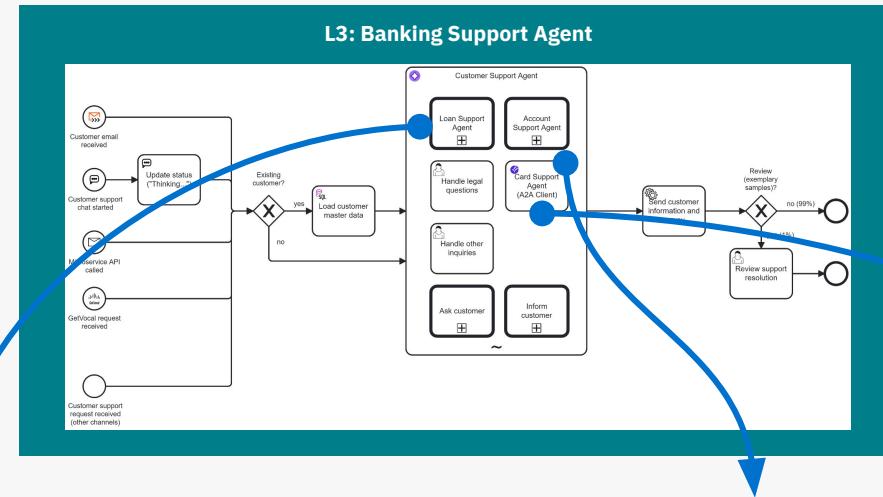
Account Tools

Loan Product Catalog

Loan Master Data
Management

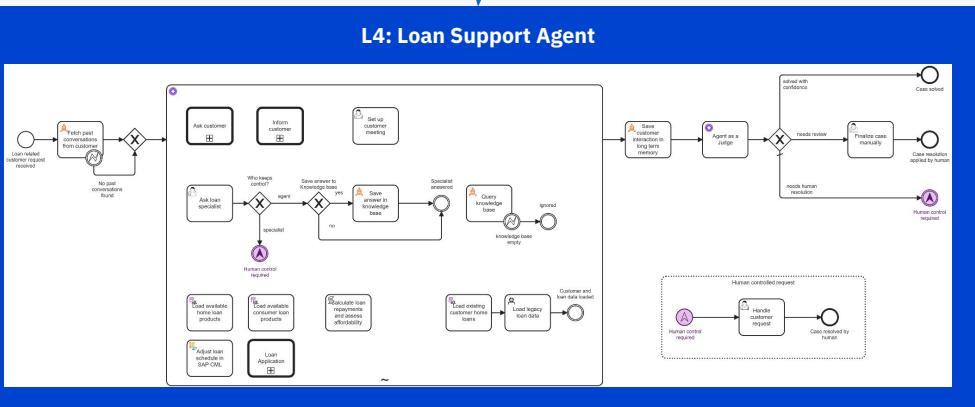
Demo

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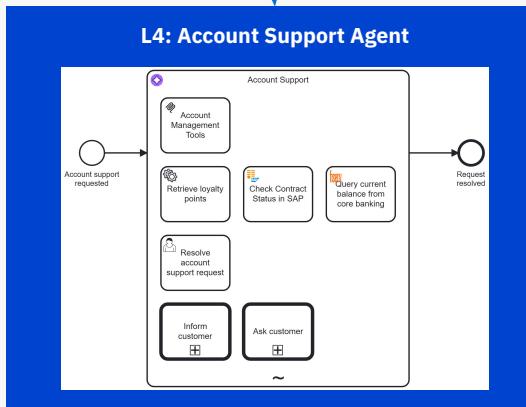


Invocations via BPMN, API, A2A, ...

L4: Loan Support Agent



L4: Account Support Agent

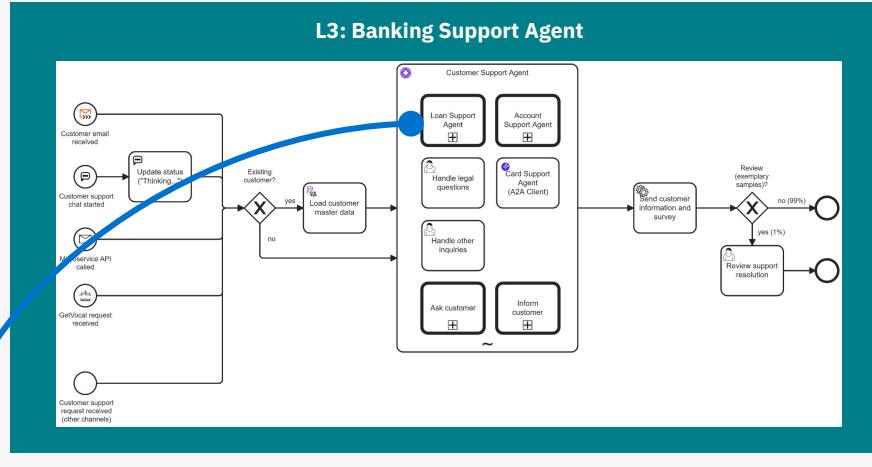


L4: Card Support Agent

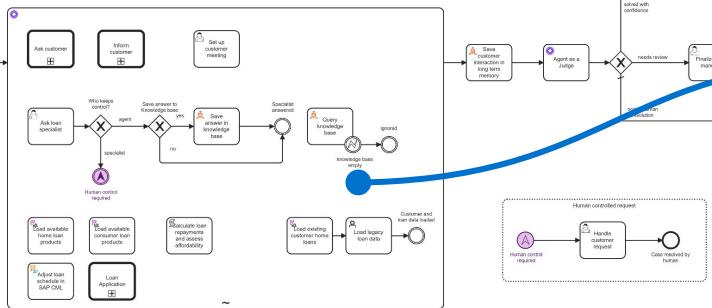


Demo

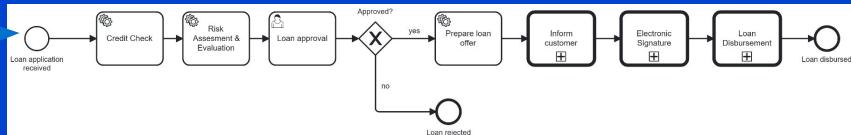
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L4: Loan Support Agent



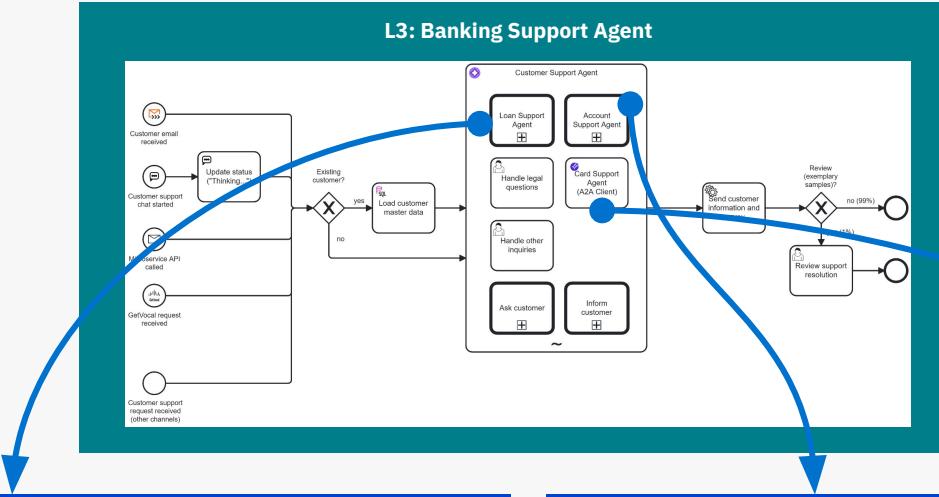
L4: Loan Application Process



Demo

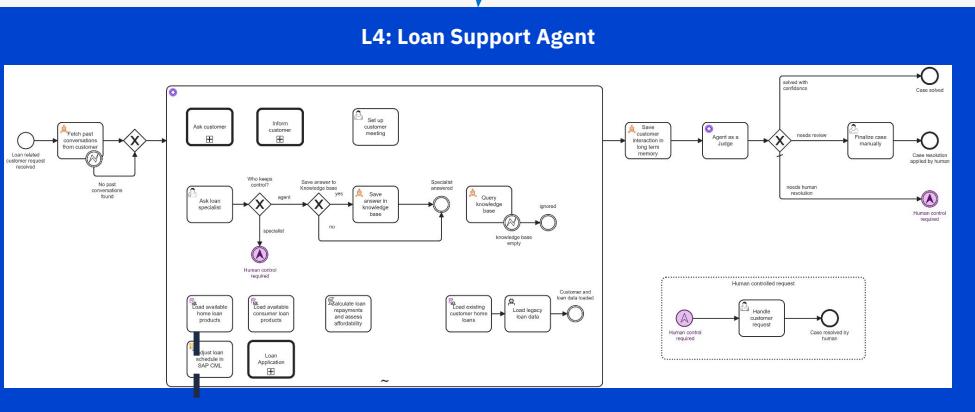
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L3: Banking Support Agent



Invocations via
BPMN, API, A2A, ...

L4: Loan Support Agent



Via Camunda Connectors

Loan Product Catalog

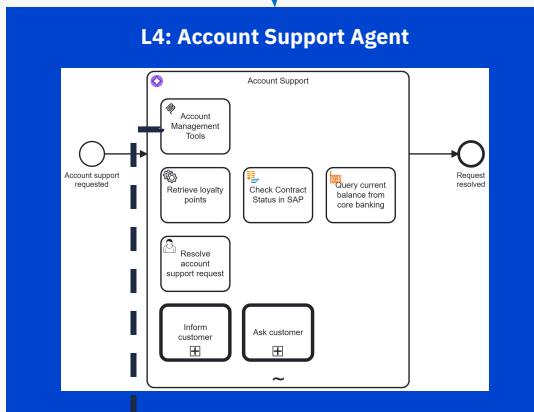
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Via MCP server



Customer Account Tools

L4: Account Support Agent



LangChain

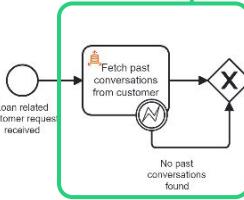
Live demo



The Loan Support Agent

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Long term
memory



The agent

Could also be integrated into ad hoc subprocess itself

action needed?

no

yes

Save customer interaction in long term memory

Handle customer request

Decision X

Tools available to AI agent

Ask customer via email

Customer response received

Response correlated

Send final answer to customer (before case closing)

Set up customer meeting

Ask loan specialist

Who keeps control?

agent

specialist

Human control required

Save answer to Knowledge base

Specialist answered

Save answer in knowledge base

knowledge base empty

ignored

Query knowledge base

Load available loan products

Calculate loan repayments and assess affordability

Adjust loan schedule in SAP CML

Load customer master data

Load customer loans

Load legacy loan data

Customer and loan data loaded

Long term
memory

Agent as a Judge

Decision X

solved with confidence

needs review

needs human resolution

Final answer to customer and close support

Review case resolution

Case solved

Finalize case manually

Case resolution applied by human

Human control required

Tools

Long term
memory

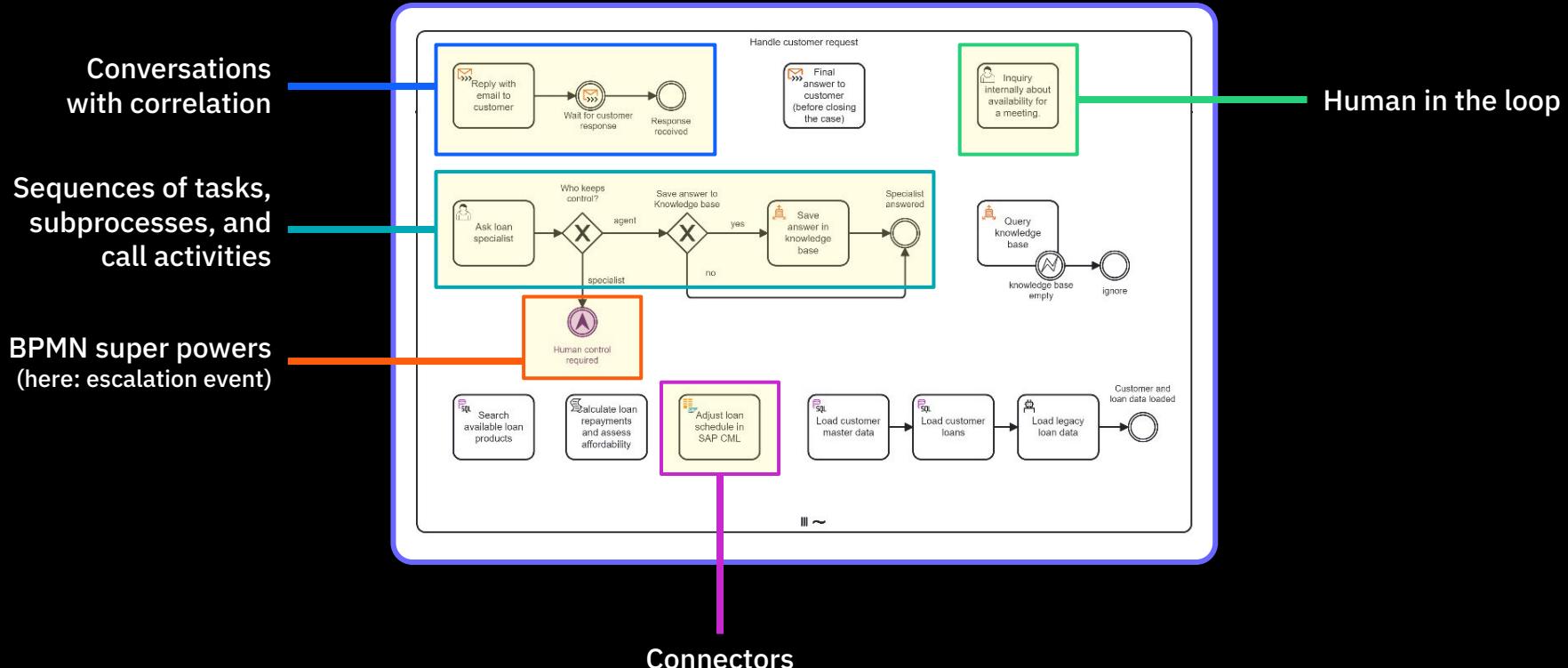
Human controlled request

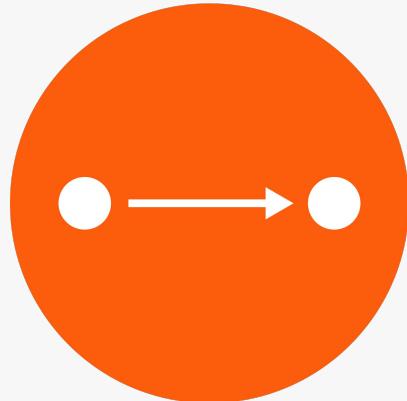
Handle customer request

Case resolved by human

The Loan Support Agent

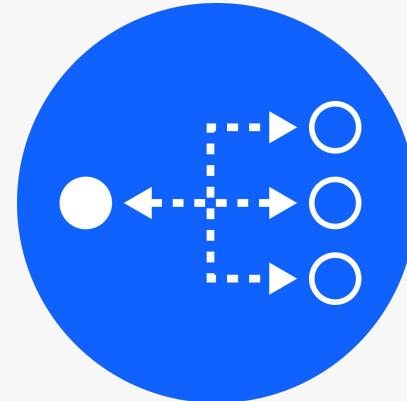
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Deterministic Orchestration

Manage
pre-defined
patterns



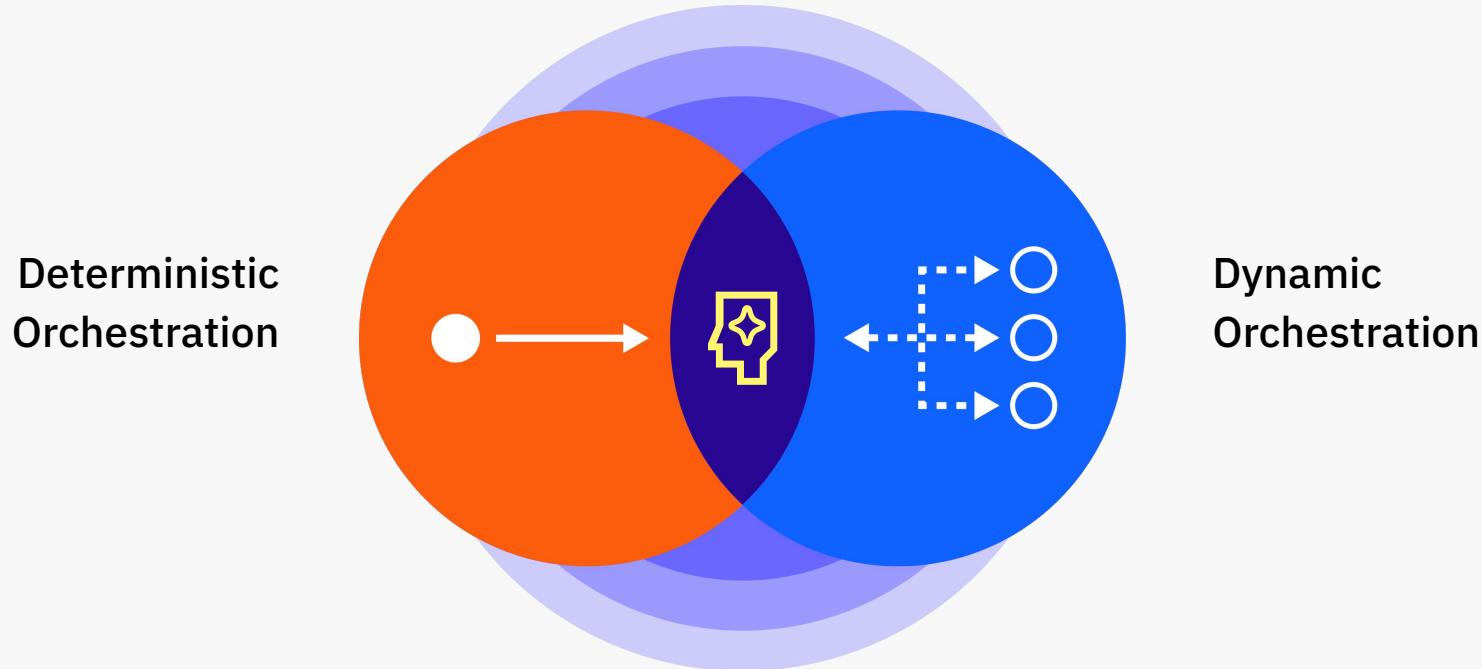
Dynamic Orchestration

Manage
the ad hoc and
unpredictable

Agentic Orchestration

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Design agents' behavior for both autonomy and trust



Dramatically increase the value of Agents with
strict guardrails + autonomous knowledge work.

Enterprise Agentic Automation

CAMUNDA

Enabled by Camunda's unified Agentic Orchestration

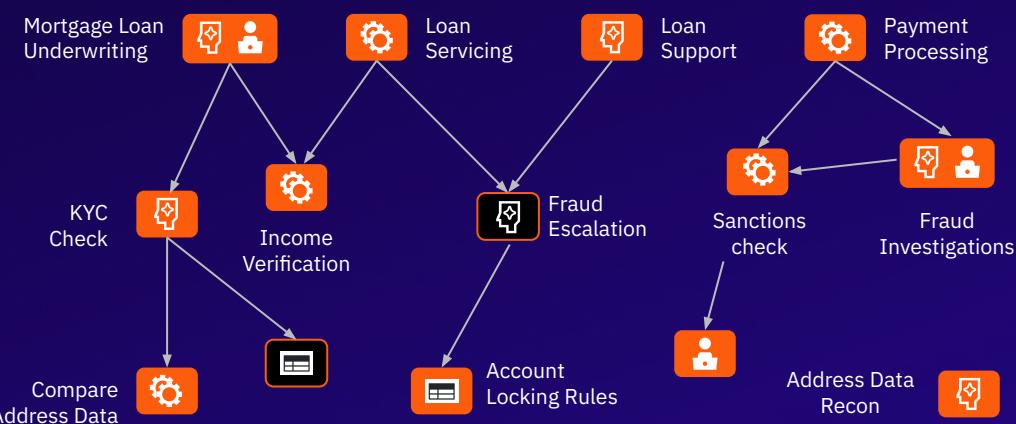
Agentic Engagement
(Customers & Employees)

Multimodal, Omnichannel, Mobile

Digital Twin, Personalized, Proactive, Predictive, Relevant

Unified Agentic Orchestration Layer

- Agent
- Deterministic Process
- Human
- Decision
- Camunda (Agentic BPMN)
- 3rd Party implemented, Camunda orchestrated



Core Technology and Systems

Legacy Applications

Systems of Record



Real-time Data



Data Warehouse

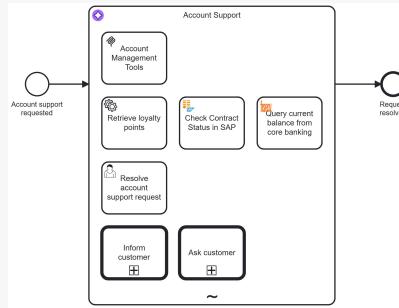


APIs & Microservices

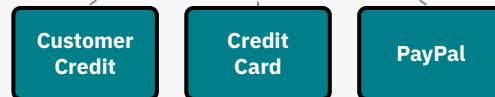
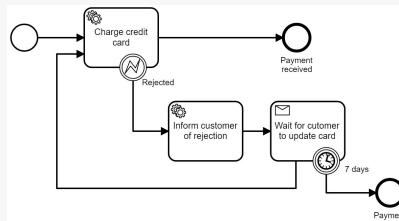
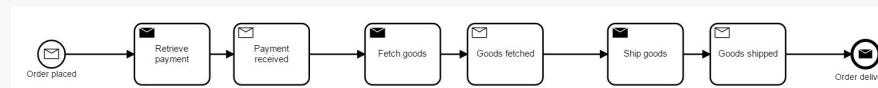


Microservices Compatible

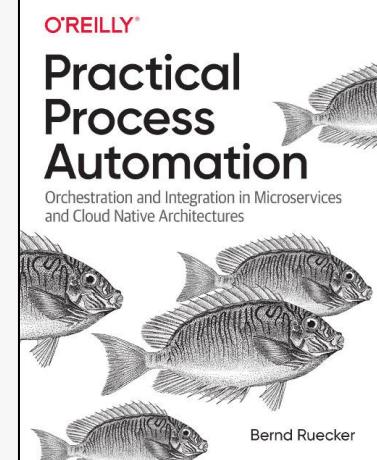
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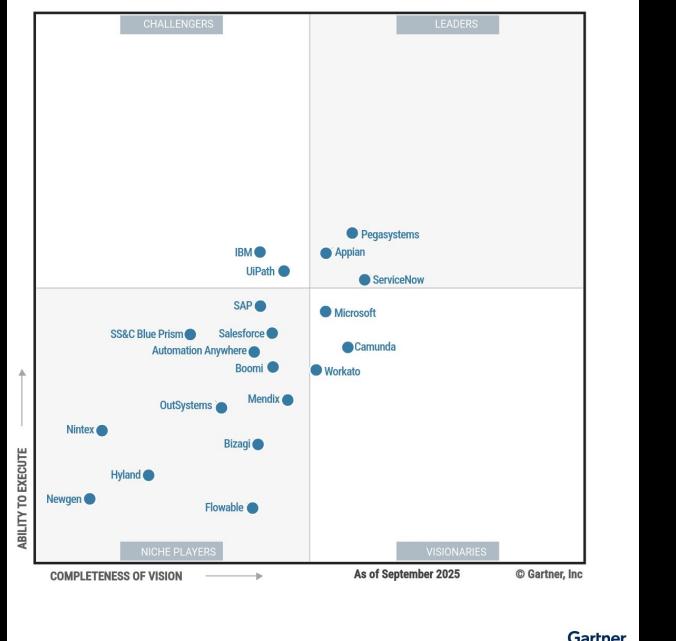


Every Microservice might have BPMN processes / agentic behavior inside.
If required, it leverages Camunda as a technical capability
(like AWS Bedrock for LLMs).



Learn More

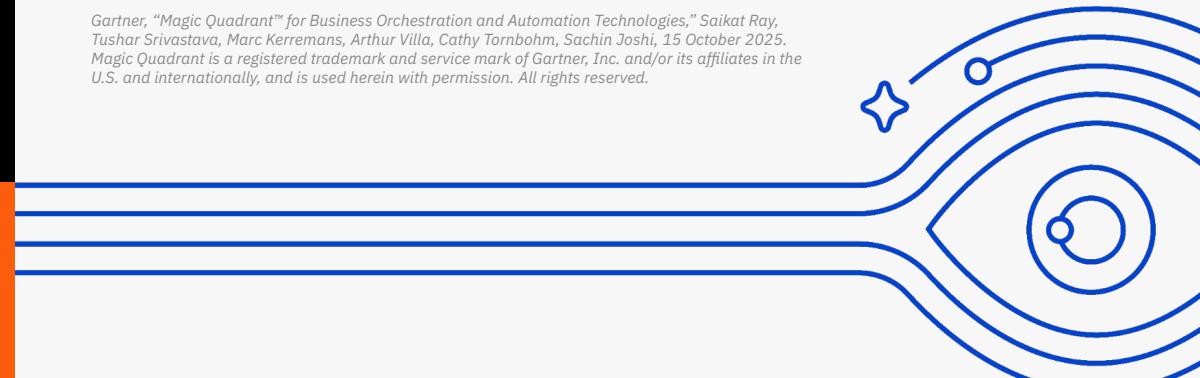




Camunda recognized as a **Visionary** in the Gartner® Business Orchestration and Automation Technologies (BOAT) Magic Quadrant™

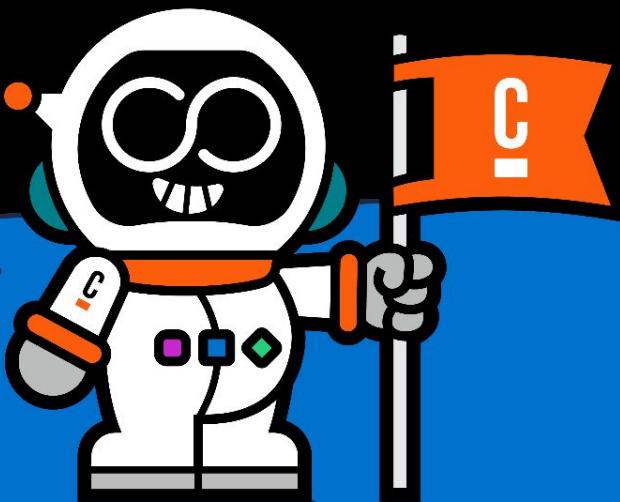
Gartner, "Magic Quadrant" for Business Orchestration and Automation Technologies," Saikat Ray, Tushar Srivastava, Marc Kerremans, Arthur Villa, Cathy Tornbohm, Sachin Joshi, 15 October 2025. Magic Quadrant is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally, and is used herein with permission. All rights reserved.

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Let's build what's next: Together

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Thank You

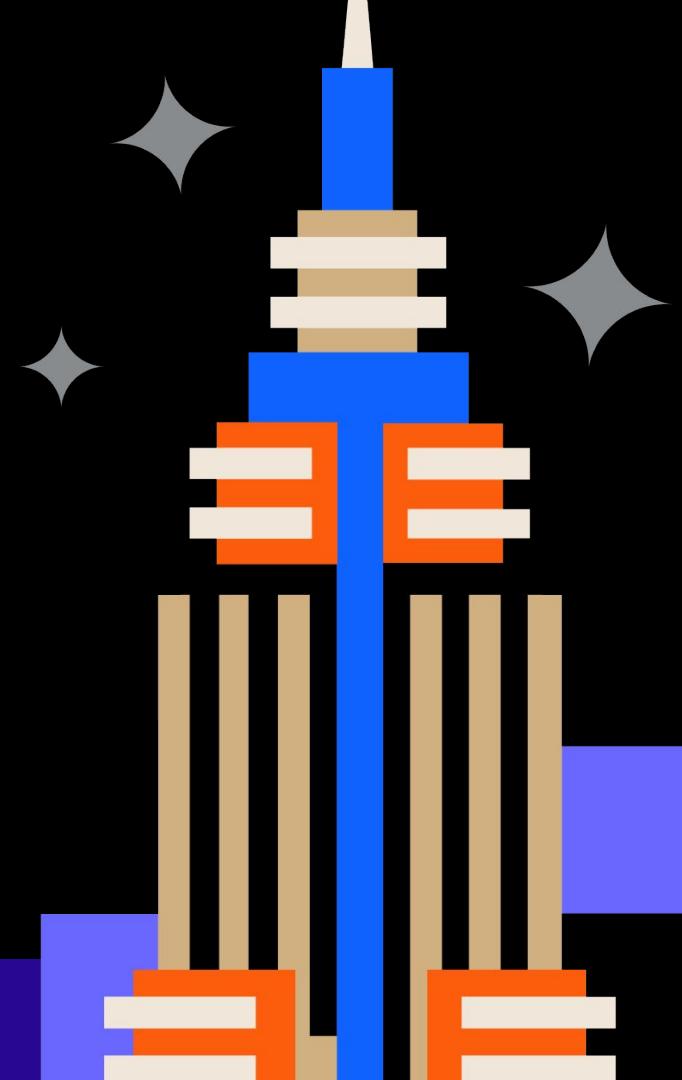


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