

Requirements

[DEPLOY]

● Docker Compose
Ollama

[BUILD]

● Python
Node.js

[DEVELOP]

● Python
Node.js





Unlocking the power of AI in Alfresco using MCPs

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Developer Evangelist at Hyland

Agenda

- Introduction to Model Context Protocol (MCP)
- Agentic Processing with AI & LlamaIndex
 - Hands-On Lab: Run Alfresco with Agents
 - Hands-On Lab: Create a new MCP Tool
 - Hands-On Lab: Add an AI Action to Alfresco UI
- Wrap-Up

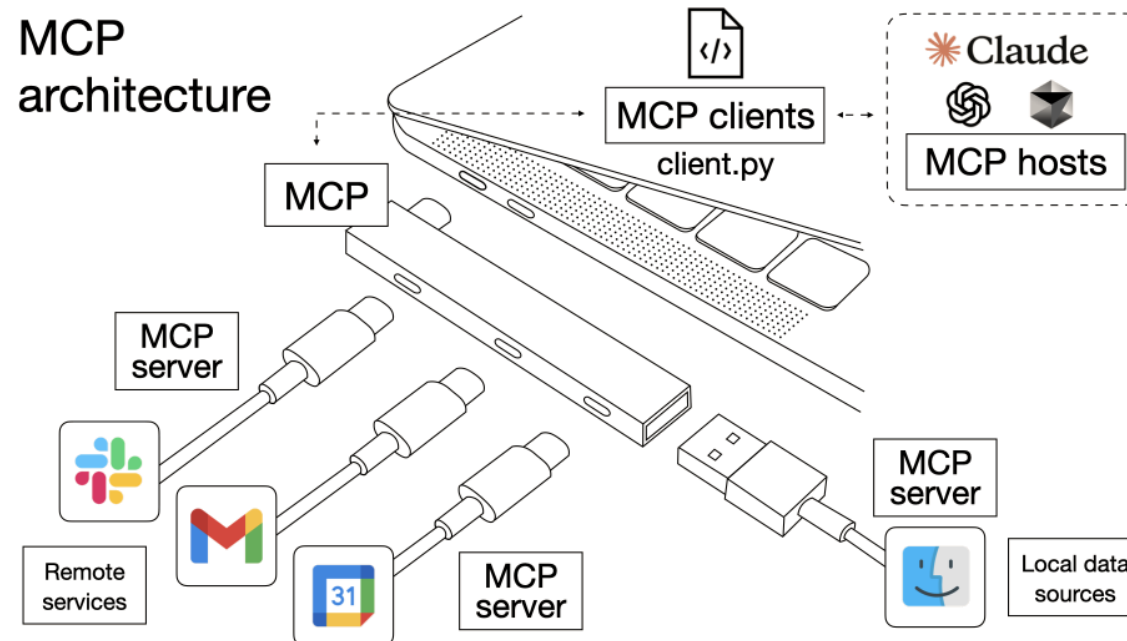


Introduction to MCP

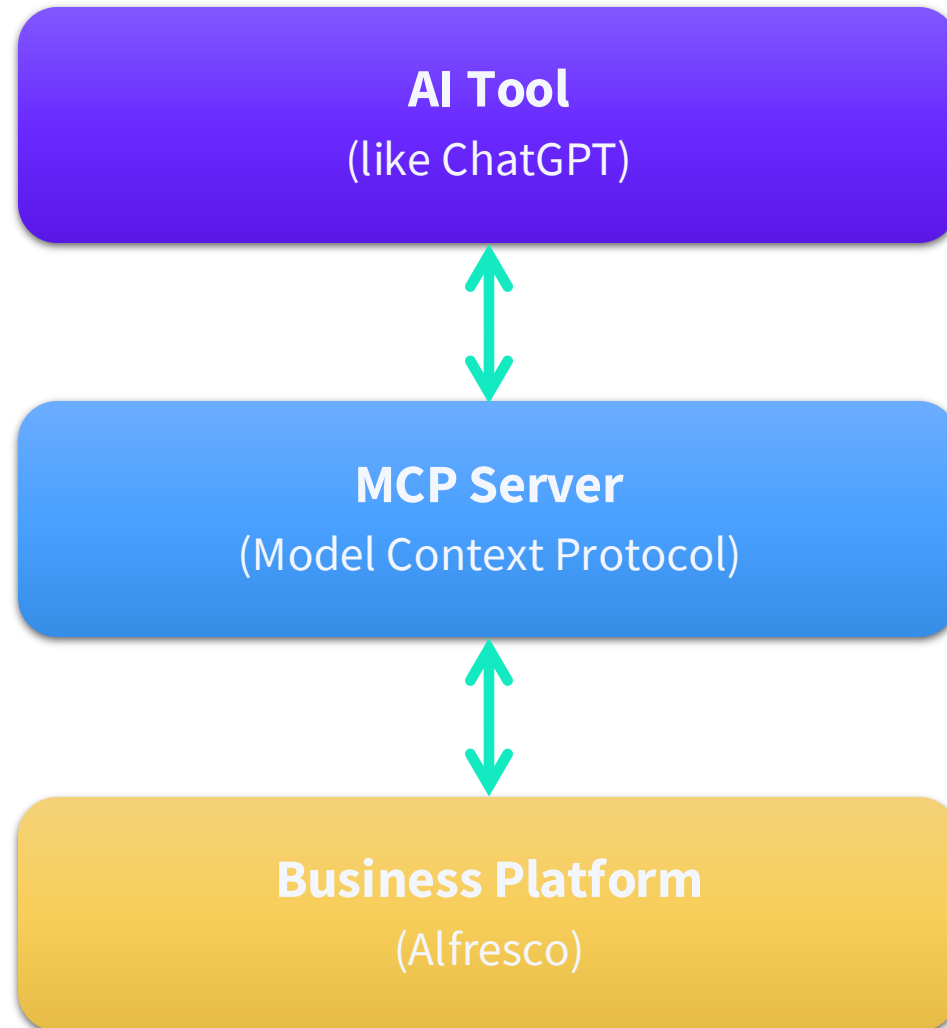
[Model Context Protocol](#)

What is an MCP Server?

- **MCP** = Model Context Protocol, standard from Anthropic (November 2024)
- Acts as a middleman between AI tools and business applications
- Provides a standard way to share information and run actions
- It's like a USB stick that connects different information with AI



How MCP Connects Systems



MCP Tools

- Tools are composed of a schema and a function
- This is what we can use to expose different services / applications to an Agent.



Figure by anthropic



MCP Server Client Architecture

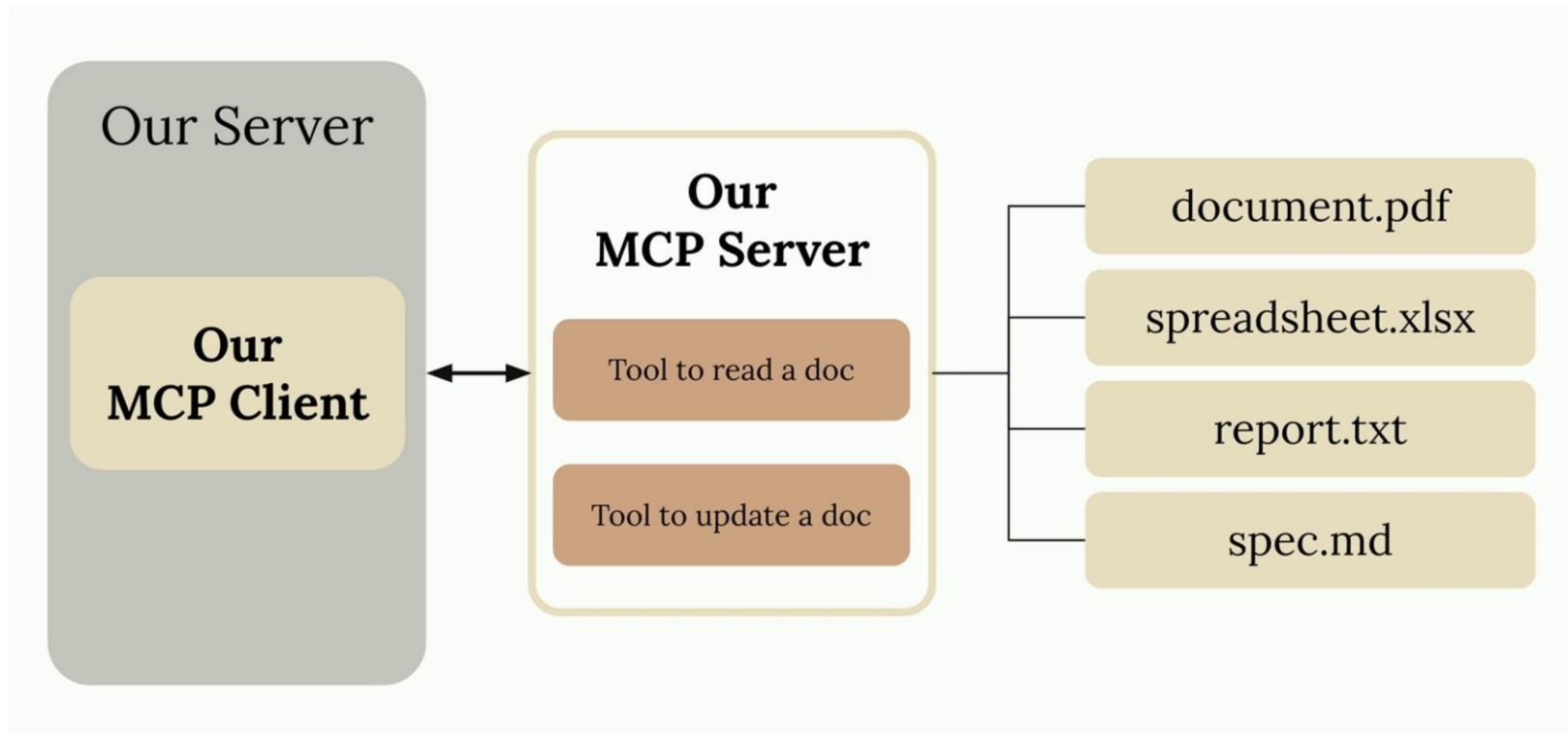


Figure by anthropic



MCP Python SDK

```
from mcp.server.fastmcp import FastMCP

mcp = FastMCP("AlfrescoMCP", log_level="ERROR")
```

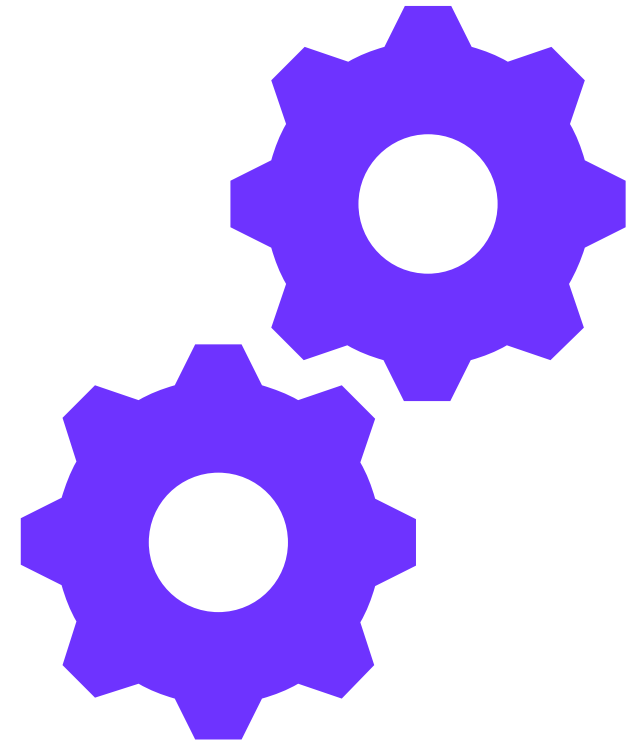
```
@mcp.tool(
    name="read_doc_contents",
    description="Read the contents of a document and return it as a string."
)
def read_document(
    doc_id: str = Field(description="Id of the document to read")
):
    return AlfrescoService.get_document_content_by_id(doc_id)
```

What Agents use to
decide what tool to call



Why Should We Care?

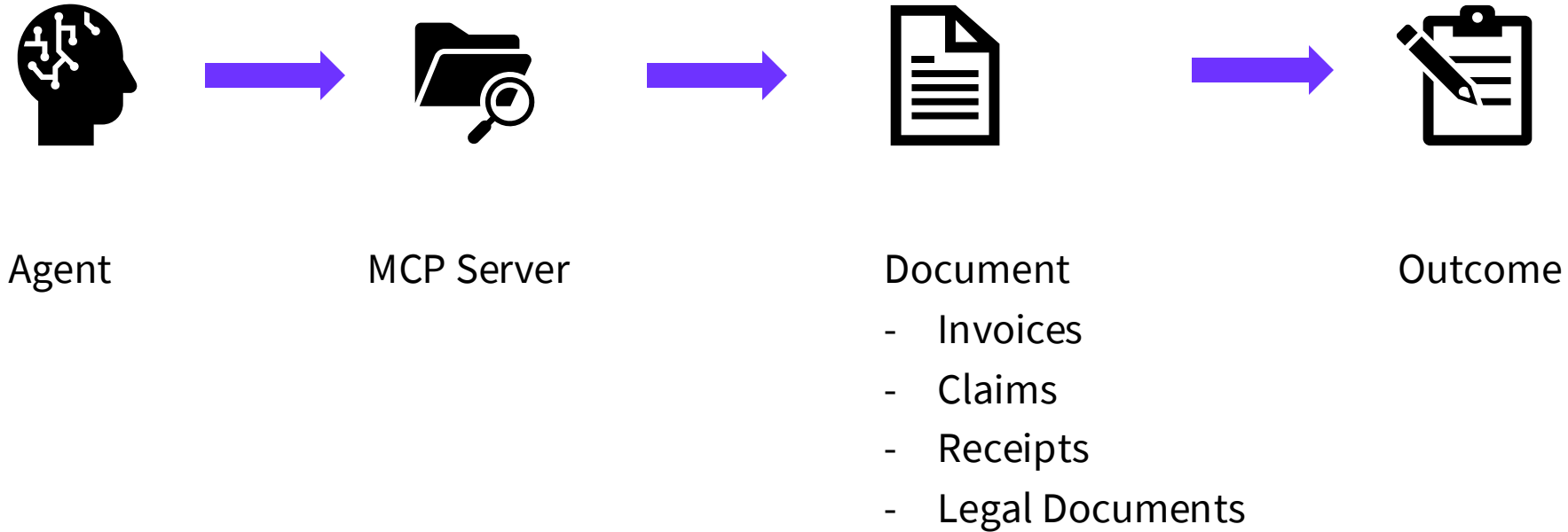
- Reduces repetitive manual work
- Makes systems easier to use through natural language
- Improves speed and accuracy of tasks



Agentic Processing with AI

Building effective agents

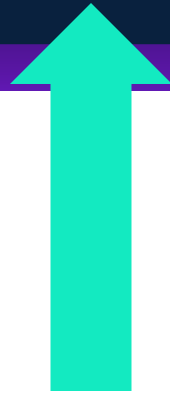
Unlocking the Power of Agentic Document Processing



Simple Blueprint to get started



```
const prompt = `Fetch Markdown for node ${nodeId}, ${instructions} and store the result in  
cm:description property`;
```



Your Use Case

Sumarize it

Classify its business category

Extract Information



Invoice Extraction

Workspace

Files

Personal Files

My Libraries

Favorite Libraries

Recent Files

Favorites

Shared

Trash

Saved Searches (0)

Manage searches

Personal Files > Shared > Alfresco_Demo_Documents_Embedded

CreateUpload

Search

	Name	Size	Modified	Modified by	Tags
	HR_Case_Summary_embedded.pdf	32.74 KB	about 1 h...	Administrator	
	HR_Onboarding_Form_embedded.pdf	32.94 KB	about 2 h...	Administrator	
	Invoice_BrightWave_embedded.pdf	34.65 KB	9 minutes ...	Administrator	
	Purchase_Request_Memo_embedded.pdf	21.65 KB	about 2 h...	Administrator	
	Records_Management_Policy_embedded.pdf	20.46 KB	about 2 h...	Administrator	
	Service_Agreement_embedded.pdf	31.69 KB	about 2 h...	Administrator	

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Items per page 25

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Contract Handling

Workspace

Files

Personal Files

My Libraries

Favorite Libraries

Recent Files

Favorites

Shared

Trash

Saved Searches (0)

Manage searches

Personal Files > Shared > Selected (1)

CreateUpload

Search

Link

Download

View

Print

More

	Name	Size	Modified	Modified by	Tags
	HR_Case_Summary_embedded.pdf	32.74 KB	about 1 h...	Administrator	
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	Purchase_Request_Memo_embedded.pdf	21.65 KB	about 2 h...	Administrator	
	Records_Management_Policy_embedded.pdf	20.46 KB	about 2 h...	Administrator	
	Reviewed	34.65 KB	2 minutes ...	Administrator	
<input checked="" type="checkbox"/>	Service_Agreement_embedded.pdf	31.69 KB	about 2 h...	Administrator	

Showing 1-6 of 6

Items per page 25

Page 1 of 1



Form Processing

Workspace

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Manage searches

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	Records_Management_Policy_embedded.pdf	20.46 KB	about 2 h...	Administrator	
	Reviewed	34.65 KB	15 minute...	Administrator	
	Service_Agreement_embedded.pdf	31.69 KB	12 minute...	Administrator	

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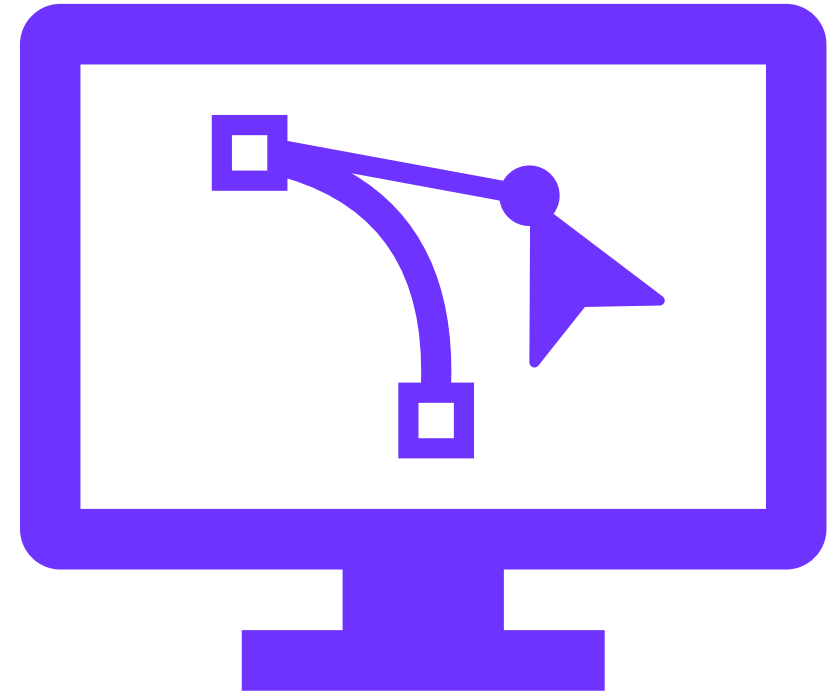
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What are AI Agents?

*“Digital Entities that **perceive**, **reason** and **act** autonomously to achieve specific goals”*

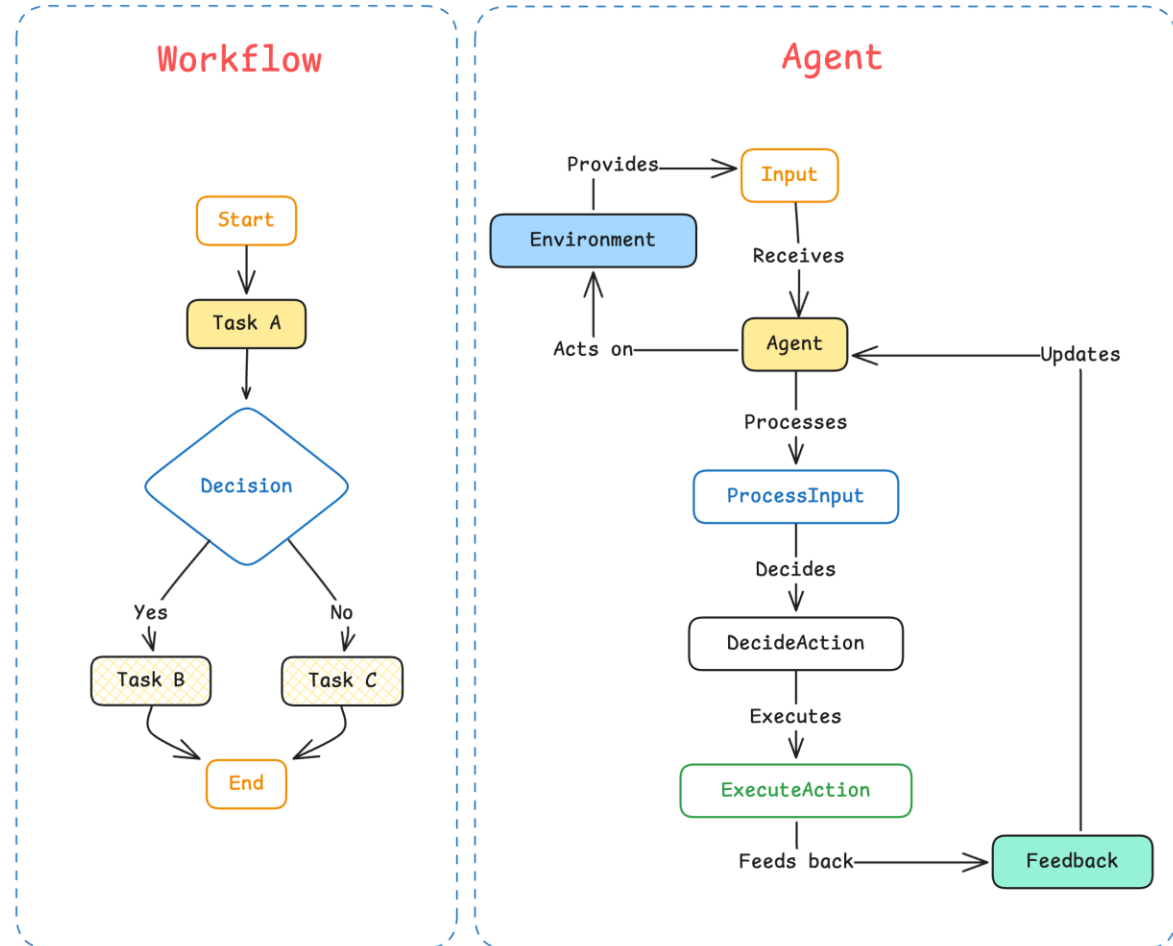
- Autonomous
- Intelligent
- Task-Oriented
- Configurable & Interoperable



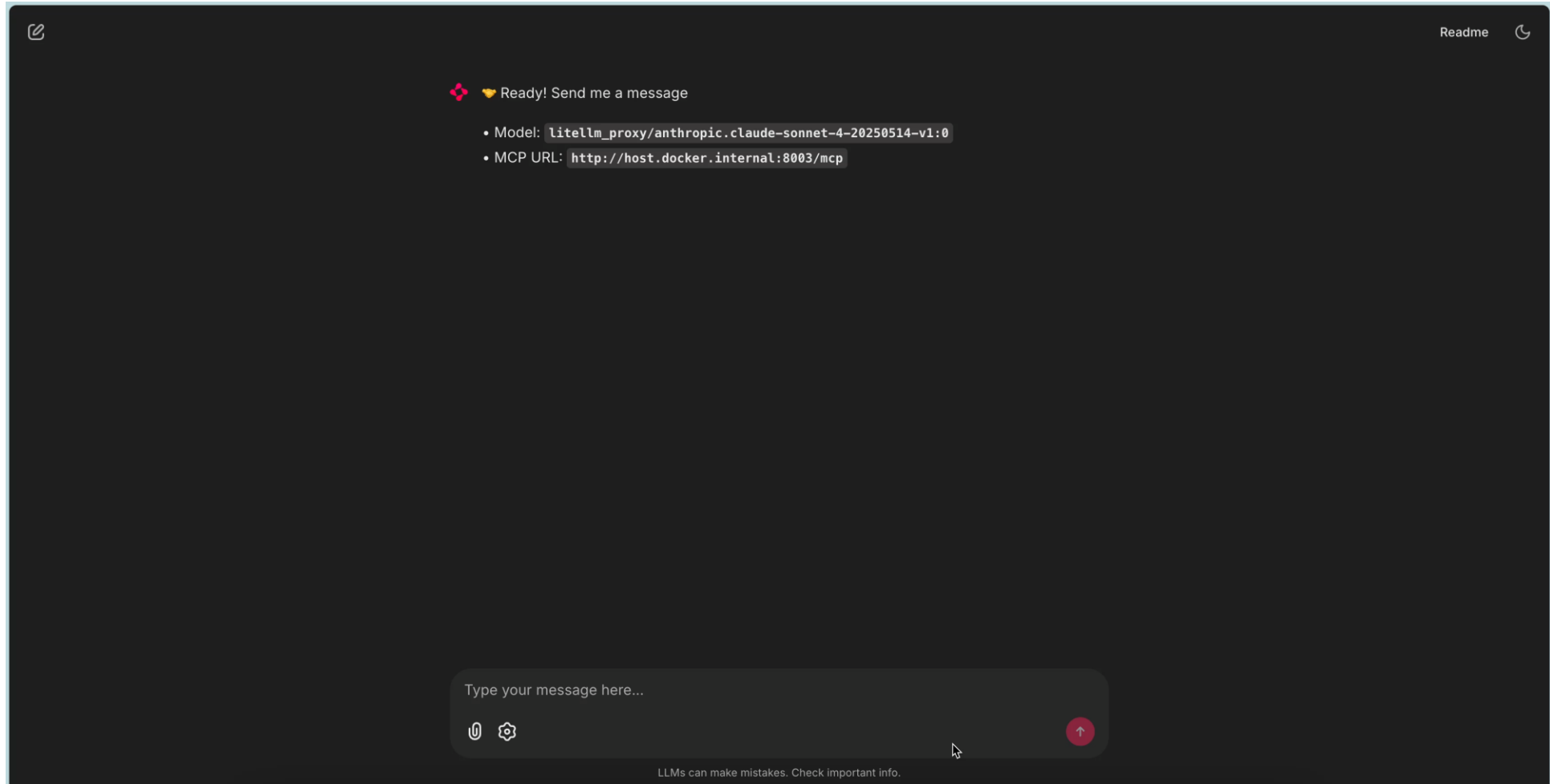
Types of AI Agents

- Collaborative Agents (Chat Based)
 - Interact with humans
 - Retrieve & display insights
 - CIC Knowledge Discovery Agents
- Task Agents (Workflows on Automate)
 - Automate defined processes
 - CIC Automation Agents
 - CIC IDP Agents

Classic Pattern



Chat Based Interactions



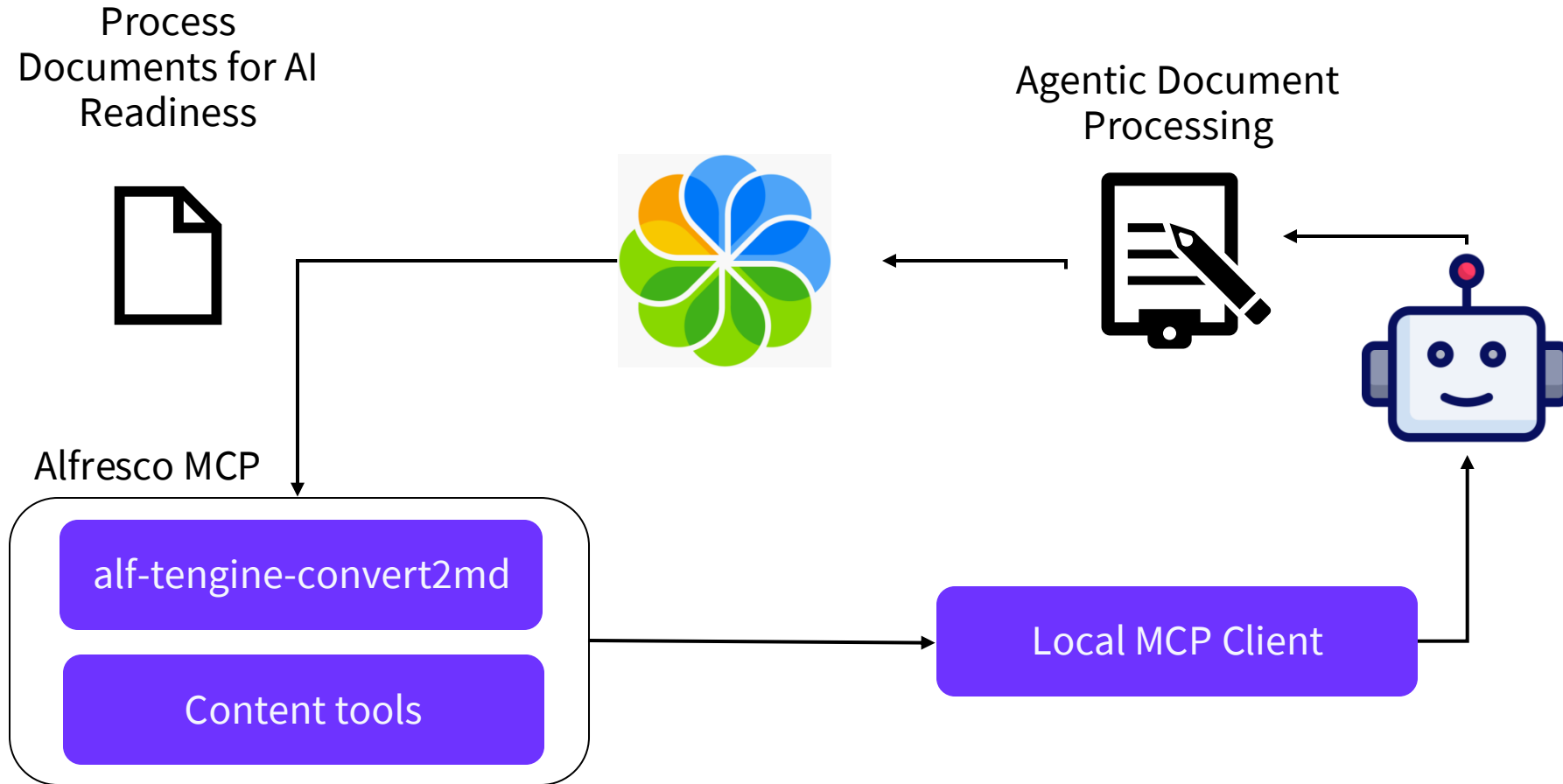
Coding an Agent

```
research_agent = Agent(  
    name="ResearchAgent",  
    description="Search the web and record notes.",  
    system_prompt="You are a researcher... hand off to WriteAgent when ready.",  
    llm=llm,  
    tools=[search_web, record_notes],  
)
```

[LlamaIndex](#) offers a lightweight, open-source foundation to prototype the same concepts Hyland delivers at enterprise scale: agent orchestration, specialization, and governance

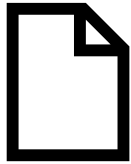


Lab setup

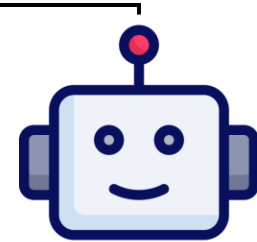


Future of CIC

Process
Documents for AI
Readiness



Agentic Document
Processing



Knowledge Enrichment

Agent Platform

Content Lake





Hands on time!

Run Alfresco with Agents

<https://github.com/aborroy/alfresco-agents-lab-clive>





Hands on time!

Create a new MCP Tool

<https://github.com/aborroy/alfresco-agents-lab-clive/blob/main/lab-material/add-mcp-tool.md>





Hands on time!

Add an AI Action to Alfresco UI

<https://github.com/aborroy/alfresco-agents-lab-clive/blob/main/lab-material/add-action-to-aca.md>



Wrap-Up

[Hyland Content Innovation Cloud](#)

