

SOLO.IO

From 4 Hours to 8 Minutes with AI Agents that Transform SRE Incident Response

Peter Jausovec

Agenda

01 The Incident Problem

02 AIRE Framework

03 Implementing AI Agents

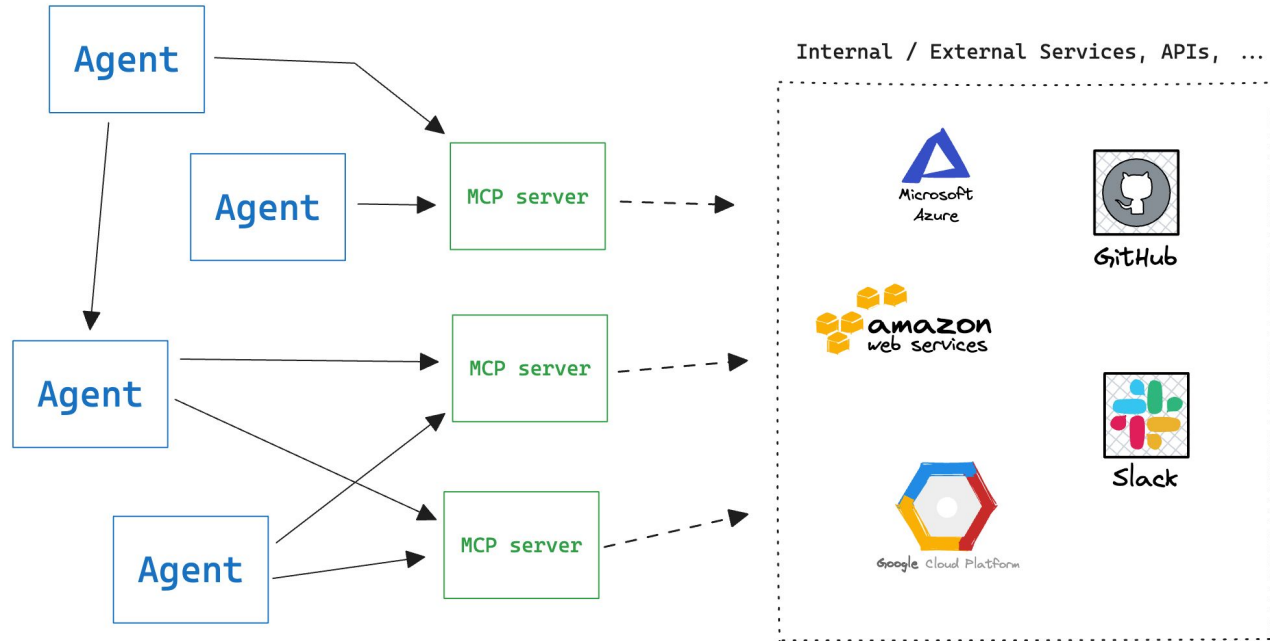
04 DEMO

The Incident & Automation Problem



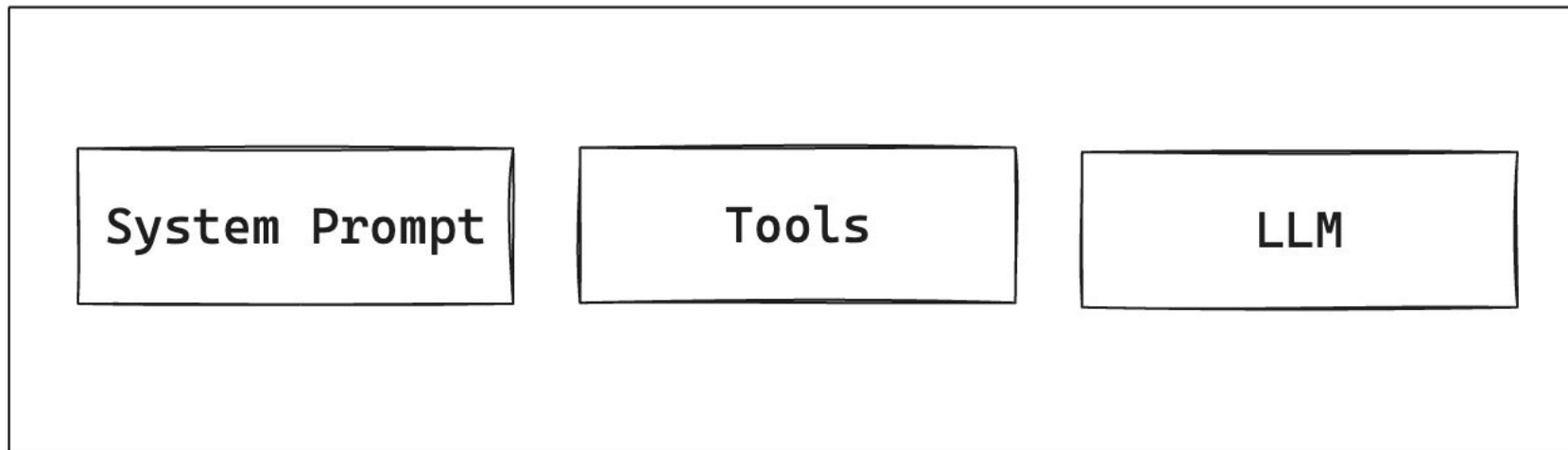
What is AI Reliability Engineering

Enhances software reliability by embedding **context-aware AI agents** into your existing engineering workflows.

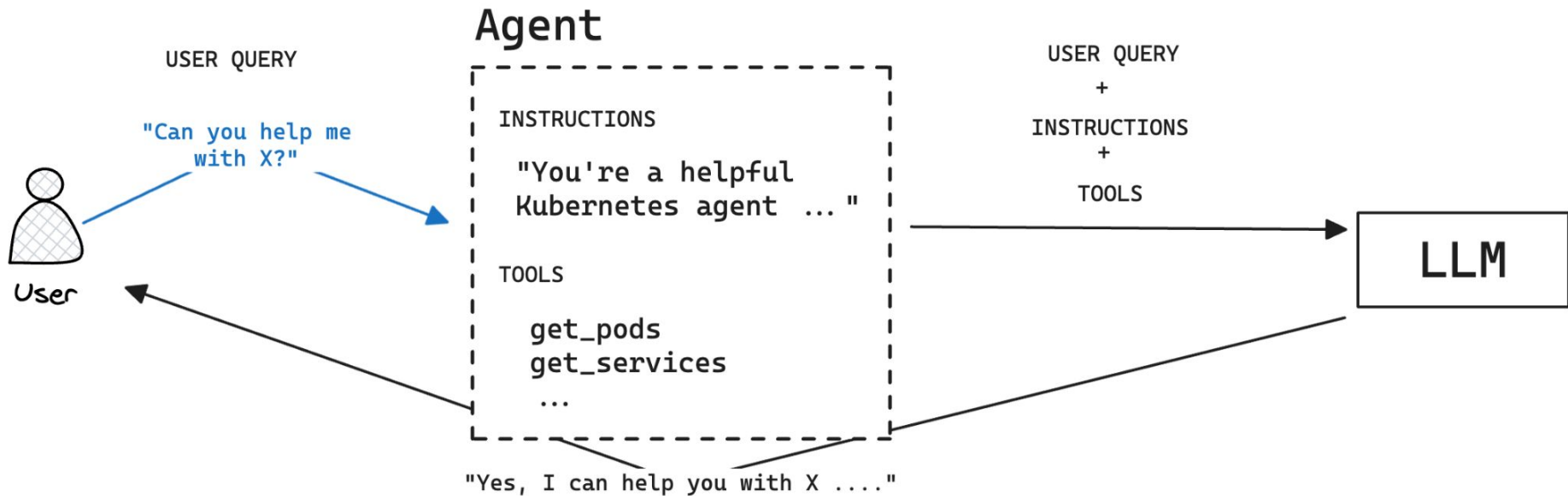


How does an agent look like

Agent



"Agent" loop



How “tools” look like?

```
{
  "name": "get_pods",
  "description": "Use the tool to retrieve pods from
a specific namespace in a Kubernetes cluster.",
  "input_schema": {
    "type": "object",
    "properties": {
      "namespace": {
        "type": "string",
        "description": "Namespace name"
      }
    },
    "required": ["namespace"]
  }
}
```

AGENT

LLM

"Show me pods in test namespace"
 +
 "You're a helpful K8s agent ..."
 +
 {"name": "get_pods", "description":

Message + Instruction + Tools

LOOP

Function names + arguments

Calls to
 functions/tools/AP
 Is/MCP servers, ...

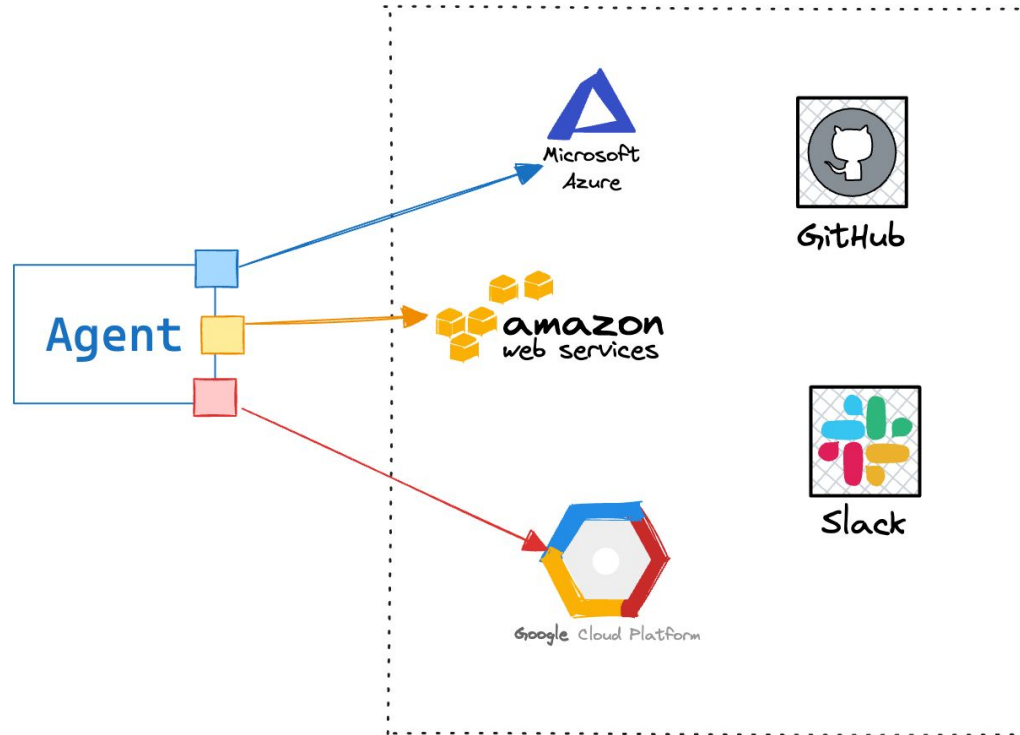
Message + Tool Results + Tools

Final response

"Here are the pods in the 'test' namespaces ..."

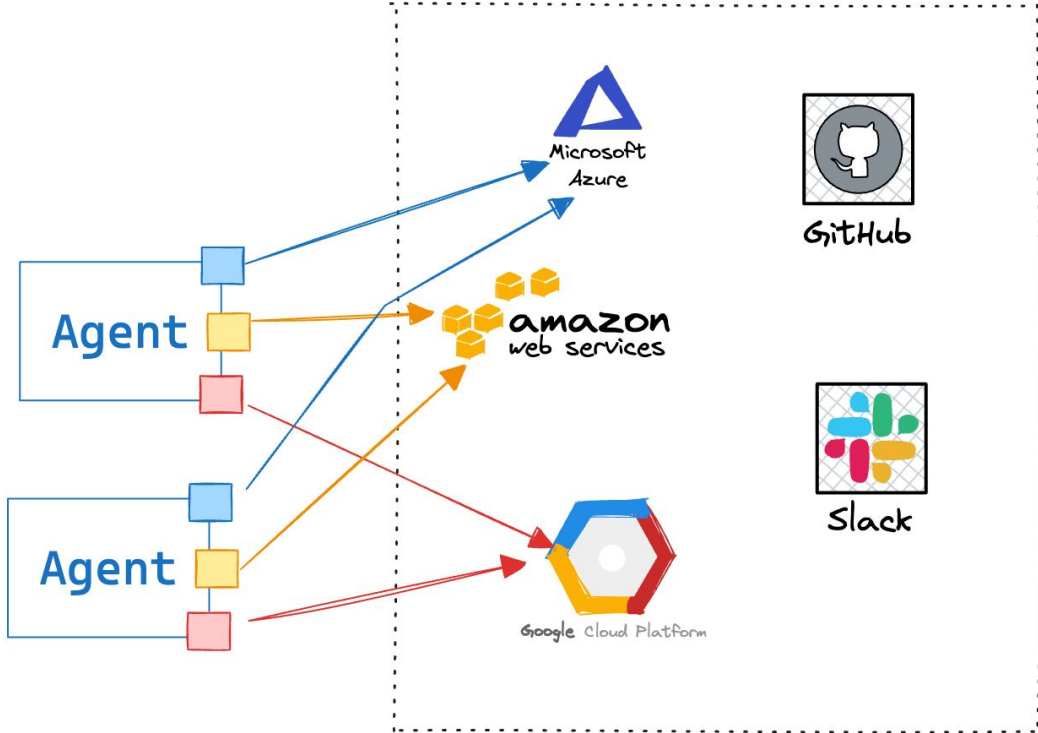
```
{
  "tool_calls": [
    {
      "id": "call_12344",
      "function": {
        "name": "get_pods",
        "arguments": {
          "namespace": "test"
        }
      },
      "type": "function"
    }
  ]
}
```

Tools



Tools

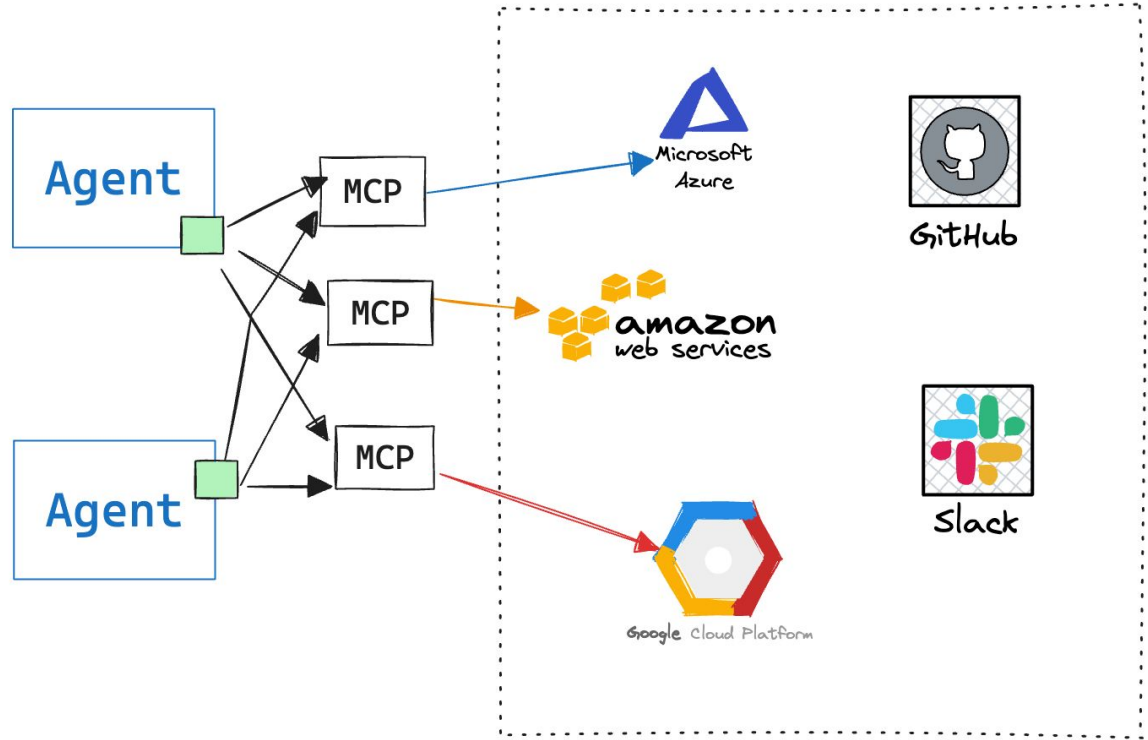
Reimplement tool
access for each agent



Tools with MCP

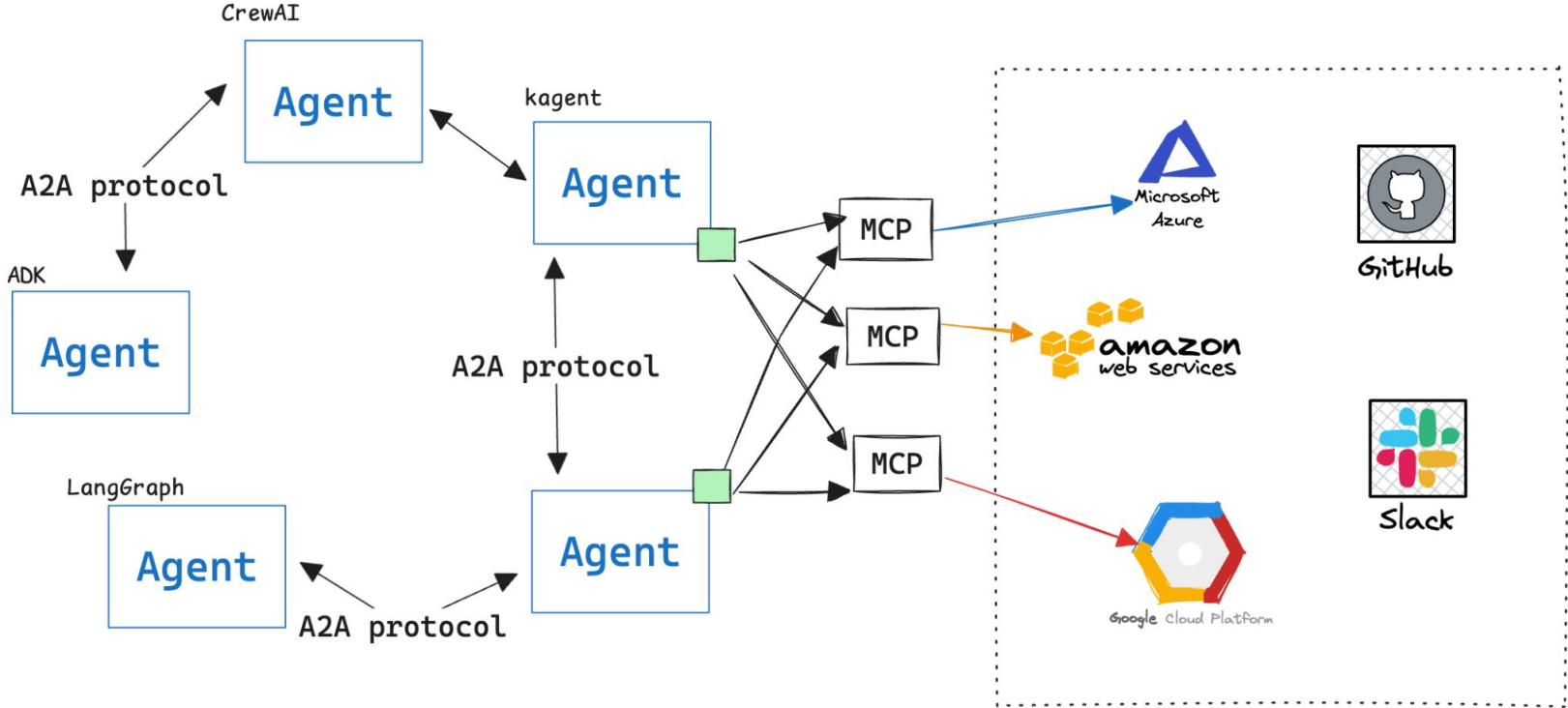
Model Context Protocol

Open-source standard for connecting agents to external systems



Multi-agent scenarios

A2A (Agent2Agent) protocol



How do I build and deploy agents?

Code (write agents in Python, Typescript, Go, ...)

Write agents in Python, Typescript, Go, ... and deploy them yourself

- Google ADK
- Microsoft Agent Framework (fka: AutoGen/Semantic Kernel)
- LangChain/LangGraph
- CrewAI
- ...

Declarative, no-code

- kagent (Kubernetes native)
- n8n
- OpenAI AgentBuilder
- ...



- Open-source Kubernetes native framework for building AI agents and MCP servers
 - Collection of agents and MCP tools
- Project is part of CNCF
- Weekly contributor and maintainer meetings

Join us @ kagent.dev



CLOUD NATIVE
COMPUTING FOUNDATION

Key Capabilities

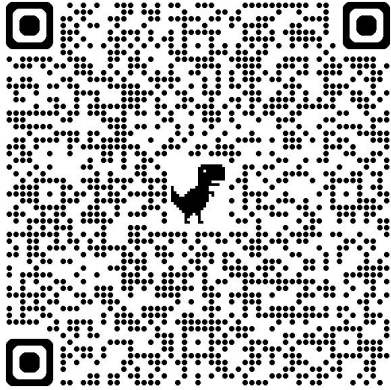
What do we want?

- **Operational knowledge**
 - Building a knowledge graph from multiple sources
- **Awareness**
 - Agent learns what matters, what is the business impact, when to act → autonomous triage
- **Investigation**
 - Concurrent investigations – looking at past incidents, recent deployments, discussions, known failure patterns → generates hypothesis for root causes and tests them out
- **Resolution**
 - Fix and resolve issues with minimal human intervention

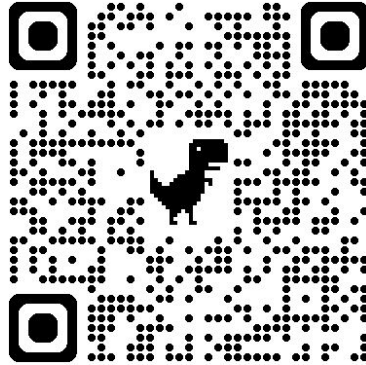
The background of the image features a series of concentric circles in a dark blue color, centered in the upper half of the frame. The circles are subtle and blend into the dark background.

DEMO

Hands-on Lab



Building Agents



Live stream

