



# Deploying secure production-ready agents with Claude Managed Agents on AWS



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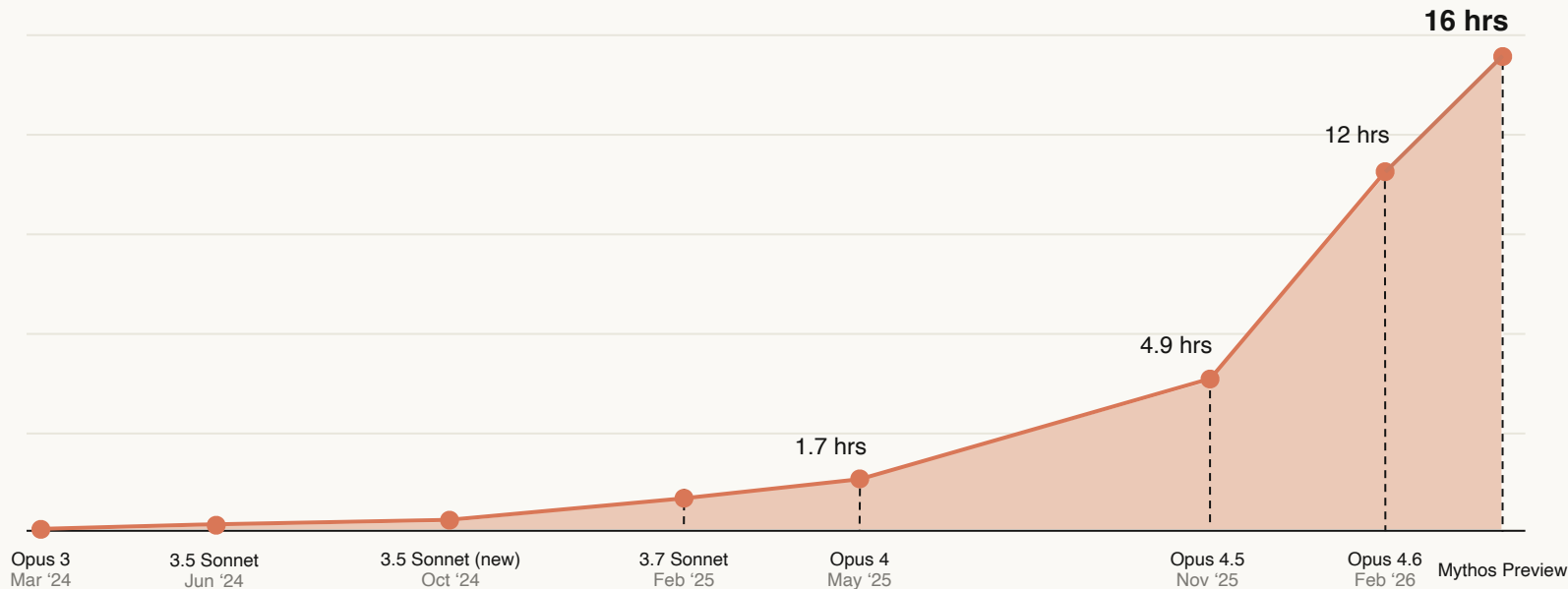
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Pr. Solutions Architect, Agentic AI, AWS



Rohan Mehta  
Solutions Architect, Serverless, AWS

# Model capabilities have increased exponentially

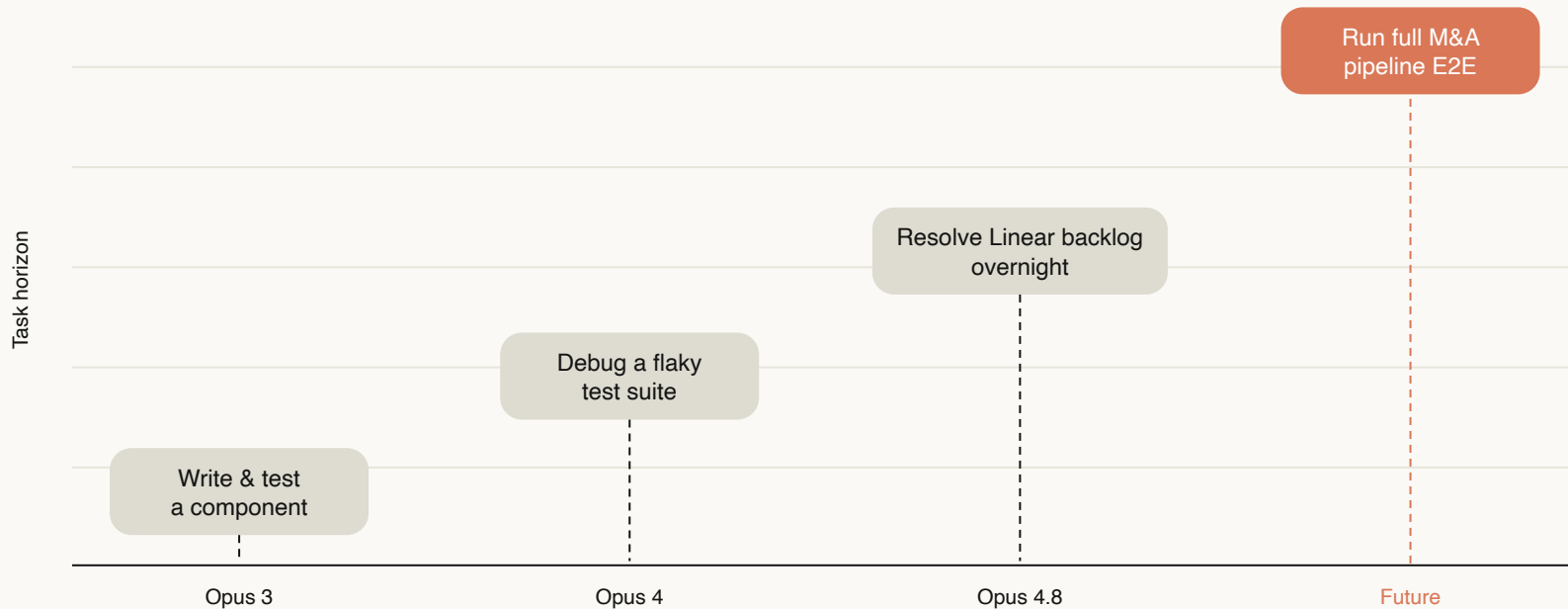
## Software Autonomous Work Horizon



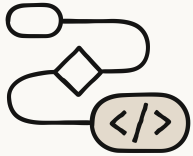
1 Chart depicts the task-completion time at which an AI agent is predicted to succeed with 50% reliability compared to the time it would take a human expert to complete the same task. METR, Task-Completion Time Horizons of Frontier AI Models (data as of May 2026).

2 Mythos Preview released in April 2026

# Task complexity has increased alongside the models



As agents operate on longer task horizons, we grant them more autonomy and access



Secure credentials

Internal systems

Proprietary code

Identity and auth

# We also expect more sophisticated interaction patterns



## Conversational

Steer, queue messages, and interrupt



## Outcome-oriented

Iterate until a satisfactory result is produced



## Start and resume later

Pick up a task many days after kicking it off

# Why teams build with Claude Managed Agents



## Production-ready agent

The infrastructure to build and scale agents in your products. Credentials stay out of the sandbox, encryption is built in, and state persists automatically.



## Fast iteration

Session tracing records what every agent did and why, with built-in analytics to improve performance.



## The frontier

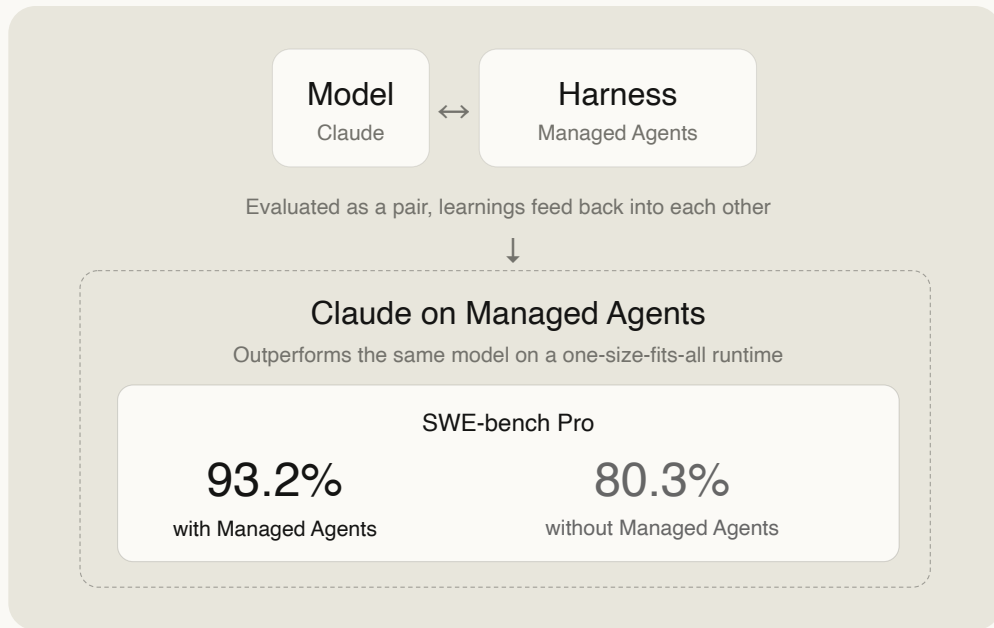
The only harness purpose-built for Claude. As the model improves, your agents improve with it.

# Built for the frontier and the best agentic model

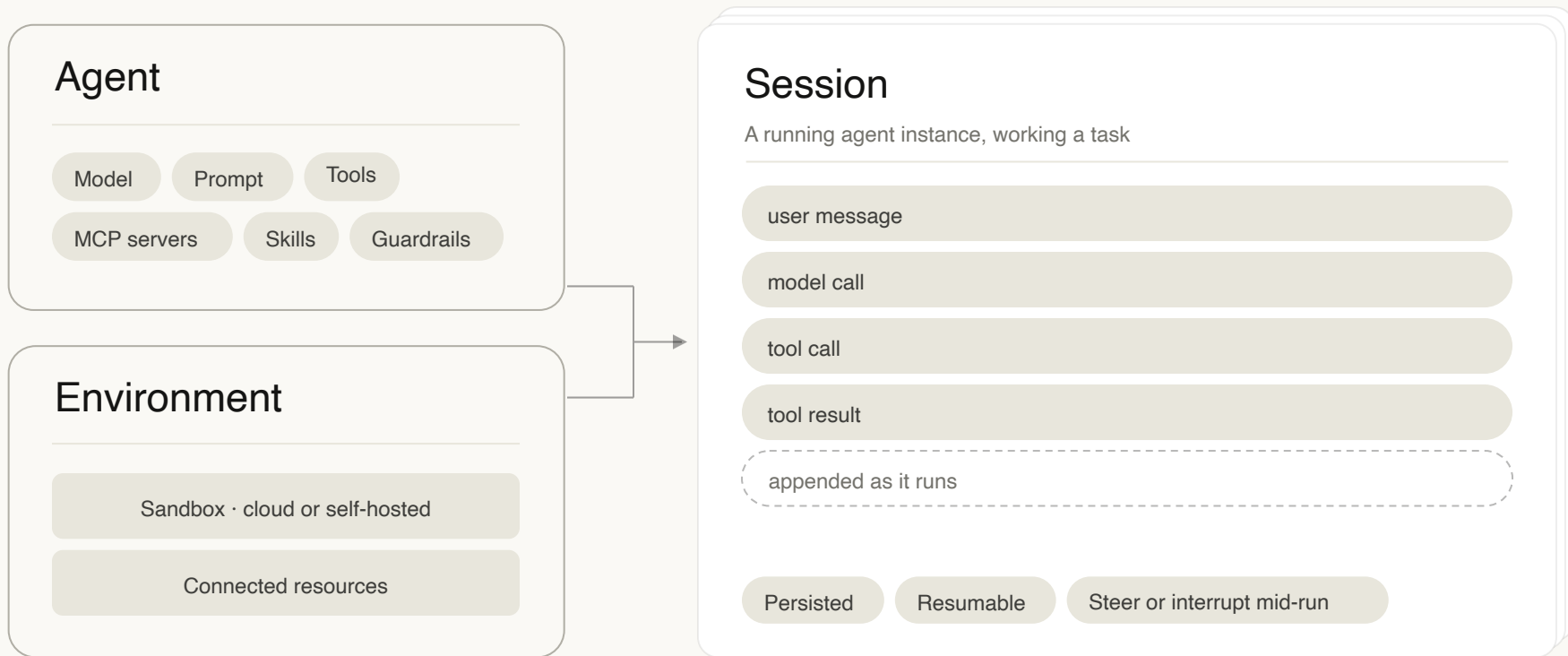
Model and harness built together: we test them together, so what we learn from one feeds back into both

Better performance: the harness is tuned to Claude specifically, not averaged across models.

Not every step needs the frontier model: Claude can plan the work and hand each step to a smaller model.



# Built around three resources





# Every agent comes with frontier capabilities built in

## Multiagent orchestration

Public beta

Claude delegates tasks to other agents, each with its own independent context window.

## Self-hosted sandboxes

Public beta

Keep sensitive files, packages, and services in your own infrastructure — or use a managed provider.

## Outcomes

Public beta

Claude iterates until it satisfies pre-defined exit criteria, grading its own work against a rubric.

## Dreaming

Research preview

Between sessions, Claude reflects on past runs and codifies learnings into new memories.

## Memory

Public beta

Claude reads and writes to memory stores, so every session gets progressively better.

## MCP tunnels

Research preview

Reach MCP servers inside your private network without exposing them to the public internet.

## Scheduled deployments

Public beta

Run agents on a schedule, so recurring work happens without having to trigger a run.

## Credential vaults

Public beta

Securely manage OAuth tokens and environment variables for MCP and CLI/API authentication

# Ship agents in your product, or run them inside your company

## In your product

Agents your customers use

### Notion

Notion built External Agents: Claude reads the connected pages and product docs, then hands its output back to the team for review. A single board can run thirty tasks at once.

### Asana

Asana built AI Teammates: each teammate has its own account, so you can assign it a task or mention it in a comment. The teammate does the work, and a person makes the decisions.

### Rakuten

Rakuten runs specialist agents across engineering, product, sales, marketing, and finance. Each one takes a week to deploy, and works inside Slack, Teams, and their own task system.

## Inside your company

Agents your employees use

### Other internal agents use cases

- Investigating production incidents and posting the root cause
- Triaging inbound tickets and drafting the first response
- Reviewing submissions against a compliance checklist
- Pulling a project's history into a status update for the team

# Handle complex tasks with multiple agents

## What it is

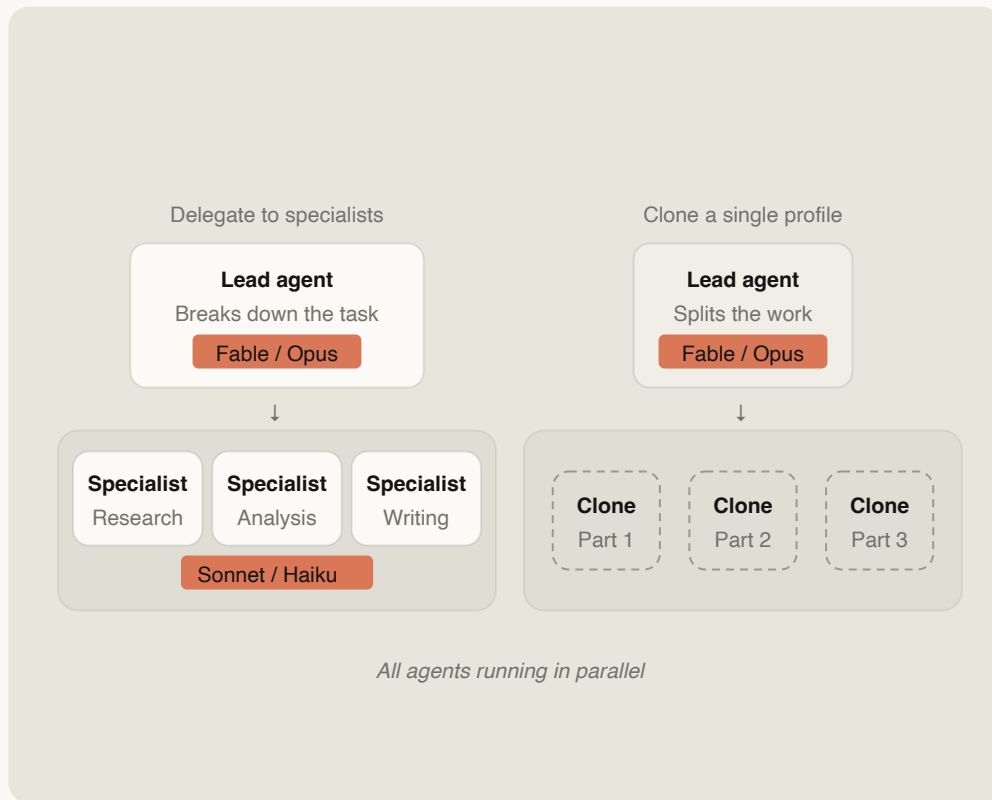
A lead agent breaks the job into pieces and delegates each one to a specialist with its own model, prompt, and tools.

## How it works

Specialists work in parallel on a shared file system and contribute to the lead agent's overall context.

## Developer control

Trace every step in the Claude Console, which agent did what, in what order, and why.



# Deliver better outcomes

## What it is

You write a rubric describing what success looks like, and the agent works toward it.

## How it works

A separate grader evaluates the output against your criteria in its own context window.

## Developer control

Define an outcome, let the agent run, and get notified by a webhook when it's done.



# Memory enables learning during sessions

## What it is

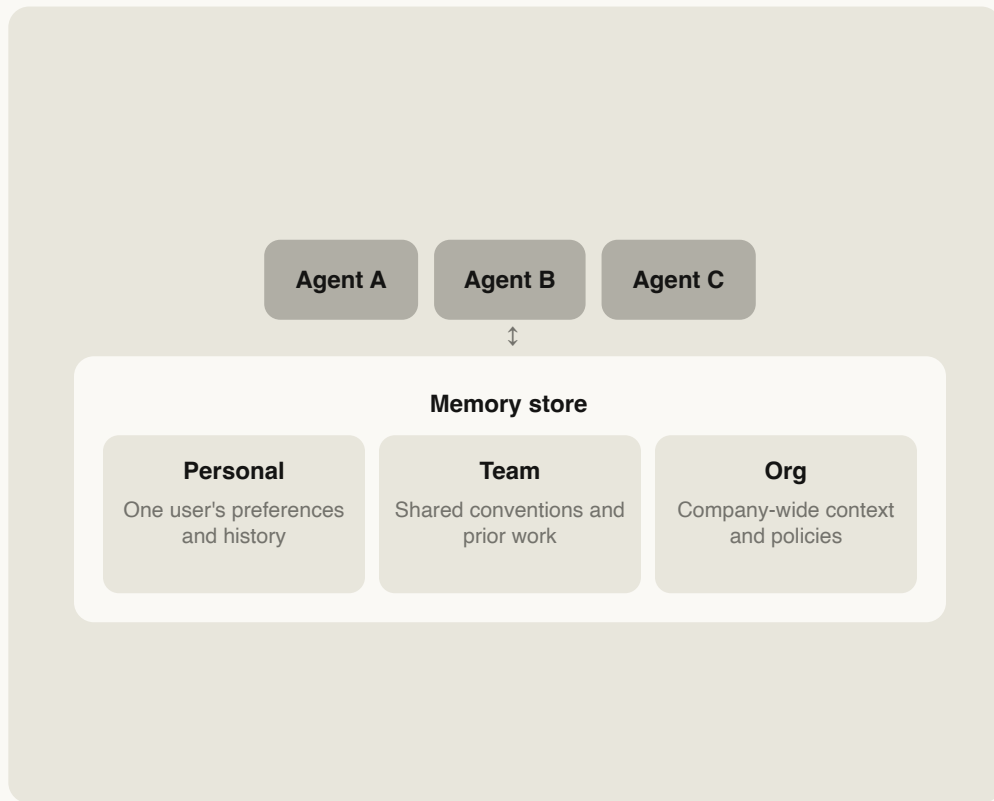
A filesystem that agents read and write to during sessions, so memories persist across runs.

## How it works

Prior work, user preferences, and domain context are shareable across agents so they can learn from each other.

## Developer control

You decide what each agent can access, with a full audit log of every change.



Dreaming

# Dreaming enables learning between sessions

## What it is

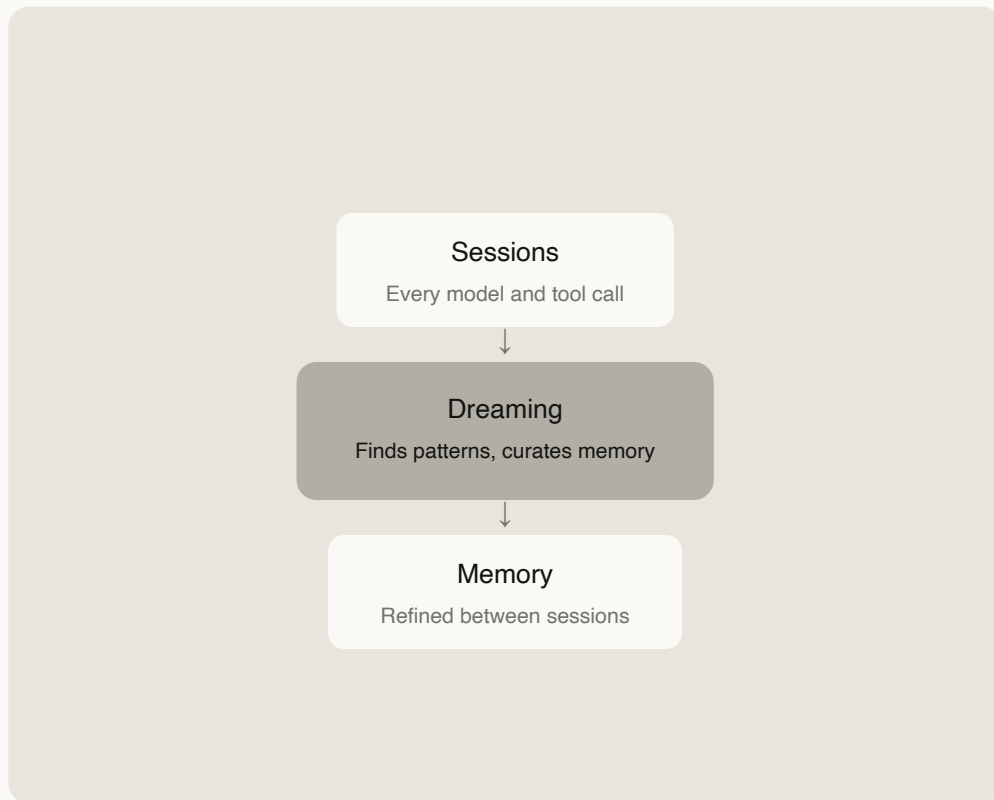
A scheduled process that reviews agent sessions, extracts patterns, and curates memories so agents learn over time.

## How it works

Surfaces recurring mistakes, workflows, and preferences, and restructures memory to keep it high-signal over time.

## Developer control

Updates memory automatically, or lets you review changes first, you decide how much autonomy the agent gets.



# Run agents on a schedule

## What it is

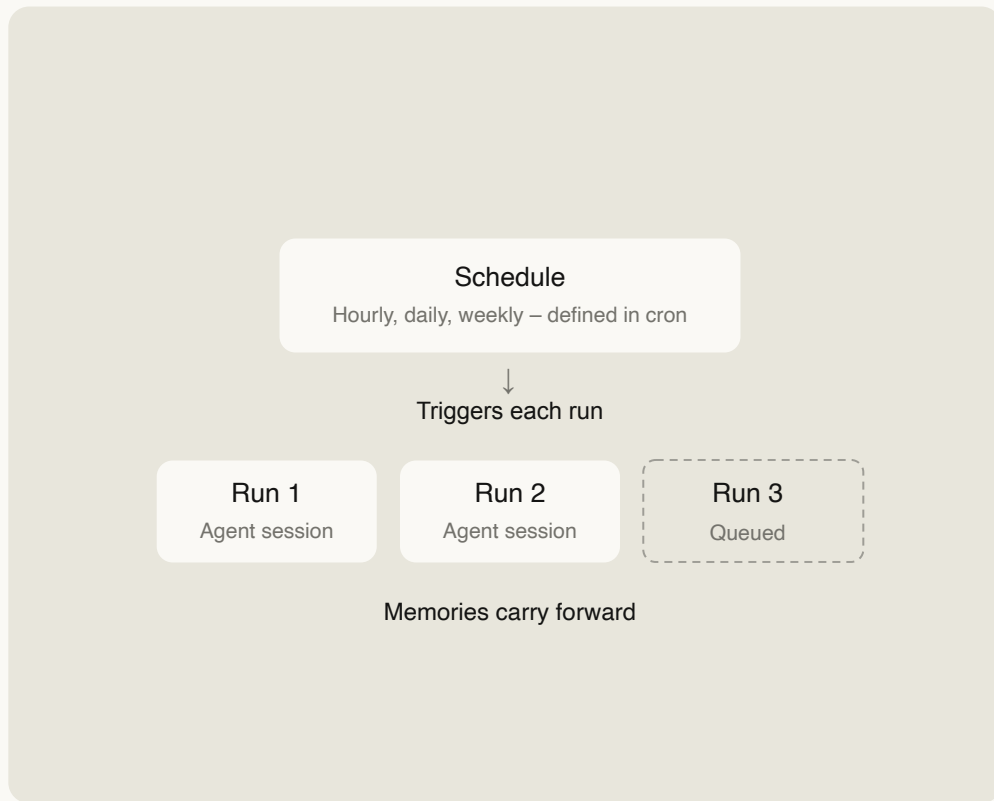
Define a cron schedule and the agent runs on its own on a daily, weekly, or custom interval.

## How it works

Memory and session history is shared between runs, so the agent knows what's already been done.

## Developer control

Scheduling is built into Managed Agents, ready for monitoring, reporting, and upkeep work.



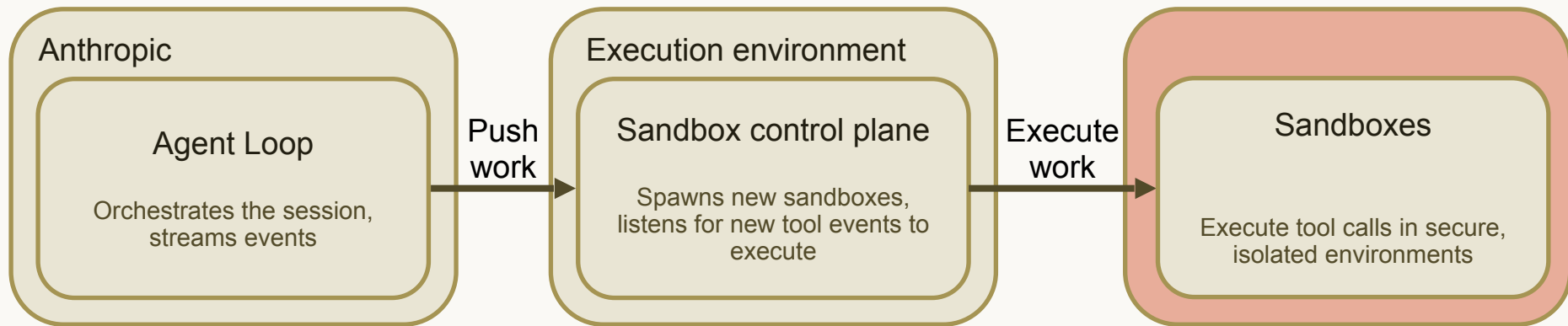
# Using Lambda MicroVMs with Claude Managed Agents



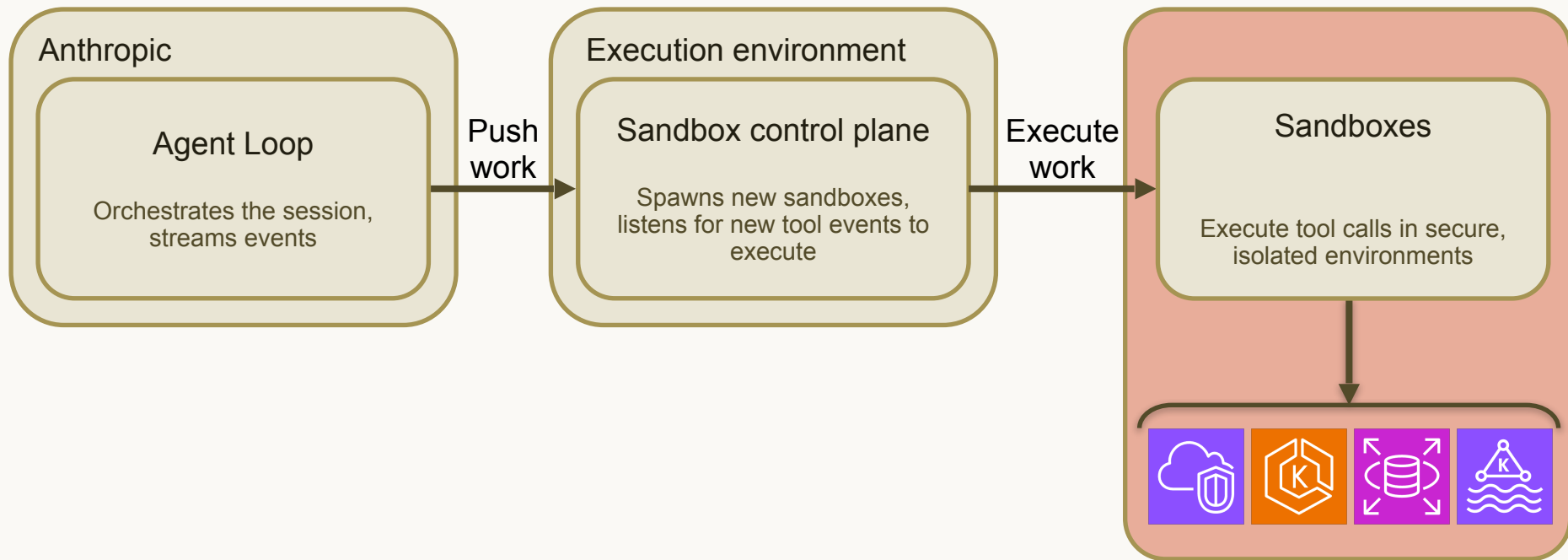
# Run untrusted code in a sandbox



# Run untrusted code in a sandbox **you control**



# Run untrusted code in a sandbox **you control**



# Agentic compute requirements in 2026

**VM-level isolation**

**Container-level  
efficiency**

**Function-level speed  
and scale**

**Persistent compute state with  
suspend/resume capabilities**

**Familiar local/remote  
development experience**

**All-at-once, no infra  
management  
(Go Serverless!)**

# Typical compute trade-offs

|                      | VM-level isolation | Near-instant startup | State persistence by design | No infra management | Suspend & resume |
|----------------------|--------------------|----------------------|-----------------------------|---------------------|------------------|
| Virtual machines     | ✓                  | ✗                    | ✓                           | ✗                   | ✓                |
| Containers           | ✗                  | ⚠                    | ✗                           | ✗*                  | ✗                |
| Serverless functions | ✓                  | ✓                    | ✗                           | ✓                   | ✗                |

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| Lambda MicroVMs      | ✓                  | ✓                    | ✓                           | ✓                   | ✓                |



# Lambda MicroVMs

Serverless compute for running user or AI-generated code in isolated, stateful execution environments.

Powered by ***Firecracker*** - the same tech behind Lambda's 15T+ monthly invocations.

# Key capabilities



VM-level isolation



Snapshot-based  
near instant startup



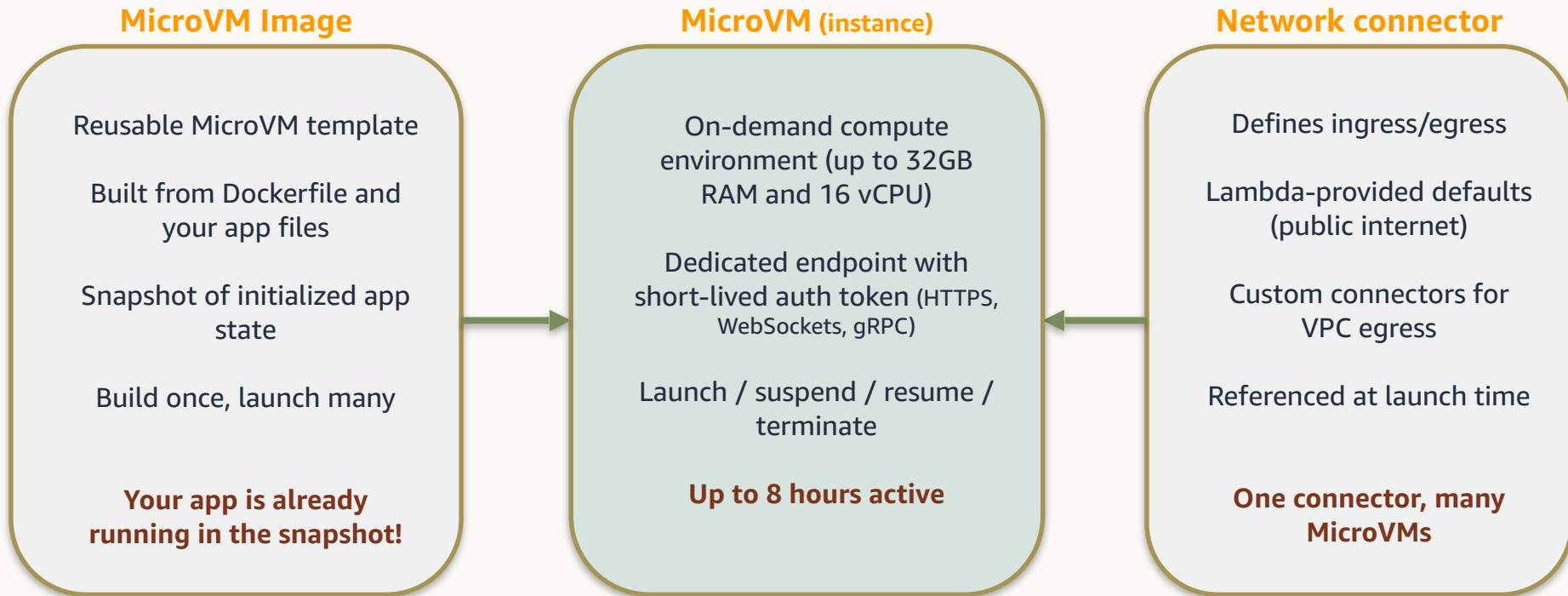
Stateful suspend/  
resume



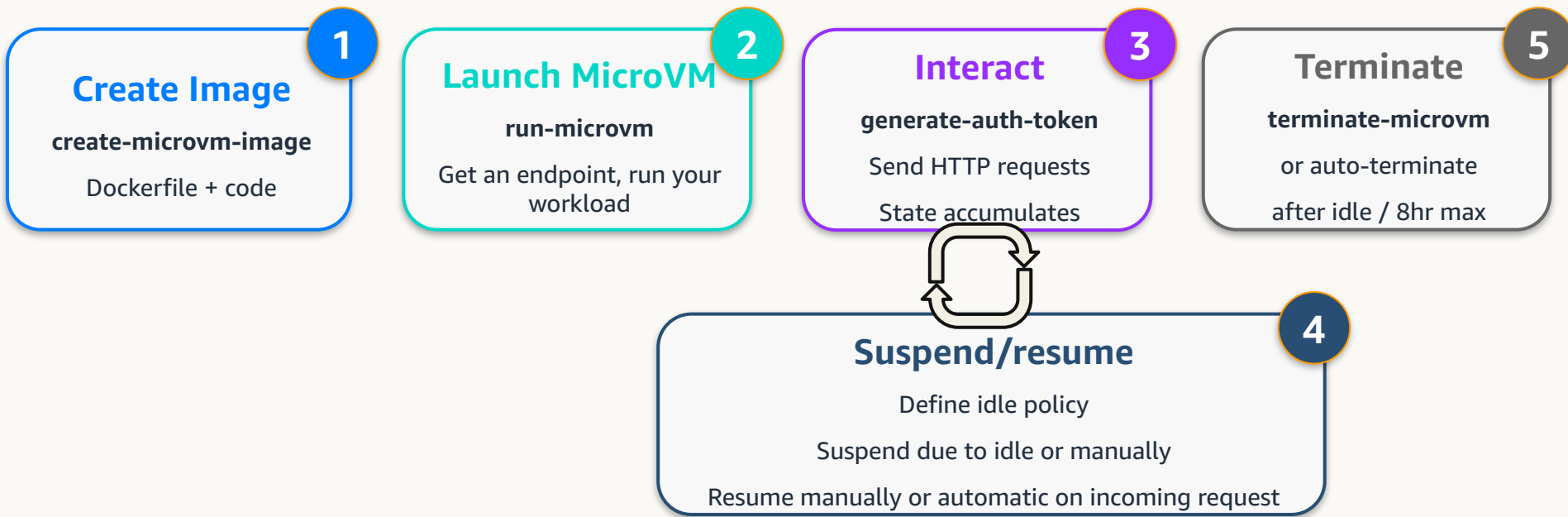
Familiar  
Developer  
Experience



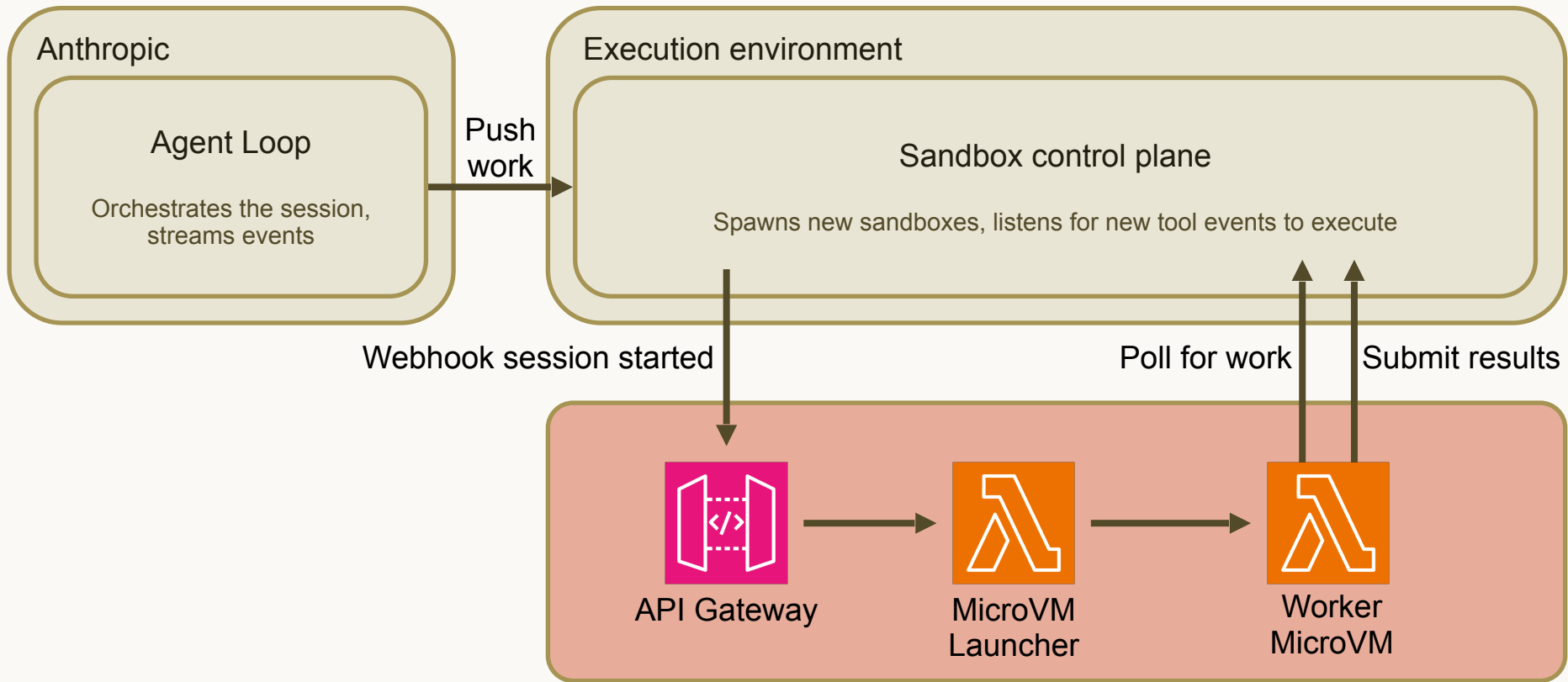
# Core concepts



# MicroVM lifecycle



# Claude Managed Agents with Lambda MicroVMs



# Demo time

# Key takeaways

1

## **Managed agentic sandboxes with VM-level isolation and serverless speed**

Firecracker gives you a real microVM boundary. Snapshot/restore gives you near-instant startups. You don't have to choose anymore.

2

## **State persists across requests and suspends**

Your entire environment (memory, disk, processes) is persisted across interactions and idle periods. You pay storage, not compute, while suspended.

3

## **Give Claude Managed Agents access to your AWS domain**

Anthropic runs managed agentic loop, Lambda MicroVMs provide secure, isolated sandboxes for running tools with access to your AWS domain

# Continue your learning...

- [Claude Managed Agents](#)
- [Claude Platform on AWS](#)
- [Lambda MicroVMs Dev Guide](#)
- [Using Lambda MicroVMs as a sandbox for Claude Managed Agents](#)

