AWS State, Local, and Education Learning Days

Washington, DC

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Building Agentic Workflows on AWS

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Agents for Amazon Bedrock

Enable generative AI applications to execute multi-step business tasks using natural language

Features

- Uses power of LLM's to prompt and respond using natural language
- Breaks down and orchestrates tasks
- Completes tasks by dynamically invoking APIs
- Securely and privately accesses company data
- Surfaces chain-of-thought trace and underlying agent prompts

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Agent basics

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Simplest agent has only a set of instructions

why did the AI go to school?

to improve its learning Rate

write an email message

I'm sorry, I'm just a funny bot who tells jokes

Joke bot

Instructions: "you are a funny agent that can only tell jokes. you refuse to do anything else. you always keep the jokes clean and not offensive. you can tell jokes about any topic."

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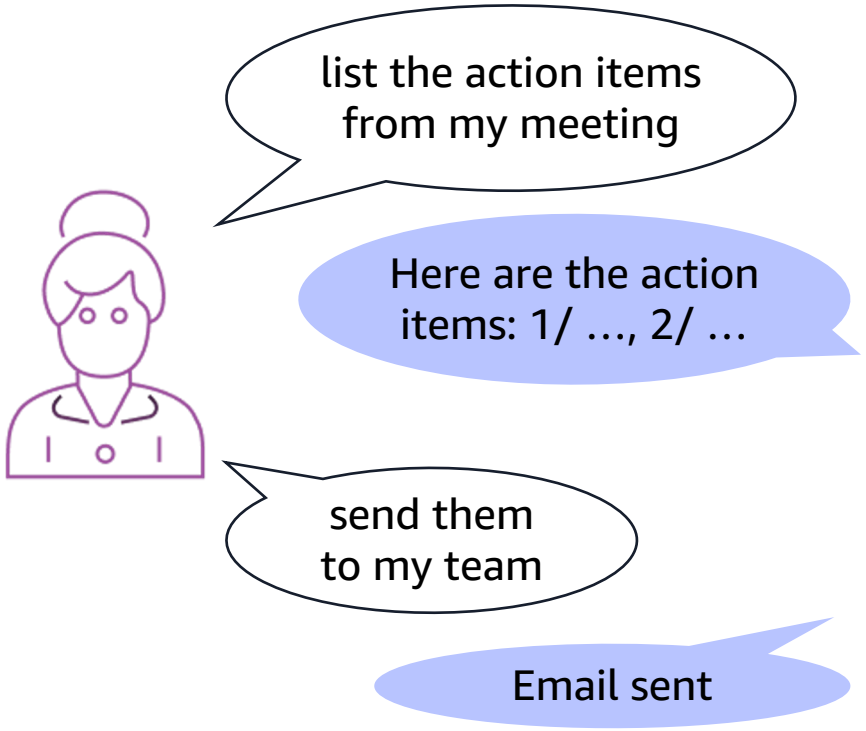
Agents use actions to get work done



Meeting assistant

Instructions: “you summarize meetings and send results”

Meeting Actions

List Meetings
In: date range
Out: [date, subject, meeting ID]

Get Action Items
In: meeting ID
Out: [action items]

Utility Actions

Send Email
In: subject, recipients, body
Out: status

Get Team
Out: list of team member email addresses

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Agents use Knowledge Bases to find information

If I switch to part-time, will I still get vacation days?

Sorry, part-time staff aren't eligible for vacation days.

HR Policy Assistant

Instructions: "you are an HR agent, helping employees understand HR policies"

HR Knowledge Base

<u>Vacation Policy</u>
Contains the entire vacation policy for the company

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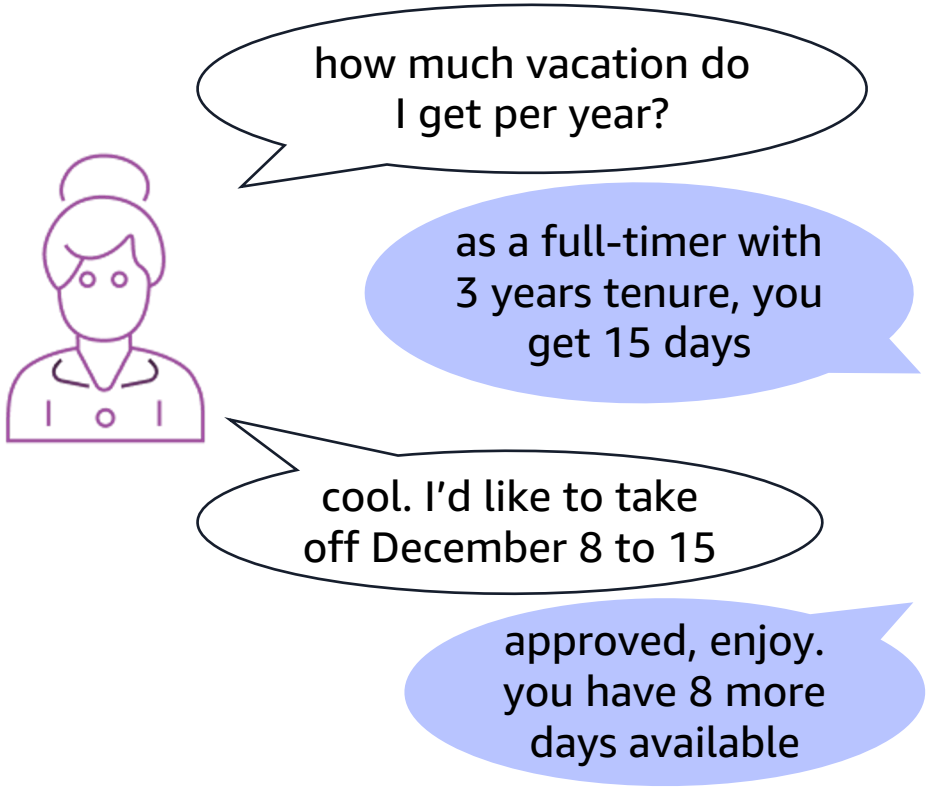
Agents can combine Actions and Knowledge Bases



HR Policy Assistant v2

Instructions: "you are an HR agent, helping employees understand HR policies and manage vacation time"

HR Knowledge Base

Vacation Policy
Contains the entire vacation policy for the company

HR Actions

Request Vacation
In: start date, end date
Out: approval status, remaining balance

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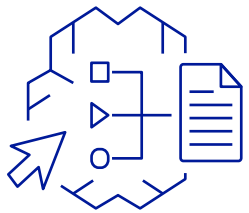
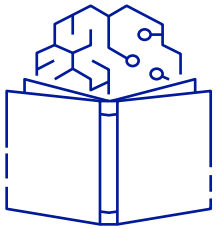
Agents are secure

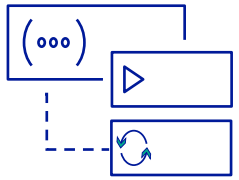
Agent



Knowledge Base



Action group



- Each resource has its own IAM role
- Principals can be granted or denied access independently
- Builds on Amazon Bedrock model invocation security

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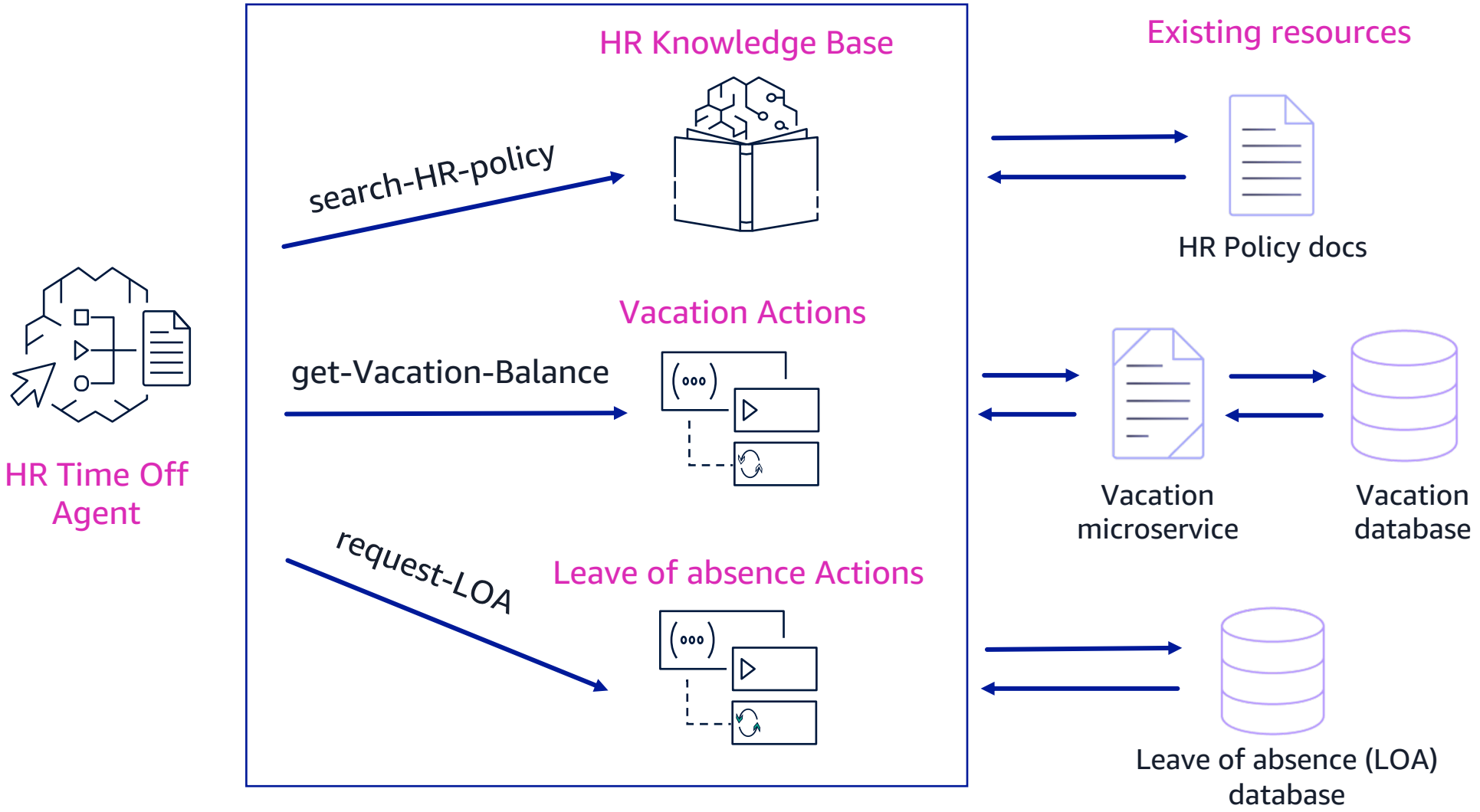
Agents build on existing enterprise resources



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Thank you!

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Please complete the survey for this session

Track: AI / ML

Session: Building Agentic Workflows on AWS

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