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AWS re:Invent 2025 — My Selection Of Sessions — Serverless, Security, SaaS and AI

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AWS re:Invent 2025 — My Selection Of Sessions

In this post, you will find my opinionated list of AWS re:Invent 2025 breakout sessions, workshops, builder sessions, code-talks, dev chats, and chalk talks that I found relevant to Serverless, SaaS, platform engineering and security or highly interesting in general.

Don't forget to read my [guide to AWS re:Invent — tips and tricks!](#)



<https://www.ranthebuilder.cloud/>

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My AWS re:Invent Guide

In case you missed, here's my [AWS re:Invent guide & tips and tricks](#). Covering session building, what to do in Vegas and even shopping!

Disclaimer — The Year of Agentic AI

This year, agentic AI and Bedrock sessions are everywhere. In my view, maybe a bit too much. I've tried my best to include Agentic AI content without overshadowing the many great non-AI sessions.

Session Types

Breakout sessions — lecture-style and run 45 to 60 minutes. Often includes 10–15 minutes of Q&A.

Keynotes

Hear from AWS leadership itself in exciting sessions. Most keynotes contain new services and features announcements. Please note that you can view them live from the comfort of your hotel (as was the case when I stayed at the Venetian), but I recommend attending at least one. Come early! I highly recommend attending Werner Vogel's keynote.

Check out the complete list: <https://reinvent.awsevents.com/keynotes/>

Builders' sessions

These one-hour hands-on sessions have ten attendees and one AWS expert per table. Each builders' session begins with a short explanation or demo of what you are going to build. There is no formal presentation. It's just you, your laptop, and the AWS expert.

Chalk talks

highly interactive whiteboarding sessions with AWS experts. Expect a lively technical discussion, centered around real-world architecture challenges, with a small group of experts and peers. These sessions run for 60 minutes.

Workshops

a two-hour interactive sessions where you work in small teams to solve real problems using AWS services. Each workshop starts with a short lecture (10 to 15 minutes) by the main speaker, and the rest of the time is spent working as a group. Don't forget to bring your laptop to these workshops.

Code Talk

Engaging, code-focused sessions with a small audience. AWS experts lead a live coding discussion as they explain the why behind AWS solutions.

Dev Chat

Shorter community driven session make. Get insights from AWS customers.

Gamedays

Pick one. Bring your laptop to a competitive challenge that takes from 2–4 hours. Quite intense too, but you learn something new and the prizes are awesome.

<https://reinvent-planner.cloud/sessions?type=Gamified+learning>

You can find my complete session list over at [reinvent planner](#).

Session Levels

There are four levels: 100, 200, 300, 400 and 500.

The 100–200 (Foundational & Intermediate) levels are excellent for a Serverless beginner.

If you build Serverless applications daily, target the 300–400 (advanced & expert) levels and only go to 100–200 for sessions in unfamiliar subjects (perhaps containers, data-related, or machine learning).

Starting this year, there will be a new 500-session program for distinguished experts. I'm very excited about these sessions, as I've felt that the 400-level courses weren't at an expert level to my liking in the past few years. Principal engineers deliver this track and will be highly technical. Go only if you are a domain expert and want to nerd out.

I highly suggest you use the unofficial planner by AWS Hero Raphael Manke:

<https://reinvent-planner.cloud/>

Let's go over my recommended sessions.

My Breakout Session

CNS361 | Breakout Session | Scaling Serverless with Platform Engineering: A Blueprint for Success.

This year, I'm thrilled to share the stage with Anton at AWS re:Invent to explore how Serverless and platform engineering go together at scale.

Explore serverless platform engineering through a lens of architectural blueprints: a structured approach that promotes consistency while empowering teams to focus on core business value. Discover what constitutes a practical serverless blueprint, both technically and culturally, and how Agentic AI assistants are revolutionizing platform operations. See how CyberArk reduced new service creation time to production from 5 months to 3 hours.

CSN361

Levels 100–200

CNS206 | Builder Session | Building Agentic AI architectures with AWS Serverless

Discover how serverless architectures unlock the full potential of AI agents in production systems. In this hands-on session, you'll learn practical patterns for deploying AI agents that can scale automatically and optimize costs. We'll explore both event-driven and synchronous implementations, showing how serverless elegantly handles the complex challenges of agent orchestration and state management. Through guided exercises, you'll build production-ready architectures that demonstrate how to rapidly deploy AI agents, manage their interactions, and

optimize their performance. Leave with battle-tested patterns for building scalable, cost-effective AI agent systems on AWS.

CNS211 | Breakout | The future of AWS Serverless in 2025 and beyond

Discover how AWS Serverless services are evolving beyond traditional serverless computing to meet the demands of AI-native development. Learn how we're addressing key challenges around global deployment, performance optimization, and secure isolation while embracing the transformation brought by generative AI. See how developers can now focus on business logic through natural language prompts, making serverless development more intuitive and powerful than ever before.

Level 300

CNS365 | Chalk Talk | Advanced authorization patterns for secure serverless applications

Learn how to tackle complex authorization challenges in multi-tenant serverless SaaS applications using modern declarative security controls on AWS. This session demonstrates how to implement efficient tenant isolation and access management using AWS Verified Permissions and Cedar policies across serverless and container architectures. Through PDP/PEP patterns, discover how to externalize security controls from application code, enabling better maintainability and scalability. We'll explore practical implementations of RBAC/ABAC policies for tenant-specific security requirements while adhering to zero-trust principles.

DEV308 | Breakout | Build modern applications with Amazon Aurora DSQL

This session explores Amazon Aurora DSQL, a serverless, distributed SQL database for next-generation workloads. Learn to build modern serverless applications using Amazon Aurora DSQL with Amazon API Gateway and AWS Lambda. Examine performance characteristics, scaling behavior, and cost considerations, along with current limitations.

CNS359 | Breakout | Build, deploy, and operate agentic architectures on AWS Serverless

Discover how to architect scalable, production-ready agentic AI applications on AWS that deliver autonomous, multi-agent solutions for complex business challenges.

Many organizations struggle with designing AI agents for real-world complexity, from managing context effectively to ensuring secure, scalable deployments. This session covers proven architectural patterns for single and multi-agent systems, applying monolith-to-microservices principles and domain-driven design to avoid common pitfalls. You'll explore practical implementations using API Gateway, Lambda, Fargate, and AgentCore Runtime with security best practices

CNS362 | Breakout | Designing mission critical applications with serverless services

In this session, learn how to design mission-critical systems that process millions of transactions daily, on serverless services. Beginning with a legacy system, we'll decompose a monolith and discuss key serverless patterns to help accelerate modernization efforts. This session highlights a transformational journey and the adoption of services like AWS Lambda, AWS Step Functions, Amazon DynamoDB, Amazon Simple Queue Service (Amazon SQS), and Amazon Simple Notification Service (Amazon SNS), enabling scalable and resilient processing.

CNS304 | Code Talk | AWS Lambda performance tuning: Best practices and guidance

In this code talk, learn how to manage large-scale serverless architectures. As Lambda functions multiply, organizations struggle with project organization, code reusability, dependency management, and maintaining consistent deployments across environments. See a live coding session on how to organize multi-function codebases, implement cross-function reuse, and establish standardized deployment pipelines.

CNS310 | Workshop | Building secure serverless applications

In this workshop, learn techniques to secure a serverless application built with AWS Lambda, Amazon API Gateway, and Amazon Aurora. Discover AWS services and features that you can use to improve the security of a serverless application in five domains: identity and access management, infrastructure, data, code, and logging and monitoring. Finally, explore new features including integrations with Amazon Inspector and Amazon GuardDuty. You must bring your laptop to participate.

CNS360 | Breakout | Implementing security best practices for serverless applications

This session explores enterprise-proven security best practices across the serverless application lifecycle, from development to production. Learn how to leverage AWS's built-in security features, implement effective security controls, and establish proper guardrails without hampering innovation.

CNS369 | Chalk Talk | Serverless Observability: Best Practices for AWS Distributed Systems

Want better visibility into your distributed serverless systems? In this chalk talk we'll demonstrate practical solutions for common observability challenges in distributed serverless applications. We'll tackle common pain points like request tracking across services, performance optimization, and error correlation. Through a retail application example, you'll learn how to implement comprehensive tracking across AWS serverless services, enabling you to maintain reliable and performant applications.

CNS335 | Workshop | Supercharge Serverless APIs with Powertools for AWS Lambda

In this workshop, learn how to implement request and response validation, dynamic routing, exception handling, middleware and OpenAPI schema generation and Pub/Sub notifications with AppSync Events. This workshop starts with an existing application and progressively improve your API event handler using Powertools for AWS Lambda. To complete this workshop, you must bring your laptop.

SAS304 | Breakout | Transforming from SaaS to multi-tenant agentic SaaS

Existing SaaS providers must determine how and where agents best fit into their offerings. Getting there requires organizations to transform existing IP and functionality into agent-powered experiences. This breakout will dig into the details of this transformation, examining the patterns, strategies, and techniques that can be used to introduce agents into an existing multi-tenant system. We'll focus heavily on identifying the target agents, digging into how/where they're built and introduced, how they're integrated, and so on. We'll also dig into how multi-tenancy lands in new agents, integrating with MCP servers, using RAG, applying tenant isolation, supporting onboarding, and on on.

Level 400

CNS403 | Breakout | Best practices for serverless developers

Do you want to take advantage of the full power of serverless architectures for your production workloads? Are you wondering how events can help your applications scale? Have you been trying to tune your applications for higher performance and lower cost? This session provides architectural best practices, optimizations, and useful shortcuts that experts can use to build secure, high-scale, and high-performance serverless applications.

NTA407 | Code Talk | Multi-Agent Collaboration with Amazon Bedrock Agentcore for Advanced SecOps

In this code talk session, we'll explore how multi-agent collaboration powered by Amazon Bedrock Agentcore transforms security and vulnerability management for SecOps teams. We'll demonstrate how specialized agents working in concert can automate vulnerability assessment and building remediation patches using AgenticAI. Through practical code examples, we'll show how to architect a resilient security system where agents share context on vulnerabilities, identified servers that are potentially impacted and create remediation artifacts to deploy the changes.

IND402 | Chalk Talk | Building an Agentic AI-powered Knowledge Assistant for Engineering R&D

Learn how an Agentic AI-powered Engineering Knowledge Assistant is revolutionizing the way teams interact with organizational expertise to search and summarize information as well as execute tasks and actions. This innovative solution combines industry knowledge with company-specific insights, featuring multi-modal interactions that provide instant access to knowledge base, best practices, and decision support. The assistant delivers contextual recommendations and insights to support diverse stakeholders — from designers and R&D analysts to manufacturing teams — helping them navigate complex engineering information with unprecedented efficiency.

DAT452 | Chalk Talk | Demystifying Aurora DSQL transactions and concurrency control

Join this session to learn about Amazon Aurora DSQL's optimistic concurrency control (OCC). Explore building an application to understand the impact of OCC on your relational workloads, how it differs from traditional databases, and how to achieve the desired semantics in DSQL's OCC model.

SAS404 | Workshop | Next-gen agentic SaaS: Transforming to an agent-powered experience

The move to Agentic AI is having a profound impact on SaaS providers. For many, this will have a transformative effect on their business and architecture. This workshop will take an end-to-end pass through an agentic modernization, extracting functionality from an application and moving it into intelligent agents. We'll look at how these new agents integrate into with the other moving parts of your system, using tenant-aware MCP servers, intelligent workflows, and so on. The goal here is to illustrate the fundamental strategies and approaches that can be used to transform existing SaaS solutions into multi-tenant, agent-enabled environments.

OPN408 | Chalk Talk | Production-ready Serverless: mastering Powertools for AWS Lambda

Discover how Powertools for AWS Lambda transforms Lambda development by implementing critical best practices at scale. This chalk talk demonstrates practical techniques beyond observability, including event schema validation, dynamic routing mechanisms, and feature flag implementations. We'll explore parameter resolution, idempotency controls, and batch processing patterns for building reliable functions. Learn how to enforce strong typing with event source data models while implementing resilient error handling flows. Build Lambda functions that reduce boilerplate while aligning with Well-Architected principles.

SEC408 | Chalk Talk | Securing Agentic AI: OWASP, MAESTRO, and Real-World Defense Strategies

Explore the latest in Agentic AI security with OWASP's updated Threats and Mitigations Guide and Agentic Security Initiative. We will also explore MAESTRO, a specialized threat modeling approach for AI systems, offering a layered methodology to identify and mitigate risks throughout the AI lifecycle. Through a real-world case study, we'll demonstrate security best practices for agentic AI, including robust governance, continuous monitoring, and least-privilege access. Learn how to confidently deploy autonomous AI agents while minimizing risks. Gain practical insights for building secure, trustworthy, and resilient agentic AI applications that can transform industries safely.

DAT414 | Breakout | Advanced data modeling with Amazon DynamoDB

Amazon DynamoDB is a popular choice for modern applications because it's a serverless database that provides single-digit millisecond performance at any scale. Optimizing your usage of DynamoDB requires a different approach to data modeling than traditional relational databases. In this session, AWS Data Hero Alex DeBrie shows you advanced techniques to help you get the most out of DynamoDB. Learn how to “think in DynamoDB” by learning the DynamoDB foundations and principles for data modeling. Further, learn practical strategies and DynamoDB features to handle difficult use cases in your application.

NTA405 | Code Talk | Building AI Agents with Serverless, Strands, and MCP

Join this session to master the art of building AI agents on AWS. Witness the evolution of generative AI (GenAI) that has enabled agentic systems to surpass traditional language models, and learn the fundamental principles that define an AI agent. Dive into the process of leveraging AWS serverless compute, the Strands Agents SDK, and the Model Context Protocol (MCP) to create these dynamic, adaptable agents. Observe the implementation of key capabilities like context awareness, authentication, security, and observability. Explore techniques to extend agent functionality with local tools, and unlock unprecedented integration by connecting to remote MCP servers. Walk away with the skills to elevate your intelligent applications with the transformative power of AWS-powered AI agents.

CNS425 | Chalk Talk | Building production-ready Agentic AI architectures with AWS Serverless

Agentic AI is transforming enterprise applications, but taking it from prototype to production requires more than just prompting. Join this chalk talk to discuss pragmatic, scalable patterns for building agentic AI systems using AWS Serverless services like Lambda, ECS Fargate, and API Gateway. You'll learn how to architect and operate distributed agent-based systems, including patterns for running Model Context Protocol (MCP) servers. Together, we'll walk through end-to-end architecture using the Strands Agents SDK, covering best practices for security, observability, and governance. Bring your questions — and leave with concrete patterns you can apply in your organization right away.

OPN404 | Workshop | Level Up Your Serverless: The Powertools for AWS Lambda Workshop

The definitive Powertools for AWS Lambda workshop evolves! This refreshed session dives into advanced techniques and patterns for your Serverless workloads. Through hands-on exercises, you'll learn to implement cost-effective observability, build failure-resilient functions and APIs — all while dramatically reducing boilerplate code. We will guide you through both established best practices and cutting-edge techniques to improve your Serverless applications' reliability and maintainability.

NTA406 | Code Talk | Observability for Reliable Agentic AI with Strands SDK & OpenTelemetry

Reliable agentic AI requires robust observability. In this hands-on session, learn how to instrument and monitor AI systems using OpenTelemetry with AWS native tools and open-source solutions. Explore real-world implementations using Strands SDK, diagnostic methodologies for typical use cases, and strategies for continuous improvement. Join us for a gamified experience troubleshooting an agentic application, and leave with practical skills to implement observability at scale.

DEV415 | Breakout | Building Scalable, Self-Orchestrating AI Workflows with A2A and MCP

Learn how to build scalable, autonomous AI workflows using the Agent-to-Agent (A2A) protocol and Model Context Protocol (MCP). This session demonstrates how to design specialized agents that dynamically discover each other's capabilities and collaborate on complex tasks across platforms and implementations. Using MCP for standardized context integration, you'll build horizontally scalable, serverless agents with AWS Lambda, Amazon Bedrock, and Momento Cache. You'll also learn how A2A enables secure agent collaboration with built-in observability.

SAS409 | Chalk Talk | Agentic tenant isolation: Securing multi-tenant agent resources

Agents introduce all new security considerations into the footprint of a SaaS environment. Multi-tenant agents must interact of range of resources as part of their intelligence and workflows, touching MCP servers, memory, data, tools, and models. Each of these interactions could be applying tenant context. In this chalk talk, we'll look at how tenant context is applied to these interaction in a model that enforces tenant isolation. This gets even more complex in a multi-agent environment where our isolation must span interaction with third-party agents. The goal here is to look

across these various interactions and outline strategies or applying tenant isolation policies to these different scenarios.

SAS410 | Chalk Talk | Inside a multi-tenant architecture built with Amazon Bedrock AgentCore

The introduction of Amazon Bedrock AgentCore provides builders with a range of new tools and constructs that can be used to design, secure, scale, and implement a multi-tenant agent. This session will look at how different multi-tenant patterns and strategies are realized through different AgentCore components, configurations, and deployment models. This includes enabling tenant-aware outcomes with tenant-specific workflows, memory, and MCP servers using the AgentCore gateway. We'll also look at how multi-tenant agents are operated and secured with AgentCore's observability and identity constructs. The goal is to examine each of the multi-tenant agentic models, through the lens of each of these AgentCore mechanisms.

Level 500

These sessions are special — most of them are Agentic AI related and are Chalk Talks that cater to the most hardcore users — go at your own caution! :)

INV515 | Chalk Talk | Wrangling chaos: Atoms of emergence

Distributed systems are made up of protocols, requests, retries, and feedback loops that can lead to emergent behaviors and metastable failures — even at surprisingly small scales. Through dependent probability, simulation, control theory, and other modeling techniques, discover precisely how counter-intuitive behaviors emerge in websystems. Learn to build stable systems that can wrangle these behaviors in production environments.

See the other sessions:

<https://reinvent-planner.cloud/sessions?level=500+%E2%80%93Distinguished>

Heroes/Community Track

The community track consists of AWS Heroes' and builder's breakout sessions and dev chats. Hearing from proven community leaders who share their real production knowledge is an **invaluable** asset.

With over 30 sessions, I was unable to include them all here: you should search for sessions that start with 'DEV.' Search in the catalog for 'DEV2' for dev session 200

level, search 'DEV3' for dev session 300 level sessions, and 'DEV4' for dev session 400 level.

Unofficial AWS re:Invent Session Planner 2025

Easily browse sessions, create a personalized schedule, and get recommendations to make the most of your AWS re:Invent...

reinvent-planner.cloud

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Hey, Sunil here. I wanted to take a moment to thank you for reading until the end and for being a part of this community.

Did you know that our team run these publications as a volunteer effort to over 3.5m monthly readers? We don't receive any funding, we do this to support the community. ❤️

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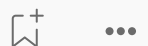


 Ran Isenberg

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 Tosny

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If there is one thing I am addicted to, besides coffee, it is the internet.

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