



AWS re:Invent

In case you missed it

December 2018

Interactive summary for
Financial Services Professionals

Thank you.



What a week!

AWS re:Invent 2018 was our biggest conference yet, with more than 2,000 learning sessions, many of which—I'm proud to report—featured AWS Financial Services customers.

If you were able to attend the conference, we are grateful that you chose to spend your week with us. And if you were a speaker, thank you for sharing your story.

If you weren't able to attend the conference, we appreciate your interest in the content presented there. I hope you'll take advantage of the resources in this guide to learn more about the projects that financial institutions are executing on AWS and the new services we launched that can help you realize your goals for 2019 and beyond.

Next year's re:Invent will be here before we know it (Dec. 2-6, 2019), so rest up! We look forward to seeing you then.

Frank Fallon

Vice President, AWS Worldwide Financial Services

How to use this guide

- 1 Review the table of contents on the following page to see where you want to get started
- 2 Use the index buttons on each page to navigate directly to the sections that interest you
- 3 Click links and images to access videos, service announcements, and press releases

Our recommendations

If you are short on time:

- ✓ Check out [key Financial Services highlights from the conference](#)
- ✓ Have a look at our [curated list of new service announcements](#)
- ✓ Watch [FSV201: Cloud Adoption and the Future of Financial Services](#)

If you have a few hours to spare:

- ✓ Watch [CEO Andy Jassy's keynote](#)
- ✓ Sample a few Financial Services breakout sessions (such as [FSV203](#), [FSV301](#), and [FSV305](#))
- ✓ Watch the Leadership Sessions of the [Security](#), [Machine Learning](#), and [Analytics](#) tracks

If you are looking for a broad overview:

- ✓ Watch all of [this year's keynotes](#)
- ✓ Watch all of the [Financial Services breakout sessions](#)
- ✓ Spend time learning about all the [new services launched at re:Invent](#)
- ✓ Register for the [on-demand AWS INNOVATE re:Invent 2018 Recap portal](#), which provides a virtual experience of the conference

Table of contents

Click on the links to navigate this guide.

This guide is intended to help Financial Services professionals identify relevant re:Invent 2018 content they may have missed, whether they were able to attend the conference or not.

We've also included information related to a select group of new service announcements. You can find information for all of our [new services here](#).

Each session description includes a YouTube link to enable you to view the session at your own pace.*

***Pro tips:**

- You can watch at an **accelerated speed** by clicking on the gear icon in YouTube, selecting "speed," and choosing the pace at which you want
- Access a **transcript or translation** by clicking on the three dots below the video screen within the headline navigation bar

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[Financial Services highlights](#) »»

[Financial Services session recaps](#) »»

[Other recommended sessions](#) »»

[Executive Summit highlights](#) »»

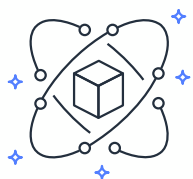
[Select service announcements](#) »»

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re:Invent resources



[Learn more about new AWS services and features »](#)



[Watch the customers who spoke on stage during the keynotes »](#)



[Watch breakout sessions from the Financial Services track »](#)



[Watch the new AWS launch announcements »](#)



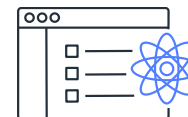
[Join the AWS Innovate re:Invent Recap Edition 2018 »](#)



[Watch all of the re:Invent 2018 breakout sessions »](#)



[Watch the keynotes from re:Invent 2018 »](#)



[View session presentations in SlideShare »](#)

Select Financial Services announcements and highlights



Bloomberg makes real-time data available on AWS »



National Australia Bank selects AWS as a long-term strategic cloud provider »



Guardian selects AWS as its preferred cloud provider »



Santander's Openbank goes all-in on AWS »



Ellie Mae goes all-in on AWS »



Capital One's move to the cloud offers lessons for enterprises »



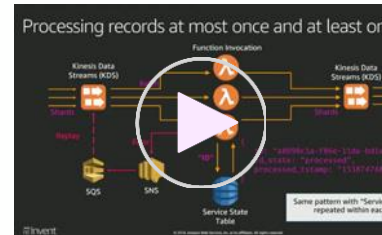
Vanguard is embracing new operating models and chaos engineering concepts »



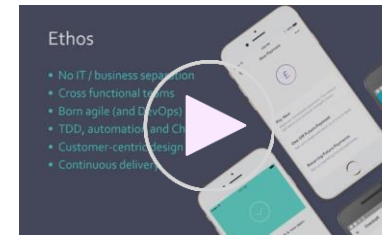
Allianz uses AWS to guarantee customers can get an insurance quote in less than 60 seconds »



Wellington Management goes all-in on AWS »



HSBC uses serverless to process millions of transactions in real time »



Starling Bank built a bank from scratch on AWS »



Leadership Session with Frank Fallon: Cloud adoption and the future of Financial Services »

Financial Services session recaps



Scott Mullins

Director
Head of Worldwide Financial Services
Business & Market Development

“ re:Invent 2018 was the biggest yet, and it prominently featured Financial Services customers and their use of AWS to both transform the industry and innovate. This year’s conference included financial institutions from every market segment across the globe, and it’s safe to say that these customers are thinking big! They discussed implementing Machine Learning at scale, migrating Tier 1 workloads and sensitive data sets (including PII) to AWS, and executing all-in migrations. These topics reflect an awareness that cloud is truly the new normal, and the industry has the collective confidence to deploy new tools to craft the future of Financial Services.

In the following pages, we've summarized the Financial Services sessions from re:Invent 2018 to help you decide on the presentations that are most relevant to your business and interests. We encourage you to view these sessions to learn more about how the industry is evolving, and how AWS is helping the industry with its transformation. ”

Financial Services breakout session index

Breakout Sessions

[FSV201 - Leadership Session: Cloud Adoption and the Future of Financial Services](#)

[FSV203 - Wellington Management: Making the journey to all-in, one datacenter at a time](#)

[FSV204 - Transforming Consumer Banking with a 100% Cloud-based Bank \(with Starling Bank\)](#)

[FSV301 - Financial Svcs: Build Customer-Centric Contact Centers with Amazon Connect and Machine Learning](#)

[FSV304 - Industrialize Machine Learning Using CI/CD Techniques](#)

[FSV305 - How HSBC Uses Serverless to Process Millions of Transactions in Real Time](#)

[FSV325 - How Nubank Automates Fine-Grained Security with IAM, AWS Lambda, and CI/CD](#)

[AIM403 - Integrate Amazon SageMaker with Apache Spark \(with Moody's\)](#)

[ANT202 - Modern Cloud Data Warehousing: Optimize Your Analytics Practices \(with Intuit\)](#)

[ANT204 - Build Data Engineering Platforms with Amazon EMR \(with Vanguard\)](#)

[ANT309 - Build and Govern Your Data Lakes with AWS Glue \(with Robinhood\)](#)

[ANT312 - Hadoop/Spark to Amazon EMR, Architect It for Security & Governance \(with Guardian\)](#)

[ARC307 - How Intuit TurboTax Ran Entirely on AWS for 2017 Taxes](#)

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[NET301 - Best Practices for AWS PrivateLink \(with HSBC\)](#)

[SEC301 - The Theory and Math Behind Data Privacy and Security Assurance \(with Bridgewater\)](#)

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[SRV319 - Security & Compliance for Modern Serverless Applications \(with HSBC\)](#)

[STG302 - Driving Machine Learning and Analytics Use Cases with AWS Storage \(with Broadridge\)](#)

[STG303 - Deep Dive on Amazon S3 Security and Management \(with Capital One\)](#)

[WPS305 - How Fannie Mae Processes over a Quarter Million Loans per Day with Amazon S3](#)

Sponsored Breakout Sessions

[FSV306-S - Implementation of Amazon Connect, Powered by Accenture \(with Mutual of Omaha\)](#)

[FSV307-S - Vanguard's Journey with Tableau to the AWS Cloud](#)

[FSV308-S - Embracing New Op Model & Chaos Engineering Concepts \(with Vanguard\)](#)

[ANT330-S - "Cloud First" Helps Hub International Grow the Business with Splunk on AWS](#)

[ARC331-S - Enabling a Digital Platform with Microservices Architecture \(with Bajaj Finance\)](#)

[SEC309-S - Moody's: Deploying Cloud-Native Architectures with Automation](#)

FSV201

Recommended



Leadership Session: Cloud Adoption and the Future of Financial Services

FEATURING

FS INDUSTRY LEADERS

Financial institutions are harnessing AWS capabilities to transform their existing businesses and bring innovative new solutions to market. In this session, **Frank Fallon**, VP of Worldwide Financial Services at AWS, reports on the shifts that the public cloud is enabling across the industry, such as the explosion of new digital channels, core systems modernization, and the integration of ML technologies at scale.

Frank is joined by technology leaders of leading financial institutions who share their organizations' respective journeys with AWS to become more nimble, innovative, efficient, and responsive to the needs of their customer.



FEATURED SPEAKER:

Frank Fallon, VP of Worldwide Financial Services, AWS



CUSTOMER SPEAKERS:

John Heveran, SVP and CIO of Commercial Insurance,
Liberty Mutual Insurance

Yuri Misnik, CIO, National Australia Bank

Roger Stiles, CIO of Personal Investments,
Fidelity Investments

Claus Moldt, CIO, FICO



Watch the session



FSV203

Wellington Management: The Journey to All-In, One Data Center at a Time

FEATURING

WELLINGTON MANAGEMENT

Learn directly from the executive sponsor how Wellington Management, a global investment management firm that manages more than 1 trillion USD on behalf of its clients, is executing an “all-in” strategy to exit all of its physical data centers by 2019.

The migration includes both commercial applications and a large number of custom-developed analytical, portfolio management, and trading applications. We share the lessons learned, both positive and constructive, by a team that has been on this journey for over five years.

 **Watch the session**

 **FEATURED SPEAKERS:** Colin Mazzola - Senior Managing Director and Partner, Wellington Management; Peter Buonora - Solutions Architect, AWS

FSV204

Transforming Consumer Banking with a 100% Cloud-based Bank


FEATURING

STARLING BANK

Customer demands for higher levels of service and value, constantly evolving technology capabilities, and stringent regulatory requirements are all powerful forces reshaping retail banking. Built exclusively on AWS, Starling Bank's 100% cloud-based, mobile-only banking solution satisfies regulators in terms of its resilience, security, and reliability.

In this session, learn how Starling Bank delivers value to their customers and innovates at a very fast pace in a sector that can be slow to evolve.

 **Watch the session**

 **FEATURED SPEAKERS:** Megan Caywood - Chief Platform Officer, Starling Bank; Steve Newson - Director of Technology, Starling Bank

FSV301

Build Customer-Centric Contact Centers with Amazon Connect and Machine Learning

FOCUS ON

MACHINE LEARNING

How can Financial Services companies meet growing customer demands for personalized, high-quality service while satisfying regulatory obligations? In this session, learn how Amazon Connect, a self-service, cloud-based contact center, can integrate with machine learning services on AWS such as Amazon Transcribe, Amazon Comprehend, and Amazon Lex to enable financial institutions to deliver transformational omni-channel experiences to their customers while complying with regulations like MiFID II, the GDPR, and the SEC's data retention rules.

We'll also discuss how to integrate Amazon Connect with machine learning services on AWS to make contact center content available for search and analysis.

 **Watch the session**

 **FEATURED SPEAKERS:** Kenneth Jackson - Principal Solutions Architect, AWS; Hanybal Jajoo - Principal Solutions Architect, AWS

FSV304

Industrialize Machine Learning Using CI/CD Techniques

FOCUS ON

MACHINE LEARNING/DEVOPS

As financial institutions look to accelerate and scale their use of machine learning, they need to address questions related to specific results, such as the version of the code and the data that lead to a particular inference. The use of disparate and increasingly non-traditional data sources for activities such as targeted marketing, fraud detection, and improved returns is driving a need for structured development of machine learning models.

We'll discuss how we can use a combination of AWS services including Amazon SageMaker, AWS CodeCommit, AWS CodeBuild, and AWS CodePipeline to create a workflow that will help financial institutions meet their requirements and drive results.



Watch the session



FEATURED SPEAKER: Felix Candelario - Principal Global Accounts Solutions Architect, AWS

FSV305

How HSBC Uses Serverless to Process Millions of Transactions in Real Time

FEATURING

HSBC

For large financial institutions, it can be extremely hard to predict when your architecture may need to scale to process millions of financial transactions per day. HSBC addressed this challenge by integrating its on-premises mainframe with AWS services such as AWS Lambda, Amazon Kinesis, and Amazon DynamoDB. This integration enables the bank to engage in real time with millions of retail banking customers.

In this session, we share an architecture pattern that demonstrates how retail banks can add value by investing in their legacy system when integrating streaming data from on-premises systems to an event-driven, serverless architecture at scale.



Watch the session



FEATURED SPEAKERS: Srinanth Rudraraju - Lead Digital Solutions Architect, HSBC; Santiago Freitas - Global Solutions Architect, AWS

FSV306-S

Implementation of Amazon Connect, Powered by Accenture

SPONSORED SESSION FEATURING

MUTUAL OF OMAHA

Late in 2017, Mutual of Omaha began a cloud journey to modernize its legacy contact centers. Using Amazon Connect—supported by Amazon Lex, Amazon Polly, AWS Lambda, and Kibana—Accenture helped Mutual of Omaha improve customer engagement, develop self-service features using leading-edge speech recognition, and perform powerful analytics to continuously drive positive change. Mutual of Omaha plans to reduce TCO annually with Amazon Connect compared with its legacy solution. As of August 2018, three contact centers are live in Amazon Connect, with several more scheduled to go live in 2018. This session is brought to you by AWS partner, Accenture.



Watch the session



FEATURED SPEAKERS: Jim Phillips - Cloud Architect and Dawn Pielstick - Business Systems Architect, Mutual of Omaha; Roy Bacharach - Senior Principal Technology and Shantanu Joshi - AWS Delivery Manager, Accenture

FSV307-S

Vanguard's Journey with Tableau to the AWS Cloud

SPONSORED SESSION FEATURING

VANGUARD

With over \$5 trillion in assets under management, Vanguard requires a secure, flexible, and fast data and analytics platform. By deploying Tableau on AWS, Vanguard was able to move from their private cloud to the AWS Cloud, and significantly reduce the administrative workload of Vanguard's IT team, allowing them to focus on innovating. In this session, learn how mission-critical processes such as configuring deployments, adding nodes, and creating backups are automated via scripts. Expect to leave with a clear picture of how a global deployment of Tableau on AWS supports peak surges and avoids the sunk costs of on-premises hardware. This session is brought to you by AWS partner, Tableau Software.



Watch the session



FEATURED SPEAKER: Sharan Patil - Senior CTO Program Manager, Cloud/Platform as a Service, Vanguard

FSV308-S

Embracing New Op Model & Chaos Engineering Concepts

SPONSORED SESSION FEATURING

VANGUARD

Curious to understand how operating model changes are key to cloud adoption? Last year, Vanguard presented its journey to the cloud. CTO Jeff Dowds anticipated that there was a lot more work to do organizationally, especially around operating models. In this session, Jeff discusses the lessons learned from implementing new organizational structures tailored towards delivering business value in the cloud. He will also discuss Vanguard's journey into the adoption of chaos engineering in a highly regulated environment where testing in production is typically not allowed. This session is brought to you by AWS partner, Deloitte Consulting LLP.

 [Watch the session](#)



FEATURED SPEAKERS: Jeff Dowds - CTO, Vanguard; Mike Kavis - Managing Director, Deloitte

FSV325

How Nubank Automates Fine-Grained Security with IAM, AWS Lambda, and CI/CD

FEATURING

NUBANK

Cloud-native and with security integrated early in the software development process, Nubank is the largest digital bank in the world outside of Asia. Demand for higher levels of service and value, constantly evolving technology capabilities, and stringent regulatory requirements are all powerful forces reshaping retail banking. In this session, Nubank CTO Edward Wible discusses how the company mixes engineering culture, security philosophy and structure, automation, and integration with AWS security services. Learn how to leverage the day-to-day software development workflow for extensive security and maximum engineering throughput while minimizing the operational pain of running a large infrastructure.

 [Watch the session](#)



FEATURED SPEAKERS: Adam Edward Wible - CTO, Nubank, Renan Capaverde - Software Engineer, Nubank

AIM403

Integrate Amazon SageMaker with Apache Spark

FEATURING

MOODY'S

Amazon SageMaker, our fully managed machine learning platform, comes with pre-built algorithms and popular deep learning frameworks. Amazon SageMaker also includes an Apache Spark library that you can use to easily train models from your Spark clusters. In this code-level session, we show you how to integrate your Apache Spark application with Amazon SageMaker. We also dive deep into starting training jobs from Spark, integrating training jobs in Spark pipelines, and more.

 [Watch the session](#)



FEATURED SPEAKERS: Keith Steward - Sr. Specialist Solutions Architect - AWS; Lauren Ottaviano - Data Architect, Moody's

ANT202

Modern Cloud Data Warehousing: Optimize Analytics Practices

FEATURING

INTUIT

Most companies are overrun with data, yet they lack critical insights to make timely and accurate business decisions. They are missing the opportunity to combine large amounts of new, unstructured big data that resides outside their data warehouse with trusted, structured data inside their data warehouse. In this session, we discuss the most common use cases with Amazon Redshift, and we take an in-depth look at how modern data warehousing blends and analyzes all your data to give you deeper insights to run your business. Intuit joins us to share their experience modernizing their analytics pipeline.

 [Watch the session](#)



FEATURED SPEAKERS: Tony Gibbs - Data Warehousing Solutions Architect, AWS; Jason Rhoades - Systems Architect, Intuit

ANT204

Build Data Engineering Platforms with Amazon EMR

FEATURING

VANGUARD

Amazon EMR provides a flexible range of service customization options, enabling customers to use it as a building block for their data platforms. In this session, AWS customers Salesforce.com and Vanguard discuss in detail how they use Amazon EMR to build a self-service, secure, and auditable data engineering platform. Customers who want to optimize their design and configurations should attend this session to learn best practices from customer experts. Topics include achieving cost-efficient scale, using notebooks, processing streaming data, rapid prototyping of applications and data pipelines, architecting for both transient and persistent clusters, setting up advanced security and authorization controls, and enabling easy self service for users.

 **Watch the session**



FEATURED SPEAKERS: Abhishek Sinha - Principle Product Manager, Siddharth Sharma - Lead Engineer, Salesforce, Roopak Gupta - VP, Software engineering, Salesforce, Ritesh Shah - Senior Program Manager, Vanguard

ANT309

Build and Govern Your Data Lakes with AWS Glue

FEATURING

ROBINHOOD

As data volumes grow and customers store more data on AWS, they often have valuable data that is not easily discoverable and available for analytics. Learn how AWS Glue makes it easy to build and manage enterprise-grade data lakes on Amazon S3. AWS Glue can ingest data from variety of sources into your data lake, clean it, transform it, and automatically register it in the AWS Glue Data Catalog, making data readily available for analytics.

Additionally, Robinhood will share how they were able to move from a world of data silos to building a robust, petabyte scale data lake on Amazon S3 with AWS Glue.

 **Watch the session**



FEATURED SPEAKERS: Prajakta Damle - Principal Product Manager, AWS; Arpan Shah - Engineering Manager, Data, Robinhood

ANT312

Hadoop/Spark to Amazon EMR, Architect It for Security & Governance

FEATURING

AIRBNB & GUARDIAN LIFE

Customers are migrating their analytics, data processing (ETL), and data science workloads running on Apache Hadoop/Spark to AWS in order to save costs, increase availability, and improve performance. In this session, AWS customers Airbnb and Guardian Life discuss how they migrated their workload to Amazon EMR. This session focuses on key motivations to move to the cloud. It details key architectural changes and the benefits of migrating Hadoop/Spark workloads to the cloud.

 **Watch the session**



FEATURED SPEAKERS: Abhishek Sinha, Principal Product Manager, AWS; Jian Chen & Guang Yang, Software Engineer, Airbnb; Wang Cheng, Director Data Platform Architecture, Guardian Life Insurance

ANT330-S

"Cloud First" Helps Hub International Grow the Business with Splunk on AWS

SPONSORED SESSION FEATURING

HUB INTERNATIONAL

What does "Cloud First" really mean for your processes, customers, and the future of your business? In this session, learn from Hub International's CISO and Head of Hub International's CISO and Head of Architecture how the insurance company is transforming their business by migrating to the cloud for greater scale, cost savings, performance, and security. See how Hub International is harnessing machine data and predictive analytics to secure applications and infrastructure, control costs and improve capacity planning. This session is brought to you by AWS partner, Splunk.

 **Watch the session**



FEATURED SPEAKERS: Jeremy Embalabala - Director, Security Architecture & Engineering, HUB International; Seth McCallister - Chief Information Security Officer, HUB International

ARC307

How Intuit TurboTax Ran Entirely on AWS for 2017 Taxes

FEATURING

INTUIT

In this session, Intuit presents how they prepared TurboTax to take the production load, and how they gained the confidence to run their 2017 peak activity entirely on AWS. They discuss resiliency testing, game days, operational run books, working with AWS Support, and how each of these activities impacted their confidence in their reliability and availability.

 **Watch the session**



FEATURED SPEAKERS: BK Chaurasiya - Senior Solutions Architect, AWS; Jeffery Weber - Architect, Intuit

ARC218-S

Enabling a Digital Platform with Microservices Architecture

SPONSORED SESSION FEATURING

BAJAJ FINANCE

Bajaj Finserv Direct Limited (BFDL) serves millions of customers with its comprehensive portfolio and innovative offerings in financing, general insurance, life and health insurance and retirement and savings. BFDL envisioned building a cloud-native digital platform to offer an unmatched experience to its customers. In this session, hear from BFDL how they built a robust digital backbone on AWS with a scalable microservices architecture deployed using Docker containers. This session is brought to you by AWS partner, Cognizant Technology Solutions US Corp.

 **Watch the session**



FEATURED SPEAKERS: Raghuraman Chandrasekharam - Global Cloud Delivery Leader, Cognizant; Ravindra S, IT Head, Bajaj Finance

ENT302

Optimizing Costs as You Scale on AWS

FEATURING

VANGUARD

The cloud offers a first-in-a-career opportunity to constantly optimize your costs as you grow and stay on the leading edge of innovation. By developing a cost-conscious culture and assigning the responsibility for efficiency to the appropriate business owners, you can deliver innovation efficiently and cost effectively. In this session, we share The Vanguard Group's real-world experience of optimizing their costs, and we review a wide range of cost planning, monitoring, and optimization strategies.

 **Watch the session**



FEATURED SPEAKERS: Keith Jarrett - WW BD Lead - Cost Optimization, Megan Kennedy - Program Manager, Vanguard, Timothy Treston - Cloud Economist, The Vanguard Group

NET323

How Vanguard and Bloomberg Use AWS PrivateLink

FEATURING

BLOOMBERG & VANGUARD

Vanguard and Bloomberg's use of AWS PrivateLink as they moved from a small number of large accounts to a large number of small accounts reduced blast radius at the management plane but introduced significant complexity at the network layer. In this session, we introduce the type of network segmentation that is required to implement a zero-trust network for a highly regulated financial investment company like Vanguard—one that adds additional complexity.

 **Watch the session**



FEATURED SPEAKERS: Ilya Epshteyn - Principal Solutions Architect, AWS; Barry Sheward - Chief Enterprise Architect, Vanguard; Cory Albert - Head of Cloud Strategy, Enterprise Data, Bloomberg LP

NET301

Best Practices for AWS PrivateLink

FEATURING

HSBC

AWS PrivateLink is a networking service that allows you to increase the security, scale, and resiliency of your services. In this session, we review the way AWS PrivateLink works, best practices, and how to increase availability and security. We review how to set up both the consumer and provider sides of PrivateLink, use cases, and interoperability with other AWS services. Whether you want to consume services in a more scalable and private way or you have services you want to share with others, we help you understand best practices for AWS PrivateLink.

 Watch the session

 **FEATURED SPEAKERS:** James Devine - Solutions Architect, AWS; Puneet Konghot - Senior Product Manager, EC2, AWS; Paul Revello - Architect, HSBC

SEC301

The Theory and Math Behind Data Privacy and Security Assurance

FEATURING

BRIDGEWATER ASSOCIATES

Data privacy and security are top concerns for customers in the cloud. In this session, the AWS Automated Reasoning group shares the advanced technologies, rooted in mathematical proof, that help provide the highest levels of security assurance in today's data-driven world. The Automated Reasoning group co-presents with Bridgewater, a customer that has leveraged these technologies to help confirm that security requirements are being met, an assurance not previously available from conventional tools.

 Watch the session

 **FEATURED SPEAKERS:** Neha Rungta - Principal Software Dev Eng, AWS Security, AWS; Supriya Anand - Content Strategist, ARG, AWS; Greg Frascadore - Security Architect, Bridgewater Associates; Tim Kropp - Technology & Security Lead, Bridgewater Associates; Dan Peebles - Senior Software Developer, Bridgewater Associates

SEC309-S


Moody's: Deploying Cloud-Native Architectures with Automation

SPONSORED SESSION FEATURING

MOODY'S

As Moody's AWS presence continues to grow, automation is critical to facilitate the rapid onboarding of new applications, VPCs, and acquisitions while ensuring they are secured appropriately. Moody's has chosen Terraform to define and deploy their application and security infrastructure for a range of different use cases on AWS. In this session, we dive deep into a range of automation use cases, including: AWS infrastructure creation; deployment of a shared service environment; onboarding of new/existing lines-of-business; and Integration with threat intelligence services such as Amazon GuardDuty. This session is brought to you by AWS partner, Palo Alto Networks.

 Watch the session

 **FEATURED SPEAKERS:** Vinay Venkataraghavan - Solutions Architect, Palo Alto Networks; Shankar Chandrasekhar - VP Cyber Security Engineering, AVP for Cyber Security Engineering, Moody's

SEC324

IAM for Enterprises: How Vanguard Matured IAM Controls to Support Micro Accounts

FEATURING

VANGUARD

In this session, learn how Vanguard has matured their IAM controls and automation to support a micro-account strategy, providing further agility to developers while reducing blast radius and improving governance. You learn how Vanguard uses STS Federation at the OU level, builds common roles across all micro accounts, implements AWS Organizations SCPs, and uses different network control zones for admin vs. non-admin functions. Vanguard also shares how they are using AWS Lambda to block escalation of privilege.

 Watch the session

 **FEATURED SPEAKERS:** Ilya Epshteyn - Principal Solutions Architect, AWS; Rajeev Sharma - Senior Application Security Architect, Vanguard

SRV319

Security & Compliance for Modern Serverless Applications

FEATURING

HSBC

Serverless architecture and a microservices approach have changed the way we develop applications. Increased composability doesn't have to mean decreased auditability or security. In this talk, we discuss the security model for applications based on AWS Lambda functions and Amazon API Gateway. Learn about the security and compliance that comes with Lambda right out of the box and with no extra charge or management. We also cover services like AWS Config, AWS Identity and Access Management (IAM), Amazon Cognito, and AWS Secrets Manager available on the platform to help manage application security.

 [Watch the session](#)



FEATURED SPEAKER: Daniel Lees - Domain Architect, HSBC; Saroj Thatte, GM, AWS Cognito

STG302

Driving Machine Learning and Analytics Use Cases with AWS Storage

FEATURING

BROADRIDGE

You've designed and built a well-architected data lake and ingested extreme amounts of structured and unstructured data. Now what? We'll explore real-world use cases where data scientists, developers, and researchers have discovered new and valuable ways to extract business insights using advanced analytics and machine learning. We review Amazon S3, Amazon Glacier, and Amazon EFS, the foundation for the analytics clusters and data engines. We also explore analytics tools and databases, including Amazon Redshift, Amazon Athena, Amazon EMR, Amazon QuickSight, Amazon Kinesis, Amazon RDS, and Amazon Aurora; and we review the AWS machine learning portfolio.

 [Watch the session](#)



FEATURED SPEAKERS: Maheendra Bairagi - AI/ML Specialist Solutions Architect, AWS; Robert Krugman - Chief Digital Officer, Broadridge Financial Solutions

STG303

Deep Dive on Amazon S3 Security and Management

FEATURING

CAPITAL ONE

In this session, learn best practices for data security in Amazon S3. We discuss the fundamentals of Amazon S3 security architecture and dive deep into the latest enhancements in usability and functionality. We investigate options for encryption, access control, security monitoring, auditing, and remediation.

 [Watch the session](#)



FEATURED SPEAKERS: PD Dutta - Sr. Product Manager, AWS; Christopher Schultz - Director, Software Engineering, Capital One

WPS305

How Fannie Mae Processes over a Quarter Million Loans per Day with Amazon S3

FEATURING

FANNIE MAE

In this session, Fannie Mae discusses how they completely re-architected a mission-critical application using AWS native services that process hundreds of thousands of mortgage loans every day in a highly scalable and reliable manner. The transaction-heavy workload uses over 20+ million Amazon S3 transactions a day, each within 150-millisecond response times, thus providing increased uptime and faster response.

 [Watch the session](#)



FEATURED SPEAKERS: Harsha Nippani - Senior Solutions Architect Federal, AWS; Sriram Sharma - Founder & CEO, Terafuz, Inc.; Oliver Mathias - Architect, Fannie Mae

Other recommended sessions

Financial Services professionals want to learn about all the different services AWS has to offer, so we've provided you with a selection of presentations representing every major technical track at re:Invent. For each track, we've highlighted a breakout session (featured at left) that will quickly get you up to speed on the latest innovations, enhancements, and use cases.

[ALEXA »](#)

[ANALYTICS »](#)

[APPLICATION INTEGRATION »](#)

[ARCHITECTURE »](#)

[ARTIFICIAL INTELLIGENCE & MACHINE LEARNING »](#)

[AR/VR »](#)

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[SERVERLESS »](#)

[STORAGE »](#)

BAP203-LLeadership Session:
Alexa for Business

Alexa transformed the smart home market segment and is now transforming how we interact with applications and technology at work. Alexa for Business is a service that helps you manage Alexa devices, users, and skills and helps you voice-enable your workplace. In this session, Collin Davis, GM, Alexa for Business, talks about the new features in Alexa for Business and how customers are adopting Alexa VUI in their workplace.

 **Watch the session**



FEATURED SPEAKER: Collin Davis,
GM, Alexa for Business

ALX201

Alexa Everywhere: A Year in Review

With over 50,000 published skills, hundreds of new API features releases, and numerous Alexa-enabled devices, it can be hard to keep track with of the current pace. In this session, we get you up to speed and give demonstrations of some of the latest Alexa features and devices.



Watch the session



FEATURED SPEAKERS: Dave Isbitski,
Chief Evangelist, Alexa and Echo

ALX313

Use Alexa to Reach New Customers by Developing for Multiple Screens

Learn how the new Alexa Presentation Language makes it easy to develop interactive voice and touch experiences that are portable to any Alexa enabled device with a screen—tablets, TVs, Echo Show, Echo Spot, and more.



Watch the session



FEATURED SPEAKERS: Cami Williams,
Senior Alexa Evangelist, Amazon; Steve
Arkonovich, Developer, Big Sky

ALX406

Alexa Skill Developer Tools: Build Better Skills Faster

In this session, we explore the suite of developer tools offered by the Alexa Skills team and dive into how they can help you be more productive in coding, deploying, testing, debugging, and collaborating with others on your skill.



Watch the session



FEATURED SPEAKERS: Paul Cutsinger,
Alexa and Echo, Amazon; Dylan Zwick,
Chief Product Officer, Pulse Labs

DAT206**Leadership Session: AWS
Database and Analytics**

AWS offers the broadest set of database and analytics services to process, store, manage, and analyze all your data. In this session, we provide an overview of the database and analytics services at AWS, new services and features we launched this year, how customers are using these services, and our vision for continued innovation in this space.

 **Watch the session**



FEATURED SPEAKER: Raju Gulabani - VP Databases, Analytics and ML, DBS Leadership, AWS

ANT201**Big Data Analytics Architectural Patterns and Best Practices**

In this session, we discuss architectural principles that help simplify big data analytics. We apply principles to various stages of big data processing and discuss how to choose the right technology in each stage.

 **Watch the session**



FEATURED SPEAKERS: Ben Snively – Principal Solutions Architect, AWS

ANT206**Under the hood: How Amazon Uses AWS Services for Analytics at a Massive Scale**

Learn how Amazon.com uses AWS technologies to build a scalable environment for data and analytics, including data warehousing with parallel, scalable compute engines.

 **Watch the session**



FEATURED SPEAKERS: Naveen Yajaman – Principal Technical Program Manager, AWS; Craig Woods – Senior Solutions Architect, AWS

ANT311**Deploying Business Analytics at Enterprise Scale with Amazon QuickSight**

Amazon QuickSight's serverless architecture and pay-per-session pricing enabled AWS customers to roll out interactive dashboards to hundreds and thousands of users.

 **Watch the session**



FEATURED SPEAKERS: Jose Kunnackal John - Sr. Product Manager – Technical, AWS; Thorsten Scholz - Chief Technology Officer, Forwood Safety

ANT327**Best Practices to Secure a Data Lake on AWS**

In this session, we explore the major AWS analytics services and platforms that customers can use to access data in a data lake and provide best practices for security.

 **Watch the session**



FEATURED SPEAKERS: Tony Nguyen - Senior Big Data Consultant, AWS; Varun Rao Bhamidimarri - Solutions Architect, AWS

API325

ML Workflows with Amazon SageMaker and AWS Step Functions



Learn how you can build, train, and deploy machine learning workflows for Amazon SageMaker on AWS Step Functions. Learn how to stitch together services, such as AWS Glue, with your Amazon SageMaker model training to build feature-rich machine learning applications, and you learn how to build serverless ML workflows with less code. Cox Automotive also shares how it combined Amazon SageMaker and Step Functions to improve collaboration between data scientists and software engineers. We also share some new features to build and manage ML workflows even faster.

 **Watch the session**



FEATURED SPEAKERS: Tom Faulhaber, Principal Engineer AI Platforms, AWS; Jeremy Irwin, SA, Cox Automotive; Andy Katz, Sr. Product Manager, AWS

API302

Serverless State Management & Orchestration for Modern Apps

AWS Step Functions can be used to design and run workflows for your serverless, containerized, and instance-based architectures.

 **Watch the session**



FEATURED SPEAKERS: Andre Dufour - Sr Manager, AWS Orchestration Services; Nick Whalen - Principal Software Engineer, Novartis Institutes for Biomedical Research

API305

Choosing the Right Messaging Service for Your Distributed App

Messaging is a central tool used to connect and coordinate microservices. Learn how to choose the service that's best for your use case.

 **Watch the session**



FEATURED SPEAKER: Kuba Wojciak - Principal Software Dev Eng; Sidartha Chauhan - Solutions Architect, AWS

SRV325

Modern Application Development: A Leadership Discussion

In this session, learn how AWS can help you innovate faster with DevOps, microservices, and serverless.

 **Watch the session**



FEATURED SPEAKERS: David Richardson - VP, Serverless; Deepak Singh - Director, Compute Services, AWS

AIM407

Deep Learning Applications Using Apache MXNet, Featuring Workday

Learn how to get started with MXNet on the Amazon SageMaker machine learning platform.

 **Watch the session**



FEATURED SPEAKER: Cyrus Vahid - Principal Evangelist, AWS AI Labs; Vivek Srivastava - ML Product Manager, Workday; Henry Zhang - ML Engineer, Workday

ARC212

Trends in Digital Transformation



As industries digitally transform their existing business models to fend off competitors or disrupt new markets, they find their IT to be a limiting factor. In this session, we cover the trends of disruptions and opportunities of digital transformation, and the evolution of IT monoliths to microservices and now cloud native services. We also explore dependency management, or "lock in," through a "choosing, using, and losing" mental model. Finally, we explore chaos architecture as an evolving method for exposing weaknesses before they become real problems.

 **Watch the session**



FEATURED SPEAKERS: Adrian Cockcroft, VP Cloud Architecture Strategy, AWS

ARC202

Running Lean Architectures: How to Optimize for Cost Efficiency

This session focuses on the practical ways our customers achieve cost-efficient architectures through service selection and configuration.



Watch the session



FEATURED SPEAKERS: Constantin Gonzalez - Principal Solutions Architect, AWS; Jean-Cedric Desrochers - Principal Software Development Engineer, Expedia; Patrick Blanchette - Senior Software Development Engineer, Expedia

ARC205

Scaling Up to Your First 10 Million Users

Watch this session for best practices on scaling your resources from one to millions of users.



Watch the session



FEATURED SPEAKER: Ben Thurgood - Principal Solutions Architect, AWS

ARC209

Architecture Patterns for Multi-Region Active-Active Applications

Whether for disaster recovery, data sovereignty, data locality, or extremely high availability, learn how to design active-active multi-region architectures.



Watch the session



FEATURED SPEAKERS: Amy Che - Principal Solutions Delivery Manager, AWS; Darin Briskman - Chief Evangelist, Database, Analytics, & ML, AWS; Christopher Lane - Enterprise Architect, Chick-fil-A

ARC309

From One to Many: Evolving VPC Design

Follow the evolution of a single regional VPC to a multi-VPC, multi-region design with diverse connectivity into on-premises systems and infrastructure.



Watch the session



FEATURED SPEAKER: Androski Spicer - Solutions Architect, AWS

AIM202Leadership Session:
Machine Learning

Amazon has a long history in AI, from personalization and recommendation engines to robotics in fulfillment centers. Amazon Go, Amazon Alexa, and Amazon Prime Air are also examples. In this session, learn more about the latest machine learning services from AWS, and hear from customers who are partnering with AWS for innovative AI.

 **Watch the session**



FEATURED SPEAKER: Swami Sivasubramanian, VP, Amazon Machine Learning

AIM301

Deep Learning for Developers: An Introduction

Learn more about what deep learning is and how you can use it in your applications to unlock new and exciting capabilities for your customers and business.



Watch the session



FEATURED SPEAKER: Hagay Lupesko – Solutions Delivery Manager, MXNet SDK

AIM303

Create Smart and Interactive Apps with Intelligent Language Services on AWS

Learn how to add intelligence to any application with machine learning services that provide language and chatbot functions.



Watch the session



FEATURED SPEAKER: Vikram Anbazhagan - Sr. Manager, Product Management – Amazon Lex

AIM363

Introducing Amazon Textract: Now in Preview

Learn how Amazon Textract uses machine learning to simplify document processing by enabling fast and accurate text and data extraction.



Watch the session



FEATURED SPEAKER: Ranju Das, General Manager, Amazon Textract; Wendy Tse, Sr. Product Manager, AWS; John Newton, CTO, Alfresco

AIM404

Build & Deploy ML Models Quickly & Easily with Amazon SageMaker

Dive deep into the technical details of each of the modules of Amazon SageMaker, learning about the capabilities of the ML platform.



Watch the session



FEATURED SPEAKER: David Arpin, Data Science Practice Manager, AWS; Prasad Prabhu, Principal Architect, Intuit

AVR201Create a Virtual Concierge
Using Sumerian Hosts

In this talk, we review the challenges of adding a virtual character to AR/VR applications and highlight how Amazon Sumerian solves these challenges. We discuss leading use cases and demonstrate how customers are creating dynamic, interactive virtual concierges using Sumerian hosts integrated with various AWS technologies, such as Amazon Polly, Amazon Lex, Amazon Rekognition, and AWS Lambda.

 **Watch the session**



FEATURED SPEAKER: Jake Smeester -
Content Creative Specialist, AWS

ARV203

What's New in AR & VR: State of the World Report

Understand the evolution of the augmented reality/virtual reality (AR/VR) industry, key market trends, and areas with high adoption and potential. Hear discussion of what's changed since Amazon Sumerian was announced at re:Invent 2017, and examples and demonstrations of immersive experiences using Amazon Sumerian.



FEATURED SPEAKERS: Nell Waliczek
- Principal Engineer; Kyle Roche - GM,
AWS AR/VR



Watch the session

ARV204

High Performance Computing on AWS: Driving Innovation without Infrastructure Constraints

Amazon Sumerian enables quick, easy creation and publication of AR/VR and 3D applications for multiple device types. Take a tour of the Sumerian interface, and learn how to build a scene, add assets and hosts, and add behaviors to create dynamically animated objects and characters in an AR/VR experience that integrates with AWS services.



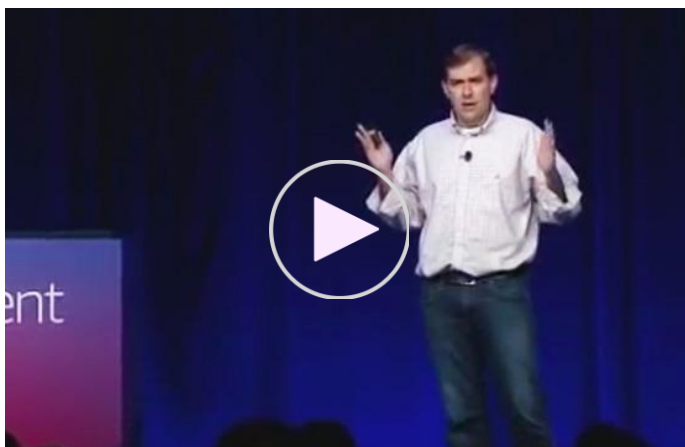
FEATURED SPEAKER: Ian Colle - GM,
AWS Batch and HPC; Ken Robbins - Executive
Director of Engineering, Novartis Institutes for
BioMedical Research



Watch the session

CMP207

**AWS Compute Leadership Session:
What's New in Amazon EC2,
Containers, and Serverless**



Matt Garman, VP of AWS Compute Services, introduces the latest innovations in the compute space. In this keynote address, we announce new compute capabilities, and we share insights into what makes the AWS compute business unique. We also announce new capabilities for Amazon EC2 instances, EC2 networking, EC2 Spot Instances, Amazon Lightsail, Containers, and Serverless. Matt will be joined by executives from our customers and partners.

 **Watch the session**



FEATURED SPEAKER: Matt Garman – Vice President, EC2 Compute Services, AWS

CMP204

How to Effectively Plan for Disaster Recovery on AWS

Learn how AWS DR planning takes a different approach to maintain compliance and business continuity service-level agreements, and how to set up an effective DR plan for AWS environments.



Watch the session



FEATURED SPEAKER: Lewis Franklin - Cloud Architect, Zebra Technologies; David Gildea - GM and VP of Product, Druva CloudRanger

CMP208

Amazon EC2 Foundations

Cover the latest Amazon EC2 features and capabilities, including new Amazon EC2 instance families, the differences among their hardware types and capabilities, and their optimal use cases.



Watch the session



FEATURED SPEAKERS: Raj Pai, Director of Product Management, EC2, AWS

CMP302

High Performance Computing on AWS: Driving Innovation without Infrastructure Constraints

Learn how AWS HPC solutions have a customizable platform, robust ecosystem, and high compute performance, memory capacity and bandwidth and I/O scalability.



Watch the session



FEATURED SPEAKER: Ian Colle - GM, AWS Batch and HPC; Ken Robbins - Executive Director of Engineering, Novartis Institutes for BioMedical Research

CMP307-S

Deep Dive on Amazon EC2 Instances & Performance Optimization Best Practices

Deep dive session provides an overview and best practices on the Amazon EC2 instance platform, key platform features, and the concept of instance generations.



Watch the session



FEATURED SPEAKER: Mark Duffield - Tech Leader, Semiconductors, AWS

CON301

Mastering Kubernetes on AWS



Kubernetes offers a powerful abstraction layer for managing containerized infrastructure. Amazon Elastic Container Service for Kubernetes (Amazon EKS) makes it easy to run Kubernetes on AWS without having to manage master nodes or the etcd operator. In this session, we cover what you need to know to get your application up and running with Kubernetes on AWS.

 **Watch the session**



FEATURED SPEAKER: Yaniv Donenfeld
- Business Development Manager, AWS

CON306

Observability for Modern Applications

Cover techniques and tools to achieve consistent, full-application observability of microservices-based applications, including monitoring, tracing, and more.



Watch the session



FEATURED SPEAKER: Nate Taber - Sr. Product Marketing Manager, AWS; Evgeny Shulyatyev - Software Engineering Manager, Cloud Platform, Autodesk

CON307

Protecting Your Greatest Asset (Your Data): Security Best Practices on DynamoDB

Cisco networking, security, cloud, and application performance management accelerates Kubernetes adoption with lifecycle management platforms.



Watch the session



FEATURED SPEAKER: Kip Compton - Senior Vice President, Cisco; Jeremy Oakey - Senior Director, Cloud Platform and Solutions Group, Cisco, Cisco Systems; Dr. Lars Dannecker - Big Data Architect & Development Manager, SAP

CON308

Amazon DynamoDB Under the Hood: How We Built a Hyper-Scale Database

Learn how containers enable microservices-based application architectures, and cover the AWS services that allow you to build performant microservices applications.



Watch the session



FEATURED SPEAKER: Arun Gupta - Principal Open Source Technologist, AWS; Sarah Wells - Technical Director for Operations & Reliability, Financial Times

CON309

Building PaaS with Amazon EKS for the Large-Scale, Highly Regulated Enterprise*

Learn best practices and common architectures for building containerized applications in regulated industries with Amazon Elastic Container Service for Kubernetes.



Watch the session



FEATURED SPEAKER: Madhuri Peri - Solution Architect, AWS

DAT205**Databases on AWS: The Right Tool for the Right Job**

This session introduces AWS databases that are purpose-built for your application use cases. Learn why you should select different database services to solve different aspects of an application.

 **Watch the session**



FEATURED SPEAKER: Shawn Bice - VP, Non-Relational Databases, AWS; Joseph Idziorek - Product Manager, AWS

DAT204**Building PaaS with Amazon EKS for the Large-Scale, Highly Regulated Enterprise***

This session provides an overview of Aurora, a MySQL- and PostgreSQL-compatible relational database, and explores recently announced features, and helps you get started.



Watch the session



FEATURED SPEAKER: Debanjan Saha - GM, Aurora and RDS, AWS

DAT301**Building with AWS Databases: Match Your Workload to the Right Database**

Learn how to evaluate a new workload for the best managed database option, and review ideal use cases for relational and nonrelational data services.



Watch the session



FEATURED SPEAKER: Rick Houlihan - Sr. Practice Manager, AWS DynamoDB

DAT303**Protecting Your Greatest Asset (Your Data): Security Best Practices on DynamoDB**

Learn how to use the security features built into Amazon DynamoDB, monitor data access, and hear examples for protecting the contents of tables with encryption.



Watch the session



FEATURED SPEAKER: Conor Cahill - Principal Security Engineer, AWS

DAT321**Amazon DynamoDB Under the Hood: How We Built a Hyper-Scale Database**

Learn the underpinnings of DynamoDB as a fully managed nonrelational database, and how an application works with DynamoDB for authentication, metadata, and more.



Watch the session



FEATURED SPEAKER: Jaso Sorenson - Senior Principal Engineer, AWS

DEV210Moving to DevOps the
Amazon Way

DevOps is currently one of the most sought after engineering models. One reason is that it helps enterprise transformations. The Amazon transformation to DevOps was born out of the desire to be even more customer obsessed, more agile, and more innovative. Come and learn from our journey as we share the playbook that helped us successfully implement and adopt DevOps as well as the lessons we learned.

 **Watch the session**



FEATURED SPEAKER: Ajit Zadgaonkar
- Head of Global DevOps Specialty
Practice, AWS

DEV309

CI/CD for Serverless and Containerized Applications

Cover infrastructure-as-code (IaC) application models, and how to build effective CI/CD release workflows to manage serverless or containerized deployments on AWS.



Watch the session



FEATURED SPEAKER: Clare Liguori
- Principal Engineer, AWS

DEV311

Breaking Observability Chaos: Best Practices to Monitor AWS Cloud Native Apps

Examples from Amazon CloudWatch and AWS X-Ray highlight best practices for addressing monitoring challenges when building and deploying modern applications.



Watch the session



FEATURED SPEAKERS: Marcos Ortiz
- Solutions Architect, AWS; Jon
Jozwiak - Solutions Architect, AWS

DEV317-R1

Advanced Continuous Delivery Best Practices

Transform your software release process into a safer one and explore various DevOps best practices, sample applications and code with AWS CodePipeline and AWS.



Watch the session



FEATURED SPEAKERS: Leo Zhadanovsky
- Principal Solutions Architect, AWS;
Felipe Almeida - Senior Software Dev
Engineer, AWS

DEV320

Driving DevOps Transformation in Enterprises

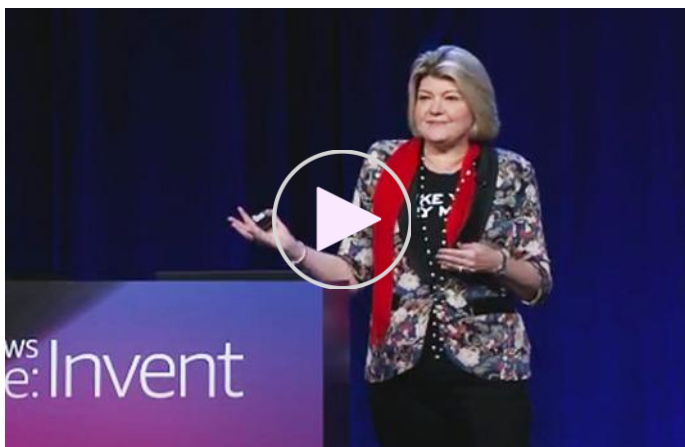
AWS helps enterprises adopt the DevOps model and automation in their journey to the cloud with services like AWS CloudFormation and AWS OpsWorks.



Watch the session



FEATURED SPEAKER: Rahul Gulati -
Product Manager, AWS

ENT220Leadership Session: The Future
of Enterprise IT

The cloud is enabling the transformation of IT in the enterprise at an unprecedented rate. No longer is IT viewed just as a provider of services, but increasingly it is viewed as a strategically important team that plays a central role in the creation of new business value. How are enterprise IT leaders responding, and what are the people, process and technology shifts needed to build agile and innovative organizations?

 Watch the session



FEATURED SPEAKERS: Sandy Carter
- VP, Compute Solutions, AWS;
Bridget Frey - CTO, Redfin

ENT205

Executing a Large-Scale Migration to AWS

In this session, we discuss some of the common challenges that our customers have faced during these migrations and how they overcame them. We also describe the patterns that make migrations successful.



Watch the session



FEATURED SPEAKER: Jonathan Allen - Enterprise Strategist & Evangelist, AWS; Joe Chung - Director, Enterprise Strategy, AWS; and Mike Wittig - VP, Infrastructure Engineering, Nike, Inc.

ENT226

Control for Your Cloud Environment Using AWS Management Tools

Learn how AWS management tools provide a set of services to track, manage, and audit changes, and how customers use built-in safety controls to perform actions and remediation.



Watch the session



FEATURED SPEAKER: Jonathan Weiss - Senior Manager, AWS

ENT306

Transforming Product Development in the Cloud

Learn about DevOps, Agile software development, Design Thinking, and how to develop a more customer-centric mindset.



Watch the session



FEATURED SPEAKERS: Miriam McLemore - Director, Enterprise Strategy, AWS; Thomas Blood - Enterprise Evangelist, AWS

ENT311

Enterprise DevOps: Patterns of Efficiency

Learn about how Enterprise DevOps brings together the speed and agility from modern development processes with the governance, security, and compliance control from traditional IT operations processes.



Watch the session



FEATURED SPEAKERS: Ajit Zadgaonkar - Head - Global DevOps Specialty Practice, AWS; Mark Schwartz - Enterprise Strategist, AWS

MOB202Leadership Session: Developing
Mobile & Web Apps on AWS

Do you wonder what AWS thinks about mobile development? In this session, learn the very latest about the many AWS services that web and mobile developers can leverage to make cloud-enabled development possible, and hear what might be in store for the future.

 **Watch the session**



FEATURED SPEAKER: Amit Patel -
GM, Mobile App Development, AWS

IOT214

Machine Learning at the IoT Edge

Learn about how ML and Edge computing are interacting to lead the IoT transformation as IoT devices not only collect and transmit data, but also perform predictive analytics, even without cloud connectivity.

 **Watch the session**



FEATURED SPEAKER: Nobutaka
Nakazawa - CTO, Brains Technology, Inc.

MOB201

From Idea to Customers: Developing modern cloud-enabled apps with AWS

Learn about the many AWS services that web and mobile developers can leverage to make cloud-enabled development possible, and hear what might be in store for the future.

 **Watch the session**



FEATURED SPEAKER: Amit Patel - GM,
Mobile App Development, AWS

MOB305

DevOps: Build, Deploy, & Operate Mobile Web Apps with Serverless Backends

Learn how to use a Git-centric workflow for building modern web apps in the cloud and subsequently deploying them using A/B testing, progressive rollouts, pushState routing (using Lambda@Edge), and more.

 **Watch the session**



FEATURED SPEAKER: Mohit Srivastava -
Senior Manager, Product Management, AWS

MOB310

Bridging the Gap Between Real- Time/Offline and AI/ML capabilities in Modern Serverless Apps

Learn how to build real-time chat serverless apps with AWS machine learning (ML) capabilities, including performing searches and providing automated responses and on-demand message translation.

 **Watch the session**



FEATURED SPEAKERS: Brice Pelle -
Enterprise Support Lead, Amazon;
Ed Lima - Solutions Architect, AWS

NET209

Leadership Session: Networking



Join Dave Brown, VP of EC2 Networking at AWS, to learn about the new services and features we launched this year. Dave also share our vision for the future of connectivity in the cloud and the ongoing evolution of networking capabilities. Dave covers the entire suite of networking services, including Amazon Virtual Private Cloud (Amazon VPC), Elastic Load Balancing, AWS PrivateLink, VPN, and AWS Direct Connect. In addition, Dave reviews some real-world customer scenarios.

 **Watch the session**



FEATURED SPEAKER: David Brown - VP, EC2 Compute & Networking, AWS

NET302

Extending Data Centers to the Cloud: Connectivity Options and Best Practices

In this session, we walk through the different architecture options for establishing consistent and highly secure connectivity using AWS Direct Connect and VPN.

 **Watch the session**



FEATURED SPEAKER: Sidartha Chauhan
- Solutions Architect, AWS

NET303

Advanced VPC Design and New Capabilities for Amazon VPC

In this session, we explore the new design and capabilities of Amazon VPC and how you might use them to build your AWS networking infrastructure.

 **Watch the session**



FEATURED SPEAKER: Matt Lehwess
- Principal Solutions Architect, AWS

NET312

Another Day in the Life of a Cloud Network Engineer at Netflix

Learn how the cross-functional Cloud Network Engineering team at Netflix automates and manages an infrastructure that services over 125 million customers.

 **Watch the session**



FEATURED SPEAKERS: Netflix
network engineering team

NET403

AWS Direct Connect: Deep Dive

Dive deep into the features of AWS Direct Connect, including public and private virtual Interfaces, Direct Connect Gateway, global access, local preference communities, and more.

 **Watch the session**




FEATURED SPEAKER: Justin Davies
- Solutions Architect, AWS

SEC305-L

A Practitioner's Leadership Session:
AWS Security Guide to Securing
Your Cloud (Like an Expert)



Stephen Schmidt, Chief Information Security Officer at AWS, addresses the current state of security in the cloud, with a particular focus on feature updates, the AWS internal "secret sauce," and what's on the horizon in terms of security, identity, and compliance tooling.

 Watch the session



FEATURED SPEAKER: Steve Schmidt, Vice President and Chief Information Security Officer, AWS

SEC203

A Practitioner's Guide to Securing Your Cloud (Like an Expert)

In this session, Becky Weiss focuses on the permissions controls offered by Identity and Access Management (IAM) and the network security controls offered by Virtual Private Cloud (VPC).



Watch the session



FEATURED SPEAKER: Becky Weiss - Senior Principal Engineer, AWS Identity

SEC303

Architecting Security & Governance across a Multi-Account Strategy

Watch the latest updates around establishing an AWS Landing Zone, including limitations and security patterns when building a multi-account strategy.



Watch the session



FEATURED SPEAKERS: Sam Elmalak - Solutions Architect, AWS; Matt Bretan - Principal Manager - SRC, AWS

SEC325

Data Protection: Encryption, Availability, Resiliency, and Durability

This session features data protection strategies for ensuring data integrity and availability using AWS native services that provide durability, recoverability, and resiliency.



Watch the session



FEATURED SPEAKERS: Peter O'Donnell - Solutions Architect, AWS; Ken Beer - Sr Mgr, Software Development, Key Management Service, AWS

SEC401

Mastering Identity at Every Layer of the Cake

Master identity at each layer: from platform, to infrastructure, to applications, using services like AWS IAM, AWS Directory Service, Amazon Cognito, and more.



Watch the session



FEATURED SPEAKER: Quint Van Deman - Sr. BDM, Identity Svcs, AWS

SRV207**Rapid Innovation:
The Business Case for Modern
Application Development**

Modern application development is not a buzzword—it's an innovation strategy that organizations of all sizes can use to increase revenue, lower costs, and outpace the competition. In this session, learn how you can unblock digital product and service innovation for your own organization. Putting technology details aside, we explain what modern application development really is, why it matters to the business, what success metrics you should expect, and how to navigate your own transition.

 **Watch the session**



FEATURED SPEAKER: Christie Gifrin
- Product Marketing Manager, AWS

SRV305**Inside AWS: Technology Choices for Modern Applications**

In this session, learn how you can unblock digital product and service innovation for your own organization.



Watch the session



FEATURED SPEAKER: Tim Bray
- Senior Principal Engineer, AWS

SRV316**Serverless Stream Processing Pipeline Best Practices**

Learn about design patterns, best practices, and customer journeys from batch to real-time insights in building serverless data-driven applications.



Watch the session



FEATURED SPEAKERS: Roy Ben-Alta
- Principal BDM - Data Analytics and ML, AWS; Eyal Levi - R&D Manager, Intel

SRV322**From Monolith to Modern Apps: Best Practices**

Watch how customers migrate existing applications and build a strategy and financial model to build everything in a truly serverless way on AWS.



Watch the session



FEATURED SPEAKERS: Paras Bhuvra - Sr. Solutions Architect, AWS; Tom Laszewski - Enterprise Technologist, AWS

SRV323**Digital Transformation through APIs**

Dive deep into the advanced capabilities of Amazon API Gateway that can enable customers to build modern applications.



Watch the session



FEATURED SPEAKER: Thomas Fuller
- Principal Solutions Architect, AWS

STG213

Leadership Session: What's New in Amazon S3, Amazon EFS, Amazon EBS, & more



In this keynote address, we announced new storage capabilities, and we talked about features and services that make AWS storage unique. We focused on new innovations in object storage, file storage, block storage, and data transfer services. You also hear from executives from companies that are major AWS storage customers, Sony and Expedia, about how they're using AWS storage to create a competitive advantage in their businesses.

 **Watch the session**



FEATURED SPEAKERS: Mai-Lan Tomsen Bukovec - VP, S3 and Glacier, AWS; Clay Garrard - Director, Data Services and Platforms, Expedia

STG202

Optimizing Storage for Enterprise Workloads and Migrations

Listen to the best practices for AWS block and file storage when supporting enterprise workloads (like SAP, Oracle, Microsoft applications, and home directories).



Watch the session



FEATURED SPEAKER: David Stein, Sr. Business Development Manager, Storage, AWS

STG204

Data Lake Implementation: Processing and Querying Data in Place

Explore best practices for building a data lake in Amazon S3 and Amazon Glacier for leveraging an entire array of AWS, open source, and third-party analytics tools.



Watch the session



FEATURED SPEAKER: John Mallory - Business Development Manager, AWS

STG212

Deep Dive on Amazon S3: Manage Operations Across Amazon S3 Objects at Scale

Amazon S3's newest management feature S3 Batch Operations makes it simple to manage billions of objects with a single API request or a few clicks.



Watch the session



FEATURED SPEAKERS: Greg Wright - Sr. Software Dev Engineer, AWS; Rob Wilson - Senior Product Manager, AWS

STG303

Deep Dive on Amazon S3 Security and Management

Learn best practices for data security in Amazon S3, including the fundamentals of Amazon S3 security architecture.



Watch the session



FEATURED SPEAKER: PD Dutta, Sr. Product Manager, Amazon S3; Christopher Schultz, Director, Software Engineer, Capital One

Executive Summit highlights



KEYNOTE WITH ANDY JASSY

Andy Jassy, CEO
Amazon Web Services

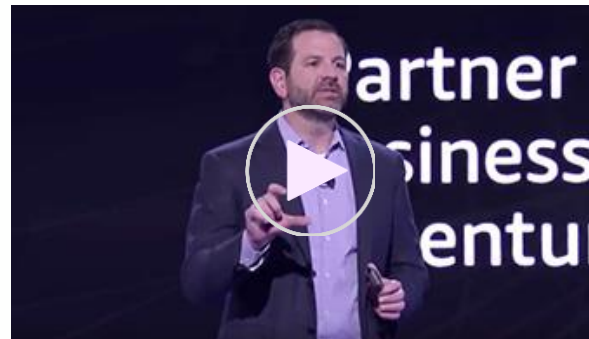
Featuring:
Dean Del Vecchio, EVP, CIO
& Head of Enterprise Shared
Services, Guardian



KEYNOTE WITH WERNER VOGELS

Werner Vogels, CTO
Amazon.com

Featuring:
Yuri Misnik, Executive General
Manager, Business Enabling
Technology, National Australia Bank



GLOBAL PARTNER KEYNOTE

Terry Wise, VP
AWS Global Alliances,
Ecosystems, and Channels

Featuring:
Bernd Heinemann,
Board Member at Allianz



MONDAY NIGHT LIVE

Peter DeSantis, VP
AWS Global Infrastructure
and Customer Support

Select service announcements



Mike Pelliccia

Head of Worldwide
Financial Services
Technology Solutions

“

At AWS, our goal is to keep innovating as quickly as we can to make sure that Builders have access to the right tools for the right job at the right time, which results in many new service and feature announcements each year at re:Invent.

Many of the new services and features we announced at re:Invent 2018 are highly relevant to financial institutions. In fact, many of these new features are in direct response to requests from our Financial Services customers! In the pages that follow, I've highlighted eight announcements we made at re:Invent that Financial Services Builders should dive deep into.

”

Amazon S3 Object Lock

Generally available in all AWS Regions

Amazon S3 Object Lock is a new S3 feature that blocks object version deletion during a customer-defined retention period so that you can enforce retention policies as an added layer of data protection or for regulatory compliance. S3 Object Lock protection is maintained regardless of which storage class the object resides in and throughout S3 Lifecycle transitions between storage classes.



[Announcement](#) »

[Documentation](#) »

AWS Lake Formation

Build a secure data lake in days.

PREVIEW

AWS Lake Formation is a service that makes it easy to set up a secure data lake in days. A data lake is a centralized, curated, and secured repository that stores all your data, both in its original form and prepared for analysis. A data lake enables you to break down data silos and combine different types of analytics to gain insights and guide better business decisions.



[Service page](#) »

[Andy Jassy keynote announcement](#) »

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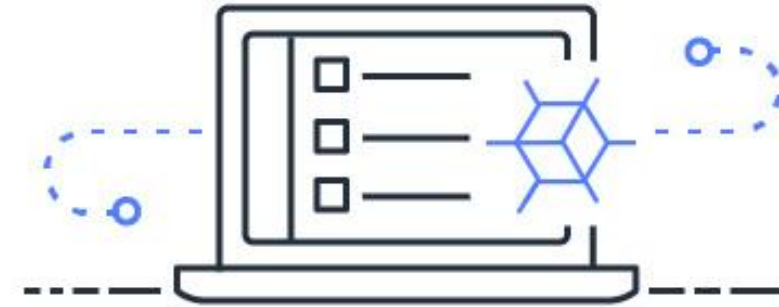
[Features](#) »

Amazon Managed Blockchain

Easily create and manage scalable blockchain networks.

PREVIEW

Amazon Managed Blockchain is a fully managed service that makes it easy to create and manage scalable blockchain networks using the popular open source frameworks Hyperledger Fabric (available now) and Ethereum (coming soon). Amazon Managed Blockchain eliminates the overhead required to create the network, and automatically scales to meet the demands of thousands of applications running millions of transactions.



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AWS Control Tower

The easiest way to set up and govern a secure, compliant multi-account AWS environment.

PREVIEW

AWS Control Tower automates the set-up of a baseline environment, or landing zone, that is a secure, well-architected multi-account AWS environment. The configuration of the landing zone is based on best practices that have been established by working with thousands of enterprise customers to create a secure environment that makes it easier to govern AWS workloads with rules for security, operations, and compliance.



[Service page](#) »

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AWS Security Hub

Centrally view and manage security alerts and automate compliance checks.

PREVIEW

AWS Security Hub gives you a comprehensive view of your high-priority security alerts and compliance status across AWS accounts. There are a range of powerful security tools at your disposal, from firewalls and endpoint protection to vulnerability and compliance scanners. With Security Hub, you now have a single place that aggregates, organizes, and prioritizes your security alerts, or findings, from multiple AWS services, as well as from AWS Partner solutions.



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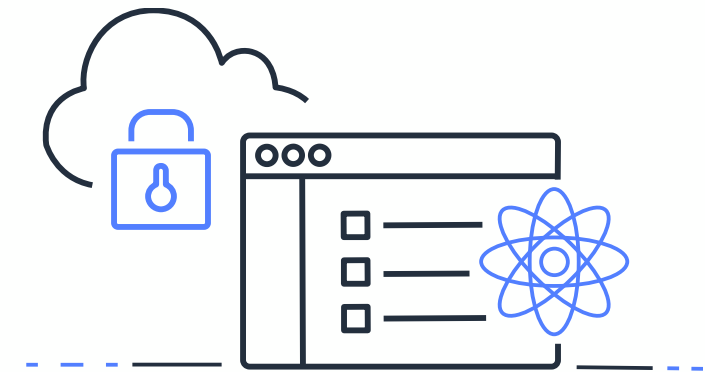
[Partners](#) »

AWS KMS Custom Key Store

Gain more control over your AWS Key Management Service (KMS) keys.

Generally available

AWS Key Management Service (KMS) has integrated with AWS CloudHSM so customers now have the option to create their own KMS custom key stores. Each custom key store is backed by an AWS CloudHSM cluster and enables customers to generate, store, and use their KMS keys in hardware security modules (HSMs) that they control. The KMS custom key store helps satisfy compliance obligations that would otherwise require the use of on-premises HSMs and supports AWS services and encryption toolkits that are integrated with KMS.



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[FAQ](#) »

AWS Outposts

Run AWS infrastructure on-premises for a truly consistent hybrid experience.

PREVIEW

AWS Outposts bring native AWS services, infrastructure, and operating models to virtually any data center, co-location space, or on-premises facility. You can use the same APIs, the same tools, the same hardware, and the same functionality across on-premises and the cloud to deliver a truly consistent hybrid experience.



[Service page](#) »

[AWS Launchpad video](#) »

[Press release](#) »

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Amazon Forecast

Accurate time-series forecasting service, based on the same technology used at Amazon.com. No machine learning experience required.

PREVIEW

Amazon Forecast is a fully managed service that uses machine learning to deliver highly accurate forecasts. Based on the same technology used at Amazon.com, Amazon Forecast uses machine learning to combine time series data with additional variables to build forecasts. Amazon Forecast requires no machine learning experience to get started. You only need to provide historical data, plus any additional data that you believe may impact your forecasts.



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Head of Worldwide
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Scott Mullins
Director,
Head of Worldwide
Financial Services
Business & Market
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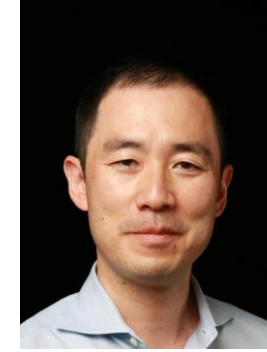
Douglas Silva
Head of Financial
Services Business &
Market Development
for LATAM



**Stephan Schmidt-
Tank**
Head of Financial
Services Business &
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Jeff (Axe) Axelrad
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