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AWS Edge Networking Lookbook

Success stories from customers in media and entertainment, gaming, energy, financial services, e-commerce, and automotive

Serving users at a global scale

Your users expect low latency and highly available global connectivity for your organization's web applications. Unfortunately, industry-specific use cases, security concerns, and the unique technology your organization employs can make it difficult to deliver on these expectations. As your business and your network grows, the problem can become exponentially more complex.

Whether you're looking to deliver fast and secure websites, accelerate APIs and dynamic content delivery, provide live streaming/on-demand video, or deliver any kind of application data, you need an easy-to-use network that reliably delivers the required performance to every user. To meet the needs of your organization, this network also needs to be secure and cost-effective.

To overcome these challenges, you need a network that not only meets your needs today, but can scale to deliver data and applications reliably and securely with high performance and availability as you grow your global userbase. Your network should be able to satisfy the high expectations and requirements of every user—regardless of their location or device.

To help customers deliver applications, the AWS purpose-built global network infrastructure is available to you through AWS edge services. AWS edge networking services transmit your user-facing data securely and with improved latency worldwide. Networking services **Amazon CloudFront**, **AWS Global Accelerator**, and **Amazon Route 53** sit at our global edge locations, which are connected by dedicated 100 Gbps redundant fiber to deliver data with single-digit millisecond AWS network latency.

By moving traffic off the internet and behind the defenses of the world's most secure cloud provider, you can improve your application availability by limiting exposure to attack. AWS helps protect your business by encrypting data, removing network hops, and controlling application access.

Throughout this lookbook you'll see success stories from AWS customers across various industries. Learn how these organizations achieved high application performance, availability, and scalability by migrating to AWS. We hope these stories will help you envision what your own application delivery transformation journey could look like.
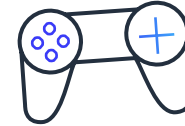
AWS can help organizations across virtually every industry meet their application delivery needs. Read this lookbook to discover real-world customer successes and examples across various industries.

Industry selector

Use these links to jump to a specific industry section

Media and entertainment

Gaming

Energy

Financial services

E-commerce

**Automotive**

AWS edge networking services for media and entertainment

Netflix, FOX, Peacock, Formula One, and other leading media and entertainment companies use AWS to accelerate application delivery and time to value by transforming their workloads with the most capabilities of any cloud provider.

Common industry challenges

Media and entertainment organizations face an industrywide transformation, with companies reinventing how they create content, optimize media supply chains, and compete for audience attention across streaming, broadcast, and direct-to-consumer platforms.
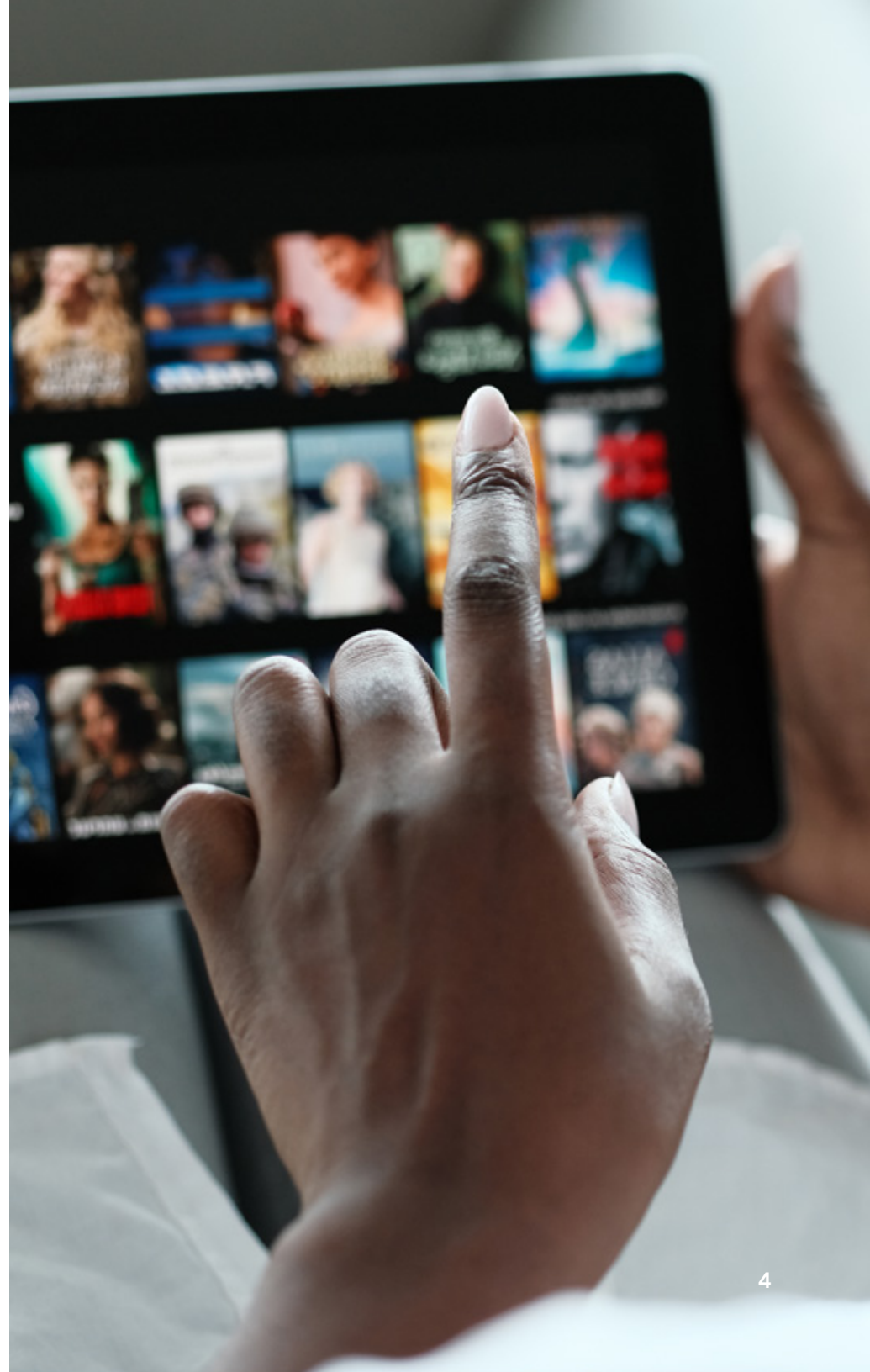
Customer spotlight: DishTV

Based in India, DishTV is the second-largest global provider of satellite TV, with 25 million active subscribers and more than 400 channels. The company recently launched its Watcho over-the-top (OTT) platform, which features original programming as well as content from digital partners.

Specific challenge for DishTV

The explosion of on-demand programming has proven a major digital disruptor for traditional TV firms. Demand for OTT content is highly variable, with workloads spiking 10 or more times from day to day. Most of the company's workloads were hosted on-premises, where scalability proved difficult.

The AWS solution

DishTV chose to build its Watcho service on AWS because of price, performance, and our breadth and depth of service offerings. To affordably house massive datasets on the platform, DishTV takes advantage of **Amazon** **Simple Storage Service** (Amazon S3). For video processing, it uses **AWS Elemental**, and for content delivery, it relies on **Amazon CloudFront**, a content delivery network (CDN) service built for high performance, security, and developer convenience. DishTV also deployed **AWS Lambda** to run the startup code on the Watcho application's backend. The company decided to deploy Docker containers to improve resource utilization and chose **Amazon Elastic Container Service** (Amazon ECS) to run and scale containerized applications.

Results

Since going live, Watcho has attracted an average of 7,000 new users daily, with significant organic traffic from existing DishTV subscribers. DishTV credits AWS for helping it create, develop, and deploy software at a much faster pace and achieve larger scale in terms of volumes of customers as well as content distribution.

Thanks to the increased advertising dollars flowing into the platform, DishTV has been able to create new revenue streams—with plans to soon bring Watcho's original content to Indian diasporas through various partnerships across the globe.

Read the full story ›
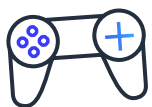
AWS edge networking services for gaming

Developers at Epic Games, Activision, Bandai Namco Studios, and other top gaming companies use purpose-built capabilities on AWS to help them build, run, and grow their games.

Common industry challenges

Game developers are facing industrywide transformation, with studios needing to push the latest technology boundaries and deliver continuously updated gaming experiences that scale to tens of millions of players.

Customer spotlight: King

King is a leading interactive entertainment company focused on mobile gaming, with a global player base and 250 million active users. The company has developed more than 200 titles, with franchises including Candy Crush, Farm Heroes, Pet Rescue, and Bubble Witch.

Specific challenge for King

Some of King's customers rely on older mobile networks with limited bandwidth, modest amounts of peering, and intermittent connectivity. Regardless of location or technology, players need fresh content so that they can enjoy the game instead of waiting for it to load.

The AWS solution

The team at King chose **Amazon CloudFront** as the content delivery vehicle for its games, citing the need for global reach, advanced platform features, API access, cost-effectiveness, scalability, and performance.

Results

Taking advantage of the AWS global network and its edge locations, King can efficiently deliver fresh, consistent content to its players as quickly as possible all over the world. Amazon CloudFront currently delivers hundreds of terabytes of content for King every day, with spikes to half a petabyte or more when King launches a new game or initiates a large-scale marketing program. Metrics including latency, responsiveness, and load times have all improved.

Read the full story ›

AWS edge networking services for energy

AWS empowers leading energy companies like GE Renewable Energy, Octopus Energy, SunPower, and EDF Energy to improve performance, accelerate innovation, transform the customer experience, maximize safety, and minimize their carbon footprint.

Common industry challenges

Energy companies must continuously and reliably deliver performance across highly demanding systems—all while driving innovation, improving efficiency, scaling rapidly, ensuring compliance, and keeping costs low.

Customer spotlight: ENGIE

ENGIE is a global company focused on renewable energy, low-carbon distributed energy infrastructures, and helping its clients achieve their decarbonization targets. The company seeks to build the low-carbon energy system of tomorrow and meet the challenges of climate change.

Specific challenge for ENGIE

A decentralized organization with 450 business entities across 70 countries, each managing its own projects and IT assets, ENGIE was hard pressed to standardize its web security.

The AWS solution

ENGIE turned to AWS and chose **AWS Web Application Firewall** (AWS WAF)—which protects web applications and APIs against common web exploits and bots—because it offered a simple solution for setting custom, managed security rules and implementing them across multiple accounts.

Results

Now using AWS WAF and **AWS Firewall Manager**, ENGIE IT by Engie Group Security spends less time maintaining security for other entities, and its developers can focus on their main activities. The group says the security provided by AWS allows everyone to contribute and publish more services, all while staying secure.

Read the full story ›

AWS edge networking services for financial services

Capital One, Coinbase, Liberty Mutual, NASDAQ, Robinhood, and other top financial services firms rely on AWS for the secure, resilient, global cloud infrastructure and services they need to differentiate themselves today and adapt to the needs of tomorrow.

Common industry challenges

To keep up with competitors and new market players, financial services companies must innovate quickly and continuously. But they must balance these efforts against rising costs and maintaining compliance with regulations—which can greatly vary between global markets.

Customer spotlight: Intuit Mint

Intuit Mint is a free personal financial management service used by more than six million consumers in the United States and Canada. The service connects a customer's financial information—such as bank accounts, credit cards and bills—and presents the information in a single place.

Specific challenge for Intuit Mint

Mint.com was originally hosted in an internal data center, but the team needed to improve its ability to scale up or down to meet peak traffic demands. The company particularly needed help with the 200 percent increase in website traffic it experienced immediately after January 1 each year.

The AWS solution

After initially considering an internal private cloud solution, Mint determined that AWS would give it a more highly available architecture at a better price. The company initially migrated more than 100 MySQL instances to **Amazon EC2**, then later to **Amazon RDS**. Mint also used **AWS CloudFormation** templates, which enabled its administrators to easily provision and manage their AWS resources, and employed **Amazon CloudFront** to speed the delivery of its content.

Results

Mint now has an efficient way to scale its website on demand, and it can automatically support the annual 200 percent traffic increase. Its developers enjoy broader access to tools that help them quickly build global-ready, cloud-ready services. Costs are down by 25 percent, and Mint's database administrators (DBAs) have freed up at least 15 percent of their time from support tasks. Plus, the company can more effectively provide security for the 50 terabytes of financial data it stores.

Read the full story ›

AWS edge networking services for e-commerce

Companies like Dollar Shave Club, HelloFresh, Neiman Marcus, Petco, and Zappos use AWS services and solutions to provide compelling e-commerce experiences across a wide range of digital channels.

Common industry challenges

E-commerce companies face challenges with online identity verification, supply chain issues, and the need to deliver an omnichannel customer experience. These challenges are intensified by a highly competitive landscape that heightens customer expectations for low prices and fast shipping turnarounds.

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Customer spotlight: OLX Group

Founded in 2006, OLX Group (OLX) operates a network of online marketplaces in 30 countries on five continents. More than 300 million customers a month navigate 25 million listings to buy or sell cars, look for household goods, find housing, or land a job.

Specific challenge for OLX Group

OLX was looking for a cost-effective solution to alleviate the time-consuming operational burden of managing its legacy on-premises hardware for content delivery. Its unique use case involved a high volume of lightweight edge compute that required the ability to scale quickly to serve spikes in peak traffic while minimizing latency and timeouts.

The AWS solution

OLX turned to **Amazon CloudFront** for content delivery. To facilitate functions related to Amazon CloudFront events, OLX used **Lambda@Edge**—a feature of Amazon CloudFront that lets organizations run code closer to users of the application, which improves performance and reduces latency. OLX also used **CloudFront Functions**, a serverless scripting platform that offers logic at the edge to help securely deliver data, videos, applications, and APIs with low latency and high transfer speeds.

Results

OLX now enjoys broader global scalability through a network of more than 310 points of presence (POP) locations, allowing it to handle the more than 170,000 requests per second passing through POPs during peak hours. Users now access content from OLX with less than one millisecond of latency and an average response time of 120 milliseconds. OLX also reduced its CDN edge compute bill by 50 percent.

Read the full story ›

AWS FOR AUTOMOTIVE

AWS edge networking services for automotive

Automotive leaders like BMW Group, Nissan, Rivian, Toyota, Volkswagen Group, and Volvo Group leverage AWS networking services and infrastructure to accelerate digital transformation and modernize their value chains.

Common industry challenges

Today's automotive companies face pressure to reduce CO_2 and other emissions, improve safety, reduce vehicle weight, and enhance customer service and experiences to remain competitive in a field that includes powerful, long-standing enterprises and well-funded, innovative startups.

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Customer spotlight: Honda

Honda has been one of the world's largest automotive manufacturers since 1959. The company is always looking to provide a better customer experience and has extremely high-quality standards for both its products and its websites.

Specific challenge for Honda

As part of its regular reevaluations of service providers, in 2020 Honda performed an assessment of potential CDN providers for its websites. Because Honda had been using its previous CDN for several years, it had complicated settings in place based on the provider's capabilities.

The AWS solution

Honda chose **Amazon CloudFront** for content delivery after determining that it provided the best response times. Honda also used **Lambda@Edge**—which provides users the ability to run code closer to users of their application—to help with the complicated configuration, migration, and customization.

Results

As a result of adopting AWS solutions for both its infrastructure and its CDN, Honda has seen increased performance, availability, reliability, and scalability. Other benefits include a reduction in time spent managing infrastructure as well as cost optimization for provisioning servers.

Next steps

AWS edge networking enables your organization to scale globally, connecting users to applications with improved latency and security. By moving traffic onto the AWS network through 410+ global edge locations, you can create a secure and reliable low-latency user experience at virtually any scale in new and existing markets.

And, with pay-as-you-go pricing and the best price performance of any content delivery network, Amazon CloudFront allows you to scale infrastructure quickly—without the need to invest in, build, or maintain expensive new infrastructure.

The success stories in this lookbook only scratch the surface of the benefits AWS edge networking services can provide. Organizations across virtually every industry can leverage our services to improve security, performance, ease of use, and cost-effectiveness.

Learn more about AWS edge networking ›

AWS Solutions

Learn more about individual AWS services using the information and links below.

- **Amazon CloudFront** – Low latency CDN built for high performance, security, and developer convenience
- **AWS Global Accelerator** – Networking service that improves the performance of your users' traffic by up to 60 percent
- **Amazon Route 53** – Highly available and scalable cloud domain name system (DNS) web service
- **AWS WAF** – Web application firewall that helps protect your web applications or APIs against common web exploits and bots
- **AWS Shield** – Managed distributed denial of service (DDoS) protection service that safeguards applications running on AWS