cloudaliv

Case Study

An Online Cloud-Based Platform Company's Success Story: Boosting Performance with AWS CloudFront

About the Company

An Online Cloud-Based SaaS Platform Company specializes in comprehensive business solutions, including CRM, document management, and workflow automation. Our platform streamlines business operations through efficient data management, document organization, and automation. We enhance productivity, customer interactions, and efficiency by centralizing data and automating tasks for businesses of all sizes and industries with customizable solutions.

Brief Summary

This case study highlights the pivotal role played by CloudFront, S3, Lambda@Edge, and AWS ACM in significantly reducing website loading times, elevating user satisfaction by 10%, and enhancing application performance by 15%. These achievements paved the way for a seamless and successful expansion into new markets for An Online Cloud-Based SaaS Platform Company.

The Challenge

At An Online Cloud-Based SaaS Platform Company, They currently operate both static and dynamic web applications using distinct EC2 instances. However, we are becoming increasingly aware of the expenses associated with maintaining virtual machines solely for hosting the static web application. This concern arises because the entire compute capacity is not consistently utilized. Furthermore, we have set our sights on achieving a global presence for our applications, minimizing latency, ensuring high availability, and integrating robust DDoS protection measures. Simultaneously, we are keen on enhancing the performance of both our static and dynamic applications.

The Solution

The Cloudaliv team conducted a comprehensive assessment of our situation and proposed a comprehensive solution. They leveraged the capabilities of Amazon CloudFront and Amazon S3 to enhance the static application's performance, harnessing AWS's high-performance Content Delivery Network (CDN) to minimize latency and enhance the overall user experience. CloudFront is also implemented for dynamic applications as well.

CloudFront was configured with all available edge locations, strategically positioned across the globe, to ensure optimal performance and minimal latency for users worldwide. To bolster content security and manage access effectively, the origin was set up to grant CloudFront exclusive access to a private S3 bucket housing the application's content. This approach not only enhanced security but also ensured seamless user access through CloudFront.

Additionally, AWS ACM certificates were provisioned to encrypt data transmission, adding protection against DDoS attacks. For the application's admin panel, which required distinct routing and handling, specialized routing strategies were implemented. When users accessed the /admin path, Lambda@Edge dynamically modified the request URI, ensuring accurate request forwarding to the admin backend hosted on an Application Load Balancer (ALB).

As a result of this thoughtfully planned and executed configuration, our application performance saw a significant improvement. With Amazon CloudFront as our content delivery solution, we were well-equipped to meet the increasing demands of our expanding user base. This led to faster application delivery, enabling us to provide an even more responsive and satisfying user experience than ever before.

The Outcome

The integration of Amazon CloudFront alongside S3 led to a significant enhancement in user experience, marked by quantifiable improvements in website loading speed. We adeptly managed the escalating user influx and the growing application demands, allowing us to expand our operations to unprecedented levels without encountering any performance bottlenecks. Specifically, website loading times saw a notable reduction, resulting in a 10% increase in user satisfaction, while our ability to handle the surging user base led to a 15% growth in application performance and scalability. These quantitative improvements paved the way for our successful expansion into new markets.