

Introduction

The client required a solution to enhance the speed, security, and availability of their WordPress-based Multisite setup. We collaborated with the client and devised a solution that focused on rapid access, data redundancy, backups, failover servers, auto-scaling, and security.

Client Details

Client Name: Confidential | Location: USA | Industry: Financial Services

Technologies

WordPress, AWS, S3, RDS, EC2, DFS, CloudFront, Cache Management, REST, Auto Scaling, Load Balancer, Failover, High Availability

Project Description

At the outset, the client had a WP Multisite setup with a ColdFusion app and wanted to serve static content from S3. We introduced CloudFront to better address their need. While we wanted to run the setup on a small EC2 instance, owing to some of the dependencies the client had, we had to take an alternate recourse. The approach is expressed in the architecture diagram below.

The final solution includes AWS EC2 with a load balancer to share traffic load between two servers, RDS for the database, and S3 for storing uploads on S3 bucket. We used CloudFront for rapid content delivery and DFS for storing/wp-content which contains all the theme, upload and plugin files. As a result the same can be shared by both EC2 instances and there remain no concerns to handle synchronization every time some plugin or theme is updated on one server.



Challenges:

- Ensuring seamless experience for the admin and making sure that the admin sees updated content instantly.
- Reducing time for cache invalidation as some posts need to be updated across all sites in Multisite network and it takes a very long time to invalidate CloudFront cache.
- Site duplication they had a site which was the default, and they used it to create new subsites resulting in all the images of the new site getting uploaded to S3 as well.

Solutions:

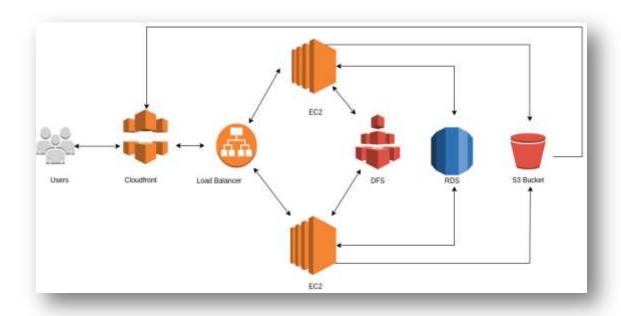
- Adding rules for the ColdFusion web app which we did not have access to.
- Adding rules for cookies.
- Adding header forwarding for ColdFusion.
- Adding * domain to ensure all subdomains get cookies.
- Added s3 media lite pro plugin for uploading existing images to s3.
- Added c3 CloudFront clear cache plugin for admin to view updated preview instantly.

Benefits:

- The end user can access the site faster.
- There is continuation of service if one web server fails.



Architecture Diagram



Screenshots:

Home:





Stories:

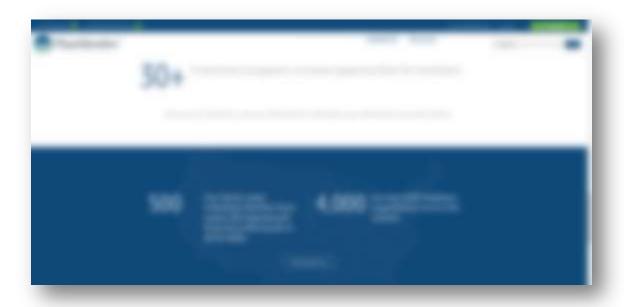


Planning System:





Get Started:



Footer Menu:

