G-AsiaPacific Case Study - BFM 89.9



SUMMARY

Local independent business radio station BFM 89.9 adopted Amazon Web Services (AWS) autoscaling feature to host their website, with G-Asia Pacific as their cloud consultant and deployment specialist. The transformation to cloud services enabled BFM to auto-scale and overcome physical server bottlenecks, producing a smoother and more persistent loading outcome of their website. G-Asia Pacific continues to provide managed services support to BFM.

BACKGROUND OF THE COMPANY

BFM 89.9 - The Business Station (BFM) is a local independent radio station that focuses on business news and current affairs. The station uses a discourse-based approach in exploring subjects of entrepreneurship, health, fashion, the arts, sports and music. Their main audience consist of white-collar professionals like C-Levels, business investors, property developers, entrepreneurs and business owners.

BFM has a an eminent social media presence, with over 180,000 followers on Twitter and over 42,000 likes on their Facebook page (as of April 2017). The BFM website receives more than a million requests per day, and is the number 1 business station in Malaysia.

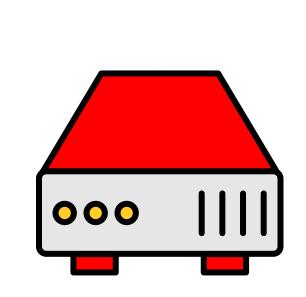
THE CHALLENGE

Heavy Website Traffic

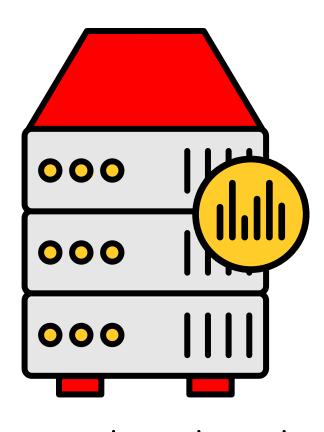
The BFM website serves primarily as a platform to reach out to listeners who either listen to a live stream or podcasts of past interviews. Congestion builds up very quickly whenever a high profile personality is being interviewed. The demands on the web servers grew from 800,000 requests per day to over a million over a period of 12 months (2015/2016).

A solution was required to enable the website to scale upwards with little or zero downtime. The other challenge was architecting a structure incorporating redundancy where the static assets of the website can be seamlessly shared across multi-instances of servers.

The BFM website existing environment

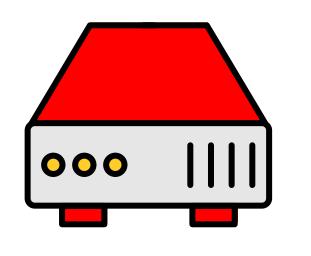


One on-premise server to host their website and database

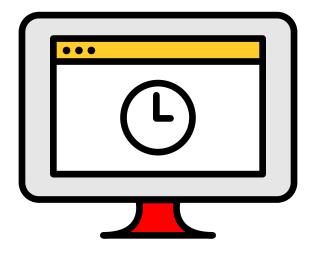


The server is running on its highest specifications

Point of Failure:



There is only one server that caters for everything



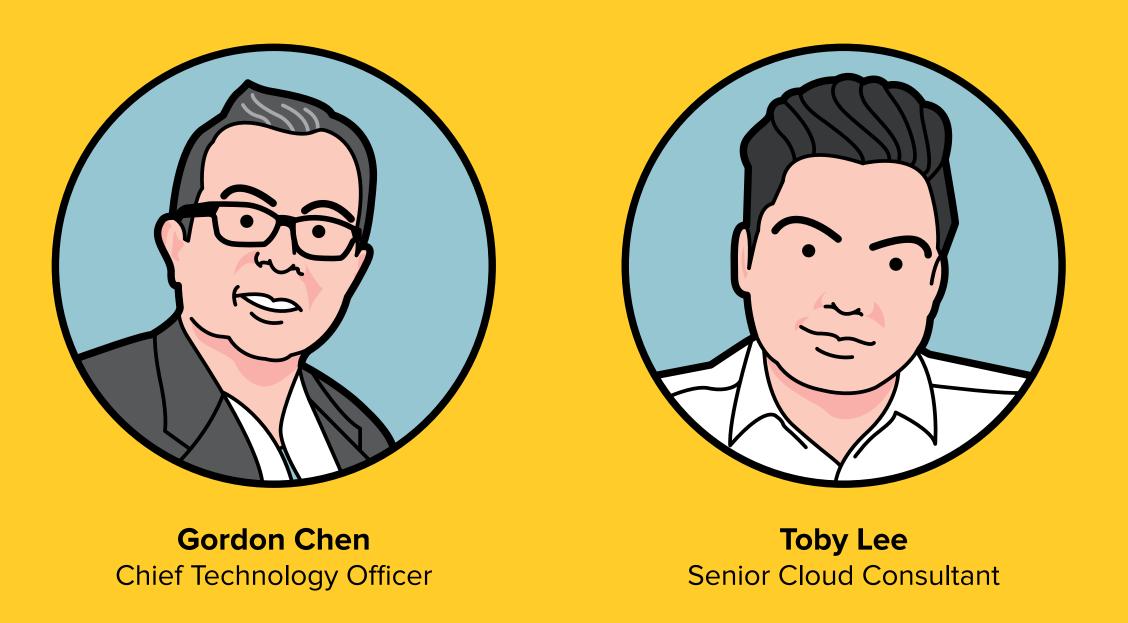
Website traffic rises during peak sessions, causing website load speed to slow down



The dramatic increase in website traffic causes the website to be inaccessible at times

CLOUD SOLUTIONS BY G-ASIAPACIFIC

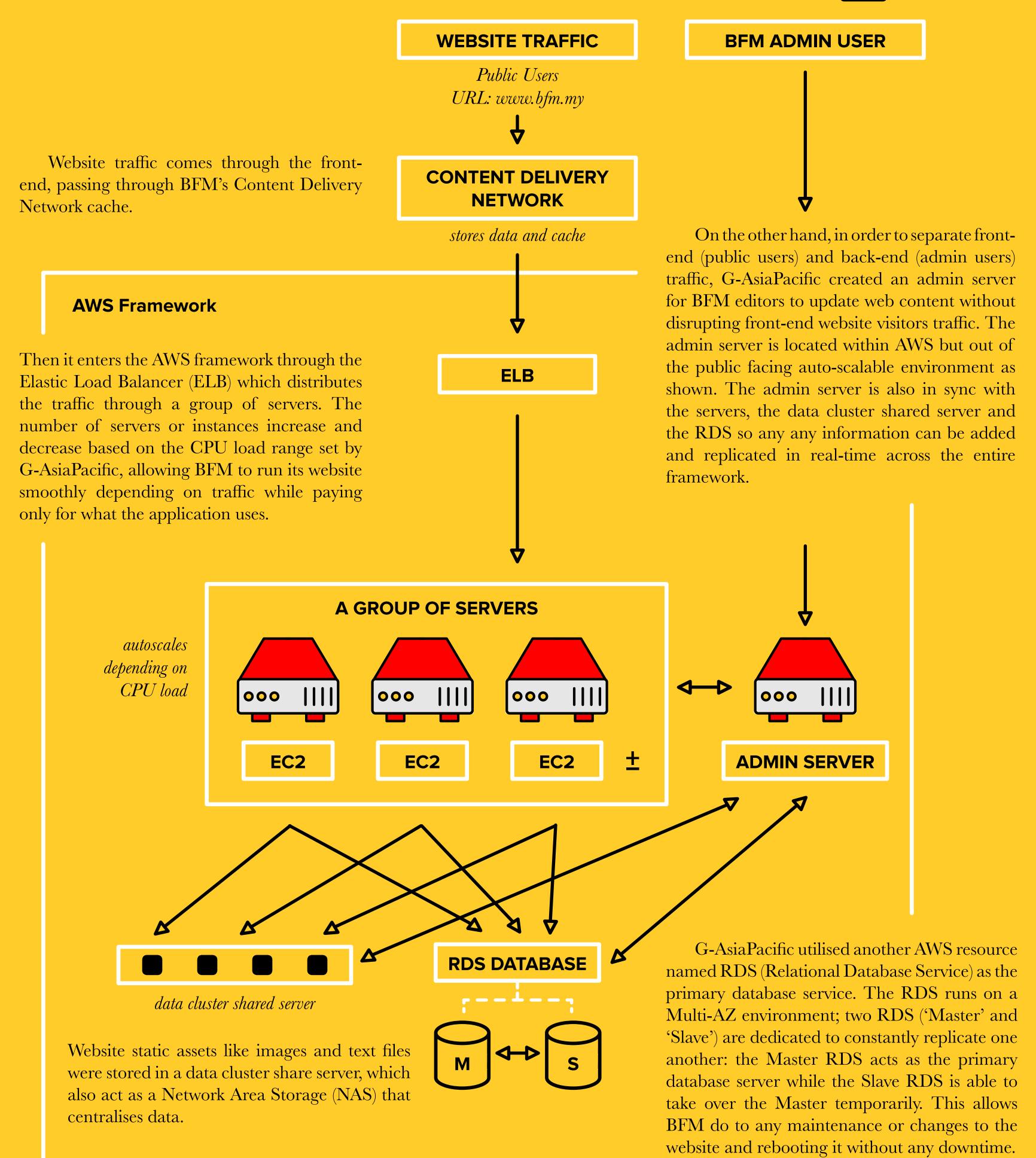
The G-AsiaPacific team, spearheaded by our Chief Technology Officer (CTO) - Gordon Chen and Senior Cloud Consultant - Toby Lee tackled the situation head on with a rapid and straightforward solution.



Although BFM's server was already running at its highest specifications, it was unable to cope with the traffic during peak sessions. To overcome the challenge, BFM required a high availability environment which is scalable and unrestricted by the capabilities of a single server.

The diagram below shows the solid environment G-AsiaPacific created for BFM's system to run on:







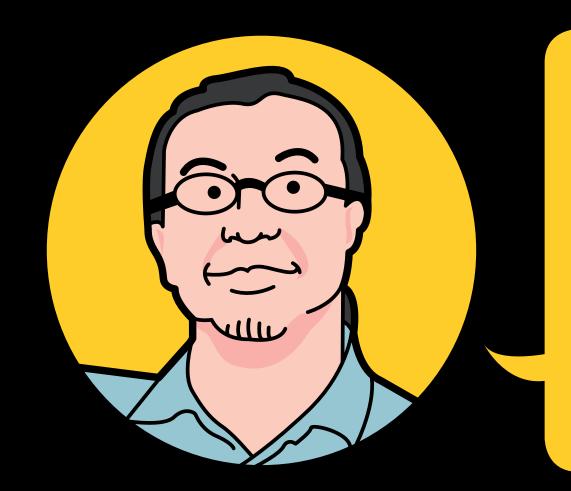
G-AsiaPacific created a staging environment in order to tune auto-scaling and database settings. The staging site was load tested until a suitable setting was achieved. Only when it was observed to handle high traffic comfortably was the site deployed live. AWS CloudWatch console was able to provide the necessary data to indicate CPU usage and database connections in order for us to analyze and make the necessary changes for optimized performance.

POST DEPLOYMENT SERVICES/SUPPORT



Final tweaks to various settings within the database and autoscaling components were made after the website went live to further optimise the performance. G-AsiaPacific worked closely with BFM to resolve all issues.

BFM subscribes to G-AsiaPacific's annual managed services support.



Testimonials from Jon Yap, BFM System Administrator

"We were faced with the challenge of scaling our web server to meet increasing traffic demands, the G-AsiaPacific Team came in with the solution to leverage on Amazon Web Services. The Team worked with me to define and assess a plan to address the challenges. The rollout was fairly smooth and any issues were attended to and quickly resolved. G-AsiaPacific has demonstrated they are a dedicated and customer focused IT services and support organization."

