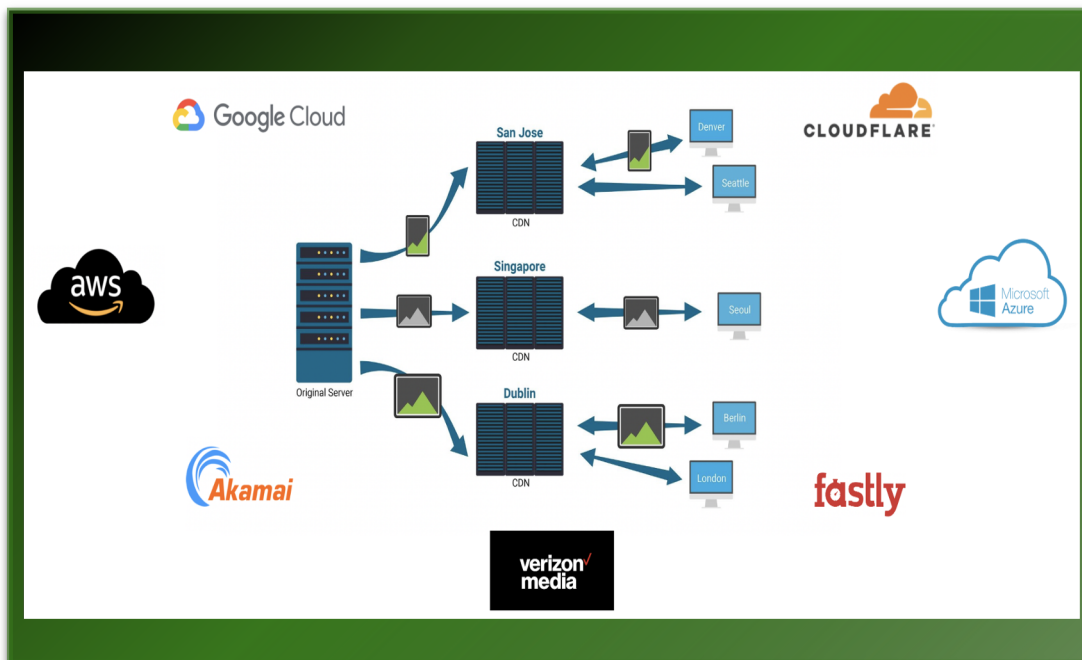


Summer '21 Internship: Product Manager of a new Cloud storage product, Edge Compute team, Verizon Media



Technical Background Content Delivery Networks (CDNs)



Problem Statement

With 5G and IOT taking the world by storm, the need for **single-digit millisecond latency** storage, retrieval, processing and delivery of high-performance compute data closer to the end user - at the EDGE of the Internet, is rising on an exponential scale.

Product Rationale

To address this need and to facilitate storage and delivery of data closer to the end user, the Verizon Media Edge Compute team began hypothesizing a database-driven storage solution to be integrated into its cloud platform.

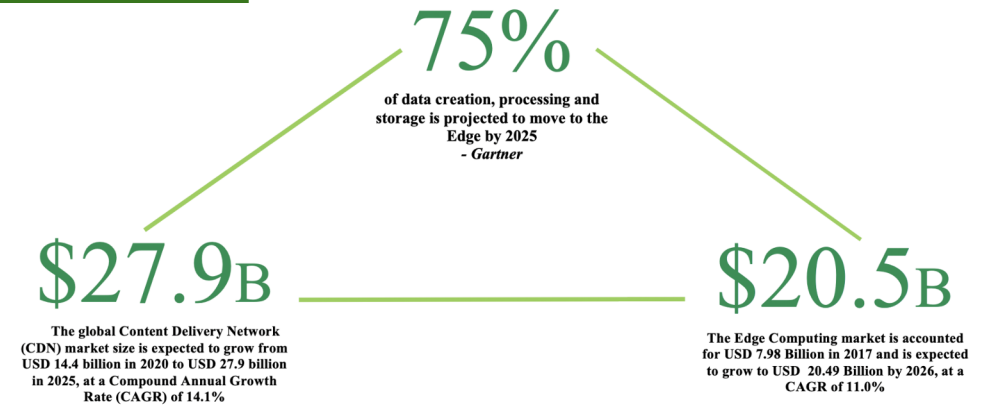
My Responsibility

Owned and led the end-to-end Product Roadmap, Go-To-Market Strategy and Beta Launch Plan for this new cloud storage platform.

Project Outcome

- My analyses and deliverables during the 10-week stint, combined with an extensive financial modeling revealed that Verizon Media would break even and start to generate a positive Net Income by EOY1.
- Verizon Media's leadership has announced the Beta launch date of this product.
- Engineering has begun working on my feature recommendations

Market Research



User Persona and Feature Definition

BIO
Hello there! I'm Stella and I work as a Software Developer at ESPN. Here's a day in my life!

- Partner with customers, account managers, business development, engineering & product teams to craft scalable, flexible & resilient applications that leverage hybrid-cloud architectures & services and address customer business requirements
- Re-engineer existing customer infrastructures & integrate these onto the cloud
- Develop application functions that send workloads to the database cluster
- Test applications to ensure they run successfully

SKILLS

- Deep knowledge of software engineering, cloud architecture, design patterns & object-oriented programming to build real-time applications
- As a trusted customer advocate, the Solutions Architect will bring organizations' understand best practices around platform integration
- Agile software development & DevOps practices such as infrastructure as code, continuous integration & automated deployment
- Application modernization & cloud native application development expertise, hands-on building, coupled with cross industry business acumen

VALUED DATABASE FEATURES

- EXTENSIVE PROGRAMMING LANGUAGES SUPPORT FOR APIS AND CLIS (SDKS TOO IF THEY'RE AVAILABLE)
- RICH DOCUMENTATION WITH EXAMPLE USE CASES, DEMOS & TUTORIALS ON HOW TO INSTALL & WORK WITH Edge Storage APIS AND CLIS
- SIMPLE & SEAMLESS INTEGRATION OF APIS & CLIS WITH MY CUSTOMERS' APPLICATION INFRASTRUCTURE
- ABSTRACTION OF ESOTERIC DETAILS OF Edge Storage FROM THE APPLICATION - I SHOULD BE ABLE TO PUSH CODE USING MY COMMAND LINE TOOL WITHOUT HAVING TO WORRY ABOUT Edge Storage-SPECIFIC DETAILS
- SUPPORT FOR DEVOPS & CI/CD PIPELINES
- CODE VERSIONING & PROTECTION AGAINST CONCURRENT CODE CHANGES
- DEMAND-BASED PERFORMANCE & SCALABILITY ADJUSTMENTS OF DATABASE
- ACCESS TO DATABASE LOGS FOR TROUBLESHOOTING PURPOSES; ABILITY TO STORE/RETAIN THESE LOGS FOR FUTURE REFERENCE
- ABILITY TO CUSTOMIZE LOG RESULTS BASED ON FILTERS SUCH AS DATE AND TIME RANGE, HOSTNAME (S), KEYWORDS, USAGE & PERFORMANCE BASED METRICS
- ABILITY TO RAISE A TECHNICAL OR ADMINISTRATIVE SUPPORT TICKET IN CASE ANY ISSUE ARISES

FRUSTRATIONS

- Long propagation & rollback times for database changes
- No DevOps/API/CLI support
- Poor documentation
- Complexity and manual effort involved in scaling & securing database
- No access to real-time logs; no aggregation & filtering option
- Lack of customer support
- No alerting or notification system

EDGE STORAGE WORKFLOW

- Logs into the Edge Storage portal using multi-factor authentication
- Navigates through the portal to determine if she has access to all Edge Storage resources as promised by Alex
- Sets up access to the console via the UI as well as API and CLI access
- Goes over Edge Storage documentation to understand Edge Storage architecture, data types and schema support, database performance, availability, scalability, security capabilities, limitations and compatibility of the database with her and her customers' organizational data and infrastructure
- Stella then goes on to extensively integrate her customers' application infrastructure onto Verizon Media Platform's Edge Storage portal using a combination of CI Controls, APIs and CLIs, setting the Edge Storage API endpoints to retrieve and update data as and when required

GOALS

- Integrate customers' on-premise and/or hybrid-cloud infrastructures & web application workloads with Edge Storage
- Enable innovation through continuous deployment to DevOps with technologies like Chef & Puppet, building web & mobile scale-out applications using memcache or Redis, building IoT use cases
- Run full stack integration tests (load testing, performance testing, functional testing) to ensure end-to-end application workflow runs smoothly for all test cases
- Ensure that a developed application runs without bugs & successfully sends workloads to the database cluster

STELLA MCCARTNEY
28, London
ESPN
Software Developer/Solutions Architect
5 Years of Work Experience

Product Roadmap



MEM Courses and Skills Employed

- **Courses:** Marketing, Technology Assessment Project, Financial Accounting, Product Design & Development (Elective), Entrepreneurial Thinking (Elective), Technical Project Management (Elective)
- **Skills:** Customer-centered design thinking, research and analysis, prioritization against multiple criteria, financial modeling, UI wireframing, prototyping, collaboration, empathy, communication, presentation skills

Product Management Takeaways

“Product Management isn't about exhibiting authority, it's about influencing; “While data plays a huge role, a large part of Product Management is to use your intuition where necessary to work amidst abstraction.”