



A leading electronic manufacturing giant improves performance and costing with AWS migration

About The Customer

Wellysis is one among the Fortune 15 companies and a leading electronics manufacturing giant. Their line of business is currently focused on wearable-tech devices.





Challenges:

- Using data center for high performance applications resulted in higher cost.
- Less scalability
 opportunities due to
 limited expansion
 capability in data center
- Time consuming on-premise operations

Solution:

- Migrated 300 plus servers with 7 TB of data
- Re-architected virtual data center for 4 environments across 4 geographical regions.
- On-time migration with zero data loss
- Auto-scaling and auto-shutdown implemented to save costs

Business Scenario

Wellysis has de-merged their wearable-tech business and spun off as a separate business entity. As a result of this, their entire IT infrastructure which was partly running from data center had to be migrated to AWS Cloud. Their business unit provides real-time ECG monitoring solution using a wearable ECG device that can be attached to your chest.

The Need

Wellysis has been using on-premise data center for their applications. Further, they had developed technologies which was suitable for high-performance data center applications. When the customer felt that they need to move to a cloud based service, all the technologies designed for data center applications were to be Re-engineered to comply with Cloud environment.

As a solution to address the above problem, Wellysis looked to re-engineer to make it suitable for cloud environment and maintain high performance expectations with the data being handled. The customer also want to have a re-architected end-to-end network connectivity and implement encryption technology in the transit of data.





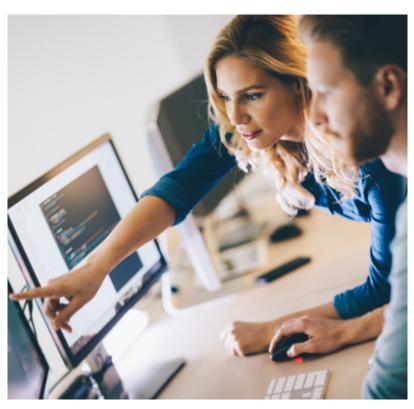
Results:

- 38% cost saving by migrating to VDC from physical data center
- 67% increase in scalability support
- 52% increase in processing time and better performance due to end-to-end network connectivity
- Ability to process 90,000 requests per second after migrating to Cloud.

Technology Snapshot



- » AWS Cloud, AWS Batch, Backup policy, Network security, WAF (Web Application Firewall)
- » H-IDS (Host-based Intrusion Detection System), Anti-Web Shell, DDoS Protection
- » System Monitoring (CloudWatch, OMD), Security Control Alert (HIDS, Web Shell), Cloud Endure + SMS, DMS, CloudFormation





Aspire's Solution

Aspire's Cloud experts had employed various low-overhead encryption technologies to secure the agency's data, both in-transit and at-rest, while maintaining their customers' expectations on high-performance. The re-engineering was authored by cloud engineers by developing a robust data synchronization strategy to ensure high-availability.

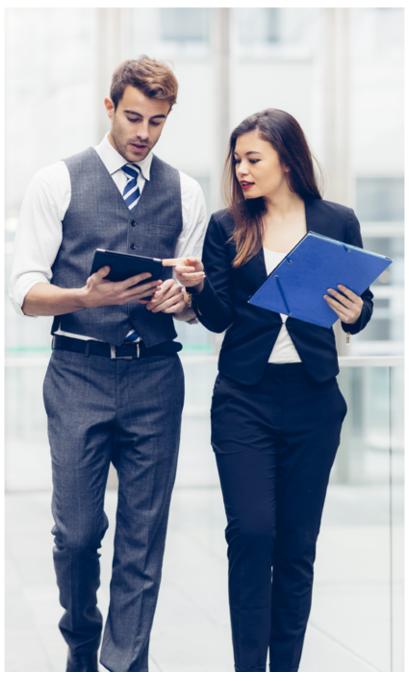
Solution in detail:

- The Cloud Engineers had architected the complete Virtual Data Center for Development, Test, Staging and Production environment and architected an end-to-end network connectivity to ensure smooth data flow.
- No-SQL migration (Scylla DB) which gives higher performance in throughput and latency.
- The workloads were migrated with best practices such as agile methodologies.
- Architects had also ensured high availability for servers and database with Disaster Recovery setup.
- Implemented auto-scaling to ensure the scalability of the application in the future.
- Implemented health regulatory compliance for 4 geography locations. Adoption of compliance control standards and operating regulations as per the certifications such as MFDS Korea, and ISO 13485.
- Ensured that regular Vendor and AWS audit is conducted every 3-6 months as an on-going process to secure personal health data of the users.
- Re-factoring of the applications was performed that were to be migrated from the data center.



Benefits

- Provided Turnkey solution for the entire migration.
- Implementation of best practices ensured efficiency in terms of security, cost and availability.
- Performed ongoing audit and monitoring.
- · Successful migration on time with zero data loss.
- · Cost saving by implementing Auto Shutdown



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