Migrating from a Multi-cloud to a Single Cloud Platform

Problem Statement

The client is a leading IoT and Edge solution provider to world's top oilfield operators. The client's IIoT solution was built organically, as a "reaction" to individual customer needs. It so happened that the client ended up building two cloud platforms, one on Azure and the other on GCP (Google). This was now leading to duplicated efforts and the management decided it was not feasible to maintain the two cloud platforms.

Challenges

- Hiring and managing skilled resources for the two cloud providers was a costly affair
- High OpEx as payments to be made to both the providers
- Customer support suffered resulting in customer dis-satisfaction and escalations
- Huge internal maintenance headaches due to duplication of efforts

Solution

- After close evaluation of the needs and the existing installed base, Utthunga proposed MS Azure as the single platform of choice
- Re-developed the telemetry data ingestion module on Azure to improve data-ingestion efficiency and reduce data loss
- Planned a data and disaster recovery mechanism
- Provided access-controlled REST APIs for consumption of the data
- Used API Gateway for routing requests
- Deployed Azure Monitor to monitor the health of services
- Implemented Cosmos DB as the storage and Cassandra API for data access
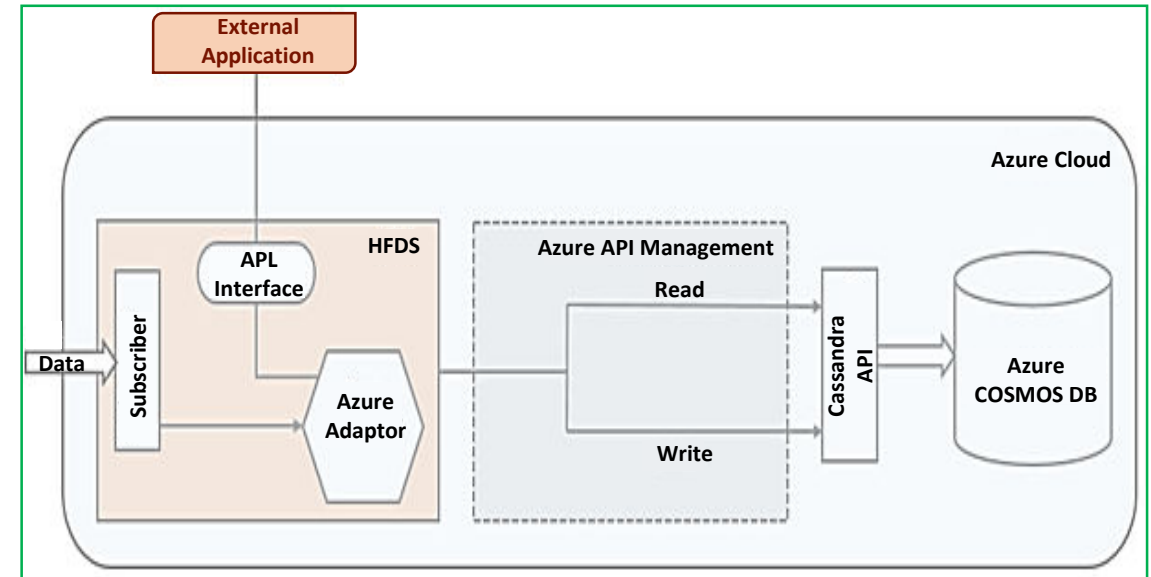
Benefits

- Immediate reduction in OpEx by 30%
- Dedicated customer support team with focus and training on a single technology. Customer escalations started to drop in the 2nd moth itself
- Considerable relief to maintenance team to maintain the cloud
- Improved data ingestion led to better reports (in the past data points would be missing sporadically). This was also good for the analytics engine
- Increased confidence of the support team with the new disaster recovery plan