

Vita Ambiental is a company that provides engineering services, working with the efficient use of energy, water, and other resources. They value the initiative of new business models in their field of operation that have a positive social impact. Their standout for the innovation of our projects and for the success in our implementations.

Business Challenge

- **Diverse Vendor Landscape:** The company currently uses a variety of water meters and IoT devices from different vendors, each with unique specifications and integration requirements. Standardizing these systems into a cohesive platform is a complex task that requires precise coordination and technological expertise.
- **Partner and Cloud Vendor Selection:** Finding the right strategic partners, including a cloud vendor that can deliver a scalable, secure, and flexible solution, is crucial. The chosen partners must align with Vita Ambiental's ambitious goal of launching this platform within a tight timeframe of just three months.
- **Unified Maintenance Portal:** Simultaneously, Vita Ambiental aims to build a unified portal to streamline the management of maintenance orders across its operations. This portal must seamlessly integrate with the new platform, ensuring that all aspects of the company's water management are handled efficiently and transparently.

Solution

- **Data Ingestion and Integration:** Utilizing Oracle Cloud Infrastructure, our team efficiently ingested vast amounts of data from various IoT devices and water meters. This data was seamlessly integrated using GoldenGate, ensuring real-time synchronization across multiple systems and maintaining data integrity.
- **Advanced Data Management and Analytics:** The solution employed Oracle Autonomous Databases, specifically ADW and ATP, to store and manage the extensive data volumes. These databases provided the necessary scalability, security, and performance to process and analyze data at unprecedented speeds.
- **Predictive Analytics and Machine Learning:** Leveraging the built-in Machine Learning capabilities of ADW, our Data Science team deployed predictive algorithms to anticipate maintenance needs, optimize resource usage, and enhance operational efficiency.
- **Native OCI Technologies:** Our solution was built using a suite of OCI-native tools and technologies, ensuring seamless integration, optimal performance, and adherence to best practices in cloud architecture. This not only streamlined the development process but also ensured that the solution could be rapidly deployed and scaled to meet future demands.

Impact

- **Rapid Deployment:** The platform was fully deployed in under three months, enabling Vita Ambiental to quickly transition to their new system.
- **Optimized Operations:** Predictive analytics and unified management streamlined processes, reducing operational costs and increasing efficiency.
- **Scalability & Security:** Leveraging OCI's robust infrastructure, the solution offers scalable performance and enhanced data security.

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