

Case Study | IoT & CLOUD MANAGEMENT

Intelligent cloud cost optimization solution for end-user computing & virtualization provider



Problem

A leading virtual desktop provider faced challenges in managing and optimizing cloud costs for their clients. Complex cloud infrastructure and fluctuating usage patterns made it difficult to track spending accurately. Time-consuming manual reporting hindered timely decision-making. Lack of visibility into cloud costs created friction with clients.

Solution

Developed an intelligent cloud cost optimization solution featuring:

- Centralized Cost Dashboard:** Consolidated view of cloud spending across multiple platforms (e.g., Azure, Citrix, VMWare Horizon, AWS, GCP).
- AI-powered Analytics:** Machine learning algorithms to analyze usage patterns, identify cost optimization opportunities, and forecast future spending.
- Automated Reporting:** Generation of tailored reports for clients with actionable cost-saving recommendations.

Results

- Achieved a substantial 25% reduction in cloud costs for the provider's clients.
- Drastically reduced report generation time, from weeks to seconds.
- Enhanced client relationships through increased transparency and proactive cost management.
- Transformed cloud cost management from a challenge into a competitive advantage.



Technology Stack

- Data Collection:** Integration with cloud provider APIs (Azure Monitor, Azure Cost Management, AWS Cost Explorer, etc.)
- Data Analytics:** Machine learning libraries (e.g., scikit-learn, TensorFlow) and time-series analysis algorithms like LSTM, ARIMA.
- Dashboard:** Web-based visualization tools (e.g., Tableau, Power BI, Grafana).
- Backend:** Python, Java, or React.js for data processing and report generation.
- Database:** Flexible storage for historical cost data.



Software Development

- Methodology:** Iterative development with focus on refining machine learning models for accurate forecasting.
- Focus:** Intuitive dashboard design for both technical and non-technical users.
- Customization:** Flexible report generation to suit diverse client needs.



Before Metrics

Difficulty identifying and addressing sources of cloud cost overruns.

Time-consuming and error-prone manual reporting processes. Limited transparency into cloud spending for clients.



After Metrics

25% decrease in cloud costs. Significant reduction in time spent on report generation.

Increased client satisfaction due to proactive cost management and transparency.