

Azure Cost Optimization: FinOps Services

Dexian's Proven Approach to Maximizing Cloud Investment for an Oil & Gas Conglomerate

Executive Summary

In today's rapidly evolving digital landscape, controlling cloud expenses is essential to operational efficiency and competitiveness. This white paper outlines Dexian's Azure Cost Optimization (ACO) services, which were successfully deployed to help a major Oil & Gas conglomerate manage and reduce Azure costs. Dexian's unique FinOps approach enabled the client to achieve over \$1.6 million in cost savings over one year by implementing targeted strategies like rightsizing, service consolidation, and scaling optimization.

Key sections cover Dexian's FinOps methodologies, detailed project processes, and lessons learned to guide similar organizations in achieving significant savings and improved financial visibility across their cloud environments.

Overview of Microsoft Azure

Microsoft Azure is a leading public cloud platform that offers infrastructure and platform services globally. Azure enables a shift from traditional CAPEX to OPEX through scalable solutions that can be tailored to a variety of needs, from data analytics to AI. With its array of products and solutions, Azure supports mission-critical applications across industries, enabling organizations to adapt and innovate with agility.



Client's Azure Environment

Our client, a leading Oil & Gas conglomerate, operates a decentralized Azure environment to allow for rapid innovation across teams. Each team controls its subscriptions and workloads, utilizing Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) based on project requirements. While this model promotes flexibility and innovation, it also introduces challenges such as:

- **Higher costs** due to limited shared services and cross-team resource standardization
- **Inconsistent governance** across subscriptions, affecting compliance and oversight

Dexian's ACO project aimed to bring structured cost optimization to this environment, helping the client maximize their Azure investments while retaining flexibility.

Project Objectives and Approach

The ACO project focused on optimizing the client's more than four hundred Azure subscriptions by identifying cost-saving opportunities.

Our objectives were to:

1. **Reduce overall cloud costs** by rightsizing, consolidating, and eliminating underutilized resources.
2. **Improve visibility** into cloud spending to support data-driven decision-making.
3. **Foster a culture of cost-consciousness** through tailored recommendations and collaborative planning.

Dexian's Azure Cost Optimization Service

Our ACO service delivers a comprehensive approach to cloud cost optimization, specifically structured around Microsoft Azure. Using established frameworks like the Cloud Adoption Framework and the Well-Architected Framework, Dexian's FinOps team analyzed, advised, and implemented cost-saving measures based on the client's needs.

Our main strategies included:

- **Rightsizing Services:** Adjusting resources to match actual usage.
- **Auto-Scaling:** Enabling resources to scale automatically to avoid over-provisioning.
- **Resource Consolidation:** Utilizing shared services across workloads to reduce duplication.
- **Maximizing Efficiency:** Upgrading to New Service Versions for better performance and cost
- **Savings Plans and Reserved Instances:** Leveraging Azure benefits for cost-efficient resource usage.



The ACO Macro Process

The ACO project followed a structured process to identify and implement cost-saving opportunities across the client’s subscriptions:

- Subscription Selection:** We identified high-cost subscriptions for analysis.
- Permissions and Access Setup:** Ensured Dexian’s FinOps team had the necessary access for a full evaluation.
- Comprehensive Assessment:** Detailed analysis of each subscription using In House Tools, Scripts and Azure APIs.
- Reporting and Recommendations:** Dexian generated a tailored report outlining cost-saving recommendations for each service.
- Client Review and Approval:** Recommendations were reviewed with the client for alignment and priority.
- Implementation and Follow-Up:** Dexian provided guidance for implementing recommendations, tracking savings and progress.
- Documentation and Tracking:** All meetings, recommendations, and savings were documented, enabling transparent tracking and future analysis.

Results and Key Savings

As of October 2024, Dexian's ACO project has resulted in:

- Total Savings: \$1,635,549.44** across various services.
- Key Savings Areas: Significant reductions were achieved in SQL Databases, App Service Plans, and Virtual Machines, as illustrated below.

Note:

Projected savings could reach over \$3.8 million if all recommendations are implemented.

Service	Total Savings (\$)
SQL Database	\$644,887.45
App Service Plans	\$110,958.12
Azure Data Factory	\$245,925.95
Virtual Machine Changes	\$172,909.26
Other Services	\$460,868.66
Total Savings	\$1,635,549.44



Lessons Learned

Dexian's continuous improvement approach allowed us to adapt our FinOps methodology to meet the client's unique needs and Azure's evolving capabilities. Key insights from this project include:

1. **Tailoring Recommendations by Subscription Cost:** Targeting high-cost subscriptions first helped prioritize impactful savings.
2. **Enhanced Reporting Clarity:** Incorporating detailed metrics and BI tools improved report usability, facilitating better decision-making.
3. **Iterative Methodology:** Adjustments in the process, such as longer analysis periods for specific services, led to more accurate and implementable recommendations.

Conclusion

Dexian's FinOps-driven Azure Cost Optimization service offers a robust solution for companies aiming to manage and reduce cloud expenditures in complex, decentralized environments. By aligning financial accountability with technical insights, Dexian helps clients achieve substantial savings and increased financial visibility, supporting sustainable growth in a competitive cloud landscape.

For organizations across industries, Dexian's cost optimization approach can provide a pathway to maximize cloud investment. To learn more about how Dexian can support your cloud cost management, contact us to discuss a tailored FinOps solution.

Appendix: Services Assessed and Methodologies Used

Key Services Evaluated: Azure Data Explorer, Azure Data Factory, App Service Plans, Application Gateway, Azure SQL, Cosmos DB, Databricks, Virtual Machines, Storage Disks & Accounts, Azure Front Door and others.

Primary Methodologies: Top-Down analysis for high-cost production subscriptions and Bottom-Up approach for non-production, lower-cost subscriptions.

In the Top-Down model, each subscription is analyzed individually. All services within the subscription are examined one by one to identify potential cost-saving recommendations. This approach focuses on component-level details rather than overall architecture, targeting high-cost subscriptions, typically those in production with detailed requirements.

The Bottom-Up model analyzes services across multiple subscriptions collectively. This approach aims to consolidate services within subscriptions, reducing the overall footprint and promoting shared usage. It is generally applied to lower-cost, non-production subscriptions.

The Bottom-Up model encourages shared architectures and the use of Infrastructure as Code (IaC) for environment deployment. IaC and automation enable the creation, updating, and availability of environments as needed, reducing costs by avoiding constant availability.