Microsoft 365 & Azure Optimization: Cost Control and Security Enhancement

This document presents a comprehensive case study of a successful three-week engagement with an insurance management firm. We conducted a thorough audit and optimization of their Microsoft 365 and Azure environments, resulting in significant cost reductions, properly aligned licensing, and enhanced security measures that closed critical vulnerability gaps.

CG Technologies

Project Overview

Our team executed a comprehensive assessment and optimization project targeting the client's Microsoft 365 and Azure environments. The insurance management firm was experiencing significant inefficiencies in their cloud infrastructure that were affecting both their budget and security posture.

The engagement was structured as a focused three-week intervention, beginning with a detailed assessment of the current environment, followed by planning and implementation phases. This approach allowed us to quickly identify critical issues while minimizing disruption to the client's operations.

Our methodology incorporated industry best practices for cloud governance and security, tailored specifically to the insurance sector's compliance requirements and operational needs. By addressing both cost and security simultaneously, we were able to deliver exceptional value within a compressed timeframe.

Client Challenges

Excessive Cloud Costs

The client was hemorrhaging budget through overprovisioned Azure resources and unnecessary Microsoft 365 licenses, creating significant financial inefficiency without corresponding business value.

Missed Optimization Opportunities

Key cost-saving features like Azure Hybrid Benefit and Reserved Instances remained unutilized, forfeiting substantial potential savings available within their existing subscription model.

Security Vulnerabilities

Critical security gaps existed due to the absence of conditional access policies, geographical restrictions, and proper identity governance, creating exploitable weaknesses throughout the environment.

These challenges had developed gradually as the company expanded its cloud footprint without implementing corresponding governance and optimization practices. The lack of visibility into actual resource utilization exacerbated these issues, making it difficult for internal IT staff to identify and address problems proactively.

Solutions Provided

Cloud Spend Optimization

- Implemented Azure Hybrid Benefit for qualifying workloads
- Applied Reserved Instance pricing to predictable workloads
- Right-sized virtual machines to match actual performance needs
- Eliminated unused Azure services and resources

Licensing Efficiency

- Conducted comprehensive Microsoft 365 license audit
- Adjusted subscription tiers to match actual user requirements
- Eliminated unnecessary licenses for departed employees

Security Hardening

- Developed role-based Conditional Access Policies
- Implemented geo-restrictions to limit access to approved regions
- Enhanced MFA implementation and configured risk detection
- Established baseline identity protection controls

Our approach utilized specialized tools including Azure Cost Management, Microsoft Secure Score, Power BI for data visualization, and the Microsoft 365 Admin Center for implementation and management of the recommended changes.

Project Outcomes

The engagement delivered substantial, measurable benefits across multiple dimensions of the client's operation. By simultaneously addressing cost efficiency and security, we created a more sustainable and resilient cloud environment.

Cost Savings

We achieved a 34% reduction in overall cloud expenditure through strategic licensing adjustments and resource optimization, significantly improving the client's technology ROI.

Enhanced Security

Several high-risk security gaps were remediated, dramatically reducing the potential attack surface and bringing the environment into alignment with industry best practices.

Client Satisfaction

The client expressed particular satisfaction with the dual benefits of cost reduction and security enhancement, noting that the project exceeded their expectations in both areas.

Challenges Overcome

Fragmented Configuration

The client's Azure environment had evolved organically without strategic oversight, resulting in inconsistent configurations and redundant services. We implemented a systematic approach to standardize and consolidate resources without disrupting critical business operations.

Limited Historical Data

Incomplete usage data and cost records complicated the assessment process. We deployed additional telemetry tools and created custom Power BI dashboards to generate actionable insights from the available data points.

Change Management

We developed a phased implementation approach that minimized business disruption while allowing for continuous validation of results. This incremental strategy ensured service continuity throughout the optimization process.

These challenges required significant technical expertise to overcome, as well as close collaboration with the client's IT team. By addressing each obstacle methodically, we were able to implement comprehensive improvements while maintaining operational stability.

Key Metrics and Data

$2,100

Monthly Savings

Total monthly cost reduction across Microsoft 365 and Azure services

19

Optimized Licenses

Unused or misaligned licenses removed or downgraded to appropriate levels

4

VMs Resized

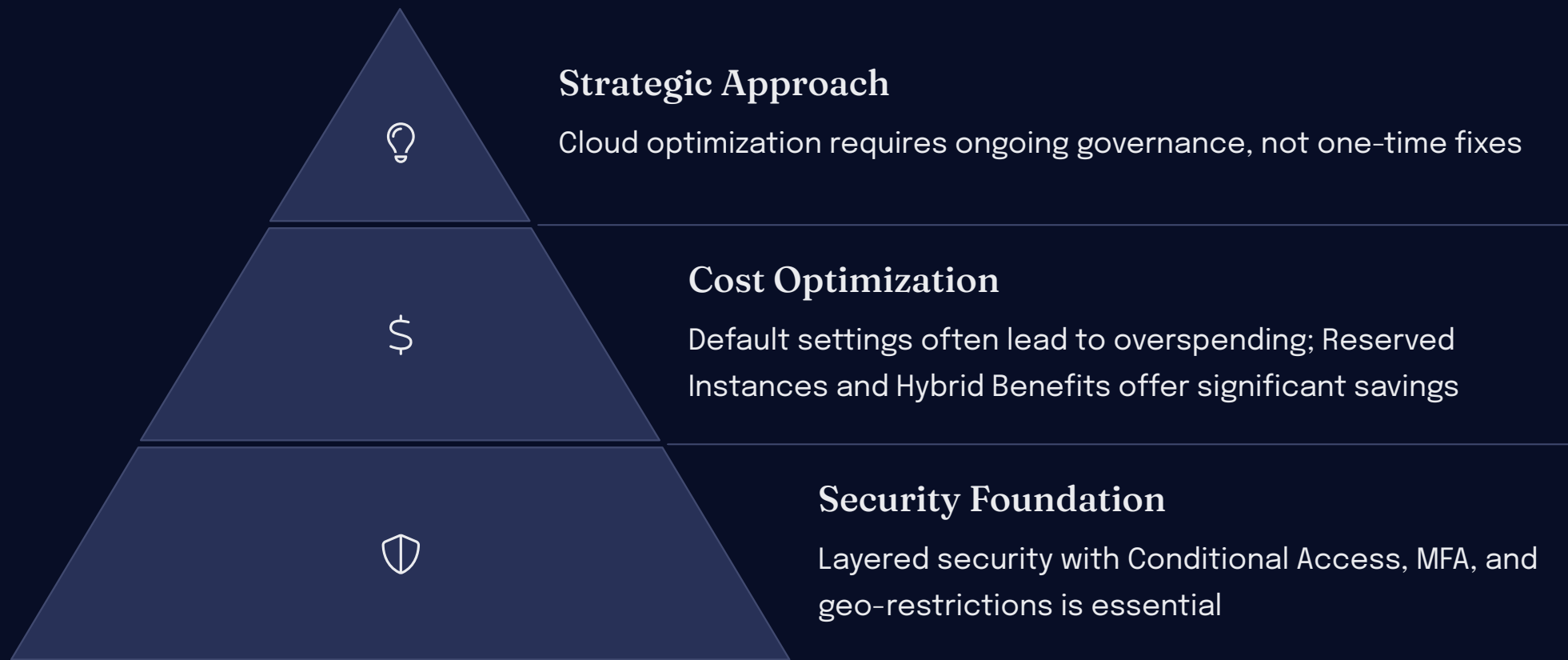Azure virtual machines right-sized to match actual performance requirements

80%

Risk Reduction

Decrease in risky login attempts within the first 30 days after implementing 6 new Conditional Access rules

Optimization Category	Before Engagement	After Engagement	Improvement
Monthly Azure Spend	$4,650	$3,200	31% reduction
M365 License Cost	$1,850	$1,200	35% reduction
Microsoft Secure Score	42/100	78/100	86% improvement

Lessons Learned and Recommendations

Strategic Approach

Cloud optimization requires ongoing governance, not one-time fixes

Cost Optimization

Default settings often lead to overspending; Reserved Instances and Hybrid Benefits offer significant savings

Security Foundation

Layered security with Conditional Access, MFA, and geo-restrictions is essential

> "We knew we were spending too much, but CG Technologies showed us just how much – and how vulnerable we were too. The value delivered went far beyond cost savings."

This engagement demonstrated that cloud optimization must balance cost efficiency with security considerations. Organizations should implement regular cloud governance reviews, utilize cloud-native cost management tools, and develop security policies that evolve with their business needs. For maximum value, these areas should be addressed holistically rather than as separate initiatives.