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CASE STUDY

30–40% AWS Cost Savings Through Cloud Optimization

Executive summary

Customer: Orion Group
Industry: Industrial Conglomerate (Pharmaceuticals, Infrastructure, Power)
Size: 18,000 employees
Location: Bangladesh
Business Focus: Multi-sector industrial operations requiring robust, scalable cloud infrastructure to support diverse business units.

Orion Group, one of Bangladesh's largest industrial conglomerates with 18,000 employees spanning pharmaceuticals, infrastructure, and power sectors, partnered with Graaho Technologies LLC to transform their AWS cloud operations. Facing escalating costs due to decentralized resource management and inefficient cloud configurations, Orion Group achieved remarkable results: 30-40% reduction in overall AWS spend, 60% decrease in snapshot storage costs, and significantly improved operational visibility and performance through comprehensive infrastructure optimization.

Business Challenges

Orion Group's rapid cloud adoption had created several critical challenges:

❯ Cost Management Issues

- **Escalating AWS expenses** driven by decentralized resource
- **Overreliance on on-demand pricing** without strategic use of commitment-based savings instruments
- **Inefficient region allocation** resulting in unnecessary data transfer and networking costs
- **Underutilized cloud assets** consuming budget without delivering proportional value

❯ Technical Challenges

- **Legacy configurations** creating performance bottlenecks and limiting scalability
- **Massive storage waste** with over 2.9 TB of redundant snapshot data
- **Oversized EC2 instances** running at low utilization rates
- **Idle resources** including unused VPN connections and unassigned Elastic IPs
- **Limited operational visibility** hampering proactive resource management

❯ Governance Gaps

- Lack of centralized cloud governance framework
- Insufficient cost monitoring and alerting mechanisms
- No standardized approach to resource provisioning and lifecycle management

About the Customer

Orion Group is a leading Bangladeshi industrial conglomerate with 18,000 employees operating across pharmaceuticals, infrastructure, and power sectors. As one of the country's largest diversified businesses, Orion Group relies on scalable cloud infrastructure to power mission-critical operations and drive digital transformation across its diverse business portfolio.

About the AWS Partner

Graaho Technologies LLC is an AWS Partner specializing in Cloud Operations, Cost Optimization, and DevOps solutions. With proven expertise in infrastructure modernization and financial optimization, Graaho Technologies helps organizations maximize their AWS investments through strategic planning, implementation excellence, and sustainable operational practices.

Solution Overview

Graaho Technologies LLC conducted a comprehensive AWS infrastructure assessment and implemented a multi-phased optimization strategy addressing cost, performance, and governance.

Assessment & Planning Phase

Graaho Technologies performed an in-depth analysis of Orion Group's AWS environment, identifying:

- Resource utilization patterns across all services
- Cost allocation by business unit and service
- Opportunities for commitment-based pricing
- Performance bottlenecks and modernization opportunities
- Security and compliance gaps

Results & Benefits
Financial Impact

Overall Cost Reduction: 30-40%

- Achieved through comprehensive optimization across all AWS services
- Sustainable savings through commitment-based pricing strategies
- Eliminated waste from unused and underutilized resources

Storage Cost Reduction: 60%

- Removed 2.9 TB of redundant snapshot data
- Implemented automated lifecycle policies preventing future accumulation
- Optimized storage tier selection based on access patterns

Database Cost Savings: 25-30%

- Right-sized RDS instances to match actual workload requirements
- Applied Reserved Instance pricing for predictable workloads
- Improved performance through caching strategies

Network Cost Reduction: Up to 50%

- Eliminated charges from idle VPN connections
- Removed costs associated with unassigned Elastic IPs
- Optimized data transfer patterns and regional resource placement

Implementation Strategy

Phase 1: Compute Optimization

- Right-sized 80% of EC2 instances based
- Migrated workloads to cost-effective instance families (t3/m5)
- Implemented Auto Scaling Groups with dynamic scaling policies
- Established instance scheduling for non-production environments

Phase 2: Storage Optimization

- Removed over 2.9 TB of redundant EBS snapshots
- Implemented S3 lifecycle policies to automatically transition data
- Optimized EBS volume types based on performance requirements
- Established snapshot retention policies

Phase 3: Database Modernization

- Migrated RDS instances to optimized instance types
- Applied Reserved Instance pricing
- Implemented ElastiCache for frequently accessed data
- Optimized database configurations for improved performance

Phase 4: Network Cost Reduction

- Decommissioned idle VPN connections
- Released unassigned Elastic IPs eliminating waste
- Optimized CloudFront distributions for improved content delivery
- Consolidated resources within optimal AWS regions

Phase 5: Financial Optimization

- Implemented Savings Plans for compute usage patterns
- Purchased Reserved Instances for predictable workloads
- Eliminated unused and underutilized services
- Established cost allocation tags

Phase 6: Operational Excellence

- Deployed comprehensive CloudWatch dashboards for real-time monitoring
- Configured proactive alerting for cost anomalies
- Implemented AWS WAF & Shield for enhanced security posture
- Strengthened IAM policies and access controls
- Established regular cost optimization review cycles

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Performance Improvements

- **Enhanced database performance and stability**
- **Improved application responsiveness**
- **Increased elasticity** through Auto Scaling Groups
- **Better content delivery** through optimized CloudFront

Operational Benefits

- **Real-time visibility** into resource utilization and costs
- **Proactive issue detection** via comprehensive alerting mechanisms
- **Improved security posture** through WAF, Shield
- **Streamlined operations** with automated scaling
- **Enhanced governance** through cost allocation tags

Strategic Advantages

- **Scalable foundation** supporting future business growth
- **Modernized infrastructure** enabling faster innovation
- **Cost-predictability** through commitment-based pricing strategies
- **Improved financial accountability** across business units
- **Enhanced competitive position** through operational efficiency

Why Graaho Technologies LLC?

Graaho Technologies LLC brought deep AWS expertise and proven methodologies to Orion Group's cloud optimization initiative:

AWS Competency Areas

- Cloud Operations & Cost Optimization
- DevOps

Partner Approach

- Comprehensive infrastructure assessment identifying quick wins
- Phased implementation minimizing business disruption
- Knowledge transfer ensuring Orion Group's team could maintain optimizations
- Ongoing support and regular optimization reviews
- Best practices implementation

Differentiators

- Holistic optimization strategy
- Industry-specific understanding of conglomerate operational requirements
- Proven track record delivering measurable business outcomes
- Commitment to sustainable, long-term value creation

AWS Services Used

Compute & Scaling:

- Amazon EC2 (Elastic Compute Cloud)
- Amazon EC2 Auto Scaling
- AWS Savings Plans & Reserved Instances

Database & Caching:

- AWS RDS (Relational Database Service)
- Amazon Elasticache
- AWS Database Migration Service (DMS)

Storage:

- Amazon EBS (Elastic Block Store)
- AWS S3 (Simple Storage Service)

Networking & Content Delivery

- Amazon VPC (Virtual Private Cloud)
- AWS CloudFront
- Elastic IP Addresses
- AWS VPN

Security

- AWS IAM (Identity & Access Management)
- AWS WAF (Web Application Firewall)
- AWS Shield

Management & Monitoring

- Amazon CloudWatch
- AWS Cost Explorer
- AWS Trusted Advisor
- Cost Allocation Tags

Conclusion

The partnership between Orion Group and Graaho Technologies LLC demonstrates the transformative impact of strategic AWS optimization. By addressing cost inefficiencies, modernizing infrastructure, and implementing robust operational governance, Orion Group achieved:

- **30-40% reduction in overall AWS costs**
- **60% decrease in storage expenses**
- **25-30% database cost savings**
- **Up to 50% network cost reduction**
- **Significantly improved performance and operational visibility**

This case study exemplifies how organizations can unlock substantial value from their AWS investments through expert partner guidance, comprehensive optimization strategies, and commitment to operational excellence. The foundation established positions Orion Group for continued growth and innovation across their diverse business portfolio.

Customer Testimonial

— IT Leadership, Orion Group

"Graaho Technologies' comprehensive approach to AWS optimization delivered immediate and sustainable value to our organization. The 30-40% cost reduction has freed up significant budget for innovation initiatives, while the improved operational visibility has transformed how we manage our cloud infrastructure. Their expertise in right-sizing, commitment-based pricing, and automation has positioned us for scalable growth across all our business sectors."

Contact Information

To learn more about this solution:

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Additional Resources

❑ Amazon Bedrock Documentation
❑ AWS Serverless Application Lens
❑ DynamoDB Best Practices
❑ AWS DevOps Blog
❑ Financial Services on AWS

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