



FinOps - Agency Case Study: U.S. Army - CAMO

Office of Government-wide Policy

“By adopting the financial operations framework (FinOps), the Army can control and predict costs while maximizing the benefits of cloud computing.”

*Robert J. Schadey, U.S. Army Program Executive Officer
- Enterprise Information Systems*

Agency	Department of Defense U.S Army
Resources	The Enterprise Cloud Management Agency (ECMA) implementation of Cloud Account Management Optimization (CAMO)
Start of FinOps Effort	March, 2020
Projected Spend in Cloud	\$330M across four (4) years (2021-2025)
Point of Contact	Nathaniel B. Cost
FinOps Progress as of	September 2023



Background

In 2019, the U.S. Army stood up the Enterprise Cloud Management Agency (ECMA) to kickstart cloud migration. ECMA identified and satisfied the requirement for a prototype process to help the Army effectively plan, budget, and consume commercial cloud services. In March 2021, ECMA awarded the Cloud Account Management Optimization (CAMO) Agreement to begin the Army's cloud journey by providing Cloud Service Provider (CSP) reselling services to the Army.

CAMO was initiated as an Other Transaction Authority (OTA) to experiment with industry partners to bring multi-cloud products and services to the Army with best possible pricing and without excessive toil by the customer. CAMO demonstrates the value of an enterprise solution which incentivizes appropriate behaviors, provides tangible value to the user base and Army, creates visibility of utilization and investments, and creates long term cost avoidance when compared to alternatives.

Today, CAMO serves as the Army's procurement vehicle for all Army commercial cloud requirements and provides Financial Operations (FinOps) capabilities to end users and systems owners utilizing CloudTracker, a government off the Shelf tool.



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FinOps Implementation Through CAMO

ECMA's strategic objective is to provide cloud cost transparency and accountability to the Army's cloud operations via CAMO. To mitigate the probability of underutilized services and the absorption of unplanned, avoidable costs against appropriated resources, the [Army Cloud Plan](#) uses FinOps as an industry best practice to track the consumption for all applications. FinOps is both an operational discipline and a cultural practice that enables organizations to maximize business value and collaborate on data-driven spending decisions, and to employ cross-functional teams to improve fiscal stewardship while also ensuring rapid delivery of capability. FinOps helps organizations to responsibly manage their spending on cloud infrastructure and services.

Using this framework, the Army is now effectively monitoring and managing cloud infrastructure and services contracts. This has resulted in cost savings, improved performance and maximized strategic cloud modernization objectives.

The Army Enterprise Cloud Tracking Software provides the FinOps office transparency into costs of cloud accounts and shows utilization metrics related to cloud service funding and consumption. The tool's consumption analytics also show optimization options to reduce overrun risk for cloud investments and alerts application owners to funding issues.



Challenges

Although the Army has made great strides, it doesn't come without challenges. The Army has worked through many challenges; however, they are still in the process of tackling others. For example:

- Integrating disparate cloud accounts into the cARMY ecosystem.
- Acquisitions regulations keep the annually funded CAMO customers from taking advantage of vendors' multi-year commitment discounts, preventing significant cost savings.
- The Army's sheer scale makes transitioning to the cloud a long process.
- Analyzing future enterprise cloud offerings which will provide the best value and efficiencies is an ongoing effort. With only a minority of systems and applications in the cloud to date, it will be increasingly difficult to find these optimization opportunities.

Machine learning and automation will play a large role in the future of this program to overcome some of these challenges.



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Accomplishments and Lessons Learned

With the release of the 2022 Army Cloud Plan, ECMA established cloud environments in both AWS and Azure, creating cultural change and implementing processes that take advantage of the cloud. The program launched a road show to provide training and awareness, not only in DOD but to all interested parties across the government. To date, over 220 applications have successfully migrated to the cloud and are taking advantage of its computing benefits.

“It’s a milestone because it’s showing the adoption of cloud across the Army and DOD,” said Nathan Cost, CAMO Product Manager. “There are a variety of applications that have been moved through CAMO that have an impact on many areas of Army operations. Some of the applications include those that impact warfighter missions and relationships with our NATO partners. This is not just a success for the Army, but a success for our U.S. forces across the globe.”

CAMO’s benefits include its ability to act as a one-stop-shop, which allows commands to properly plan, purchase and consume CSP services and procure AWS, Azure, Oracle (OCI) and Google (GCP) at discounted rates. Additionally, CAMO includes cloud-utilization analysis tools, tracks actual spending instead of a proposed budget and project spending based on historical trends to protect against the expiration of funding. CAMO also provides optimization recommendations specific to the user’s application.

“The adoption of CAMO by more application owners is significant for the Department of the Army,” said Tyrus Edwards, ECMA Cloud Management Division Chief. “Not only does it move us closer to achieving the key objectives of the Army Unified Network Plan, but more importantly, it provides leadership the ability to make real-time decisions based on real-time data to optimize resources allocated for cloud compute-and-storage. CAMO provides modernized contracting mechanisms and advanced analytics for effective utilization of commercial cloud services for the government.”

The Army must continue to scale by automating and injecting customer transparency across the Cloud Modernization Approval Process to support all objectives in the Cloud Plan and in the Army’s modernization priorities. This modernization effort includes educating the workforce on cloud, accelerating the modernization and migration of systems and applications to cARMY, and automating support processes and workflows for efficiency.



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Accomplishments and Lessons Learned

Due to the scale of the Army's cloud demand, the CAMO reseller has put in place agreements with Cloud Service Providers resulting in significant savings vs government list pricing which can be seen below. Policy changes could potentially double these savings.

Current GFY23 CSP Discounts

ECMA Discount



The *Discount* is the discount off List Price of **Government** (IL4/5/6) Services

	Unclass Cloud				Secret Cloud			
	aws		ORACLE CLOUD	Google Cloud	aws		ORACLE CLOUD	Google Cloud
Discount	35.00%	38.25%	15.00%*	20.00%*	7.00%	30.00%	15.00%*	N/A

A single division within the Army has been able to show significant savings as shown below. FinOps methods and tools incorporated by CAMO are continually evolving. FinOps within the CAMO team helps organizations better forecast their cloud spending and plan for future investments by delivering a unified view of all cloud costs across services, accounts and resources. It provides the visibility and transparency necessary to track their spending and adjust their budgets accordingly.

