Marine Corps Logistics Information Technology (LOG IT) data exists in silos across the enterprise. Data-driven organizations must enact strategies to exploit information, enable commanders to make accurate logistical predictions, gain deeper insights, boost information accuracy and speed, improve metrics, and enhance customer experience. A central repository for logistics data is required for the Marine Corps to make enterprise-wide data-driven decisions. Logistics Integrated Information Solutions—Marine Corps (LI2S-MC), an acquisition element of the Marine Corps Systems Command and the Program Executive Office for Manpower, Logistics and Business Solutions with Deputy Commandant (DC) Installations and Logistics (I&L) advocacy will seek to fulfill the Marine Corps Net-Centric Data Strategy through the Logistics Data Service (LDS). LDS promotes data as a shared resource, data independence, and data/information exchange from applications/systems and establishes net-centricity as a requirement. LI2S-MC will create a data service where applications and analysts can access data from across the Marine Corps enterprise in raw and prepared forms.

The LI2S-MC team’s effort supports the fulfillment of the 38th Commandants Planning Guidance outlining the gap in the Marine Corps’ ability to collect, process, analyze and leverage data to man, train, and equip the force. LDS enables the Marine Corps to utilize data as a weapon through strategic investment in data science and machine learning, providing a platform for Marines at all decision-making levels to transform communal enterprise data into actionable insights, decisions, and results.

By understanding data and analytics as strategic assets supporting the Department of the Navy’s DON Information Superiority Vision (ISV), LI2S-MC will provide a single interface for logistics data visibility and analytics through the LDS program. This single interface will ensure that the entire leadership chain from the battalion supply chiefs to the Commandant of the Marine Corps is looking at one source of truth.

By instituting collaborative productivity services and applications with data security, LI2S-MC enables interoperability, availability, and integrity through standardization, consolidating the Marine Corps portfolio, and achieving Operation CATTLE DRIVE imperatives. As a result, LDS will accelerate the transformation of legacy IT capabilities and ensure the Marine Corps maintains a competitive advantage in data superiority over adversaries.

The LDS project enables the Marines Corps to field a viable data service quickly while improving the performance of the data service to meet present and future Marine needs as the solution continues to mature. The LDS solution provides the foundation for the Marine Corps to make better decisions faster by decreasing latency between observation and action at all enterprise levels. LDS tightens the OODA (Observe, Orient Decide, and Act) loop for Marine Corps Logistics, increasing lethality. These advanced capabilities will provide leadership with precise and reliable information to support materiel readiness and maintainability during peacetime training to wartime engagement. LI2S-MC delivers a single source of Marine Corps LOG IT data and demonstrates an alignment of data capabilities across the Department of Navy enterprise logistics.

LI2S-MC enables enterprise services and cloud-native software architectures, which provide transparency and LOG IT data standardization to enhance the workforce and warfighter ability to address technical data needs through more efficient process flows to the tactical
The data-centric combat capabilities of the Marine Corps rely on iterative data gathering ... to support the preparation of analytics products ...
rines will be able to create and publish their reports. The Marine can also propose that their created report, with business rules, is officially approved through a governance board to the rest of the Marine Corps. This approach leverages the expertise of Marines who best know the data while providing command and control over crowd-sourced efforts. Third, data scientists will access raw data to develop machine learning and artificial intelligence products. LDS provides the backbone required to create enterprise-wide predictive and prescriptive analytics through machine learning. Finally, Marine Corps governance boards will govern data exposure to ensure that data products are available, accessible, and secure.

LDS is both the beneficiary and contributor to the single hosting platform known as MCBOSS. This AWS Cloud-based platform is crucial to the modernization of the Marine Corps data as a weapon effort as it allows cross-program leveraging of lessons learned, efficiencies from cybersecurity inheritance, and software reuse developed by other programs. LDS learned from experience with TDM-CATALYST development and has leveraged the actual tools that TDM CATALYST utilizes by tailoring them to fit LDS. This knowledge-sharing within LI2S-MC directly benefits the MCBOSS AWS GovCloud hosting environment and is not readily achieved in an on-premise solution. Lengthy cybersecurity timelines often delay government IT development schedules. LDS did not encounter such delays, as the cyber security control inheritance model approved by Information, Command, Control, Communications, and Computers (IC4) assured that the LDS application inherited controls approved from the MCBOSS authorization to operate (ATO). This cyber security control inheritance model is now part of the MCBOSS Platform-as-a-Service offering for LDS and is available to future Marine Corps application development. The LDS team’s efforts will result in substantial future application development cost savings for the Marine Corps, making the force more agile and adapting to future mission requirements.

LDS utilizes a reusable framework for other application teams throughout the Marine Corps to rapidly build new solutions without deploying a new technology stack or re-accrediting architectural components. This reusable development framework, now part of the MCBOSS Platform-as-a-Service, will significantly reduce the time and manpower required to attain an application ATO. This framework substantially reduces the accreditation timeline by up to 90 percent for any future Navy or Marine Corps application development hosted in the MCBOSS environment, allowing future teams to develop software that enhances warfighting capability with a smaller documentation footprint.

By the end of 2022, the Marine Corps will have created a minimally viable product: a cloud-based data hub that retains current Enterprise Ground Equipment Maintenance governance board-defined business operations of Environmental Data Repository and Mainframe Data Repository and is accessible via a Marine Corps Enterprise Network laptop. LI2S-MC, in concert with MCSC, Program Executive Office for Manpower, Logistics and Business Solutions, DC CD&I, DC I&L, DC IC4, and the operating forces remain integral to the plan to create and sustain a flexible, scalable, and portable IT environment that can accurately interpret and leverage data to make confident decisions for equipping the force to train for battle and to sustain and win during combat operations.