



COLLABORATIVE A/AI OPS:

Delivering Security, Efficiency, Speed,
and Scale with Marina

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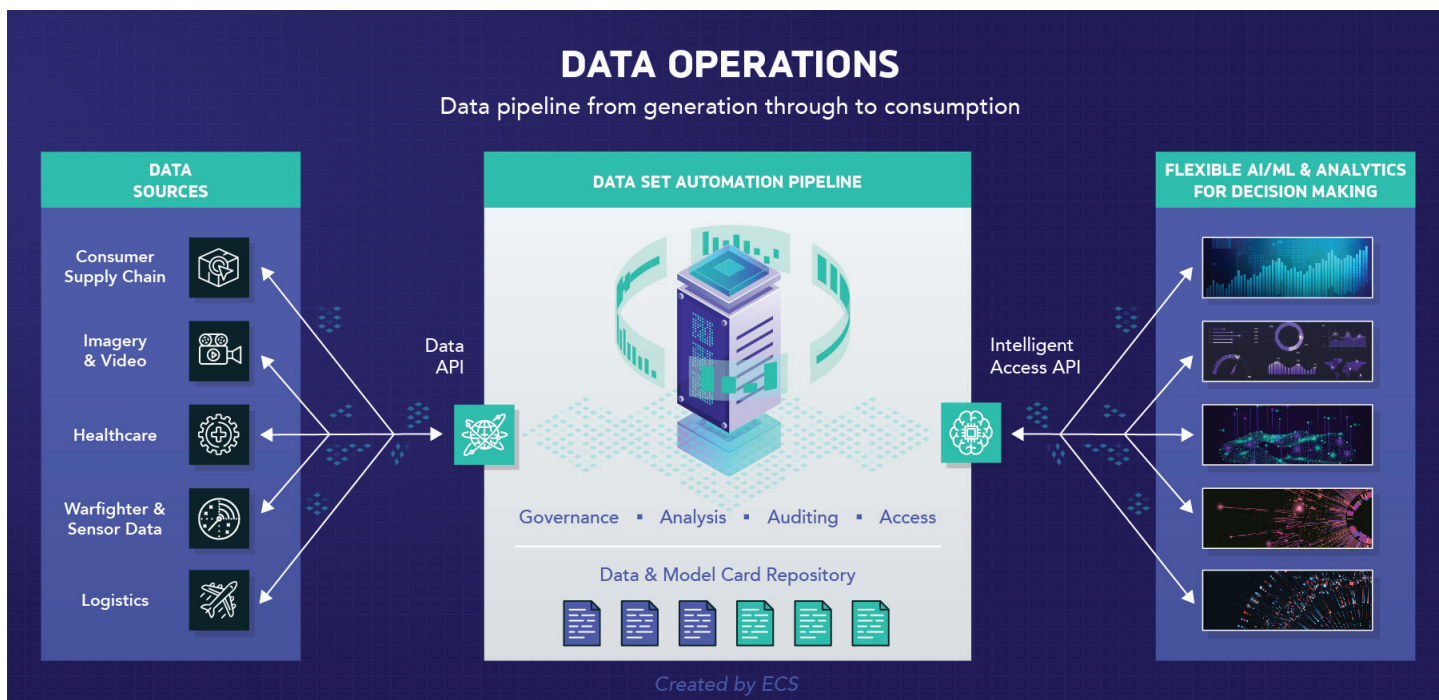
As the complexity of data environments increases, data governance can no longer be an afterthought. For stewards who seek to maintain the integrity of the data lifecycle, supporting operations across all domains—while leveraging multiple partners and distributed data sets—presents mounting challenges to data access, availability, and visibility. Such complexity increasingly renders traditional data lake concepts ineffective. While various efficiency, security, policy, and economic drivers dictate that data should often not be moved to a central repository, nonetheless this distributed environment must still ensure accountability, auditability, and trustworthiness.

Analysts, data scientists, and developers building analytics have simple questions—what data is available to help me and where is it? Accordingly, these questions must have simple answers, allowing authorized users to access data securely and easily across echelons and services. Data must be readily available and searchable by both analysts and programs, with clear visibility for easy auditability and governance. Users and administrators also need greater insight—and oversight—into the distributed data sets and artificial intelligence models being deployed for effective governance. This can all be automated at scale to eliminate unnecessary data silos and unburden users from repetitive, manual tasks.

To meet these challenges, ECS and SAP NS2 have joined forces to develop Marina, a federated data broker specifically designed to address the growing complexity of the Department of Defense (DoD) data environment, including the dynamic requirements related to policy, regulation, cross-domain access, and security. Marina provides consistent information, visibility, policy, and management ability across applications and echelons, ensuring real-time, trusted, decision-ready results.

Key benefits of Marina include:

- **Easy navigation of a complex data environment**
- **Automated review, approval, and onboarding of new data sources**
- **Effortless search, access, and consume functionality**
- **Ready access to any data source, regardless of location and format**
- **Easy user access to all data sets and AI models**
- **A consistent, trusted user experience**
- **Management of data usage, obsolescence, auditability, and cost**
- **Robust, reliable data security**



Marina transforms data access, governance and management into an easy-to-use user experience. By creating a logical, federated data library, Marina delivers all the advantages of the data lake concept while enabling users to manage myriad data sources in many different physical locations, each governed by their own access controls and data formats.

Marina provides transparency across multi-partner, distributed data sets through a single lens, improving data auditability, governance, management, and policy for applications deployed at scale and across echelons. Data and models can reside in any physical location—no matter the agency, program or initiative—and be approved, saved and audited at different security levels, greatly simplifying partner management in distributed data projects.

Marina's Data Cards establish and manage the metadata around different file sources rather than the data itself, thereby avoiding conflicts in data ownership. Marina Model Cards contain key information about models including anticipated behaviors, data requirements, and constraints on their ethical use. Users can easily search Marina for what is available and what they have the authority to see. Marina extracts key characteristics of data and models to provide information about data obsolescence, security levels, and usage rates. It works with commercial data sources as well as government data sources to provide a complete data catalog.

MARINA TECHNOLOGY

Marina is a dual-use, highly successful commercial technology designed to address the growing complexity of data environments. It solves dynamic requirements related to cross-domain access, governance and policy, and security. The effect is real-time, trusted, decision-ready results. Our solution follows proven commercial best practices, using a better and faster approach to the problem while reducing risk.

Foundational components of Marina include HANA and Data Intelligence. These components provide data management and data orchestration solutions with scalability, speed, and performance while enabling security and privacy, transforming distributed data sprawls into vital insights with proven enterprise reliability.

SAP HANA

Hana is a comprehensive platform that combines a robust database with services for creating innovative applications. It enables real-time processing by converging transactions and analytics on one in-memory database. SAP HANA untangles IT complexity and democratizes in-memory computing, bringing huge savings in data management and empowering decision-makers with new insights and predictive power.

SAP HANA eliminates data redundancy, disk latency, and data movement among applications and analytical tools, while providing advanced integration capabilities such as data federation, replication, bulk loading, transformation, cleansing, and remote data synchronization in the same architecture. It further simplifies application development and processing across data sources by providing a single virtualized view of data.

Data Intelligence is a broad data orchestration solution. SAP Data Intelligence delivers data-driven innovation and intelligence across the enterprise, unifying scalable enterprise AI and intelligent information management. It helps you extract value from distributed data, scale AI, and embrace the best of open technology. This solution empowers you to connect siloed data assets and manage discovery, refinement, governance, and orchestration of all data across your distributed-data landscape.

Data Intelligence allows you to:

- **Discover and connect to any data, anywhere, any way you need**
- **Integrate and orchestrate massive data volumes and streams at scale**
- **Streamline, operationalize, and govern innovation driven by machine learning**
- **Optimize governance and minimize compliance risk with comprehensive metadata management rules**

MARINA ATTRIBUTES	MARINA KEY FEATURES
Engine agnostic	Collaboration: Democratization of AI/ML and cross-knowledge sharing
Integrate third-party data	Model Management: Develop, monitor, and manage models
Seamlessly sync with data warehouses and support test and evaluation (T&E) activities	Optics: Support decisions with scenario planning and ad-hoc analysis
Support accurate, timely, and repeatable data sharing, insights, and decision systems	Single portal: Enables users to search, view, and access data sets and AI models across the org
High-performance computing (HPC) to support predictive and prescriptive scenario modeling	Workflow: Integrate and support data acquisition, extract, transform, load (ETL), modeling, T&E, and model lifecycle management (MLCM) business processes
Reduced time to access, share, and develop ad-hoc analysis	Secure Access: Secure access anywhere and anytime to information and monitored actions
	Practice Library: Common methodologies to drive understanding, efficiency, and adoption
	Standardization and Metrics: End-to-end workflows and tools with leaderboards and efficiency/utility tracking
	On-premises, Cloud, and Hybrid: Run on-premises or in the cloud platform of your choice
	Data Source Integration: Connect easily to the data sources of the enterprise and its partners
	Elastic Storage: Not just separate from compute costs, but smartly used and managed with automated or near-zero-day provisioning
	HPC: Elevate absolute throughput performance to new levels
	Data Science Toolkit: Ecosystem tools give everyone on the team the access and flexibility of license they need
	Operations and Solutions Accelerators: Configurable accelerators rapidly test, scale, and integrate AI

Marina is a federated semantic solution that transforms data governance and management. It creates a logical, virtual data and model library delivering a single portal for users, modelers, data scientists and developers. This solution addresses the challenges of multiple data sources and ML/AI models in many different physical locations, each governed by its own access controls. Using Marina, users can easily search the data and models available to them, significantly reducing the time and effort necessary to perform analytics, answer questions, and provide answers.

Interested in learning more about [ECS AI, analytics, and machine learning solutions](#)?

Reach out and speak to an expert today at cyber@ECStech.com

AUTHOR PROFILE



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ECS is a leading information technology provider delivering solutions in cloud, cybersecurity, software development, IT modernization, and science and engineering. The company's highly skilled teams solve critical, complex challenges for customers across the U.S. public sector, defense, and commercial industries. ECS maintains partnerships with leading cloud and cybersecurity technology providers and holds specialized certifications in their technologies.

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