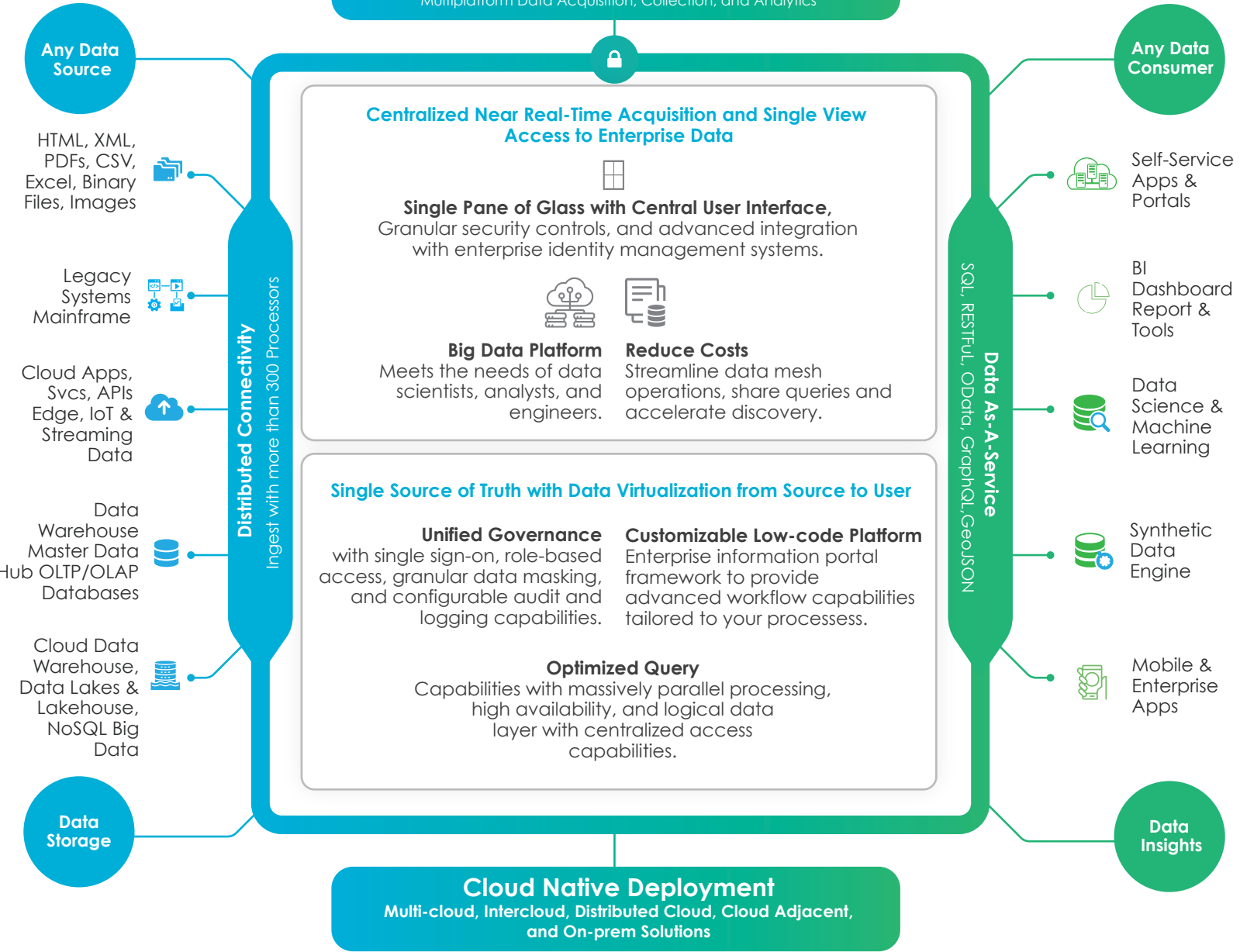


## MDACA Data Fabric Suite for the Enterprise

Multiplatform Data Acquisition, Collection, and Analytics



SpinSys created a robust DoD component data fabric by designing and implementing the 300TB Big Data framework for continuous ingestion and processing of 9B transactions daily on AWS GovCloud. Leveraging several MDACA components, this framework offers scalable logical data platforms, high performance computing, data virtualization, a ML and AI environment for analysis and visualization, data orchestration, and data governance. SpinSys performs integration and interoperability for Government and private sector clients by providing big data subject matter expertise, data and solution architects, systems and cloud engineers, and project management acumen for integration with existing and modernized enterprise architectures to streamline the ingest to insights cycle and optimize unified view capabilities of data fabric / data mesh implementations.

# Forge Coherence out of Complexity in a World of Fragmented Data.

The market is inundated with solutions that address only parts of the data puzzle; effective strategies to solve include a holistic approach across all information-delivery touch points. Instead of a mix and match of technologies, an integrated end-to-end solution generates greater value while optimizing enterprise data repositories and data fabric architecture. Only a comprehensive solution with near real-time data processing from data sources to data consumers can streamline the lifecycle and uncover insights.

## Top considerations include the following:

### 1. Easy to use, web-based enterprise user interface.

Integrate with enterprise authentication and authorization, supporting Kerberos and standards based Single Sign-on (SSO) such as SAML and OIDC. When combined with row and column level access controls, this simplifies administration of user accounts across the enterprise while ensuring secure data access.

### 2. Real-time controls to help manage data transfer.

Apply across various sources and destinations swiftly, easily, and securely. Ingestion from current and future data sources should include an extendable framework with configurable user experience to automate the flow of data. Master data management principles require data provenance, quality, and completeness along the data-to-information lifecycle.

### 3. A logical data layer.

Federate queries to centrally and securely catalog, search, discover, and govern unified data and its relationships. This virtual approach to accessing, managing, and delivering data provides single query access from multiple systems, reducing data silos and allowing data to remain in source systems and reducing data copies. Virtualized data enables a single source of truth with reduced risk and cost.

### 4. Support of highly parallel and distributed queries.

Enable query sharing among teams to facilitate enterprise data exploration while concealing the technical complexities of database types, data locations, and data transformations regardless of where the data resides within the data fabric. Visualization of results in charts and graphs further advance analytics in support of data insights.

### 5. High performance, low cost storage.

Leverage full features for backup, replication, and syncing of data with audit logging and per-query statistical insight into performance. Storage should be purpose-built for high volume data ingestion and access, processing a large number of transactions per second, and able to scale as ingestion volume grows. A high-volume, high-transaction database for data ingestion and usage is essential to slash cycle times from source to consumer within data fabric implementations.

### 6. Capabilities to optimize the best of cloud native efficiencies.

Allow users to leverage single or multi-cloud environments without having to understand the underlying implementation. This should minimize network file transfers and allow users to easily browse, preview, upload, download, move, and delete files, and perform other operations across enterprise cloud service providers and environments.

### 7. Protect personally identifiable information and safeguard real data.

Support enterprise initiatives for software development and machine learning. The creation of synthetic data from enterprise repositories should facilitate structurally and statistically similar data without the need for users to understand the complexities of generating synthetic data for the SDLC or ML algorithms.

SpinSys services and MDACA products are available for immediate purchase within the AWS marketplace.



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