

SERVICE DOCUMENT G-CLOUD 15

Public Sector Data Unification Platform

OVERVIEW

DeepMiners Government Data Unification Platform deploys Artificial Intelligence to unify both private data and public data, breaking down data silos across agencies. This enables rich analysis across multiple attributes to support decision-making and targeted economic policy design, delivery and measurement.

The supporting services enable a practical, incremental approach to guide stakeholders through the change to a data-driven organisation and release early value to users looking to accelerate the use of data in key organisational decision-making.

DeepMiners Government Data Unification Platform has been developed to enable organisations with complex multidimensional data, dealing with complex multidimensional problems, to make data-driven multi-dimensional decisions

DeepMiners Government Data Unification Platform is a system that can handle complex multidimensional data to solve these complex multidimensional problems to deliver multidimensional decisions, quickly, accurately and across teams and agencies.

DeepMiners platform:

- Enables the development of a Master Customer Record
- Provides a Data Spine for Economic policy and delivery
- Supports complex data integration
- Enables users to look at more than just financial data
- Custom dashboards are available or self-service
- Supports Data Governance
- Supports

Features

1. Multidimensional relationships between multiple data points enabling multiple data views
2. AI and database technology-driven data acquisition, processing and matching
3. Accepts un-processed and unstructured data in multiple formats and interoperable
4. Creates unique identifiers for core data points e.g. business, person

5. Permission-based analysis across multiple dimensions e.g. place, organisation, person
6. Data integration facility into business systems and reporting tools
7. Data unification and retention rules fully customisable agreed with DPOs
8. Guided GDPR-compliant data governance and data sharing policy development
9. Customisable user views and APIs
10. Exceeds Gov Data Standards Cyber Essentials plus certified and GDPR compliant – Aine?

Benefits

1. Drives Public Service Reform enabling efficiencies and collaboration
2. Breaks down silos, saves time for data collation, connection, cleaning
3. Standardises data formats, generating metadata without need for expensive ETL
4. Enables analysis across multiple, cross-cutting public and private data sets
5. Unified data to inform, target and measure policy across sector
6. Supports data connections and linkages without requiring expensive centralised systems
7. An incremental, practical approach facilitates stakeholders through the change journey
8. Scalable solution enabling incremental growth with iterative release of value
9. Multi-layer security model facilitating intra-organisation data sharing policies
10. User-driven, accessible, highly customisable
11. Increase in customer satisfaction through unified service delivery based on data.

Secure data-driven decision-making

The DeepMiner solution has been designed to provide a step-by-step data solution, releasing value at each stage, supporting change management, partnership working and continuous improvement, on the road to achieving a truly data-unified organisation.

The service includes raw data acquisition, normalisation, processing, matching, visualisation and sharing modules. For new data sources, data is acquired from users and matched in agreement with user DPOs. Visualisations are co-designed with end users.

The data processing module is then designed, depending on the content of the data and the outputs required. The distinct data acquisition and processing modules are kept up to date with changes to the underlying data as signalled by relevant users providing the data.

Visualisations are updated to the service once the data has been processed and is able to be validated following the expectations of the users. Data will be processed and updated daily during the agreed maintenance window.

Our solution generally follows a proven route to success which is aligned to the Government's Digital Standards.

- **Exploration**
- **Proof of Concept**
- **Minimum Viable Product - Beta Launch**
- **Implementation v1.0 deployment live**
- **Continuous improvement and pathway to unified data organisation**

Security governance approach

Our security security meets or exceeds a level of CSA CCM version 4.0. The architecture and technical processes are agreed upon with clients and teams are trained accordingly.

The application is pen-tested annually and any remediation suggestions are implemented swiftly, prioritised by their severity and potential impact.

Risk management, business continuity and operational resilience form part of governance and development, as do change control and configuration management. Endpoint management, cryptography, encryption and key management are core to application architecture and cloud management.

Human resources are trained and access the product using identity and access management systems. Incident management in place.

Information security policies and processes

Information security is assured in the product using the onion model of defense in depth and with the company using governance standards and staff training.

The application is designed to answer data integrity, confidentiality and availability at every level as required by permissions. Risk management and disaster and incident planning are used prospectively as well as retrospectively in order to ensure the highest level of protection possible.

The technical product owner reports on implementation as part of the monthly reporting cycle and the senior developer checks ongoing development work and maintenance to ensure that all features comply with the policies. The technical product owner also checks the press regularly to identify whether any newly-identified risks are potentially relevant to the product.

The CTO is in charge of ensuring that the product is secure to a level commensurate with the CSA CCM version 4.0 standards.