agile solutions

G Cloud 14 Service Definition Document

Data Platforms & Information Architecture

Modernise Manage Monetise

About Agile Solutions

Agile Solutions is a UK based Data & Technology consultancy, providing a range of Data Management, Analytics and Cloud Computing services, with offices in Milton Keynes, Manchester, and Glasgow.

We work with SMB, Mid-Market and Enterprise clients across a wide variety of industries, including the wider public sector including central and local government. some examples of our clients include the Department for Education, Department for Work & Pensions, the Gambling Commission and UK Export Finance.

Our key differentiator and our strength is in our people. As a business we specialise in data but it's the broad range of skills exemplified by our team that makes us a truly unique data partner. Our Technology skills sets, project management, consultancy and commercial awareness enable our team to deliver projects that go beyond our client's expectations.

Working with Technology partners such as Microsoft, AWS, Informatica, AWS and Snowflake, we help businesses to Modernize and get ahead of their competitors by harnessing emerging technology, people and process trends. We help Manage customers data by ensuring it is always reliable and ready to power their business and create a competitive advantage with new data driven solutions by Monetizing customers data.

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Data and Information Architecture

We design, implement and optimize the platforms, pipelines, processes and services required to manage data and information effectively. This service may include technology road mapping to ensure your data platforms are evolutionary, scaling to meet the needs of your organisation and staying apace of technological change. Our storage solutions are designed in order to meet current and future needs on terms of security, performance and scalability.

Features

- Help with Data Discovery
- Digital Twinning – Creating Digital Twins (360 View)
- Data Architecture for the Cloud Implementation
- Data Analysis for the Cloud
- Data and Information Strategy for the Cloud
- GDPR and PECR
- Information Policy and Strategy
- Analytics for the Digital Journey
- Data Life cycle management / Data Lineage services

Benefits

- Know your Data
- Create the Digital Twin Schema to map data
- Consulting around Data Services for Digital Transformation
- Information Governance, Risk, Compliance and Security services for Cloud implementation
- Data Architecture, modelling and quality assurance for cloud implementations
- Data Analysis services to identify the right data
- Reduces regulatory fines
- Risk Reduction
- Build better KPIs

Case study

Problem Statement

A large utility faced challenges with the complexity of its data estate, finding it difficult to manage and a root cause of ongoing data issues.

Solution

By focussing on creating a shared information architecture, the organisation was able to adopt consistent approaches to data and simplify data pipelines used in the production of analytics.

Outcome

The information architecture protected investment, drove down costs and removed risks. Consumers of data products were able to source trusted data quickly.

Case study

Problem Statement

Our client was modernising its data estate as part of a digital transformation programme. Its current architecture was preventing the democratisation of data and holding back progress.

Solution

As part of the initiative to democratise data, we created the architecture and platforms required to provide the foundation for improved usability, findability and accessibility.

Outcome

The new platform ensured coherency and consistency, driving up levels of trust and facilitating decision-making within the digital ecosystem.

Data Management Architecture

Agile Solutions are highly experienced in providing expert services around Data Management and Architecture, especially within the cloud implementation. With many satisfied clients, we have a proven track record of delivering robust, secure and qualified Data Management solutions in several Key Sectors.

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Case study

A Credit management company engaged Agile Solutions to address their need to have a reliable single view of their customers within a flexible, scalable infrastructure. To develop this capability, they required a robust data management platform, underpinned by modern data architecture. Agile Solutions were able to deliver not only the data management platform create a single customer view capability, but also seamlessly delivered a robust Data Management architecture within the cloud. This addressed the client's need for a robust, secure, scalable and elastic solution building the foundations for other future

developments.

Data Fabric

Data Fabric is a broad service covering the data modelling and design of a Data Fabric combined with the selection of suitable technology for its implementation. The scope of the service includes operational platforms and reporting / analytics platforms such as Data Lakes and Warehouses.

Features

- Business value definition: business value is captured through engagement with key stakeholders
- Requirements capture: platform and payload requirements needed to deliver the business value are defined
- Allows for Data Modelling to occur at four levels: Enterprise, Conceptual, Logical, Physical
- Success with the Data Fabric is closely aligned to MDM
- Addresses DQ concerns the data within the Data Fabric
- Data Integration approach
- Data Fabric architecture should be aligned with the client's organisation
- Technology is multi-facetted: Architecture, Business case, Requirements, implementation, supportability

Benefits

- Data Fabric represents the data infrastructure of a company or organisation
- Data Fabric improves Data Quality of an organisations data through fit-for-purpose processes
- Data Fabric provides situational awareness at multiple levels using descriptive analytics
- Data Fabric explain why things have happened using diagnostic analytics
- Data Fabric predicts what is likely to happen next using predictive analytics
- Data Fabric shapes what should happen next using prescriptive analytics

Case Study

Within the context of a five-year Digital Transformation programme at an electrical utilities company, Agile Solutions was tasked with the creation and implementation of a Core Data Team. This team delivered data models at four levels (Enterprise, Conceptual, Logical, Physical), defined the approach to Master Data Management and Data Quality, defined the approach to Data Integration and shaped the Data Fabrics covering operational systems and the Reporting & Analytics platform.

Data Modelling

We create conceptual, logical and physical data models that allow you to gain a deeper understanding of your data, leading to enhanced database design and increased data quality. Our data models facilitate business intelligence and are optimised for reporting and analytics. Good data models underpin system development, ensuring scalable, flexible designs that reduce development costs and increase sustainability.

Features

- Visual representation of data entities and their relationships
- Defining attributes and properties for each data entity
- Data is optimised by simplifying data structure
- Enforcement of data integrity with specified types and restrictions
- Defining relationship cardinality
- Illustrate data movement within systems
- Version control to manage changes to the data model
- Documentation of data model

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Case study

Problem Statement

A large utility was engaged in a multi-year transformation programme with multiple workstreams, and teams involved in implementing many new business solutions and ways of working.

Solution

By focussing on creating a central enterprise data model to be shared across the workstreams, we were able to prevent inconsistencies from complicating an already complex landscape.

Outcome

The EDM was the foundation of consistent data initiatives that drove agility and supported the aim to become data driven. This reduced, in the long-term, the cost of data ownership.

Case study

Problem Statement

During a digital transformation programme, a client identified that a root cause of data issues was the number of differing data sources, each with its own definition of critical data.

Solution

As part of the initiative to treat data as an asset, we created data models to capture the essence of their data, working to understand both its meaning and how it related to other data elements.

Outcome

The data model drove out inconsistencies and eliminated redundancy and provided central fulcrum for discussions about data.

Digital Transformation

Digital Transformation to design, build & implement new and improved Cloud hosted, Digital services. Agile Solutions can work with your requirements to incorporate both industry and internationally recognised standards including Government Digital Service (GDS) design requirements.

Features

- Strategic Business alignment between digital projects and business strategy
- Alignment with Governments Digital Service Standards
- Review of relevant open standards, components and patterns for reusability
- Data requirements needs assessment for defining new digital services
- Assessment of data integration, security, and performance management architecture
- Discovery services including User Research, prototyping and KPI development
- User story and user journey mapping
- Design/Iterate sprints to quickly prototype and gather requirements
- Incremental value management and benefits realisation
- Typical standards include ISO23081, ISO8000, ISO27001, and ISO37000

Benefits

- GDS and Digital by Default compliant services
- Enables data portability and long-term data and digital preservation
- Supports service interoperability and digital transformation
- Supports interconnectivity and smart services, IoT and Industry 4.0
- Significant reduction in cost and rework with high data quality

Case study

A charity had a goal to modernise their data infrastructure and understand their supporters. They wanted to use data to get a clearer picture of their supporters, recognising contributions and encouraging an ongoing dialogue, while GDPR compliant. This charity chose Informatica's Hybrid Integration Platform to address their challenges in data capture, collaboration, analysis, and segmentation, and enable them to integrate their CRM system with marketing avenues. Agile implemented Informatica's Cloud iPaaS, modernising their data strategy and infrastructure quickly and effectively. With this, the charity removed manual data entry and improved response times, with streamlined, real time data processing.

Case study

A Housing association had a roadmap to modernise their data estate, and as a first step, wanted to remove all manual processing where possible. Agile Solutions were engaged and were able to build them an ETL architecture to allow them to remove manual processing. This first step allowed them to begin on their Digital transformation journey, with subsequent next steps including development of a data warehouse and datamart to improve their understanding of their data and sponsors. Our expertise in Digital transformation and Data Management allowed us to review and audit their roadmap with realistic timescales and

delivery milestones.

Data Modernisation

Agile Solutions helps clients transform their data strategy with our Data Modernisation consultancy services. We guide you through upgrading legacy systems to advanced, scalable platforms providing data integration, enhanced analytics and secure, efficient operations tailored to your evolving business needs.

Features

- Legacy System Upgrades: Modernising systems with outdated performance and experience.
- Cloud Migration: Moving data securely to cloud platforms.
- Data Integration: Consolidating disparate data sources into a unified platform.
- Real-Time Processing: Enabling instant data access and analysis.
- Advanced Analytics Tools: Implementing cutting-edge analytics technologies.
- Data Governance: Establishes robust data management protocols and processes.
- Scalable Solutions: Flexible infrastructure design that can scale and contract as required.

Benefits

- Reduced Costs: Lower cost to serve for data and analytics.
- Enhanced Efficiency: Enhanced data handling and processing.
- Improved Security: Provides protection against security risks.
- Better Decision Making: Provides richer, actionable insights.
- Future-Proofing: Keeps pace with enhanced functionality and experience as well future tech advancements.
- Increased Productivity: Opportunity to minimise manual data tasks.
- Faster Insights: Accelerates time-to-insight from data.
- Regulatory Compliance: Governable systems providing adherence to data regulations.
- Competitive Edge: Keep ahead in data capabilities to enhance business processes and performance.

Case study

Cloud Data Warehouse Project

Agile Solutions was engaged by a charity to design and build a new cloud data warehouse platform. We developed and deployed a new data warehouse utilising Azure SQL Databases for structured data storage, supported by Synapse Pipelines for efficient data integration and ETL processes. This enabled the charity to streamline data flows, enhance the reliability of their analytics and improve real-time data accessibility across the organisation. The outcome was a reduction in data processing times and markedly improved capabilities in donor data analysis which helped boost operational efficiency and enhancing decision-making in fundraising efforts.

Case study

Data Warehouse Migration – Solution Architecture

We assisted a Financial Services client in developing technical architecture and guidance in their journey of migration from On Premise Data Warehouse and ETL tooling to Snowflake and new EL and T tooling.

We worked to understand the requirements of the tooling landscape, the current architecture and demonstrate in a technical POC delivery how feasible it would be to migrate existing data transformations to Snowflake.

We delivered a full set of recommendations and considerations for the migration and EL and T tooling to support the move to Snowflake and demonstrate the value the platform and its ecosystem can provide to unlock the value of their data.

Data Mesh Architecture

Agile Solutions helps clients unlock the potential of your data ecosystem with our Data Mesh consultancy. We offer expert guidance in implementing the principles of Data Mesh, enabling distributed data ownership and domain-driven architecture. Transform your organisation's data landscape, foster collaboration and drive innovation with our tailored solutions and expertise in Data Mesh methodology.

Features

- Data domain ownership for decentralised data governance and accountability.
- Distributed data infrastructure promoting scalability, flexibility and agility.
- Domain-driven architecture aligning data systems with business capabilities.
- Data product mindset fostering collaboration and cross-functional teams.
- Federated data access for seamless data sharing and collaboration.
- Automated data pipelines for efficient data ingestion and processing.
- Data quality monitoring and enforcement mechanisms ensuring data reliability.
- Self-serve data platform empowering domain experts to access and analyse data.
- Metadata-driven approach for comprehensive data discovery and lineage tracking.
- Scalable architecture supporting diverse data types and evolving business needs.

Benefits

- Enhanced data governance with clear ownership and accountability structures.
- Increased agility through decentralised data infrastructure and domain-driven approach.
- Improved data quality and reliability with enforced standards and monitoring.
- Faster time-to-insight with self-serve access to domain-specific data.
- Enhanced collaboration and innovation through cross-functional teams and data sharing.
- Scalable architecture accommodating diverse data sources and business needs.
- Reduced data silos and duplication, leading to greater efficiency.
- Flexibility to adapt to changing business requirements and data landscapes.
- Empowered domain experts with autonomy to manage and utilise data.
- Accelerated delivery of data products and insights to stakeholders.

Case study

Franchise Data Product Enablement - We were engaged by a global software company aiming to better support their franchises with modern tools and processes enabling them to build and share trusted data products. We introduced a data mesh architecture, employing Snowflake for robust data storage and dbt for streamlined transformations and collaboration. This facilitated decentralised data ownership and governance tailored to different business domains and significantly enhanced data accessibility across international teams, ensuring reliable real-time analytics. By integrating dbt's transformation capabilities within Snowflake, we empowered their teams and improved both operational efficiency and data quality.

Data Fabric Architecture - Snowflake

Agile Solutions helps customers implement Data Fabric Architecture with Snowflake streamlining data integration across varied environments. We configure Snowflake as the central hub, ensuring efficient data access and real-time analytics capabilities. This strategy enables organisations to establish a cohesive and scalable data ecosystem, boosting decision-making and operational agility.

Features

- Centralised Data Management: Unifies data across platforms with Snowflake as the hub.
- Real-Time Access: Provides instant data access for timely decision-making.
- Scalability: Scales effortlessly with organisation's growth.
- Data Security: Ensures robust security protocols for data protection.
- Multi-Cloud Support: Integrates seamlessly with AWS, Azure, and Google Cloud.
- Data Governance: Enforces consistent data governance and quality standards.
- Custom Configuration: Tailors Snowflake settings to specific business needs.
- Efficient Data Integration: Simplifies combining data from disparate sources.
- Analytics and Reporting: Enhances business intelligence with advanced analytics.
- Ongoing Support and Optimisation: We can provide continuous technical support and enhancements.

Benefits

- Unified Data View: Centralises insights from diverse data sources.
- Enhanced Decision-Making: Offers quick, informed decisions with real-time data.
- Increased Flexibility: Easily adapts to evolving business and data needs.
- Improved Data Quality: Boosts data accuracy and reliability through standardisation.
- Reduced IT Complexity: Simplifies management across multiple data systems.
- Cost Efficiency: Reduces costs with efficient cloud-based management.
- Scalable Architecture: Efficiently handles increasing data volumes and demands.
- Secure Data Handling: Ensures robust security for integrated data systems.
- Faster Integration: Quickly incorporates new data sources into ecosystem.
- Continuous Innovation: Supports ongoing updates and improvements in data strategies.

Case study

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Case study

Snowflake Data Platform Architecture & MVP:

We worked with a Building Society client who had outlined a strategy to transition into a more digitally driven organisation aiming to realise business value by enhancing customer understanding and insights. They recognised the necessity of transitioning to a cloud-based architecture to facilitate the required analytics and tooling for becoming a data-driven business.

We developed technical architecture and a roadmap with Snowflake as the central data platform as well as a supporting ecosystem for ELT and Visualisation. We evaluated, set-up and delivered an MVP of initial use cases through the new data architecture. We did this bringing along key technical personal ensuring training and handover to allow them to be self-sufficient and quickly unlock value from the data platform.

Data Platform Migration with Snowflake

Agile Solutions helps customers transition smoothly from legacy data platforms to Snowflake resulting in efficient data transfer and minimal disruption to existing processes and analytics. Our services enhance data security, scalability and real-time analytics through Snowflake's cloud-native capabilities which are all tailored to optimise business performance and decision-making processes.

Features

- Solution Architecture: Solution architecture design including interoperability with existing systems and processes.
- Compatibility Assessment: Evaluates legacy systems for seamless Snowflake integration.
- Incremental Loading: Phased data migration minimises operational downtime.
- Data Cleansing: Enhances data quality during Snowflake migration.
- Schema Conversion: Adapts legacy schemas for Snowflake compatibility.
- Legacy Decommissioning: Phased shutdown of old systems post-migration.
- Change Management: Manages transition impact, ensuring smooth migration.
- Real-time Sync: Maintains data continuity between systems during migration.
- Post-Migration Support: Offers continued support and optimisation post-migration.

Benefits

- Reduced IT Overhead: Automates tasks, lowering IT costs.
- Enhanced Data Security: Implements advanced security during migration.
- Streamlined Operations: Minimises disruption during transition.
- Optimised Data Management: Applies efficient data storage practices.
- Increased System Performance: Boosts speed with modern architecture.
- Scalable Infrastructure: Easily adapts to growing data needs.
- Advanced Analytics: Utilises Snowflake's powerful analytics for insights.
- Improved Data Quality: Cleanses data for higher accuracy.
- Future-proof Architecture: Readies systems for future demands.
- Expert Guidance: Provides ongoing professional support.

Case study

Data Warehouse Migration – Solution Architecture -

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