![agile solutions logo]

G Cloud 14 Service Definition Document

Data Engineering Services

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.

Contents Page

Contents

Data Warehouse / Data Lakehouse

Agile Solutions helps clients optimise their data infrastructure with our Data Warehouse/Lakehouse consultancy services. We help clients with the integration of data from diverse source systems into a single platform accommodating structured and unstructured data for advanced analytics. We work with clients to enhance data management and analytic capabilities, empowering data-driven decision-making across the organisation.

Features

- Data Integration: Integration of data from source systems into a unified analytics platform.
- Storage Optimisation: Enhanced efficiency and accessibility of data storage.
- Real-Time Processing: Enables instant querying and analytics of data.
- Scalable Architecture: Adapted to the dynamic needs of the business.
- Advanced Analytics: Facilitation of complex data analyses and predictive models.
- Data Governance: Governance policies implemented and trust created in key data assets.
- Automation Tools: Automation routines to complete repetitive data tasks.
- Ongoing Support: We can provide continuous technical support and maintenance.

Benefits

- Enhanced Decision-Making: Enables more informed strategic decisions.
- Cost Efficiency: Lowers expenses on storage and data management.
- Improved Data Quality: Achieve accuracy and reliability in data analysis.
- Scalability: Scales effectively with your data volume and complexity.
- Reduced Risk: Minimises data security and compliance risks.
- Increased Productivity: Reduces manual data handling through automation.
- Faster Insights: Accelerates the delivery of actionable business intelligence.
- Industry-Specific Configuration: Tailors data solutions to specific sector challenges.
- Reliable Support: Ensures system reliability and best practice with expert assistance.

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 Integration Analysis & Advisory Services

Agile Solutions can help your organisation capture its data integration needs and the benefits that can be realised through modern integration. We can design your integration architecture, support you in tool selection, build a plan and roadmap for integration success and complete a business case for the project.

Features

- Data Integration Requirements Analysis
- Data Integration Platform and Solution Architecture
- Data Integration Platform and Tool Selection
- Data Integration Planning and Roadmap Creation
- Data Integration Business Case Support
- Data Integration Benefits Realisation
- Data Integration Estate Modernisation

Benefits

- Vendor Neutral Advisory Services to support your integration initiatives
- Ensure your functional and non-functional integration requirements are known
- Maximise opportunities to realise the benefits of modern data integration
- Leverage proven data integration patterns for modern cloud architectures
- Build a business case for data integration solution delivery

Case study

A retail client had multiple data sources across numerous technology stacks. These Data Silos were preventing data from being utilized effectively across the business.

Agile Solutions developed a strategy that identified the best platform to integrate their data. We created a Minimum Viable Product (MVP) that ingested data from key platforms, centralising information and accelerating their unified customer data processing. The platform is now able to grow and develop in line with feedback from the team adhering to best practices and standards that we set out. This will allow them to build on the solution enabling better business outcomes.

Case study

We worked with an organisation that had no standard development or testing processes. Intensive manual processing has led to an over-reliance on key personnel and was extremely time consuming. This led to very low data quality and high levels of data duplication. Agile Solutions advised on an integration solution and facilitated collaboration between SMEs of the different data streams. The platform was designed to deliver automation and real time processing for incoming funding streams, addressing data quality and removal of failure points. We advised in-house staff helping the company improve future project deliveries after deployment ended.

Data Integration Implementation Services

Full delivery lifecycle from architecture and design through delivery and test to deployment for your data integration solution. Can be delivered using our proven agile or DevOps approaches for modern data integration.

Features

- Capture integration functional and non-function requirements
- Data Platform architecture and design
- Full lifecycle solution delivery and support
- DevOps delivery of data pipelines
- Traditional ETL/ELT, API Integration & Data Migration

Benefits

- Rapid deployment of integration solutions from a variety of vendors
- Incremental delivery to ensure early benefits realisation
- Adoption of modern lean, agile and DevOps good practices
- Outcome focussed delivery of your data integration solution

Case study

We worked with an organisation that had no standard development or testing processes. Intensive manual processing has led to an over-reliance on key personnel and was extremely time consuming. This led to very low data quality and high levels of data duplication.

Agile Solutions implemented an Integration solution and facilitated collaboration between SMEs of the different data streams.

The platform was designed to deliver automation and real time processing for incoming funding streams, addressing data quality and removal of failure points.

Automation significantly reduces staff time requirements. The data is handled in a consistent way with improved data quality.

Case study

A retail client had multiple data sources with 20 terabytes of data across numerous technology stacks. These Data Silos were preventing data from being utilized effectively across the business.

Agile Solutions developed a strategy that identified the best platform to integrate their data. We created a Minimum Viable Product (MVP) that ingested data from key platforms, centralising information and accelerating their unified customer data processing.

Processing and collation of data is now fully automatic: this takes place every day, giving data professionals across the enterprise access to high quality data and enabling better business outcomes thanks to readily available insights.

Data Quality Analysis & Advisory Services

Agile solutions are an experienced practice within the field of Data Quality and can work to audit Data Quality solution delivering Analysis and Advisory plans. With these plans, they can be used to implement modernised Data Quality products e.g. IDMC or upgrade to newer versions for a future estate.

Features

- Data Quality estate Analysis
- Data Quality and Solution Architecture review
- Data Quality and Tool Selection review
- Data Quality Planning and Roadmap Creation for future
- Data Quality Business Case Support
- Data Quality Benefits Realisation
- Data Quality Estate Modernisation
- Data Quality Analysis and Advisory strategies

Benefits

- Advisory Services to support your Data Quality initiatives
- Ensure your functional and non-functional Data Quality requirements are known
- Maximise opportunities to realise the benefits of modern Data Quality
- Leverage proven Data Quality patterns for modern cloud architectures
- Build a business case for Informatica Platform upgrades and enhancements

Case study

Agile Solutions worked with a governmental organisation to create and review their requirements for a Data Quality and Data Governance application. On exploring their high-level requirements, we were able to help create a high-level design and suggest numerous options for their solution. Our experience and in-depth knowledge allowed us to analyse and advise on their current estate and their future design roadmap, aiding them in select the best option for their needs. After the analysis was completed, we were then further engaged to deliver the solution, with best practice techniques and agile methodology.

Case study

Our client had identified that data quality was potentially causing downstream issues for large scale data migrations, generating high query volumes, with inventory being held in the supply chain causing income reduction.

Agile Solutions worked with the client on delivery of a scalable data quality reporting solution and provided advisory services on methods for ongoing data monitoring.

The team identified current data standards and desired data standards then performed a gap analysis from current to future state.

An automated solution was developed for measuring Data Quality outputting a suite of reports for review and remediation.

Data Quality Implementation Services

Agile solutions are highly experienced in data quality solution implementations and can work with you to architect, design, test and deliver your Data Quality solution. We have clients across all sectors requiring our Data Quality services. These are built upon on-prem, hybrid and complete cloud architectures.

Features

- DQ Platform architecture design, review and delivery
- Full lifecycle solution build and support (dev to prod)
- Capture and review Design functional and non-function requirements
- Configuration to new or existing client's target data centres
- Optional optimisation of code available
- Post upgrade testing and business acceptance
- Develop performance metrics to monitor and drive improvement
- Remediation planning, Data quality improvement strategy
- Data Quality delivering data consistency, integrity and security

Benefits

- Rapid deployment of Data Quality solutions
- Incremental delivery to ensure early benefits realisation
- Adoption of modern lean, agile and DevOps good practices
- Outcome focussed delivery of your data integration solution
- On-prem, Hybrid cloud or Full Cloud architecture solutions

Case study

Our client had identified that data quality was potentially causing downstream issues for large scale data migrations, generating high query volumes, with inventory being held in the supply chain causing income reduction.

Agile Solutions worked with the client on delivery of a scalable data quality reporting solution and provided advisory services on methods for ongoing data monitoring.

The team identified current data standards and desired data standards then performed a gap analysis from current to future state.

An automated solution was developed for measuring Data Quality outputting a suite of reports for review and remediation.

Case study

One of Europe's largest credit management companies wanted to use data to get the best outcomes for both their customers and their investors: improving customer experience, extracting value, and protecting vulnerable people in their database. They needed reliable, quality data and the infrastructure to achieve it.

Agile Solutions developed and built a robust platform that incorporated data lineage and data quality. Profiles, scorecards and an extensive set of rules were created for enhanced DQ reporting.

Improving data quality allowed them to trust their data's accuracy and reliability. They gained understanding of data across business dashboards and streamlined compliance dashboards.

Analytics Engineering

Agile Solutions helps clients unlock the full potential of your data with our Analytics Engineering consultancy. We offer bespoke solutions tailored to your needs, encompassing data infrastructure setup, model development, implementation and training. Benefit from our expertise to streamline processes, enhance decision-making and drive business growth through data-driven insights.

Features

- Customised analytics engineering solutions tailored to your unique business needs.
- Comprehensive data infrastructure setup for seamless analytics integration.
- Expert model development to extract actionable insights from your data.
- Rigorous data validation and quality assurance processes for accuracy.
- Scalable solutions capable of handling large volumes of data.
- Collaboration with stakeholders to understand and address specific requirements.
- Continuous monitoring and optimisation of analytics processes for efficiency.
- Integration with existing systems to leverage current investments and resources.
- Ongoing support and maintenance to ensure sustained performance and success.

Benefits

- Informed decision-making through accurate and actionable data insights.
- Increased operational efficiency and productivity with streamlined analytics processes.
- Enhanced business performance and competitiveness with data-driven strategies.
- Improved resource allocation and cost savings through optimised workflows.
- Scalability to accommodate growth and evolving business needs seamlessly.
- Empowered teams with advanced analytics skills and expertise.
- Better understanding of customer behaviour and market trends for growth.
- Real-time monitoring and responsiveness to changing business conditions.
- Enhanced data security and compliance with robust analytics solutions.
- Long-term value creation and sustainable business growth through analytics.

Case study

Enterprise Data Model Project – We worked with a global software client who had a wide range of products and data siloed in numerous source systems/regional BI solutions. This resulted in complexity and prevented them unlocking value from their data. We helped them by delivering the following:

Transformation Tooling Evaluation - We evaluated & implemented dbt as the best fit for their requirements.

Data Modelling Approach - We implemented layers of Data Vault and Dimensional Modelling to balance conforming the disparate data sources and presenting this for ease of use with BI tools.

Phasing Delivery to Provide Incremental Value – We embedded dbt, worked with their data teams to implement the solution and phased this to deliver value.

We provided architecture review, guidance and a team for delivery of the project successfully setting the client up for success in unlocking the value of their data through using dbt.

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 replicate existing data transformations in a new EL and T pattern using dbt for the Transformation.

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

Analytics Engineering with dbt

Agile Solutions helps clients elevate their data processes and teams through our dbt consultancy service. With customised implementation of dbt solutions we help clients transform their analytics data estate. From integration to model development and training Agile guide you through every step and empower your team with dbt expertise.

Features

- Customised dbt setup tailored to your specific data stack requirements.
- End-to-end implementation covering dbt project creation to deployment.
- Smooth rollout with dbt's modular approach minimising operational disruptions.
- Expert model development leveraging dbt's data transformation capabilities.
- Specialised training on dbt's workflow and best practices for teams.
- Thought leadership providing insights into dbt's latest features and techniques.
- Strategic implementation plans aligning with dbt's incremental approach.
- Continuous support from dbt experts to address any project challenges.
- Regular dbt updates ensuring your data processes remain cutting-edge.
- Collaborative partnership with dbt consultants to achieve transformation goals efficiently.

Benefits

- Enhanced data accuracy and reliability for informed decision-making.
- Streamlined processes leading to increased efficiency and productivity.
- Accelerated project timelines for quicker time-to-insight and action.
- Tailored solutions addressing your specific data challenges and requirements.
- Reduced costs through optimised data workflows and resource allocation.
- Empowered teams with expertise in dbt for sustainable data management.
- Improved scalability to handle growing data volumes and complexities.
- Access to industry-leading practices and insights for competitive advantage.
- Seamless integration with existing systems for minimal disruption to operations.
- Long-term partnership for ongoing support and evolution of your data capabilities.

Case study

Enterprise Data Model Project: We worked with a global software client who had a wide range of products and data siloed in numerous source systems/regional BI solutions. This resulted in complexity and prevented them unlocking value from their data. We helped them by delivering the following:

Transformation Tooling Evaluation - We evaluated & implemented dbt as the best fit for their requirements.

Data Modelling Approach - We implemented layers of Data Vault and Dimensional Modelling to balance conforming the disparate data sources and presenting this for ease of use with BI tools.

Phasing Delivery to Provide Incremental Value – We embedded dbt, worked with their data teams to implement the solution and phased this to deliver value.

We provided architecture review, guidance and a team for delivery of the project successfully setting the client up for success in unlocking the value of their data through using dbt.

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 replicate existing data transformations in a new EL and T pattern using dbt for the Transformation.

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

Cloud Data Platform - Databricks

Agile Solutions helps clients harness the power of data with our Databricks consultancy. We provide expert guidance in data engineering, machine learning and analytics on the unified platform. We offer full delivery lifecycle service for the architecture, design, implementation, deployment and support of your Databricks solution.

Features

- Unified Apache Spark platform for efficient big data processing tasks.
- Delta Lake for reliable data lakes with ACID transactions.
- MLflow for managing the end-to-end machine learning lifecycle.
- Collaboration features like shared notebooks and dashboards for teams.
- Integrated SQL analytics for querying structured data directly.
- Auto-scaling clusters for handling variable workloads without manual intervention.
- Automated job scheduling for orchestrating data pipelines and workflows.
- Workspace for version-controlled development and collaboration on projects.
- Integration with Azure, AWS and Google Cloud for seamless deployment.
- Optimized performance with Apache Spark's in-memory processing capabilities.

Benefits

- Accelerated time-to-insight with high-speed big data processing.
- Reliable data lakes ensure data integrity and consistency.
- Simplified machine learning lifecycle management for efficient model deployment.
- Enhanced team collaboration with shared notebooks and dashboards.
- Streamlined SQL analytics for faster querying and data exploration.
- Scalable infrastructure handles growing data volumes effortlessly.
- Automated workload management reduces operational overhead and complexity.
- Version-controlled workspace ensures seamless project collaboration and management.
- Flexibility to deploy on major cloud platforms for easy scalability.
- Improved performance and efficiency through in-memory processing capabilities.

Case Study

Data Science Workflow on Databricks – We were engaged by a client struggling with inefficient data processes and disjointed analytics. We guided them through optimising their data science workflow on Databricks. This focussed on centralising data sources into a cohesive platform enhanced by MLflow for managing the machine learning lifecycle. We implemented ML Ops practices to automate and monitor machine learning models efficiently, ensuring seamless deployment and scalability. Our solution not only enhanced the client's decision-making but also significantly reduced the time-to-market for new analytics initiatives.

Cloud Data Platform - Snowflake

Agile Solutions helps customers unlock their data's potential with our Snowflake consultancy services. We help customers deploy Snowflake's cloud-based platform enhancing data management and analytics capabilities. We guide organisations through leveraging Snowflake's scalable architecture, real-time processing and secure data sharing to get value from their Snowflake data platform.

Features

- Automatic Scaling: Adjusts resources dynamically based on workload demands.
- Separate Storage and Compute: Independently scalable, enhancing efficiency.
- Cross-Cloud Compatibility: Operates on AWS, Azure, Google Cloud.
- Real-Time Data Sharing: Share live data securely across organizations.
- Simultaneous Query Execution: Supports high concurrency without performance degradation.
- Zero-Copy Cloning: Create data clones instantly without duplicating data.
- Time Travel: Retrieve historical data up to 90 days.
- Secure Data Encryption: Comprehensive encryption in transit and at rest.
- Geographical Data Storage: Stores data in multiple regions for compliance.
- Data Warehousing as a Service: Fully managed SaaS solution, reducing IT burden.

Benefits

- Scalability: Automatically adjusts to meet data processing demands efficiently.
- Performance: Delivers rapid data processing with minimal oversight required.
- Separation of Storage and Computation: Enhances cost-effectiveness and performance.
- Multi-Cloud Support: Compatible with AWS, Azure, and Google Cloud.
- Data Sharing: Enables secure and straightforward sharing of live data.
- High Concurrency: Manages multiple queries simultaneously without delays.
- Zero Management: Automated upkeep and management reduce operational burdens.
- Robust Security: Comprehensive security with role-based access controls.
- Instant Elasticity: Swiftly adjusts computing resources to meet demand.
- Data Cloning and Time Travel: Eases data backup and retrieval processes.

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.

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.

Vendor Review and Selection

Our expertise and unique insight into the digital marketplace ensure that we are well-placed to identify the right tools for our customers. We play close attention, not just to business requirements but also to strategic alignment, choosing vendors whose values and goals align with those of our customers.

Features

- Kick-Off and requirements definition
- Defined technology prioritisation, roadmap and timeline plan
- Market industry research and first vendor filtering
- Request for Proposal (RfP) definition, scoring, evaluation and support
- Procurement and commercial support
- Evaluation and adoption strategies for emergent and disruptive technologies

Benefits

- Enables selection of fit for purpose data platform tooling
- Control cost, scope and adoption of the data platform
- Provides latest analyst views of vendors in comparative markets
- Enables stakeholders to rapidly compare features, functionality, and price
- Ensures commercial alignment to Value for Money outcomes

Case study

Problem Statement

A large utility faced data silos, poor data and low levels of automation. They recognised that they needed to consider tools to support their digital journey.

Solution

We conducted a comprehensive vendor selection process, engaging with stakeholders to establish business requirements and priorities. Using our evaluation framework to assess vendor capabilities, compatibility, aligned with client needs to ensure the best tool was selected.

Outcome

We were able to identify the right tool and assist in the implementation and configuration. Using the tool, we streamlined data processes and removed data silos, significantly reducing the impact of data issues.

Case study

Problem Statement

A government department recognised the need for data governance tooling due to the size and complexity of its data estate. They needed help to clarify requirements, assist in tool selection and establish the onboarding journey.

Solution

A thorough process followed, to establish business requirements and priorities which was assessed using our evaluation framework.

Outcome

We were able to identify the right tool, determine the best way to onboard and develop knowledge transfer initiatives to increase data literacy and buy-in. Using the tool, we streamlined data processes and removed data silos, significantly reducing the impact of data issues.

agile
solutions

Get in touch:

gcloud@agilesolutions.co.uk

01908 010618

www.agilesolutions.co.uk

www.linkedin.com/company/agile-solutions-gb

www.twitter.com/AgileIM

Modernise   Manage   Monetise