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Amber Labs

Secure Transformation, Without Compromise

AN INTRODUCTION

INTRODUCTION TO AMBER LABS

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SME Digital Transformation Consultancy - Amber Labs are a specialist consultancy helping Public Sector deliver technology change at a pace

Robust and Transparent Delivery & Governance - our processes align to the Service Manual and Technology Code of Practice

Rapid Consultant Deployment Framework - our deployment framework ensures we provide value in weeks rather than months

Diverse Presence & Capability - we have 100+ Consultants deployed across a range of Government departments, with over 80% of our staff living outside of London

CLIENTS

Home Office

NetworkRail

Department for Work & Pensions

BAE SYSTEMS

Department for Environment Food & Rural Affairs

Sage

TECHNOLOGY

Azure

kubernetes

databricks

aws

snowflake

APACHE Spark

GOVERNMENT ALIGNMENT

Government Digital Service

Our work follows Government Service Standards

CYBER ESSENTIALS PLUS

Cyber Essentials Plus Certified

100% of staff are BPSS & majority Security Cleared

OUR CAPABILITIES

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DATA ENGINEERING	AI & ANALYTICS	CLOUD ENGINEERING	DIGITAL TRANSFORMATION	DELIVERY
Data Quality	Business Intelligence	DevOps	Front End Development	Testing
Data Architecture	Generative AI	Cloud Provisioning	Back End Development	Business Analysis
Data Governance	Data Mining	Cloud Security	Full Stack Development	PMO
Data Integration	RPA	Deployment Automation	Enterprise Architecture	Resource and Budget Management
MDM	Predictive Analytics	Cloud Monitoring	UI/UX Design	Agile/Scrum Delivery
Data Lake & Warehouse	Machine Learning	Cloud Architecture	Solution Architecture	
	Data Science		Business Architecture	
			Software Engineering	

DATA ENGINEERING & INTEGRATION

SERVICE DEFINITION

DATA ENGINERRING & INTEGRATION

We help public sector organisations design, build and support reliable data pipelines and integrations, including batch, streaming and API-based patterns. Our service enables teams and digital services to access timely, trustworthy data while working safely within legacy constraints, security requirements and multi-supplier environments.

SERVICE FEATURES

- Design and build data pipelines.
- Batch, streaming and API-based integrations.
- Data mapping, transformation and enrichment.
- Data contracts, schema evolution and versioning.
- Automated testing for pipelines and integrations.
- Automated data quality checks, validation and reconciliation.
- Monitoring, alerting and end-to-end observability.
- Cutover planning, backfills and safe migrations.
- Security and access controls for data movement.
- Operational documentation, runbooks and optional run support.

SERVICE BENEFITS

- Improved reliability of data pipelines and integrations.
- Faster access to trusted operational and reporting data.
- Reduced operational risk from fragile or manual integrations.
- Improved data quality through validation and reconciliation.
- Improved auditability through traceable, observable data flows.
- Reduced dependency on individuals and undocumented processes.
- More consistent data exchange across systems and services.
- Greater confidence in data freshness and timeliness.
- Improved security and compliance for data movement and access.
- Faster incident detection and recovery for critical data flows

SERVICE DELIVERY

SUMMARY

- We help public sector organisations remove uncertainty, inconsistency and friction around how data is used, shared and governed.
- Our delivery aligns data priorities, ownership and information governance so teams can make decisions and use data confidently.
- Where required, an optional Run service supports adoption, cadence and continuous improvement.

APPROACH

- Understand integration use cases, data characteristics and operational constraints.
- Select appropriate integration patterns (batch, streaming or API) based on need, risk and cost.
- Define mappings and data contracts, including versioning and schema evolution.
- Design security into integrations, including access controls and secrets handling
- Build and deploy incrementally, with automated testing and validation.
- Embed data quality checks, reconciliation and robust error handling.
- Implement monitoring, alerting and logging to make failures visible and actionable.
- Plan cutover, backfills and migrations to minimise service disruption.
- Coordinate dependencies and interface changes across suppliers and teams.
- Where requested, provide optional Run support to operate and improve integrations.

GOVERNANCE

- Clear ownership for pipelines, integrations and APIs, with named accountability.
- Non-functional requirements for reliability, security, performance and operability.
- Operational targets (SLOs) for freshness, availability and recovery for critical flows.
- Change and release controls covering schema evolution, interface versioning and dependencies.
- Data contracts/interface definitions to align suppliers and consumers.
- Data quality thresholds, validation, reconciliation and data-incident classification.
- Monitoring, alerting, logging and traceability to support diagnosis and audit.
- Security controls including access management, secrets handling and periodic access reviews.
- Runbooks covering recovery actions, backfills and common failure scenarios.
- Lifecycle management, including deprecation and safe decommissioning.
- If Run is purchased: incident/problem/change, MI reporting and service reviews.
- Transition-in/out for Run: access setup, monitoring baselines, documentation and exit planning

Get in touch

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