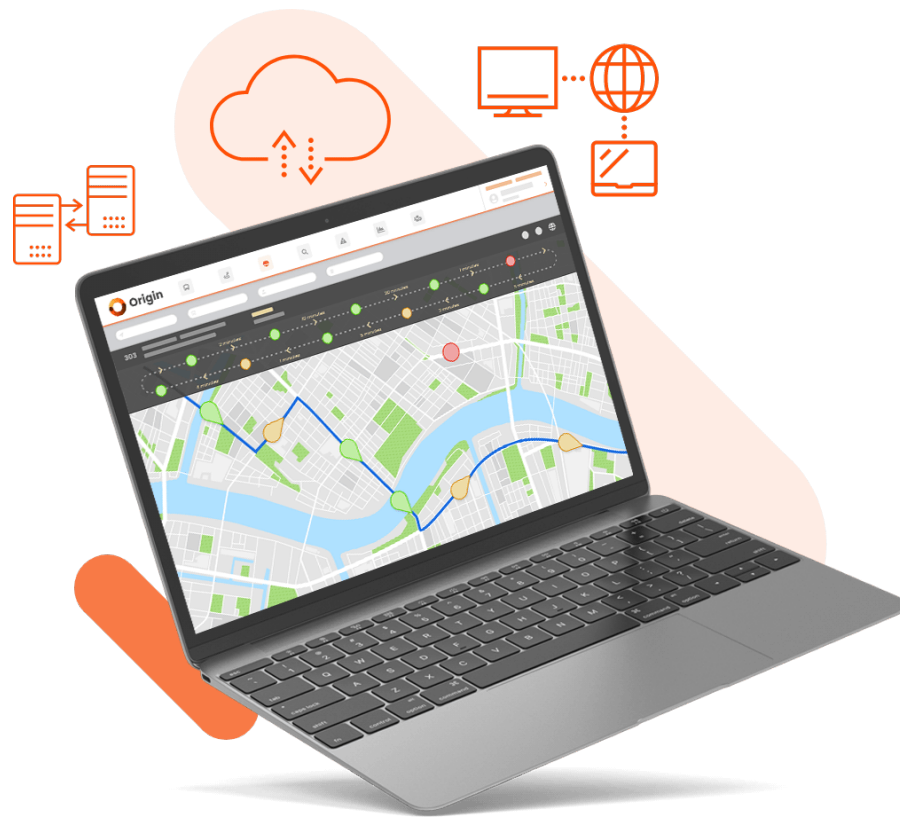


Origin

G-Cloud 15, Service Definition



Listing Name: Origin platform

Lot Number: 2b

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Introduction

Company Overview

Origin is a cloud-based transport operations, monitoring and analytics platform developed by Ridango. It is designed for public transport authorities, school transport bodies, and bus and coach operators who require clear, auditable oversight of service delivery.

Origin is delivered as a Software as a Service (SaaS) platform and accessed securely via a web browser, requiring no on-premise infrastructure or specialist hardware.

Value Proposition

Origin provides a single source of truth for planned versus actual service delivery. By combining timetable data with real-time vehicle location data, Origin enables users to monitor live operations, identify service issues, investigate historical performance, and demonstrate compliance with contractual and regulatory requirements.

What the Service Provides

The service provides real-time monitoring, automated trip discovery, historical audit tools, manual operational controls, reporting, and data export capabilities.

Social Value

Ridango is committed to responsible business practices that support inclusive employment, ethical operations, and sustainable transport outcomes. Origin supports public sector objectives by improving the efficiency, reliability and transparency of public transport services.

Environmental Sustainability

By enabling authorities and operators to identify underperforming services, reduce unnecessary mileage, and optimise fleet usage, Origin contributes directly to reduced emissions and improved network efficiency.



Overview of the G-Cloud Service

Origin is a cloud-hosted service designed to support operational oversight, compliance monitoring, and performance analysis of transport services.

The platform ingests timetable data (such as GTFS or TransXChange), real-time vehicle location data (AVL/GPS), and reference datasets to continuously compare planned and actual service delivery.

The service is suitable for local authorities, school transport schemes, and public or private transport operators.

Service Functionality

Key Features

- Real-time operational monitoring across bus, coach, and school transport services
- Automated trip discovery and planned versus actual service validation
- Support for industry-standard data formats including GTFS, TransXChange, VDV, and SIRI
- Consumption and production of SIRI feeds (SIRI-VM, SIRI-ET, SIRI-SX), including feed aggregation
- Historical replay and audit tools for investigation and compliance
- Timetable performance analysis and timetable recommendations
- Secure APIs providing access to real-time and historical data
- Role-based access control and full audit logging

Customer Benefits

- Improved punctuality and reliability through evidence-based service analysis
- Reduced manual effort through automation and data-driven workflows
- Enhanced transparency and accountability for contracted services
- Scalable oversight from small deployments to national networks
- Simplified compliance with data-sharing and regulatory requirements
- Flexible integration with existing operational, telematics, and reporting systems

Origin provides a comprehensive set of operational monitoring, assurance, and analysis features designed to support day-to-day service oversight as well as longer-term performance review across bus, coach, and school transport networks.

Data Ingestion and Normalisation

Origin ingests and processes multiple industry-standard datasets, including AVL/GPS feeds, timetable and schedule data (such as GTFS and TransXChange), and supporting reference data. Incoming data is validated, normalised, and time-aligned to ensure consistency between planned and actual service delivery. This process allows services to be monitored even where data quality varies between operators or vehicle systems.

Planned vs Actual Service Validation

The platform continuously compares planned services against live and historical vehicle movements. This enables automated identification of missing journeys, partial journeys, early or late running, and services operating outside of planned parameters. These validations form the basis for compliance monitoring, audit activity, and operational intervention.

Live Operations Dashboard

Origin provides a real-time operational dashboard displaying active services, vehicle locations, service status indicators, and map-based visualisation. Users can quickly filter by operator, route, service, time period, or geographic area to focus on areas requiring attention.

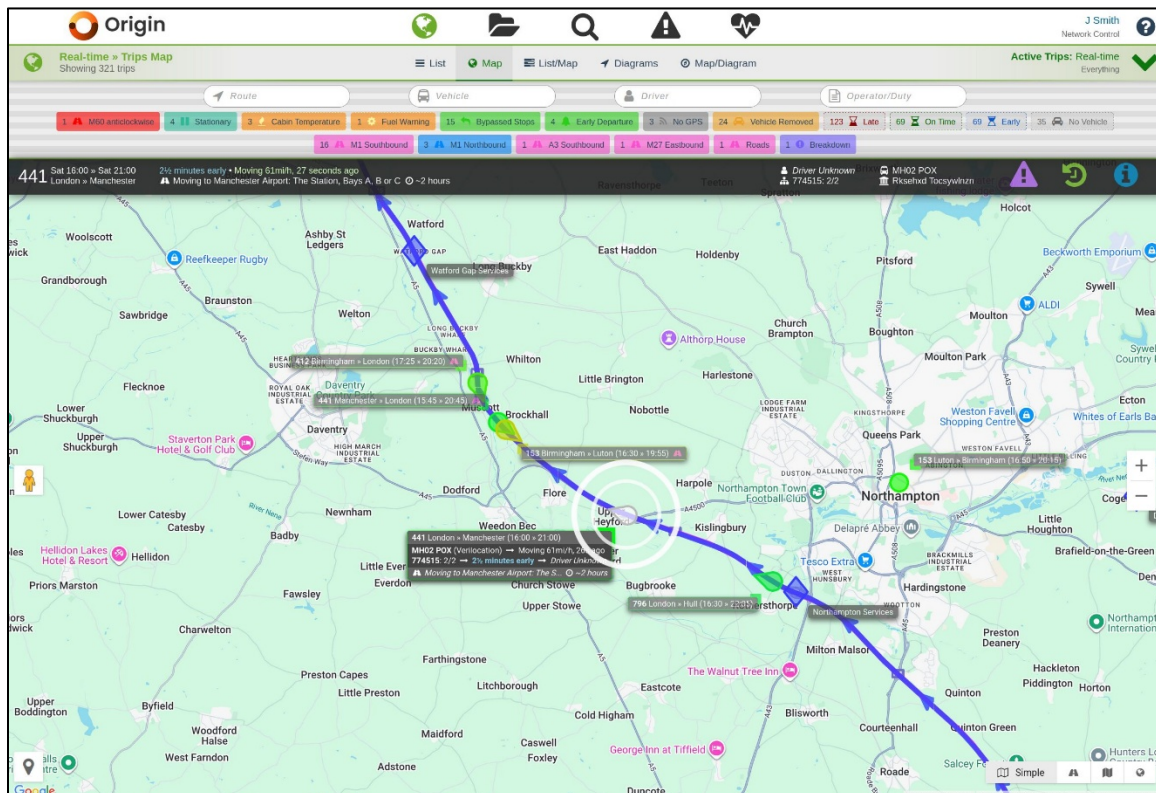


Figure 1 Live Operations Dashboard

Automated Trip Discovery

Origin includes automated trip discovery functionality that matches vehicles to scheduled trips based on time windows, route geometry, stop sequences, and service definitions. This significantly reduces manual configuration effort and enables rapid onboarding of new operators, routes, or contracted services.

Manual Assignment and Operational Controls

Where automated matching is not appropriate, authorised users can manually assign vehicles to services, correct misallocated journeys, and apply operational annotations. All manual interventions are fully logged, providing transparency and an auditable record of changes.

Historical Replay and Investigation

Origin stores historical operational data, allowing users to replay past service days and investigate incidents, complaints, or contractual disputes. Playback tools allow users to step through journeys over time, supporting evidence-based investigation and reporting.

Compliance and Assurance Reporting

The platform supports the generation of operational and compliance reports based on validated service delivery data. These reports can be used to support contractual compliance, performance reviews, funding assurance, and stakeholder reporting. Data can be exported in standard formats such as CSV for further analysis.

Multi-Market Support

Origin is designed to operate across multiple transport markets. For local bus and coach services, the platform supports network-wide operational oversight and operator performance monitoring. For school and school transport, Origin supports contract assurance, service validation, and exception investigation across large numbers of dedicated and shared services.

Scalability and Configuration

Origin is designed to scale from small local deployments to large regional or national transport networks. Configuration options allow authorities to define operators, contracts, service groupings, and user access controls appropriate to their operational and governance requirements.

Timetable Recommendations and Performance Metrics

Origin supports timetable performance analysis and timetable recommendations to help authorities and operators produce more punctual and reliable timetables. Using historical operational data, Origin highlights where scheduled runtimes are consistently under- or over-allocated and identifies opportunities to improve punctuality and reduce service variability.

Performance metrics are available at multiple levels, including:

- Network-level performance trends
- Service and route-level punctuality and reliability metrics
- Driver-level performance insights, where appropriate and subject to data governance controls

These insights support evidence-based timetable reviews, contract discussions, and continuous service improvement initiatives.

APIs and Data Access

All Origin operational data and derived metrics are accessible via secure application programming interfaces (APIs). APIs enable customers to integrate Origin data with external systems such as data warehouses, reporting tools, business intelligence platforms, and downstream operational systems.

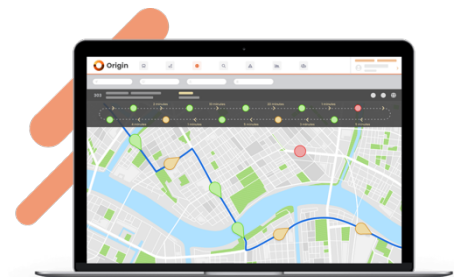
API access is controlled using authentication and authorisation mechanisms and supports both real-time and historical data retrieval, allowing customers to extend and automate their own analytics and reporting workflows.

SIRI Feed Production, Consumption and Aggregation

Origin provides comprehensive support for the consumption and production of SIRI real-time data feeds in support of regulatory and operational use cases, including Bus Open Data Service (BODS) compliance.

The platform can consume all relevant SIRI feeds, including SIRI Vehicle Monitoring (SIRI-VM), Estimated Timetable (SIRI-ET), and Situation Exchange (SIRI-SX), from multiple upstream sources.

Origin can also generate and publish SIRI feeds derived from integrated timetable, AVL, and



operational data, enabling customers to meet external data sharing and compliance requirements.

Where required, Origin supports aggregation of multiple SIRI feeds into a single, merged distribution, providing a consolidated real-time feed for downstream consumers while preserving data quality and consistency.

Associated Services

Ridango provides optional professional services including system configuration, data integration support, bespoke reporting, and user training. These services are available under separate commercial agreements.

Data Protection and Information Assurance

Standards Alignment

Ridango aligns its information security and business continuity practices with recognised international standards, including ISO/IEC 27001 (Information Security Management) and ISO 22301 (Business Continuity Management). These standards inform our approach to governance, risk management, operational resilience, and data protection controls. Where formal certification is not in place, Ridango applies the principles and control objectives as good practice to support customer assurance requirements.

Privacy

Origin is designed and delivered in accordance with privacy-by-design principles. Ridango embeds data protection considerations throughout the platform lifecycle, including system architecture, data processing workflows, and access controls. Personal data processing is limited to what is necessary to deliver the service, and appropriate technical and organisational measures are applied to protect customer data.

Data Encryption

Ridango is committed to safeguarding customer data within the Origin platform. All data is encrypted in transit using TLS 1.2 or higher. Data stored within the platform is encrypted at rest using AWS-managed encryption services.

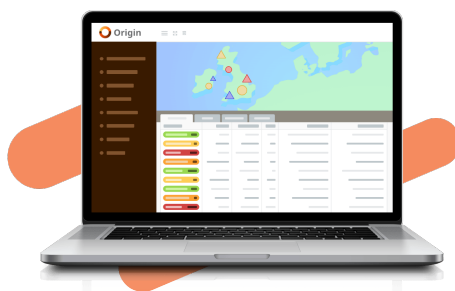
Encryption keys are managed using industry-standard key management practices. Data encryption keys (DEKs) are used to encrypt stored data and are protected using key encryption keys (KEKs), ensuring a layered security approach that balances strong protection with performance and availability.

Data Anonymisation and Pseudonymisation

Where required, Origin supports anonymisation or pseudonymisation of specific data fields to protect personally identifiable information (PII), such as smartcard identifiers or driver references.

Pseudonymisation is achieved using cryptographic hashing techniques, such as SHA-256, which transform sensitive values into fixed-length, non-reversible representations. Hashed values cannot be reverse-engineered or traced back to their original form.

Ridango maintains internal policies and controls to prevent any attempt to re-identify anonymised or pseudonymised data, ensuring ongoing protection of customer privacy.



Origin is hosted on Amazon Web Services (AWS) cloud infrastructure within the United Kingdom and/or European Economic Area (EEA, with the primary hosting region in the UK (AWS London – eu-west-2). All data is encrypted in transit using TLS 1.2 or higher.

Access to the platform is controlled using role-based access control and secure authentication.

Ridango acts as a data processor in accordance with UK GDPR and applies data minimisation principles.

Operational data is backed up regularly using automated cloud backup processes, and business continuity procedures are in place to support service availability.

Data Back-up and Restoration

Origin application data is hosted on Amazon Web Services (AWS) and is protected using automated, incremental backup mechanisms. Operational databases are backed up daily, with backups retaining only changes since the previous snapshot to ensure efficient recovery.

Backups are stored redundantly across multiple AWS availability zones to protect against infrastructure failure. In the event of data loss or system failure, backed-up data can be restored to support disaster recovery and service continuity.

Business Continuity Statement and Plan

Ridango is committed to maintaining high service availability and operational resilience. A documented Business Continuity Plan (BCP) is maintained to ensure that critical services can be sustained or rapidly restored in the event of a disruptive incident.

The BCP prioritises the safety of personnel and the continuity of customer-facing services and is designed to operate across a range of scenarios including infrastructure failure, supplier disruption, and security incidents.

Annual Security Assessments

Ridango performs regular security reviews and commissions periodic penetration testing to identify and remediate vulnerabilities within the Origin platform. These assessments support the ongoing integrity, confidentiality, and availability of customer data and services.

Uptime Commitment

Ridango targets a minimum service availability of 99.95% per calendar month for the Origin platform, excluding planned maintenance. Availability is measured on a monthly basis and applies to the core service components of the platform.

Plan Scope and Applicability

The Business Continuity Plan applies to all core Origin services, supporting infrastructure, and operational processes. It is designed to minimise disruption and enable the timely restoration of services following an incident.

The plan is activated following confirmation of personnel safety and is applicable across a range of emergency and operational scenarios.

Business Continuity Objectives

- Ensuring Service Uptime: sustaining availability of core platform services
- Operational Resilience: maintaining service through redundant infrastructure and recovery processes
- Data Protection and Accessibility: safeguarding critical data and ensuring controlled access during incidents

Review and Continuous Improvement

The Business Continuity Plan and associated security controls are reviewed at least annually and updated based on operational experience, security assessments, and changes in the threat landscape. This continuous improvement approach ensures that resilience measures evolve alongside the platform.

Origin is designed with privacy and data protection principles embedded throughout the platform lifecycle. Ridango applies data minimisation, access control, and encryption to protect customer and passenger data.

Using the Service

Ordering and Invoicing Process

Origin is provided under a subscription-based Software as a Service (SaaS) model. The standard payment method is electronic bank transfer (EFT). Invoices are issued electronically and, unless otherwise agreed, are billed annually in advance.

For invoicing or account-related queries, customers should contact accounts@ridango.com.

Pricing Overview

Origin is priced on a modular SaaS basis. Pricing is influenced by a combination of:

- Number of modules enabled
- Number of vehicles or services monitored

Detailed pricing is provided separately within the G-Cloud pricing schedule.



Pilot Service and Proof of Concept

Ridango can offer customers a time-limited pilot or proof-of-concept (PoC) engagement to demonstrate the Origin platform in a live operational environment.

Pilot engagements typically run for up to 60 days and are provided on a no-obligation basis. During the pilot period, Origin is configured to ingest customer data sources and provide access to core platform functionality, enabling stakeholders to evaluate suitability, performance, and operational fit.

Pilot services may include limited onboarding support, data integration, and user training. The scope and success criteria of each pilot are agreed in advance with the customer.

Onboarding and Offboarding

On termination of the contract, user access is removed, data integrations are disconnected, and customer data is securely deleted or returned in accordance with contractual terms.

Training

Training is provided remotely or on-site as required and includes guided sessions, documentation, and ongoing support from the customer success team.

Service Levels and Support

Service Availability

Ridango targets 99.95% service availability per calendar month, excluding planned maintenance. Service availability is measured at the application level and reflects the ability of authorised users to access and use the service.

Incident Response and Resolution

Support requests are handled through the Ridango Service Desk and are triaged against the severity definitions shown in Table 1.

Each logged issue is assigned a severity based on operational impact, and the service desk provides a reference number and status updates so progress can be tracked. During support hours (09:00 to 17:00 UK local time (GMT/BST as applicable)) on business days, Ridango targets the initial response and resolution times set out in Table 2.

Severity may be reclassified if further investigation shows the impact is different from the original assessment, and customers will be informed of any change.

Planned maintenance is communicated in advance where reasonably practicable and scheduled to minimise customer impact and minimise disruption.

Severity Level	Description
Severity 1	“Severity 1” is the most severe. Fault is one that results in a full Subscription Services outage.
Severity 2	Fault prevents key functions of a Subscription Services materially working in accordance with the User Documentation.
Severity 3	Fault is one that results in a Subscription Services operating with restrictions on certain functions or causes performance degradation that is not critical to customer’s overall business.
Severity 4	Fault is one that results in a Subscription Services operating with minor inconveniences which are not critical to customer’s overall business.

Table 1 Severity Classifications

Severity Level and Ticket Priority	Initial Response	Resolution Target
Severity 1	1/2 hour of notification	4 hours
Severity 2	1 hour of notification	8 hours
Severity 3	24 hours of notification	4 weeks
Severity 4	48 hours of notification	Within a scheduled release

Table 2 Service Levels (Response Times and Resolution Times)

Provision of the Service

Origin is delivered as a fully managed cloud service. Ridango is responsible for hosting, platform availability, system maintenance, updates, and security management.

The platform is capable of ingesting data from multiple upstream systems and suppliers. Schedule data can be provided in standard formats including TransXChange, GTFS, VDV, or custom formats. Real-time vehicle location data can be integrated from any telematics provider where a suitable API or data feed is available.

Origin supports integration with a wide range of ticketing systems, including solutions from suppliers such as INIT, Ticketer, and Trapeze. The platform has been implemented using multiple SIRI standards, including SIRI-VM and related real-time messaging formats.

Customer Responsibilities

Customers are responsible for:

- Ensuring all users maintain secure passwords, keep credentials confidential, and follow organisational security policies
- Maintaining an up-to-date list of authorised users and notifying Ridango of changes
- Using the support services reasonably and in accordance with the support policy

- Taking reasonable steps to prevent unauthorised access and notifying Ridango of any incidents
- Providing end-user terms or policies where legally required
- Procuring and maintaining third-party network connections and telecommunications links
- Ensuring customer systems comply with any technical specifications provided by Ridango

Technical Requirements

To deliver the service, customers may be required to provide some or all of the following datasets:

1. Automatic Vehicle Location (AVL) or GPS data
2. Ticketing and transaction data
3. Schedule data (TransXChange, GTFS, VDV, or equivalent)
4. SIRI Vehicle Monitoring or other real-time service feeds

Origin is accessed via a modern web browser and does not require local software installation.

After-Sales Account Management

Ridango provides structured after-sales support designed to ensure customers derive maximum operational value from the Origin platform.

Support channels include:

- Email support via a monitored support mailbox
- Telephone support during normal business hours. For critical issues the phone support is available also outside of business hours
- A ticketed helpdesk system for logging, tracking, and prioritising support requests
- Access to a dedicated Customer Success Account Manager for service reviews, roadmap discussions, and operational guidance
- An online knowledge base and FAQ library providing self-service guidance and how-to articles

Customer Success Managers work proactively with customers to support onboarding, adoption, and ongoing optimisation of the service.

Experience and Customers

Origin is used across bus, coach, and school transport markets by public sector authorities and commercial operators. The platform supports contracted and commercial services, including home-to-school transport, local bus networks, and coach operations requiring operational oversight and compliance monitoring.

Origin has been deployed as part of large-scale school transport programmes to support service validation, compliance monitoring, and operational assurance.

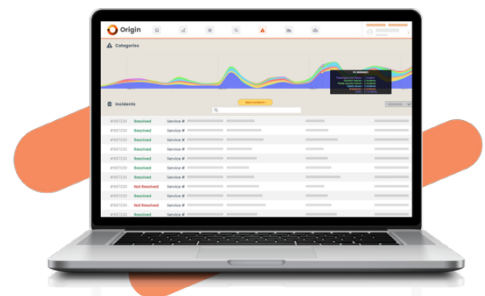
Example use cases include:

- Monitoring daily home-to-school transport services across mixed fleets of dedicated and shared vehicles
- Validating contracted services against planned schedules and vehicle movements
- Supporting investigation of service complaints and attendance queries using historical replay
- Providing auditable evidence to support funding assurance and operator performance reviews

These deployments demonstrate Origin's suitability for high-volume, contract-driven school transport environments requiring transparency, scalability, and reliable operational oversight.

Additional Case Studies – Bus and Coach Operations

Origin is deployed across a range of large-scale bus and coach operations in the UK and Ireland, supporting real-time monitoring, service validation, and operational assurance at network scale.



Representative deployments include:

- National Express Coach – supporting oversight of long-distance coach services and compliance monitoring
- National Express Bus – monitoring high-frequency urban bus networks and operator performance
- FirstBus – supporting operational visibility and historical service investigation across multiple regions
- Go-Ahead – providing real-time service monitoring and planned versus actual service validation
- Stagecoach – supporting network-wide operational assurance and performance reporting

These deployments demonstrate Origin's ability to operate at scale across diverse operating models. Customer references can be provided on request from existing deployed clients.

Contact Details

For further information about this G-Cloud service, please contact:

Email: tenders.uk@ridango.com