
helvetic airways

REDiFly

# Helvetic Goes Paperless with the REDiFly eTechlog

**Case Study**

# REAL WORLD RESULTS FROM A RECENT IMPLEMENTATION

Based on the implementation with Helvetic Airways, transitioning from paper-based processes to a structured digital eTechlog has delivered measurable improvements in operational control, data accuracy, and efficiency.

### Measured Operational Impact

- 30–60 monthly log errors → near zero
- 30,000+ sectors logged digitally
- 580+ devices deployed with zero faults
- Zero manual re-entry through AMOS integration

### What Changes Operationally

- Real-time visibility across flight crew, MCC, and maintenance
- Single-point data capture with no duplication
- Standardised workflows improving consistency & traceability
- Audit-ready records by default

### Designed to Fit Your Operation

The eTechlog is configured around each operator's workflows, procedures, and regulatory requirements, not imposed as a rigid system. Examples of configurable workflows and operational use cases are included throughout this document.

### Outcome

A shift from manual, handover-based processes to a connected, real-time operational environment — improving control, reducing risk, and supporting scalable airline operations.

# PAPER VS DIGITAL

The transition from paper-based or fragmented systems to a fully digital eTechlog introduces a fundamental shift in how technical log data is captured, shared, and acted upon across operations.

| Operational Area | Before (Paper Based System)  | After (eTechlog Workflows)  |
|---|---|---|
| **Data Entry** | Manual input across paper logs and multiple systems | Single point of entry with automated data flow |
| **Data Accuracy** | Prone to transcription errors and incomplete records | Structured data capture with validation controls |
| **Error Rate** | 30–60 errors per month requiring manual correction | Errors reduced to near zero |
| **Data Availability** | Delayed visibility until physical handover | Real-time access across all departments |
| **System Integration** | Manual re-entry into AMOS and other systems | Automated, bi-directional integration |
| **Workflow Effiency** | Duplicate work and fragmented communication | Streamlined, connected workflows |
| **Defect Management** | Reactive — issues addressed after visibility delay | Proactive — MCC visibility before aircraft arrival |

# 60+ ERRORS PER MONTH
# REDUCED TO NEAR ZERO

Before the eTechlog rollout, Helvetic's paper-based system generated approximately 60 errors per month, ranging from transcription mistakes to incomplete defect sign-offs. This led to number of downstream issues which were negatively impacting operations

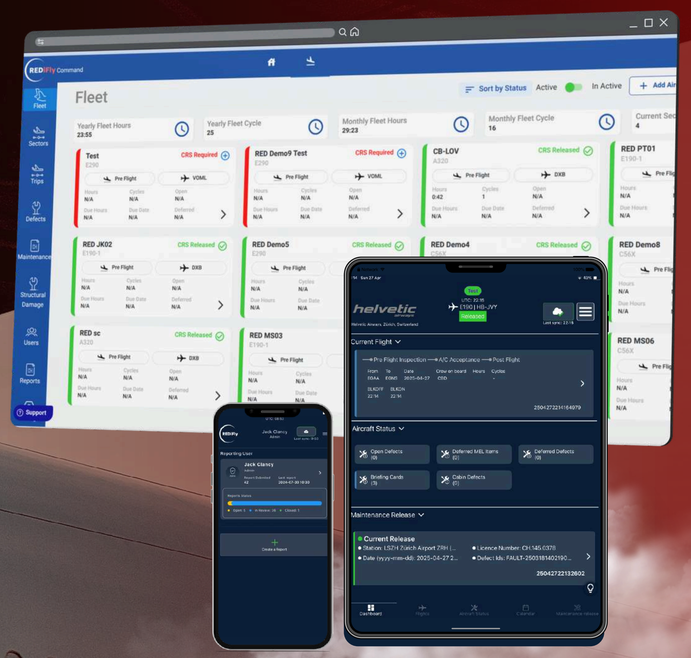
- Errors required manual correction, follow-up, and cross-checking across teams
- Defects were not visible to MCC until handover, limiting proactive planning
- Duplicate data entry into AMOS increased workload and error risk
- Record validation during audits was time-consuming and inconsistent

### What Changed with eTechlog

- Data captured at source and automatically synced
- Real-time visibility of defects for MCC
- Direct AMOS integration, eliminating re-entry
- Structured data capture, consistent records

### Measured Impact

- 30–60 monthly errors reduced to near zero
- Reduced administrative workload across teams
- Faster defect visibility and earlier decision-making
- Improved audits with complete, traceable records




# 40,000 SECTORS FLOWN DIGITALLY

Proven performance across high-frequency, real-world airline operations

**40,000+** sectors logged across live operations
**4,500+** defects raised and managed in the app.
Deployed across Helvetic's 18-aircraft fleet (Embraer E190/E195)
Used daily by flight crew, MCC, and maintenance teams

## 580+ DEVICES. ZERO DEVICE RELATED FAULTS

**Pilot-assigned** device model supporting reliable, uninterrupted operations.

- No device handover between flights.
- Crews use familiar devices → faster, more accurate input.
- Centrally managed via MDM.
- No device-related downtime across operations.

# PROVEN AMOS INTEGRATION

Full bi-directional integration ensuring a single, consistent source of truth across operations and mainteance.

## AMOS

- Data captured once and auto synched with AMOS
- Eliminates duplicate entry across systems
- Reduces error risk and manual workload
- Keeps flight ops and maintenance fully aligned

Supports closed-loop workflows from defect reporting through to resolution

## WinOps

- Real-time visibility of AC status in operational systems
- Aligns flight schedules, crew, and aircraft data
- Reduces manual coordination between ops and MRO
- Improves planning and operational awareness

Ensures operational decisions are based on live, consistent data across all systems

# AMOS INTEGRATION IN PRACTICE

Seamless, real-time data exchange between the eTechlog and AMOS ensures both systems remain fully aligned, eliminating duplication and maintaining a single source of truth.

AMOS

## From ETL to AMOS

- Defect entries
- MEL/CDL deferrals
- Maintenance actions
- Flight hours & cycles
- Fluid uplifts

## From AMOS to ETL

- DMI reference numbers
- Release status
- Deferred item updates

### Complete AMOS Integration

- Real-time accurate sync Regulation-
- compliant operations
- Scalable deployment capability
- Digital logbook transformation
- No additional interface fees required

## Design Principles

Unique internal IDs (UUID)

No parallel shadow records

Reconciliation after outages

No tight coupling

Integration scope is defined per operator to match MRO configuration and processes.

# OFFLINE FIRST DESIGN

Normal operations continue, even without connectivity.

## Full Offline Functionaility

- Full Functionality available using encrypted local storage.
- Flight crew can complete all flight phases, including defect reporting and sign-off, while offline.
- Data is captured offline and automatically syncs when connectivity is restored.
- No disruption to workflows across flight crew, MCC, and maintenance.
- No data loss during connectivity gaps.

## Resilient Data Syncronisation

Data is securely synchronised across devices using peer-to-peer communication and automatic reconciliation, ensuring consistency and accuracy once connectivity is restored.

REDiFly

# CONFIGURED TO FIT YOUR OPERATION

No two operators run the same workflows. Differences in fleet, procedures, regulatory interpretation, and internal processes require systems that can adapt, The REDiFly eTechlog is designed from the ground up to fit each operator's way of working.

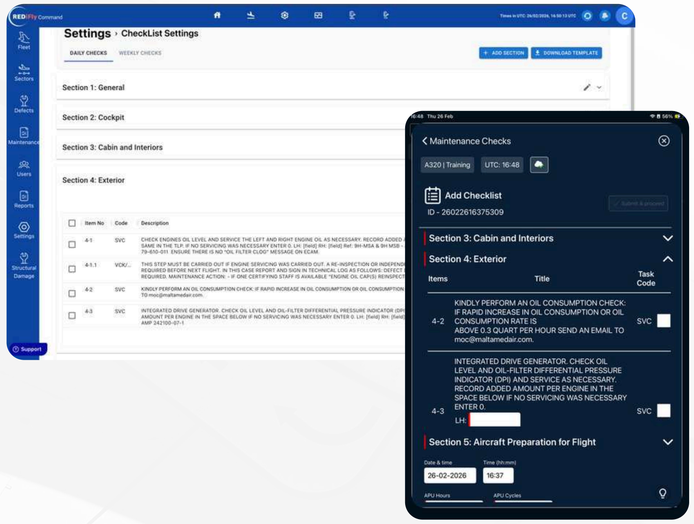
The eTechlog adapts to existing workflows, not the other way around.

- Configured around each operator's existing processes and procedures
- Flexible data capture aligned to operational and regulatory requirements
- Maintains standardisation without forcing rigid workflows
- Seamlessly integrates with core systems while preserving operator-specific logic

**Christian Suhner, CTO of Helvetic comments:**

*"Going live with the REDiFly eTechlog has been a major milestone for Helvetic Airways. The system adapts to our processes, rather than the other way around. It has strengthened our operations' data quality, security, and reliability across the network.*

# OPERATOR DEFINED WORKFLOWS




## Operator-Defined Checklists

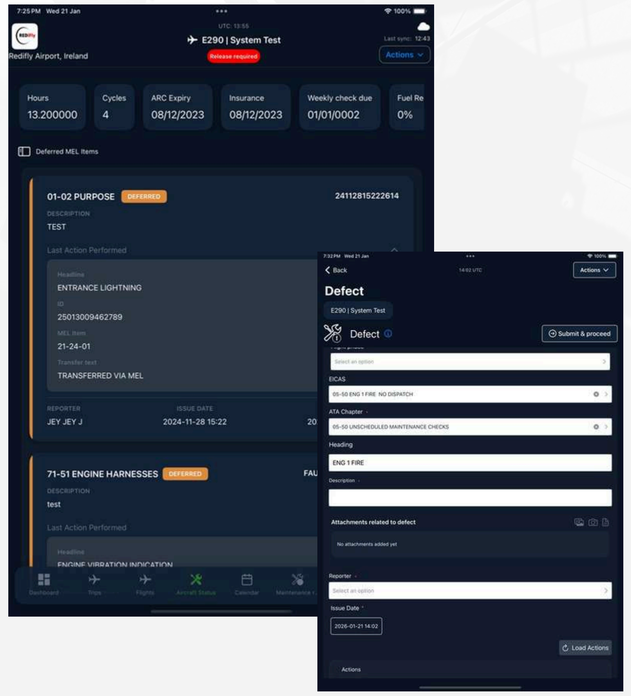
Configured around your procedures and triggered automatically based on flight phase, defect type, or operational event.

- Ensures required steps are completed before submission
- Removes the need for parallel paper processes
- Supports consistent handling of diversions, RTGs, cancellations, & abnormal operations.

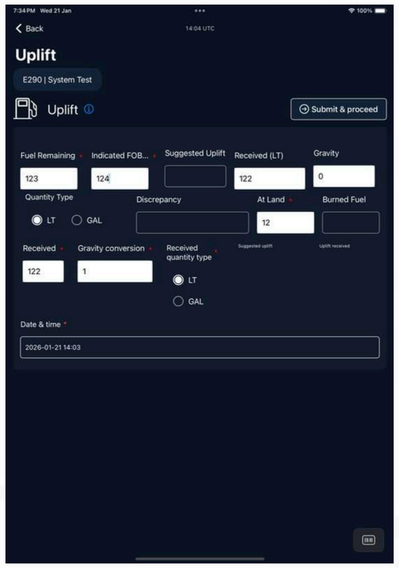
## MEL & Deferral Management

Defects are assessed directly against MEL/CDL, with structured tracking and clear time limits.

- Deferrals are categorised and time-bound with defined expiry
- Prevents MEL overruns
- Ensures consistent tracking and visibility across operations



# OPERATOR DEFINED
# WORKFLOWS



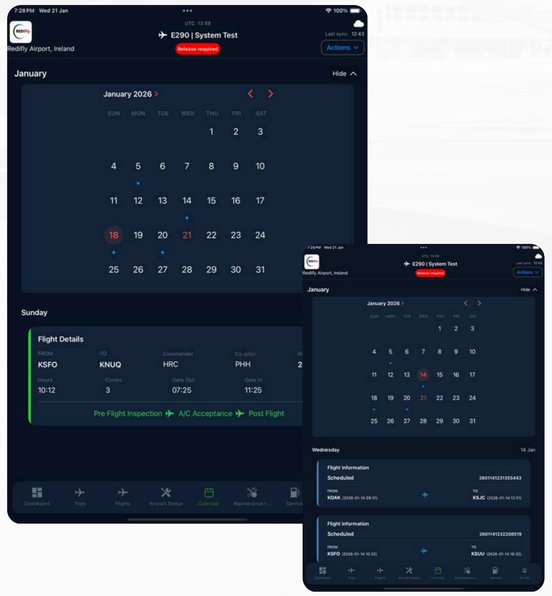

## Clear History, Clear Accountability

All logbook activity is time-stamped, versioned, and retained, providing a complete and auditable record of aircraft history.

- Full audit trail with no overwriting of original records
- Clear visibility for maintenance reviews and compliance checks
- Supports authority audits with structured, traceable data
- Filter and review records by aircraft, date, or event

## Recording of Operational Servicing

Fuel, oil, hydraulic, and de-icing activities are recorded directly within the eTechlog, ensuring accurate and consistent capture across operations.



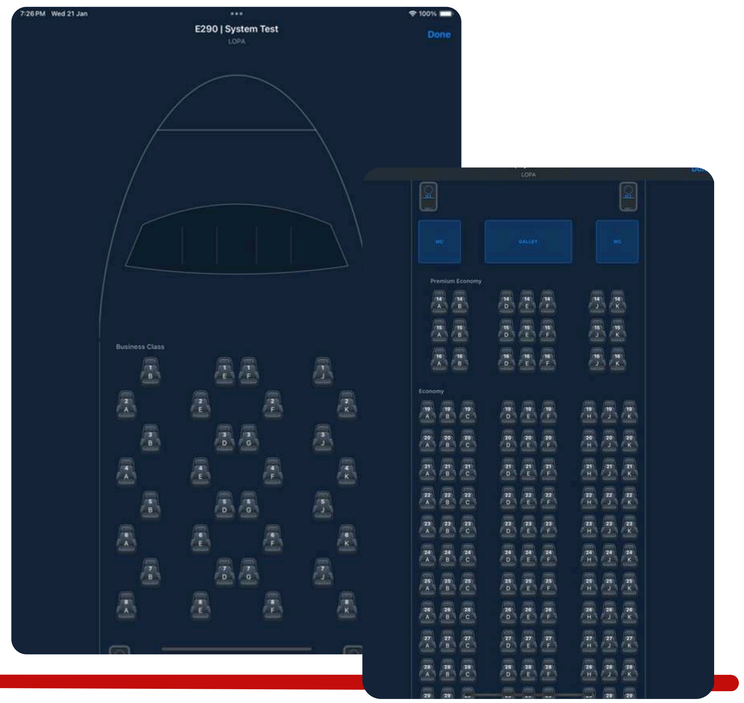

- Clear visibility of servicing activities for flight crew and MCC
- Reduced manual transcription and reconciliation
- Improved traceability for audits and compliance
- Captures quantities, fluid types, and servicing times
- Supports evidence capture, including delivery notes and photos

# OPERATOR DEFINED WORKFLOWS

## Cabin & Service Logs

Separate cabin and service-related reporting from the technical log, ensuring clearer categorisation and improved workflow management.

- Dedicated cabin reporting flows
- LOPA-based visual defect selection
- Free text entry for quick reporting
- Clear separation from airworthiness-related items





## Structural Damage Reporting (Dent & Buckle)

Capture structural damage using aircraft-specific diagrams, allowing precise location-based reporting with full context.

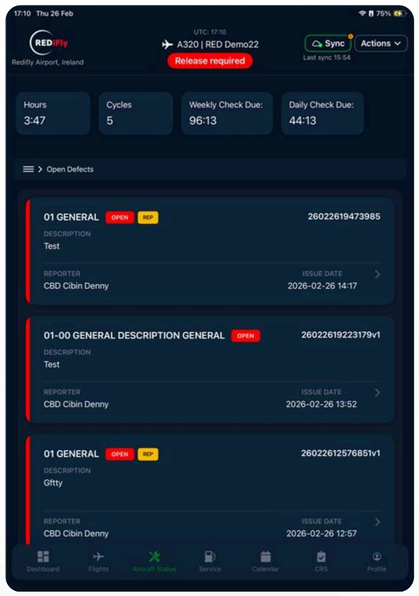
- Aircraft-specific damage charts
- Location-based input with visual selection
- Photo attachments and structured classification
- Integration with Dent & Buckle for advanced modelling

# OPERATOR DEFINED WORKFLOWS

## Recurring Defect Identification

Repeated defects are automatically identified against the same aircraft and ATA chapter, supporting early engineering review and compliance with recurring defect monitoring requirements.

- Flags repeated defects based on configurable thresholds
- Provides clear visibility of historical attempts and rectifications
- Reduces repeated troubleshooting across stations
- Supports consistent tracking and compliance





## Cabin & Service Logs

Station copies can be generated and shared directly from the device, even without connectivity, ensuring continued access to required documentation.

- Generate PDF station copies directly from the eTechlog
- Share via AirDrop, Bluetooth, or wireless printing
- No dependency on Wi-Fi or network connectivity
- Supports operational continuity in all environments

# TRAINING AND ROLLOUT

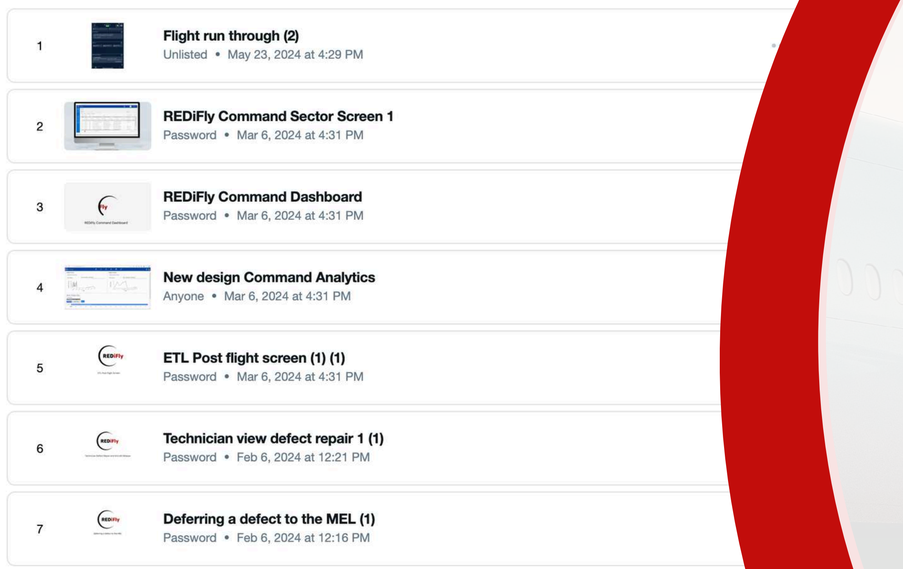
The rollout at Helvetic Airways was carefully planned to ensure consistency, confidence, and minimal disruption across flight operations and maintenance teams.

**580+ iPads deployed** across pilots, cabin crew, MCC, and maintenance, enabling seamless use across all operational environments from day one

**Blended training approach**, combining in-person sessions, online modules, and live walkthroughs tailored to each role

**On-demand support,** with a full library of video tutorials and reference guides available through the IT support centre

**Phased rollout**, allowing teams to gradually transition into live operations without disruption




**Strong adoption** from day one, with consistent usage across teams and minimal impact on daily operations

# REGULATORY APPROVAL WITH FOCA

**A proven low risk pathway to approval.**

The transition to a digital technical logbook requires regulatory approval and a structured approach. This can be a complex process without the right framework in place. At Helvetic Airways, REDiFly achieved FOCA approval through a controlled rollout.

## Proven implementation approach

- FOCA-approved following formal risk assessment
- Three-month dual-run with paper ATL and eTechlog
- 1,000+ flights completed during rollout
- Ongoing engagement with FOCA throughout

## What this means for operators:

- A clear, structured pathway to approval
- Reduced risk during transition
- Proven approach aligned with authority expectations

Supported by REDiFly with guidance, documentation, and approval experience across multiple authorities.

# ISO 27001 CERTIFIED SECURITY AND PART-IS ALIGNMENT

REDiFly's eTechlog is built with security and compliance at its core, supported by ISO 27001 certified processes. This ensures that operational data is protected, traceable, and managed in line with internationally recognised information security standards, helping operators demonstrate compliance and reduce audit risk.

The platform is also designed to support evolving aviation regulatory requirements, including EASA Part-IS, supporting operators in meeting expectations around data integrity, availability, and system security.

Built on Microsoft Azure infrastructure, REDiFly benefits from enterprise-grade security controls, including encryption, access management, and continuous monitoring.

Together, this provides operators with a secure, compliant environment for managing critical operational data.

EASA - Part-IS
European Union Aviation Safety Agency

TÜV NORD
TUV India Private Ltd.
ISO 27001

# ENTERPRISE-GRADE DATA STORAGE AND RESILIENCE

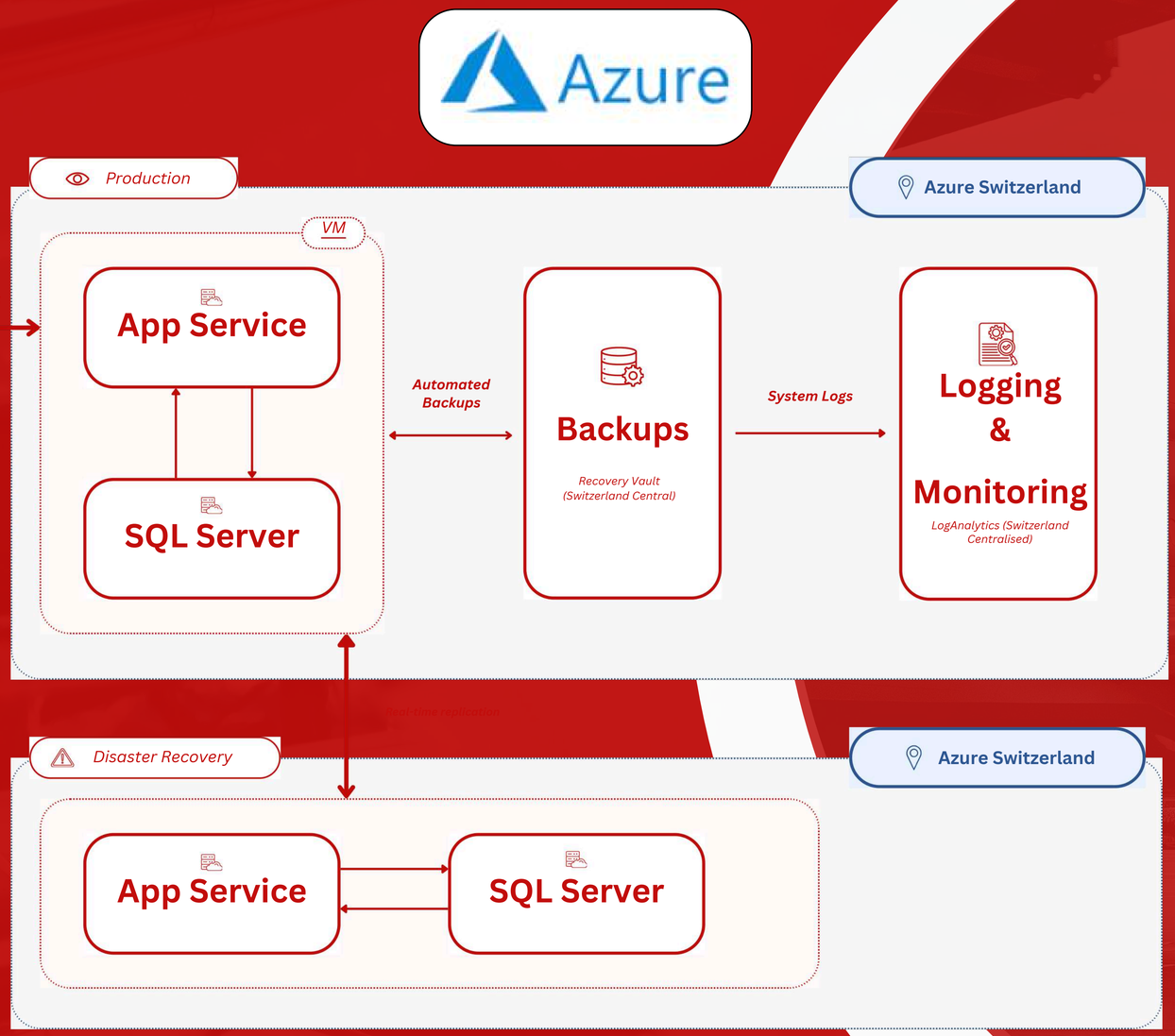
REDiFly's eTechlog is built on a modern, cloud-native architecture using Microsoft Azure, ensuring high availability, scalability, and data security.

Data is hosted in Azure data centres within the operator's country, or within the EU where required, supporting regulatory compliance.

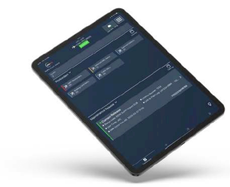
Operational data is continuously replicated across multiple secure locations, including a secondary backup environment in a separate region.

In the event of an issue, the system automatically fails over to backup infrastructure, ensuring uninterrupted operations.

This approach removes single points of failure and ensures critical data remains available, accurate, and protected at all times.



## Book a Demo



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Specialist

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