



Service Definition Document

MiRecord

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1. Service Overview

MiRecord is a cloud-based digital maternity information system designed to replace traditional paper maternity records with a secure, real-time, multi-platform electronic record accessible to clinicians and expectant mothers. The system centralises maternity data, streamlines clinical workflows, enhances patient safety through real-time risk alerts, and supports joined-up care across the maternity pathway.

Developed collaboratively with clinical experts and aligned to national maternity pathways and digital standards, MiRecord enables both online and offline working, supports emergency access, and integrates with GROW 2.0 for fetal growth monitoring. It operates as a scalable SaaS solution delivered via a secure AWS cloud environment in the UK.

The platform empowers mothers with direct, write-able access to personal care pages and a mobile app containing personalised information to support shared decision-making.

This platform has been designed in collaboration between Harlow Solutions and the Perinatal Institute.

2. Key Service Components

Data Capture & Clinical Documentation

MiRecord supports structured clinical documentation, free-text fields, configurable forms, and automated clinical prompts that improve data completeness and support local and regional reporting requirements.

Real-time maternity data - including booking assessments, antenatal inputs, test results, scan outcomes, care plans, labour notes, and postnatal records - is accessible to authorised clinicians across all care settings.

Risk Management & Alerts

Automated risk assessment prompts, configurable alerts, and clinical decision support tools help identify potential complications early and guide appropriate interventions.

Emergency access ensures critical information is available even when other systems are unavailable.

Mother & Family Engagement

MiRecord provides mothers with secure access to their maternity record via mobile or desktop, enabling review of their care information, completion of personal pages, and participation in decision-making.

A dedicated mother app supports personalised information, care planning, and informed choice.

Offline Functionality

Recognising variability in connectivity, MiRecord supports offline working for clinicians and mothers—data synchronises automatically when connection is restored.

Integration & Interoperability

MiRecord offers an Open API for integration with relevant hospital systems, including EHRs and maternity-specific systems. It integrates with the GROW 2.0 fetal growth monitoring module, enhancing personalised care pathways.

API documentation is available in PDF, with sandbox environments provided.

Reporting & Analytics

MiRecord supports usage metrics, uptime reports, and data exports. Organisations can request bespoke reporting, and centralised monitoring supports insight into compliance, performance, and operational data.

3. Hosting, Architecture & Technical Requirements

Cloud Hosting Environment

MiRecord is hosted in **AWS UK-based datacentres**, aligned to NHS, ISO27001, and Cyber Essentials requirements. Data is stored and processed exclusively in the United Kingdom.

System Architecture

The system uses scalable AWS infrastructure:

- Fully cloud-based and auto-scaling (EC2, RDS)
- Zero-downtime blue/green deployments for most updates
- Continuous backups and long-/short-term snapshot management
- Advanced monitoring through AWS CloudWatch with automated alerts

Technical Requirements

- Web app: modern browsers (Chrome, Firefox, Safari, Edge) with HTTPS over ports 80/443
- Mobile app: iOS and Android devices
- API: secure, documented REST API via HTTPS
- Whitelisting for specific domains/URLs may be required

4. Security & Compliance

Information Governance

MiRecord is governed under a comprehensive ISMS aligned with:

- ISO/IEC 27001

- NHS DSP Toolkit
- Cyber Essentials
- CSA CCM / SSAE-18 standards for datacentre and cloud controls

Full security policies and processes - including access control, cryptography, logging, incident response, retention and classification, secure development, vulnerability management, and penetration testing - are available via the Perinatal Institute.

Authentication & Access Control

- Multi-Factor Authentication for users and administrators
- Role-Based Access Control (RBAC) configurable per Trust
- Annual access restriction testing
- Logged administrative activity

Data Security

- Impact-assessed and audited encryption policies
- TLS 1.2+ enforced for all communications
- Encrypted API traffic (mTLS where appropriate)
- AWS KMS-managed keys with full lifecycle management
- Data erasure and secure deletion upon contract termination

5. Service Levels & Support

Availability

MiRecord offers a guaranteed uptime of **99.5%**, supported by multi-AZ AWS infrastructure.

Support Model

Support includes:

- Dedicated clinical helpdesk
- Email and phone support (Monday–Friday, 9–5)
- On-site support at additional cost
- Priority-based SLAs:
 - P1 (system down/clinical risk): fix within 4 hours
 - P2: 24 hours

- P3: 30 days
- P4: Next scheduled release

Outage Reporting

AWS CloudWatch automated alerts notify internal teams of outages, high resource usage, or TLS/HTTPS issues. Outages are communicated via email to key customer contacts.

6. Business Continuity, Backup & Disaster Recovery

MiRecord leverages AWS-native resilience:

- Continuous AWS Backup
- Multi-AZ redundancy
- Fast restore capabilities
- Blue/green deployment for low-risk updates
- Annual CREST-approved penetration testing
- Regular vulnerability scanning and risk-based patching

7. Service Constraints

Service constraints are governed by the SLA and may include:

- Scheduled maintenance windows
- Dependency on buyer network whitelisting
- Public sector network requirements (HSCN connectivity)
- Browser compatibility standards

8. Onboarding & Offboarding

Onboarding

The Perinatal Institute's clinical and technical teams provide:

- Full project planning (PID)
- Integration setup with Trust systems
- Configuration of forms, templates, and RBAC
- Training (train-the-trainer, user guides, teaching videos)
- On-site support if required

Offboarding

Upon contract termination:

- A full data extract is provided in an agreed format (CSV, SQL)
- Raw data is securely returned to the data controller
- Additional extract services can be quoted
- User access is terminated once offboarding completes

9. Access to Data (During Contract & Exit)

Data is accessible to users throughout the contract and can be exported in:

- CSV
- SQL
- Agreed structured formats

Audit logs for user and supplier activity are retained for at least 12 months.

10. Outage & Maintenance Management

MiRecord uses structured, ITIL-aligned change and configuration management processes:

- Clinical safety review for all changes (DCB0129/0160)
- Controlled deployments via JIRA
- Documentation, approval logs, testing evidence retained
- Emergency change pathways for critical fixes

Monitoring covers system, application, authentication and configuration events with alerts for anomalies. Incident management follows ISO27035 and DSP Toolkit guidance.

11. Hosting Options & Locations

MiRecord is delivered as SaaS via:

- UK AWS regions only
- No customer-side hosting required
- Multi-cloud support available if required
- Connection to HSCN supported