BinaryMed

Healthcare Meets Connectivity

Stay Connected to Your Samples Outside the Lab

Remote sample monitoring solution, providing real-time insights.

www.binarymed.io

Pre-Analytical Sample Monitoring

Over 60% of diagnostic errors occur before samples reach the lab*, posing a significant challenge for accurate test results. Recognising this need for sample visibility, BinaryMed developed a sample monitoring solution for the pre-analytical phase. Our end-to-end solution replaces outdated data loggers with IoT technology and a cloud-based platform, offering real-time monitoring of samples from anywhere, at anytime.

Ensure visibility, accountability, and traceability

With BinaryMed you can now:

- View the exact location of samples
- Monitor and anticipate incoming sample quantities
- Identify if sample temperatures deviate from acceptable ranges
- Detect and respond to samples that have been mishandled

Protect Sample Integrity

Ensure samples are transported under optimal conditions, maintaining their integrity and quality throughout their journey.

Effortless QA Compliance

Simplify compliance by automating evidence collection and ensuring full traceability with a digital chain of custody, making audits and reporting hassle-free.

Optimise Resource Management

Prepare lab staff for incoming shipments, ensuring efficient resource allocation, and streamlining logistics.

Improve Lab Efficiency

Eliminate the need for phone call follow-ups on sample locations and manual paperwork, allowing lab staff to focus more on critical tasks.

Safeguard Lab Reputation

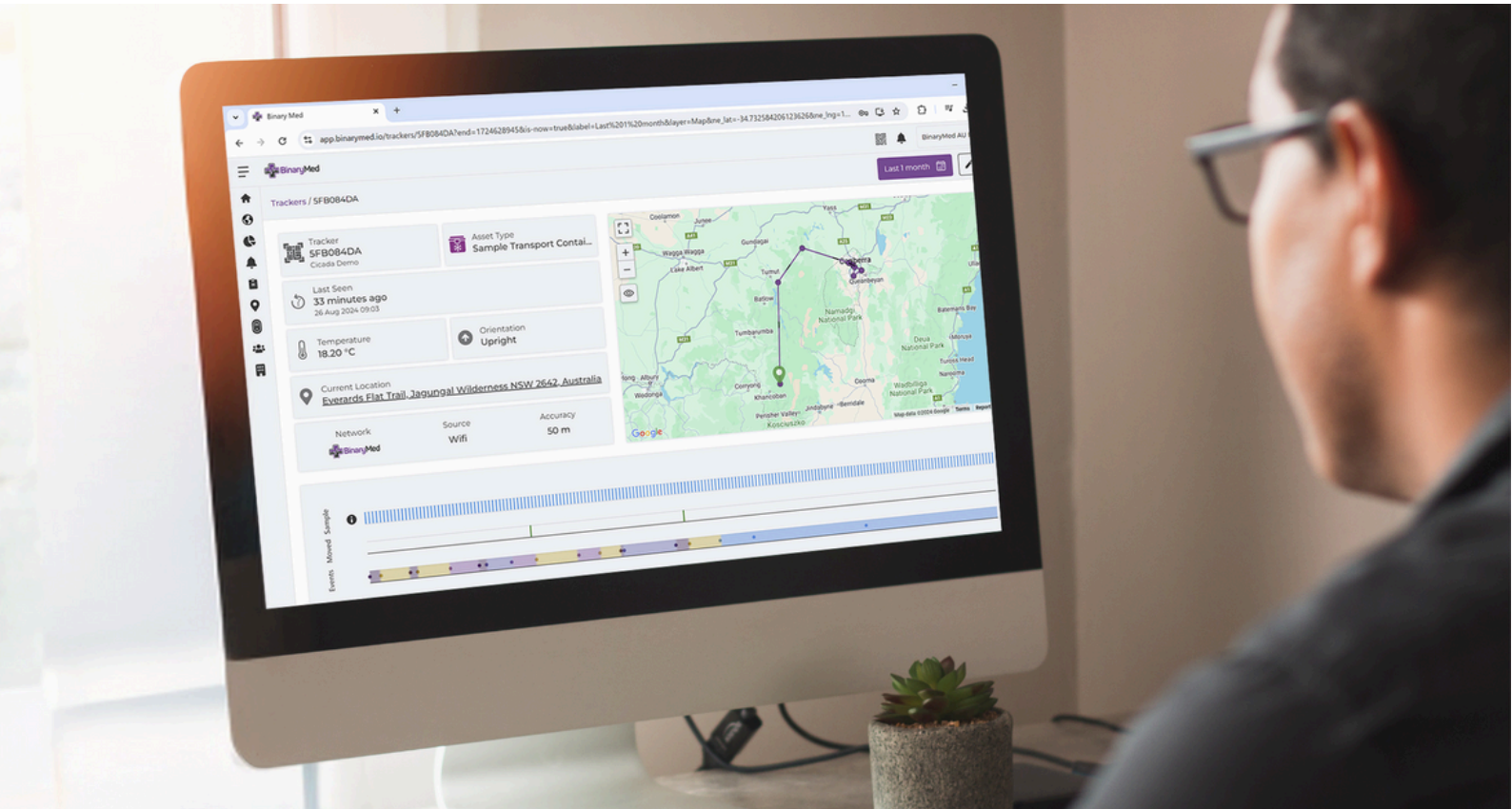
Ensure reliable sample handling and accurate results with real-time monitoring and quick issue resolution, reinforcing your lab's credibility and trustworthiness.

Reduce Costs

Minimise manual interventions and the risk of errors, leading to lower operational costs and preventing expensive mistakes.

*Plebani M. Errors in clinical laboratories or errors in laboratory medicine. Clin Chem Lab Med. 2006;44(6):750-759

Challenges Before BinaryMed	Sample Workflow	Improvements After BinaryMed
Paper-based logging, manual handling, risk of mislabeling or data entry errors.	Collection	Samples are packed with IoT sensors, enabling digital logging, real-time collection identification, and improved lab staff planning.
No real-time monitoring, uncertainty about sample location and condition, with reactive problem-solving.	Transit	Continuous, hands-free monitoring with automatic alerts for issues, offering full visibility & proactive problem-solving. No interaction with the tracker is required during/after this stage.
Manual logging, potential delays, and reliance on data loggers for condition reports.	Arrival	Immediate data availability and assurance of sample integrity, with journey completion marked on the platform and data instantly accessible in the cloud.
Incomplete data on sample condition during transit, reliance on manual quality checks, potential delays in reporting results due to data verification.	Processing	Unmatched data accuracy, reduced processing time, streamlined quality checks, quicker & more reliable diagnostic results. Samples are processed with full confidence in their integrity.
Limited quality data, often only temperature-related, with no location reference or pre-arrival data except for manually logged samples.	Quality Analysis	Complete quality traceability for all samples, with easy-to-access historical audit data and streamlined auditing processes.



How BinaryMed Works

BinaryMed's innovative sample monitoring solution combines the Cicada Voyager tracking device with the Binary Cloud web platform to deliver real-time insights.

1. The Cicada is securely attached inside transport containers and collects data on location and usage.
2. Data is transmitted in real-time via the 5G network to the Binary Cloud web platform.
3. Users access the data, detailed reports and live alerts remotely on the Binary Cloud platform.
4. Information is used to to safeguard samples, simplify compliance and boost efficiency.

The Cicada Voyager

The Cicada Voyager is BinaryMed's cutting-edge wireless IoT tracking device. It monitors the location and condition of pathology samples in real time. The Cicada Voyager uses 5G connectivity and a hybrid geolocation engine to ensure precise and reliable data transmissions even in places where GPS is unavailable.

24/7 Real-Time Monitoring

Gain continuous, real-time insights into the location and temperature of samples.

State-of-the-art Geolocation

Proprietary hybrid geolocation engine utilises multiple location technologies for pinpoint accuracy.

Reliable Connectivity

Reliable global coverage on the 5G network.

Prolonged Battery Life

The Cicada Voyager performs on a single set of batteries for 5+ years.

Automated Data Uploads

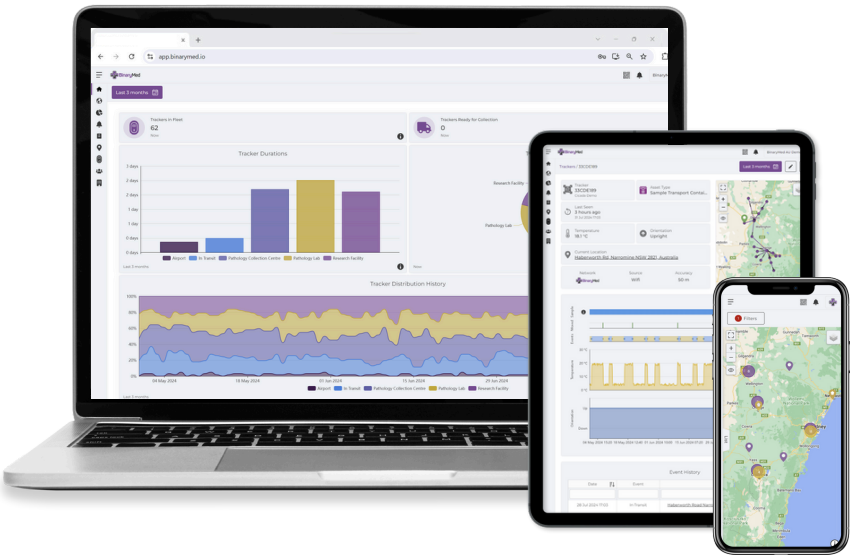
Eliminates the need for scanning or other manual input during sample transit.

Hassle-Free Setup

Retrofit existing containers and no additional infrastructure required.

BinaryMed featured quite heavily in our Pre-Analytical NATA assessment - in a very positive way. Your beautiful data made it easy for our auditees to show the auditors our commitment to improved patient care.

Emma Bull
QML Pathology



The Binary Cloud

The Binary Cloud is our cloud-based web platform that seamlessly integrates with our Cicada Voyager tracking devices, providing users with real-time access to comprehensive data collected by the Cicada Voyager. This data is transformed into actionable insights, enabling sample visibility throughout the pre-analytical phase.

By leveraging AI and machine learning algorithms, the Binary Cloud ensures all lab professionals can easily monitor their samples, identify potential issues, ease compliance, and optimise operational efficiency all from a single, centralised platform.

Powerful & Intuitive Platform

- User Friendly Interface
- Specimen Manifest
- Digital Compliance Trail
- Critical Alerts
- Customisable Reports
- Powered by AI & Machine Learning
- Full Support & Training
- LIS Integration via API

+61 2 4216 8585 contact@binarymed.io www.binarymed.io

Technical Specifications

Cicada Voyager

DIMENSIONS	139 x 87 x 31mm
WEIGHT	222 grams
NETWORK CONNECTIVITY	LTE CAT-M1 and NB-IoT
SENSORS	Location, Temperature, Motion, Orientation, Light
ENVIRONMENT	Indoor and Outdoor
BATTERY TYPE	3x AA (1.5v) Lithium
BATTERY LIFE	Configurable for 1 - 7 Years
RATINGS	IP69K, IK08
OPERATING TEMPERATURE	-25°C to +65°C
HOUSING	UV Stabilised Polycarbonate
FITMENT	Attach inside container with supplied 3M VHB hook and loop adhesive.
LOCATION METHOD	Utilises BinaryTech's proprietary 5-point cloud geolocation engine to achieve reliable indoor/outdoor tracking

BinaryMed
+61 2 4216 8585
contact@binarymed.io
www.binarymed.io