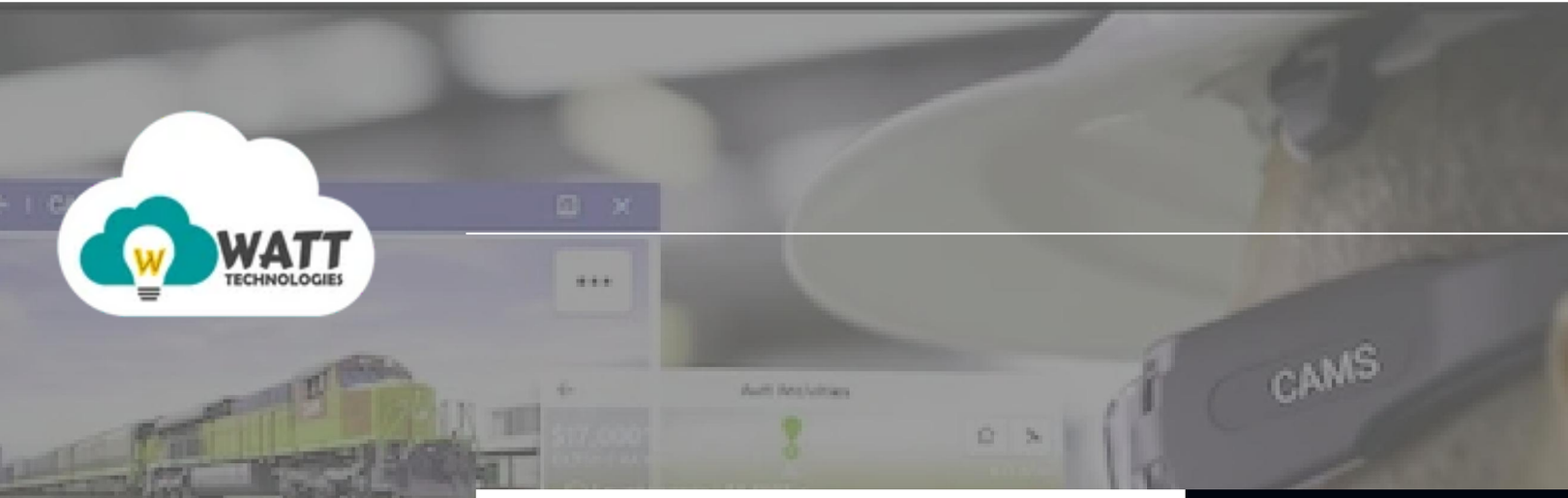


CAMS

Cognitive Asset Management System

WATT TECHNOLOGIES

ABN: 80636765074

About us

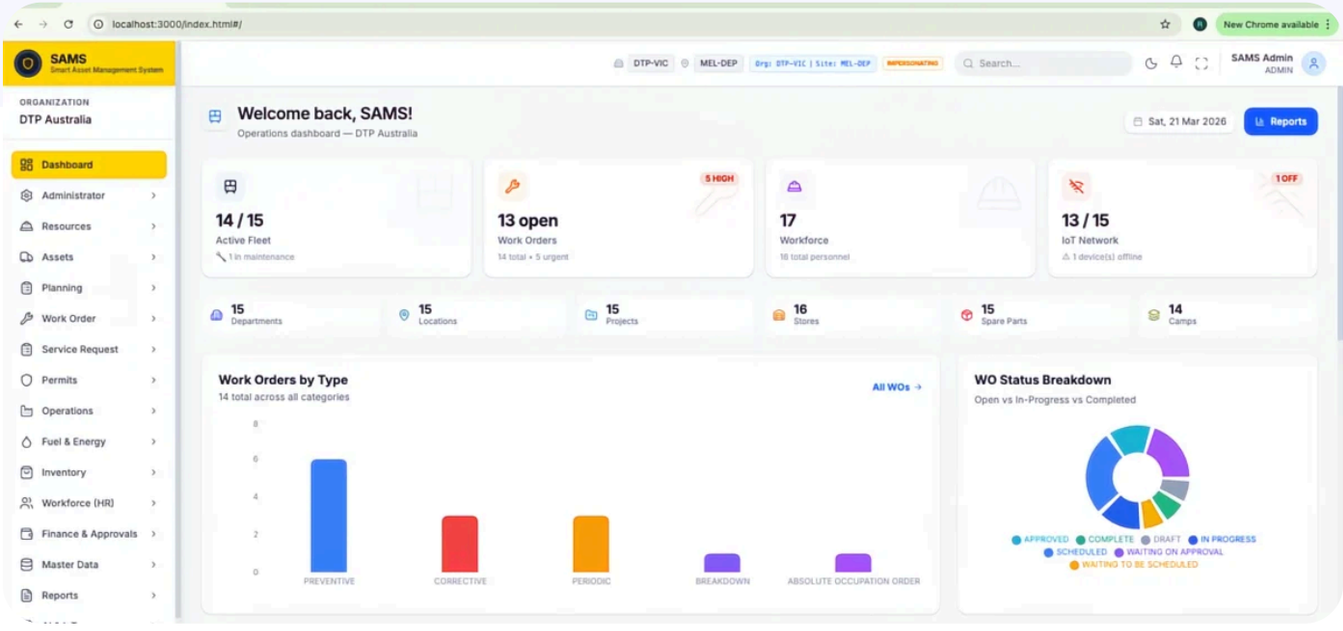
No industry depends on data quite like asset management. It exists in every sensor, work order, inspection, failure report, and parts requisition — constant and everywhere. For years, organisations have relied on dashboards and reports to turn this data into insights. Valuable, but often retrospective — following a cycle of report, react, and refine.

At Watt Technologies, we deliver Cognitive Asset Management to help organisations move beyond this reactive model. We specialise in modernising complex workflows across asset-intensive industries, including Mining, Transportation (Railways, Airports, Roads & Tunnels), and Energy & Utilities.

CAMS (Cognitive Asset Management System) is built to unlock the true value of data — at the moment it is created. With Artificial Intelligence (AI) embedded at its core, CAMS delivers real-time insights, reduces operational friction, and enables faster, smarter decisions.

The result is a fundamental shift — from after the fact to before the fact.

What is CAMS ?



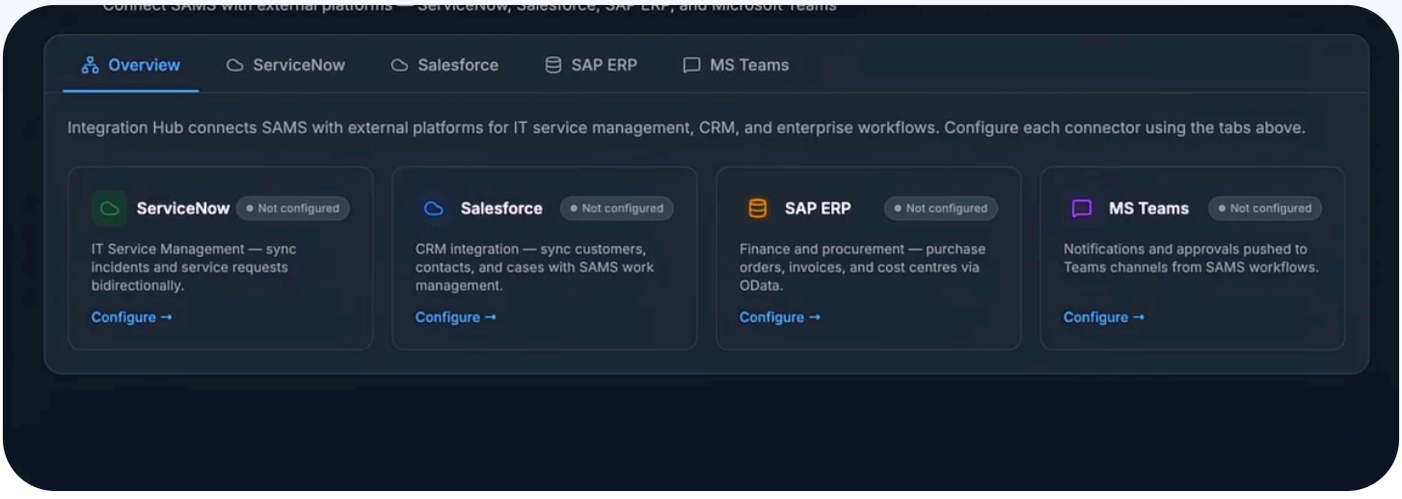
CAMS is at the heart of our ecosystem — a unifying intelligence layer that integrates seamlessly with Enterprise Asset Management systems (EAMs) such as Maximo and SAP, eliminating transactional delays and inefficiencies. Its suite of capabilities includes IoT integration, Artificial Intelligence (AI), and a mobile-first user interface, designed to empower teams wherever they are.

CAMS takes organisations beyond the traditional “react, report, refine” cycle. By ensuring high data integrity and delivering role-based dashboards, it transforms asset management from a cost centre into a sustainable competitive advantage. Its flexible architecture supports cloud, on-premise, or hybrid deployments across asset-intensive industries such as Mining, Rail, and Utilities.

Core Capabilities:

- Unified Operations Layer – integrates data and processes across systems for seamless operations.
- Field-Centric User Experience – mobile-first design for real-time field operations.
- Predictive & Condition-Based Maintenance – actionable insights to prevent failures before they occur.

Unified Operations Layer



1. Single Source of Asset Truth

Consolidate data from multiple systems into one master asset record. Provide every stakeholder with a consistent, accurate, and trusted view of each asset across its lifecycle.

2. Seamless System Integration

Connect effortlessly with platforms like IBM Maximo, SAP, ServiceNow, and IoT ecosystems. Our extensible architecture enables rapid onboarding of new systems—without complex re-engineering.

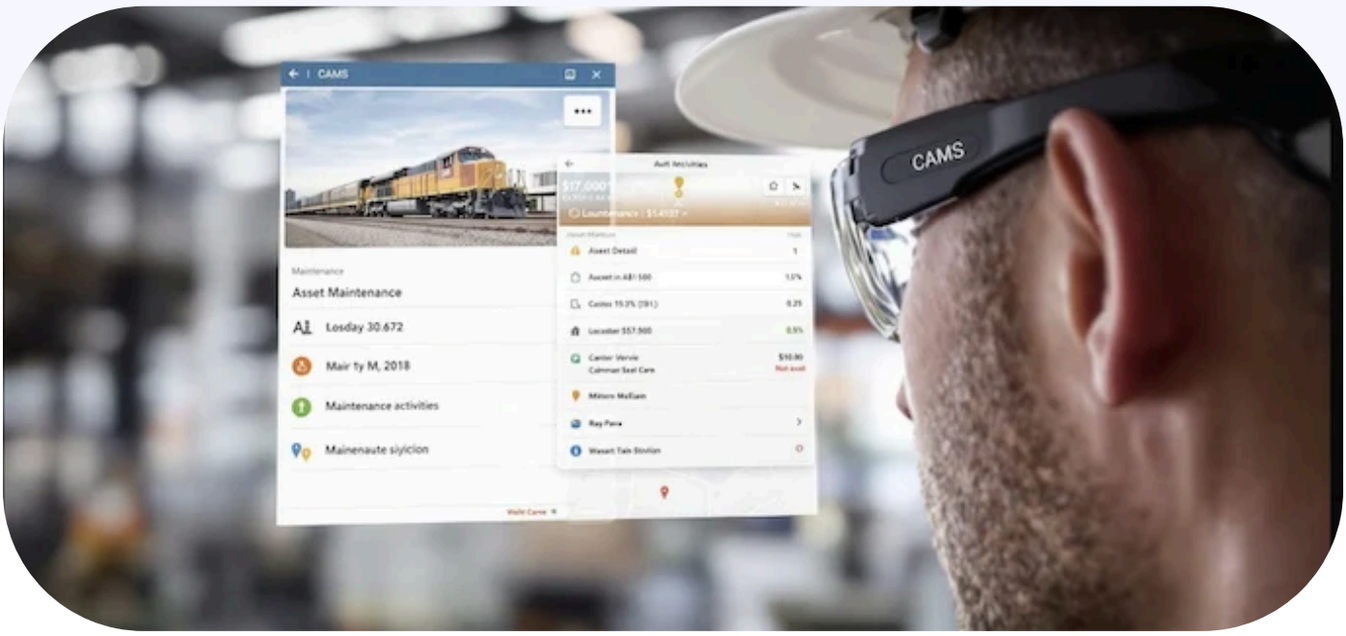
3. Real-Time Data Synchronisation

Eliminate silos, manual reconciliation, and batch delays. Keep all systems in sync with near real-time data updates, ensuring decisions are always based on the latest information.

4. Unified User Experience

Deliver a consistent, intuitive interface across all systems. Role-based access controls ensure the right users have secure, streamlined access to the data they need.

Field Centric - User Experience



1. Built for the Field

Purpose-built, mobile-first design for demanding environments. Large touchpoints and intuitive navigation ensure effortless use—even with gloves on and in challenging conditions.

2. Intelligence That Anticipates

Embedded AI delivers contextual insights, asset history, and guided troubleshooting in real time. Eliminate manual searches and access the right information exactly when you need it.

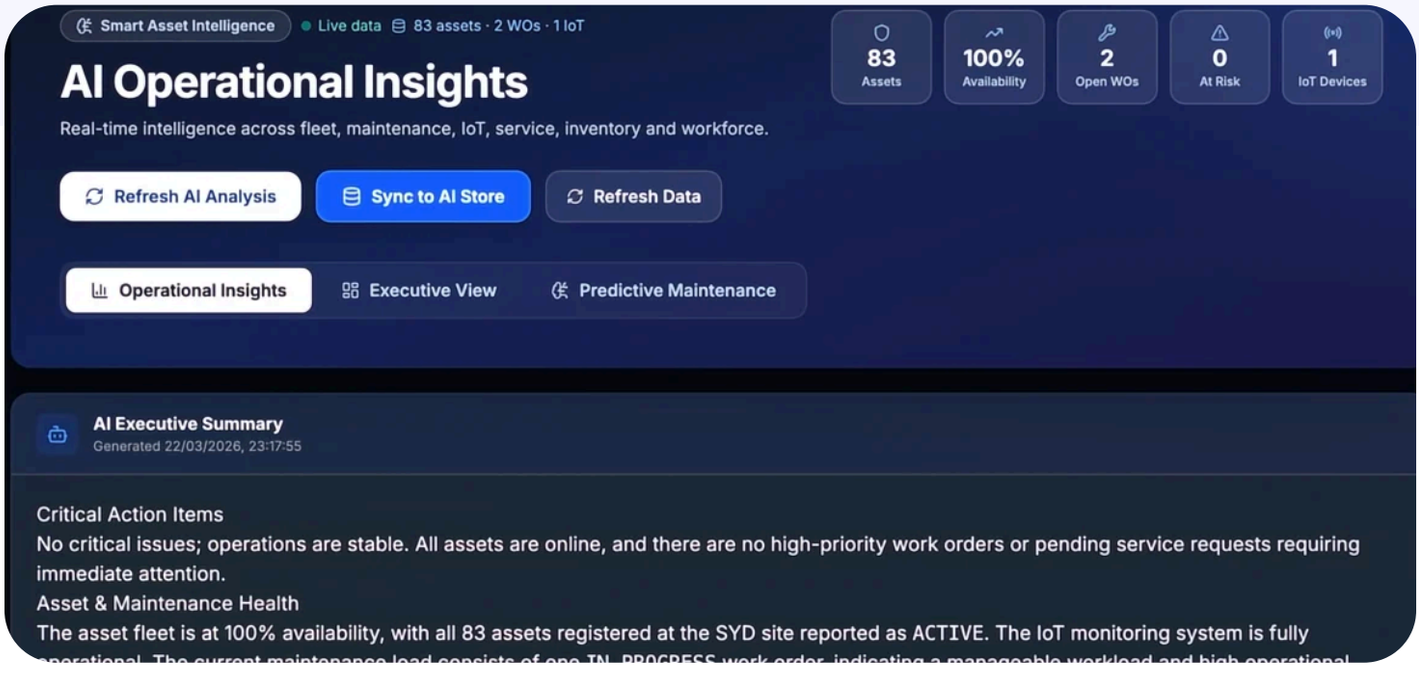
3. Effortless Documentation

Automate the administrative burden. AI-driven workflows capture inputs, generate updates, initiate parts requests, and schedule follow-ups—so technicians can stay focused on the task.

4. Reliable Anywhere, Anytime

Operate with confidence in any environment. Full offline capability ensures uninterrupted access to work orders and inspections, even in remote or no-connectivity zones.

Predictive & Condition-based Maintenance



1. Predictive Failure Modelling

Harness AI to analyse IoT telemetry, video feeds, and maintenance history. Anticipate potential failures before they occur—minimising unplanned downtime and extending asset life.

2. Automated Proactive Maintenance

Turn insights into action automatically. Predictive triggers generate work orders ahead of failures, enabling a seamless shift from reactive repairs to planned, data-driven maintenance.

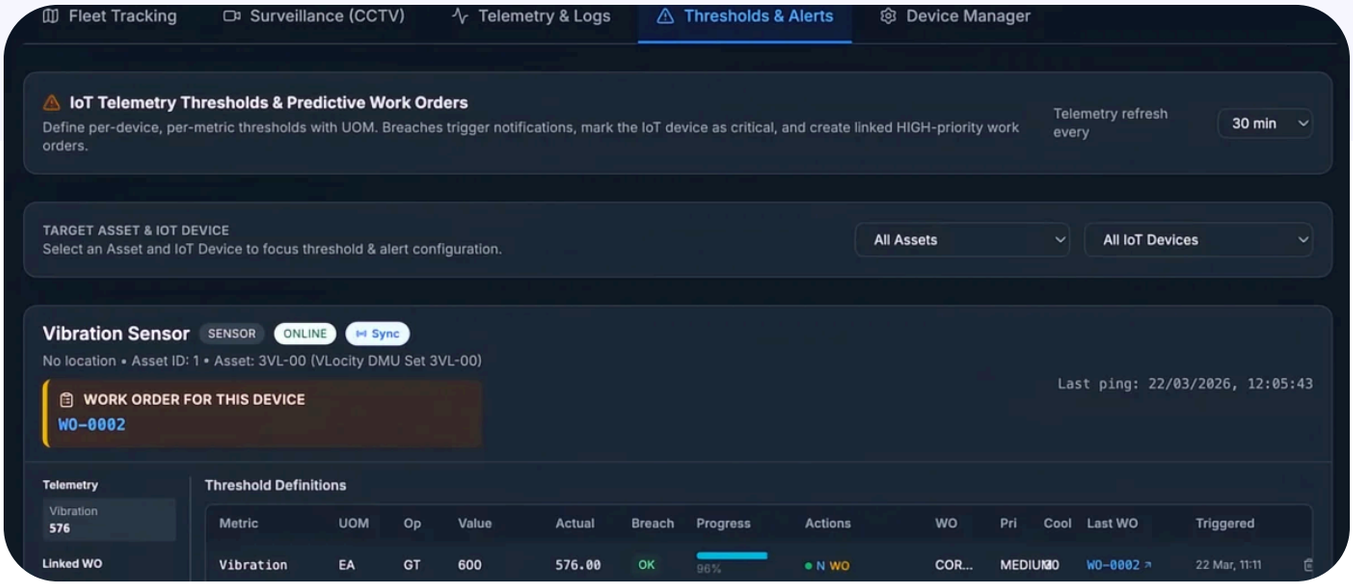
3. Intelligent Inventory Optimisation

Align spare parts availability with predicted maintenance needs. Move beyond static reorder levels to a dynamic, demand-driven inventory strategy that reduces costs and avoids shortages.

4. Self-Learning Visual AI

Use advanced visual AI to assess asset conditions from images and video captured in the field. With every completed job, the system continuously learns—enhancing accuracy and improving future predictions.

Real-Time Asset Intelligence



1. Continuous Health Monitoring

Leverage IoT-enabled telemetry to capture real-time data on temperature, vibration, and overall asset condition. Stay ahead of performance issues by continuously tracking critical operating thresholds.

2. End-to-End Fleet Visibility

Track the exact location, movement, and utilisation of your assets with integrated GPS. Manage your entire fleet through a single, unified dashboard—anytime, anywhere.

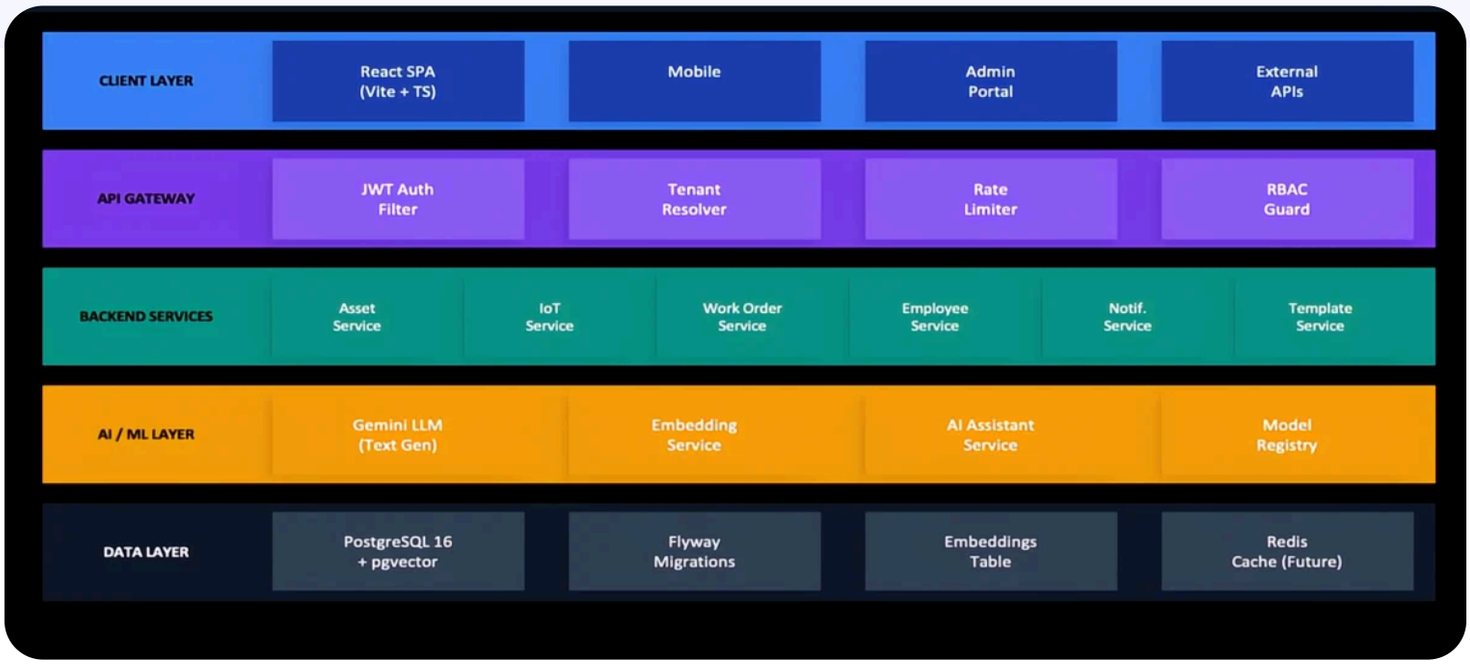
3. AI-Driven Performance Insights

Transform raw data into actionable intelligence. Advanced analytics provide deep insights into asset health, enabling maintenance teams to make faster, smarter decisions while reducing downtime.

4. Predictive Trend Intelligence

Combine historical data with live feeds to uncover patterns and trends. Differentiate anomalies from systemic issues and transition from reactive maintenance to a predictive strategy.

Architecture



The Cognitive Asset Management System (CAMS) is built on a modern, five-layer micro-services architecture. This design ensures that the platform is not only highly responsive but also capable of scaling horizontally as your organisational needs grow

1. Client Layer: A Unified Interface

We provide a seamless user experience across all touchpoints. Our React-based Single Page
a seamless user experience across all touchpoints. Our React-based Single Page Application.

2. API Gateway: Secure Access Management

Security is baked into our entry point. Every request is scrutinised by our API Gateway, which manages:

- JWT Auth Filtering
- RBAC Guard
- Rate Limiting

3. Backend Services: Micro-services Agility

The core business logic of CAMS is distributed across specialised micro-services. By decoupling services like IoT, Work Orders, and Asset Management, we ensure that a single component can be updated or scaled without impacting the rest of the system.

4. AI / ML Layer

The Intelligence Engine
CAMS is a "Cognitive" platform, powered by our integrated AI layer.

- Gemini LLM Integration:
- Embedding Service

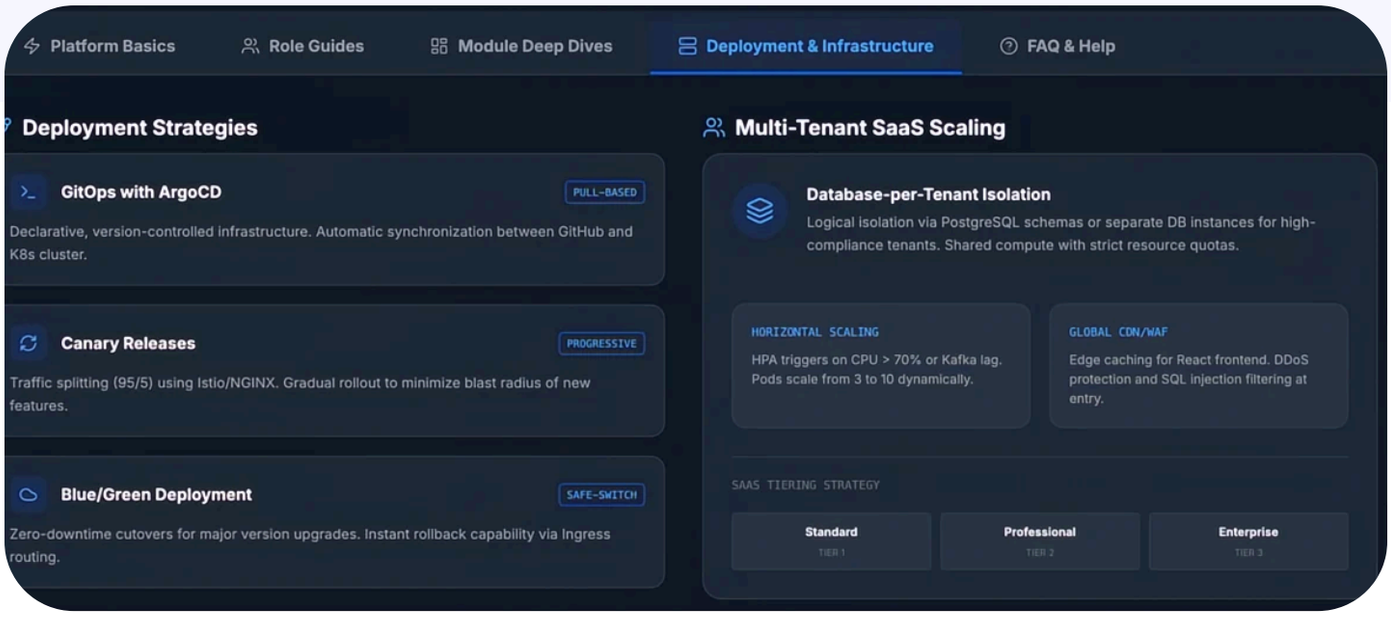
5. Data Layer: At the base of CAMS is a rock-solid data foundation:

- PostgreSQL 16 + pgvector
- Flyway Migrations
- Redis (Roadmap)

Key Technical Benefits for Stakeholders

- **Future-Proof:** The micro-services approach allows for rapid integration of new technologies.
- **High Performance:** Edge caching and optimised DB queries ensure P95 latency remains below 150ms.
- **Interoperable**: Dedicated External APIs allow CAMS to integrate effortlessly with your existing enterprise ecosystem.

Deployment Models



On-Premise

Maintain total control over your data and infrastructure. This deployment mode is ideal for organisations with strict regulatory requirements, air-gapped security needs, or internal data centres requiring physical hardware oversight.

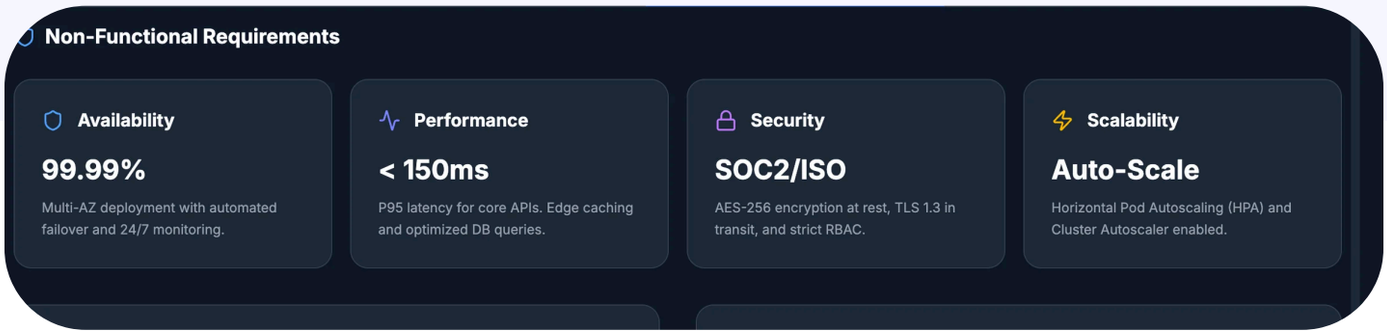
Cloud

Maximise agility with our fully managed SaaS offering. Benefit from automatic updates, global scalability, and reduced overhead, allowing your team to focus on core operations while we handle the infrastructure.

Hybrid Cloud

The best of both worlds. Keep sensitive data on-site for security while leveraging the cloud's computational power for AI processing, ensuring a flexible, high-performance environment tailored to your specific needs.

Security & Compliance



1. Security Architecture & Data Protection

CAMS is built on a multi-layered defence strategy, ensuring data integrity and confidentiality for mission-critical Australian operations.

- **Encryption:** All data is secured using AES-256 at rest and TLS 1.3 in transit.
- **Access Control:** Strict Role-Based Access Control (RBAC) ensures the principle of least privilege is enforced across all cloud environments.
- **Availability:** 99.99% Uptime SLA via multi-AZ deployment with automated failover and 24/7 monitoring.
- **Observability:** Real-time health tracking via Prometheus/Grafana with 15s scrape intervals and a centralised Loki/ELK audit stack.

2. Australian Compliance & Data Sovereignty

We recognise that for Australian organisations, data sovereignty and adherence to local frameworks are paramount.

- **Essential Eight Alignment:** Controls are mapped against the ACSC maturity model, including mandatory MFA and rapid patching.
- **IRAP Readiness:** Infrastructure is hosted on IRAP-assessed Australian cloud regions (Sydney/Melbourne), ensuring sensitive data remains on Australian shores.
- **Global Standards:** Fully certified ISO 27001 and SOC 2 Type II; aligned with GDPR and HIPAA Ready protocols.

3. Resilience & DisasterRecovery

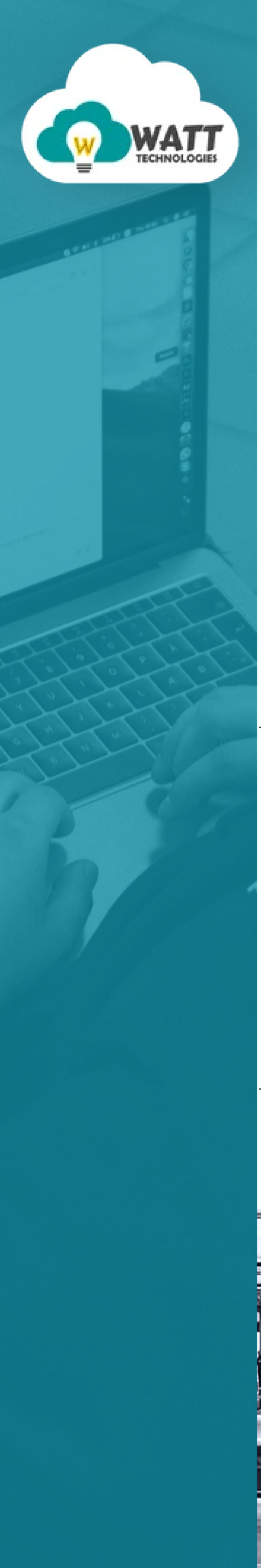
METRIC	TARGET	IMPLEMENTATION
RPO (Data Loss)	< 5 Minutes	Continuous WAL archiving to secure S3/GCS storage.
RTO (Downtime)	< 30 Minutes	Automated database restoration and failover scripts.
Backup Frequency	Daily/Hourly	Daily full + Hourly incremental with 30-day retention.
DR Strategy	Cross-Region	Pilot Light strategy in a secondary Australian region.

4. Essential Eight Statement of Applicability

- **Application Control:** Container-level whitelisting and monthly penetration testing.
- **Patching:** Weekly SAST/DAST scans; critical security patches deployed within 48 hours.
- **Hardening:** Neutralisation of Office Macros and use of modern HSTS/CSP headers.
- **MFA:** Mandatory cryptographically secure MFA for all administrative and developer access.
- **Privilege Management:** MFA-protected admin consoles with comprehensive audit logging via ELK.

5. Continuous Assurance & Governance

- **Vulnerability Management:** Weekly automated security scans and monthly independent penetration tests.
- **Privacy Act Compliance**: Incident response workflows fully aligned with the Australian Notifiable Data Breaches (NDB) scheme.



WATT Technologies Pty Ltd.

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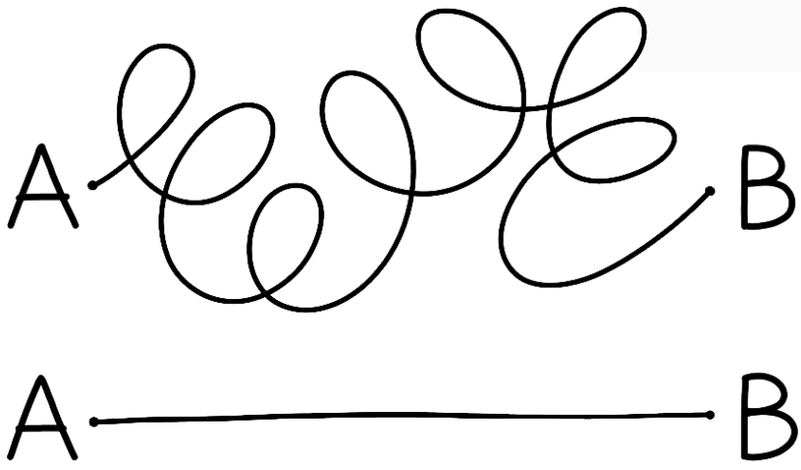

"Simplicity is ultimate sophistication"

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