CASE STUDY

INFRASTRUCTURE

When Every Number Has a Dollar Sign: Automating Abatement Reporting for a Major Australian Metro Operation

ABOUT THE CUSTOMER

Our customer is a leading infrastructure services organisation holding the maintenance contract for a major new underground metro rail network in Australia. Day to day, the operation keeps a vast fleet of station infrastructure running across more than 10+ sites, managing approximately 60,000+ maintained assets across roughly 200 asset types, including lifts, escalators, drainage and sewer pumps, HVAC and ventilation systems, tunnel fans, and high and low voltage electrical distribution. Asset telemetry alone generates approximately 50 million plus building management system readings per day.

COSOL's Toustone Intelligence team has been working with this customer for several years across multiple data and intelligence projects. Over time, a reliable partnership built on consistent delivery and trusted outcomes laid the foundation for this multi-year, high-impact engagement.

10+ sites

60k+ assets

50+ mil records

THE CHALLENGE

The maintenance contract governing this operation is abatement-based, meaning financial penalties are deducted directly from payments whenever service and asset performance KPIs are not met.

With 60,400 assets coming online for the first time across a brand new network and no legacy reporting system to build from, the organisation needed to calculate those penalties automatically, accurately, and with a complete audit trail from day one, drawing on work orders, sensor telemetry, and helpdesk complaints across 212 lifts, 183 escalators, and thousands of other critical assets.

The stakes were immediate and the margin for error was zero.

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THE SOLUTION

COSOL was engaged before a single line of code was written, working through a conceptual phase to map every reporting capability the operation would need. That early ideation work, combining deep asset management expertise with long-standing trust, gave the customer the confidence to commit to a full build.

The result is an Asset Management Intelligence Platform that acts as the operation's financial nervous system. Every day, tens of millions of sensor signals flow in from across the network while work orders are logged and complaints recorded. The platform pulls all of it together automatically, applies the contract's penalty calculations in one consistent place, and produces a dashboard where every reported figure traces directly to the asset event or work order behind it. The answer is already there before anyone asks the question, and it is already defensible.

That defensibility has real commercial value. In one case, a lift was flagged as offline when it was confirmed operating correctly. COSOL traced the fault to a mis-mapped sensor alarm, corrected it, and protected the customer from an abatement deduction they did not owe.

Now in its third phase, the platform continues to expand with automated data integration and a growing roadmap of solutions. What began as an ideation session has matured into a long-term, expanding partnership.

KEY BUSINESS OUTCOMES

- Automated abatement and reliability calculations delivered from day one of operations
- More than 60,000 assets and 50 million daily BMS readings managed within a single platform
- Complete audit trail from reported figure to source asset event
- Financial reporting errors reduced at source through diagnostic data integrity work
- Multi-phase engagement now in Phase 3 with AI capability in implementation
- Companion solution deployed on shared infrastructure, extending platform value

COSOL: When Reliability Matters

COSOL is built on one belief: in asset-intensive industries, reliability is everything. We're a trusted, data-led asset management partner - known for our deep expertise, dependable delivery, and ability to keep critical assets performing at their best.

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