MINING SOLUTIONS

Aptella
AUTOMATION +
POSITIONING TECH

Why Aptella

We’re there when you need us

Aptella delivers intelligent positioning and automation solutions that help industries work safer, smarter, and more efficiently. With over 400 employees and more than 15 years of experience across Australia, New Zealand, and Southeast Asia, we partner with customers to solve complex challenges in dynamic environments. As a majority-owned subsidiary of Mitsui & Co., Aptella is backed by global expertise and a strong international network.

Our long-standing partnerships with global leaders like Carlson, TORSA, Blindsight, Rajant, and Quantum Systems ensure access to proven technologies tailored to real-world needs. We don’t just supply systems—we make sure they perform. Aptella’s services span the full lifecycle of your technology, from installation and training to remote support and preventive maintenance, helping operations stay productive, safe, and efficient.

Mining Solutions Backed by Experience

Aptella’s Mining Team brings specialised expertise to surface operations across Australia, New Zealand, and Southeast Asia. With solution-ready technologies including machine guidance, fleet management, collision avoidance, and monitoring systems, we help mining operations improve safety, productivity, and decision-making. Our team is embedded in key mining regions, providing responsive local support and change management to ensure every system delivers from day one.

Focused on long-term performance, we work side-by-side with mining teams to optimise technology across its full lifecycle. From initial deployment to ongoing service, our goal is to help customers maximise return on investment and operational efficiency. Backed by Aptella’s broader capabilities and global partnerships, our mining specialists deliver innovation, reliability, and results tailored to the unique demands of the mining industry.

Watch the company overview

Aptella Service Level Agreements

Committed to Performance, Reliability, and Results

Remote Support

Aptella's Remote Technical Support Offices delivers peace of mind and immediate assistance. Our remote team can diagnose issues, monitor system performance, and guide on-site personnel through troubleshooting in real time minimising disruption and keeping your operations running smoothly.

Installation and Commissioning

Our expert technicians manage the complete installation and commissioning process for all operational technology systems. From planning through to handover, we ensure every component is configured, tested, and performing to specification before it goes live on site.

Training

We provide hands-on training for operators, maintenance personnel, and management teams ensuring your people have the knowledge and confidence to get the most out of your technology investment.

Preventive Site Support

Regular site visits and inspections help identify potential issues before they impact operations. Our preventive maintenance approach keeps systems reliable, reducing downtime and maintaining peak fleet performance.

Operational Technology Auditing

Our auditing services benchmark your systems against best practices and operational objectives. We identify gaps, opportunities, and improvements to ensure your technology continues to deliver measurable value over time.

Data Customisation and Dashboard Configuration

Every site is different and so is the data that drives it. Aptella tailors reporting dashboards and analytics tools to your operational needs, giving your team clear, actionable insights to support better decisions, faster.

Fleet Management System

This intelligent operational technology delivers:

- Real-time production insight,
- Automated fleet coordination,
- Data-driven decision-making

Improve output, reduce downtime, and maximise asset performance. With open architecture and flexible communication options, including GPS, Wi-Fi, and satellite, the system integrates seamlessly with existing site infrastructure and other platforms.

Aptella's team of operational experts work closely with customers to understand their goals and challenges, providing tailored advice, implementation support, and ongoing service to ensure long-term reliability and results.

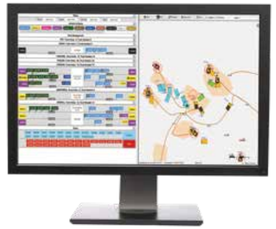
From streamlining vehicle dispatch to enabling predictive maintenance and performance tracking, Aptella's FMS empowers crews to make faster, smarter decisions that drive productivity and operational success.

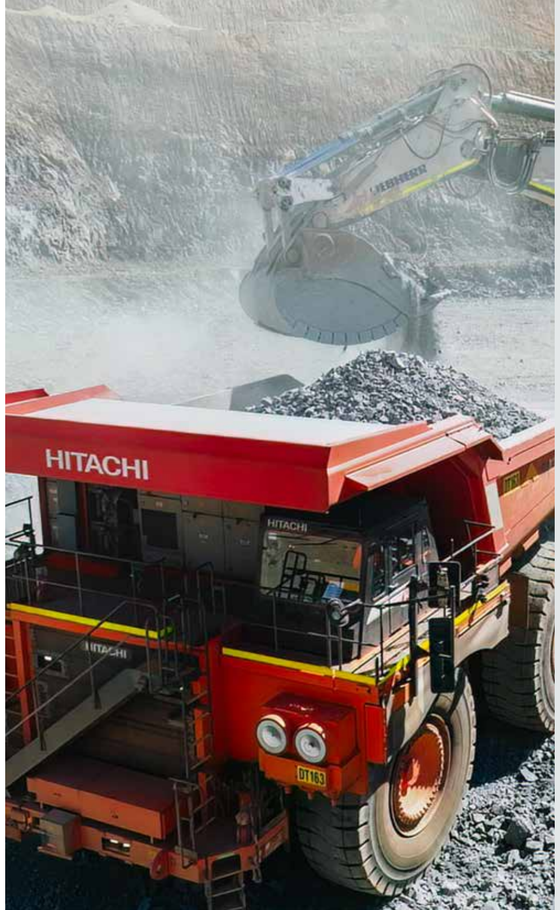
Aptella's Fleet Management System (FMS), including the MineLink platform, is designed to help mining operations move more tonnes with greater efficiency, visibility, and control across every shift.

Fleet Management System

Key Features & Benefits

- Real-time tracking of material movement and production data
- Automated dispatching to reduce idle time and improve load-haul cycles
- Electronic pre-starts and predictive maintenance for asset health monitoring
- Integration with other platforms via open architecture
- Supports GPS, Wi-Fi, and satellite communication protocols
- Add-ons available: fatigue monitoring, in-cab cameras, engine and tire diagnostics
- Safety enhancements including proximity alerts and fatigue detection
- Local support and operational expertise from Aptella's team
- Boost productivity by up to 16% and reduce operational costs





Better Productivity

- Cycle time tracking
- Status tracking
- Material recording
- Automatic dispatching
- Automatic payload detection
- Truck idle alert
- Traffic information screen
- Speed monitoring

Operator Efficiency

- Shift management
- Operator login tracking
- Operator competencies
- Operator performance report
- Operator FRID

Increased Fuel Efficiency

- Fuel recording
- Activity monitoring
- Automatic dispatching
- Engine hour recording
- Engine state detection
- Fuel consumption

Safety Benefits

- Emergency button
- Messaging
- Overspeed alert
- Fatigue camera
- In-cab camera
- Proximity awareness

Higher Machine Availability

- Prestart check (P2H)
- Engine hour recording
- Down status tracking
- Tyre pressure sensor integration
- Overload detection

High Precision Machine Guidance

Our range of high precision machine guidance solutions enable your operators to work efficiently to the mine design, with live information delivered straight to the cab. With flexible solutions that cater to all machinery on site, machine guidance delivers enhanced productivity to every mine.

High Precision Excavator

Carlson Grade for Excavators and Shovels is a GPS-guided machine control solution tailored for mining tasks such as highwall shaping, overburden removal, and pad construction. Operators use ruggedised MC8 or MC10 tablets to dig to design with real-time feedback and surface updates. Build to design for better highwall and proper bench elevation

Key Features

- Real-time cut/fill colour mapping across the entire project
- Multiple view options: profile, section, and plan
- Direct import from open CAD and Carlson platforms
- Supports DWG, DXF, TN3, GC3, LN3, TIN, GRD file types
- Peer-to-peer communication and data sharing between machines
- Remote machine system view and troubleshooting from any location
- Compatible with bucket and clam shovel configurations
- Offline data storage for post-analysis in remote areas
- Operates as a stand-alone system or within a fleet

Safety Benefits

- Dig to design with precision, reducing unnecessary excavation
- Minimise surveyor exposure in active zones
- Improve operator awareness with proximity alerts and watch zones
- Enable remote monitoring and support from safe locations

High Precision Dozer

Carlson Grade for Dozers is a GPS-guided machine control solution built for high-efficiency production dozing in mining environments. It supports accurate surface shaping, stockpile management, and bench construction, helping operators work to design with confidence.

Key Features

- Real-time surface updates with full cut/fill colour mapping
- Multiple view options: profile, section, and plan
- Direct import from open CAD and Carlson platforms
- Supports DWG, DXF, TN3, GC3, LN3, TIN, GRD file types
- Machine utilisation tracking and delay analysis
- Compatible with NTRIP and VRS GNSS correction services
- Handles large surface files for mine-scale operations
- Peer-to-peer communication and data sharing between machines
- Remote troubleshooting and system view from any location
- Operates as a stand-alone system or within a fleet

Safety Benefits

- Improve dozing accuracy to reduce rework and exposure
- Enhance awareness with 2D/3D watch zones and proximity alerts
- Reduce surveyor time in active dozing areas
- Enable remote support and monitoring from safe locations

High Precision Supervisor

Carlson Grade Supervisor is a premium 3D/GPS site management and inspection tool that can be used to support grading, mining, and landfill applications. It also supports most GNSS/GPS receivers, boasting the world's largest GNSS driver library.

Carlson Grade Supervisor is simple, powerful, affordable and the most open platform, flexible site management software in the market today.

From initial site measurements to daily progress to as-built checks, Grade Supervisor is the right tool for your job.

Key Features

- Easy-to-learn, flexible user interface: can be as simple or as advanced as the user needs
- Support for most GPS / GNSS receivers
- 3D volumes-anytime with PDF export reporting
- In-Cab, on-demand training movies
- Scalable upgrade path to machines; same user interface
- NTRIP compatible with most networks
- Heartbeat Connectivity between machines & office
- Compatibility with Carlson's desktop design software: Survey/Civil, Takeoff, Mining, Construction
- In-cab, on-demand training videos

High Precision Drill

Carlson Grade for Drills is a GPS-guided machine guidance solution designed to improve accuracy and efficiency in mining drill operations. It enables operators to navigate to blast hole locations with precision and drill to design depth or elevation, reducing survey time and improving safety across the site.

Key Features

- Real-time cut/fill and on-grade feedback across multiple design surfaces
- Drill pattern layout directly in the field
- Navigate to hole locations with improved accuracy
- Compatible with leading mining drill platforms (e.g. Atlas Copco, Sandvik, BBURG)
- Multiple tag holes for enhanced data capture and blast planning
- Direct import from open CAD and Carlson platforms
- Supports DWG, DXF, TN3, GC3, LN3, TIN, GRD file types
- Peer-to-peer communication and data sharing between machines
- Remote machine system view and troubleshooting from any location

Safety Benefits

- Improve blast accuracy and reduce rework
- Minimise surveyor exposure in active drilling zones
- Enhance operator awareness with proximity alerts and watch zones
- Enable remote monitoring and support from safe locations

Carlson Command

Centralised Oversight for Mining Operations

Carlson Command is a comprehensive monitoring and data management platform designed to support mining operations. It enables real-time data exchange between machines and the office, giving supervisors full visibility and control across sites. With support for fleet-wide oversight, Carlson Command helps improve safety, productivity, and operational efficiency.

Key Capabilities

- Real-time data transmission between machines and the office
- Remote monitoring of individual or multiple machines via plan, profile, and section views
- Live and historical 3D machine playback for operational review
- In-cab monitoring and remote operator training
- Customisable task creation, delay codes, and downtime tracking
- Peer-to-peer communication and data sharing between machines
- Offline data storage for post-shift analysis in areas with limited connectivity
- Full cut/fill colour mapping with real-time surface updates

Seamless Integration with Carlson Grade Systems

Carlson Command integrates directly with Carlson Grade machine control solutions, providing centralised oversight and enhanced functionality across key mining equipment:

Carlson Grade for Excavators and Shovels

- Supports digging to design for highwall shaping, overburden removal, and pad construction
- Real-time cut/fill feedback and surface updates
- Enhances safety and reduces survey time in active zones
- Ideal for both bucket and clam shovel configurations

Carlson Grade for Dozers

- Optimised for production dozing, stockpile management, and bench shaping
- Enables machine utilisation tracking and remote troubleshooting
- Improves operator awareness with 2D/3D watch zones and proximity warnings
- Supports large surface file management for mine-scale operations

Carlson Grade for Drills

- Navigate to blast hole locations and drill with precision
- Supports drill pattern layout, task tracking, and productivity analysis
- Enhances safety with proximity alerts and remote monitoring
- Compatible with leading drill platforms used in mining (e.g. Atlas Copco, Sandvik, BBURG)

Safety Solutions

Our Collision Avoidance System and Pedestrian Detection System Solutions give operators the real-time awareness they need to stay safe, with alerts and visual cues delivered directly to the cab. These systems help reduce blind spots, prevent incidents, and support compliance across all types of machinery, from excavators and dozers to drill rigs and supervisor vehicles.

Collision Avoidance System

Level 9 Safety Solution

Enhance your site safety and reduce the inherent risks associated with heavy machinery operating in dynamic environments with TORSA.

Designed to perform at different control levels to suit the requirements of your operations, TORSA is certified up to full level 9 intervention control.

To protect your workforce, TORSA's algorithms provide advanced risk prediction, alerting operators to other machines, obstacles, and assets, via a user-friendly in-cab display.

Integrated technologies:

- LIDAR 3D
- High precision GPS
- Time of flight
- Inclinometer / altitude sensor
- Radio frequency (for vehicle to vehicle communication)
- Network communications

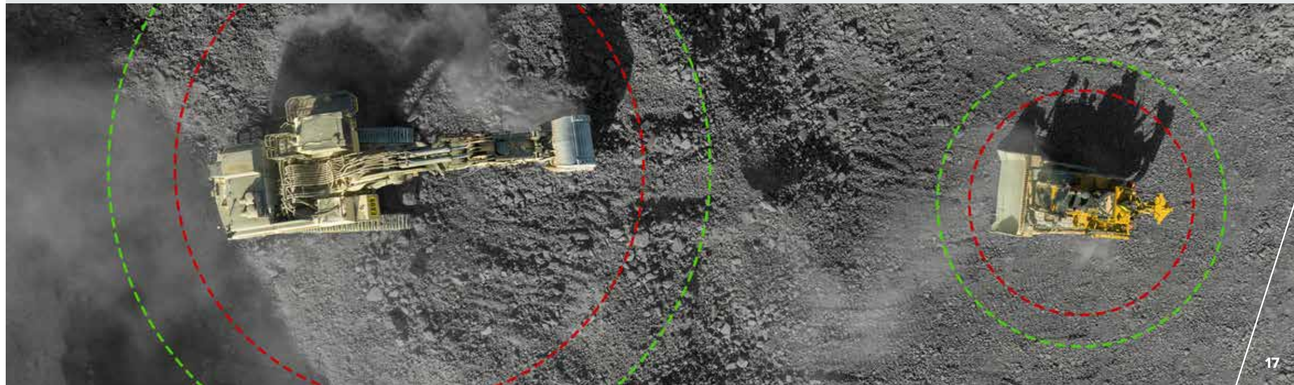
CAS For Shovels, Loaders & Draglines

TORSA has a High Precision Collision Avoidance System for shovels based on LIDAR 3D technology. This system analyses the interaction between vehicles and the shovel itself with +/- 10 millimetre precision, to ensure safety during loading operations.The objective of the system is to inform the operator of the machinery about the type, position and distance of the different vehicles and obstacles around the shovel.

Customised Reports

Advanced reporting functionality ensures key stakeholders receive relevant information at the right time.

From detailed daily reports for operational teams, to monthly overviews for management or clients, TORSA's customisable reporting supports your unique business requirements and internal KPI measures.



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Blindsight

Blindsight is a complete safety solution for the most dynamic industrial environments. Built on industry-leading AI vision, Blindsight detects, alerts and informs your team on high-risk interactions that matter most. From operator alerts and data for your daily toolbox reporting to worksite safety benchmarking, Blindsight allows your team to course-correct behaviours swiftly.

- Fast install to all heavy machinery and fixed infrastructure
- Customise settings and zones to each machine, for example only alert in reverse
- Intelligent detection of people, other plant, light vehicles and traffic cones
- Video and map-based reporting with heat maps – ideal for proactive safety management, safety training and near miss reporting

Site Connectivity Solutions

Rajant Kinetic Mesh Networks

Rajant's Kinetic Mesh® is the only wireless network that autonomously adapts to operational and environmental changes in open-pit and underground mines.

In over 230 mines worldwide, Kinetic Mesh networks dynamically evolve to keep applications, equipment, and mine production running on the surface and underground, with no fibre or mobile phone towers needed.

Rajant Kinetic Mesh® provides a mobile mining network that enables mining operators to meet continuous production and industry safety mandates with unwavering network availability. The unique nature of our Kinetic Mesh architecture allows open-pit and underground mines to easily introduce, relocate, or remove network infrastructure – without causing any network downtime – to deliver highly adaptable coverage and continuous connectivity. It's the only network for mining autonomy that runs without fail.

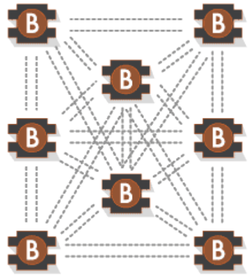
Kinetic Mesh® networks work autonomously to provide optimal connectivity across an organisation's dynamic environment of fixed and mobile assets, delivering robust applications in real-time.

- Total Mobility
- Proven Resiliency
- Maximum Bandwidth Utilisation
- Rapid Scalability
- Extreme Ruggedness and Security

Backed by Local Support

Aptella provides local support and on-site configuration of your Rajant Kinetic Mesh networks. Our experienced team has deployed numerous Rajant networks successfully for our mining customers.

Backed by Madison Technologies, Australia's B2B wireless network specialists, no other company can offer the expertise and responsiveness of our team to support your mesh network needs.



Aptella Connect+

Rapid Site Connectivity, Anywhere

Aptella's modular, solar-powered trailer delivers instant, reliable site connectivity with plug-and-play flexibility. Designed for remote mining operations and built to withstand harsh environments, the mobile base station is a versatile solution that can meet the evolving needs of your mining operations.

Depending on your site requirements, the mobile base station can be configured with:

- Solar power
- Wi-Fi,
- Starlink
- Cameras
- GNSS base-station

Quickly deploy, configure, and connect your site without the need for fixed infrastructure. Implementing these bolt-on solutions can significantly enhance the operational capabilities, safety, and compliance of a mining site.

Carlson

GNSS Vasco Base Station

Vasco-B

The VASCO-B GNSS base station is designed for office or harsh environment installation. A flexible and easy to setup base station for all your GNSS applications, the VASCO-B can be configured as your base for a localized site or as part of a base network configuration.

- Broadcast RTK over cellular, UHF or Network
- Remote web interface for easy setup and troubleshooting
- Track all satellite constellations

Survey-Grade Drone Solutions

Robust, high performance, and mine-tested

Aptella delivers industry-leading aerial reality capture solutions, supported by expert guidance and tailored training to help mining and surveying teams get the very best from their drone technology. Offering complete packages that combine hardware, photogrammetry software, and powerful visualisation tools, Aptella ensures robust, field-proven solutions designed for high-accuracy mapping, inspection, and stockpile analysis.

Our CASA-certified training, local servicing, and seamless system integration give professionals the confidence to operate safely, efficiently, and with maximum productivity.

Aptella's range of drones is built for performance and reliability.

Long-range Aerial Mapping

For long-endurance missions, the Quantum Systems Trinity PRO represents the next generation of VTOL platforms, capable of up to 90 minutes of flight time, covering extensive areas with consistent, high-precision data collection.

Aerial Inspections and Inaccessible Areas

For more compact operations, Aptella offers multirotor platforms such as the DJI Matrice 4E, featuring a mechanical shutter for efficient orthophoto and oblique mapping. This makes it the ideal solution not only for detailed mapping but also for 3D inspection and structural analysis.

Both platforms integrate smoothly with industry-standard software such as Agisoft, Pix4D, Virtual Surveyor, and most major cloud-based reconnaissance platforms.

With Aptella's boots-on-the-ground service network and flexible, tailored solutions, we empower mining and geospatial professionals to stay ahead in a rapidly evolving landscape.

Senceive

Wireless Deformation Monitoring

Accurate, High Resolution, Stable And Repeatable

- Only use high precision, stable sensors
- Easy to use web based visualisation
- Multi-level text and email alerts

Innovation And Intelligence

- Innovate and collaborate closely with / for clients
- Integrated and triggered imaging and wireless solutions
- Intelligent solutions support decision making

Our systems are remotely configurable and customisable. They facilitate predictive remote asset knowledge and understanding to improve predictability ahead of failure, assets can be repaired, replaced or maintained ahead of catastrophic failures.

Technology is just the beginning.

At Aptella, we take the time to understand your mine site, your goals, and your challenges, then match you with the right solutions. Backed by deep industry expertise, our team is here to help you get the most from your tech investment.

Let's start the conversation.

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