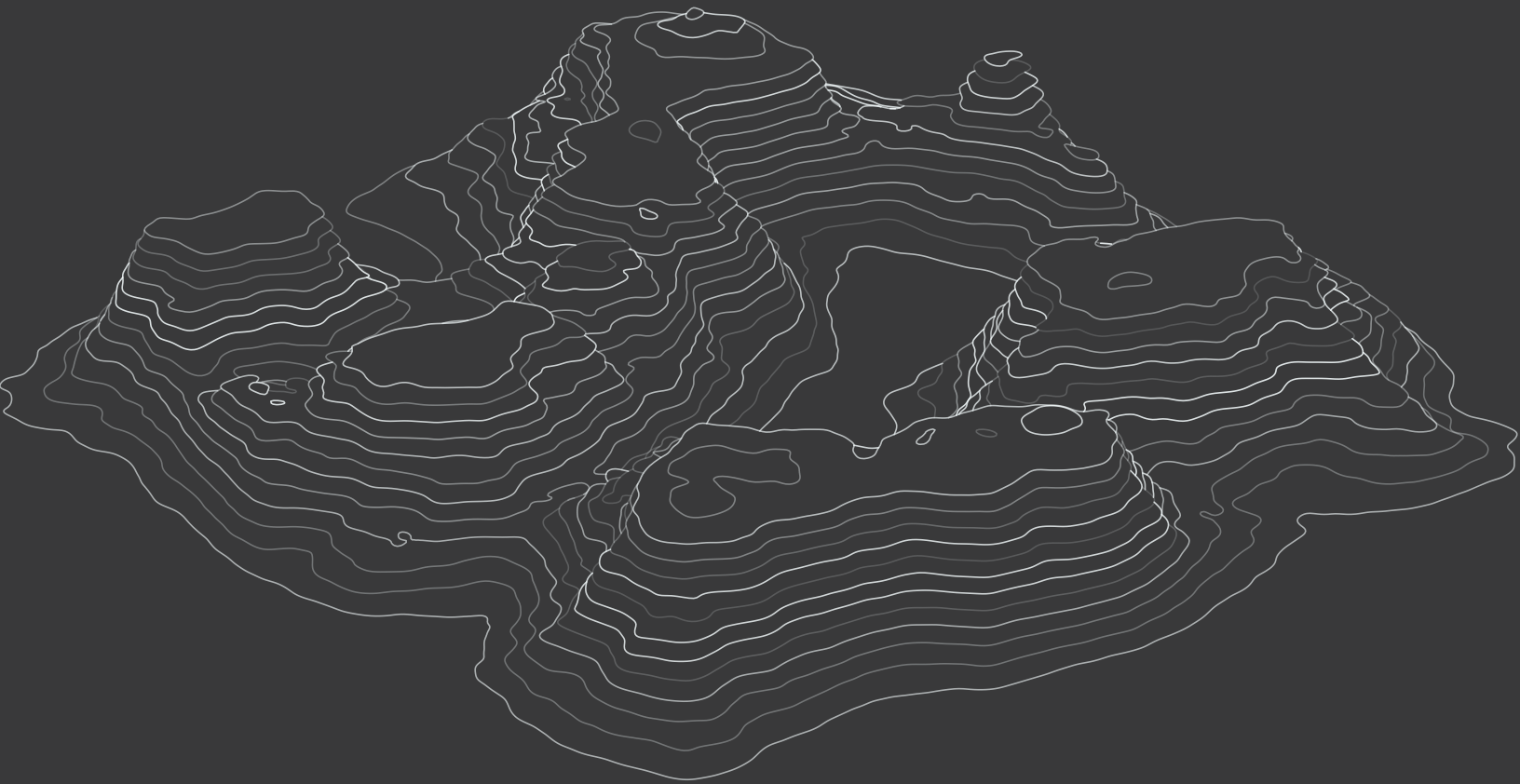# MINING

TORUS

torus-technology.com

CLOUD-NATIVE ACCESS CONTROL FOR KEYS

KEEPING TRACK OF THE MINING KEY MAZE

In the mining industry, every key unlocks critical access. But with so many keys in so many places, it's all too easy for them to go missing.

Uncontrolled access to keys can result in severe consequences, including safety hazards, theft, operational disruption, environmental incidents, non-compliance and legal liabilities. Plus reputational damage and loss of trust.

- Grandmaster / master keys
- Control rooms and monitoring cameras
- Heavy machinery and equipment
- Electrical substations
- Security
- Telecommunications and data hubs
- Vehicle and fleet access
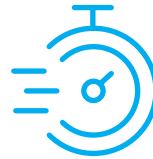- Emergency access and overrides

THE PROBLEM WITH KEYS

A missing key is more than just an inconvenience. It's a risk. Because in mining, if the right key is lost or unavailable, the consequences can be severe.

Escalating replacement costs

Regularly replacing missing keys and locks becomes very expensive, very quickly.

Wasted time and resources

Managing keys takes away from other important tasks.

Health and safety hazards

When keys go missing or end up in the wrong hands, it puts safety on the line.

High security risks

Physical vulnerabilities can expose sites to intrusions, potentially disrupting operations and leading to daily revenue losses.

Operational inefficiencies

Manual key handling and traveling between sites - just to collect keys - increases staff downtime and reduces productivity.

Non-compliance

Problematic key management goes against the industry's strict regulations concerning security and access.

WHAT IS TORUS?

Torus is a cloud-native access control solution for keys. It's easy to use and scale across multiple sites - allowing you to manage your organization's keys, cards and tags with ease.

Since 2001, Torus has revolutionized key management in the mining sector.

Harnessing the power and security of cloud-native technology, Torus will elevate the efficiency, security and safety of your workplace.

Torus is proven to mitigate security risks, enhance accountability, ensure authorized access and deliver rapid return on investment.

So, stop wasting time on manual key management. With Torus, you can have complete key control at your fingertips.

COMPLETE CONTROL AT YOUR FINGERTIPS

Control every key across your mines and ensure only authorized staff access critical infrastructure. You'll also benefit from a secure, scalable system designed to meet the demands of the industry.

Easy to install

With POE, DHCP and no local server requirements, Torus can be fully installed within an hour.

Cloud native

Seamlessly connect key cabinets without any IT hassle and access the software from anywhere.

Certified security

Gain peace of mind with a team of over 3500 Microsoft cybersecurity experts working to safeguard your data.

Remote key control

Make fast, informed decisions with insightful dashboards and reports accessible from anywhere, anytime.

Unlimited scalability

Use one account for unlimited keys, cabinets and sites– perfect for organizations with multiple locations.

SMS and email alerts

Resolve security issues faster and keep the right people informed with real-time notifications.

Return on investment

Eliminate labor costs, contractor fees and the price of changing locks.

Solution for the future

Torus keeps evolving with over-the-air updates – making it a smart, long-term investment.

DELIVERING SAFETY, SECURITY AND OPERATIONAL EFFICIENCY TO YOUR SITE

SAFETY

Exception reporting

Torus reports on overdue keys, changes to access rights, unauthorized access attempts and deleted users

Full audit trails

We audit every key event or action that takes place in your organization so users are always accountable

Electrical safety

Torus has achieved the highest levels of electrical and radio frequency safety certifications

SECURITY

Multi-custody keys

We ensure dual or multi-authentication to access critical keys and assets.

Access schedules

Torus grants or restricts access to keys based on day and/or time restrictions.

Real-time alerts

Torus sends you real-time SMS and email alerts on key transactions.

EFFICIENCY

Automated access

Torus ensures keys are available 24/7 to authorized users - no need for security personnel to manage keys manually.

Key return assurance

Torus ensures that keys are always returned and never leave the site.

Seamless integration

Torus integrates with existing access control and other third-party systems.

TORUS MAKES EVERYONE'S LIVES EASIER

OPERATORS

Torus ensures field operators have secure, 24/7 access to critical infrastructure without delays.

This means technicians can focus on maintenance and repairs without worrying about lost or misplaced keys.

MANAGERS

Torus delivers control over keys and improves efficiency across sites –making a manager's job much easier.

With automated alerts and full reporting, staying on track of your keys has never been simpler.

SECURITY

Torus enhances security with exception reporting, real-time alerts and multi-factor authentication, preventing unauthorized access to your sites.

Plus, detailed schedules help maintain compliance with industry regulations, ensuring key control at every level.
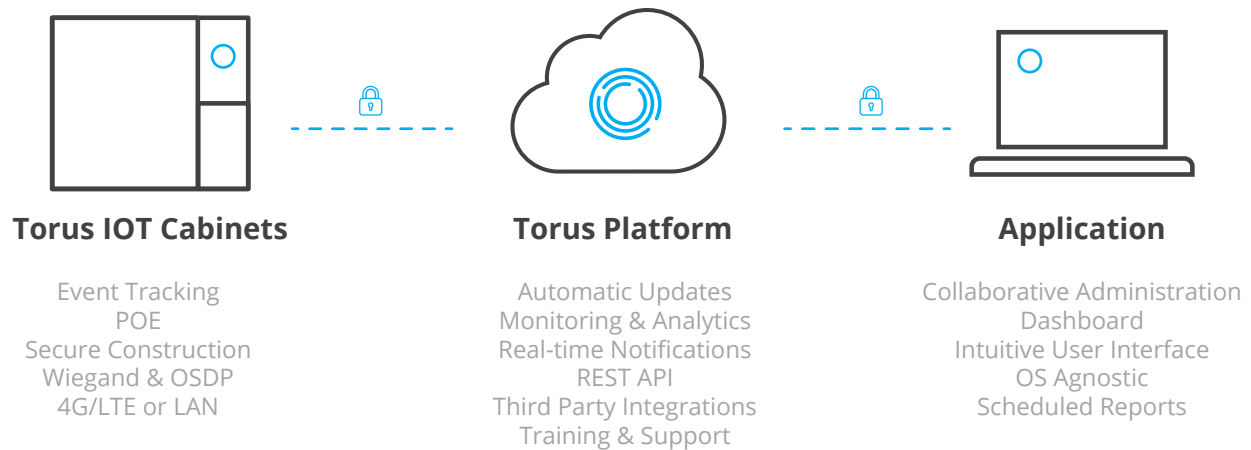

CONTRACTORS

With Torus, contractors receive controlled, time-limited access to keys without compromising security.

What's more, with automated schedules and real-time reporting at their fingertips, your administrators will always know who's working when and from where.

HIGH SECURITY CLOUD INFRASTRUCTURE

Built using the power and security of Microsoft Azure, Torus provides an enterprise-grade key management system.

Torus IOT Cabinets

Event Tracking
POE
Secure Construction
Wiegand & OSDP
4G/LTE or LAN

Torus Platform

Automatic Updates
Monitoring & Analytics
Real-time Notifications
REST API
Third Party Integrations
Training & Support

Application

Collaborative Administration
Dashboard
Intuitive User Interface
OS Agnostic
Scheduled Reports

acre® Reshaping Security   AVIGILON™   brivo®   GALLAGHER Security   Genetec   HID

Honeywell   inner range   IntelliTrac Imagine   IMRON CORPORATION   LENEL:S2

Microsoft Azure   Rapid   SIEMENS   SOFTWARE HOUSE C-CURE 9000   wicket   ZKTeco

HOW AN AUSTRALIAN COAL MINE SAVES 1,040 HOURS A YEAR – ACHIEVING A 2-MONTH ROI

Meandu Mine is a coal mine in Queensland, Australia. It is owned by Stanwell Corporation and operated by Downer Mining. The mine has five active working pits.

THE CHALLENGE	THE SOLUTION	THE OUTCOME

THE CHALLENGE

The on site team faced significant challenges in managing keys at one of their sites.

Despite using competitor key cabinets, staff used paper-based registers to monitor and track key transactions. The old key cabinets had generic pin codes that allowed unrestricted key access to all staff.
Issues included:

✖ Compliance risk

✖ Unrestricted access to explosives

✖ Paper-based monitoring

✖ Lack of key control and accountability

✖ Keys would often leave site and get lost

THE SOLUTION

Stanwell chose Torus to provide key control, improve efficiency and enhance security.

In return for a modest $11K investment, Stanwell :

✔ Has a Torus-15 cabinet with credential-based access.

✔ Gets real-time alerts and alarms if keys are missing or not returned on time

✔ Gained complete key control and visibility for keys at anytime

✔ Uses a comprehensive dashboard

✔ Improved operational efficiency and security

THE OUTCOME

Stanwell transformed its operations, achieving significant time and cost savings.

As a result, it:

＋ Saves 1,040 hours per year in staff time

＋ Saved $4K in annual labor costs

＋ Achieved ROI in just 2 months

＋ Eliminated time spent by staff managing key transactions on paper

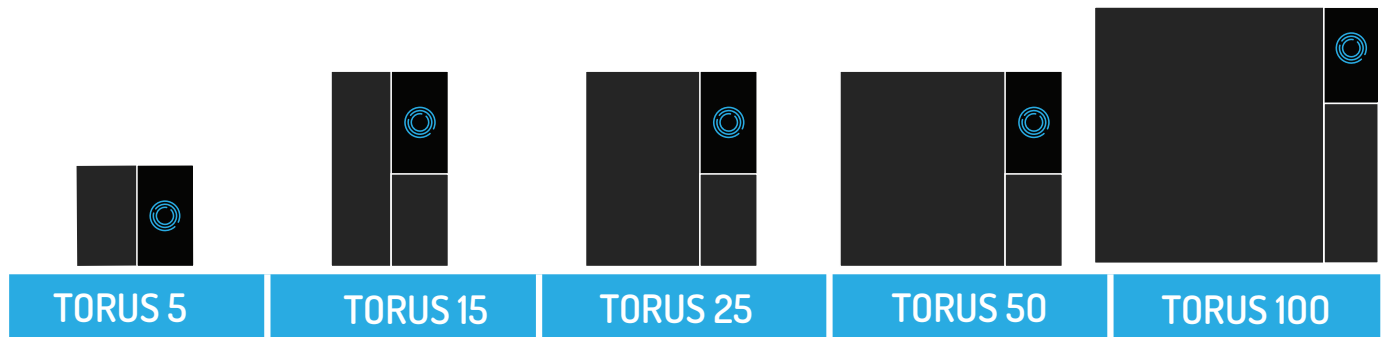＋ Effectively mitigated compliance risks

> *We needed a system that would manage authorization of different levels of keys and help us track key movements. Torus delivered a robust key management that allowed us to track personnel, set up alarms, notifications and even pull reports if the keys were left past a certain time. With real time SMS and email notifications we can straight away now contact the person if the key is missing. This made it so easy to operate even from off site, without compromising the security of our explosives on site.*

Site Manager, Meandu Mine

stanwell

THE NITTY-GRITTY

	TORUS 5	TORUS 15	TORUS 25	TORUS 50	TORUS 100
CAPACITY	5 key sets	15 key sets	25 key sets	50 key sets	100 key sets
WEIGHT	33lbs	77lbs	92lbs	119lbs	196lbs
HEIGHT	13 ⅛ "	26 ¾ "	26 ¾ "	26 ¾ "	37 "
WIDTH	19 ⅛ "	22 ¼ "	25 ¾ "	34 ¼ "	40 ¾ "
DEPTH	7 ¼ "	7 ¼ "	7 ¼ "	7 ¼ "	7 ¼ "

ACCESSORIES

EMERGENCY
READER DEVICE (ERD)

BIOMETRIC
READERS

TAMPER-PROOF
KEY RINGS

PROX
READERS

Get in touch to learn more about how Torus
can revolutionize your mining organization.

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