

From Rock to Data: Why Cybersecurity Defines Mining's Future

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SAFER
GREENER
SMARTER



SGS

OT Cybersecurity – Failure & Consequence



When mining becomes automation-driven, the consequences of a cyber breach are no longer IT problems — they are operational, financial, safety, and reputational crises.



Operation Disruption

Production or distribution halted by ICS breach → catastrophic downtime & financial loss.



Accident / destruction

Attacks escalate to sabotage-level impact → safety incidents, environmental damage.



Ransom

Extortion through loss of system control → costly payouts, trust erosion.



IP Theft

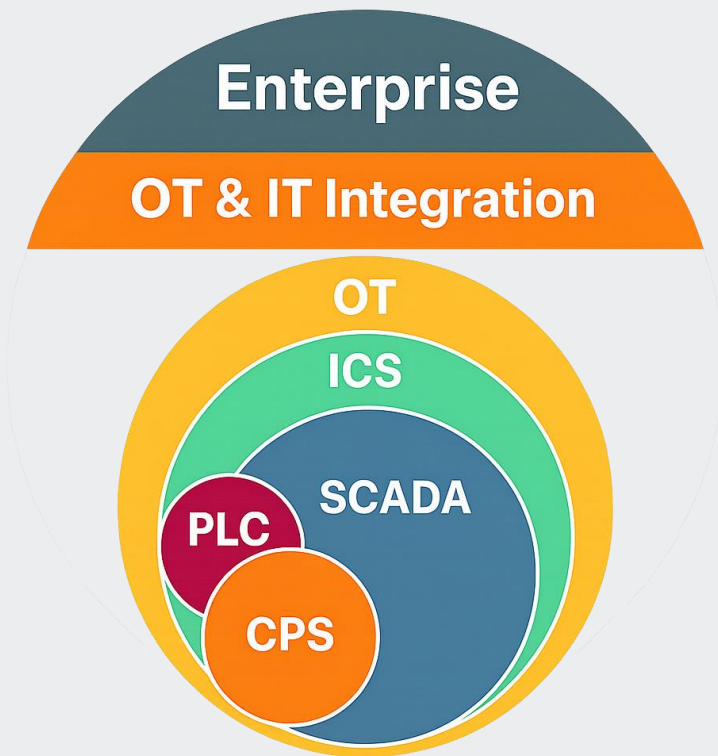
Critical designs & processes stolen → loss of competitive edge, supply chain risk.

Examples: Colonial pipeline | BianLian (Northern Minerals Australia)

Operational Technology: The Core of Modern Mining



Operational Technology is no longer just machinery control, it is the backbone of modern mining, where automation and data define both productivity and risk.



Automation Backbone

- OT systems run the physical processes of mining: conveyors, vehicles, sensors, labs.

Data-Driven

- Real-time data from OT enables quality control, compliance, and operational efficiency.

Business Critical

- As automation expands, OT becomes the cornerstone of modern operations and the primary risk surface.
- A single breach can now impact both production and enterprise systems, amplifying risk.



OT Cybersecurity as Business Risk Management



For mining, OT cybersecurity is risk management in its most direct form: protecting lives, production, and reputation at the same time.

Safeguards automation & data

- Protects the core systems driving mining and processing.

Manages operational risk

- Reduces exposure to disruption, safety incidents, and financial loss.

Builds resilience

- Ensures continuity, compliance, and trust in critical industrial operations.

OT Cybersecurity – Protecting What Matters

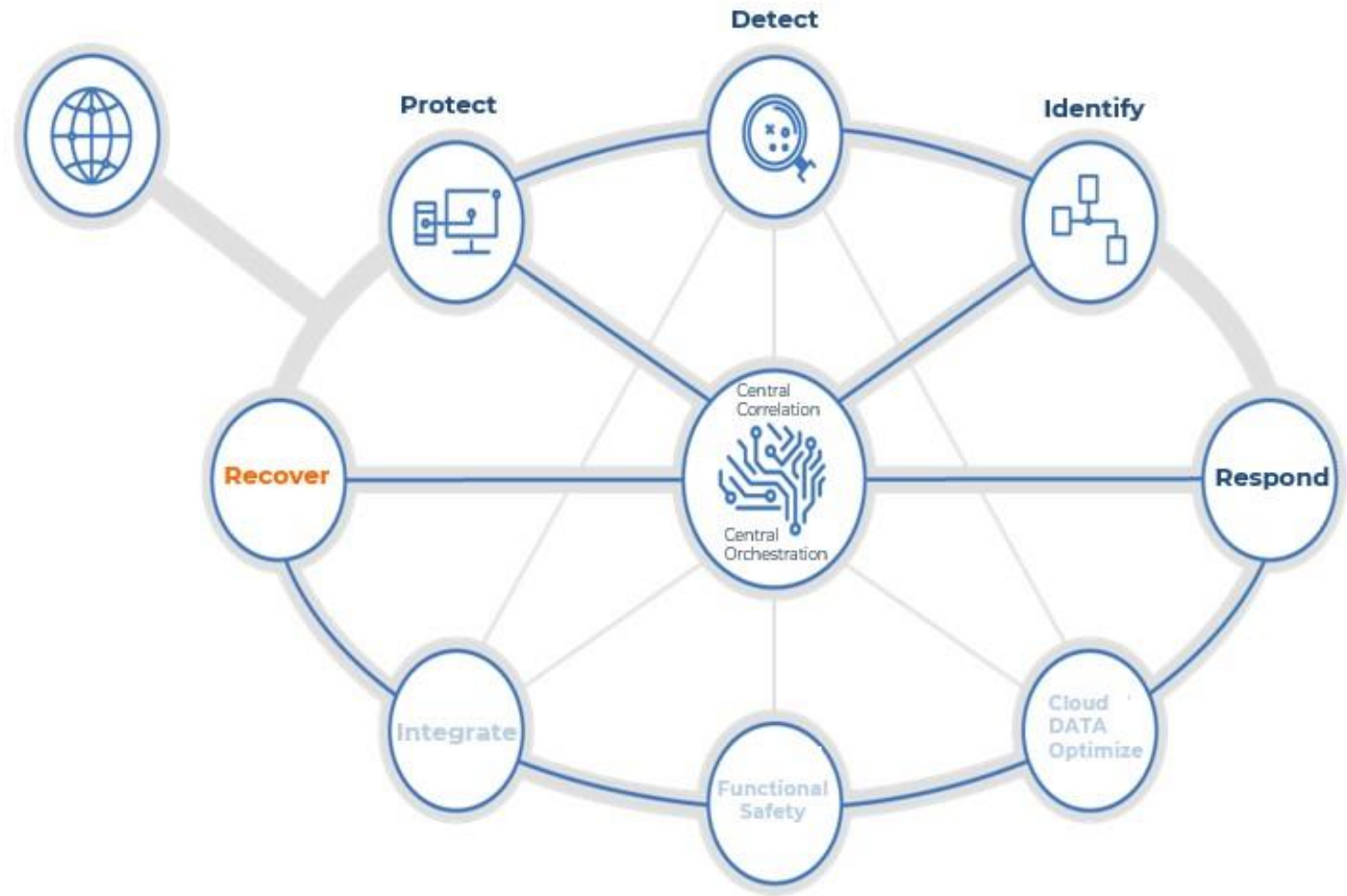
OT cybersecurity isn't just about IT defense it's about ensuring mining operations run safely, reliably, and without disruption, while protecting people, production, and long-term business continuity. We:

- Ensure **safe, reliable and reliable** operations by securing automation and control systems.
- Protect business continuity and critical assets by minimising disruption risks.
- Safeguard people, production, and reputation against cyber threats.



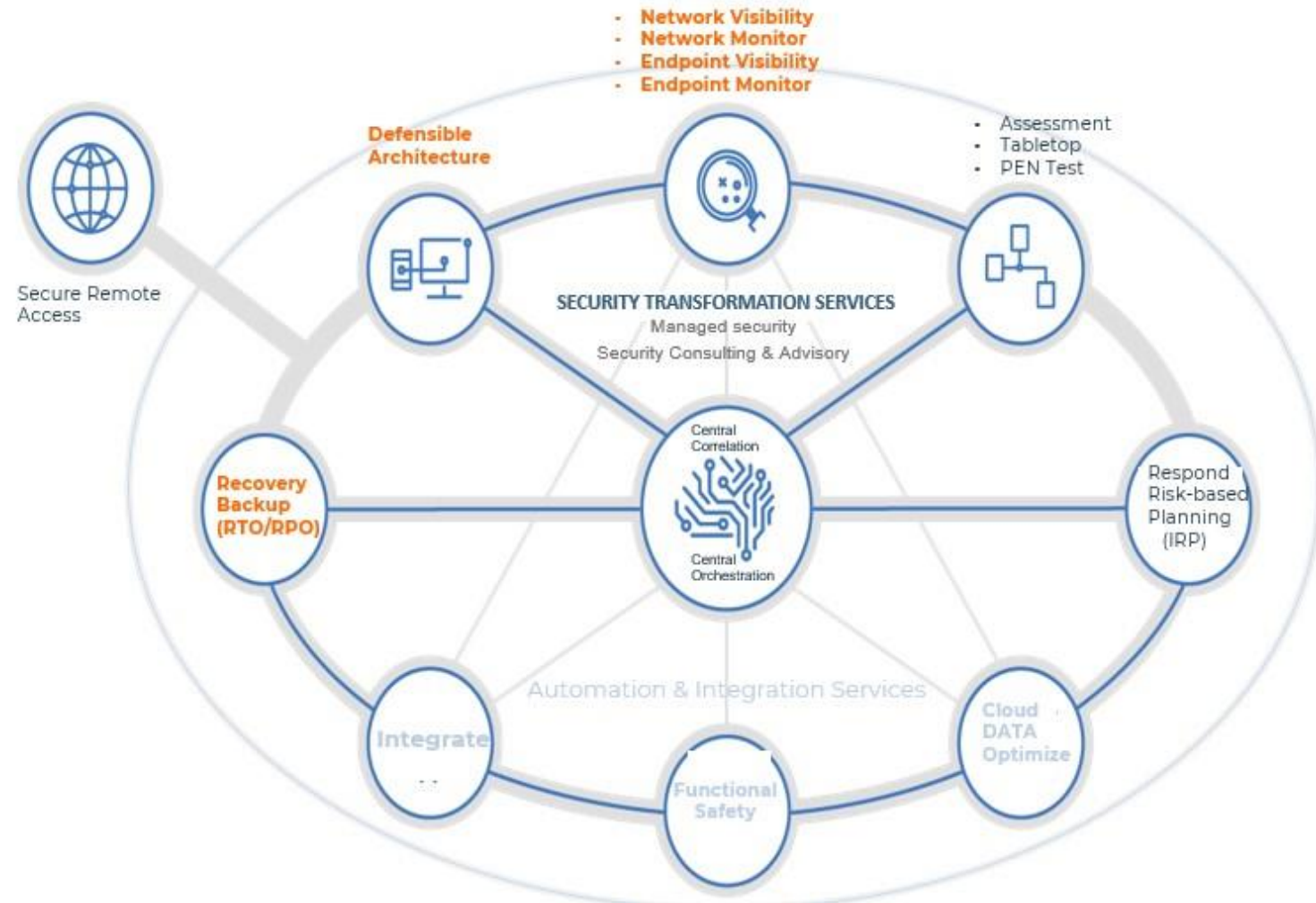


Immune System





Immune System - Core





Thank you!

Pieter van Oudtshoorn

OT/ICS Cyber Security Consultant

pieter.vanoudtshoorn@sgs.com

+64 274 521 383

