ANNOUNCEMENT

BC Automation & Secured2 Launch First-Ever Quantum Secure OT/IIoT Manufacturing Networks — Pioneering the Era of Industry 5.0

Tucson, AZ – May 13, 2025 —

BC Automation and **Secured2** proudly announce the **first deployment of quantum-secure OT/IIoT manufacturing networks**,marking a historic leap in the evolution of industrial automation and cybersecurity.

This strategic partnership is more than a security upgrade—**it pioneers the foundation of Industry 5.0**, where **intelligent automation**, **human-machine collaboration**, and **verifiable digital trust** converge. By embedding **post-quantum encryption** into adaptive edge control systems and cloud-native intelligence platforms, BC Automation and Secured2 are shaping the future of resilient, autonomous, and ethically governed industrial ecosystems.

> "This isn't just about cybersecurity. It's about foundational trust in autonomous manufacturing, resilience in the face of threats, and integrity in every insight,"
> said **Thomas Schwieters**, Chief Technologist at BC Automation.

Quantum Security at the Core

Built on **Secured2's QuantaMorphic® encryption** and **BC Automation's Manufacturing Intelligence Platform (MIP)**, this secure-by-design architecture fuses next-generationcryptographywithintelligent control capabilities. Key features include:

- ● **Encrypted Edge-to-Cloud Data Flow**
  AllIIoTsignals,MetaLoopdecisions,andSPA™-parameterizeddata are protected using **quantum-resilient encryption** across the entire signal path.

- ● **Immutable Process Records**
  Integrated **blockchain audit trails** and **real-time digital twins** ensure transparency, traceability, and compliance-readiness.

- ● **Distributed, Containerized Resilience**
  ModularDocker-baseddeploymentmaintains **high availability and zero-trust enforcement** at every edge node—without introducing centralized vulnerabilities.

- ● **Mathematically Native Integration**
  Built on **vector math and graph-based orchestration**, MetaLoops and SPA™ naturally align with the computational principles underpinning **quantum and AI-native automation**.

From Sensor to Space: Quantum Security Across IIoT and Orbital AI

Secured2's post-quantum encryption isn't just protecting control systems on the factory floor—it's now securing **data and AI models in orbit**. In partnership with **Phantom Space** and **Ubotica**, Secured2 is enabling **quantum-resilient data payloads** and **AI inference engines** aboard satellites.

> The same encryption technology protecting BC Automation's **MetaLoop™** and **SPA™** platforms on the ground is now deployed in **space-based compute nodes**—ushering in a unified security model from **sensor to space**, and from **IIoT networks to orbital datacenters**.

This convergence represents a seamless extension of BC Automation's **edge-to-cloud control architecture**, now scaling **beyond the atmosphere** to power secure, distributed intelligence across Earth and orbit.

> "Quantum-secure infrastructure isn't a feature—it's a foundation," said **Daren Klum**, CEO of Secured2. "Together with BC Automation, we're delivering data protection and trust at the core of the intelligent industrial future."

Quantum OT Networks for Industry 5.0

This is the **first practical framework for Industry 5.0-grade Quantum OT Networks**, and it supports:

- **Autonomous Mobile Robotics (AMRs)**

- **Real-Time Digital Twin Synchronization**

- **Dynamic Generative Dashboards (Vizionary™)**

> More than dashboards—**Vizionary™** dynamically generates the full control interface across **fixed screens, portable devices, HIDs**, and **augmentative interfaces**. It bridges legacy systems with adaptive, operator-ready intelligence.

- **Fractional Historization and Edge Diagnostics**

- **ESG-Ready Blockchain Anchoring for Process Records**

This stack enables **human-centeredautomation**, **AI-guided resilience** , and **digitally verifiable trust**—the core tenets of Industry 5.0.

Join the Industry 5.0 Movement

BC Automation and Secured2 are actively onboarding select clients and partners across manufacturing, aerospace, and mission-critical infrastructure. If you're ready to **secure your edge**, elevate your intelligence, and lead in Industry 5.0, we invite you to join us.

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Learn more: www.secured2.com | www.bcautomation.io

#SensorToSpace #QuantumOT #MetaLoop #SPA #Vizionary #Secured2 #EdgeToCloud

#Industry5_0 #DigitalTrust #IndustrialCybersecurity

#Industry4_0 #FactoryAutomation #MachineLearning #AI #DigitalManufacturing

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