datacentrix

Operational Technology

USB (Universal Serial Bus) Security & Digital Sanitation

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Protect your air-gapped assets with Datacentrix's Operational Technology (OT) USB security and digital sanitation solutions. Use agentless malware scanning and secure file transfer to eliminate threats from removable media and ensure supply chain integrity.

1. Maintaining Cyber Hygiene at the Operational Frontier

While network-based threats often dominate the headlines, the "physical frontier" of industrial operations remains one of the most significant vulnerabilities. USB drives and other removable media are essential for data transfer, maintenance and diagnostics, yet they serve as frequent vectors for malware in air-gapped or isolated environments. Datacentrix offers a dedicated suite of security inspection and digital sanitation services. Our solutions are designed to eliminate the blind spots created by unmanaged physical media and third-party devices, ensuring that every asset entering your production line is verified, malware-free and audit-ready.

1.1 The element of trust: Agentless inspection

Our digital sanitation framework is built on a "zero-installation" philosophy, allowing for comprehensive security checks without modifying your critical assets:

- **Portable security inspection:** Plug-and-play tools that perform high-speed malware scanning and removal on any asset – from legacy Windows 2000 systems to modern Linux builds – with no software installation or system reboots required.
- **Removable media sanitation:** Dedicated kiosk-style stations that "sanitise" untrusted USB media in under a minute, ensuring that contractors and engineers only introduce clean files into your environment.
- **Secure data transporter:** Utilising industrial-grade AES-256 hardware encryption, we enable the secure movement of sensitive data across air-gapped zones without risking exposure to the public internet.

2. The Business Case: Securing the Industrial Supply Chain

For operational leaders, managing the integrity of incoming hardware and removable media is a critical component of risk management and regulatory alignment:

- **Eliminating "shadow OT" risks:** Every scan automatically collects detailed snapshots of asset data, including operating system versions and application lists. This provides real-time visibility into your inventory, helping you identify and secure unauthorised or undocumented equipment.
- **Streamlining maintenance and third-party access:** Production environments frequently require external contractors to perform work. Our sanitation workflow allows these teams to continue their routines using an intuitive "plug-and-scan" interface that provides immediate visual confirmation of safety (blue/yellow/red indicators).

- **Automated auditing and compliance:** Manual tracking of USB usage and media scanning is prone to error. Our platform centralises all inspection logs and scan results, generating detailed malware-free reports that streamline compliance with frameworks such as ISA/IEC 62443.

3. Realising Smart Operations: Practical Use Cases

Our security inspection technologies are engineered to solve high-pressure challenges without adding operational overhead:

3.1 Securing air-gapped infrastructure

- **The challenge:** High-security substations or production cells are often disconnected from the network. Updating software or collecting logs requires physical media, which carries a high risk of "sneakernet" infections.
- **The solution:** We implement a sanitation outpost at the entry to these zones. All USB drives are scanned and cleaned at the kiosk before being permitted for use. Operators then use encrypted, tamper-proof transporters to move data, ensuring no malicious code ever reaches the air-gapped asset.

3.2 Supply chain integrity and asset onboarding

- **The challenge:** New equipment arriving from suppliers or returned from repair can often arrive pre-infected or with undocumented vulnerabilities, posing a threat to the existing production baseline.
- **The solution:** We establish a mandatory onboarding inspection protocol. Every incoming asset is scanned with our agentless inspector to establish a "clean" baseline. The scan result is automatically uploaded to a central management console, creating a verifiable audit trail of the asset's health before it is integrated into the production network.

3.3 Contractor management and glove-friendly operations

- **The challenge:** Factory floor workers and third-party technicians often work in harsh environments where using a traditional keyboard and mouse to perform security tasks is impractical.
- **The solution:** We deploy touch-optimised sanitation stations designed for the shop floor. These ruggedised units support gloved-touch operation and provide instant, automated media cleanup. This ensures security is a seamless part of the technician's workflow, rather than a barrier to productivity.

4. Secure Your Physical Frontier

Don't let unverified media become a single point of failure for your operations. Contact our OT security specialists today to learn how our digital sanitation services can harden your industrial environment. Email Karina Geyser, Business Unit Manager: Infrastructure Solutions and Operational Technology at Datacentrix on kgeyser@datacentrix.co.za.

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