Unifying the Factory Floor: Centralized Management for Industrial Computing

Introduction

The modern manufacturing landscape is rapidly evolving as businesses push intelligence and visualization closer to the operational edge. To successfully achieve digital transformation, enterprises need a reliable way to scale these workloads while meeting the rigorous security demands of Information Technology (IT) and the continuous uptime requirements of Operational Technology (OT). Scaling edge applications across distributed physical locations is a significant hurdle, requiring a practical, production-ready foundation.

OnLogic and ThinManager® address this challenge together. By combining rugged industrial hardware with the centralized application management of ThinManager, the joint solution enables manufacturers to deploy, operate, and securely scale edge visualization workloads with confidence. The result is an integrated platform that drives efficiency, improves data visibility, and supports modern mobile workforces.



ONLOGIC × THINMANAGER

The Challenge

Plant managers and IT/OT teams are frequently hindered by three core issues:

1. **Costly Downtime:** A failed HMI or workstation often requires hours of manual intervention—loading OS images, installing drivers, and configuring local applications.
2. **Environmental Fragility:** Standard PCs are not built for the factory floor. Dust, vibration, and extreme temperatures lead to premature hardware failure and frequent maintenance cycles.
3. **Security Vulnerabilities:** Distributed PCs with local hard drives and open USB ports are difficult to patch and represent a significant attack surface for malware or unauthorized data access.





The Solution

OnLogic and ThinManager deliver an integrated industrial computing platform designed for the modern enterprise.

ThinManager, a Rockwell Automation Technology, provides a centralized software platform for deploying, managing, and securing applications across distributed edge locations. OnLogic provides rugged, ThinManager-ready thin client hardware engineered for long-term operation.

This architecture removes the processing burden and local data storage from the edge device. Instead, applications run on centralized Remote Desktop Servers (RDS), and OnLogic zero clients display the content at the operational edge. This provides a secure, easily managed network while delivering the reliable, always-on visualization needed to maintain production without interruption.

With OnLogic's ThinManager-Ready line, these units are truly "plug-and-play." Upon power-up, they automatically download their firmware and configuration from the server, eliminating the need for local storage or manual setup.

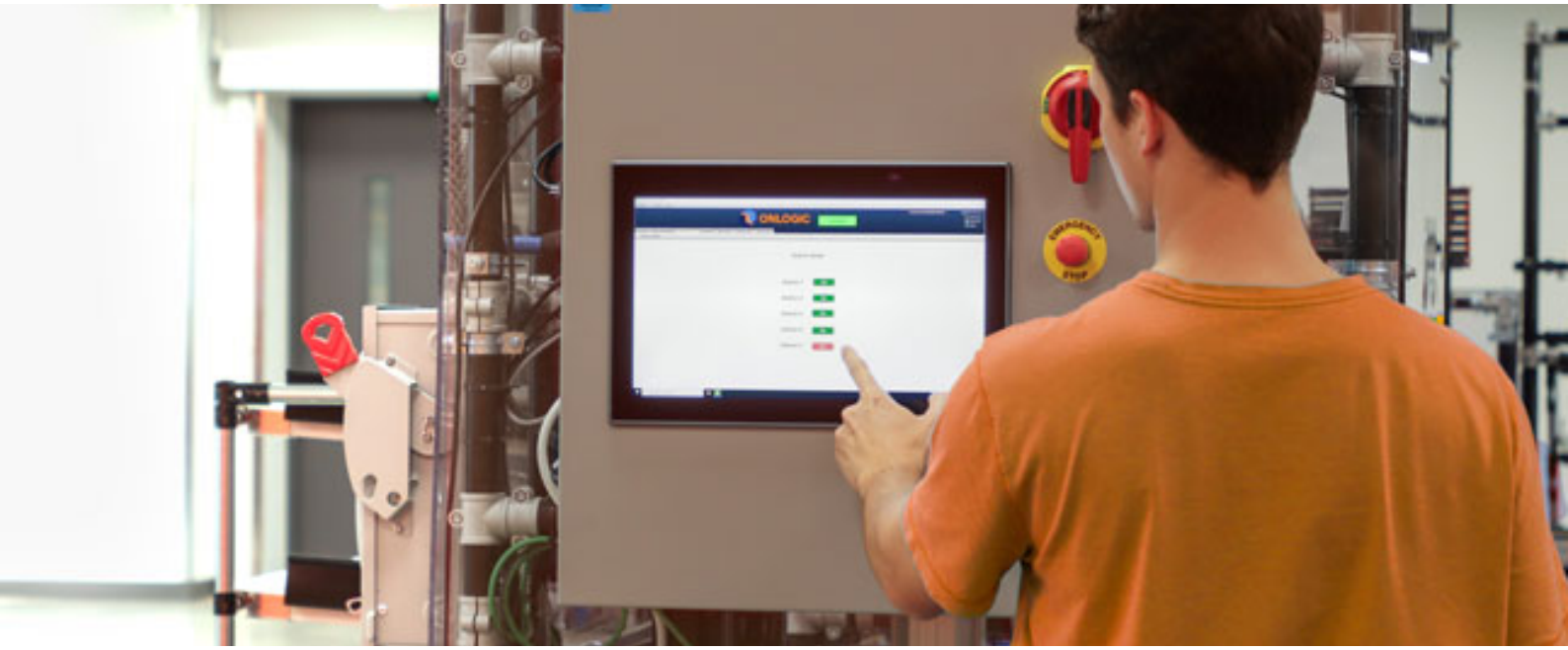
Use Cases

- **2-Minute Disaster Recovery:** Replace a damaged floor terminal in minutes. A non-technical operator simply swaps the OnLogic hardware; ThinManager recognizes the new unit and restores the exact previous session instantly.
- **Location-Based Mobility (Relevance®):** Deliver content to mobile tablets or carts only when they are within a specific "Zone" (e.g., standing next to a mixer).
- **HMI & Video Consolidation:** Tile multiple sources—such as a FactoryTalk® HMI and a live IP camera feed—onto a single OnLogic-powered screen for a "Single Pane of Glass" view.
- **Secure Multi-User Workstations:** Using RFID or biometric integration, allow operator sessions to "follow" the user from one OnLogic terminal to the next as they move throughout the facility.

Why ThinManager

ThinManager allows enterprises to operate their network as a centrally managed platform, simplifying deployments, updates, and monitoring.

- **Centralized management:** Administrators can deploy, manage, and monitor all thin clients, applications, and mobile devices from a single user interface without visiting each workstation individually.
- **Unprecedented security:** Because OnLogic zero clients have no local hard drive, hardware theft does not result in data loss. ThinManager also disables USB storage access by default and supports role-based access control to ensure only authorized users access specific applications.
- **Automatic failover:** If a primary server fails, terminals automatically switch to a backup server without operator intervention, preventing costly downtime.
- **MultiSession functionality:** Users can view and interact with multiple applications from different servers on a single monitor, or span content across multiple displays from a single terminal.
- **Location-based mobility:** Relevance technology uses Bluetooth, Wi-Fi, or QR codes to deliver specific applications to mobile devices based solely on the physical location of the user within the facility.





Why Onlogic

OnLogic provides the reliable foundation of the industrial computer that makes ThinManager successful in the field:

- **Certified "Ready" Out-of-the-Box:** No PXE boot headaches. OnLogic hardware is pre-loaded with a specialized BIOS designed specifically for the ThinManager environment.
- **Built for the Industrial Edge:** Fanless, solid-state designs protect against the dust and vibration that kill standard computers.
- **Flexible I/O & Mounting:** Support for up to four 4K displays, dual LAN, and legacy COM ports, with mounting options for DIN-rail, VESA, or wall-mount.
- **Long Lifecycles:** Industrial components ensure hardware availability and support for 5–10 years, avoiding the frequent "refresh" cycles of consumer hardware.

Key Capabilities

- **MultiMonitor & Tiling:** Support for up to 5 monitors and 25 tiled sessions per terminal.
- **Wi-Fi Booting:** Boot and run ThinManager sessions over Wi-Fi, perfect for mobile carts and forklifts (pioneered by the OnLogic TM260).
- **Container Support:** Ability to run lightweight Docker containers at the edge for modern web-based HMIs and microservices.
- **Peripheral Management:** Centrally control and secure USB ports, touchscreens, and badge readers across the entire plant.



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A ROCKWELL AUTOMATION TECHNOLOGY

Next Steps

Learn how OnLogic and ThinManager can help your business standardize application delivery, improve operational resilience, and securely scale your digital manufacturing initiatives with a proven edge computing platform.

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