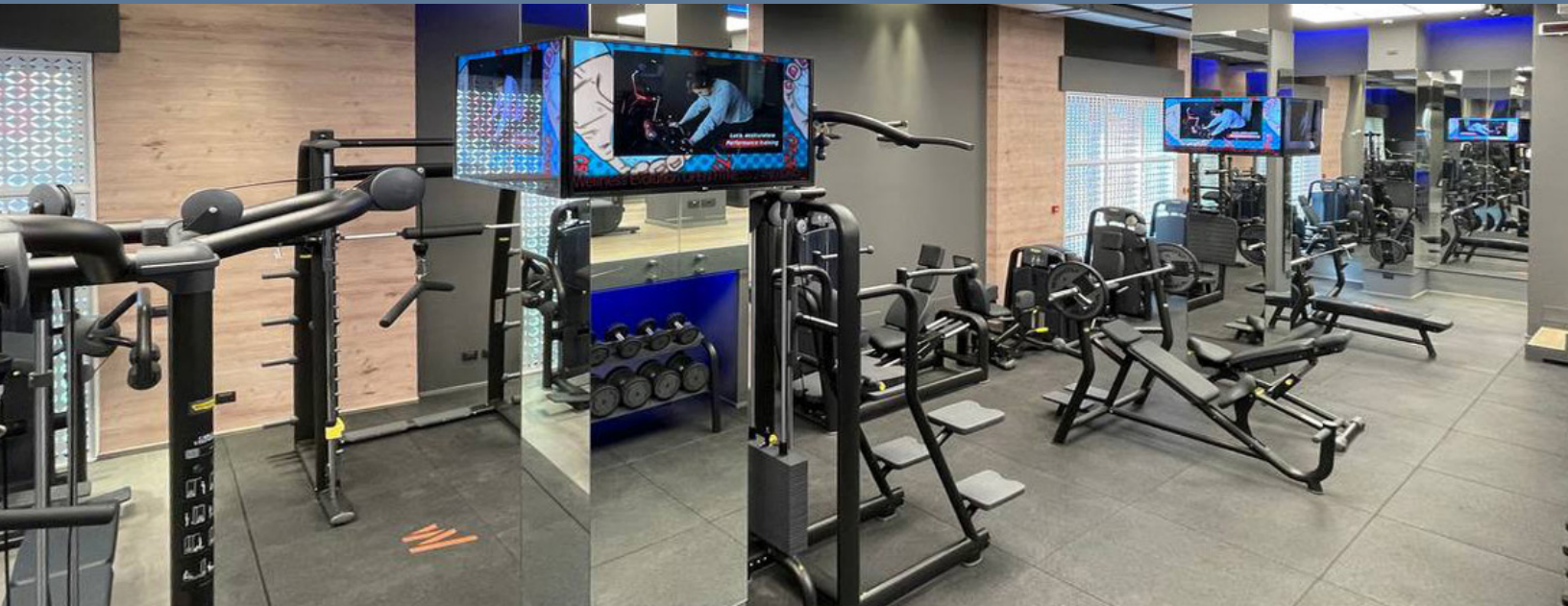


THE FUTURE OF FITNESS AUTOMATION



RTI Enables Unmanned 24/7 Gym Operation with Intelligent Presence Detection



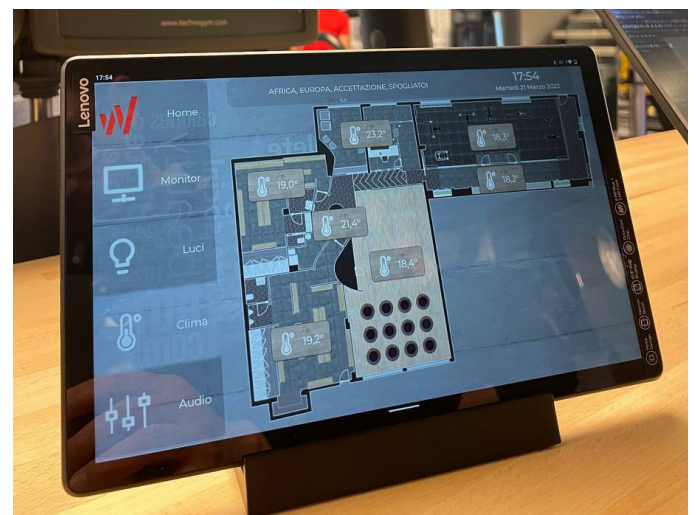
In the heart of Italy's Puglia region, a revolutionary fitness concept was taking shape. Wellness Evolution Gym in Corato wasn't just another fitness facility - it was destined to become a fully automated, 24/7 operation that could function seamlessly without on-site staff. The ambitious vision required a control system sophisticated enough to automatically manage everything from lighting and climate to audio-visual content based on real-time occupancy data. That system was RTI.

AudioVisual-SI, led by Mario Quacquarelli, understood that this project would push the boundaries of conventional gym automation. The 1,800 square meter facility needed to intelligently respond to member presence while maintaining energy efficiency during off-peak hours. Traditional approaches to fitness facility control simply wouldn't meet the demanding requirements of unmanned operation.

The technical challenge was substantial: integrating turnstile access control with comprehensive building automation to create a truly responsive environment. The system needed to distinguish between a single late-night member and peak-hour capacity, adjusting all building systems accordingly while maintaining individual zone control for different workout areas.

An RTIXP-8V control processor became the central intelligence hub, working in concert with an XP-6s secondary processor to manage the facility's extensive infrastructure. The system coordinates 50 LG monitors distributed throughout the gym, 130 KNX-based lighting, curtain, and climate control devices, plus a Biamp Tesira Fortè AI audio processing system - all through IP-based communication protocols.

"The customer wanted an interface with just simple buttons, to be able to operate at his convenience, not being physically at the gym," explained Quacquarelli. This requirement drove



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"The customer wanted an interface with just simple buttons, to be able to operate at his convenience, not being physically at the gym. Two years after completion of the project, the customer is fully satisfied with the functioning and stability of the system. The gym is open 24/7 and operates without the presence of an on-site technician."

*Mario Quacquarelli
AudioVisual-SI*

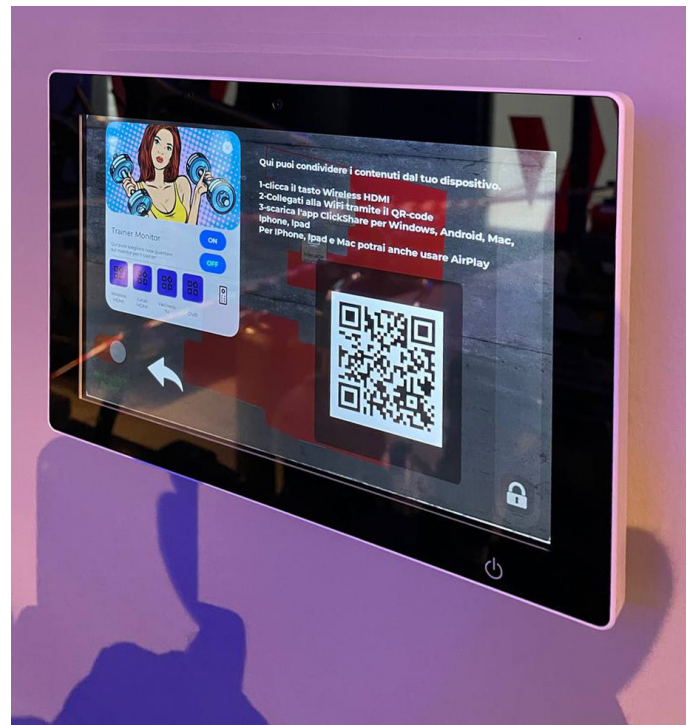
the development of a multi-tiered control strategy where gym members interact with simple Android panels in each area, while the owner maintains comprehensive system oversight through RTiPanel applications.

The breakthrough innovation lies in the automatic presence detection integration. Turnstiles equipped with member badge readers communicate occupancy status directly to the RTI system, enabling intelligent automation sequences. When the first member enters in the morning, the system orchestrates a coordinated startup sequence - displays come online with appropriate content, lighting adjusts to optimal levels, climate control activates, and background music begins at time-appropriate volumes.

During peak hours, the system maintains full operational status across all zones. As occupancy decreases in the evening, non-essential systems automatically power down while maintaining core functionality for remaining members. The overnight period sees the facility enter an energy-efficient standby mode, with systems ready to instantly reactivate upon member entry.

The audio-visual integration showcases particular sophistication. Content scheduling ensures appropriate programming throughout the day - energizing workout videos during peak morning hours, relaxing content during midday lulls, and motivational programming for evening sessions. The Biamp Tesira audio system automatically adjusts volume levels based on occupancy and time of day, preventing noise complaints while ensuring optimal member experience.

Climate control integration with the KNX system provides zone-based temperature management that responds to both occupancy patterns and workout intensity areas. High-intensity zones like cardio areas receive enhanced cooling when occupied, while stretching and yoga areas maintain comfortable ambient temperatures. The system learns usage patterns over time, pre-conditioning popular areas before typical peak periods.



Each workout zone features dedicated Android control panels running the RTiPanel application, allowing members to adjust local lighting, display content, and audio levels without affecting other areas. The interface design prioritizes simplicity - large, clearly labeled buttons enable quick adjustments without interrupting workout routines.

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For facility management, Quacquarelli developed comprehensive remote monitoring capabilities. The owner can observe real-time occupancy, system status, and energy consumption from anywhere. Automated reporting provides insights into peak usage times, equipment utilization, and energy efficiency metrics that inform business decisions.

The system's reliability has proven exceptional throughout two years of continuous operation. The facility operates 24/7 without requiring on-site technical support, a testament to both RTI's robust platform and AudioVisual-SI's thoughtful system design. Members appreciate the consistently optimal environment, while the owner benefits from reduced operational costs and enhanced facility utilization data.

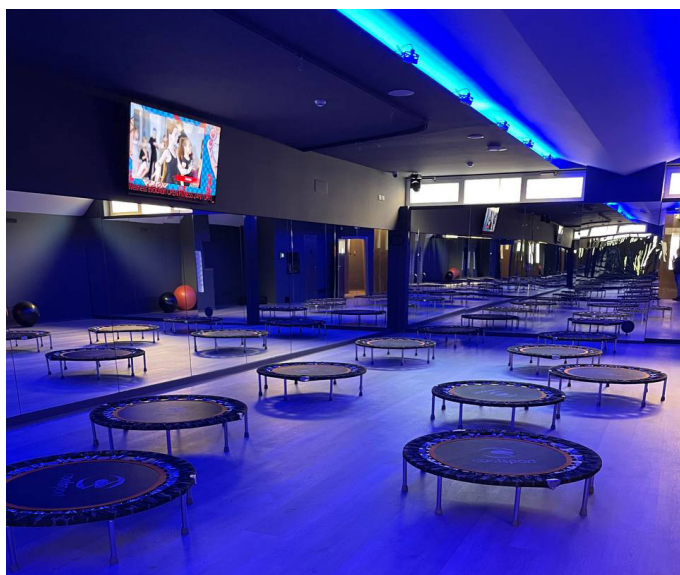
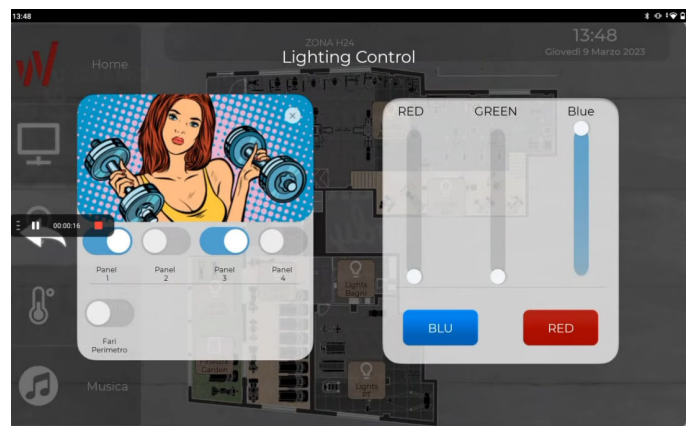
RTI Enables Seamless Expansion

After more than two years of successful operation, Wellness Evolution Gym's continuous growth validated the wisdom of choosing the scalable RTI architecture. When the facility acquired an adjacent 200 square meter space for expansion, the existing RTI infrastructure proved its value by enabling seamless integration of the new area into the comprehensive automation system.

The expansion project required only strategic additions to the existing network. AudioVisual-SI installed a new equipment rack in the additional space, connected by a single fiber optic data line from the original technical room to the new zone. A

new RTI XP-6s processor was added to control five additional LG monitors, while audio distribution from the main RTI MS-3 media server was extended through DANTE protocol via Powersoft amplifiers.

The crown jewel of the expansion became over 100 meters of addressable LED strips that provide dynamic lighting scenarios throughout the new space. The owner can now control elaborate LED scenographies directly through



the RTI interface, adding an entirely new dimension of ambiance control to enhance the member experience. The sophisticated lighting control has become a particular point of pride for the facility owner.

Most remarkably, the new zone was seamlessly integrated into all existing automation sequences. The presence detection, climate control, audio management, and scheduling systems automatically extended their intelligent operation to include the expanded space, maintaining the facility's unified autonomous operation across both original and new areas.

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Emergency protocols ensure member safety even during unmanned hours. The system maintains communication with security services and can automatically adjust lighting and unlock emergency exits if required. Video monitoring integration provides additional security oversight while respecting member privacy in workout areas.

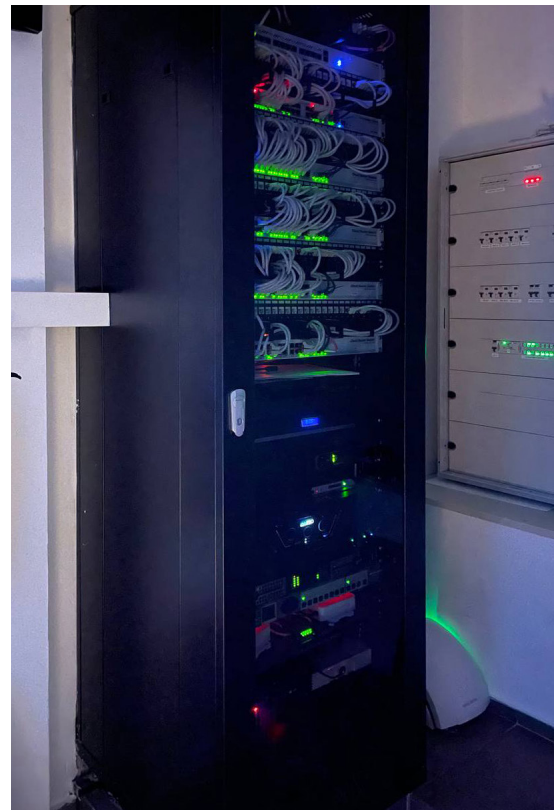
The success of Wellness Evolution Gym demonstrates how intelligent building automation can transform traditional fitness facility operations. By leveraging the RTI integration capabilities with presence detection and comprehensive building systems, AudioVisual-SI created a truly autonomous environment that enhances member experience while optimizing operational efficiency.

"Two years after completion of the project, the customer is fully satisfied with the functioning and stability of the system.

The gym is open 24/7 and operates without the presence of an on-site technician," noted Quacquarelli, reflecting on a project that has redefined possibilities for fitness facility automation.

List of RTI products used:

- 1x XP-8V Control Processor
- 1x XP-6s Control Processor
- 1x MS-3 Music Server
- RTI Panel Applications on multiple Android Devices
- Integration with 50x LG IP Monitors
- Integration with 130x KNX Lighting/Curtain/Climate Devices
- Integration with Biamp Tesira Fortè AI Audio System



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