

SECURE

YOUR SMART

BUILDING SYSTEM



UNCOMPROMISING SECURITY

FOR THE MODERN FACILITY

Secure your building's future with LiteTrace's advanced smart building management system. Our multi-layered security approach ensures your infrastructure is protected against today's threats and prepared for tomorrow's challenges.



KEY SECURITY BENEFITS

- ✓ **Military-Grade Encryption:** 128-bit AES-CCM protection at every level
- ✓ **Strict Access Control:** QR code-based zoning and role-based permissions
- ✓ **Interference-Proof:** Advanced channel management avoids Wi-Fi conflicts
- ✓ **Scalable Solution:** From single rooms to global portfolios
- ✓ **Proven Reliability:** 99.9% uptime and zero security breaches in 5 years



CERTIFIED FOR YOUR PEACE OF MIND

Our system is compliant with top industry certifications to ensure maximum security:



Certification	Products	Description
UL 1376 Gold	Keilton+autani Bluetooth Commercial Lighting Controls	UL 1376 Gold certification verifies that the system meets high standards for safety and performance, ensuring it is reliable and secure for critical applications.
ioXt Certification	Autani Manager/ EnergyCenter by Autani	ioXt certification assesses and validates security features across a range of products, including cloud services and hardware, ensuring they meet rigorous security benchmarks.



WHY SECURITY MATTERS

The Keilton+autani wireless lighting control platform offers unparalleled security and scalability for building management. From single rooms to global portfolios, our unified dashboard provides granular control and enterprise-grade analytics. Our EnergyCenter platform, certified UL 1376 Gold and ioXt, combines advanced technology with rigorous security protocols, ensuring robust protection against cyber threats and unauthorized access.

Did You Know?

By 2025, 30% of critical infrastructure organizations will experience a security breach affecting operations. Don't let your building be one of them.

Choosing between wired and wireless lighting control systems?

Contrary to common belief, modern wireless systems like Keilton+autani offer security that matches or exceeds traditional wired setups.



**WIRED
VS.
WIRELESS
SECURITY**




Why Choose Wireless?

- ✓ **Cost-Effective Installation:** No need for extensive wiring or conduit work
- ✓ **Preserve Building Integrity:** Ideal for historical or aesthetically pleasing spaces
- ✓ **Flexibility:** Easily reconfigure as needs change
- ✓ **Scalability:** Expand your system without infrastructure overhauls
- ✓ **Safety:** Minimize potential asbestos disturbance in older buildings

Keilton+autani: The Best of Both Worlds

- ✓ **Local Control, Global Connectivity:** Standalone operation with available centralized management
- ✓ **Seamless Integration:** BACnet compatibility for comprehensive building management
- ✓ **Advanced Security:** IEEE 802.15.4 and Bluetooth® Low Energy (BLE) technologies

Security at Every Level: The LiteTrace Architecture

	 LOCAL Commercial Bluetooth Lighting Network Keilton+autani (Tier 2)	 NETWORKED Energy Center by Autani (Tier 3)	 CLOUD Autani Insights (Tier 4)
Encryption	AES-128	TLS 1.3	TLS 1.3
Authentication	QR Codes	Authenticated portal access	Authenticated access through Grafana
Access Controls	Signed Firmware	<ul style="list-style-type: none"> ▪ Password Policy Enhancements ▪ Brute force protections ▪ SSO 	<ul style="list-style-type: none"> ▪ Password Policy Enhancements ▪ Brute force protections
Multi-Tenancy	Not applicable	<ul style="list-style-type: none"> ▪ Multitenant support ▪ Data and Access segregation 	<ul style="list-style-type: none"> ▪ Multitenant support ▪ Data and Access segregation

How We Keep Your Network Safe

- ✓ **Strict Authentication:** Only devices that you authorize can join your network
- ✓ **Multi-Layered Protection:** Safeguards against various threats.
- ✓ **Multi-Processor Communication:** Separate processors for 802.15.4 messages and the system manager, reducing the risk of attacks.
- ✓ **Advanced Data Encryption:** Data is protected with 128-bit AES-CCM.



BLUETOOTH SECURITY

The Bluetooth security model includes five distinct security features:

- ✓ **Pairing:** Creating shared secret keys
- ✓ **Bonding:** Storing keys for subsequent connections
- ✓ **Device authentication:** Verifying devices have the same keys
- ✓ **Encryption:** Ensuring message confidentiality
- ✓ **Message integrity:** Protecting against message forgeries

Additional security features include:

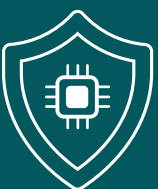
- ✓ **Secure Simple Pairing:** Simplifies pairing while maintaining high security
- ✓ **Secure Connections Only Mode:** Enforces FIPS-approved algorithms
- ✓ **AMP Security:** Utilizes the same Secure Simple Pairing models across all radios



ZIGBEE SECURITY FEATURES

- ✓ **Multi-Layered Messaging Security:** Three-tier validation rejects unauthorized or fragmented messages
- ✓ **Physical Safeguards:** On-site presence required for full network access
- ✓ **Military-Grade Encryption:** 128-bit AES-CCM for all communications
- ✓ **Interference Protection:** Smart channel management and jamming detection
- ✓ **Continuous Monitoring:** Real-time alerts for potential security threats

Our system's advanced security model guards against unauthorized access, code insertion, and wireless attacks, ensuring your network remains impenetrable.



HARDWARE PROTECTION

Our hardware incorporates several security measures:

- ✓ **Secure boot:** Ensures only authenticated firmware can run on the device.
- ✓ **Tamper-resistant enclosures:** Physical protection against unauthorized access.
- ✓ **Hardware-based cryptographic acceleration:** For efficient and secure encryption processes.



FIRMWARE PROTECTION

Our firmware is designed with security in mind:

- ✓ **Digitally signed firmware updates:** Ensures only authentic updates from our company can be installed.
- ✓ **Secure update process:** Prevents rollback to older, potentially vulnerable versions.
- ✓ **Regular security audits:** Our firmware undergoes routine security assessments to identify and address potential vulnerabilities.

Authorized Device Connectivity

Only authorized devices can connect to the network. Unknown devices cannot join the network unless explicitly authorized by the system administrator. New devices must be manually added to the network through the discovery page, ensuring that each device is vetted and approved before network access is granted.



**ACCESS
AND
CONTROL**

Single Sign-On (SSO)

EnergyCenter by Autani maintains unique user accounts at both the local access and remote access levels. These accounts are secured by a strong password policy. While the accounts are unique, Autani offers SSO capabilities between the accounts using a secure token session.

QR Code Zone Access

Our system features QR code access by zone, which adds an extra layer of security. While users can access the USER QR code, facility managers control adjustments with the Admin QR Code. Only the Facility manager or designated Administrator can change settings and override occupant changes, thus ensuring secured, encrypted authorized modifications.



Example QR

Admin QR Code
(Full Control):



Example QR

User QR Code
(Restricted Control)

LiteTrace products ensure secure interoperability with certified devices from leading vendors. Our BACnet over IP integrations feature:

For BACnet over IP integrations, we implement the following security protocols:

- ✓ **BACnet/SC (Secure Connect):** Provides authentication, encryption, and message integrity.
- ✓ **TLS 1.3:** For secure communication between BACnet devices and systems.
- ✓ **Device authentication:** Ensures only authorized devices can join the BACnet network.



**SECURE
3RD-PARTY
INTEGRATION**



WHY CHOOSE LITETRACE?

Our multi-layered security system, featuring QR code zones and two-factor authentication, ensures only authorized devices access your network. Certified UL 1376 Gold and ioXt, we adhere to the NIST Cybersecurity Framework, continuously updating against emerging threats. The Keilton+autani system offers a scalable approach, allowing you to start small with standalone wired systems and simply expand to fully networked buildings and analytics platforms. This spectrum of localized, networked, centralized, and AI-driven enterprise systems meets your needs today and evolves with you tomorrow.

To learn how our products can protect your smart building infrastructure, visit us at litetrace.com, or contact our expert team at support@autani.com.



ADDITIONAL SUPPORT



For additional support and questions, please contact us at:

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