

## 1. Is Trellix a secure platform?

Yes. The Trellix platform uses a multi-tiered approach to addressing industry best practices for security risk management and utilizes guidelines derived from IEEE, IEC, NEMA, DoD, and UL2900 to achieve a secure and adaptable IoT platform. The Trellix IoT platform leverages the WaveLinx system which was also the first connected lighting system to carry the UL2900-1 cybersecurity listing for network controllable devices.

## 2. What are the tiers for security?

Trellix uses a seven-layer multi-tiered security approach that includes industry best practices, Trellix ingenuity and the customer as a partner.

- Physical security
- Customer security
- Device communication security
- Network communication security
- Network segmentation security
- OTA update security
- COE assurance

Review the Trellix statement of security document for more information on each of these seven layers.

## 3. Why is physical security so important?

Physical security is a partnership between Trellix and the customer. The Trellix platform includes multiple security measures in the devices. Physical access at the customer location is the first step, and we provide guidance to the customer on how to secure this. Physical access to a device may provide the ability for a potential attack.

## 4. Does Trellix provide a path to my building intranet (LAN)?

The WaveLinx Wireless Area Controller (WAC) and the Trellix Core are the only devices that connect physically to the building intranet. In addition to other security measures the WAC and the Trellix Core isolate the wired Ethernet network from the wireless network which limits the possibility of someone using the Trellix system to gain confidential business information.

## 5. Why AES 128-bit encryption, why not AES 256-bit?

WaveLinx devices use AES 128-bit encryption for device-to-device communications as recommended by the National Institute of Standard and Technology (NIST).

AES encryption comes in three standard key sizes (128, 192 and 256bits). Many people think because there are three sizes AES 256-bit must be better. In fact, there were three key sizes because it was developed for US Military/Government communications which requires three security levels.

AES 128-bit encryption uses a 128-bit key to encrypt the data. That is  $3.4 \times 10^{38}$  possible combinations if someone wanted to brute force guess your encryption key. Assuming you were able to guess the correct key 50% of the way through the combinations it would still take over 1 billion years.

## 6. Can someone send a command or take over one of the WaveLinx devices?

No. All WaveLinx devices use AES 128-bit encryption and require that the commands be sent only to and from the WaveLinx Wireless Area Controller (WAC).

**7. If someone were to hack into my Wireless Area Controller, can they see the rest of my system or my building intranet (LAN)?**

No, each Wireless Area Controller employs its own unique key, which limits potential breaches to only a small area. Also, the WAC provides segmentation between the lighting Operational Technology (OT) network and the enterprise Information Technology (IT) network. Even if an attack within the lighting (OT) network and its devices is successful, the WAC isolates the enterprise IT network from potential attack.

**8. Are firmware updates secure?**

Yes, Trellix firmware updates are securely transmitted which means that only our over the air (OTA) firmware updates will be accepted by each device.

**9. If there is a security issue in the future how will we know?**

The Cooper Lighting Solutions Cybersecurity (CLSC) maintains a publicly available website for information and feedback concerning cybersecurity threats and responses. The CLSC also independently evaluates Cooper Lighting IoT products for vulnerabilities as new cybersecurity threats are exposed.

**10. Is Trellix Locate secure and is the data transmitted by the Tags secure?**

Trellix Locate consists of two components: Software and infrastructure. The software component manages the system (engine, database, software). The Trellix Locate software, which can be an on-premise installation, is similar to any other system inside the hospital. Trellix Locate software is updated to keep current with the latest OS and all security patches and enhancements.

The infrastructure component is a more unique aspect of RTLS. The infrastructure consists of RTLS tags that communicate wirelessly to sensors, so the security of that communication and of the devices is essential. We keep our hardware as simple as possible. The majority of our tags use uni-directional beaconing, which does not require them to authenticate with the network; in other words, they do not have direct network access. The data sent by the tags is limited to its location, product health (battery level) and its identification number. Our tags do not communicate personnel information or client information.