

**1. What is Trellix Locate?**

Trellix Locate delivers real-time indoor location services and management by leveraging the Trellix smart space IoT platform. Designed to allow you to monitor activities by sensing the location of your assets, staff and patients. The data can be utilized to improve business/production workflows, safety and security.

**2. What components do I need to have a complete Trellix Locate system?**

- Trellix Locate Asset Tags
- WaveLinx Integrated Sensor Fixtures (Fixture integrated occupancy sensor, ambient light sensor and Bluetooth) - **WAA** or
- WaveLinx Tile mount Sensor Kit- **WTA** or
- WaveLinx Tile mount Sensor Kit- **WTH** or
- WaveLinx Tile mount Sensor **WTH** with **WTH-PS** (Power Supply)
- Wireless Area Controller (Gateway)- **WAC-POE**
- Trellix Core (Enterprise, Virtual) - **TRX-TCENT2** or **TRX-TCVRT2**
- Trellix Lighting applications - **TRX-CONFIG** and **TRX-LGT250**
- WaveLinx Mobile App (Commissioning and user personal control)
- Trellix Locate Software Application License per tag - **TRX-LIC-RTLS-5YR** or **TRX-LIC-RTLS-1YR**

**3. What are the Trellix Locate design best practices?**

Design Consideration	Best Practice	Maximum
WAC's on a Trellix network	N/A	500 (Enterprise)
Gateway/WAC range	150 feet-250 feet LOS	300 feet LOS
Number of wireless devices	60	60
Number of wireless sensors/ int. fixtures	50	50
Number of Interior Walls	2 walls	3 walls
Distance from WAC to 1st WCL device	150 ft	150 ft
Distance between WCL devices	75 ft	150 ft
Number of Hops from WAC	2 hops	3 hops
Number of Tags in a room	54	72
Number of Asset Tag per WAC	N/A	200
Number of Tags per server	500	1000
Number of Sensors per room for Room Level Accuracy	4	N/A
Number of Choke Points per WAC	N/A	5

Note: Sensors include WTA (Wireless Tile Mount Kit) , WTH (Wireless Tile mount Sensor), WAA (Integrated Fixture sensor).

**4. Can WaveLinx communicate through interior walls?**

Yes, WaveLinx will communicate through two to three interior walls of standard sheetrock construction with wood or aluminum framing.

**5. Can sensors be disabled?**

Yes, Integrated or external sensors can be disabled or have the sensitivity adjusted.

**6. Does the Wireless Area Controller (WAC) need to be installed in the space or can it be installed in the Plenum?**

The WAC can be installed in the plenum above the drop ceiling and will communicate to the devices in the space. It should not be installed on or next to a metal or concrete wall.

**7. Should I install the WAC next to a concrete or metal wall?**

No. Concrete or metal walls severely impact the strength of the wireless signal and will reduce the overall coverage and performance of the WaveLinx system. The WAC should be installed in the center of the overall space that it will be controlling.

**8. Should I install the WAC in an Electrical Closet or IT room?**

No, these types of rooms are typically surrounded by concrete walls. Concrete walls severely impact the strength of the wireless signal and will reduce the overall coverage and performance of the WaveLinx system. The WAC should be installed in the center of the overall space that it will be controlling.

**9. How does WaveLinx communicate through or around concrete spaces, like stairwells and electrical closets?**

The Wireless Area Controller emits a wireless signal using the 802.15.4 wireless protocol on the 2.4Ghz frequency range. This signal pulses out from the WAC in a wireless bubble. Concrete or metal structures will break this bubble. Ensure that the WAC is placed at least 15 feet away from these structures to allow the wireless signal to have the best angle around these structures. In addition, most WaveLinx devices act as a signal repeater which will allow the wireless signal to communicate around difficult spaces.

**10. What is the maximum distance the WaveLinx system can communicate?**

The Wireless Area Controller can control a maximum 60 WaveLinx devices within 150 feet line of sight (LOS). If you have not reached the 60-device limit within 150ft, wireless hopping will allow you to reach additional devices up to the 60-device maximum. Each line voltage powered wireless device can act as a signal repeater or (hopper) and provide an additional 75 feet of wireless coverage if the device is within 75ft of a device or within 150ft range of the WAC. Trellix Locate supports a maximum of 3 hops each adding 75ft of coverage beyond the WAC 150ft range.

**11. Can WaveLinx be installed in the same area as the building Wi-Fi?**

Yes, although 802.15.4 communications using a similar frequency as standard Wi-Fi it uses different channels, modulation and communications structure. This reduces the risk of conflicts of wireless systems.

**12. Can multiple 802.15.4 wireless networks exist in the same area of a building?**

Yes, 802.15.4 is self-healing, auto channel selecting mesh network. This means that these networks can coexist if set up correctly. In addition, WaveLinx devices will only communicate with the assigned Wireless Area Controller. Other 802.15.4 wireless networks may not include all the security and performance qualities of WaveLinx and may not perform as well.

**13. Is the connection to Trellix Core wireless?**

No. the Wireless Area Controller are Power over Ethernet (PoE) and share information over a wired Ethernet connection to the Trellix Core.

**14. What kind of sensor distribution is required to achieve room level accuracy?**

To achieve room level accuracy, we recommend at least 4 sensors be placed integrated into lighting fixtures and/or tile mount sensor in the room. In open areas, sensors shall be installed 8 feet or less apart in X and Y direction to get good location accuracy.

For Room level accuracy it is also recommended that the sensors be installed within 1m (3 ft) of each corner of a room. In a room with all fixture mount(integrated) sensors, place one additional tile mount sensor in the middle of the room to improve room-level accuracy.

**15. What type of tags does the Trellix Locate system offer?**

The Trellix Locate system offers the 6 tag types listed below:

Catalog Number	Description	Application
TRX-TAG-BDG	Trellix Locate Tag - Badge 2 year - C7	Badge for locating people (staff, students, employees)
TRX-TAG-AST2	Trellix Locate Tag - Asset 2 year - E7	Asset Tag for Tracking Equipment
TRX-TAG-AST5	Trellix Locate Tag - Asset 5 year - I3	Asset Tag for Tracking Long Term Equipment
TRX-TAG-AST1	Trellix Locate Tag - Asset 1 year - E8	Asset Tag for Tracking Long Term Equipment
TRX-TAG-SEN3	Trellix Locate Tag - Sensor 3 year - S1	Asset Tag for Temperature and Humidity Monitoring.
TRX-TAG-BRC	Trellix Locate Tag - Bracelet 1 year - B6	Badge for Locating Patients

**16. Which sensors in the Wavelinx Family support Trellix Locate?**

The following sensors incorporate the state of the art BLE chipset for enabling RTLS:

- WaveLinx Integrated Sensor Fixtures (Fixture integrated occupancy sensor, ambient light sensor and Bluetooth) - **WAA** or
- WaveLinx Tile mount Sensor Kit - **WTA** or
- WaveLinx Tile mount Sensor Kit- **WTH** or
- WaveLinx Tile mount Sensor **WTH** with **WTH-PS** (Power Supply)

**17. Is a Wireless Area Controller (WAC) required for Trellix Locate Applications?**

Yes. The WAC is required for Trellix Locate applications. The WAC collects the data from all the sensors regarding the location of assets and processes them to accurately predict the location of the assets.

**18. Is a Trellix server required? What licenses are required for Trellix Locate?**

Trellix Locate is supported on Trellix Core Enterprise (TRX-TCENT2) and Trellix Core Virtual (TRX-TCVRT2). Trellix Locate leverages the Trellix Lighting / Admin / Exchange applications and the appropriate number of TRX-CONFIG licenses are required. In addition, the Trellix Locate Software Application License are required to activate Trellix Locate.

Catalog Number	Description
TRX-LIC-RTLS-5yr	TC Locate Tag License-5yr
TRX-LIC-RTLS-1yr	TC Locate Tag License-1yr

**19. How many sensors can the WTH-PS (power supply) support?**

The WTH-PS is used when WTH sensors are required to increase density of sensor distribution and the sensor is not directly connected to a light fixture. The WTH-PS can support up to 14 sensors. The WTH-PS can support 7 sensors in one series. When supporting more than 7 sensors it is recommended to place the power supply such that a second network of sensor from the power supply can be created.

**20. Does Trellix Locate work outdoors and in industrial spaces?**

Trellix Locate is currently available only for indoor applications with a ceiling height between 8-15 feet.

