



TAG-N-TRAC

AI-POWERED WI-FI SOLUTION TRACKS HIGH-VALUE ASSETS

Juniper and Tag-N-Trac deliver supply chain, healthcare, and smart warehouse visibility solutions.

Challenge

Tracking high-value assets in a discreet, manageable way is difficult for organizations that want to work smarter and more efficiently. Most solutions are not cost-effective, the tags or sensors have limited battery life, and the platform gets overwhelmed by clutter from common Bluetooth devices, such as cell phones.

Solution

FlexDot Asset Tag and FlexLabel from Tag-N-Trac (TNT) offer excellent low cost, high accuracy asset tracking solutions. For healthcare, manufacturing, regulated goods, perishables, and enterprise customers, the Juniper and TNT solutions enable a simple way to track high value items leveraging existing Juniper infrastructure.

Benefits

By optimizing the performance of the Juniper Mist cloud architecture and Marvis Virtual Network Assistant, organizations can accurately find and track high-value items that are located throughout their facilities.

Active, intelligent tags and labels help businesses create rapid, automatic inventory cycles with location intelligence that feeds time-stream data into a context-based real-time visibility platform. Tag-N-Trac (TNT) provides discreet Bluetooth asset tags and ultrathin, active Bluetooth shipping labels that integrate with the Juniper ecosystem of wireless network hardware.

The Challenge

Businesses with high-value assets are seeking solutions that help them increase intelligence at the network edge to locate and track those assets. The ability to quickly and easily find an item in a large-scale environment can save lots of time and resources. Intelligent platforms are applying geofencing, location-based technologies, and AI to locate, identify, and isolate specific devices and improve business outcomes.

For supply chain and logistics visibility, the ability to know where a shipment is and what the asset/SKU identifiers are in real time as inbound/outbound events occur is extremely valuable. To capture pallet-specific data autonomously and continuously within the warehouse or enterprise facility is critical for supply chains and logistics.

For healthcare facilities, the need to find equipment for critical care can mean the difference between entering a clean room or finding life-saving equipment in a hurry. The ability to locate equipment and devices from a smartphone can make a huge difference in patient experience and care.

The Juniper and Tag-N-Trac Solution

The optimal way to leverage a Bluetooth-powered label or tag is to have network infrastructure with excellent positioning accuracy. The Juniper® Mist™ cloud architecture suite of products is driven by Mist AI and the Marvis™ Virtual Network Assistant, which enhance positioning visualization and background processing of data to provide continuous monitoring as a service.

Features and Benefits

- Discreet asset tracking is possible with a tiny edge tag or label.
- Assets are identified within a single platform and easily identified and separated from additional Bluetooth devices, such as smartphones.
- The solution integrates easily with the Juniper suite of network hardware and Juniper Mist Asset Visibility solution.



Solution Components

The Juniper Mist solution includes the following components:

Juniper Mist cloud—All wireless deployment, operational, and management functions are handled via the Juniper Mist cloud, which delivers high-performance Wi-Fi and virtual Bluetooth LE services.

- **Juniper Mist Wi-Fi Assurance:** Includes user service levels, anomaly detection, automated event correlation for troubleshooting, dynamic packet capture, policy configuration, guest WLAN access, and more.
- **Marvis Virtual Network Assistant:** Provides natural language queries with integrated help desk functionality for rapid and simple root cause determination and problem resolution.
- **Juniper Mist User Engagement:** Pushes location-based information to mobile users, such as turn-by-turn directions and proximity notifications.
- **Juniper Mist Asset Visibility:** Finds high-value resources such as shipping pallets, wheelchairs, security personnel, and more.
- **Juniper Series of High-Performance Access Points:** Deployed on premises for Wi-Fi, Bluetooth® LE, and/or IoT access.

The Tag-N-Trac solution includes the following components:

Asset Tag or Label

- **FlexDot:** Approximately the size of the tip of your thumbnail and 5 mm thick, the FlexDot is a tiny, discreet Bluetooth asset tag capable of operating for up to 3 years (dependent upon ping rate setting).
- **FlexLabel:** Designed to work as a common 4 x 6 in. shipping label, the FlexLabel is the world's first total solution for track and trace. Inside the building, the FlexLabel provides an active location ping to rapidly track ingress/egress shipments without the need for extensive hand scanning. Once the package leaves the building, it communicates with a Tag-N-Trac cellular/satellite/Bluetooth gateway, such as the Smart Sense Multi-Modal Tag/Gateway, which operates for 3 months with hourly pings.

Real-Time Visibility and Traceability (RTVT) Cloud

- **For logistics:** Enable data orchestration with multitenant visibility for buyers, suppliers, and factory tracking on a global level. Tag-N-Trac provides track and trace for pharma, and high value goods and perishables.
- **For healthcare:** Track devices and help staff find critical assets quickly and easily. The solution improves patient/staff workflows, prevents geofence breaches, enables condition monitoring, and delivers real-time alerts.

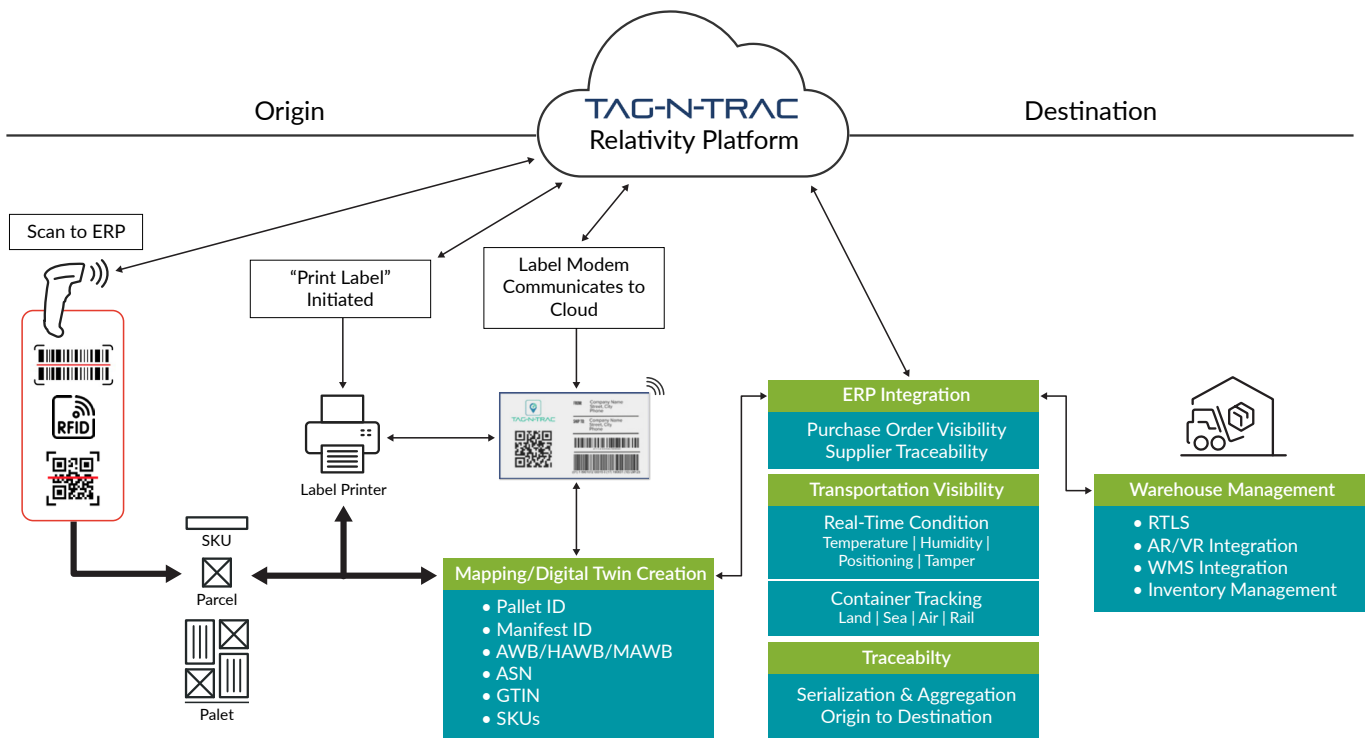


Figure 1: Tag-N-Trac Real-Time Visibility and Traceability solution overview

- **For manufacturers:** Track and trace SKUs from factory to destination. Tag-N-Trac enhances visibility from origin to destination and everything in between.
- **For smart warehouses:** Provide local visibility and alerting within the warehouse through the Juniper Mist platform. Warehouses gain a more advanced Real-Time Location System (RTLS) and inbound/outbound hands-free tracking.
- **For smart lab environments:** Test instrument asset tracking, indoor temperature/humidity, CO2, presence, door open/close, and remote pressure tank monitoring.

The Tag-N-Trac Cloud integrates with the Juniper Mist Cloud platform and Juniper Access Points for localized Bluetooth communications and asset tracking.

Summary—Realize Enhanced Visibility and Improved Operational Performance with Juniper and Tag-N-Trac

The combination of Tag-N-Trac's discreet tags and labels within the RTVT platform allows for an enhanced use of the Juniper network infrastructure and the Juniper Mist Cloud platform.

The Tag-N-Trac solution provides operational efficiencies and is enhanced by a Mist AI-powered network infrastructure. The integration of the Juniper Mist AI™ technology solutions and the discreet edge asset tag/label allows for a much more efficient supply chain. Knowing where an asset is located reduces the time to find critical assets thereby maximizing operational performance.

Next Steps

To learn more about the joint Juniper and Tag-N-Trac solution, contact your Tag-N-Trac or Juniper representative, or visit www.tagntrac.com and www.juniper.net/us/en/solutions/wireless-access.html.

About Juniper Networks

At Juniper Networks, we are dedicated to dramatically simplifying network operations and driving superior experiences for end users. Our solutions deliver industry-leading insight, automation, security and AI to drive real business results. We believe that powering connections will bring us closer together while empowering us all to solve the world's greatest challenges of well-being, sustainability and equality.

About Tag-N-Trac

Tag-N-Trac was founded with the vision to provide customers with a repeatable, ultra-low cost full stack IoT solution by integrating multiple modes of hardware, software, and data technology to build smarter solutions that solve complex problems.



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