

# Wi-Fi Asset Tracking

## Solutions Brief



## G2 Microsystems' Wi-Fi Asset Tracking System



Trends in global sourcing have created more complex and geographically disparate supply chains. These supply chains are typically managed by a network of partners to make, move and sell the end product. As a result, companies now depend on their partners to capture critical data about the movement and condition of their assets. Typically, partners are ill-equipped or unmotivated to capture this critical data. This trend has created a lack of visibility or “blind spots” in a company’s supply chain information.

Companies need to capture the right data, in a timely fashion, with assurance of accuracy and integrity. They need to own the data capture process.

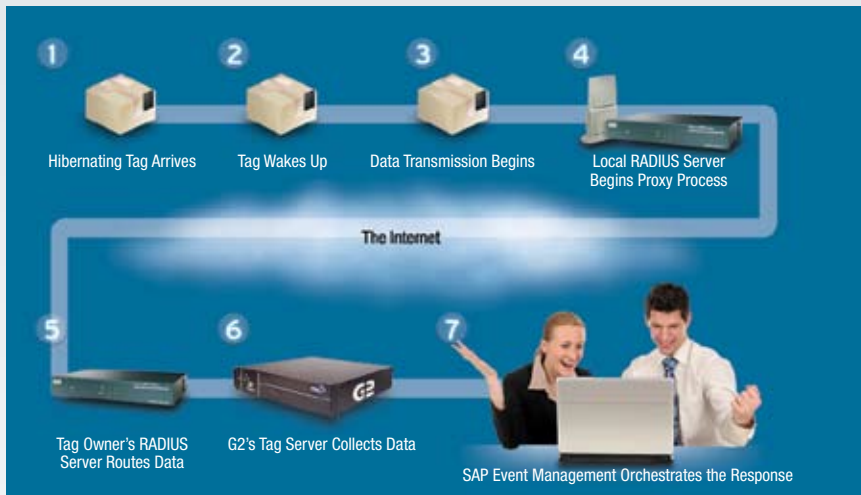
G2’s Wi-Fi Asset Tracking System allows companies to control the data capture and response process across their supply chain. With G2’s solution, companies can find the location of their assets and monitor critical asset

characteristics such as temperature, tamper, tilt or shock and track asset history. G2’s tight integration with SAP® Event Management software enables semi-automatic responses to out-of-tolerance conditions.

This allows companies to better ensure the quality and on-time delivery of products and control the immediate broadcast of shipment status to customers and partners. G2 combines their configurable Wi-Fi Asset Tags and Tag Engine with the company’s existing communication infrastructure powered by the Cisco® Unified Wireless Network and SAP Event Management to deliver a complete location, monitoring and tracking system. Using this Wi-Fi Asset Tracking System, companies will have the lowest total cost solution to capture, transmit and respond to critical supply chain events.

## Highlights and Capabilities

### End-to-End Data Capture and Location, Monitoring and Tracking



#### **G2 Low-Power Configurable**

**Wi-Fi Asset Tag:** G2's low-power Wi-Fi Asset Tags locate, monitor and track supply chain assets. The location and time is captured upon arrival at specified supply chain nodes. Critical asset characteristics such as temperature, tamper, tilt, shock and light exposure are continuously monitored during transit and detailed time logs are created whenever a threshold is exceeded. Location and monitored characteristics are stored to provide a complete tracking history. The tags can be configured to accommodate many variations around each asset data characteristic that is captured.

**G2 Tag Engine:** As the data is captured, it is stored and periodically transmitted via existing Wi-Fi communication infrastructure to the G2 Tag Engine. The G2 Tag Engine is specifically designed to load and store data captured via G2's Asset Tags. The data can be stored or immediately delivered to any existing reporting or event management application.

#### **Leveraging Existing Infrastructure:**

G2's Wi-Fi Asset Tracking System leverages existing Wi-Fi access points powered by the Cisco Unified Wireless Network for seamless integration into a company's infrastructure. No additional hardware is required to enable the

solution. The G2 Tag Engine provides data feeds directly to SAP Event Management. A routine configuration of existing Cisco RADIUS servers (communications infrastructure) will enable the transmission from G2 Asset Tags, eliminating the need for any data to be transmitted over the company's network.

**Data Capture:** G2's tag-based data capture solution provides your company with data that was previously unavailable, difficult or impossible to get from partners in an accurate format and timely manner. The amount of data and frequency of transmission are controlled by the customer.

#### **Monitoring, Alerting, and Reporting:**

The G2 Wi-Fi Asset Tracking System monitors continuously and can capture data at frequent intervals. The data is transported by the Cisco Unified Wireless Network to enable a semi-automatic response with SAP Event Management to provide alerts when critical characteristics (e.g., temperature thresholds, product tamper) are out of tolerance. The data can be used in conjunction with SAP's Business Intelligence solutions to assist in identifying performance improvements that were previously hard to find.

## Business Benefits

Companies can easily improve supply chain performance with the G2's solution Wi-Fi Asset Tracking System

### *Elimination of "Blind Spots"*

Without critical supply chain data delivered frequently and cleanly, companies are operating "blind," unable to prevent mistakes and improve performance.

G2's data capture solution, when combined with SAP Event Management, provides the ability to identify and respond to critical events across every supply chain node, early, before their complexity and expense snowball. As a result, companies will be able to:

- Find alternate sources for late deliveries and break fewer promises
- Synchronize deliveries with customer production cycles and reduce the cost of disruption
- Reduce the number of sub-quality products delivered to customers and improve customer satisfaction
- Provide visibility into problem areas and reduce the associated inventory buffers to cover shrinkage

### *Fast Time-to-Benefit*

With G2's solution, implementation is simple. G2 Asset Tags are easily configured via the G2 Tag Engine user interface. Customers can leverage their existing Cisco Unified Network to perform a routine configuration of their RADIUS Server. The G2 Tag Engine comes configured and ready to use. Via standard interfaces with SAP Event Management, files are easily transferred with no additional integration. It's that simple. Within a couple of weeks, you will be capturing data and seeing results.

### *Lowest total cost of ownership plus rich Capabilities G2's Wi-Fi Asset Tags for Data Capture.*

G2 Wi-Fi Asset Tags are reusable and reliable allowing amortization of costs across uses for several years. In addition, the tags' ultra-low power consumption reduces battery maintenance while extending reliability. Tags can be remotely reconfigured using the G2 Tag Engine and Wi-Fi network.

### *Cisco Unified Wireless Network for Secure Data Transport.*

By leveraging the Cisco Unified Wireless Network, no new hardware infrastructure is required. Deployment is equally easy – just communicate with your supply chain partners to determine the location of their Wi-Fi access points, perform a quick configuration of the tags and change a setting on their RADIUS server.

### *SAP Event Management for an Automatic Response to Out-of-Tolerance Conditions.*

The G2 Tag Engine interfaces seamlessly to SAP Event Management to simplify and accelerate deployment. Once the captured data is transported to SAP Event Management, conditions are evaluated against established thresholds, alerts are triggered against exceptions, and workflows are initiated for escalation.

The combined solution of G2 data capture, Cisco transport and SAP response provides the tag owner with a complete solution to manage critical conditions at the edge of the supply chain.

### **G2 Microsystems at a Glance**

G2 Microsystems develops solutions that leverage the global Wi-Fi infrastructure to monitor and track assets across the supply chain. Our low-power Wi-Fi tags trigger events for event management software and capture data for reporting software, providing arrival and quality information at a glance. G2's solution is fast and simple to deploy, requiring no additional infrastructure or back-office integration.

### **G2 Microsystems Commitment to Innovation**

G2 Microsystems has applied the talents of an experienced engineering team (they developed the first CMOS Wi-Fi solution) to the supply chain problems that our CEO saw firsthand for eight years (he was a founding member of the Supply Chain group at Ernst & Young). This has resulted in a low-power Wi-Fi solution designed specifically to locate, monitor and track assets across the supply chain.

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