



Alliance solution
brief

HP ProCurve and Ekahau

Ekahau RTLS

Real-Time Location over Wi-Fi Networks

The Challenge

Enterprises face challenges in tracking and locating critical equipment and inventory in a timely manner. In healthcare, the absence of a real-time location system that finds life-saving equipment can mean the difference between life and death. With manufacturing, a lack of visibility into the location of critical assets—whether fixed, mobile, finished goods, parts, containers, or trailers—can result in logistical nightmares.

The untimely location of assets often compels the need to overbuy or overproduce and may lead to excess inventory build-up or an avoidable expenditure on leasing or buying assets and tools.

In addition, employee safety in hazardous work environments becomes difficult to manage. The absence of a system that continuously monitors employee movement and raises alerts leaves an essential need for effective tracking.

How HP ProCurve and Ekahau help you meet the challenge

Timely availability and tracking of assets, equipment, and personnel are vital for achieving operational efficiencies, complying with regulations, and creating a safe work environment for employees. In order to make informed decisions and to best utilize resources, the ability to gain insight into the real-time availability and location of people and assets in the least disruptive manner is crucial. Real-Time Location Systems (RTLS) provide the ability to do just that.

While traditional systems often require expensive and proprietary infrastructures to measure locations, the joint HP ProCurve and Ekahau RTLS solution uses standard 802.11 networks for accurate location tracking, eliminating the need for installing complex, costly and proprietary hardware.

From the core to the edge, HP ProCurve offers an ideal environment for hosting an Ekahau system. Ekahau offers an overlay, real-time location system and application for IEEE 802.11 that leverages the HP ProCurve adaptive infrastructure. Though the Ekahau system demands little bandwidth to monitor its tags in the field, the faster and more robust the network, the more consistent the results are. This is also true when tracking human movement, as fast updates from tags are needed to monitor mobility. The ProCurve Open Network Ecosystem (ONE) provides an open networking platform with the security you need to ensure only tested and certified applications are able to run on your network. In addition, through an ecosystem of Alliance Partners, ProCurve ONE delivers a choice of leading applications—so you get the most business value from your network.

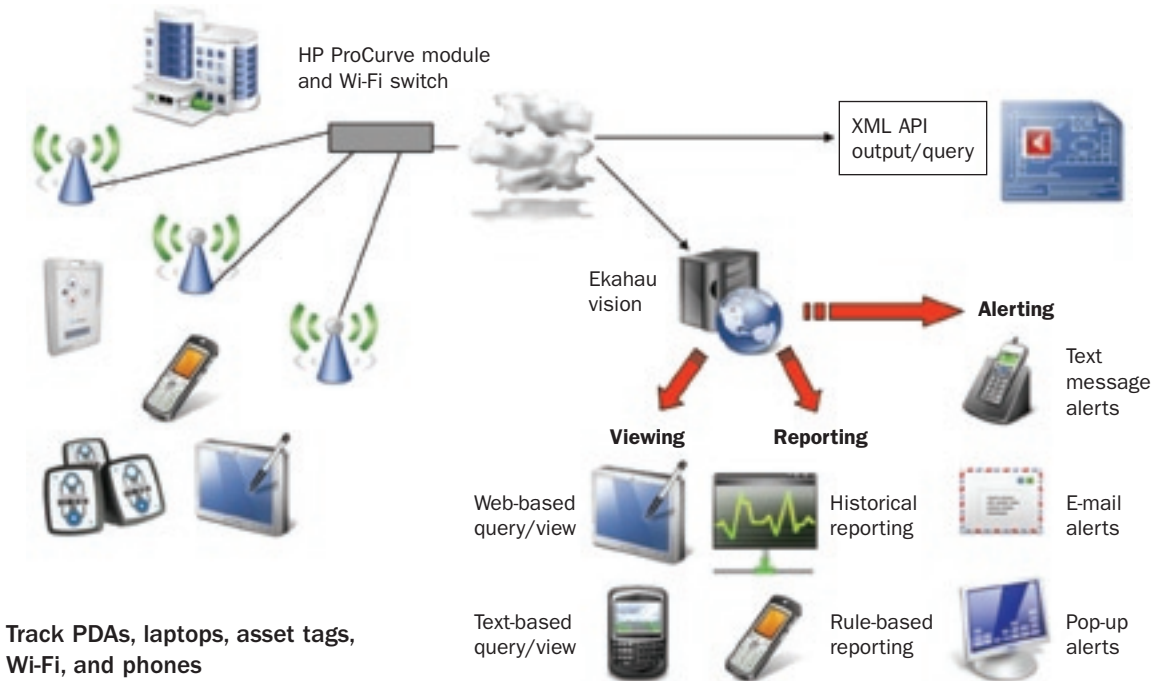
A major benefit of the HP ProCurve and Ekahau RTLS solution is the prevention of repurchase or overpurchasing of assets to make up for those that have been misplaced. An RTLS solution helps you optimize your operations and supply chains by giving you real-time visibility into the location of assets, which allows you to identify and remove exceptions and bottlenecks. The HP ProCurve and

Ekahau RTLS system helps you address the challenges of maintaining a safe work environment in hazardous conditions to support and enhance your safety initiatives.

Together, Ekahau and HP ProCurve deliver effective RTLS solutions to help enterprises meet these challenges. Having an effective solution for communicating relevant information to and from people helps you monitor your assets and staff in real time and gives you the ability to respond to events based on activity, severity, type, time, motion, or location. Features of the HP ProCurve and Ekahau RTLS solution associated with tracking the location of your assets and employees include:

- **Full integration with ProCurve:** The Ekahau RTLS solution is fully integrated with HP ProCurve networking equipment, supporting a centralized or distributed WLAN architecture. The Ekahau solution is future-ready, supporting the IEEE 802.11a/b/g/n standards and can be upgraded and expanded using soft-license keys.
- **Accurate and high-speed location server:** The Ekahau RTLS solution offers up to one to three meters of average accuracy, which eliminates the need for specialized hardware such as reader gates. With the ability to track over 1,000+ locations per second and over 50,000+ tracked objects per server, you can rest assured the solution will scale to meet your business needs.
- **Walk-around site survey (calibration):** An important feature of the Ekahau RTLS solution is the ability to perform a site calibration to collect an actual and not predicted client view of RF signals. This feature helps you overcome the challenge associated with deploying a responsive RTLS system, giving you the benefit of predicting the RTLS accuracy performance before the actual deployment.
- **Two-way tag communication:** For workflow applications and ease of deployment, the Ekahau RTLS system allows you to manage over-the-air tag configurations and send and receive text messages from display tags for alerts and status.

Solution architecture



Solution features

- **Accurate**—With ten years of scientific research and patented algorithms, the Ekahau Positioning Engine (EPE) yields an effective and accurate way to calculate locations within the enterprise Wi-Fi network, both indoors and outdoors.
- **Easy**—The Ekahau platform is purely software-based and runs on the existing enterprise Wi-Fi network, making installation fast and easy.
- **Open**—Use of open standards may reduce costs, lessen installation disruptions, and offer a meaningful way to leverage a Wi-Fi network. Ekahau’s open API allows customers to easily develop reporting and analysis systems that fit into existing work patterns.
- **Integrated**—In addition to packaged RTLS application software, the location data can be integrated with other enterprise systems such as patient, warehouse, or other operational management systems, which allows for informed and timely decision-making.

Solution benefits

- **Locate objects** and people anywhere in a Wi-Fi environment, reducing time spent searching for items manually.
- **Implement** an RTLS system quickly and easily by using only a facility’s IEEE 802.11 network and Ekahau software and hardware, alleviating chokepoints, cabling, invasive installation, or other complicated interim solutions.
- **Open architecture** works well with existing back-office applications—including SAP, SQL, Oracle, Sybase, XML, etc.—allowing personnel to use Ekahau data in current formats.
- **Real-time visualization** gives you a dynamic display of tracked objects on floor maps of the location area, providing a comprehensive snapshot of asset location and movement.
- **Advanced** RTLS tags are capable of sending and receiving short text messages, allowing personnel to communicate over the Wi-Fi network using small radio tags that are cost-effective.

HP ProCurve



Solution components

- **Ekahau Positioning Engine (EPE)**
- **Ekahau Vision (optional)** for monitoring and querying real-time asset location
- **Ekahau T301 family of tags**
- **Chassis**
 - HP ProCurve Switch 5406zl
 - HP ProCurve Switch 5412zl
 - HP ProCurve Switch 8212zl
 - No ProCurve Switch chassis is required if installing a MultiService Mobility or standalone access point solution.
- **Module/Controller**
 - ProCurve ONE Services zl Module (Switch 5400 or Switch 8200 series based solutions)
 - ProCurve MultiService Mobility Controller 700 Series, WESM module, or standalone access point solution
- **Access points/Radio ports**
 - MultiService Mobility AP 300 and 400 Series
 - Radio Port 200 Series
 - Autonomous AP420 and AP530

Why HP ProCurve and Ekahau?

HP ProCurve is the Network of Choice, providing best-in-class solutions, products, and services for wired and wireless networks. ProCurve's Adaptive Networks vision offers the flexibility to deliver secure, standards-based solutions.

Ekahau provides effective and accurate tracking of high-value assets across an entire enterprise. Ekahau's ease of implementation and intuitive

interface offer exceptional value for businesses ranging from healthcare to mining and retail.

Ekahau's RTLS system becomes easier to deploy through the integration of the HP ProCurve ONE Services zl Module. Together they improve the efficiency, accuracy, and quality that help maximize an organization's business value.

What is HP ProCurve ONE?

Businesses are constantly seeking ways to improve competitiveness and manage costs. You need to enable new applications to support the business, while addressing cost and network complexity. Today, you're forced to choose between integrating multiple appliances through open standards or being limited to a sub-optimal end-to-end solution from a single vendor.

HP ProCurve's Open Network Ecosystem (ProCurve ONE) allows you to choose from a selection of market-leading applications and to integrate them with your network, having the confidence that the solution has already been pre-tested. Should you run into an unforeseen problem, ProCurve's support team can provide fault-isolation assistance, and in the case of complex interactions will work closely with our alliance partner to isolate the cause of an issue and propose a resolution plan.

To find out more about the joint HP ProCurve and Ekahau Real-Time Location System via Wi-Fi Solution, visit www.procurve.com/one

For more information

To learn more about HP ProCurve Networking, please visit ProCurve.com

To learn more about Ekahau, please visit www.ekahau.com

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