



# Ekahau RTLS

**WLAN based Real Time Location and Communication Solution**



**Dirk Lenz**  
**Regional Director**  
**Central and eastern Europe**  
**Ekahau Inc**



# Ekahau – Company Overview

## About Ekahau

Since year 2000, Ekahau has been the center of innovation for Wi-Fi based software and Location systems - birthplace of the first commercially available Wi-Fi based location tracking system, the first visual Wi-Fi site survey tool, and the next-generation Wi-Fi tag family. Ekahau's patented core technology, together with elite RTLS experts, enables the company to hold a sustainable leadership position in the market today and in the future.

## Corporate Facts

- Core innovation based on a scientific research by one of the top scientist teams in the world in the field of probabilistic math and statistical modeling: CoSCo team
- Company founded in 2000 as a spin-off from Helsinki University
- Privately-held U.S. Delaware Corporation, headquartered in Reston, VA, USA
- Offices in Americas, EMEA, and APAC
- Over 100 resellers worldwide
- 12 patents filed, 10 granted, 2 pending
- Supported by major partners worldwide, including Aruba, Cisco, HP, Motorola, Siemens and others
- Over 1000 enterprise customers worldwide



Ekahau Worldwide

# Support From Investor Community



Ekahau, Inc. is privately owned by its employees, founders, and venture capital and industrial investors.

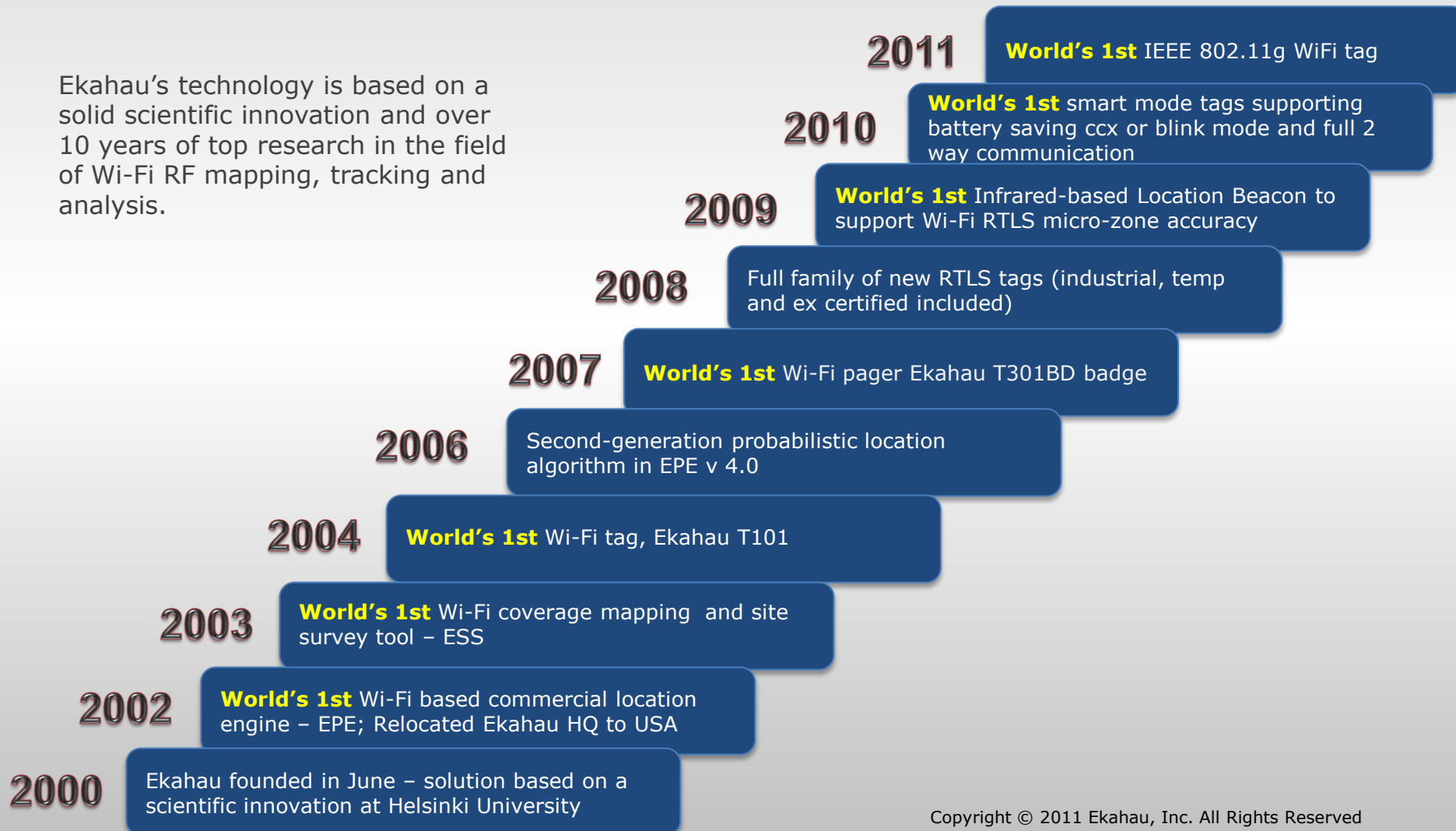
Over the years Ekahau has received outside investor funding through Series A, B and C funding rounds, and government grants and loans. The funding has been used to support geographic expansion and to substantially increase the company's go-to-market channel programs. Additionally, government support for R&D function allow Ekahau to accelerate its Wi-Fi RTLS market adoption through expanded product development.

Ekahau investors include:

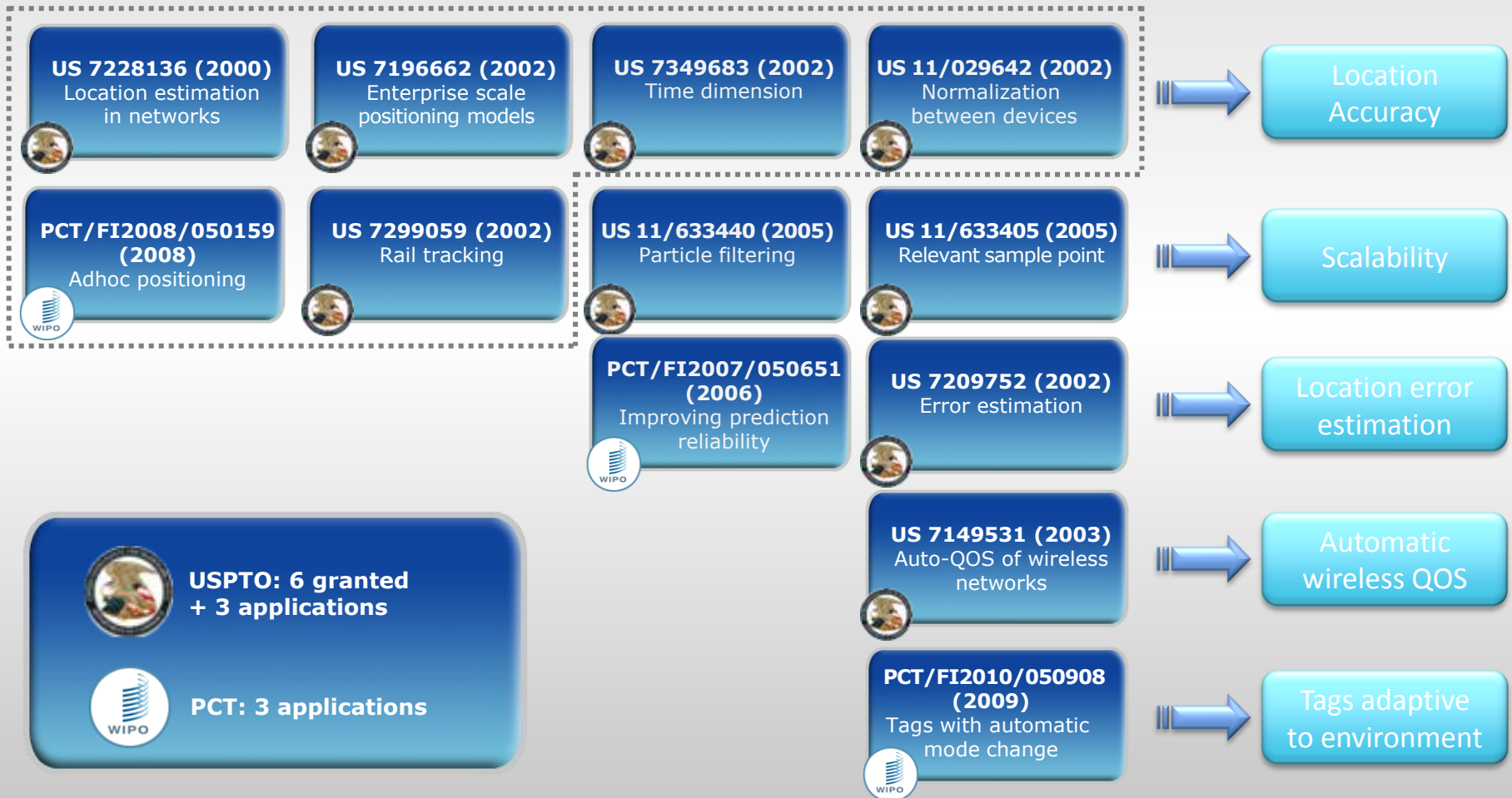
- Next Ventures
  - 3M Company,
  - Finnish Industry Investment Ltd,
  - Sampo Group,
  - The Government Funding Agency TEKES,
  - ETV Capital London,
  - A group of individual private investors
- To enable company's leading market position, Ekahau investors are committed in supporting Ekahau's growth also in the future.

# Ekahau Innovation Milestones

Ekahau's technology is based on a solid scientific innovation and over 10 years of top research in the field of Wi-Fi RF mapping, tracking and analysis.



# Ekahau's Patented Innovations



# Ekahau competitive differentiation

- uses any brand and generation of standard WiFi
  - no need for additional network or cabling
  - universally usable and future proof
- unique full two way tag communication
  - easy centralized tag management
  - no need for additional excimers etc.
  - comfortable communication applications
- patented “RSSI Fingerprinting” and “Rail Tracking” technology
  - best WiFi location accuracy on the market
  - less WiFi APs needed
- unique IR micro zone detection
  - down to less than 50cm accuracy
  - no need for additional cabling or radio configuration



# Partner and Customer Examples



# Ekahau – Mission



*We improve the efficiency and safety of our customers' operations, by providing real-time tracking and wireless management solutions to businesses worldwide.*

*"Efficiency" defined: Ekahau solutions have a positive hard-dollar ROI impact to customer's bottom-line and quantified improvement on employee safety, work-flow, and asset management.*



# Track & Trace in Logistic und Industry

## 1. Asset Tracking

- Parts
- Containers
- Tools



## 2. Personal Tracking

- Safety and Security
- Work-flow



## 3. Inventory tracking

# Ekahau Products

## Asset Tags:



## Patient Tags:



## Staff Badge/Pager:



## Temp/RH sensors:



## Ekahau RTLS:

- A complete Wi-Fi-based Real Time Location System for real-time tracking, communication and sensory data.
- Server software, applications and smart Wi-Fi Tags
- SDK/API for quick application & back-office integration
- 2-3 m enterprise wide accuracy over Wi-Fi & < 1m with IR

## Ekahau Site Survey –ESS:

- The #1 leading Wi-Fi planning and site survey tool
- The only Wi-Fi survey tool with RTLS deployment function
- Wi-Fi Planning, analysis, survey and optimization tools

**Ekahau Applications**

**Ekahau RTLS Controller**

**Ekahau Wi-Fi Tags**

**Ekahau Site Survey**



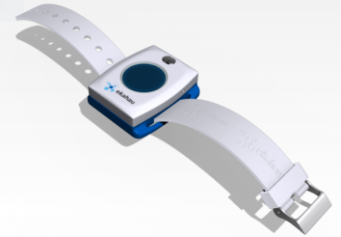
Ekahau RTLS software



Ekahau Site Survey

# T-Series Wi-Fi Tags

- The Ekahau System possesses the widest selection of tags of any Wi-Fi based RTLS system. As of 10/1/2009 – 10 different models.
- **Ekahau tags can operate in the following ways:**
  - Standard one-way “blink or beaconing mode”
  - Ekahau Beaconing - one-way “blink mode”
  - Smart-Mode - 2-way association for management and the use of acknowledgement and retry mechanisms
  - Combined Beaconing/Blink + Smart mode
- **All Ekahau Tags can support different IP addressing:**
  - No IP address
  - Static or Dynamic addressing
  - Forthcoming IPV6
- **Ekahau Tags feature “Smart” capabilities such as:**
  - On-board alerting (e.g. temperature, staff duress, etc.)
  - Over-the-Air (OTA) programming & configuration (for touch-free operation)
  - 2-way messaging including alarms/ alerts, acknowledgements, text messages, sensor alarms ( w confirmation ) and multiple push buttons.
  - Sensor connection options for bed alarms, nurse call, remote clinical device monitoring (e.g. Pump Alarms in isolation units)



# Ekahau Location Beacons – Micro Zone Accuracy

## Ekahau Location Beacons

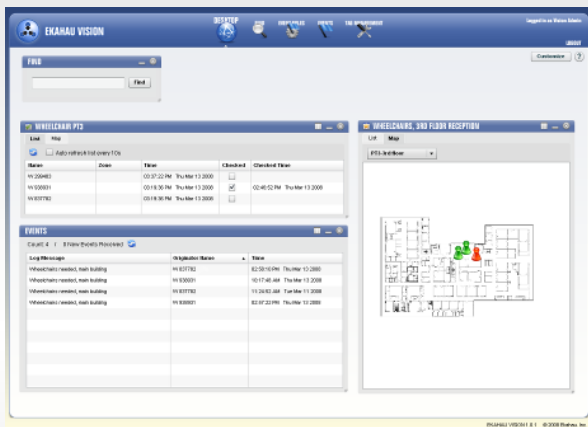
- Battery-powered Infrared (IR) transmitters, with unique ID (optional wired power supply)
- Wall-mount transmitters pointed to a zone, where Ekahau tags will detect the IR signal
- Two to Five year battery life, with no cabling or external power – easy to install and move

## Infrared: completing Wi-Fi/RF based location

- Due to nature of IR beam not penetrating walls, provides 100% room accuracy even in areas with low density Wi-Fi network coverage
- Using precision IR beam, capable of accurately covering small areas such as hand washing sink
- Increased location granularity for sub-room level accuracy
- Utilized to augment WLAN where needed and based on solution or process requirements.

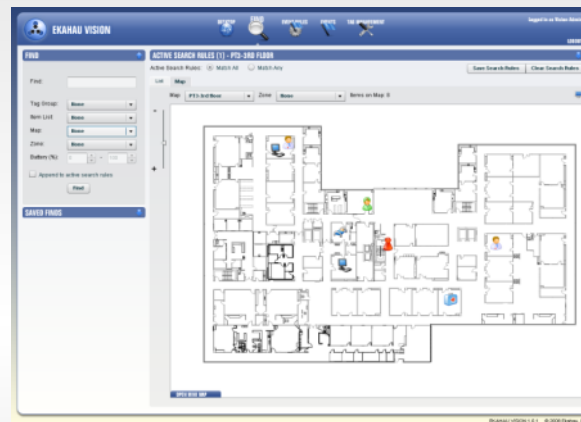


# Ekahau Vision Application...



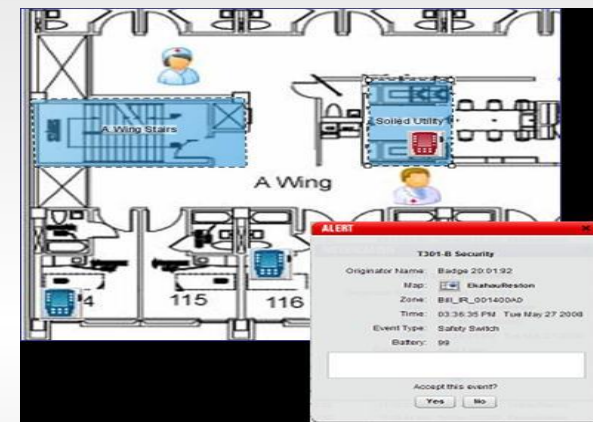
Individual Dashboard

- Events
- Work lists
- Overview



Finding and visualization

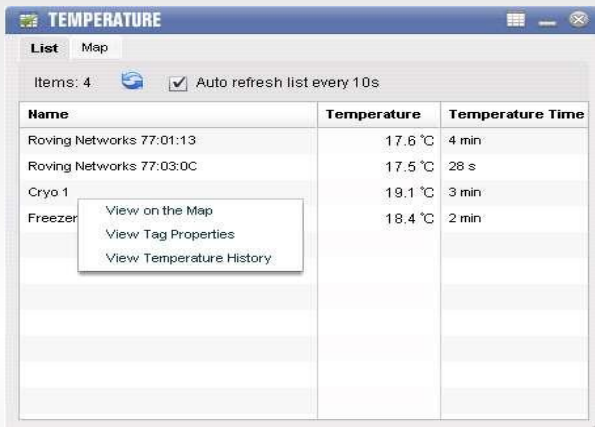
- Intelligent searches
- Real time visualization



Alarming

- Process- and event rules
- Alarm escalation
- Text messaging

# ...Ekahau Vision Application



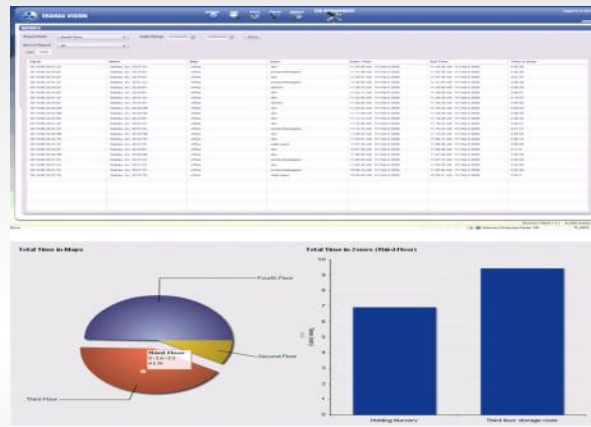
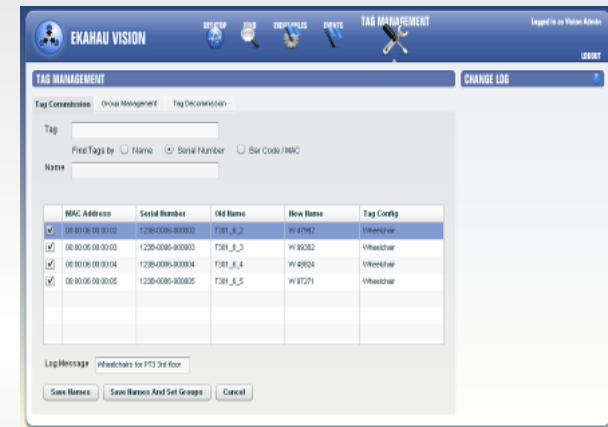
TEMPERATURE

List Map

Items: 4  Auto refresh list every 10s

Name	Temperature	Temperature Time
Roving Networks 77:01:13	17.6 °C	4 min
Roving Networks 77:03:0C	17.5 °C	28 s
Cryo 1	19.1 °C	3 min
Freezer	18.4 °C	2 min

- View on the Map
- View Tag Properties
- View Temperature History

EKAHAU VISION

Tag Management

Tag:

Find Tags by:  Name  Serial Number  Bar Code/MAC

Name:

MAC Address	Serial Number	Old Name	New Name	Tag Config
<input checked="" type="checkbox"/> 00:00:00:00:00:00	1234-5678-9010	T301_3_2	W11761	Vibetstraw
<input checked="" type="checkbox"/> 00:00:00:00:00:00	1234-5678-9011	T301_3_3	W19032	Vibetstraw
<input checked="" type="checkbox"/> 00:00:00:00:00:04	1234-5678-9014	T301_3_4	W14054	Vibetstraw
<input checked="" type="checkbox"/> 00:00:00:00:00:05	1234-5678-9015	T301_3_5	W17271	Vibetstraw

Log Message: #Freezers for P13 3rd floor

Save Names Save Names And Set Groups Cancel

Temperature and humidity control

- history documentation
- alerting

Analysis

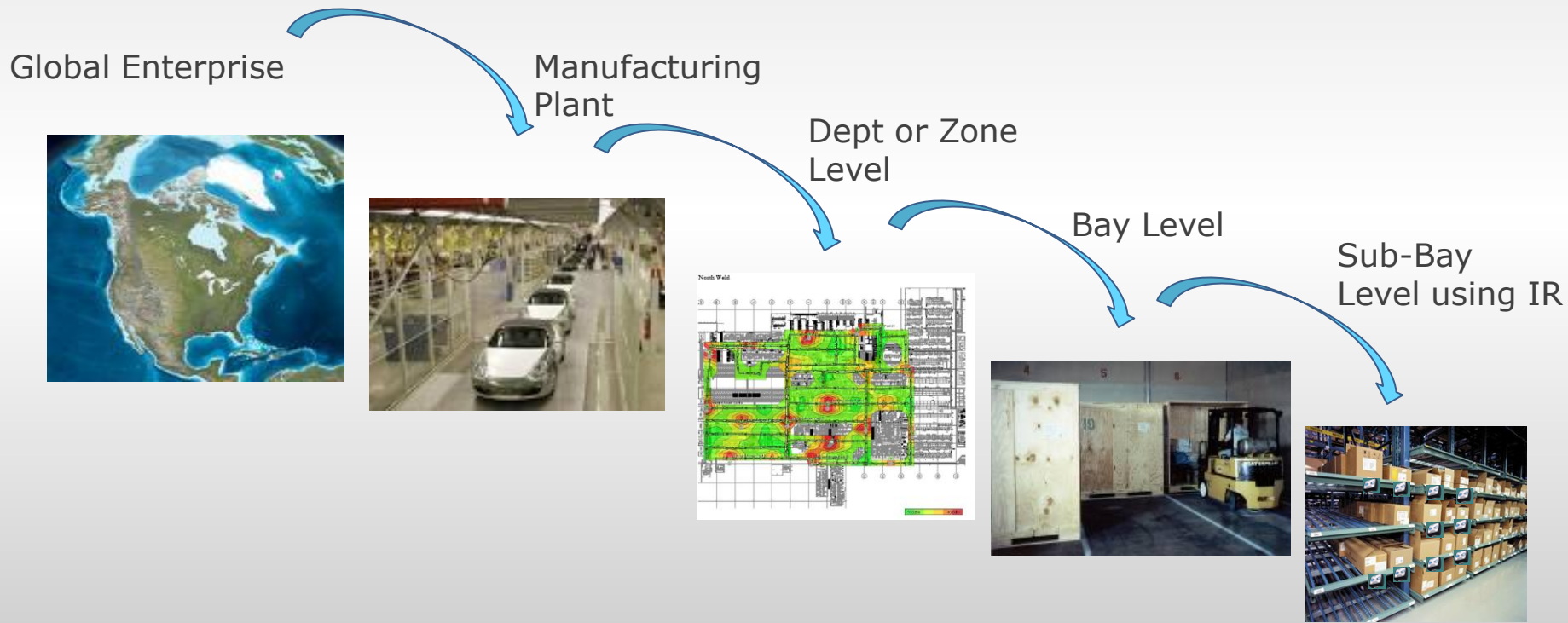
- Dwell time
- Room usage
- Inventory
- Events

Tag management

- individual naming
- groups
- colors, symbols

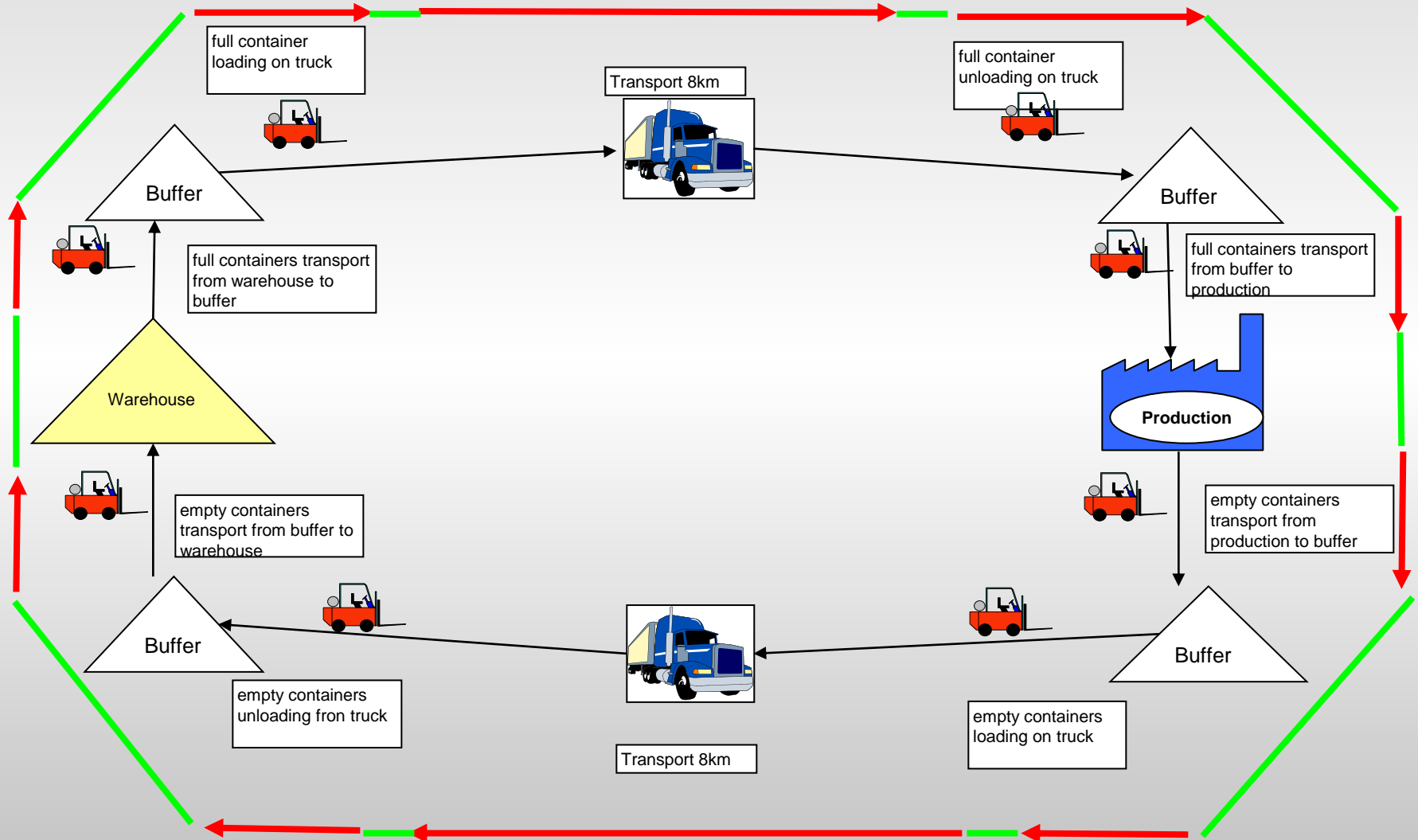
# Ekahau RTLS for your Enterprise

The **ONLY** Real-Time-Location Solution that can provide resolution at the:



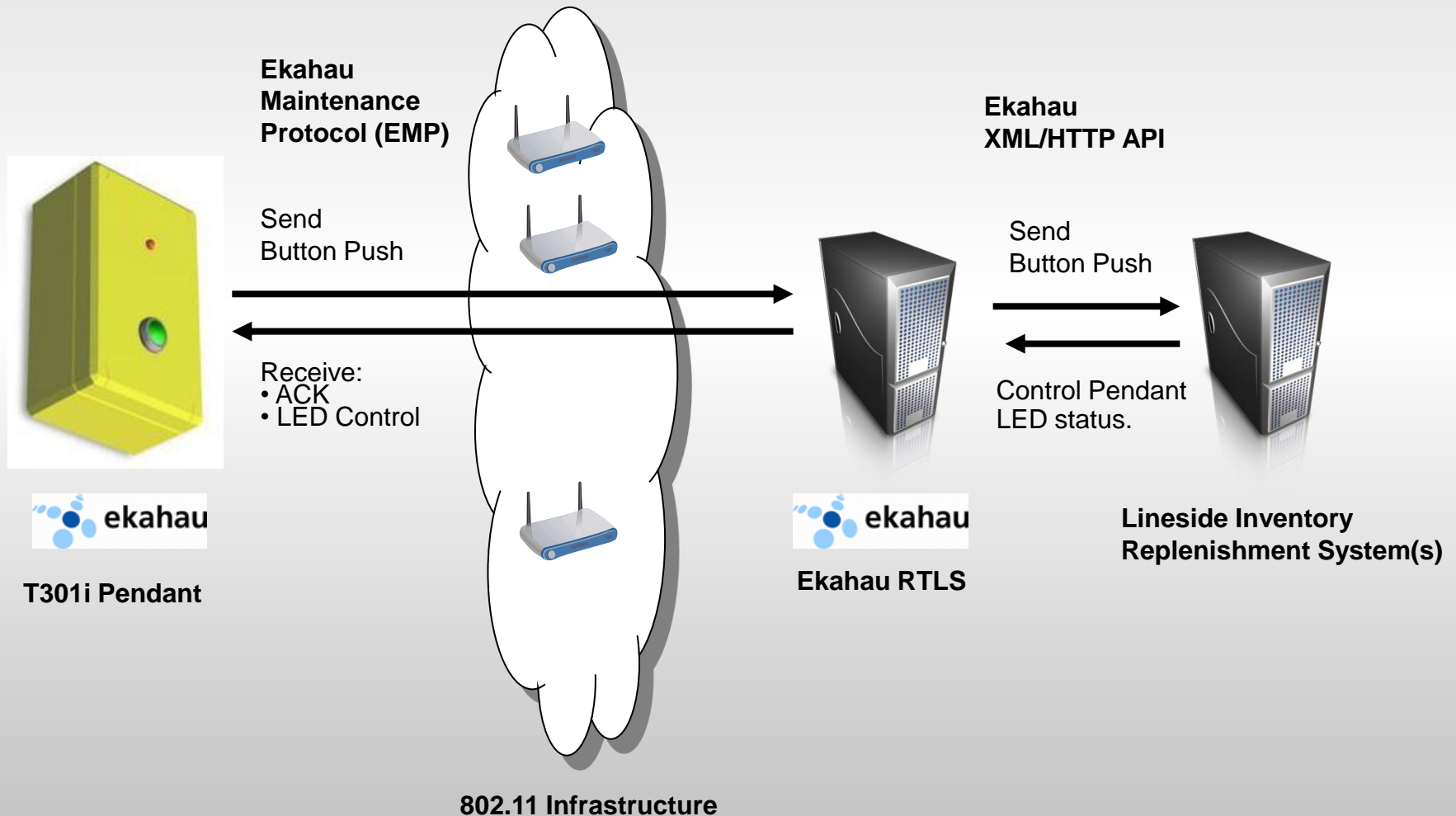
....all using your existing Wi-Fi infrastructure + Ekahau software and Ekahau Tags!

# VW case: Logistic Cycle

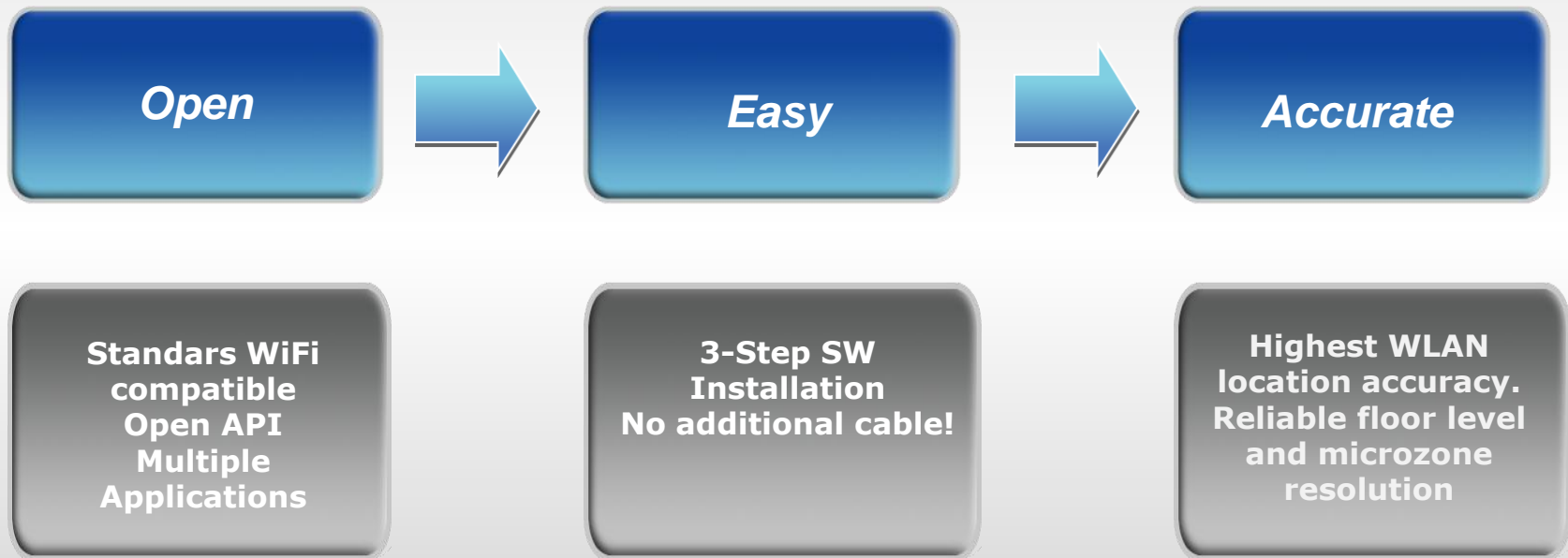




# Toyota case: Material call (eKanban)



# Ekahau advantage - Open Easy Accurate



# Thank You!

## USA

### East Coast

1851 Alexander Bell Drive  
Suite 105  
Reston, VA 20191  
Tel: 1-866-4EKAHAU  
Fax: 1-703-860-2028  
sales-americas@ekahau.com

### West Coast

12930 Saratoga Avenue  
Suite B-8 Saratoga, CA 95070  
Tel: 1-866-4EKAHAU  
Fax: 1-703-860-2028  
sales-americas@ekahau.com

## EUROPE

Hiilikatu 3  
00180 Helsinki, Finland  
Tel: +358-20-743 5910  
Fax: +358-20-743 5919  
sales-europe@ekahau.com

## ASIA

1-64-7 Den-en-chofu, Oota-ku  
Tokyo 145-0071, JAPAN  
Tel: +81-90-8514 7882  
sales-asia@ekahau.com