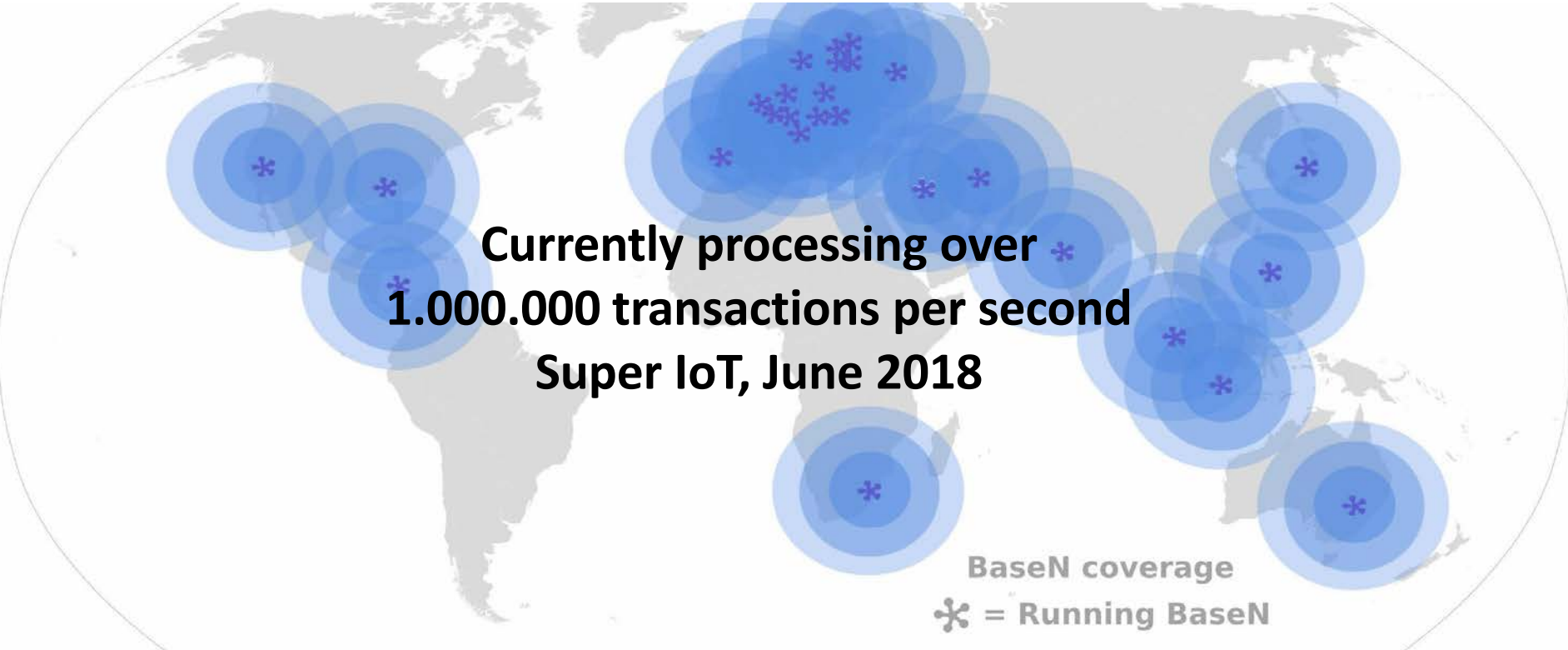


# BaseN Global IoT Operator

A world map showing BaseN coverage. The map is light gray. Overlaid on the map are several blue circles of varying sizes, representing coverage areas. Each circle contains a small purple asterisk. The largest circle is in the North Atlantic region, with several smaller circles around it. Other circles are spread across Europe, Africa, Asia, and Australia. The text is centered over the map.

**Currently processing over  
1.000.000 transactions per second  
Super IoT, June 2018**

BaseN coverage  
\* = Running BaseN

# BaseN Platform **Applications in Production**

- Global construction site control solution
  - Personnel and tools via RFID
- Smart Building and Energy
  - Cloud based management of industrial and residential buildings
- Smart Living and eHealth
  - Elderly Healthcare using wrist sensors
  - 24/7 security services

# Base<sup>n</sup>



# BaseN Platform **Applications in Production**

- Datacenter and energy management
  - Computing hardware, electricity, cooling, UPS
- Industrial automation
  - Managing solar and wind inverters (drives)
- Full telecom OSS solution
  - Integrated fault and performance management

# Base<sup>n</sup>



# BaseN Full Stack IoT Operator

Base<sup>n</sup>  
Billions of..

|    |   |  |
|----|---|--|
| 1  | User Experience                                     | Extensive service design interfaces and knowledge  |
| 2  | Thing (Device) Management                           | Device management & connectivity capabilities up to billions of devices                              |
| 3  | Data Science & Analytics                            | Capability for parallel processed, distributed algorithms across all platform computing resources    |
| 4  | Extensive Application Programming Interfaces (APIs) | Interfaces from/to external and legacy applications  |
| 5  | Spime containers                                    | The permanent logical brain and memory of any physical Thing   |
| 6  | BaseN Platform Core                                 | BaseN Platform core, fully owned Intellectual Property Rights (IPR) for all essential components     |
| 7  | BaseN Platform Operating Environment                | Uniform BaseN Platform Operating Environment (BPOE), own configuration management                    |
| 8  | Computing & Storage Hardware and Edge Equipment     | Bare metal servers, own distributed storage systems  |
| 9  | Data Centers  | BaseN acquires dedicated co-location space at optimally selected global hubs                         |
| 10 | Network Access                                      | BaseN is an Internet Service Provider since 2001 with own Autonomous Systems and open peering policy |

# Example: Security/Surveillance

**Base<sup>n</sup>**  
Billions of..

Case: Responda 113 ([www.113.fi](http://www.113.fi))

• **Responda 113** is **Internet of Things (IoT) security** approach to:

- Consolidate information from various sources
  - Alarm loops, radio based systems, cameras etc.
- Store and analyze the data
- Present the data and react based on the rules related to the issue
- Communication with the Insta Response management system ([www.112.fi](http://www.112.fi))

• Reducing significantly the man working time needed to manage data and to make it possible to **handle thousands of simultaneous issues** from the sources

• In first phase 10.000 IoT sources will provide information to BaseN's Platform

**HÄLYTYSKESKUSPALVELUIDEN TUOTTAJA SUOMESSA**  
PALVELUA 24/7 - YHDISTÄMME DATAN ANALYSOIDUKSI TIEDOKSIA YMMÄRRETTÄVÄKSI TILANNEKUVAKSI

**HÄLYTYSKESKUSPALVELUT** »  
Tarjomme 24/7 hälytyskeskuspalveluja ja johtokustoinnintaa sekä yksityisille että julkisen sektorin toimijoille. Vastaamme valvottujen kohteiden tai tapahtumien hälytyspäivityksestä ja tilannejohtamisesta reaaliaikaisesti.  
[LUE LISÄÄ »](#)

**KIINTEISTÖPALVELUT** »  
Kokoamme tietoa useista lähteistä kattavaksi tilannekuvaksi ja johtamisen apuvälineeksi. Yhdistämme kiinteistösi valvontatiedon yhteen valvomoon. Saat keskityn hallinnan ja reaaliaikaisen analysoidun raportoinnin kiinteistösi kaikista toiminnoista. Valvomme ja johtamme kiinteistösi kaikkia toimintoja.  
[LUE LISÄÄ »](#)

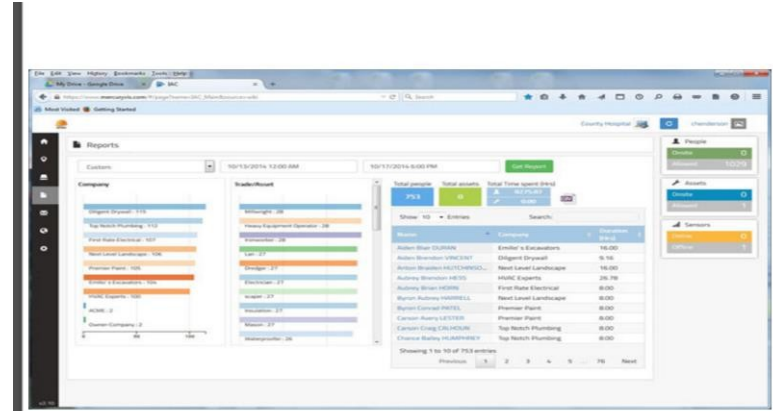
**HOIVAPALVELUT** »  
Responda 113 vastaa ympärivuorokautisesti paikantavien hoiva- ja turvarannekkeiden hälytyksien vastaanotosta, tarkastuskäyntien ohjauksesta ja koko tapahtuman johtamisesta. Etävalvonta ja toiminnan ohjaus vapauttavat aikaa huolehtimalla puolestasi sekä vanhuksen arkiarvotilien että työpäiviesi sujuvuudesta.  
[LUE LISÄÄ »](#)

# Example: RFID/NFC Tags

Base<sup>n</sup>  
Billions of..

Case: [Trimble](http://www.trimble.com) (www.trimble.com)

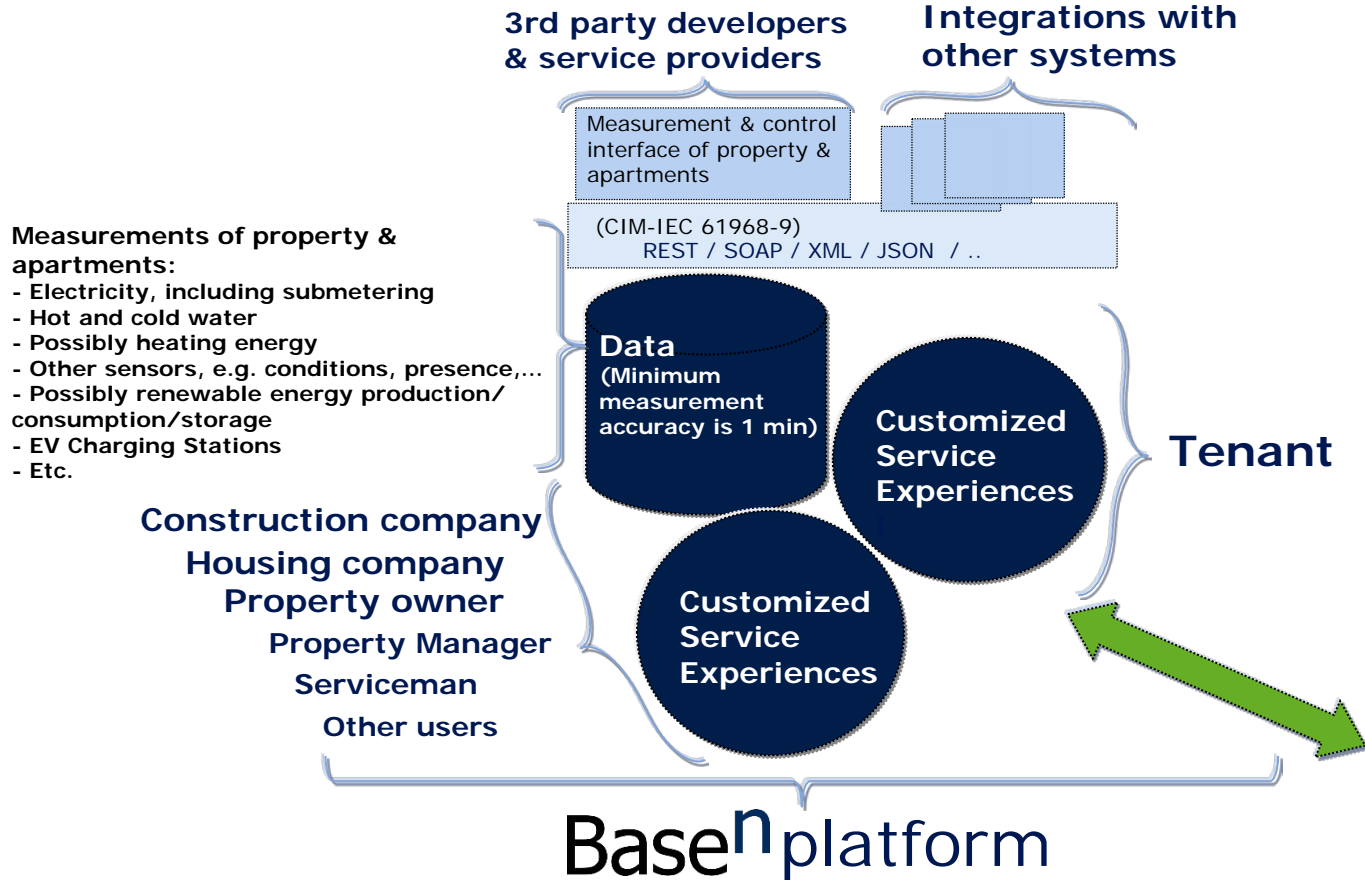
- RFID tags are already widely in use to retrieve information from devices and/or environments
- BaseN works with RFID or NFC tag enabled **access control and contract workers location tracking** – gathering, storing and correlating data from RFID/NFC readers to secure that only authorized personnel enters the scene, e.g. a construction site  
<http://www.trimble.com/construction/crewsight>
- Providing real-time monitoring as well as historical reporting
- Retail warehouse **inventory tracking**, with **automatic order creation** based on thresholds of volume of goods monitored real-time through RFID or bar code tags



# Example: Service Operator & Demand Response aggregator - Helsinki Smart Kalasatama

<http://fiksukalasantama.fi/en/>

# Base<sup>n</sup>



# Thank You

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**Jukka Paananen**  
**BaseN Corporation**

Salmisaarenaukio 1  
00180 Helsinki, Finland  
Tel +3589 4282 4200

440 North Wolfe Road  
Sunnyvale, CA, 94085, USA Tel  
+1-650-714-2291

**Twitter: @BaseN\_Corp**

**[www.basen.net](http://www.basen.net)**

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