

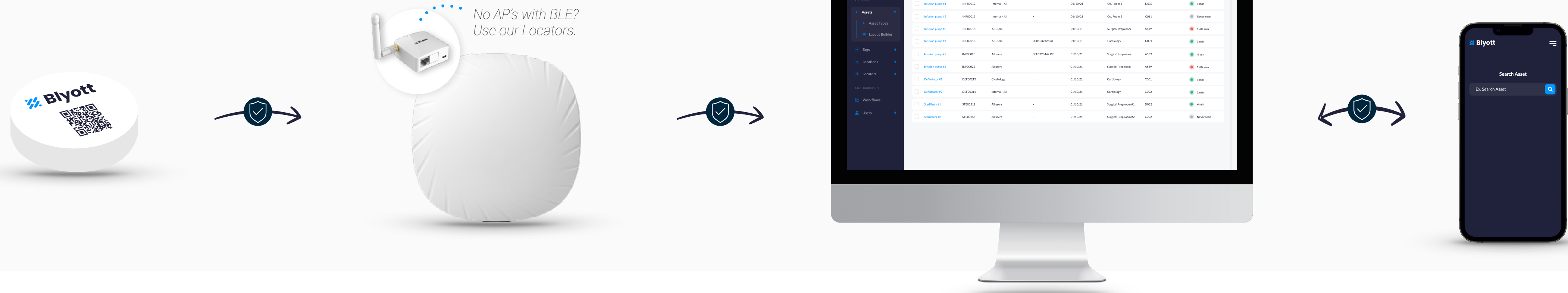
TECHNICAL DOCUMENTATION

# Proxy Server & Wi-Fi Support

V25.1



# Four Main Components



## 1 Blyott Sensors

Fixed on assets. Location, temperature, movement. Many types, long battery life.

## 2 Wi-Fi AP's with Bluetooth<sup>(\*)</sup>

Receive Blyott sensor information. Wi-Fi AP's, fixed & mobile (4G) locators.

## 3 Remote Insights Platform

Serverless & scalable architecture. Insightful Big Data analytics and AI.

## 4 Customer Applications

Blyott web and mobile app. Support for 3rd party apps using Rest API's and webhooks.

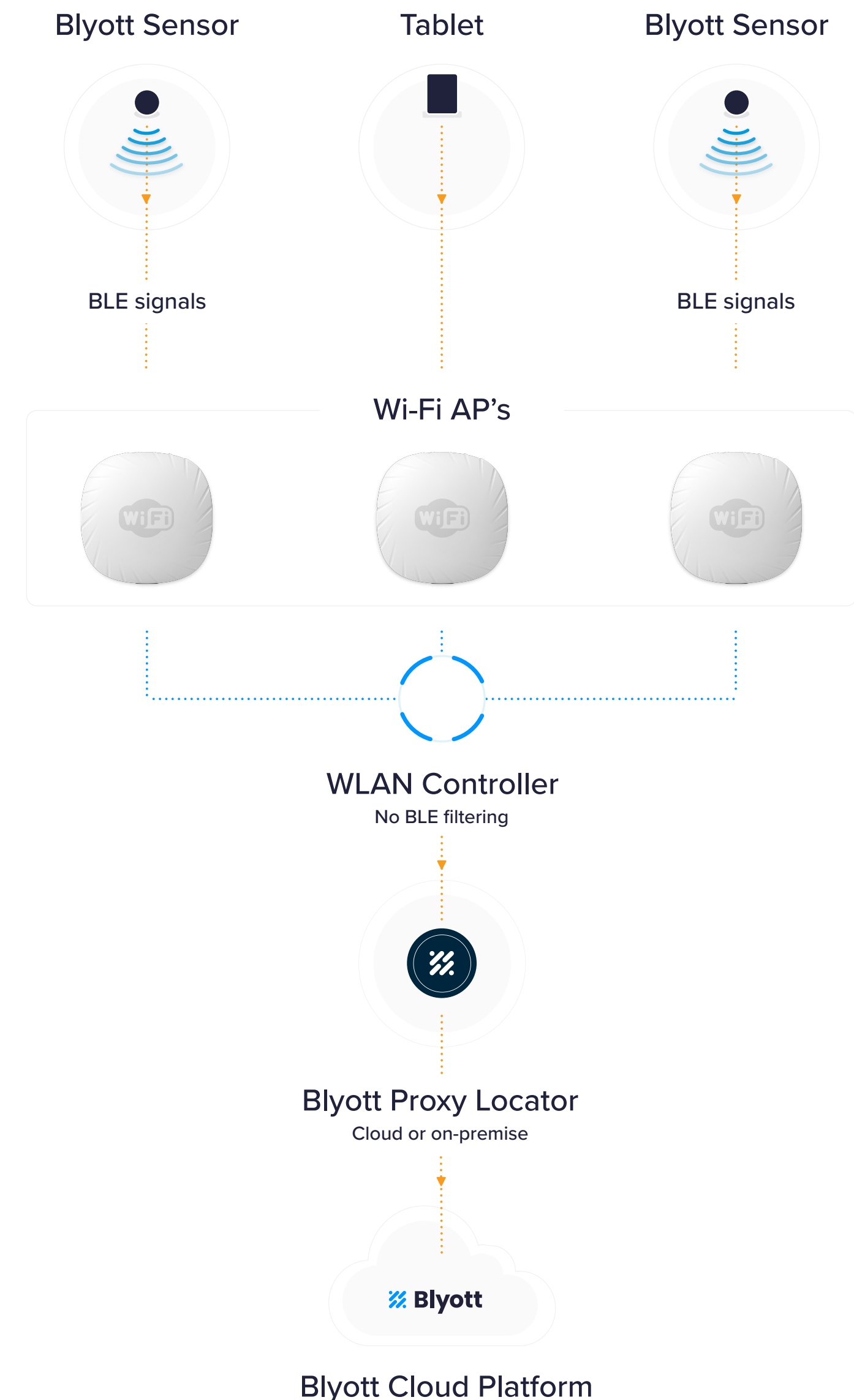
aruba Extreme FORTINET Juniper Mist AI cisco Meraki

aws sas

PLANON ULTIMO IARTA TOPdesk itransport

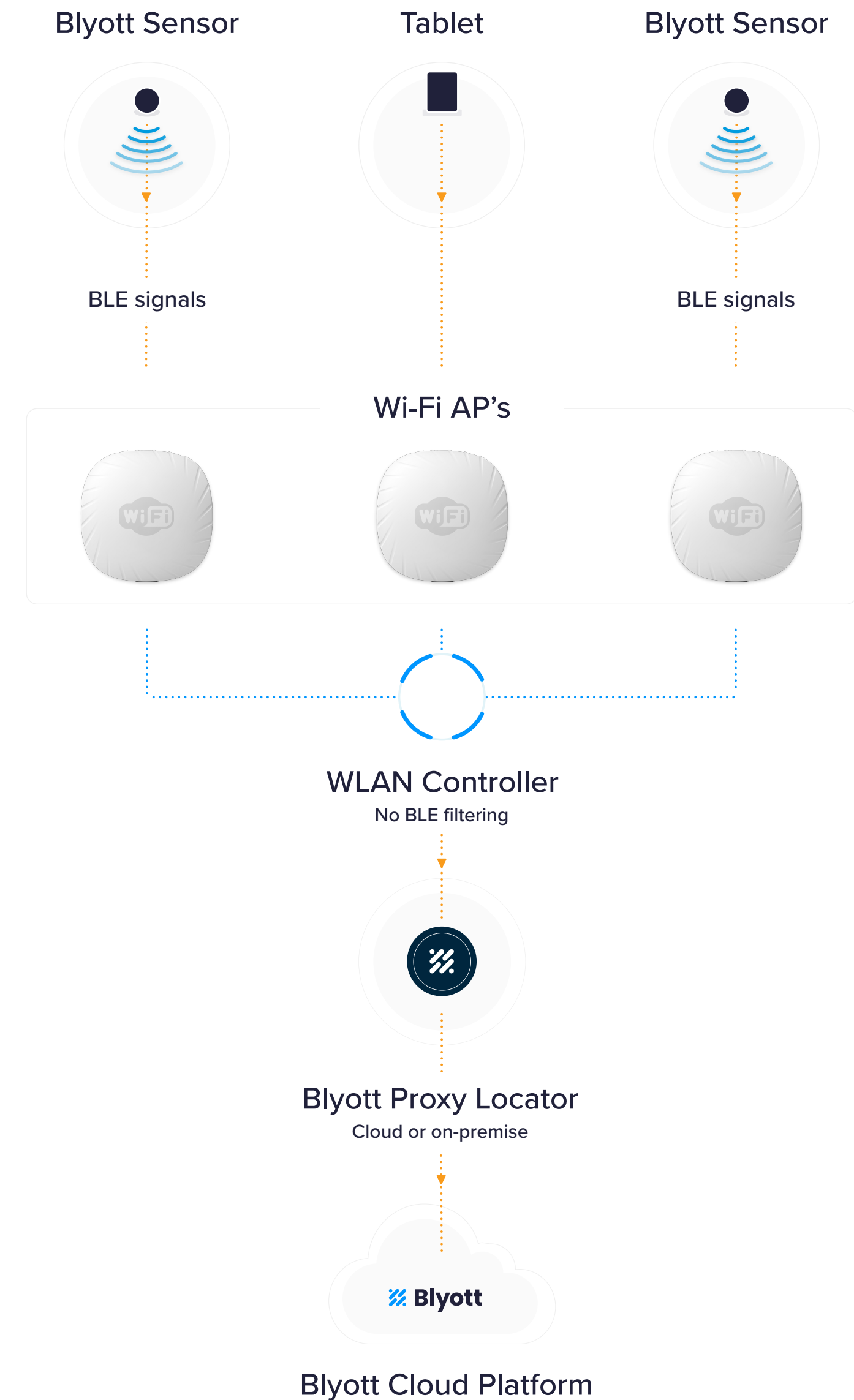
# Blyott Proxy Server

- Some Wi-Fi AP's and WLAN controllers can not filter BLE messages (e.g. BLE MAC addresses, Manufacturer ID, Service UUID).
- In such cases, BLE messages from e.g. keyboards, smartphones, tablets, ... are also sent to the Blyott Cloud, resulting in up to 99% unnecessary data traffic.
- To avoid this, Blyott has developed its "Proxy Server". This server is installed between the WLAN controller of the client and the Blyott Cloud and only sends relevant BLE messages to the Blyott cloud.
- The "Proxy Server" can run in the cloud (for WLAN networks with <100 Wi-Fi AP's) or on-premise (for WLAN networks with >100 Wi-Fi AP's).
- See further for a list of Wi-Fi vendors who do (not) support BLE filtering.
- **Blyott is not specialized in and neither responsible for configuring WLAN infrastructure! Please contact the party who did your WLAN installation for the latest info and assistance.**



# Proxy Server Requirements

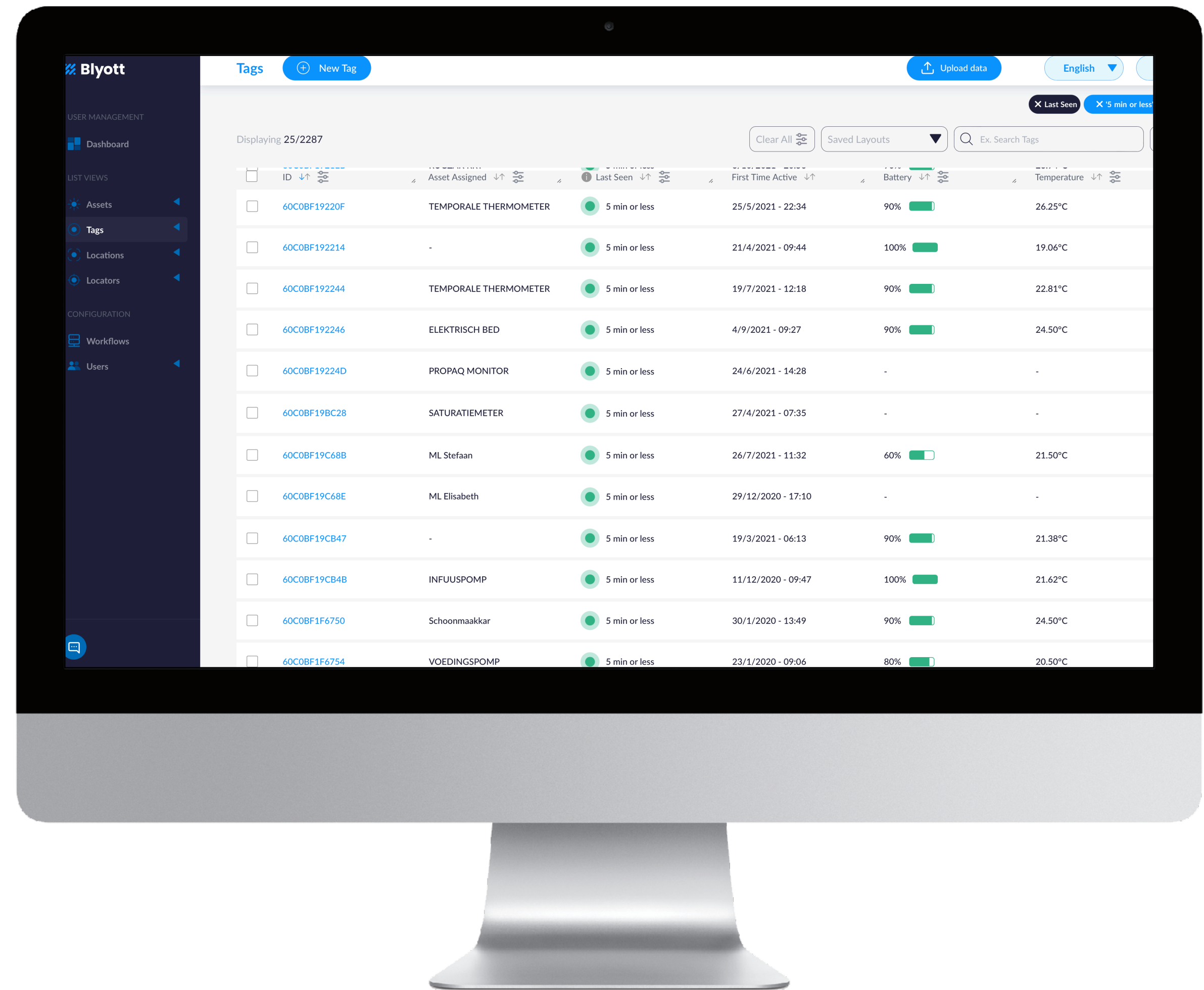
- Virtual Machine (VM) requirements
  - 2 vCPU Linux Ubuntu / 4 vCPU Windows
  - 8 GB RAM, 100GB HD
  - Account with full admin rights
- Firewall - Incoming LAN traffic (from WLAN controller to VM)
  - Examples: Extreme Networks UDP 8004, Fortinet UDP300, Aruba TCP 8001, ... (please contact Blyott support for latest updates)
  - The WLAN controller should sent all data to the (internal) IP address of the VM
- Site-2-Site VPN between client VM and Blyott
- Firewall - Incoming VPN traffic (from Blyott to VM)
  - CMP, UDP 161 & 162 (SNMP), TCP 10050 & 10051 (monitoring), TCP 80 & 443 (http(s)), TCP 10069 (data-stream), remote access (SSH: 22, RDP: 3389)
- Firewall - Outgoing Traffic (from VM to Internet)
  - TCP 443 HTTPS, TCP 8883 MQTT (with content filtering disabled)
- Firewall - Outgoing Traffic (from VM to VPN)
  - TCP 10050 & 10051 (monitoring)





# Payload Support

- A BLE message consists of 2 parts:
  - A “public” part which contains the MAC address of e.g. the Blyott sensor (= unique identifier)
  - A “private” part -often encrypted- which contains additional info like e.g. battery level, T°, ....
- The encrypted “private” part of a Blyott sensor contains the following info about the sensor:
  - Battery status
  - Temperature
  - Movement (is the sensor moving or not?)
  - Push button (is the push button pressed or not?)
- The “private” part of a Blyott message is not always “seen” by a Wi-Fi AP. This is dependant on the type -and manufacturer- of AP being used. When the “private” part is not seen, this implies that e.g. T° and battery status are not seen on the Blyott portal.
- See further for a list of Wi-Fi vendors who do (not) support payloads.





AP's with built-in BLE support  
**BRANDS(\*)**

Supported by Blyott  
**BLYOTT**

Type of BLE Sensor  
**TYPE**

Proxy Server Required  
**PROXY**

BLE Payload Supported  
**PAYLOAD**

Alcatel - Lucent	No	iBeacon	-	-
Aruba SW 8.7 (or lower - use https)	Yes	Standard Sensor	No	No
Aruba SW 8.8 (or higher - use websocket)	Yes	Standard Sensor	No	Yes
Blyott Locator (with or without Wi-Fi AP)	Yes	Standard Sensor	No	Yes
Cisco (Check with Cisco which licenses are required)	Yes	Standard Sensor	Yes	Yes
Extreme (Cloud IQ - Controller)	Yes	Standard Sensor	No	Yes
Extreme (Cloud IQ - On Premise)	No	Standard sensor	No	Yes
Extreme (Cloud IQ - Public Cloud)	No	Standard sensor	No	Yes
Fortinet	Yes	Standard Sensor	Yes	No
Huawei Wi-Fi	Yes	Standard Sensor	Yes	Yes
Juniper Mist	Yes	Standard Sensor	No	Yes
LANCOM	Not Yet	-	-	-
Meraki	Yes	Standard Sensor	No	Yes
Ruckus	Not Yet	-	-	-

**(\*) PLEASE CHECK WITH YOUR WI-FI HARDWARE PROVIDER WHICH EXTRA SOFTWARE MAY BE REQUIRED**



# Big Savings Happy Staff

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