#### **TECHNICAL DOCUMENTATION**

# Proxy Server & Wi-Fi Support

V23.2



### **Byott** | REMOTE INSIGHTS



BLYOTT I REMOTE INSIGHTS

## Four Main Components





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

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

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

aruba 🖪 Extreme FIRTINET. JUNIPER. Mist AI "disco" Meraki Mist AI ''''' Meraki

🗱 Blyott	Assets 💽 New	Asset					T Upload Data	John Doe
USER MANAGEMENT	Displaying 10/129				Clear All	Saved Searches	Q Ex. Search Asse	
📕 Dashboard	Asset 1	Code 41	Access Levels 41	Workflows 11	Types 11	Zones 11	Tag Assigned 41	Last Seen 41
LIST VIEWS	/ Infusion pump #1	INP00012	6 // //	· · ·	01/10/21	Ø Op. Room 1	# D032	<ul> <li>1 min</li> </ul>
* Assets •	Infusion pump #2	INP00013	Internal - All		01/10/21	Op. Room 2	C011	Never seen
🌾 Asset Types	Infusion pump #3	INP00015	All users		01/10/21	Surgical Prep room	A589	120+ min
📃 📃 Layout Builder	Infusion pump #4	INP00018	All users	0ER433242133	01/10/21	Cardiology	C001	1 min
● Tags ◀	Infusion pump #5	INP00020	Allusers	0CF3123442133	01/10/21	Surgical Prep room	A589	4 min
<ul> <li>Locations</li> </ul>	Infusion pump #6	INP00022	All users		01/10/21	Surgical Prep room	A589	120+ min
Locators	Defibrilator #1	DEF00213	Cardiology	÷	01/10/21	Cardiology	C001	1 min
CONFIGURATION	Defibrilator #2	DEF00311	Internal - All	÷	01/10/21	Cardiology	C002	<ul> <li>1 min</li> </ul>
Workflows	Sterilizers #1	STE00311	All users	•	01/10/21	Surgical Prep room ∉1	D032	4 min
🚔 Users 🛛 🖣	Sterilizers #2	STE00255	All users		01/10/21	Surgical Prep room #2	C002	Never seen



#### **3** Remote Insights Platform

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

> Ssas aws

#### Customer Applications

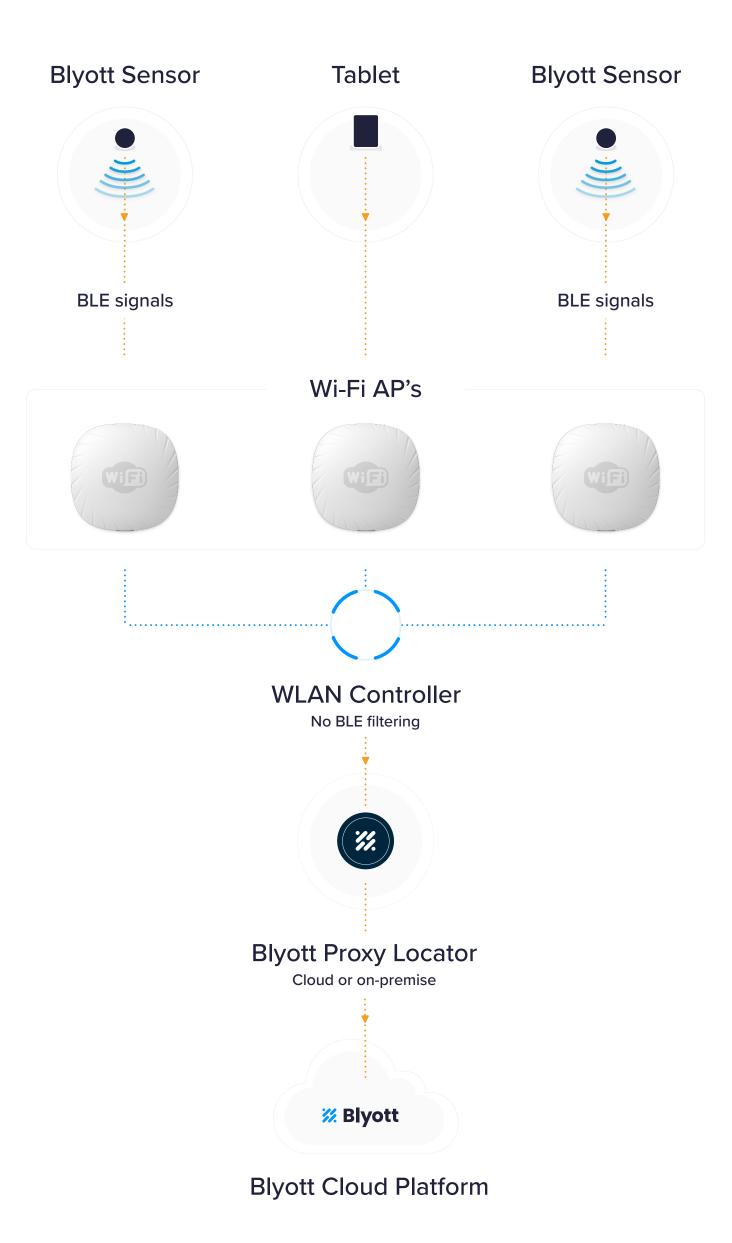
Blyott web and mobile app. Support for 3rd party apps using Rest API's and webhooks.

-PLANGR- ULTIMO 🎥 iARTA > TOPdesk (itransport



## **Blyott Proxy Server**

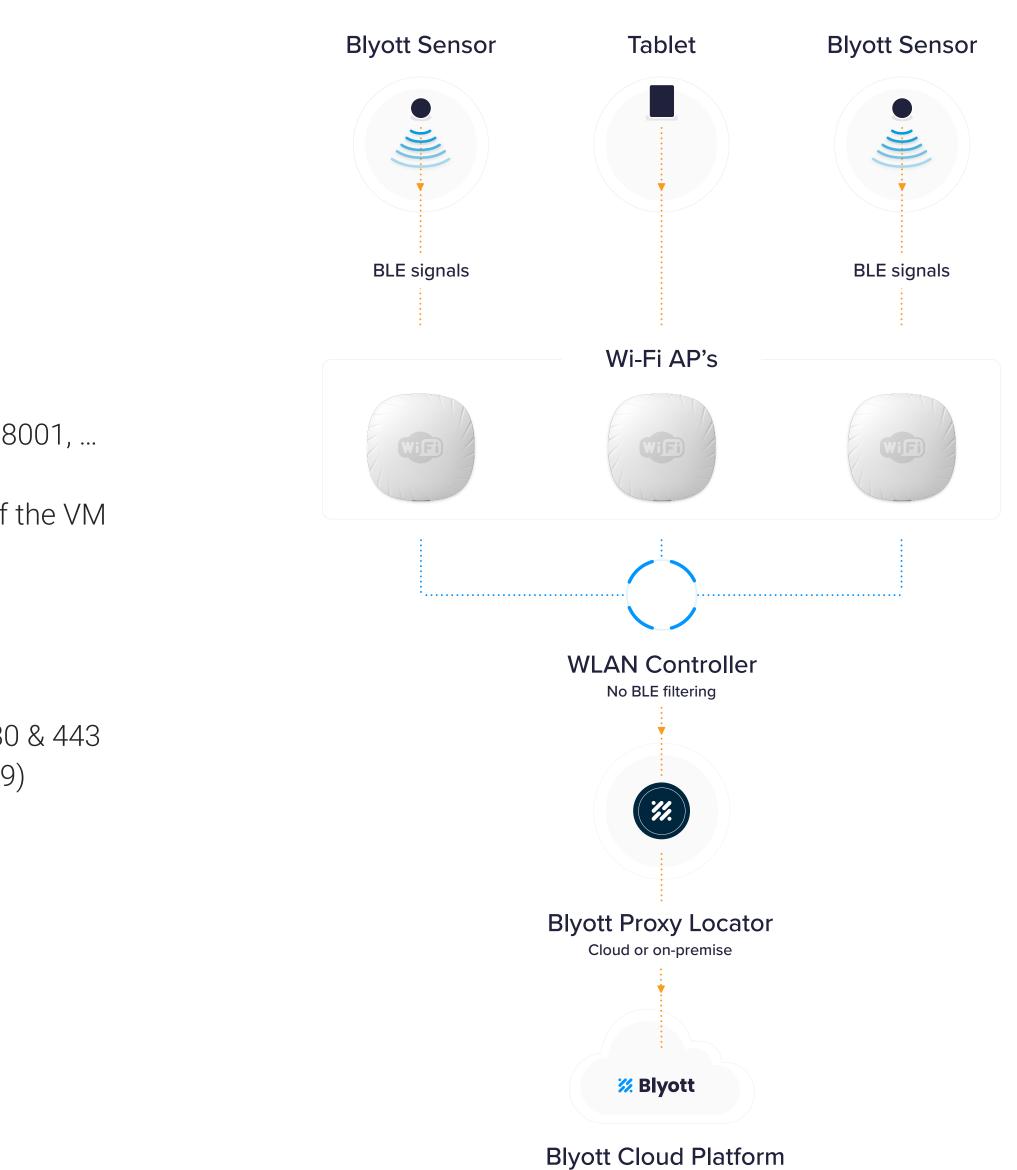
- Some Wi-Fi AP's and WLAN controllers can <u>not</u> filter BLE messages (e.g. BLE MAC addresses, Manufacturer ID, Service UUID).
- In such cases, BLE messages from e.g. keyboards, smartphones, tablets, ... are also sent to the Blyott Cloud, resulting in up to 99% unnecessary data traffic.
- To avoid 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)

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## **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 dependent 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.

🐹 Blyott		Tags	+ New Tag				1 Upload data	English V
								X Last Seen X '5 min or less'
Dashboard		Displayi	ng <b>25/2287</b>			Clear All 📚	d Layouts 🔍 🔍 Ex. Searc	ch Tags
			ID ↓↑ 💑	Asset Assigned ↓↑ 📚	① Last Seen ↓↑	First Time Active $\downarrow \uparrow$	" Battery ↓↑ 📚	∠ Temperature ↓↑ 🚰
🔆 Assets	•		60C0BF19220F	TEMPORALE THERMOMETER	5 min or less	25/5/2021 - 22:34	90%	26.25°C
Tags     Locations	•		60C0BF192214		• 5 min or less	21/4/2021 - 09:44	100%	19.06°C
• Locators	•		60C0BF192244	TEMPORALE THERMOMETER	• 5 min or less	19/7/2021 - 12:18	90%	22.81°C
CONFIGURATION			60C0BF192246	ELEKTRISCH BED	5 min or less	4/9/2021 - 09:27	90%	24.50°C
🙁 Users	•		60C0BF19224D	PROPAQ MONITOR	5 min or less	24/6/2021 - 14:28		
			60C0BF19BC28	SATURATIEMETER	5 min or less	27/4/2021 - 07:35		
			60C0BF19C68B	ML Stefaan	5 min or less	26/7/2021 - 11:32	60%	21.50°C
			60C0BF19C68E	ML Elisabeth	5 min or less	29/12/2020 - 17:10		
			60C0BF19CB47		5 min or less	19/3/2021 - 06:13	90%	21.38°C
			60C0BF19CB4B	INFUUSPOMP	• 5 min or less	11/12/2020 - 09:47	100%	21.62°C
			60C0BF1F6750	Schoonmaakkar	5 min or less	30/1/2020 - 13:49	90%	24.50°C
			60C0BF1F6754	VOEDINGSPOMP	5 min or less	23/1/2020 - 09:06	80%	20.50°C



## AP's with built-in BLE support Supported by Blyott **BRANDS** (\*)

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
<b>Cisco</b> (DNA spaces not required)	Yes	Standard Sensor	Yes	Yes
Extreme (Cloud IQ - Controller)	Yes	Standard Sensor	Yes	Yes
Extreme (Cloud IQ - On Premise)	No	_	_	_
Extreme (Cloud IQ - Public Cloud)	No	_	_	-
Fortinet	Yes	Standard Sensor	Yes	No
Huawei Wi-Fi	Not Yet	-	-	-
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

- THE NEW STANDARD IN LOCATION BASED TRACKING & MONITORING

Type of BLE Senso	r
TYPE	

Proxy Server Required **PROXY** 



# Big Savings Happy Staff

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