

INTRODUCING PARTICLE MESH

Particle







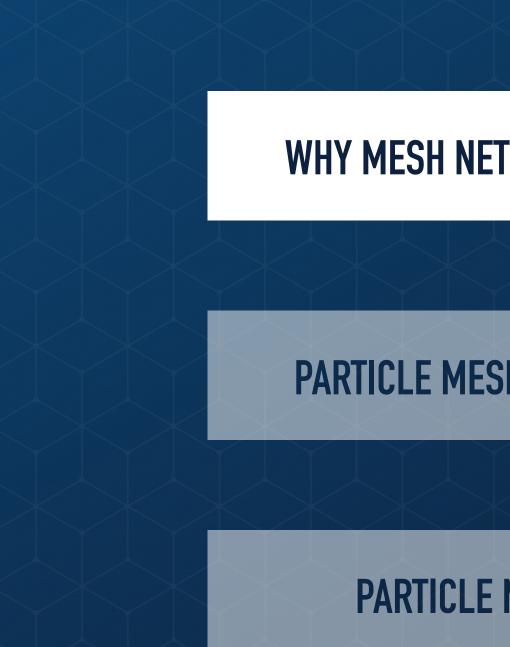
WHY MESH NETWORKING MATTERS

PARTICLE MESH NETWORK ROLES

PARTICLE MESH DEVICES

SETTING UP A MESH NETWORK







WHY MESH NETWORKING MATTERS

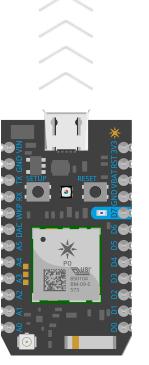
PARTICLE MESH NETWORK ROLES

PARTICLE MESH DEVICES

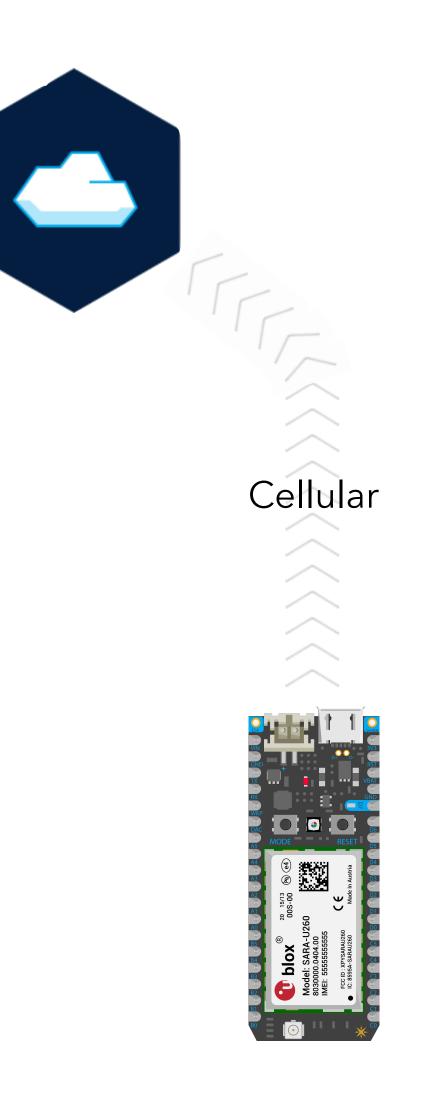
SETTING UP A MESH NETWORK



CURRENTLY, EVERY PARTICLE DEVICE CONNECTS DIRECTLY TO THE CLOUD

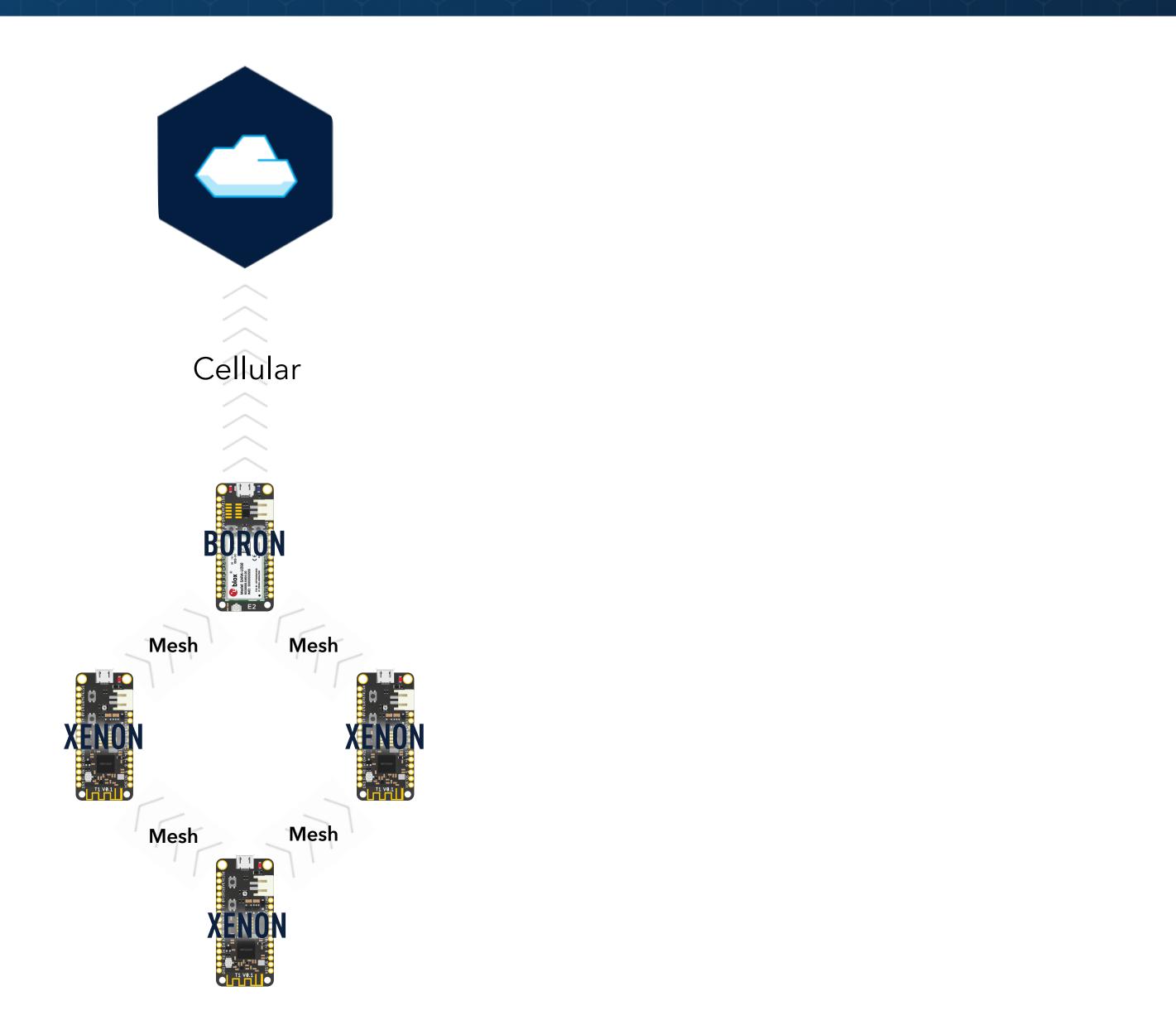


Wi-Fi





PARTICLE MESH ALLOWS DEVICES TO PARTICIPATE IN A LOCAL NETWORK





MESH MAKES EXISTING IOT SOLUTIONS SMARTER





FLOOD DETECTOR



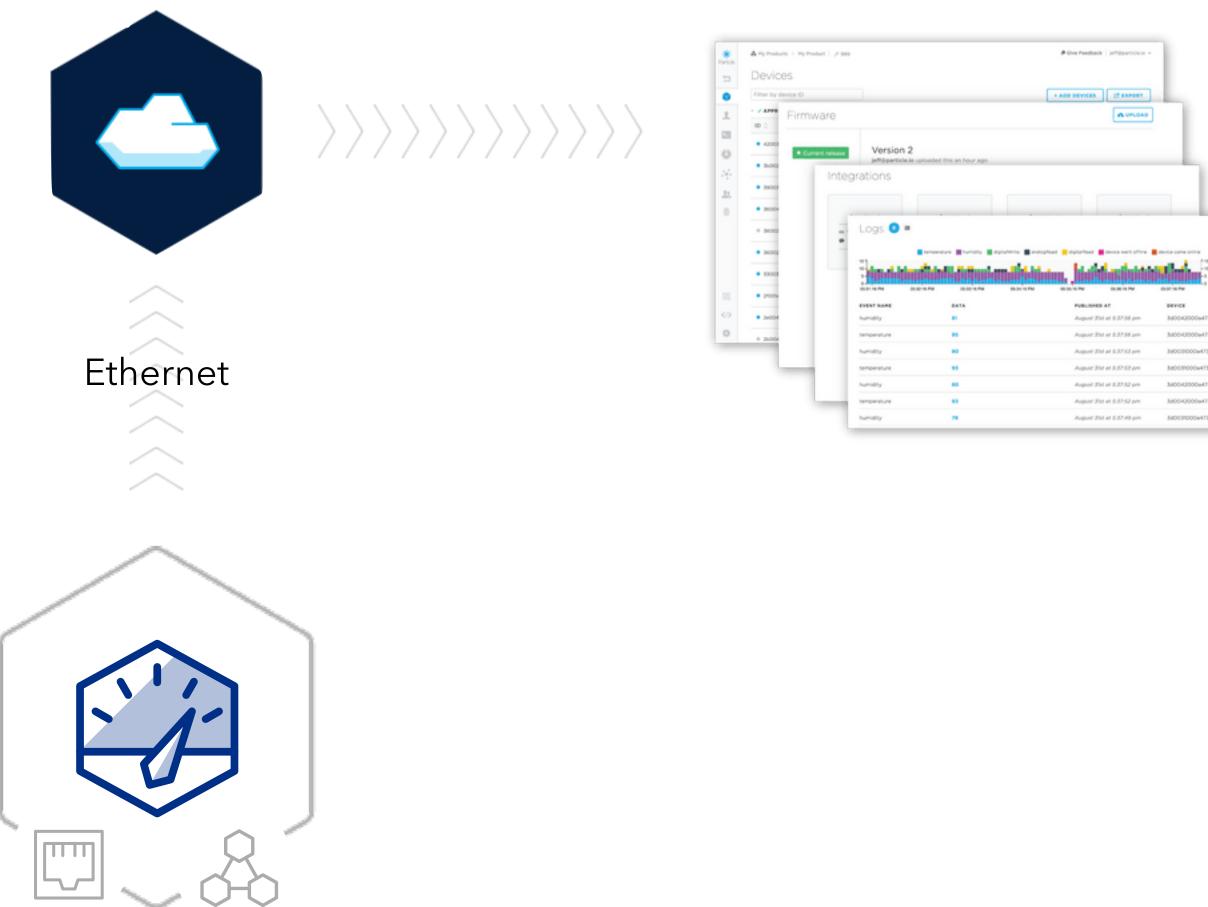


SMART WATER METER

PUMP CONTROLLER

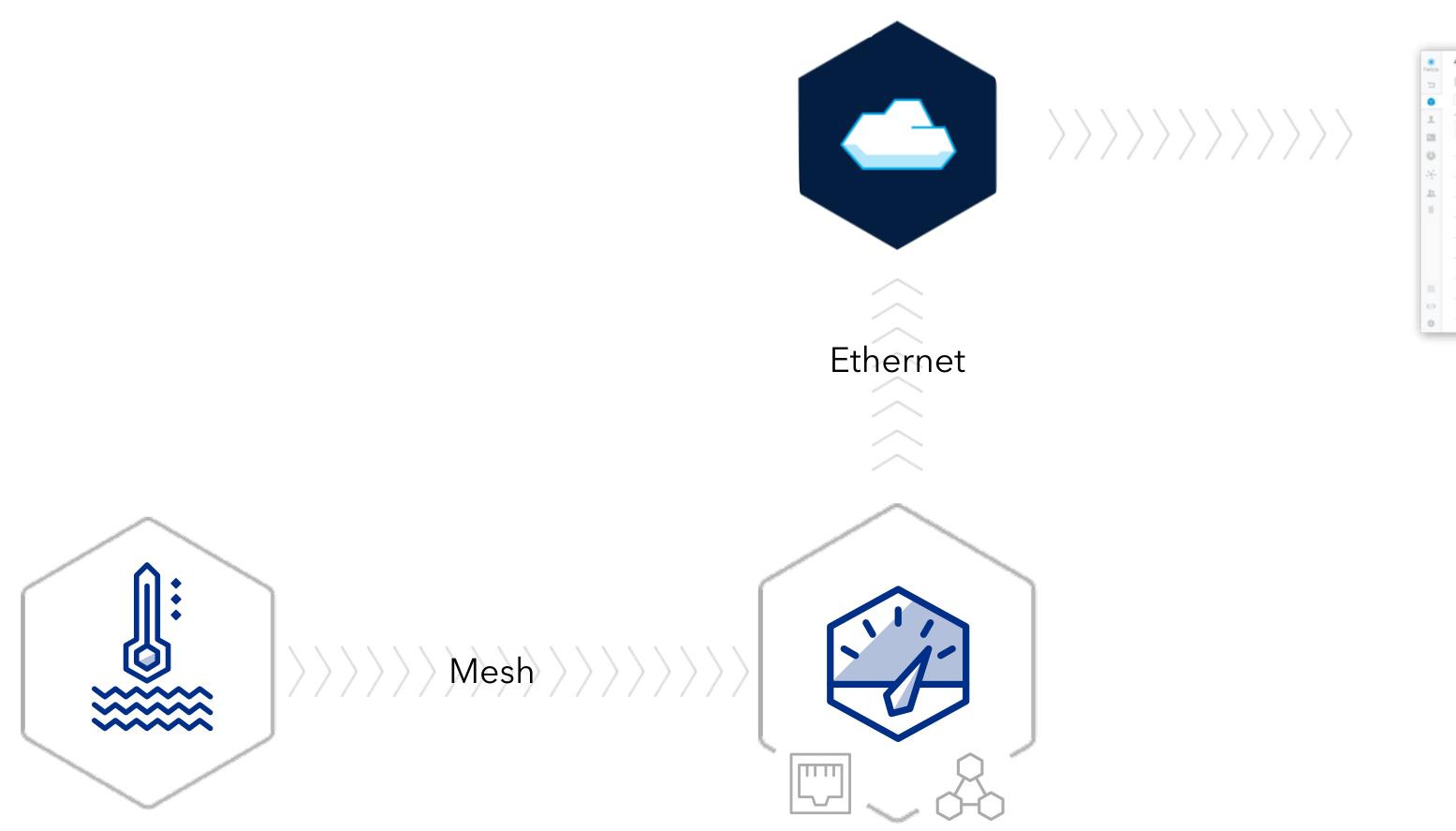


MESH MAKES EXISTING IOT SOLUTIONS SMARTER



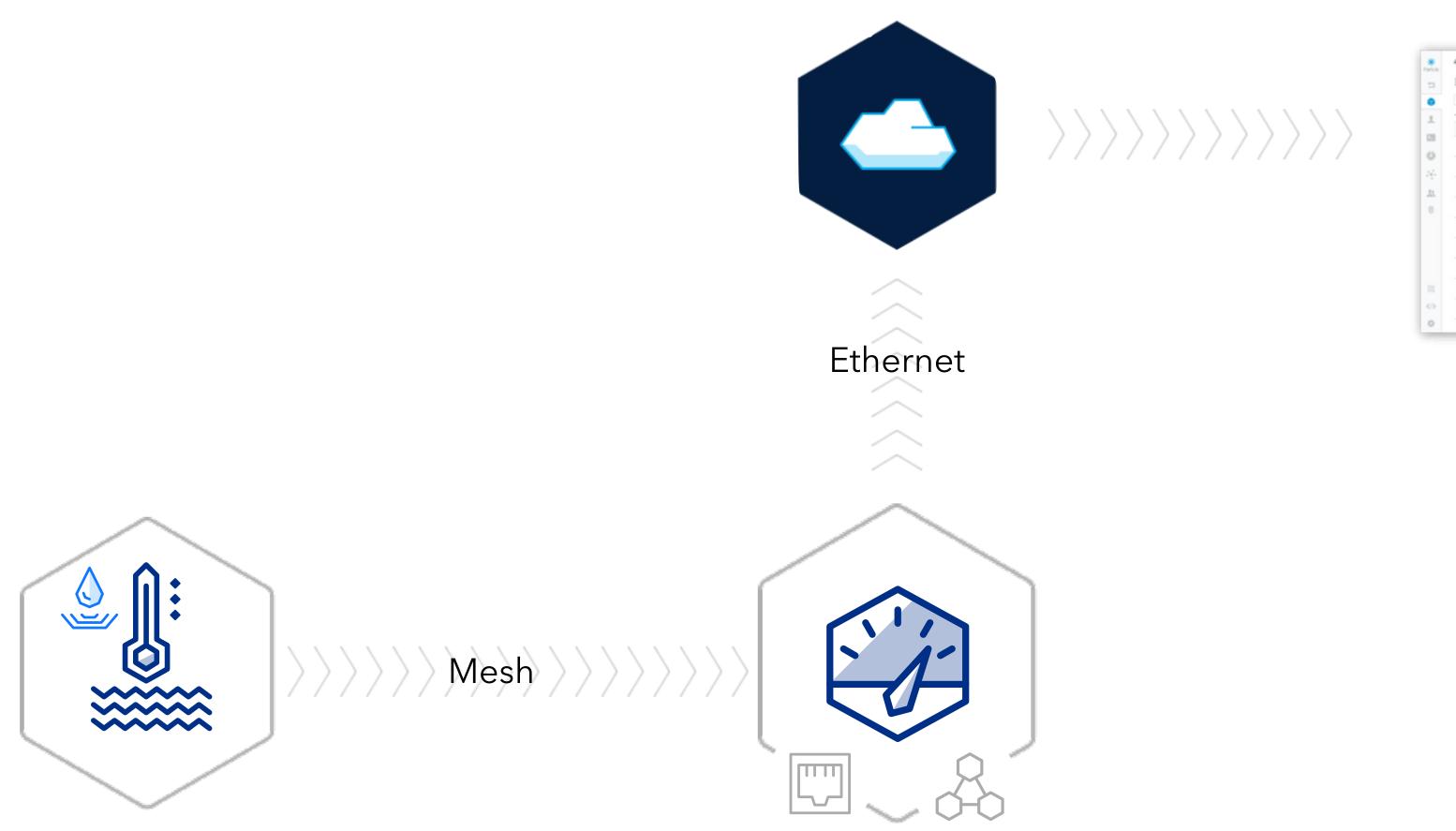






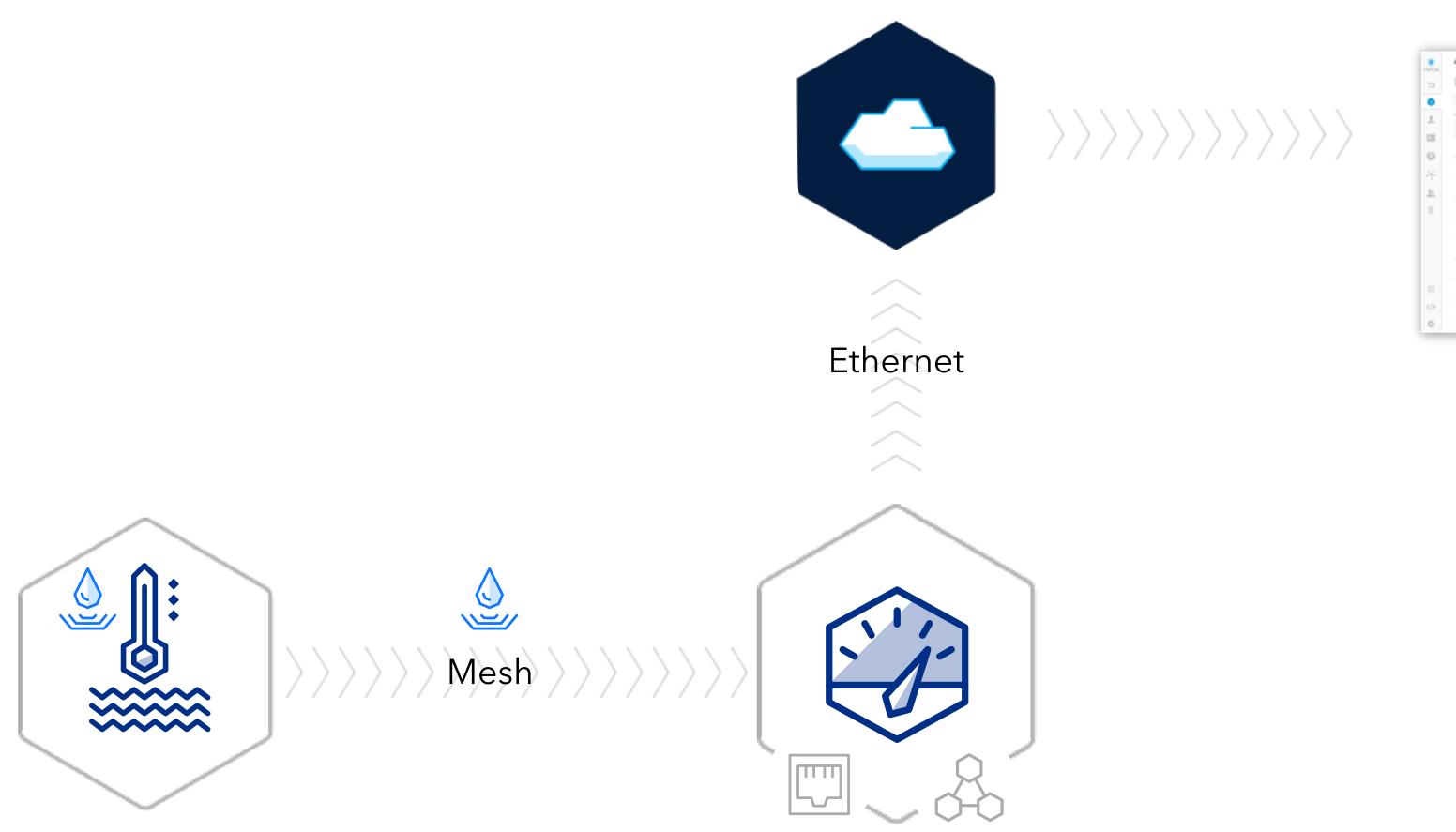
the Feedback | infidentici ADD DEVICES 12 EXPORT A UPLOAD 1.000 10.0 • 430 Version 2 and nationals • 2002 Integrations • 2002 • 20004 + 36002 Logs 💿 🛎 • 3605 • 100% . 2+004 humidity 34004300064 temperature 5400-43000w41 humidity temperature hamidity 0042000641 temperature humidity





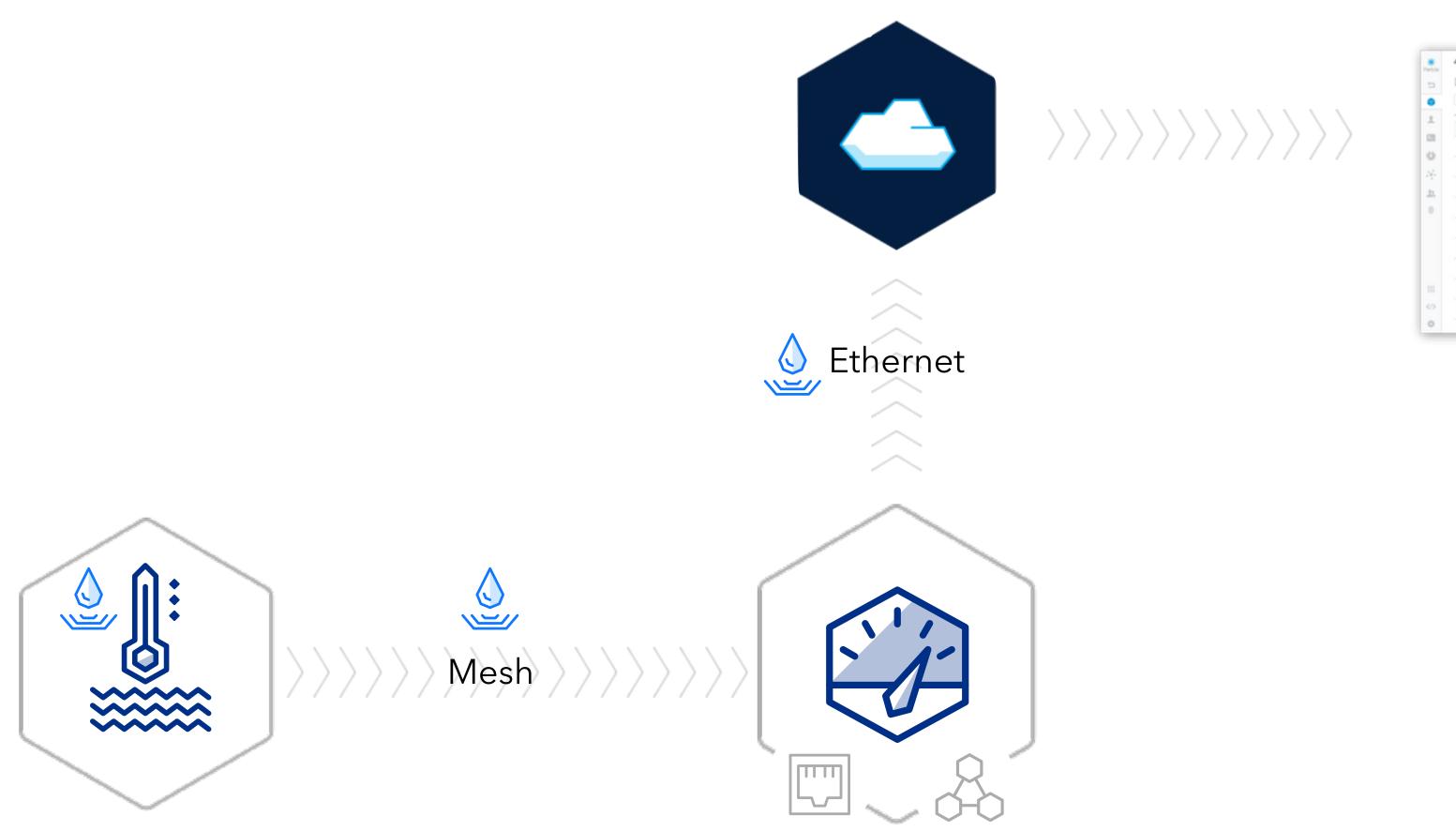
the Feedback | influence ADD DEVICES (2 EXPORT A UPLOAD 1.000 10.0 • 430 Version 2 • 2002 Integrations • 2002 • 20004 + 36002 Logs 💿 🛎 • 3605 • 1004 . 2+004 humidity 34004300064 temperature 5400-43000w41 humidity temperature hamidity 0042000641 temperature humidity





the Feedback | influence ADD DEVICES CT EXPORT A UPLOAD 10.0 • 430 Version 2 • 3005 Integrations • 2002 • 20004 + 36052 Logs 💿 🛎 • 3605 • 100% . 2+004 humidity 340042000w temperature 5400-43000w41 humidity temperature hamidity 0042000641 temperature humidity

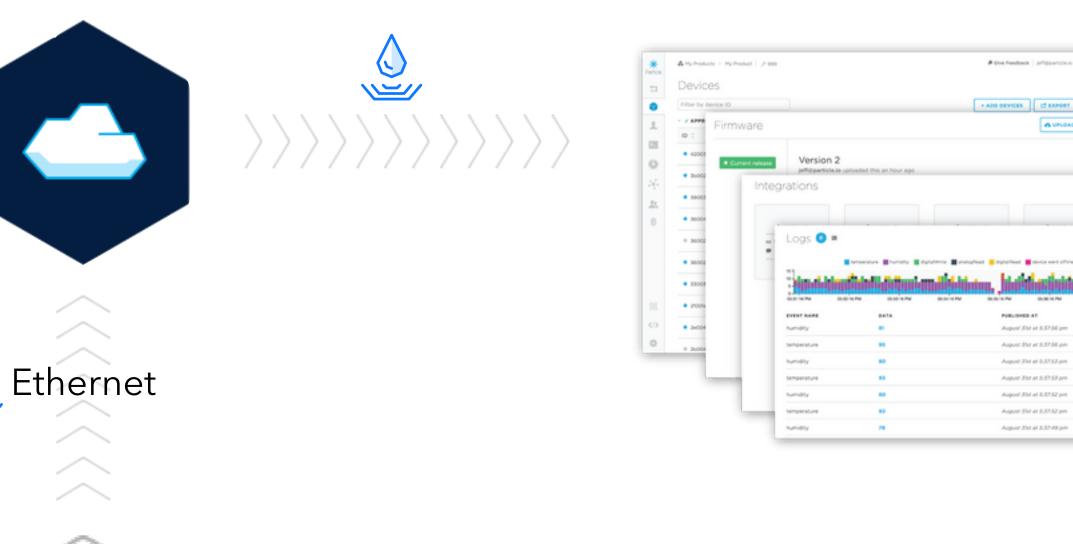




the Feedback | prhipseric) ADD DEVICES 12 EXPORT A UPLOAD 1.000 10.0 • 4300 Version 2 • 3005 Integrations • 2002 • 2000 + 36002 Logs 💿 🛎 • 3000 prozvprozvprozv humidity 34004300064 temperature 5400-43000w41 humidity temperature 0051000+47 hamidity 0042000w41 temperature humidity









the feedback | projects

A UPLOAD

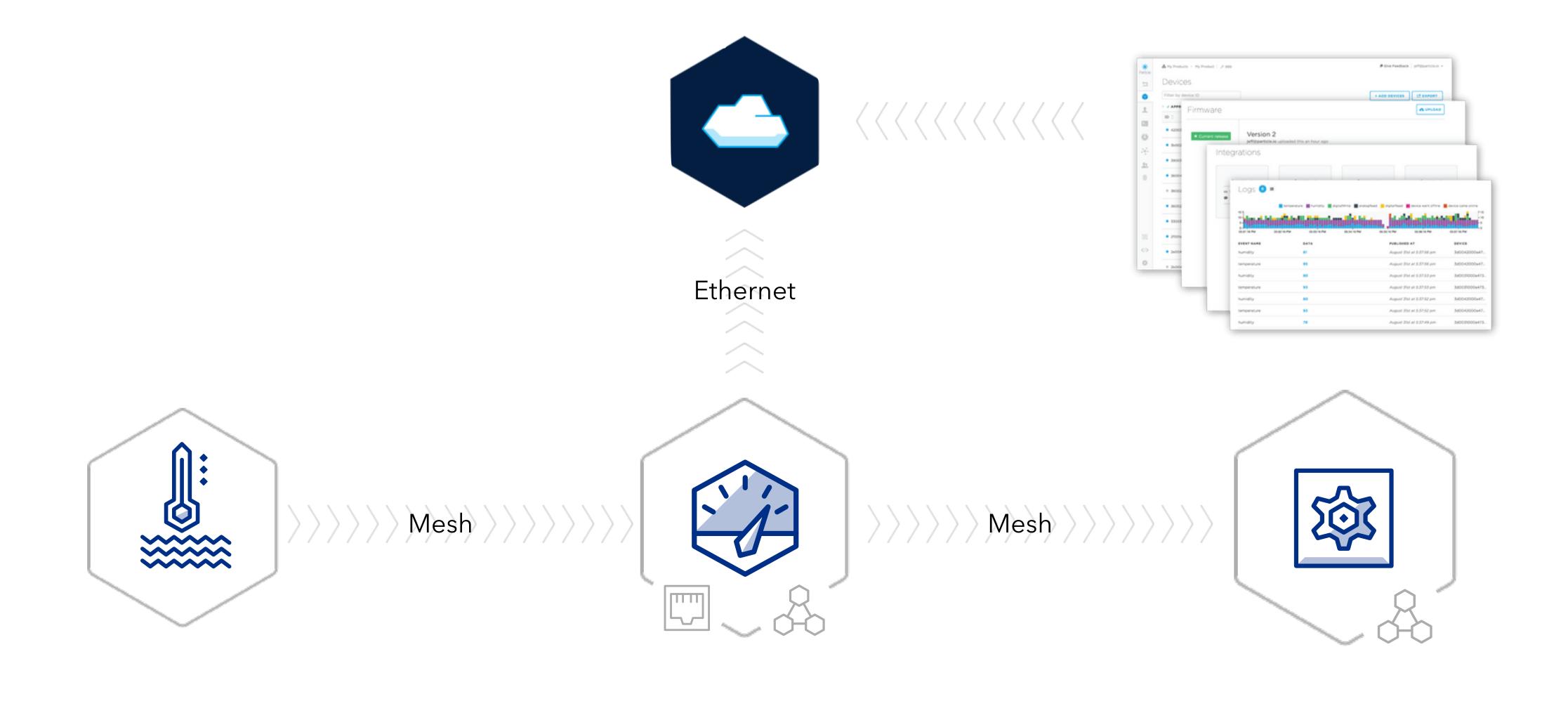
34004300064

5400-43000w41

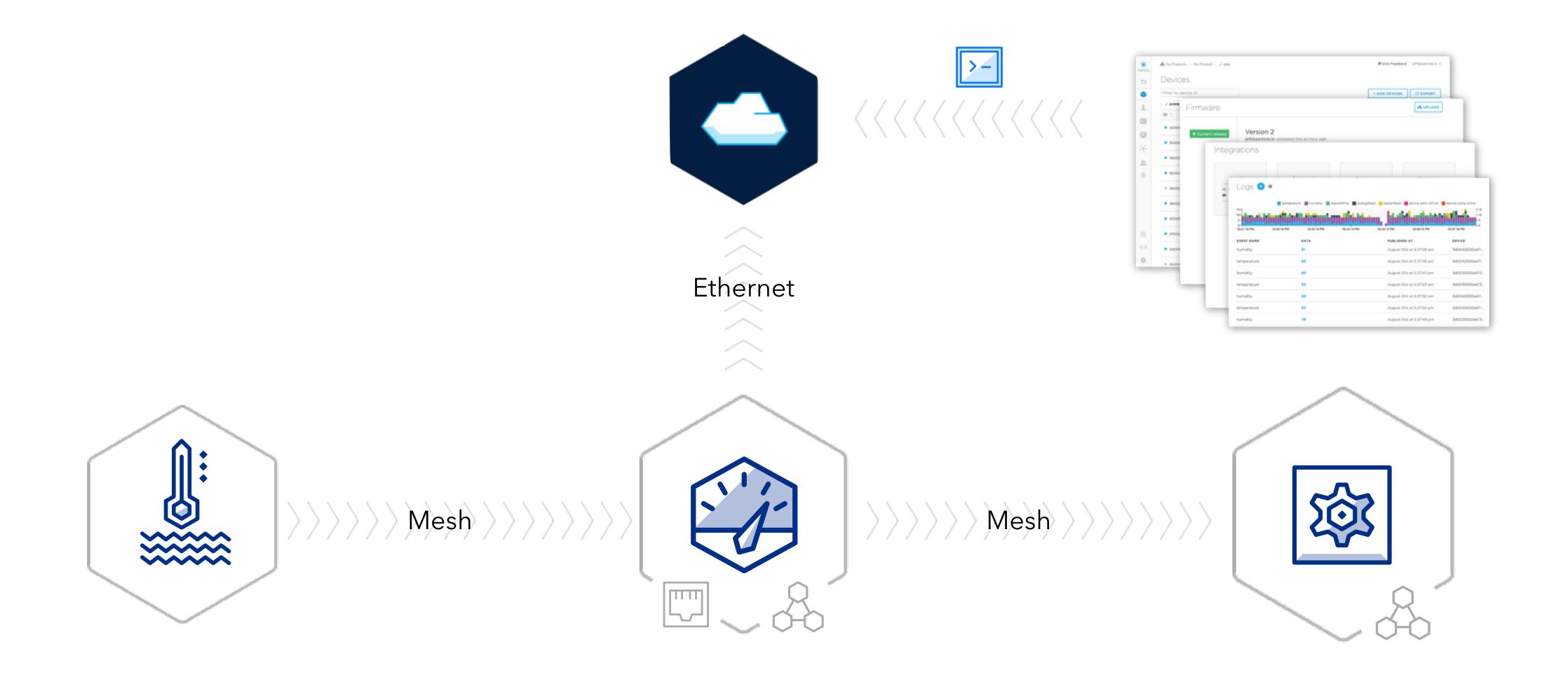
0051000+47

0042000w41

4004000+4



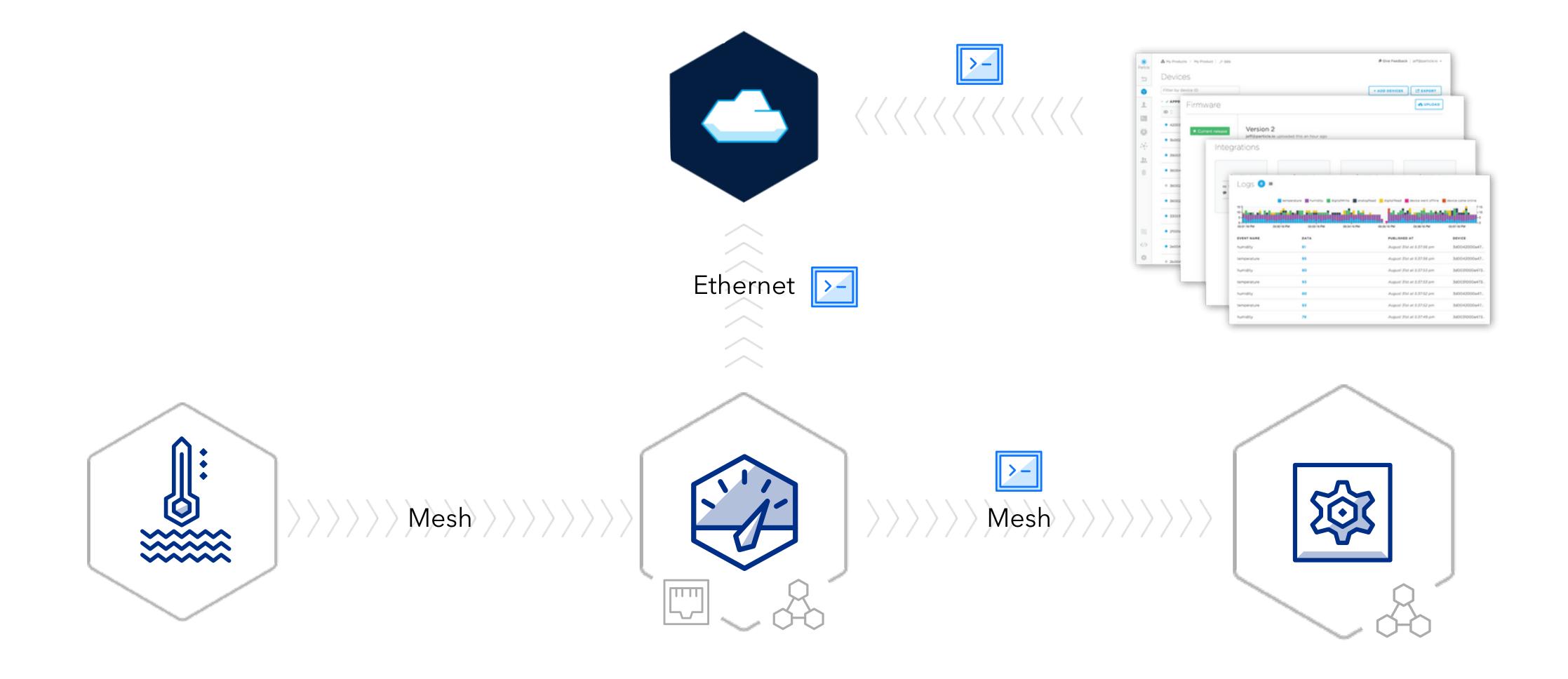




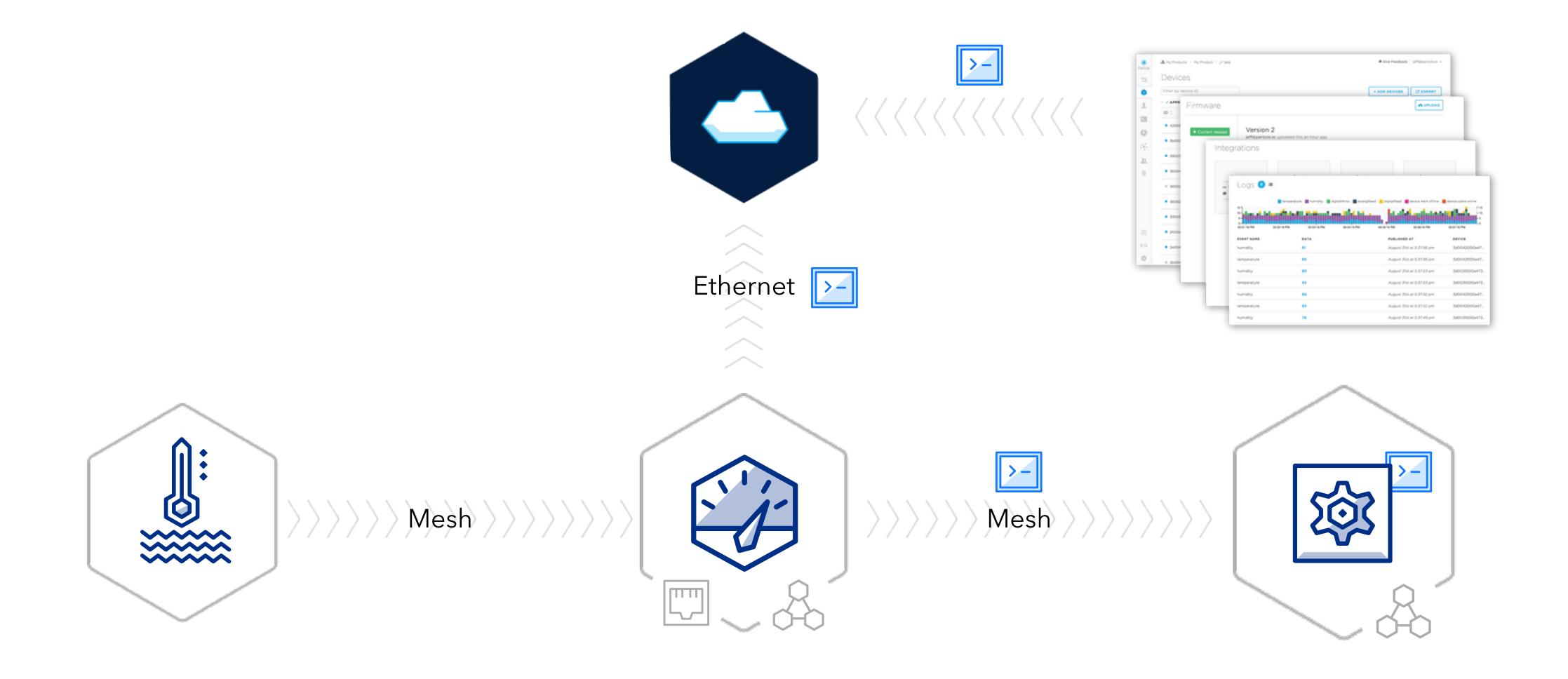




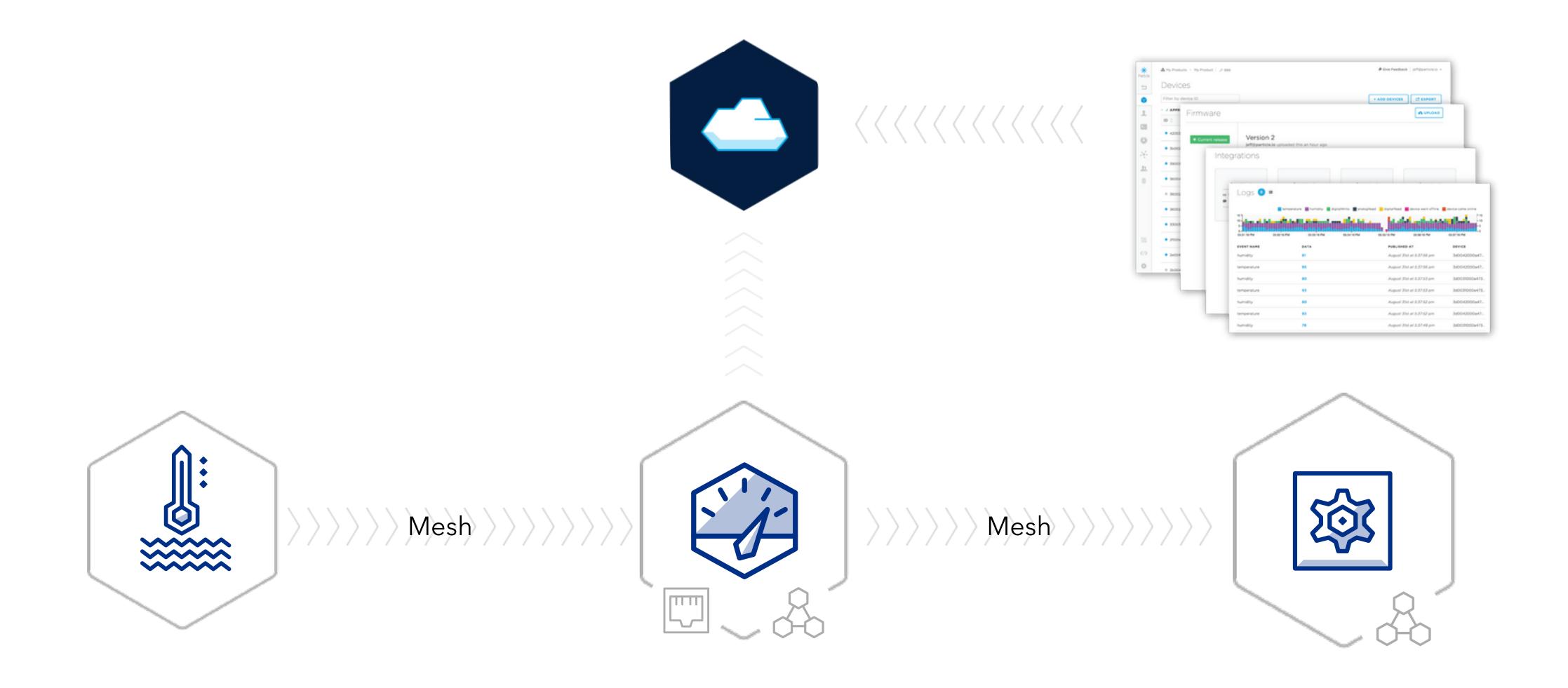




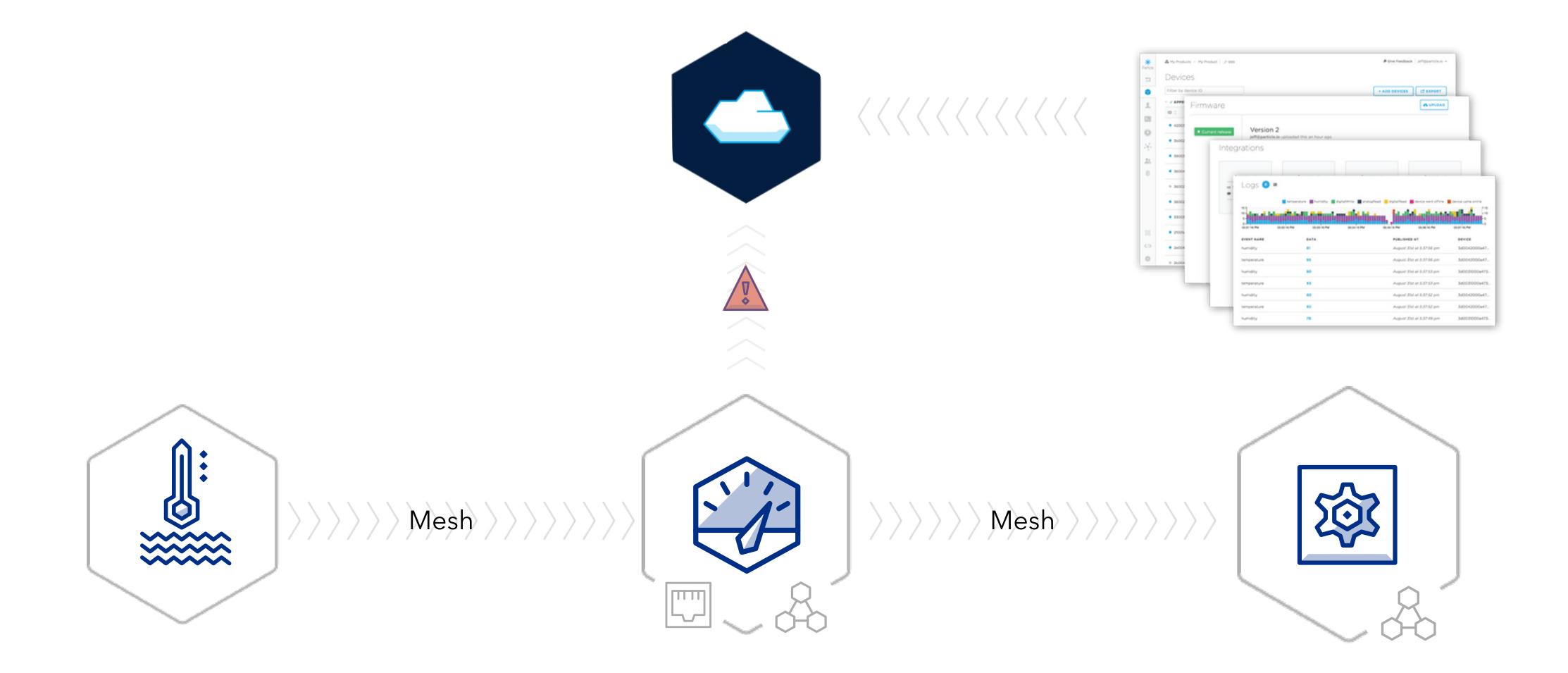




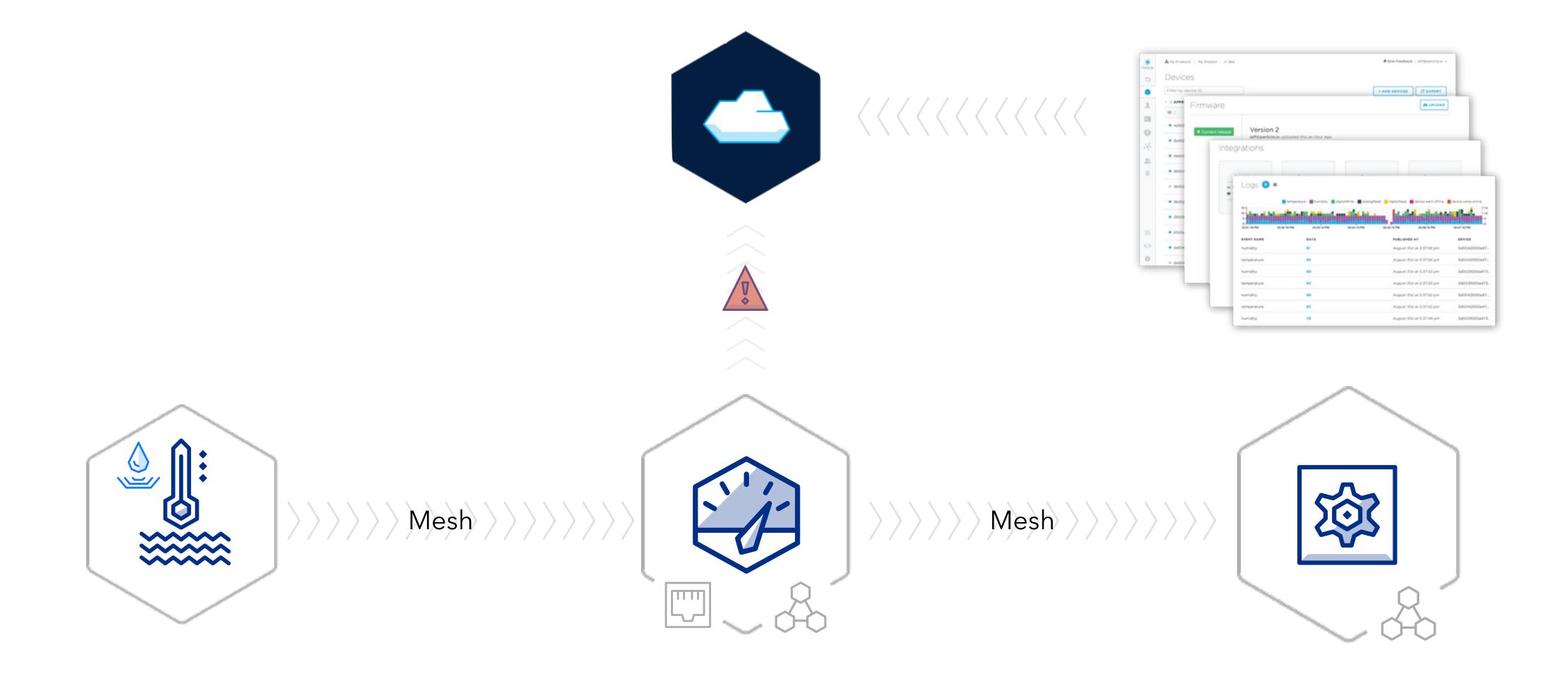




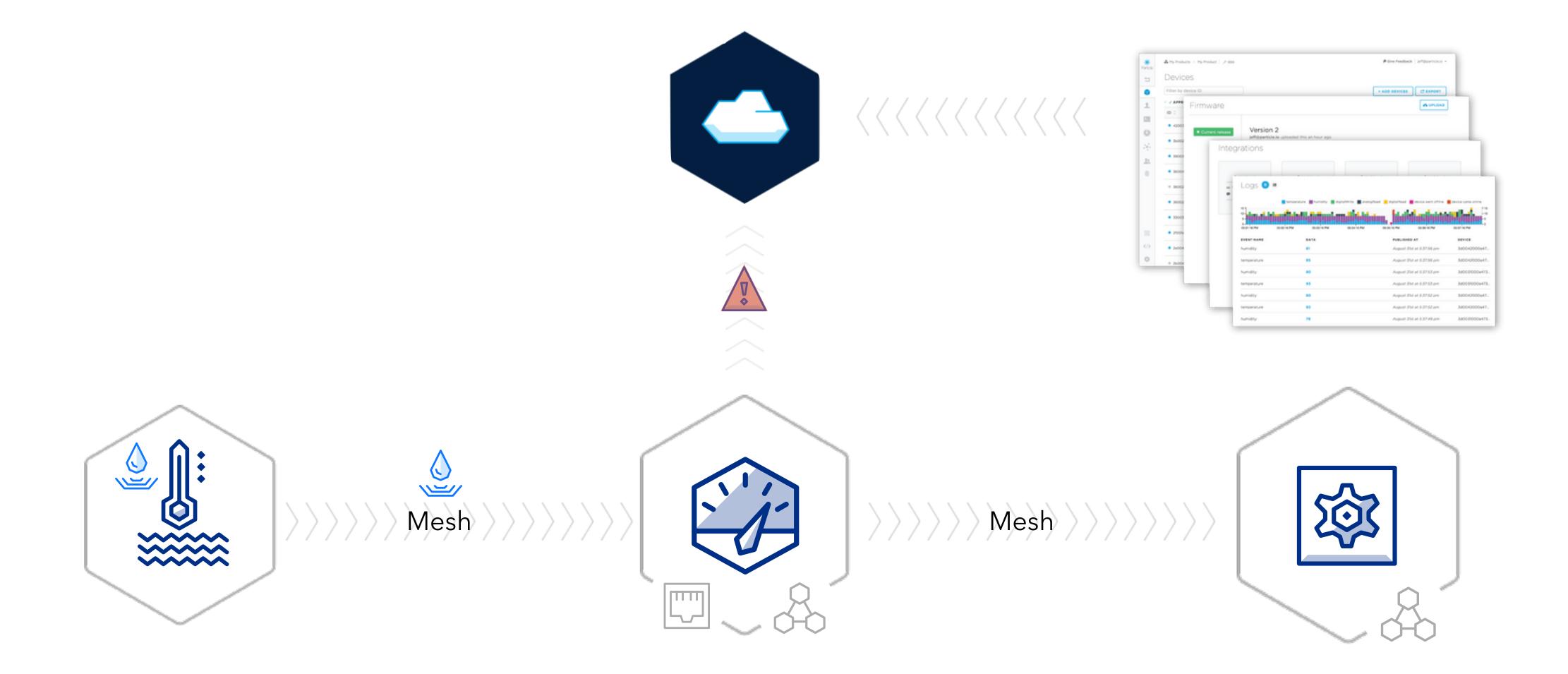




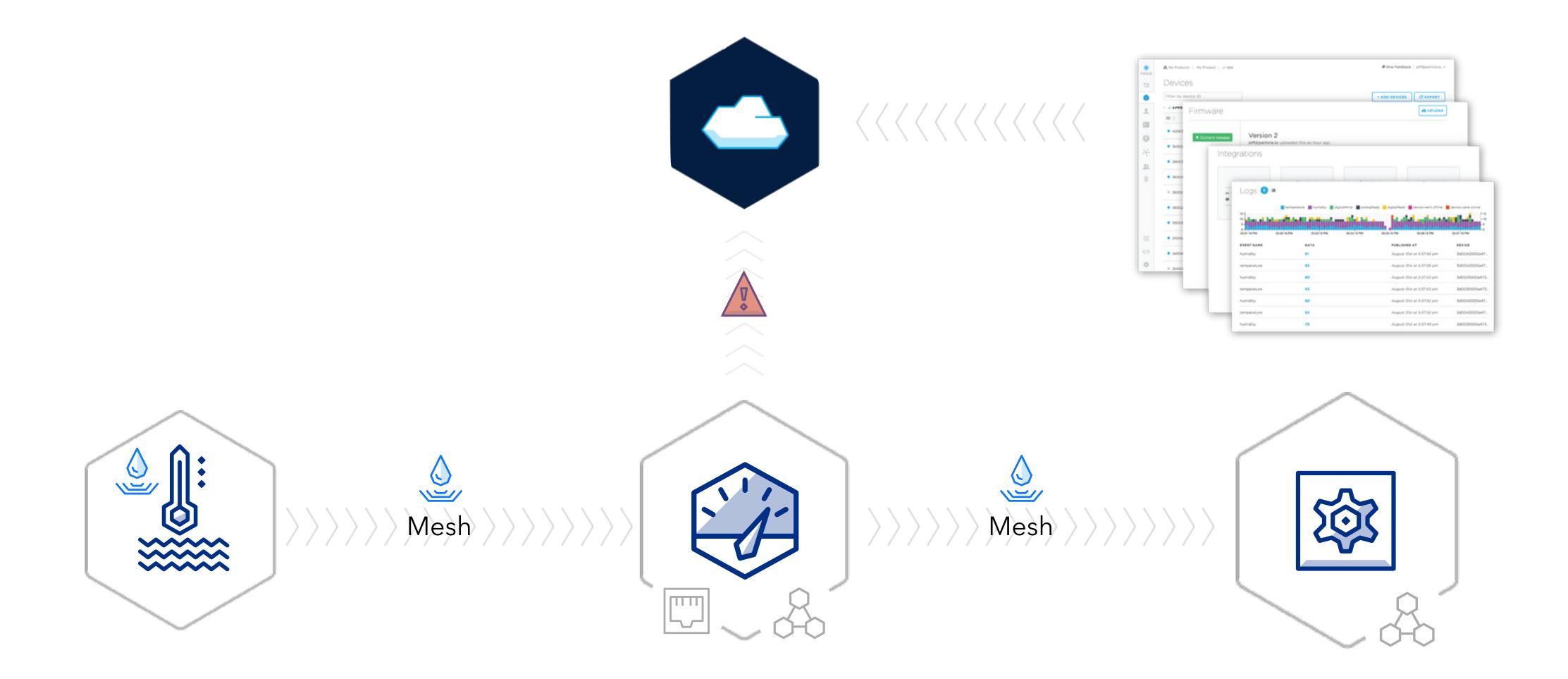




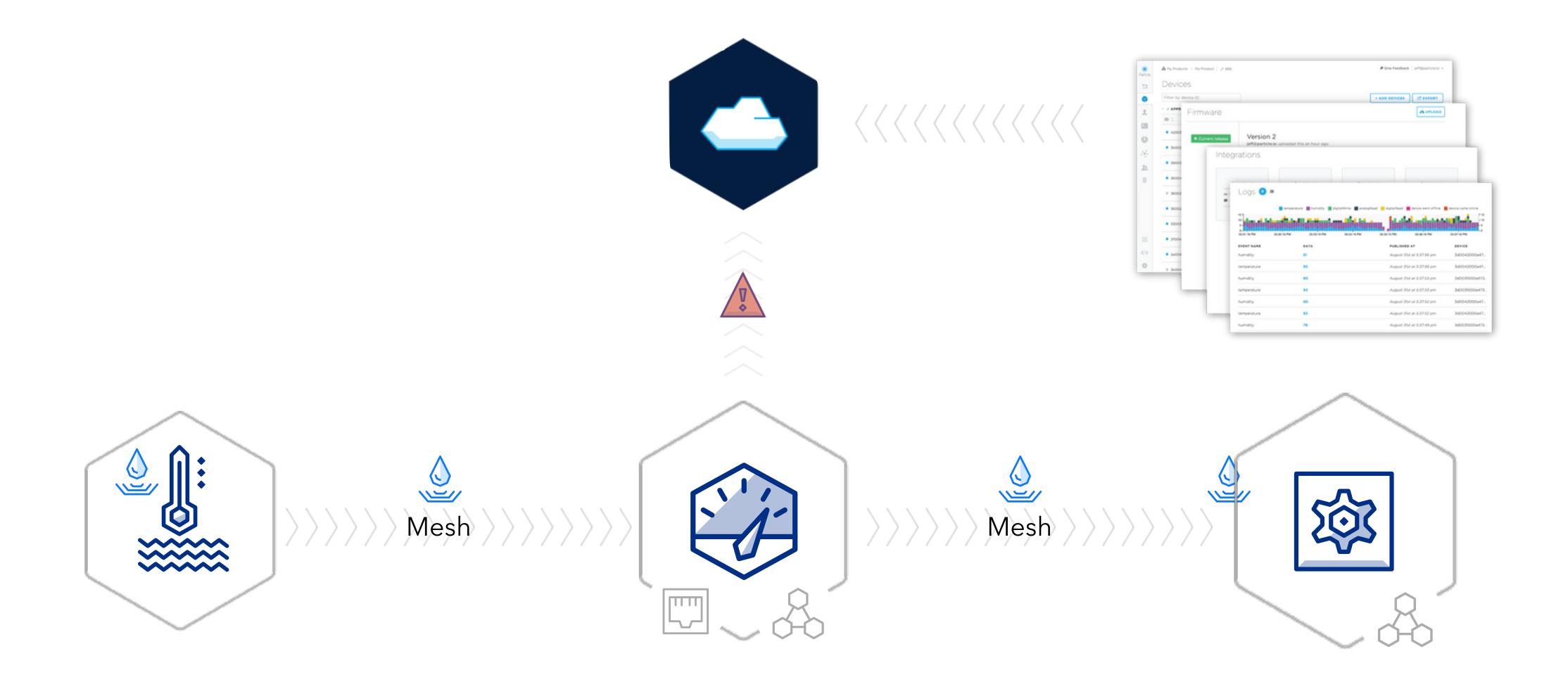




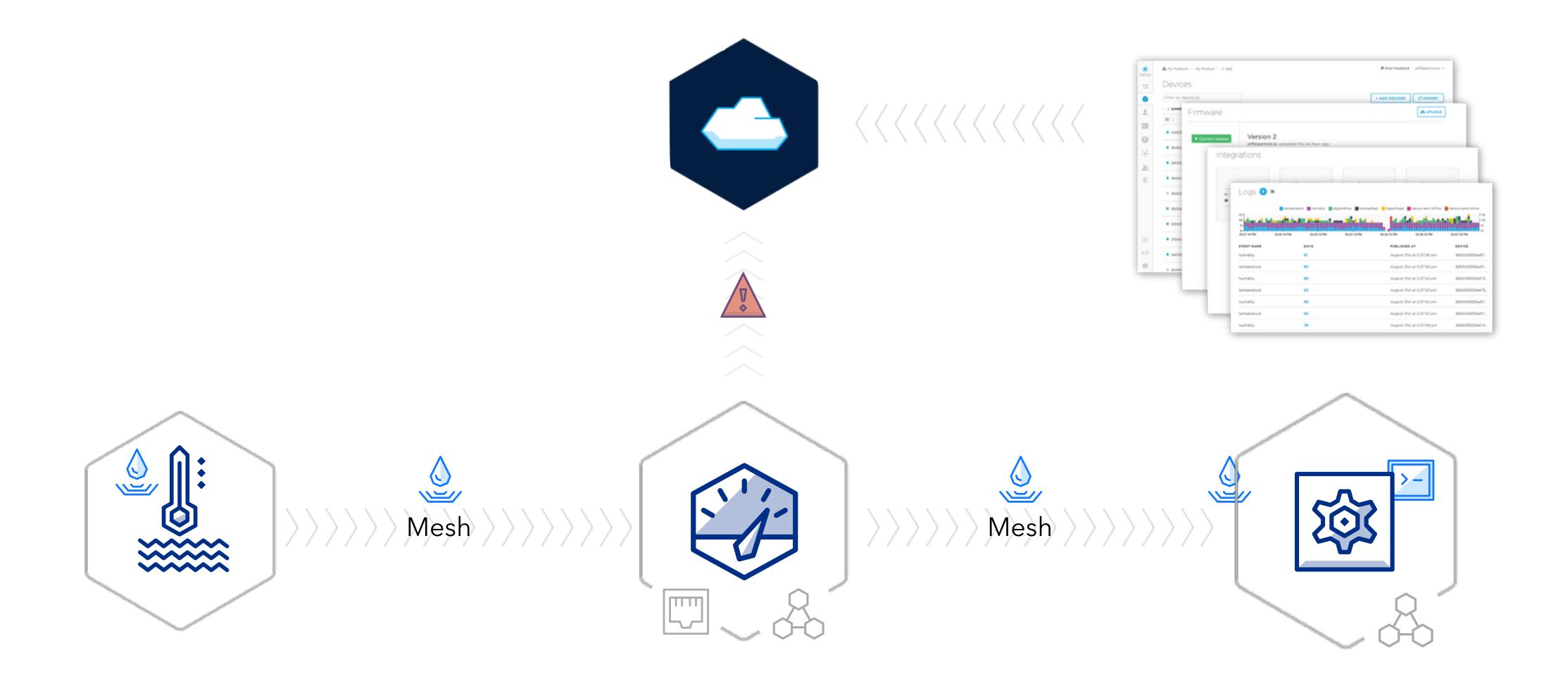








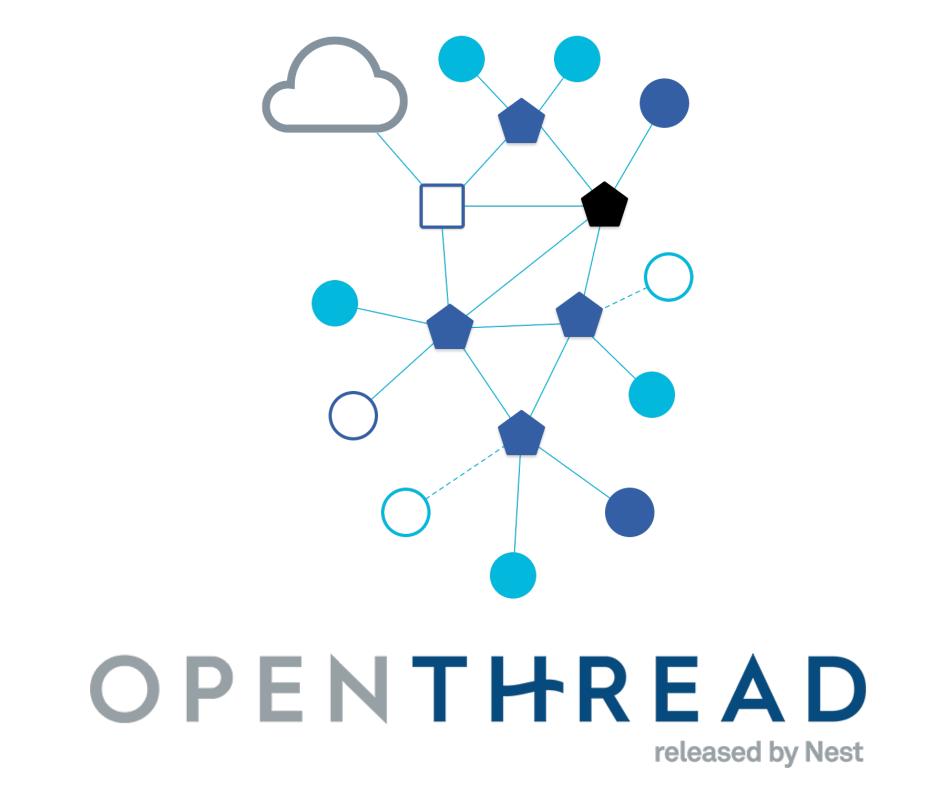




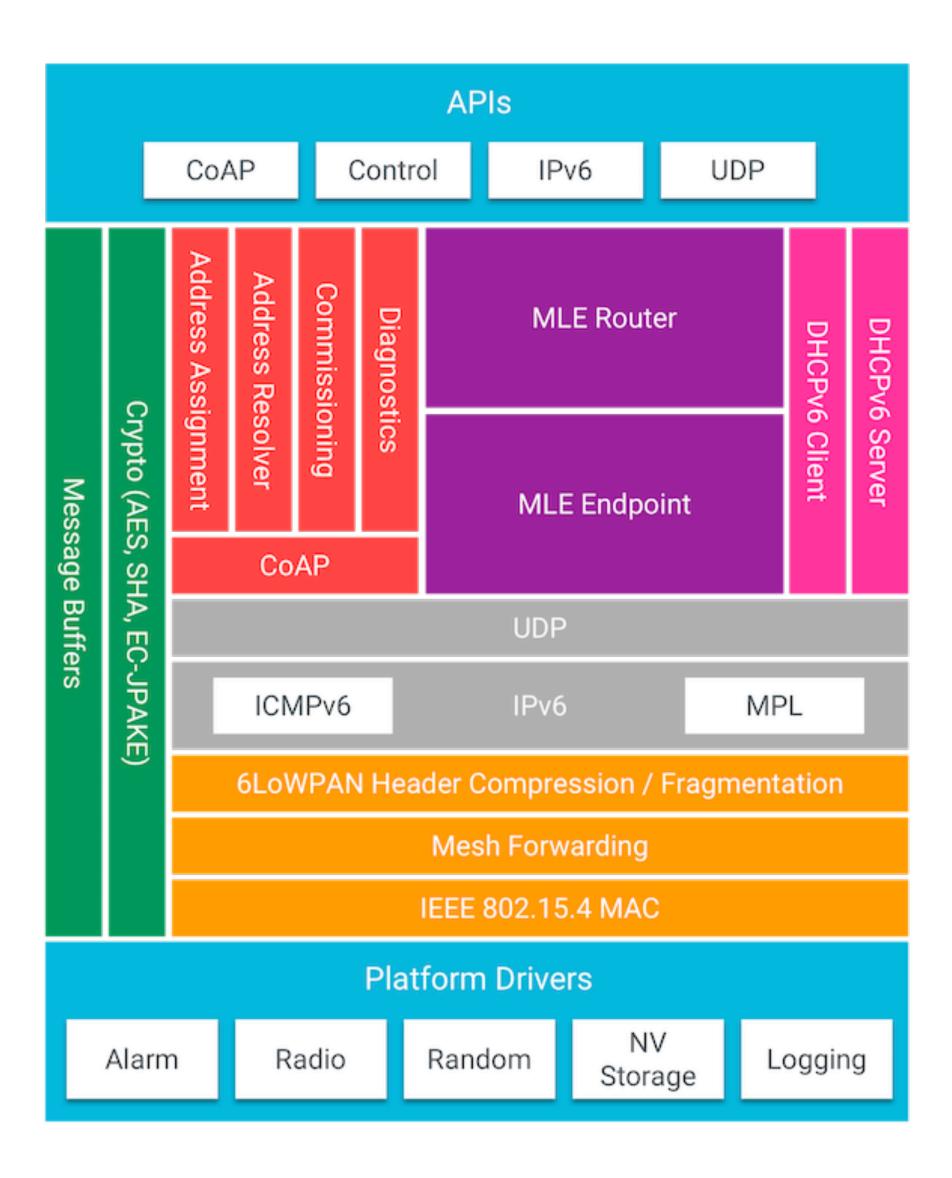


NEST, THREAD & PARTICLE MESH

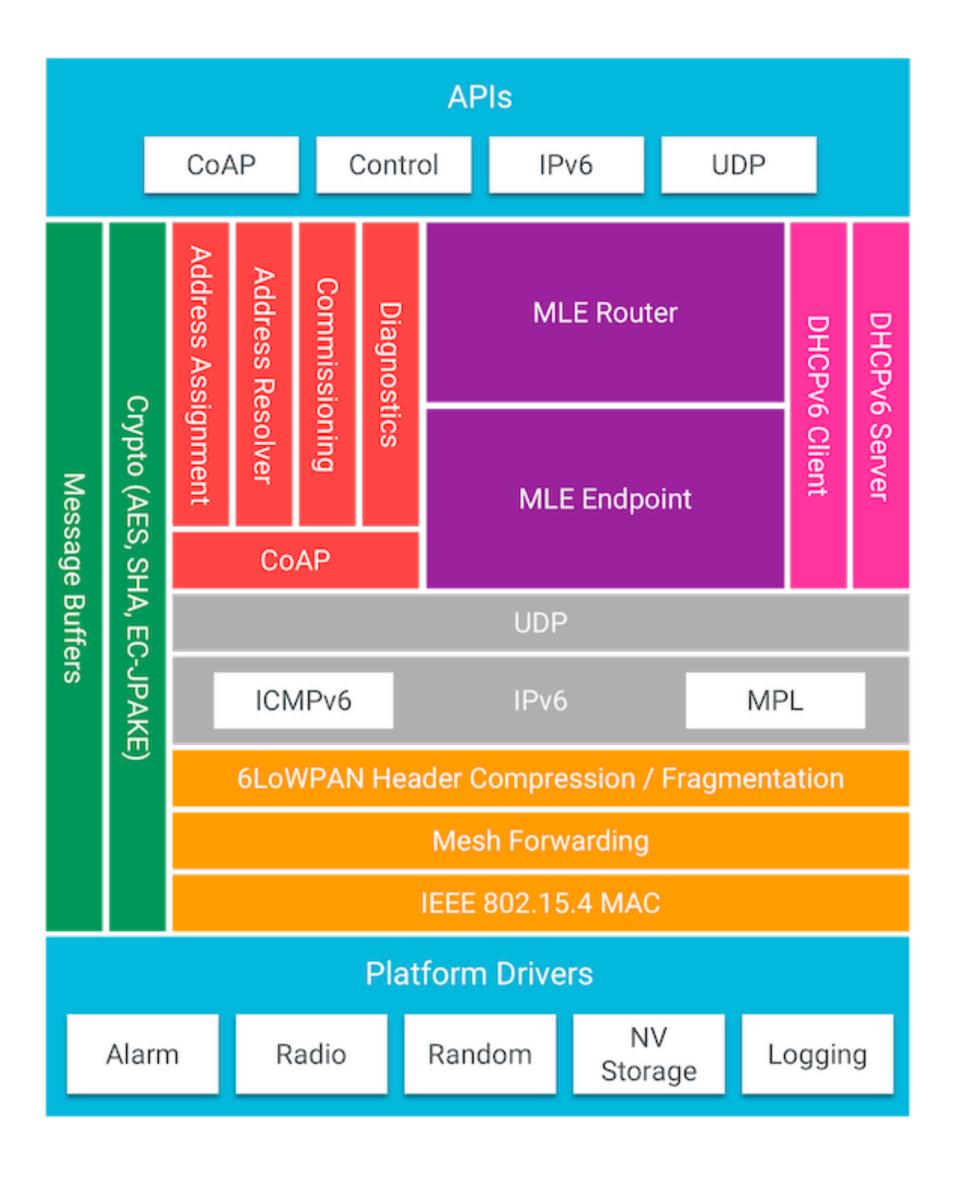




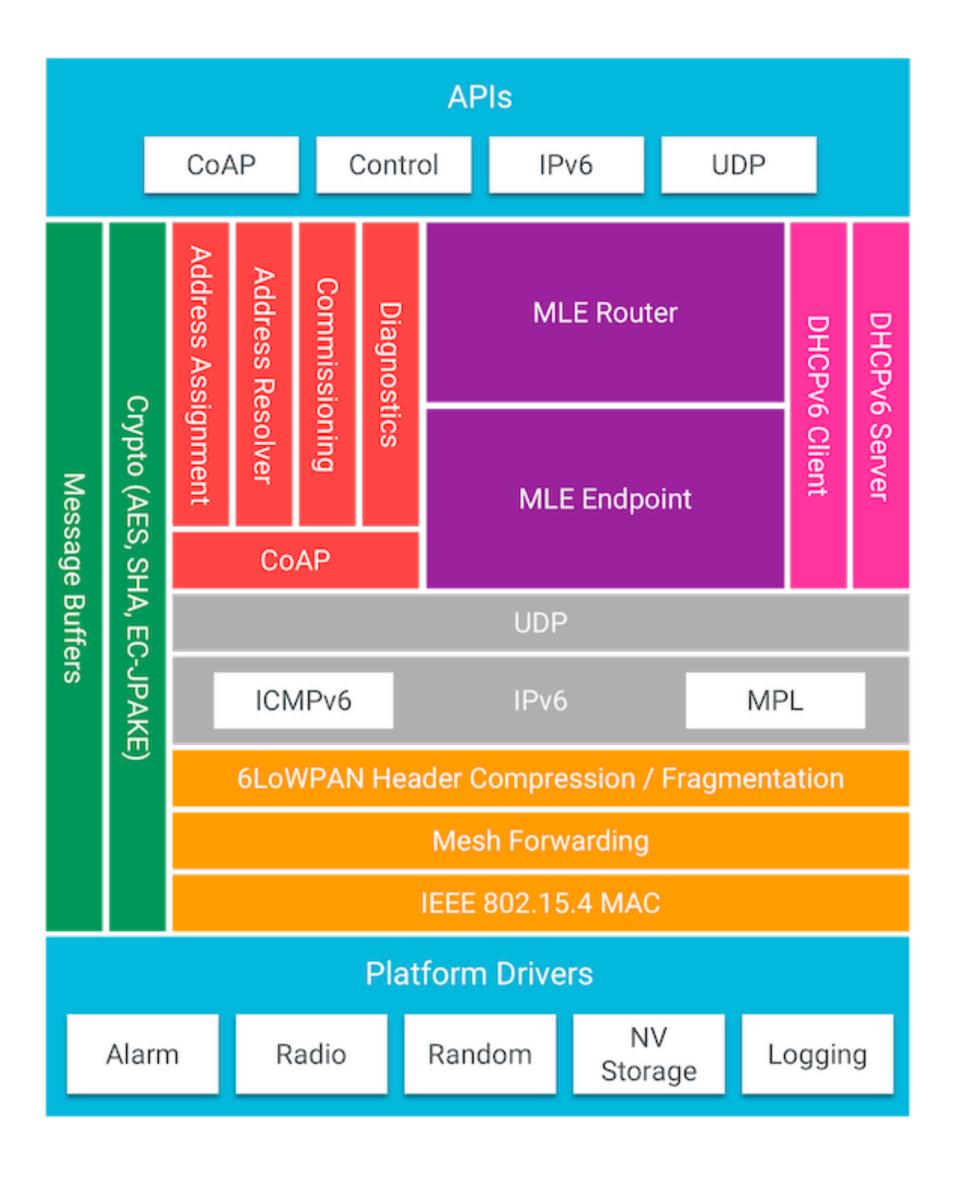












Search all 😤

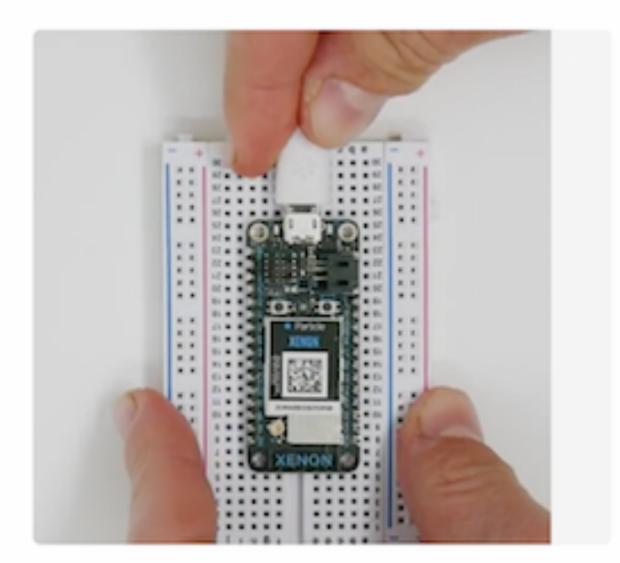
3:19 PM

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brandon@particle.io

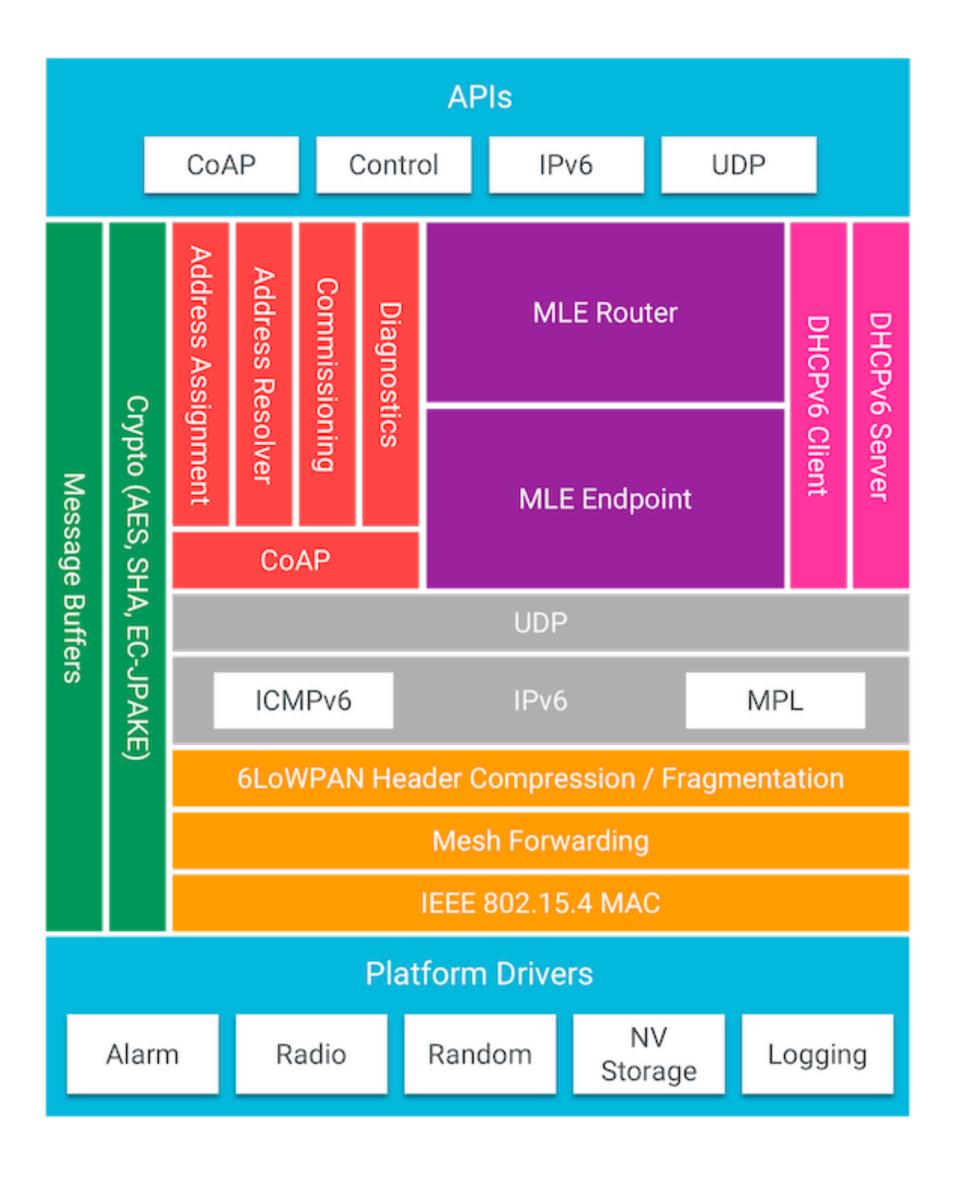
Get your Xenon ready for setup Plug your Xenon into a power source Confirm your Xenon is blinking blue



XENON IS BLINKING BLUE

USE WITH ETHERNET? Toggle ethernet featherwing setup





```
C Search all 😤
                                    1 💲 99% 🔳
                          3:19 PM
void pong(const char *event, const char *data)
  Serial.println("You got a message!");
void setup()
  Mesh.on();
  Mesh.connect();
void loop()
  Mesh.publish("hello - world", "I'm meshing !");
  Mesh.subscribe("ping", pong);
```







WHY MESH NETWORKING MATTERS

PARTICLE MESH NETWORK ROLES

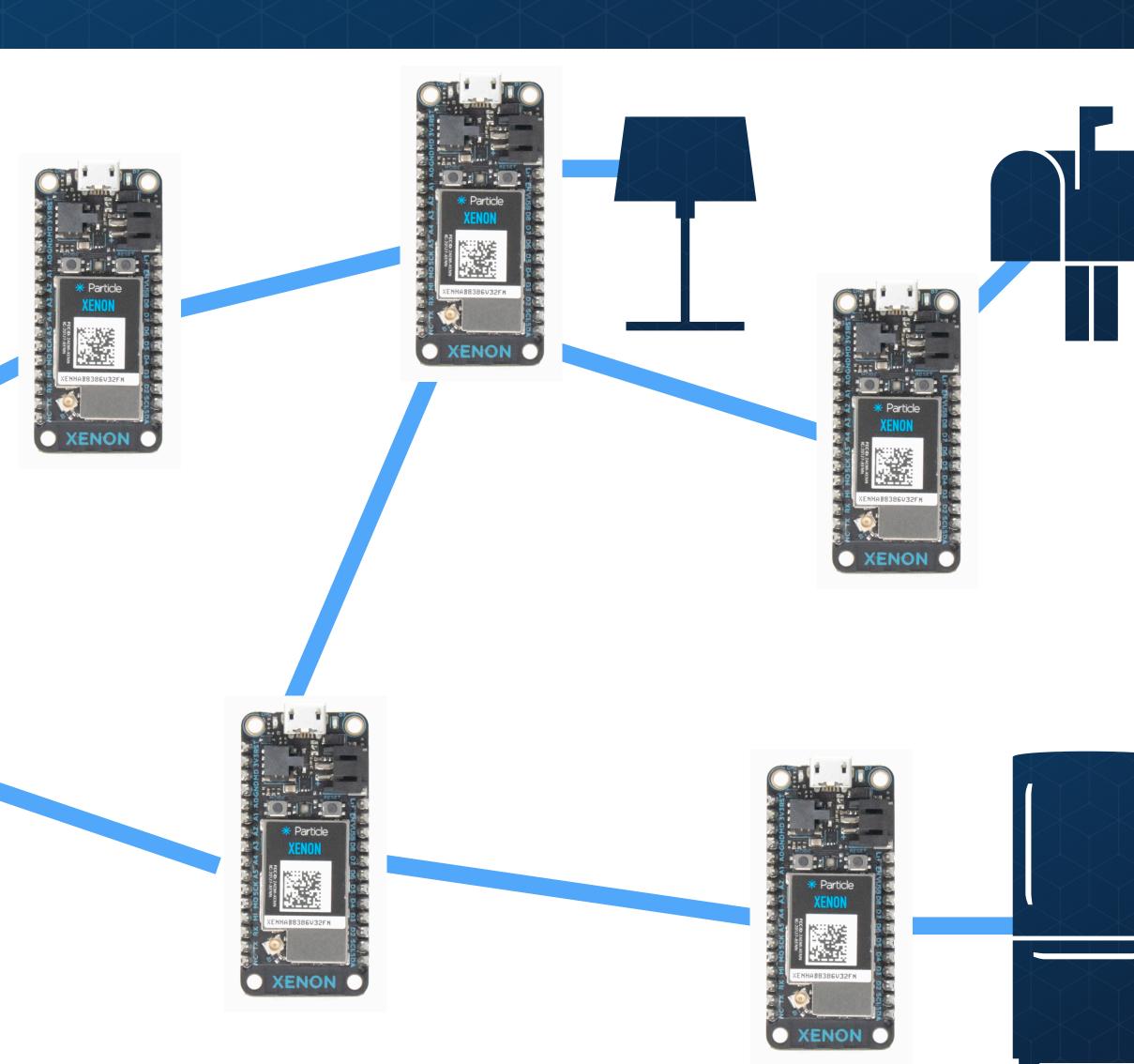
PARTICLE MESH DEVICES

SETTING UP A MESH NETWORK









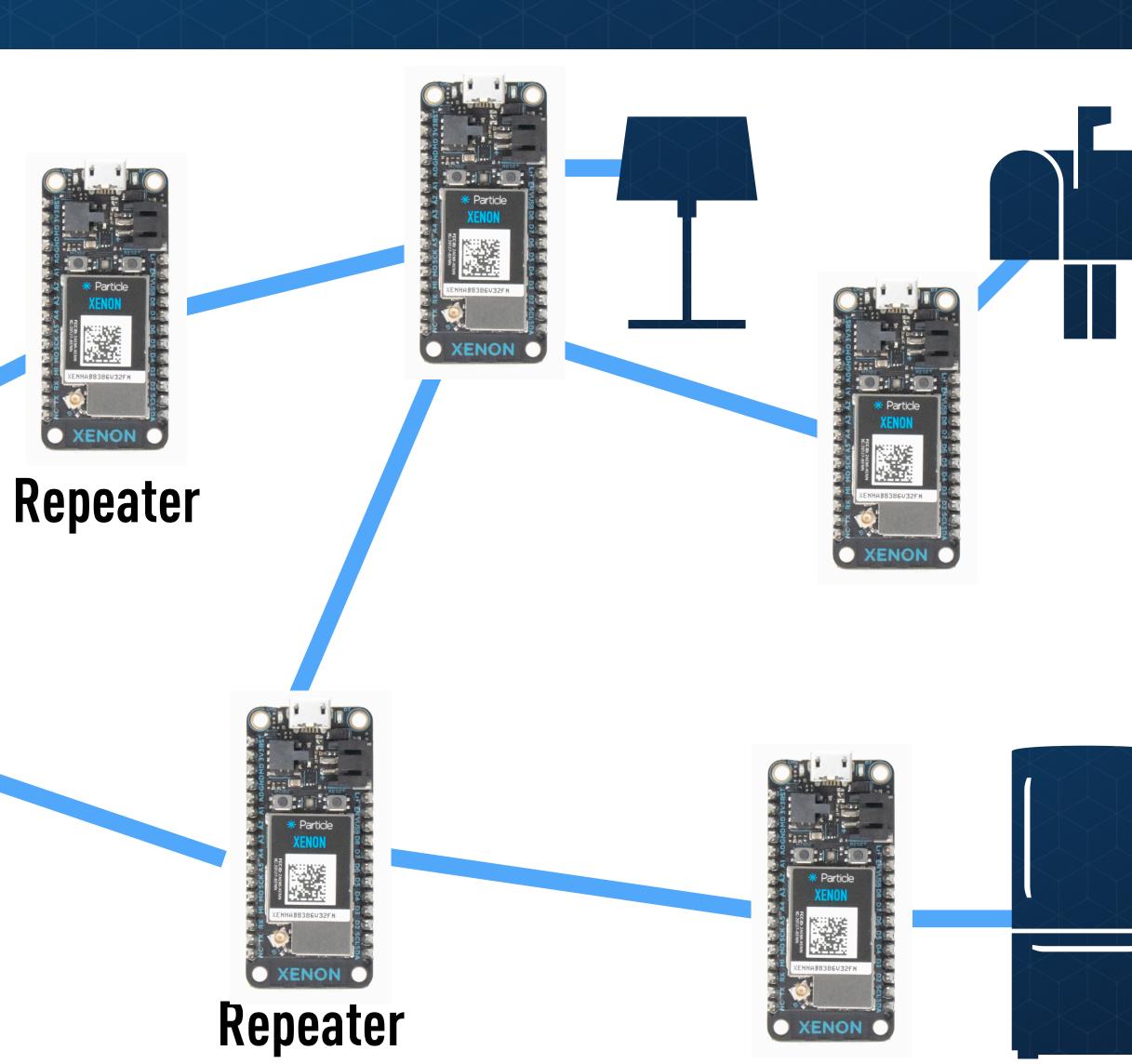












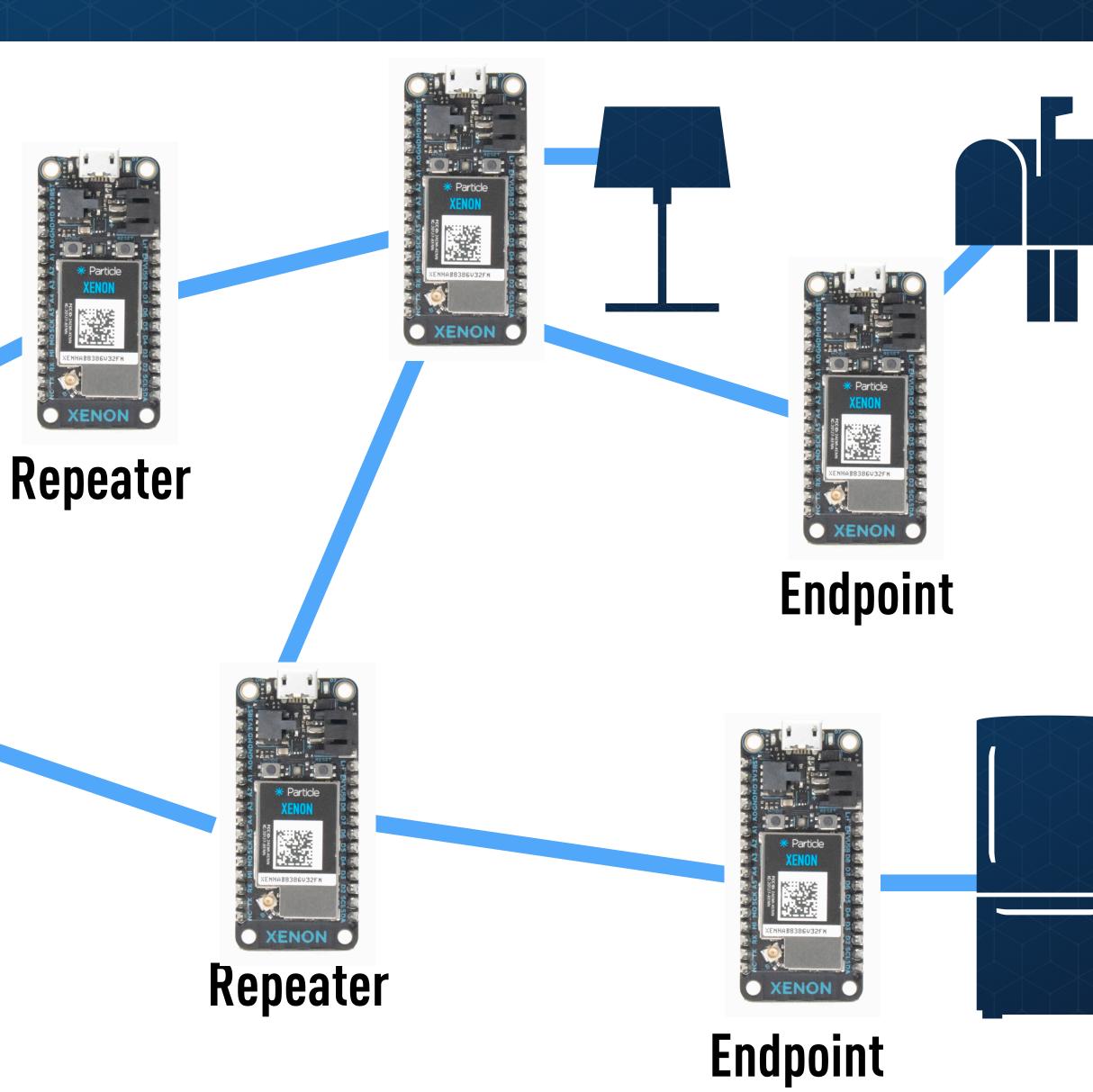












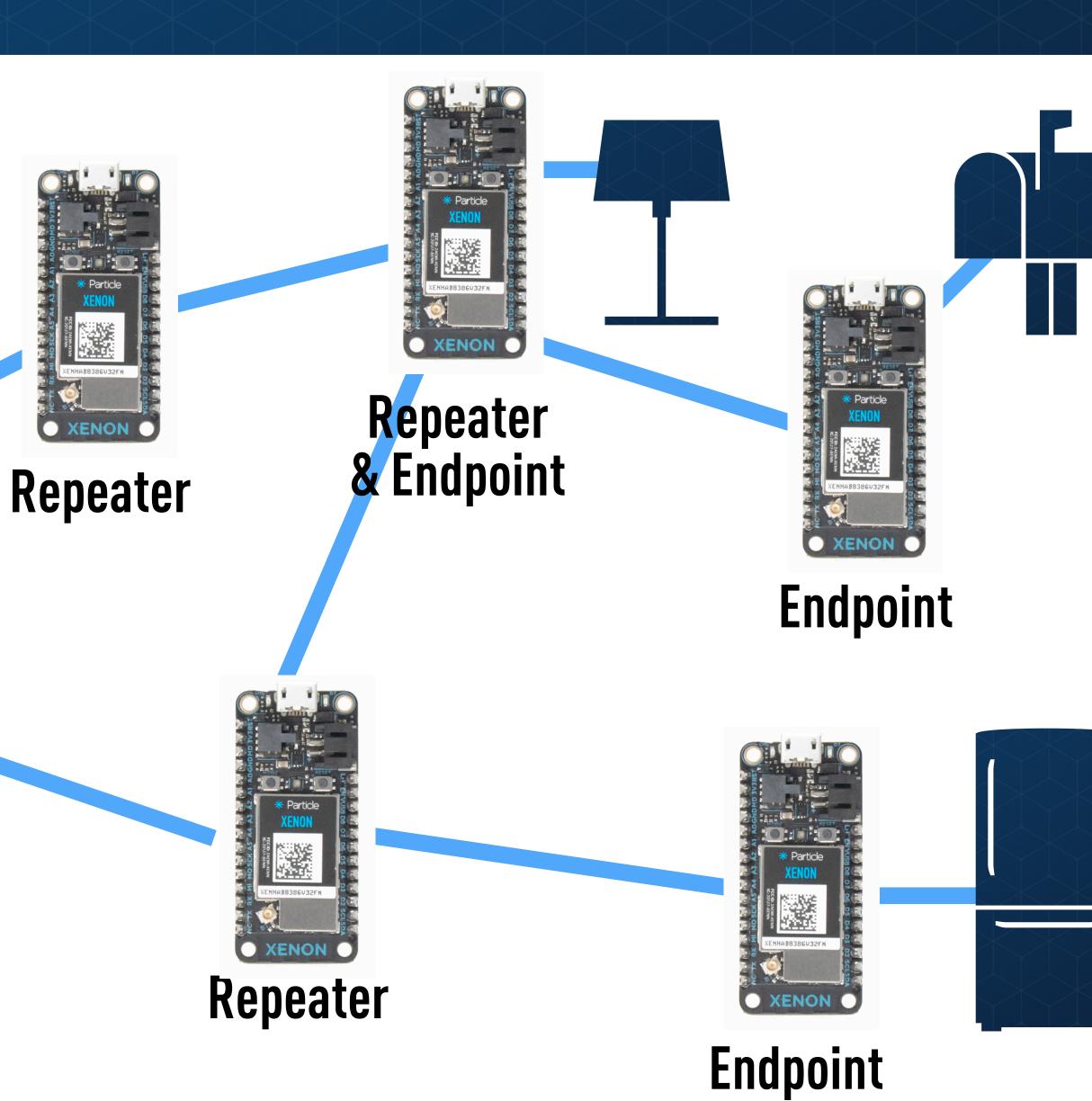




















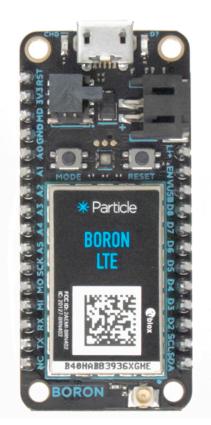
WHY MESH NETWORKING MATTERS

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PARTICLE MESH DEVICES

SETTING UP A MESH NETWORK









Argon 🗇

- » Wi-Fi + BLE +Mesh
- » Wi-Fi endpoint or mesh gateway
- » Starts at \$25

Boron

- » LTE-M1 + BLE + Mesh
- » Cellular endpoint or mesh gateway
- » Starts at \$49

Xenon 🖧

- » BLE + Mesh
- » Mesh endpoint
- » Starts at \$15

Mesh enabled, next generationFeather form factorOpenThread-based Mesh

Nordic nRF52840 SoC » ARM Cortex-M4F 32-bit IMB flash, 256KB RAM » IEEE 802.15.4-2006: 250 Bluetooth 5: 2 Mbps, 1 Mbps, >> 500 Kbps, 125 Kbps » ARM TrustZone Cryptographic security module NFC-A tag >>







- » Wi-Fi + BLE + Mesh
- » Wi-Fi endpoint or mesh gateway
- » Starts at \$25

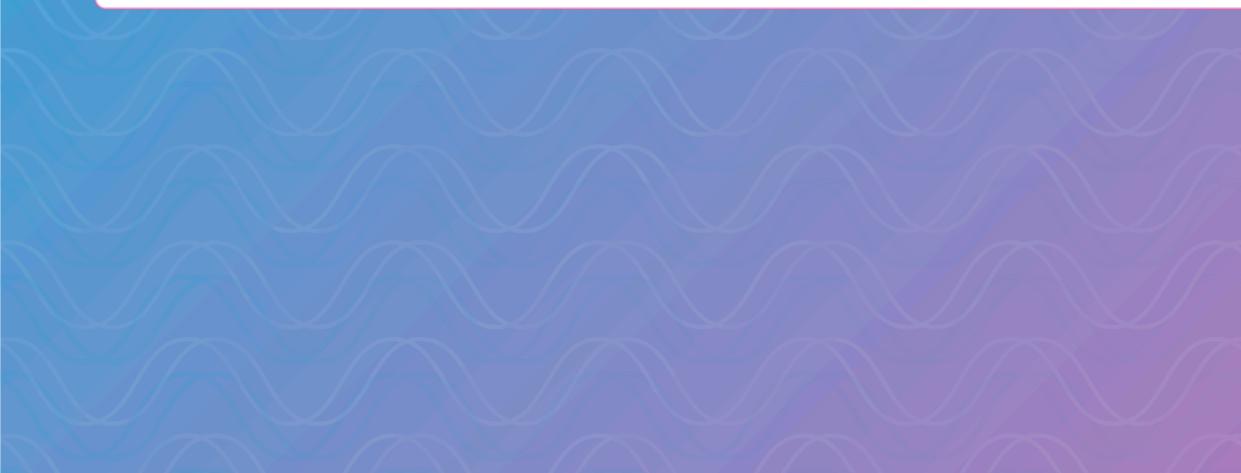
ESP32 Wi-Fi coprocessor On-board 4MB flash for ESP32 802.11 b/g/n support 802.11 n (2.4 GHz), up to 150 Mbps **Device Features** On-board add'l 2MB SPI flash » 20 mixed signal GPIO (6 x Analog, 8 x PWM), UART, I2C, SPI Integrated Li-Po charging and battery connector JTAG (SWD) Connector





Boron 🗇

- » LTE-M1 + BLE + Mesh
- » Cellular endpoint or mesh gateway
- » Starts at \$49



u-blox SARA R410 LTE Modem LTE CAT M1/ NB1 module with global hardware support (MVNO support for US only) **3GPP Release 13 LTE Cat M1 Device Features** On-board add'l 2MB SPI flash » 20 mixed signal GPIO (6 x Analog, 8 x PWM), UART, I2C, SPI Integrated Li-Po charging and >> battery connector JTAG (SWD) Connector





Xenon 🖧

- » BLE + Mesh
- » Mesh endpoint
- » Starts at \$15

Mesh networking with OpenThread
» IEEE 802.15.4-2006: 250
» Bluetooth 5: 2 Mbps, 1 Mbps, 500 Kbps, 125 Kbps





WHY MESH NETWORKING MATTERS

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PARTICLE MESH DEVICES

SETTING UP A MESH NETWORK



FOUR-STEP PROCESS

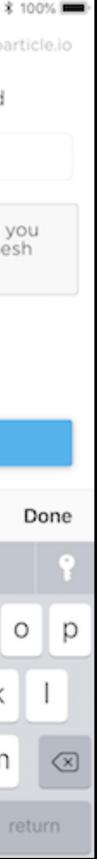
1. Set up an Internet-connected Device



2. Create a Mesh Network

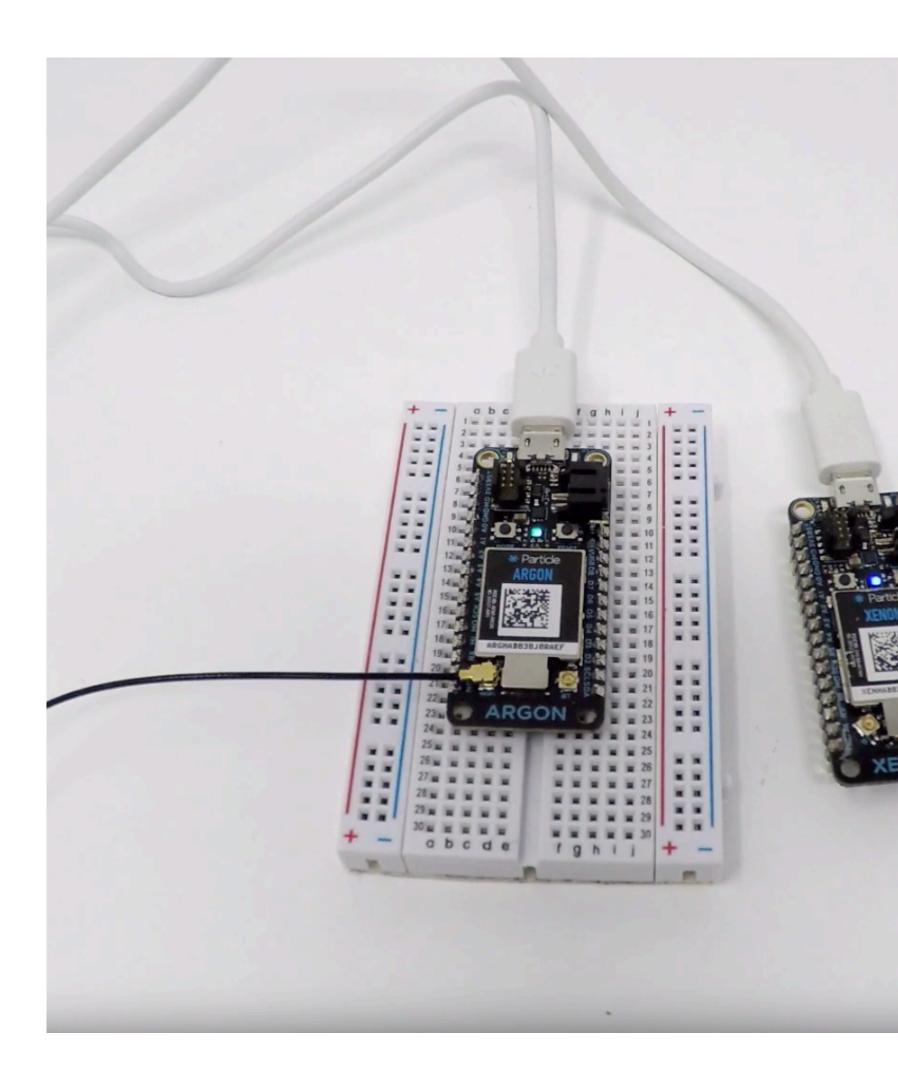
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×	b	brandon@particle.io		
G	ive your network a	a name		
bsatrom-	spectra			
Name rememb	your network somet er to help you easily	hing you will identify it later.		
	NEXT			

Il Verizon 🗢			3:13 PN	4		77		
×				br	andor	@pa		
Set	netv	work	adm	in pa	assw	ord		
You'll need this password each time y want to add a new device to this me network.								
CREATE NETWORK								
q w e		r t	t J	/ L	1	i		
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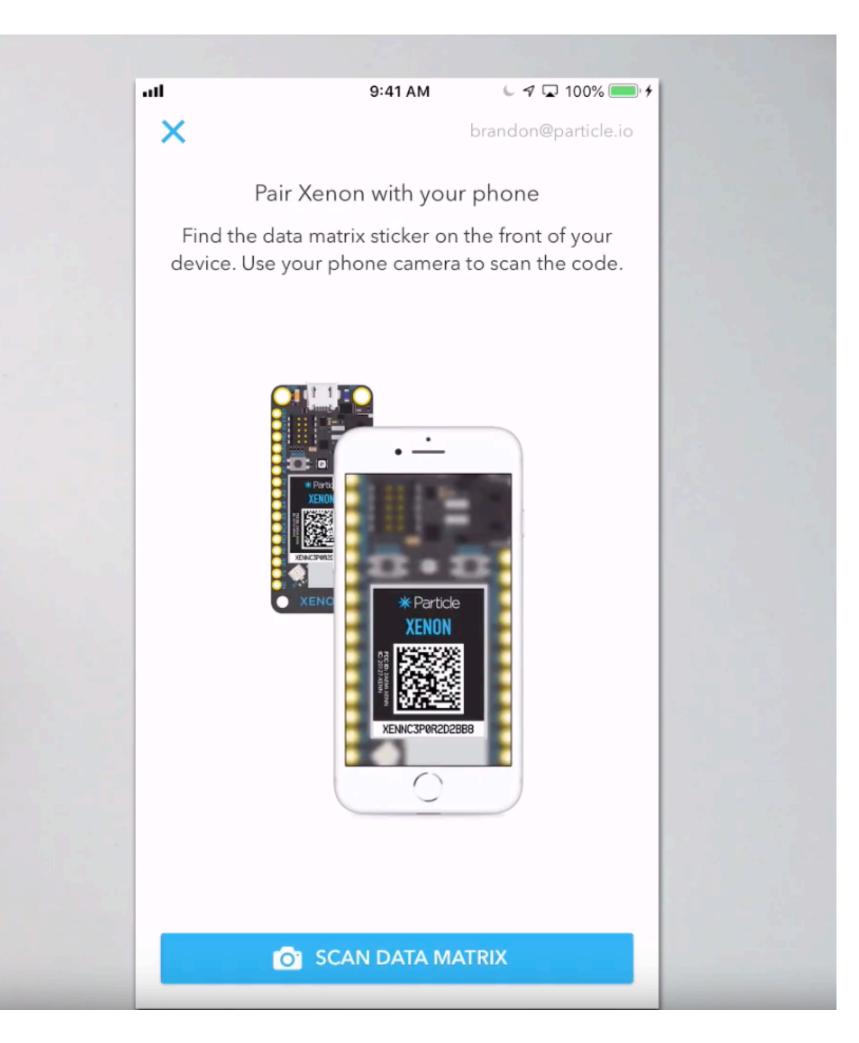


FOUR-STEP PROCESS

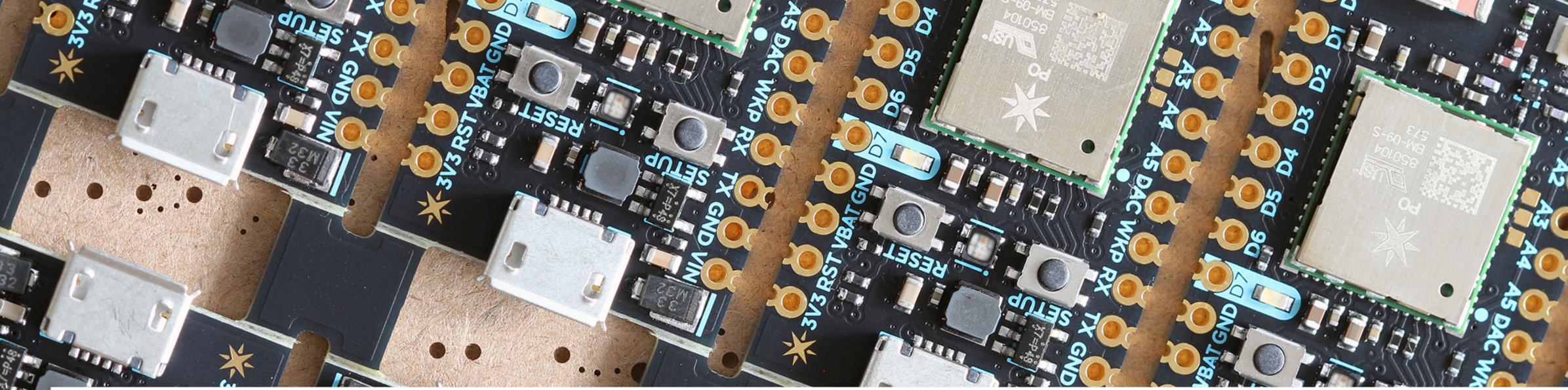
3. Add a second device



4. Scan an assisting device







HTTPS://MESH-101.HEROKUAPP.COM

