



Solution Integration Guide

Corsano Continuous Patient Monitoring on HPE Aruba Networking

Continuous patient monitoring. Anytime, anywhere — on your existing HPE Aruba Networking infrastructure.

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1. Architectural & Hardware Overview

1.1 Solution at a glance

The Corsano continuous patient monitoring solution is a **medical-grade, CE-MDR certified, FDA 510(k) cleared** platform built around the **Corsano 287-2B wrist-worn bracelet**. Each bracelet captures up to **19 vital parameters** (pulse rate, heart-rate variability, single-lead ECG, SpO₂, respiration rate, non-invasive blood pressure, core body temperature, activity, sleep and more).

Integrated with HPE Aruba Networking, the joint solution turns an existing hospital Wi-Fi infrastructure into a hospital-wide, low-touch vital-signs collection network without deploying any additional hardware on the wards. Any HPE Aruba Networking Access Point with BLE capability captures the Telemetry and forwards them through the **Aruba IoT Connector**, on which the **Corsano application** runs. The Corsano application authenticates the data and securely streams it to the **Corsano Health Cloud** for clinical visualisation, alerting and EHR integration.

The integration delivers:

- **Hospital-wide patient coverage** — vitals are collected anywhere the existing HPE Aruba Networking Wi-Fi reaches; no per-room gateway is required.
- **Resilient data capture** — multiple APs receive the same data simultaneously, providing natural redundancy and seamless roaming as patients move between zones.
- **Up to 3 hours of buffered history** — each advertisement carries the past measurement snapshots automatically recovering data when a patient is briefly out of range.
- **Strong end-to-end security** — vitals are AES-encrypted and authenticated on the bracelet before they ever leave the patient and cyphered up to the Corsano Cloud (see Appendix C).
- **Cloud-managed deployment** — the Corsano application is installed, configured and upgraded from **Aruba Central** with a single click; expected service disruption during an upgrade is under 30 minutes.



1.2 Architecture diagram

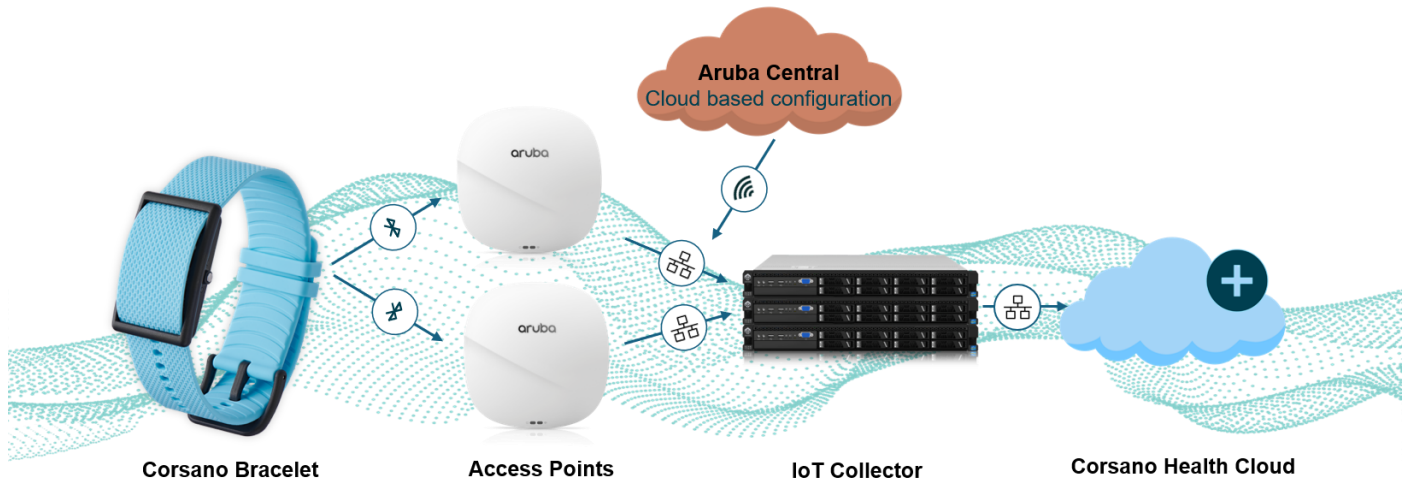


Figure 1 — End-to-end architecture. The bracelet broadcasts encrypted BLE extended advertisements; any in-range AP captures them and forwards them to the IoT Connector virtual appliance, on which the Corsano application runs. Then pushes the payload to the Corsano Health Cloud. This architecture enables a seamless roaming in a large cover area and multi redundancy whilst keeping a high level of security of the patient's data.

1.3 Per-advertisement data flow

The bracelet has no awareness of which AP receives its broadcast; redundancy and de-duplication are handled in software on the Aruba IoT Connector.

1.4 Hardware & Software Requirements

Component	Version requirement	Notes
HPE Aruba Networking Access Points	AP-5xx / AP-6xx / AP-7xx series	Integrated BLE radio required.
ArubaOS	AOS 10	Tested and verified on LSR 10.4 and 10.8
HPE Aruba Networking Central	Current GA	Used for AP onboarding, BLE radio profile, IoT Operations and Corsano application deployment.
IoT Connector (virtual appliance)	Per the IoT Connector deployment guide	Hosts the Corsano application. Sized and deployed per standard Aruba documentation (see Appendix A).
Corsano 287-2B bracelet firmware	8.36 or higher	BLE Extended Advertising mode in its current production form is available from firmware 8.36 onward.
Corsano application	Distributed through the Aruba Central application catalog	Installed and lifecycle-managed via Aruba Central (one-click install / upgrade).



2. Aruba Central – AOS10 Settings & Configuration

The following step-by-step instructions describe the configuration required to set up Corsano bracelet monitoring on an HPE Aruba Networking infrastructure. All Aruba-side configuration is performed from the **Aruba Central** platform; no on-site CLI interaction is required at install time.

2.0 Prerequisites

Confirm the following before starting:

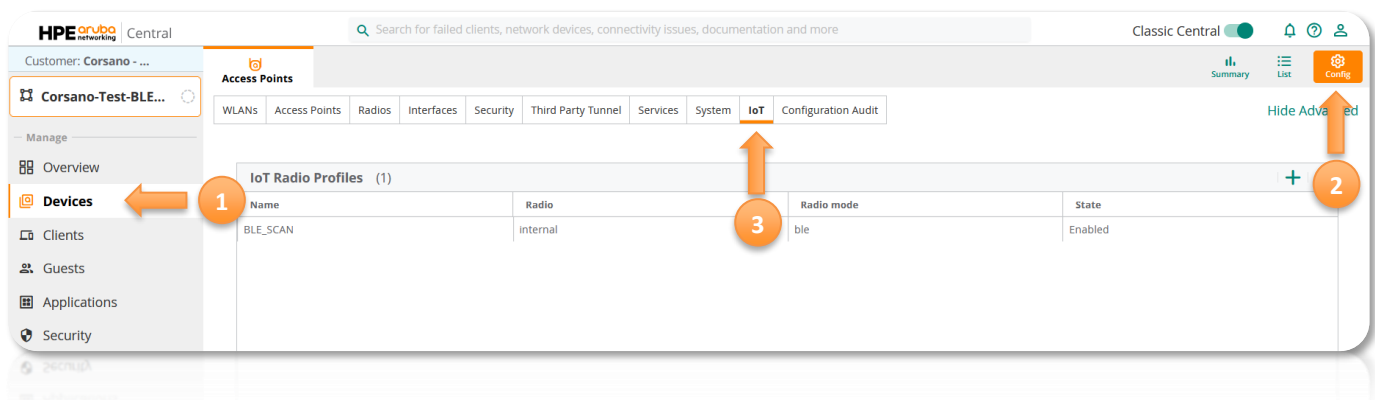
1. The site's infrastructure is **already deployed and managed by Aruba Central**, and access points meet the requirements listed in §1.4.
2. **A BLE radio site survey has been performed.** BLE coverage is *not equivalent* to Wi-Fi coverage. At 2.4 GHz with very low broadcast power, the bracelet's signal is significantly more sensitive to walls and hospital equipment than Wi-Fi is. The survey should confirm that every patient zone in scope (bedrooms, common areas, corridors, ...) is within reliable BLE reach of at least one AP, with overlap where possible.
3. A **Corsano Portal** has been provisioned for the site. Contact Corsano support (see Appendix D).
4. The **Corsano HCP mobile** app installed on an iPhone or iPad with internet access to enable the HCP to perform the onboarding
5. A **Gateway Serial Number** and an **Access Token** have been generated by Corsano for this site, via the Corsano portal. These two values will be requested by the Corsano application during its installation in Aruba Central (§2.6).
6. **Corsano 287-2B bracelets** have been received with firmware **8.36 or later**.

Tip. Most deployment delays come from skipping the BLE site survey or from missing one of the credential items (Gateway SN / Access Token) at install time. Make sure both are in place *before* starting §2.1.

2.1 Open the IoT configuration page in Aruba Central

In Aruba Central, select the group to which the site's access points are assigned.

Then navigate to **Devices** → **Config** → **IoT**.



If the device, site or organisation has not yet been set up, refer to the Aruba Central administration guide (see Appendix A) or contact HPE Aruba Networking support.



2.2 Create an IoT Radio Profile

On the concerned AP group, under settings, create a new **IoT Radio Profile** to enable the integrated BLE radio in scanning mode (the radio must hear advertisements; it does not need to advertise back to the bracelet).

1. Click the **+** sign to create a new profile.
2. Set **Radio Mode** to **BLE**.
3. Set **BLE Operation Mode** to **Scanning** (or **Both** if the AP is also used for iBeacon/Eddystone advertising for other use cases).
4. Give the profile a name (e.g. Corsano-BLE-Scan).
5. Click **Save Settings**.

The screenshot shows the 'Access Points' configuration page with the 'IoT' tab selected. The configuration form includes the following fields and values:

Field	Value
Name	Corsano-BLE-Scan
Radio	Internal
Radio mode	BLE
BLE operation mode	Scanning
Console	Off
Tx power	0

Note. The BLE radio must be in **scanning** mode (not "iBeacon" or "Eddystone" only), otherwise it will broadcast instead of listen and no Corsano vitals will be captured.

2.3 Enable the radio profile

Hover over the newly created profile and click the signal-strength button on the right to enable it. Under the **State** column, the profile should now read **Enabled**.

The screenshot shows the 'IoT Radio Profiles' table with the following data:

Name	Radio	Radio mode	State
Corsano-BLE-Scan	Internal	ble	Enabled

If you need to change settings later, the pen icon next to the profile reopens the edit pane.



2.4 Deploy the Aruba IoT Connector virtual appliance

The Corsano application is hosted on the **Aruba IoT Connector virtual appliance**. Provision one instance, sized for the expected workload (number of access points and bracelets), and register it in Aruba Central. Deployment, sizing, supported hypervisors, networking and registration are covered in the standard HPE Aruba Networking documentation — see **Appendix A**.

Then assign every access point (or AP group) that must scan for Corsano bracelets to the IoT Connector.

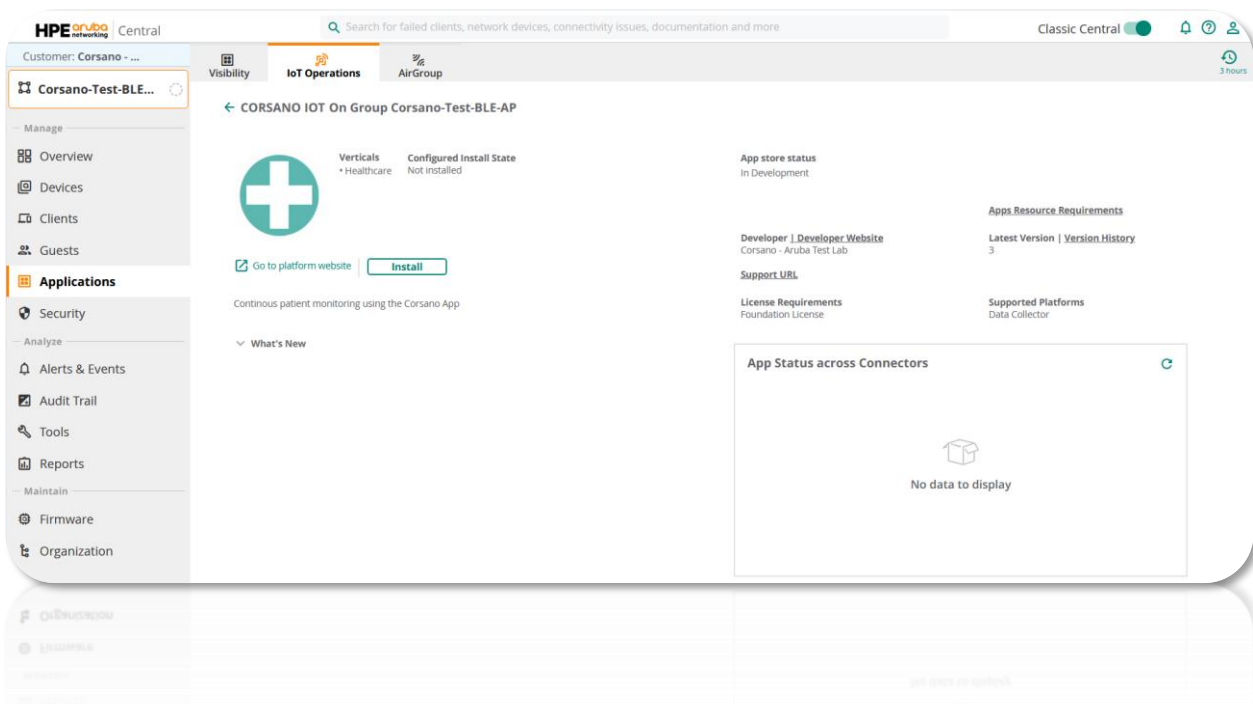
Once the VM is registered in Aruba Central and the site's APs are bound to it, the APs will forward all subscribed BLE traffic to the IoT Connector. No further AP-side configuration is required.

Note. In the current release, the IoT Connector runs as a **virtual appliance**. An **AP-based** deployment where the connector and the Corsano application run directly on the access points, with no dedicated VM is on the roadmap and is not available at the time of writing.

2.5 Install the Corsano application

From the Aruba Central **IoT Operations** dashboard, locate the **IoT Applications** tile and select **Manage**.

Browse the application catalog, locate the **Corsano** application, click on it and then click **Install**.





2.6 Register the Corsano application

During (or immediately after) installation, Aruba Central will prompt you for two values:

Prompt	Source	Description
Gateway Serial Number	Corsano portal (\$2.0 prerequisite)	Unique identifier of this site's Corsano gateway.
Access Token	Corsano portal (\$2.0 prerequisite)	Per-gateway bearer token authenticating the application to the Corsano Health Cloud.

Paste both values and confirm. The Corsano application is now ready to stream bracelet data to the Corsano Health Cloud.

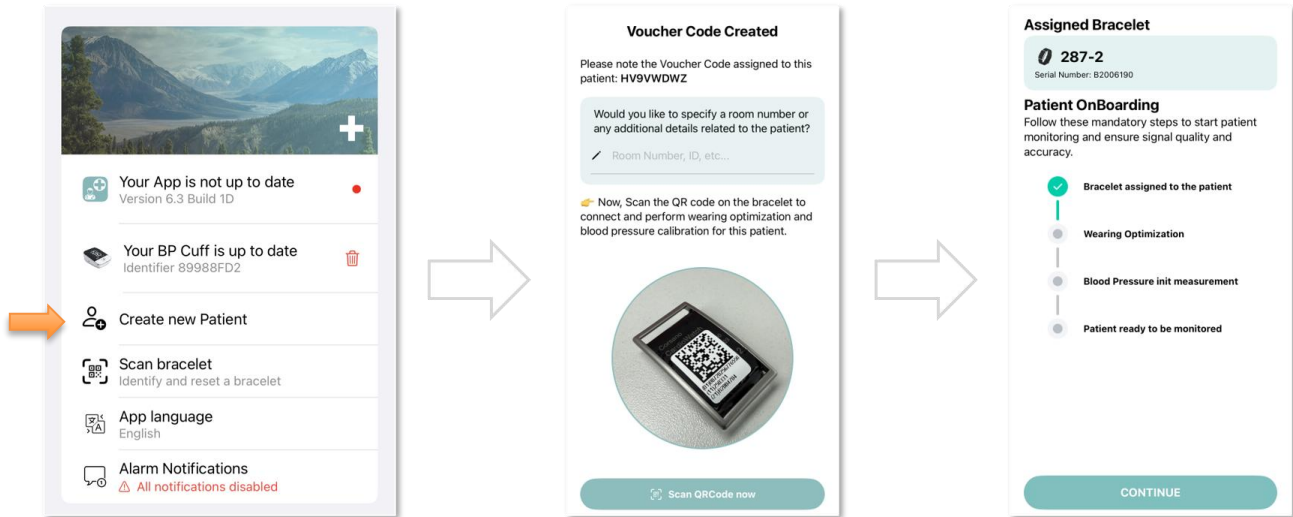
Note — Secrets handling. The Gateway Serial Number and especially the Access Token uniquely identify the site to the Corsano Health Cloud. Treat the Access Token as a secret: it is entered once during install and never needs to be re-displayed. If it must be rotated, contact Corsano support to issue a new token and re-enter it via the Aruba Central application configuration page.



2.7 Patient onboarding (clinical side)

Patient and bracelet onboarding is performed entirely from the **Corsano HCP application**, not from Aruba Central:

1. In the Corsano HCP app, create the patient record.
2. Scan the QR code or enter the serial number printed on the back of the 287-2B bracelet to assign it to the patient.
3. Follow the onboarding wizard for wearing optimization and initial blood-pressure calibration.



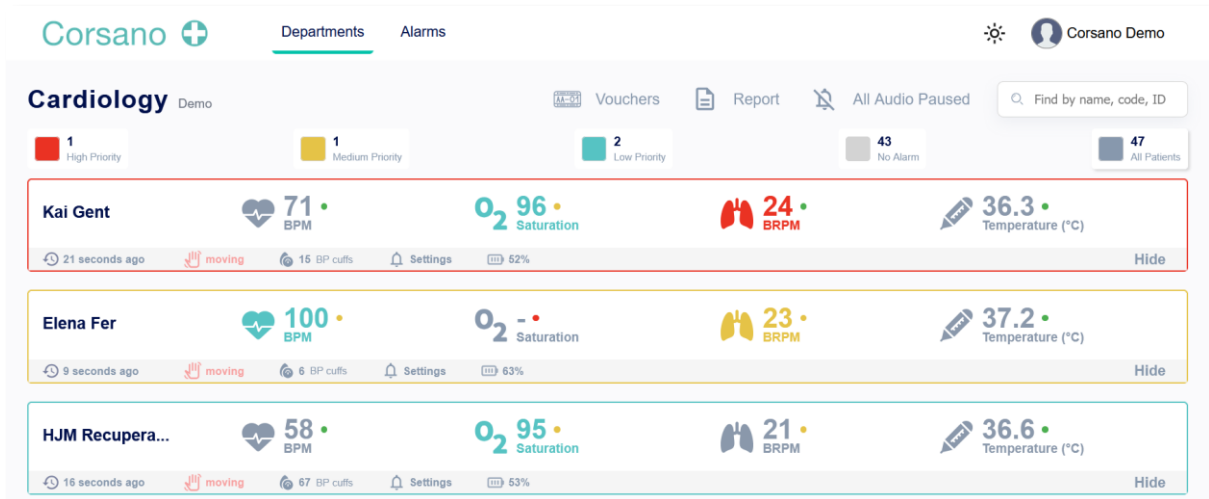
Once enrolled, the bracelet will appear in the site's active devices list and vitals will start flowing into the Corsano Health Cloud immediately, with no further action required on the Aruba side.

Note. At the end of the onboarding phase, it is mandatory to break the BLE bonding in the iPhone settings.



2.8 Visualize patient data.

Once a bracelet has been enrolled (\$2.7) and is being worn, vitals start flowing to the Corsano Health Cloud within seconds. To confirm reception, log in to the Corsano portal at portal.corsano.com: the site view lists all enrolled bracelets with their last-seen timestamp, and selecting a patient shows live vitals (HR, SpO₂, respiration rate, temperature, ...) refreshing in near real time.



From the department overview, click on a patient to display all the vitals (HR, SpO₂, respiration rate, temperature, ...) refresh in near real time, alongside historical curves.





3. Verification & Troubleshooting

The HPE Aruba Networking Access Point can be accessed from a console in the Aruba Central platform to verify configuration and to perform troubleshooting. The Aruba Central GUI may show outdated information; if you are unsure whether a status displayed in Aruba Central is up to date, use the AP console to retrieve live information directly from the device.

3.1 Open the AP console from Aruba Central

1. In Aruba Central, navigate to **Devices** in the left-side menu and click the MAC address of the AP you wish to inspect.
2. On the right, select **Actions** → **Console** from the drop-down menu.
3. Enter the AP's username and password, then click **Create New Session**.

3.2 End-to-end verification

Run the checks in order. Each failed check narrows down the layer to investigate.

#	Step verified	Where	Expected result
1	AP is up and BLE is scanning	Aruba Central → Devices → AP → IoT	AP Up ; Radio Profile Enabled in BLE / Scanning mode.
2	AP hears the bracelet	AP console	The bracelet's MAC appears in show ap debug ble-table all; device name reads 287-2B or similar.
3	Corsano application is installed and connected	Aruba Central → IoT Operations → IoT Applications → Corsano	Status Installed / Connected .
4	IoT device table filled up	Aruba Central → IoT Operations → IoT Applications → IoT Devices	Check that the Corsano bracelets appears on the table
5	Patient is properly onboarded	Corsano HCP app → Patient profile	The onboarding has to be completed for the bracelet to produce data.
6	Application is receiving BLE frames	Corsano application logs (via Aruba Central)	Periodic activity per enrolled bracelet (advertisement reception).
7	Vitals reach the Corsano Health Cloud	Corsano HCP app → patient record	Live vitals (HR, SpO ₂ , temperature, ...) updating within minutes of bracelet activity.

Note. If check 5 succeeds but check 6 fails, the issue is **network-side** (Access Token, network egress, account). If check 5 fails but checks 1–3 succeed, the issue is **BLE-side** (bracelet firmware below 8.36, bracelet out of range, AP BLE radio misconfigured, or AP not bound to the IoT Connector).



3.3 Core verification commands

The following console commands cover the most common verification needs:

Goal	Console command	Notes
Verify the IoT Radio Profile	show iot radio-profile <profile_name>	Omit the profile name to list all profiles.
Verify the radio + transport profile summary	show ap debug ble-config	Concise overview.
List every BLE device scanned by the AP	show ap debug ble-table all	Use to confirm the bracelet is being heard.
Detailed info on a specific BLE device	show ap debug ble-table mac <macaddress>	Filter on a bracelet MAC.
BLE relay connection status report	show ap debug ble-relay report	High-level connection health.
Detailed transport profile information	show ap debug ble-relay iot-profile	—

3.4 Common error signatures

Symptom	Likely cause	Action
AP Up, but no bracelet visible in show ap debug ble-table all	BLE radio not in scanning mode, or bracelet out of range / off	Re-check §2.2 / §2.3 ; verify with show ap debug ble-config. Move bracelet within ~10 m line-of-sight of an AP and re-test.
Bracelet visible at AP, but Corsano application reports no data	Application not registered, or Patient not properly onboarded on the Corsano cloud	Re-check §2.4 (IoT Connector binding) and §2.6 (Gateway SN / Access Token registration). Verify onboarding status on HCP app.
Application connected, but vitals do not appear in the Corsano HCP app	Wrong credentials, or network egress blocked to the Corsano Health Cloud	Verify outbound HTTPS (TCP/443) to the Corsano cloud endpoints; re-enter the Access Token via Aruba Central if needed.
Bracelet visible but with a very low RSSI value	Walls / materials between bracelet and AP are absorbing the signal	Install an additional AP in the affected zone, or relocate the existing AP. BLE is far more sensitive to obstacles than Wi-Fi.



4. Appendices

Appendix A — Reference Documentation

#	Document	URL
A.1	HPE Aruba Networking — Aruba IoT Connector / IoT Operations deployment guide	Aruba Data Collector documentation
A.2	HPE Aruba Networking — Aruba Central administration guide	Aruba Central documentation
A.3	HPE Aruba Networking — ArubaOS 10 user guide	AOS10 documentation
A.4	Corsano — Corporate site and product overview	https://corsano.com/
A.5	Corsano 287-2B Bracelet — User & Clinical Manual	CardioWatch 287-2 IFU
A.6	Corsano HCP Application — User Guide	HCP App Instruction

The IoT Connector virtual appliance must be sized for the number of access points and bracelets it serves. The figures below are the HPE Aruba Networking IoT Operations / IoT Connector specifications; refer to the IoT Connector deployment guide (Appendix A) for the authoritative and most current values.

Parameter	Mini VM	Small VM	Medium VM
Access points (APs)	50	250	1000
BLE devices (bracelets)	2000	5000	20000
CPU (cores)	4	8	24
Memory (GB)	4	16	64
Storage (GB)	256	256	480

Note. Each Corsano 287-2B bracelet counts as one BLE device.



Appendix B — Aruba Console Command

The following commands can help verify and confirm the configuration and connection status of an HPE Aruba Networking Access Point in the Corsano context. Access them from the AP console as described in §3.1.

B.1 Core verification

Step verified	Console command	Notes
Radio Profile	show iot radio-profile <profile_name>	Omit <profile_name> to list all profiles.
Transport Profile	show ap debug aec-config transports <profile_name>	Omit <profile_name> to list all transport profiles.
Certificate(s) assignment	show ap debug aec-config certs	—
Transport Profile connection status	show ap debug ble-relay report	—
Transport Profile connection error log	show ap debug ble-relay ws-log <profile_name>	—

B.2 Additional commands

Console command	Effect
<command> ?	Lists available sub-commands for the entered <command>.
show ap debug ble-config	Summary of radio and transport profile configuration.
show ap debug ble-table all	All Bluetooth devices currently scanned by the AP.
show ap debug ble-table mac <macaddress>	Detailed information on the device specified by its MAC address.
show ap debug ble-daemon	BLE connection daemon log.
show ap debug ble-relay iot-profile	Detailed information on the transport profiles.
show ap debug ble-relay report	Detailed connection status report.
show ap debug aec disp-config-objs	List of apps currently running on the AP.



Appendix C — Security Summary

The Corsano 287-2B bracelet broadcasts its vitals over **BLE 5 extended advertisements**, which are short, periodic radio messages. The model is intentionally simple:

- The bracelet **broadcasts**. It does not pair with, connect to, or "know" any specific AP. Any HPE Aruba Networking AP in range can receive its messages — providing natural redundancy and seamless coverage as patients move.
- The broadcast **payload is encrypted on the bracelet** with **AES-128-CCM** and **authenticated** with a Message Integrity Check before it ever leaves the patient.
- An **AP cannot read the payload**. It simply forwards the encrypted frame to the Aruba IoT Connector, where the Corsano application validates it.
- The vitals are then sent to the **Corsano Health Cloud** over **HTTPS / TLS 1.2+**.
- End-to-end, vitals are therefore protected from the patient's wrist all the way to the clinician's dashboard, with no cleartext exposure at any intermediate hop.

For the full clinical data schema, refer to the Corsano Health Cloud API Reference (see Appendix A).

Appendix D — Technical Support

Corsano Support

- **Email:** support@corsano.com
- **Support portal:** <https://corsano.com/contact-us/>

When opening a support case with Corsano, please include:

1. **Gateway Serial Number** (configured in §2.6).
2. **Corsano application version** (visible in Aruba Central → IoT Applications → Corsano).
3. **Bracelet serial number(s)** and **MAC address(es)** of the affected device(s).
4. **Bracelet firmware version(s)** of the affected device(s).
5. **Window of impact** (UTC start/end of the issue).

HPE Aruba Networking Support

For issues isolated to Aruba components (APs not coming up, Aruba Central configuration, IoT Connector unreachable), contact **HPE Aruba Networking TAC** through your standard support channel.

Joint escalation

For issues that span both products (e.g. APs report BLE frames but the Corsano application receives nothing), open cases with **both** support organizations and reference the counterpart case number in each, so the two TACs can collaborate directly.

End of document.