Cloud connectivity guide

Device integration with Sennheiser cloud services

PDF export of the original HTML manual

Contents

1. Product information

This document provides AV /IT professionals with step-by-step guidance on enabling cloud connectivity for Sennheiser devices and preparing them for integration with **Sennheiser DeviceHub**, Sennheiser's cloud-based device management platform.

Supported Sennheiser devices

- TeamConnect Bar S
- TeamConnect Bar M
- TeamConnect Ceiling M Plus

Prerequisites

All Sennheiser devices:

- Network access with mandatory firewall configuration

TC Bar S/M:

- Firmware image with embedded "Local Web UI" (LUI) supporting Sennheiser DeviceHub OR
- Sennheiser Control Cockpit (v9.1.2 or higher) in order to update the older version without LUI
- For more information, please refer to the chapter DeviceHub compatibility with older devices.

2. Preparing the device for cloud connectivity

To enable cloud connectivity for Supported Sennheiser devices, install the latest firmware and configure the required Network modes and Required outbound ports (DeviceHub).

To operate in a cloud environment, the device must be updated to the latest firmware version available for this device.

> **i** In order to enroll your older device without DeviceHub compatibility, you may need additional software to update the firmware to a DeviceHub-compatible version or to set the device to a compatible mode (see DeviceHub compatibility with older devices) and look for "network settings" or "network configuration".

Network modes

Supported devices require the correct network configuration to operate as intended.

Configure each device according to its product-specific network requirements.

For product-specific network settings, refer to the relevant manuals in the Documentation Portal.

Required outbound ports (DeviceHub)

Sennheiser DeviceHub relies on Microsoft Azure IoT Hub for connections established by the Sennheiser devices.

The following network protocols and ports are required for the Sennheiser cloud connectivity over the device control network.

IPv4	Port	Protocol	Service / FQDN	Service Tag
52.166.23.94 (EMEA) 104.211.55.78 (AMER) 20.239.51.210 (APAC)	443	HTTPS	Device Enrollment Service **api.cloud.sennheiser.com**	N/A
Dynamic*	443	MQTT over WebSockets	IoT Region **EMEA** **iot-sennheiser-prod-emea.azure-devices.net**	AzureIoTHub.WestEurope
Dynamic*	443	MQTT over WebSockets	IoT Region **APAC** **iot-sennheiser-prod-apac.azure-devices.net**	AzureIoTHub.EastAsia
Dynamic*	443	MQTT over WebSockets	IoT Region **AMER** **iot-sennheiser-prod-amer.azure-devices.net**	AzureIoTHub.EastUS

All device communication is secured with current TLS/SSL.

*Dynamic IPv4:
The IP addresses of Azure IoT Hubs are dynamic and may change without prior notice.

- Use FQDNs (fully qualified domain names) if supported by your firewall **or**
- Check the Microsoft Azure Service Tags to retrieve the current IP ranges by searching for the specified Service Tag:
  - Download the complete Service Tags list from the Microsoft® page for Azure IP Ranges and Service Tags.
  - In the downloaded `.json` file, search for the Service Tag corresponding to your IoT Hub region. If you are unsure or operating in multiple regions, you may enable all three IoT Hub regions.

> **i** Currently, only direct connection (MQTT; port 443) is supported. The connection type "behind HTTPS proxy" is not supported.

Important: IPv6 connectivity is not yet supported. Devices must use IPv4 for all outbound communication. This is particularly relevant for environments where IPv6 is common, such as mobile networks (e.g., 5G). Please ensure your network allows IPv4 traffic for the required ports and domains.

Optional ports (Control Cockpit)

Enable specific firewall ports to perform firmware updates of needed devices using Sennheiser Control Cockpit software.

TC Bar

In case you would like to perform a firmware update of the TC Bar using the Sennheiser Control Cockpit software, make sure to enable the following ports in your firewall for the control network.

Optional ports:

Port	Protocol	Service
5353	UDP	Optionally allow mDNS (Multicast 224.0.0.251) to discover devices automatically with Control Cockpit. As an alternative, you can disable mDNS and add devices manually by their IP address.
443	HTTPS	SSC Sound Control Protocol v2 for communication to Control Cockpit/ Firmware Update.

DeviceHub compatibility with older devices

This topic provides an overview of how to prepare older devices for DeviceHub compatibility and enroll them into DeviceHub.

DeviceHub supports all new Sennheiser products released from 2026 onward. Older products can join DeviceHub only after the compatibility requirements have been met.

Depending on your device, you can use appropriate Sennheiser tools to make the device compatible with DeviceHub. Please refer to the-specific topic to make your device compatible:

- TC Bar S/M: Updating the firmware

Updating the firmware

Follow these steps to install the latest firmware for the TC Bar.

In order to enroll your TC Bar devices into DeviceHub, the device firmware version 2.0.2 and later must be installed. Devices with earlier firmware versions without LUI can be updated using Sennheiser Control Cockpit on Windows.

> **i** Please make sure to enable the necessary ports in your firewall for the control network (see Optional ports (Control Cockpit)).

> **i** This step is required only if the device does not already have cloud-enabled firmware installed. If you have already performed such an update, no further update is necessary.

To update your firmware (< 2.0.2) via Control Cockpit:

- Download and install Sennheiser Control Cockpit v9.1.2 or higher under sennheiser.com/control-cockpit (Windows only).
- In Control Cockpit, navigate to **Device** > **Firmware Info**.
- Select firmware v2.0.2 or later from the drop-down list, and run the update.

✓ The firmware has been installed successfully via Control Cockpit.

3. Known Issues

This document outlines known issues and pitfalls related to firmware, time synchronization, third-party access, and provides supportive links for troubleshooting Supported Sennheiser devices.

Supportive links

Sennheiser DeviceHub

- User manual

All Sennheiser products

- Documentation portal

Device requires an external time source

Condition

The device requires an external time source after booting.

Cause

The device requires an external time source. Accurate system time is necessary for proper enrollment and communication with Sennheiser DeviceHub. For persistent time synchronization, use a valid NTP server.

The device supports three modes for NTP:

- Preset (default) - a predefined set of time servers
- Manual - a user-configured set of time servers
- Auto - a set of time servers automatically configured via DHCP

▶ Enrollment can be performed using the "Use browser time" option in the LUI. The devices does not store time persistently e.g. during a reboot. The system time is saved periodically and restored after reboot, significantly reducing time drift. However, if no valid NTP server or time source is available, the system time will still drift over time after multiple reboots. Larger deviations between system time and actual time may cause enrollment to fail. Therefore, it is important to ensure that a valid NTP server is always configured and reachable.

NTP server is not validated

Condition

The NTP server is not validated and shows an error.

Cause

This is by design: the device accepts any address provided via DHCP or entered manually, without checking its reachability or validity.

- If time synchronization issues occur, please verify that the configured NTP server is accessible and delivering a valid time signal.

Third-party access cannot be disabled

Condition

Third-party access cannot be disabled once enabled in the firmware v2.0.x.

Cause

The function is not implemented in the beta firmware version of DeviceHub yet.

Sennheiser electronic SE & Co. KG | Am Labor 1 | 30900 Wedemark | Germany