

AV Device Minimum Functionality Guidelines

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Prepared by: OpenAVCloud Technical Working Group

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Document History and Change Log

This section captures the history of changes made to this document.

Version	Date	Reason for Change
0.1	2025-10-30	Initial release of AV Device Minimum Functionality Guidelines.

1. Purpose

This document outlines the minimum functionality guidelines required for Audio/Video (AV) devices developed, deployed, or integrated by members of the OpenAVCloud initiative.

2. Minimum Functionality Requirements

2.1 Device Status

- 2.1.1 Devices must implement the ability to report Online/Offline status.
- 2.1.2 Devices must report an Uptime value since last reboot.
- 2.1.3 The manufacturer may expose any other pertinent status for the specific device (.e.g power status, standby etc).

2.2 Device Inventory

- 2.2.1 Devices must report a manufacturer identifier.
- 2.2.2 Devices must report a model number.
- 2.2.3 Devices must report a unique serial number.
- 2.2.4 Devices must report version number of running firmware components that are field upgradeable.
- 2.2.5 Devices must report and allow setting of a user-friendly device name.

2.3 Device Operations

- 2.3.1 Devices must support a reboot operation.
- 2.3.2 Devices must support remote firmware updates for all field upgradeable components.
- 2.3.3 Devices must support an identify function that allows users to locate the device (e.g. flash LEDs etc).

2.4 Device Networking Information

- 2.4.1 Devices must support reporting network status, including IP Address, MAC Address, Subnet Mask, Default Gateway, DNS Server and Connection Type.
- 2.4.2 For WiFi capable devices, devices must support reporting SSID, signal strength as well.

2.5 Video-Capable Device Specific Functions

- 2.5.1 Devices must support reporting video resolutions received.
- 2.5.2 Devices must support reporting current video status.

2.6 Audio-Capable Device Specific Functions

- 2.6.1 Devices must support reporting audio volume settings.
- 2.6.2 Devices must support reporting mute status.

3. Additional Considerations

3.1 Device-Specific Functions

- 3.1.1 Depending on the type of device (e.g. codec, display, audio device etc), the device may expose other functions now outlined in this document. A clear API interface must be published for those.

3.2 Device Discovery

- 3.2.1 Device must support a means to auto-discover units present on the network.

3.3 Device Maintenance

- 3.3.1 Device must support a means to remotely retrieve logs.
- 3.3.2 Device may also expose other system diagnostic data for debug purposes as per the manufacturer's needs.

5. References

- 1 ONVIF Core Specification
- 2 PJLink Specifications