

# AES70-2023



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# New version of AES70

## **AES70-2023 brings new usability and flexibility additions**

- New features and options
- Fully backwards compatible with all existing AES70 devices
- Where a feature has been replaced, a deprecated version is still defined
- The specification has been made easier to understand
- New adaptations have been implemented to work with standard media transports
- Meets emerging industry requirements

AES70-2018



AES70-2023

# The AES70 Family of Standards

## Core standards

AES70-1	Framework & fundamental mechanisms
AES70-2	Class structure: defines the control & monitoring repertoire
AES70-3	Binary protocol
AES70-4 (new)	JSON protocol

## Adaptations

AES70-21 (new)	AES70 Adaptation for controlling AES67 and SMPTE ST 2110-30 streaming connections
AES70-22 (new)	AES70 Adaptation for controlling MILAN streaming connections

# Key Features

# Connection Management for Popular Media Stream Formats

## AES67 Media Streams

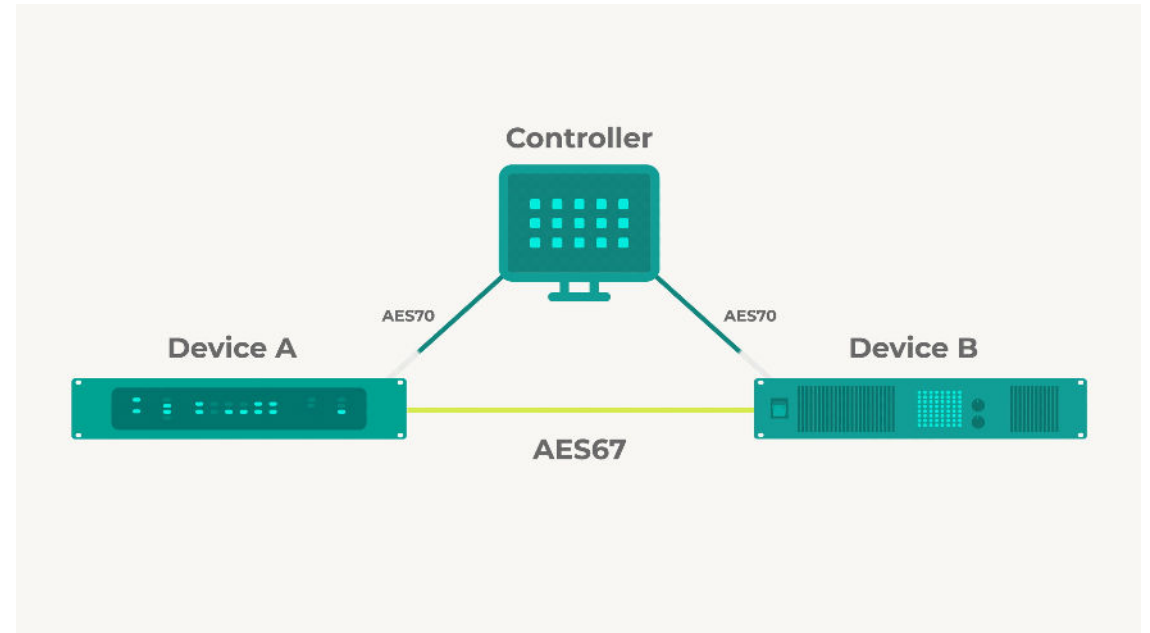
- AES70-21 specifies how to use AES70 for managing AES67 streaming audio connections

## SMPTE ST 2110 Media Streams

- AES70-21 specifies how to use AES70 for managing SMPTE ST 2110-30 streaming audio connections

## MILAN Media Streams

- AES70-22 specifies how to use AES70 for managing MILAN™ streaming audio connections



# New Networking and Connection Management Architecture

## New networking model

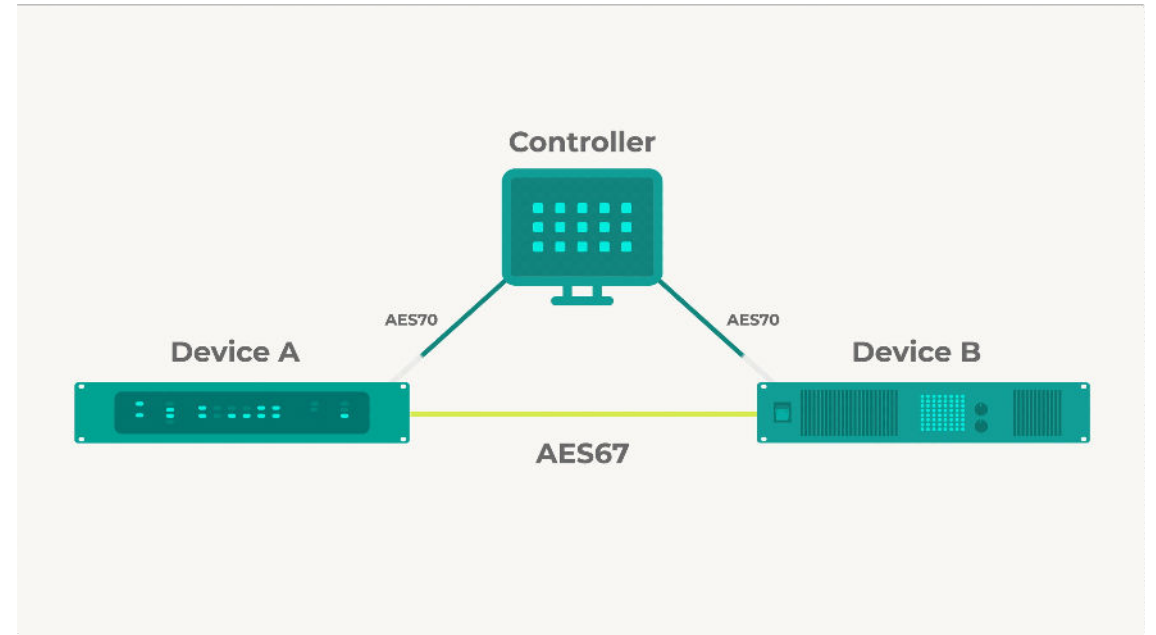
- Better support for redundant network connections, and clearer organization of functions

## Connection negotiation support

- Flexible support for connection negotiation, the process by which controllers develop compatible transmitting and receiving settings for media stream connections

## Media transport session support

- Flexible support for media transport sessions, i.e., persistent inter-device stream connection relationships



# Dataset Feature

- A **Dataset** is a block of data stored in the device that a controller can upload and download
- Manufacturers can define custom Dataset types as needed.
- Datasets can be of any size from a few bytes to terabytes.
- AES70-2023 defines a few standard kinds of Datasets:

**Media files** - Datasets that contain recordable and playable media

**Logs** - Records of device activity that controllers can retrieve later

**Parameter files** - Settings that can be saved and recalled later (presets, scenes, etc.)

**Executable files** - Custom programs or command sequences



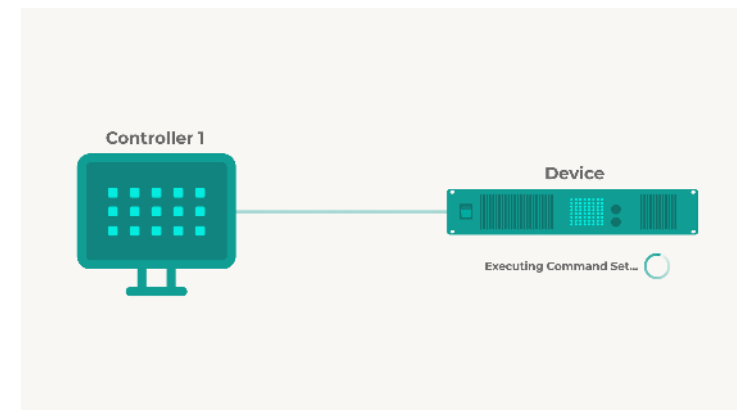
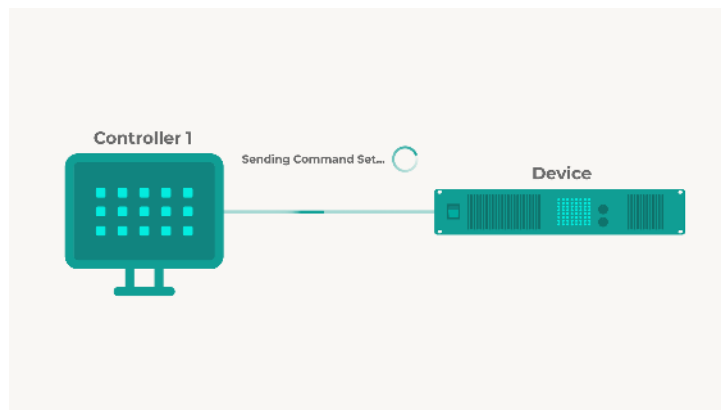
# Command Sets and Stored Parameters

## Command sets and programs

- Devices can store predefined **Executables** that can be run immediately or later at a specified time
- An Executable can be a predefined AES70 command sequence or a custom program

## Stored parameters

- Devices can store and recall sets of operating parameter values (presets, scenes, etc.)
- New, powerful scheme capable of handling complex devices with tens of thousands of parameters





# New JSON Protocol (AES70-4)

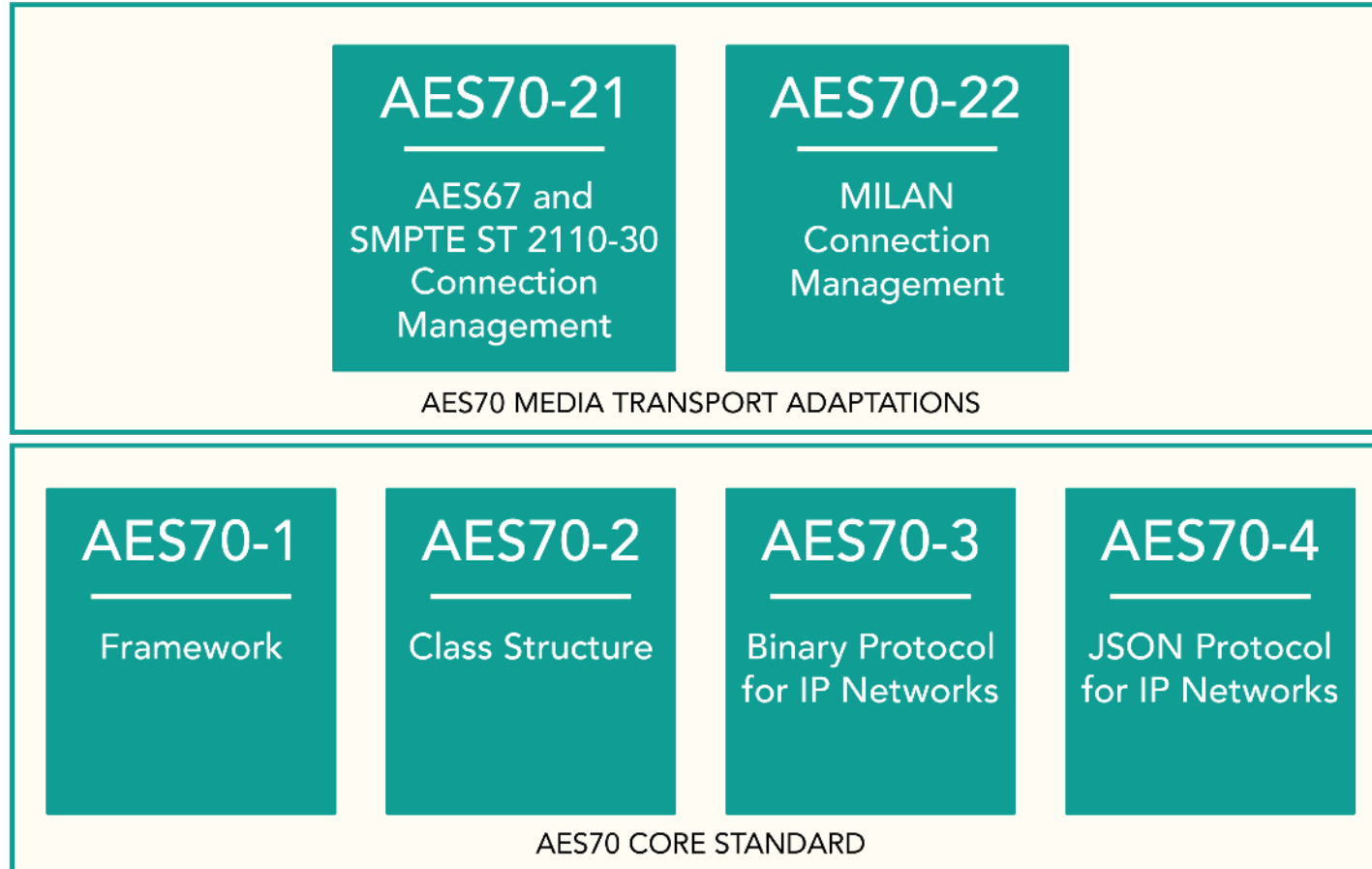
- Remote-procedure-call (RPC) protocol in JSON
- Text-based
- More familiar format for web-oriented programmers
- Devices may implement this version instead of, or alongside, the existing binary protocol (AES70-3)

# Enhanced Documentation

- Thirteen informative annexes in AES70-1 and -2 that provide examples and advice for developers
- Expanded and clarified Terms and Definitions section in AES70-1
- Greatly clarified language throughout, with more consistency and precision
- Improved UML class definition file in AES70-2, with better commenting, a better index, and cleaner structure

# Other Small Additions

- Improved time synchronization control
- Streamlined event notification mechanism
- Improved support for reconfigurable devices
- New mechanism for uniform interfacing to non-AES70 protocols
- New generalized counter mechanism for errors and other events
- Better support for concurrency locking and waiting
- New control class **OcaVASensor** for sensing power
- New control class **OcaSampleRateConverter**
- Improved product and manufacturer information available from devices



# 2023 Release Sequence

AES70-1, -2 and -3 will be released simultaneously

AES70-21 and -22 will be released sometime after

AES70-4 will be released last

# Any Questions?

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