

# INTERNATIONAL STANDARD



**Digital living network alliance (DLNA) home networked device interoperability  
guidelines**  
**Part 1-2: Architecture and protocols – Extended Digital Media Renderer**



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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## DIGITAL LIVING NETWORK ALLIANCE (DLNA) HOME NETWORKED DEVICE INTEROPERABILITY GUIDELINES

### Part 1-2: Architecture and protocols – Extended Digital Media Renderer

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Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of IEC 62481 series, published under the general title *Digital Living Network Alliance (DLNA) home networked device interoperability guidelines*, can be found on the IEC website.

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## INTRODUCTION

Consumers are acquiring, viewing, and managing an increasing amount of digital media (photos, music, and video) on devices in the consumer electronics (CE), mobile, and personal computer (PC) domains. As such, they want to conveniently enjoy the content, regardless of the source, across different devices and locations in the home. The digital home vision integrates the Internet, mobile, and broadcast networks through a seamless, interoperable network, which will provide a unique opportunity for manufacturers and consumers alike. In order to deliver on this vision, a common set of industry design guidelines is needed that allows vendors to participate in a growing marketplace, leading to more innovation, simplicity, and value for consumers. This document serves that purpose and provides vendors with the information needed to build interoperable networked platforms and devices for the digital home.

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# DIGITAL LIVING NETWORK ALLIANCE (DLNA) HOME NETWORKED DEVICE INTEROPERABILITY GUIDELINES

## Part 1-2: Architecture and protocols – Extended Digital Media Renderer

### 1 Scope

The DLNA Guidelines Parts 1 to 3 introduce a number of device classes to identify specific roles that connected endpoints implement in the network. Devices can act as content sources (e.g., Digital Media Servers, Push Controllers), and as content sinks (Digital Media Renderers or Digital Media Players).

Having two types of content sinks has been a useful strategy to accelerate the initial deployment phase. However, many of the modern receiver devices now include both types. Consequently, there is a need to define a receiver device that combines both types. This document addresses this issue and, specifically, it describes a device class for an Extended Digital Media Renderer (XDMR) and implementation guidelines for combining a Digital Media Renderer and a UPnP Media Server Control Point.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62481-1-1:2017, *Digital living network alliance (DLNA) Guidelines – Part 1-1: Architecture and protocols*

IEC 62481-2:2017, *Digital living network alliance (DLNA) Guidelines – Part 2: Media format profiles*

IEC 62481-3:2017, *Digital living network alliance (DLNA) Guidelines – Part 3: Link Protection*

IEC 62481-4:2017, *Digital living network alliance (DLNA) Guidelines – Part 4: DRM Interoperability Solutions*

ISO/IEC 29341-1, *Information Technology – UPnP Device Architecture – Part 1-1: UPnP Device Architecture Version 1.0*

ISO/IEC 29341-3-10, *Information Technology – UPnP Device Architecture – Part 3-10: Audio Video Device Control Protocol – Audio Video Transport Service*

ISO/IEC 29341-3-11, *Information Technology – UPnP Device Architecture – Part 3-11: Audio Video Device Control Protocol – Connection Manager Service*

ISO/IEC 29341-3-13, *Information Technology – UPnP Device Architecture – Part 3-13: Audio Video Device Control Protocol – Rendering Control Service*