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INTERNATIONAL STANDARD

Information technology – UPnP Device Architecture –
Part 12-11: Remote User Interface Device Control Protocol – Remote User Interface Server Service

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The list of all currently available parts of the ISO/IEC 29341 series, under the general title *Universal plug and play (UPnP) architecture*, can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

ORIGINAL UPNP DOCUMENTS
(informative)

Reference may be made in this document to original UPnP documents. These references are retained in order to maintain consistency between the specifications as published by ISO/IEC and by UPnP Implementers Corporation. The following table indicates the original UPnP document titles and the corresponding part of ISO/IEC 29341:

UPnP Document Title	ISO/IEC 29341 Part
UPnP Device Architecture 1.0	ISO/IEC 29341-1
UPnP Basic:1 Device	ISO/IEC 29341-2
UPnP AV Architecture:1	ISO/IEC 29341-3-1
UPnP MediaRenderer:1 Device	ISO/IEC 29341-3-2
UPnP MediaServer:1 Device	ISO/IEC 29341-3-3
UPnP AVTransport:1 Service	ISO/IEC 29341-3-10
UPnP ConnectionManager:1 Service	ISO/IEC 29341-3-11
UPnP ContentDirectory:1 Service	ISO/IEC 29341-3-12
UPnP RenderingControl:1 Service	ISO/IEC 29341-3-13
UPnP MediaRenderer:2 Device	ISO/IEC 29341-4-2
UPnP MediaServer:2 Device	ISO/IEC 29341-4-3
UPnP AV Datastructure Template:1	ISO/IEC 29341-4-4
UPnP AVTransport:2 Service	ISO/IEC 29341-4-10
UPnP ConnectionManager:2 Service	ISO/IEC 29341-4-11
UPnP ContentDirectory:2 Service	ISO/IEC 29341-4-12
UPnP RenderingControl:2 Service	ISO/IEC 29341-4-13
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1. Overview and Scope

This service definition is compliant with the UPnP Device Architecture version 1.0.

This service is required for all Remote UI server devices.
It is specified in: **urn:schemas-upnp-org:service:*RemoteUIServerDevice***

2. Service Modeling Definitions

2.1. ServiceType

The following service type identifies a service that is compliant with this template:

urn:schemas-upnp-org:service:*RemoteUIServer:1*.

2.2. State Variables

Table 1: Service State Variables

Variable Name	Req. or Opt.[1]	Data Type	Allowed Value	Default Value [2]	Eng. Units
UIListingUpdate	O	string	Undefined	Empty string	N/A
A_ARG_TYPE_DeviceProfile	R	string	Undefined	Empty string	N/A
A_ARG_TYPE_CompatibleUIs	R	string	Undefined	Empty string	N/A
A_ARG_TYPE_String	R	string	Undefined	Empty string	N/A
A_ARG_TYPE_URI	O	string	Undefined	Empty string	N/A
A_ARG_TYPE_Int	O	int	Undefined	0	N/A
Non-standard state variables implemented by a UPnP vendor go here.	*X*	*TBD*	*TBD*	*TBD*	*TBD*

[1] R = Required, O = Optional, X = Non-standard.

[2] Default values listed in this column are required. To specify standard optional values or to delegate assignment of values to the vendor, you must reference a specific instance of an appropriate table below.

2.2.1. UIListingUpdate

The optional, evented *UILisitingUpdate* state variable informs control points of changes in the listing of user interfaces exposed by the Remote UI server. *UILisitingUpdate* is composed of a list of unique identifiers corresponding to user interfaces that have changed since the last event. Each line in the listing, including the last line, must be terminated with a carriage-return character and a linefeed character. *UILisitingUpdate* values may consist of an empty string when the event is issued by the Remote UI server for the first time. An example value of *UILisitingUpdate* is shown in section 3.1.4.

2.2.2. A_ARG_TYPE_DeviceProfile

A_ARG_TYPE_DeviceProfile values are UTF-8 XML-formatted strings used by the UI client device to represent the list of all supported remoting protocols.

2.2.3. A_ARG_TYPE_URI

An *A_ARG_TYPE_URI* value is a string formatted as a URI. UI server devices must be able to support values of *A_ARG_TYPE_URI* that are 1024 bytes in length. UI server device support for longer values is optional. All *A_ARG_TYPE_URI* values are never URI escaped and must be UTF-8 encoded.