

UPnP+ Certification

In order to improve UPnP technology implementations and encourage the use of the latest version of UPnP specifications, UPnP Forum has created the UPnP+ certification level. UPnP+ certified products will be more reliable, more secure and will have increased functionality. The anticipated benefits include improved features and performance in:

- Interoperability
- Security
- Evolving standards (HTML5, IPv6, etc.)
- Cloud-based features
- New services

In support of this effort, UPnP Forum is in the process of updating the UPnP Certification Test Tool for enhanced testing and will expand its testing program to improve the quality of open source implementations.

The following are the requirements for UPnP+ certification compared to UPnP certification for all UPnP certified devices.

Specification	UPnP Certification	UPnP+ Certification
UDA	<ul style="list-style-type: none">• UPnP version 1.0 is a minimum requirement,• UPnP version 1.1 is optional	<ul style="list-style-type: none">• UPnP version 2.0 is a minimum requirement
IPv6 Annex	<ul style="list-style-type: none">• UPnP certification requires IPv4 support• IPv6 support is optional and the currently published IPv6 annex is out of date	<ul style="list-style-type: none">• UPnP+ certification requires dual-stack (IPv4/IPv6) implementation as described in the new UPnP UDA annex
UDA Cloud Annex	<ul style="list-style-type: none">• UDA V1.0 devices cannot be certified as cloud devices, however legacy UDA V1.0 devices can be bridged to the cloud using a UPnP+ certified CPDev Cloud Proxy device	<ul style="list-style-type: none">• UPnP cloud device support (UCCD) is mandatory for UPnP+ device certification• UPnP cloud control point support (UCC-CP) is mandatory for UPnP+ control point certification

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The following are the requirements for UPnP+ certification compared to UPnP certification for floating services. These services can be added to other device types.

Service	UPnP Certification	UPnP+ Certification
DeviceProtection	<ul style="list-style-type: none"> DeviceProtection:1 is optional 	<ul style="list-style-type: none"> DeviceProtection:1 is required for UPnP+ certification http://upnp.org/specs/gw/deviceprotection1/ http://sourceforge.net/projects/upnpdm/ - an open source implementation from Orange (includes DeviceProtection, DeviceManagement: BMS & CMS & SMS)
FriendlyInfoUpdate	<ul style="list-style-type: none"> FriendlyInfoUpdate:1 support is optional 	<ul style="list-style-type: none"> FriendlyInfoUpdate:1 support is mandatory for UPnP+ certification
EnergyManagement	<ul style="list-style-type: none"> EnergyManagement:1 is optional 	<ul style="list-style-type: none"> EnergyManagement:1 support is mandatory in UPnP+ certification EnergyManagement proxy is mandatory for mains powered devices http://upnp.org/specs/lp/energymanagement1/
BasicManagementService	<ul style="list-style-type: none"> BasicManagementService:1 is optional 	<ul style="list-style-type: none"> BasicManagementService:2 is mandatory
ConfigurationManagementService	<ul style="list-style-type: none"> ConfigurationManagementService:1 is optional 	<ul style="list-style-type: none"> ConfigurationManagementService:2 is optional
SoftwareManagementService	<ul style="list-style-type: none"> SoftwareManagementService:1 is optional 	<ul style="list-style-type: none"> SoftwareManagementService:2 is optional
QOS	<ul style="list-style-type: none"> QOS:2 is optional 	<ul style="list-style-type: none"> QOS:2 is optional
QOS	<ul style="list-style-type: none"> QOS:3 is optional 	<ul style="list-style-type: none"> QOS:3 is optional

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The following are the requirements for UPnP+ certification compared to UPnP certification for individual Device Control Protocols. If a particular DCP is used, the UPnP+ requirements for that device must be met for UPnP+ certification. DCPs not listed in this table have no additional requirements for UPnP+ certification.

Specification	UPnP Certification	UPnP+ Certification
IGD	<ul style="list-style-type: none"> IGD:1 	<ul style="list-style-type: none"> IGD:2 http://upnp.org/specs/gw/igd2/
AV	<ul style="list-style-type: none"> AV:1 	<ul style="list-style-type: none"> AV:4 http://upnp.org/specs/av/av4/
MediaServer	<ul style="list-style-type: none"> MediaServer:1 	<ul style="list-style-type: none"> MediaServer:4 MULTI_STREAM feature CONTAINER_SHORTCUTS feature CDS Search() MULTI_STREAM properties are conditionally required Relaxed Tracking Changes Option TCO properties are conditionally required
MediaRenderer	<ul style="list-style-type: none"> MediaRenderer:1 	<ul style="list-style-type: none"> MediaRenderer:3 Trickmode Pause() is required SetStaticPlaylist(), SetStreamingPlaylist() and GetPlaylistInfo() are required GetRendererItemInfo() is required GetAllowedTransforms(), GetTransforms(), SetTransforms() and GetAllAvailableTransforms() are required