

What is DLNA Testing?

DLNA testing--testing for conformance to DLNA standards and protocols--entails several different actual forms of testing. There is no single "DLNA Test," but rather a suite of several testing processes spanning many different types of testing. This testing is broken up into several distinct pieces:

Pre-Testing

Depending on the DLNA device type, the length and exact process of Pre-Testing can differ. The purpose of this testing is to determine what the device supports within a DLNA context. Each device class (DMP, DMS, etc.) has its own flavor of pre-testing, and each device class must undergo pre-testing to determine supported DLNA profiles (file types) and features.

Media Capabilities Verification Tool (MCVT)

The purpose of MCVT is to verify both support of DLNA profiles on the device and to verify support of the methods that can be used on those profiles. MCVT is used to check support of profiles and methods for DMS's, DMR's, and DMP's.

Conformance Test Tool (CTT)

The DLNA's Conformance Test Tool is a software tool which is run against device to verify conformance to the DLNA technical requirements. This tool is the only such device which verifies the much more technical side of DLNA, rather than the end-user side (e.g. streaming, media operations).

Interoperability Testing

Interoperability testing is the core of DLNA certification. Interoperability testing tests the device against a suite of other, certified, testbed DLNA devices. This testing, while by far the most extensive, verifies that the device will work in "real-world" scenarios, against real devices. This testing insures that the device doesn't fail in any consumer-relevant scenarios.

Auto-IP or Small Network Testing

Auto-IP testing exists to determine that a device both (a) supports obtaining an auto-IP address, and (b) can correctly obtain and release a DHCP address when required. Small network exists if the device applies for the Auto-IP waiver. Both of these tests also verify that a device can function with "multiple peers" on the network (e.g. other DLNA devices on the same network). This testing is run over all interfaces the device supports (e.g. 802.11, 802.3, MoCA), as opposed to interoperability, which is run only over the slowest, and the test tools, which are always run wired.

Link Protection Test Tool (LPTT)

Link Protection Test Tool is essentially CTT for Link Protection (DTCP-IP) guidelines. LPTT is only run on devices which support Link Protection, also known as DTCP-IP. For devices which support Link Protection, additional interoperability and Auto-IP/Small Network testing is also run using protected content.

All of this testing must be run and pass for a DLNA certificate to be issued. Each of these tests must be run on each device class a DLNA device supports (DMS, DMC, DMP, etc.), to properly verify compliance and interoperability for the totality of the device. These tests are meant to ensure that every certified device follows all the DLNA protocols and will also operate correctly with other DLNA-certified devices.