ONVIF™
Network Video Display Device Definition

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1 Scope

This document contains the definition for the ONVIF Network Video Display device type. This document describes the mandatory and optional services for this entity but does not include the description of the services themselves. The services are described in separate documents. Use the ONVIF Specification Document Map to locate the documentation for the relevant services.

2 Normative references

ONVIF Core Specification Version 2.1
<http://www.onvif.org/specs/core/ONVIF-Core-Spec-v210.pdf>
ONVIF Device I/O Service Specification Version 2.1
<http://www.onvif.org/specs/srv/io/ONVIF-DeviceIo-Service-Spec-v210.pdf>
ONVIF Display Service Specification Version 2.1
<http://www.onvif.org/specs/srv/disp/ONVIF-Display-Service-Spec-v210.pdf>
ONVIF Receiver Service Specification Version 2.1
<http://www.onvif.org/specs/srv/rcv/ONVIF-Receiver-Service-Spec-v210.pdf>
ONVIF Replay Control Service Specification Version 2.1
<http://www.onvif.org/specs/srv/replay/ONVIF-Replay-Service-Spec-v210.pdf>

3 Terms and Definitions

3.1 Definitions

Network Video Display (NVD)	Network video receiver (an IP network video monitor, for example) that receives media data over an IP network from e.g. an NVT.

3.2 Abbreviations

NVD	Network Video Display
ONVIF	Open Network Video Interface Forum

4 Overview

A Network Video Display (NVD) is an ONVIF device that receives media data over an IP network and outputs it. For example, an NVD may be an IP network video monitor which displays video and outputs audio.

An NVD exposes its functionality through a number of services that are provided by the ONVIF standard. A number of services are mandatory for each type of ONVIF device. The device may support other services and the device signals availability of optional services via the device discovery service.

An NVD implements the following services to provide its core functionality:

Device service enables an NVD to provide device management functionality such as device capabilities, system and network settings, security settings and firmware upgrade.

Event service enables an NVD to send events to clients.

Device IO service enables an NVD to support physical inputs and outputs.

Display service provides functions to enable a client to control and configure display devices. The service introduces panes, each of which occupies an area of the physical display.

Receiver service enables an NVD to receive media streams from a media source e.g. a Network Video Transmitter (NVT).

5 NVD Requirements (normative)

5.1 Services

Table 1 shows which services are required for the NVD device type. Mandatory services are marked with ‘M’ and services that are mandatory if a related feature is supported by the device are marked with ‘C’. Optional services are marked with ‘O’.

Table 1: Service requirements for the NVD device type

	Required?
Device	M
Event	M
Device IO	M
Display	M
Receiver	M

An NVD may include additional ONVIF services not shown in Table 1.

5.2 Device Discovery

An NVD shall implement device discovery as specified in the ONVIF Core Specification.

The basic capabilities and other properties of a device are defined by a number of scope parameters. The NVD shall include the general scope parameters defined in the ONVIF Core

Specification. In addition an NVD shall include the specific scope parameters as presented in Table 2. Apart from these pre-defined parameters, it shall be possible to set any scope parameter as defined by the device owner.

Scope parameters can be listed and set through the commands provided by the Device service, defined in the ONVIF Core Specification.

Table 2: Scope parameters

Category	Defined values	Description
type	Network_Video_Display	The network video display scope indicates if the device is an NVD compliant device. An NVD shall include a scope entry with this value in its scope list.