

ONVIF™  
Test Specification v21.06  
Release Notes

© 2021 by ONVIF, Inc. All rights reserved.

Recipients of this document may copy, distribute, publish, or display this document so long as this copyright notice, license and disclaimer are retained with all copies of the document. No license is granted to modify this document.

THIS DOCUMENT IS PROVIDED "AS IS," AND THE CORPORATION AND ITS MEMBERS AND THEIR AFFILIATES, MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR TITLE; THAT THE CONTENTS OF THIS DOCUMENT ARE SUITABLE FOR ANY PURPOSE; OR THAT THE IMPLEMENTATION OF SUCH CONTENTS WILL NOT INFRINGE ANY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS.

IN NO EVENT WILL THE CORPORATION OR ITS MEMBERS OR THEIR AFFILIATES BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, ARISING OUT OF OR RELATING TO ANY USE OR DISTRIBUTION OF THIS DOCUMENT, WHETHER OR NOT (1) THE CORPORATION, MEMBERS OR THEIR AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR (2) SUCH DAMAGES WERE REASONABLY FORESEEABLE, AND ARISING OUT OF OR RELATING TO ANY USE OR DISTRIBUTION OF THIS DOCUMENT. THE FOREGOING DISCLAIMER AND LIMITATION ON LIABILITY DO NOT APPLY TO, INVALIDATE, OR LIMIT REPRESENTATIONS AND WARRANTIES MADE BY THE MEMBERS AND THEIR RESPECTIVE AFFILIATES TO THE CORPORATION AND OTHER MEMBERS IN CERTAIN WRITTEN POLICIES OF THE CORPORATION.

# Overview

---

**Important:**

This ONVIF Test Specification v21.06 replaces the previously released version DTT v21.12 along with the errata accepted. As of October 1<sup>st</sup>, 2021, ONVIF members shall only declare conformance of a product with ONVIF Test Specification v21.06.

- Test cases renamed
  - 2 test cases in Access Control
  - 2 test cases in Analytics
  
- Test cases added
  - 5 test cases in Access Control
  - 10 test cases in Analytics
  - 1 test case in Export Format
  - 4 test cases in MQTT Notification Interface
  
- Test cases modified
  - 6 test cases in Access Control
  - 8 test cases in Analytics
  - 45 test cases in Base Device
  - 3 test cases in Events
  - 1 test case in Media2
  - 1 test case in Quick Install
  - 56 test cases in Real Streaming
  - 67 test cases in Real Streaming using Media2
  - 47 test cases in Replay

- 2 test cases in Recording Control
  
- Test cases removed
  - 3 test cases in Real Streaming
  - 8 test cases in Real Streaming using Media2

### **Deprecated Test Cases**

No test cases were deprecated in this version.

## Renamed Test Cases

The following tables list all test cases renamed in this version.

### Access Control

Test Case ID	Current Test Case Name	New Test Case Name
ACCESSCONTROL-11-1-9	ACCESS CONTROL - ACCESS GRANTED TO IDENTIFIER (EXTERNAL AUTHORIZATION)	ACCESS CONTROL - ACCESS GRANTED TO ANONYMOUS (EXTERNAL AUTHORIZATION FOR IDENTIFIER REQUEST)
ACCESSCONTROL-11-1-10	ACCESS CONTROL - ACCESS DENIED TO IDENTIFIER (EXTERNAL AUTHORIZATION)	ACCESS CONTROL - ACCESS DENIED TO ANONYMOUS (EXTERNAL AUTHORIZATION FOR IDENTIFIER REQUEST)

### Analytics

Test Case ID	Current Test Case Name	New Test Case Name
ANALYTICS-4-1-7	MODIFY ANALYTICS MODULES	MODIFY ANALYTICS MODULES (PARAMETERS WITH OPTIONS)
ANALYTICS-6-1-6	MODIFY RULES	MODIFY RULES (PARAMETERS WITH OPTIONS)

## Added Test Cases

The following tables list all test cases added in this version.

### Access Control

Test Case ID	Test Case Name
ACCESSCONTROL-7-1-3	ACCESS CONTROL - ACCESS TAKEN TO IDENTIFIER EVENT
ACCESSCONTROL-8-1-3	ACCESS CONTROL - ACCESS NOT TAKEN TO IDENTIFIER EVENT
ACCESSCONTROL-11-1-12	ACCESS CONTROL – ACCESS GRANTED WITH CREDENTIAL (EXTERNAL AUTHORIZATION FOR IDENTIFIER REQUEST)
ACCESSCONTROL-11-1-13	ACCESS CONTROL – ACCESS DENIED WITH CREDENTIAL (EXTERNAL AUTHORIZATION FOR IDENTIFIER REQUEST)
ACCESSCONTROL-16-1-1	FEEDBACK

### Analytics

Test Case ID	Test Case Name
ANALYTICS-2-1-3	LICENSE PLATE RECOGNITION EVENT
ANALYTICS-2-1-4	LINE CROSSING COUNTER EVENT
ANALYTICS-4-1-8	MODIFY ANALYTICS MODULES (PARAMETERS WITHOUT OPTIONS)
ANALYTICS-6-1-7	MODIFY RULES (PARAMETERS WITHOUT OPTIONS)
ANALYTICS-7-1-1	GET SUPPORTED RULES (FACE RECOGNITION)
ANALYTICS-7-1-2	GET FACE RECOGNITION RULE OPTIONS
ANALYTICS-8-1-1	GET SUPPORTED RULES (LICENSE PLATE RECOGNITION)
ANALYTICS-8-1-2	GET LICENSE PLATE RECOGNITION RULE OPTIONS
ANALYTICS-9-1-1	GET SUPPORTED RULES (LINE CROSSING COUNTER)
ANALYTICS-9-1-2	GET LINE CROSSING COUNTER RULE OPTIONS

**Export Format**

Test Case ID	Test Case Name
EXPORT_FORMAT-1-1-1	EXPORT FILE FORMAT VALIDATION

## Modified Test Cases

The following tables list all test cases that have been modified in this version.

### Access Control

Test Case ID	Test Case Name
ACCESSCONTROL-3-1-4	GET AREA INFO LIST - LIMIT
ACCESSCONTROL-4-1-2	ACCESS POINT CAPABILITIES CONSISTENCY
ACCESSCONTROL-6-1-2	ACCESS CONTROL – ACCESS GRANTED WITH CREDENTIAL EVENT
ACCESSCONTROL-9-1-2	ACCESS CONTROL – ACCESS DENIED WITH CREDENTIAL EVENT
ACCESSCONTROL-11-1-9	ACCESS CONTROL – ACCESS GRANTED TO ANONYMOUS (EXTERNAL AUTHORIZATION FOR IDENTIFIER REQUEST)
ACCESSCONTROL-11-1-10	ACCESS CONTROL – ACCESS DENIED TO ANONYMOUS (EXTERNAL AUTHORIZATION FOR IDENTIFIER REQUEST)

### Analytics

Test Case ID	Test Case Name
ANALYTICS-1-1-3	CREATE MOTION REGION DETECTOR RULE
ANALYTICS-1-1-4	MODIFY MOTION REGION DETECTOR RULE
ANALYTICS-2-1-1	MOTION REGION DETECTOR EVENT
ANALYTICS-2-1-2	FACE RECOGNITION EVENT
ANALYTICS-4-1-4	GET SUPPORTED METADATA
ANALYTICS-4-1-5	CREATE ANALYTICS MODULES
ANALYTICS-4-1-6	DELETE ANALYTICS MODULES
ANALYTICS-4-1-7	MODIFY ANALYTICS MODULES (PARAMETERS WITH OPTIONS)
ANALYTICS-6-1-4	CREATE RULES
ANALYTICS-6-1-5	DELETE RULES
ANALYTICS-6-1-6	MODIFY RULES (PARAMETERS WITH OPTIONS)
ANALYTICS-5-1-1	OBJECT CLASSIFICATION METADATA



## Base Device

Test Case ID	Test Case Name
DEVICE-1-1-18	DEVICE SERVICE CAPABILITIES
DEVICE-1-1-19	GET SERVICES AND GET DEVICE SERVICE CAPABILITIES CONSISTENCY
DEVICE-2-1-6	SET DNS CONFIGURATION - DNSMANUAL IPV4
DEVICE-2-1-7	SET DNS CONFIGURATION - DNSMANUAL IPV6
DEVICE-2-1-8	SET DNS CONFIGURATION - FROMDHCP
DEVICE-2-1-9	SET DNS CONFIGURATION - DNSMANUAL INVALID IPV4
DEVICE-2-1-10	SET DNS CONFIGURATION - DNSMANUAL INVALID IPV6
DEVICE-2-1-14	SET NTP CONFIGURATION - FROMDHCP
DEVICE-2-1-18	SET NETWORK INTERFACE CONFIGURATION - IPV4
DEVICE-2-1-19	SET NETWORK INTERFACE CONFIGURATION - IPV6
DEVICE-2-1-30	SET NETWORK DEFAULT GATEWAY CONFIGURATION - IPV4
DEVICE-2-1-31	SET NETWORK DEFAULT GATEWAY CONFIGURATION - IPV6
DEVICE-3-1-4	SYSTEM COMMAND SETSYSTEMDATEANDTIME TEST FOR INVALID TIMEZONE
DEVICE-3-1-5	SYSTEM COMMAND SETSYSTEMDATEANDTIME TEST FOR INVALID DATE
DEVICE-3-1-6	SYSTEM COMMAND FACTORY DEFAULT HARD
DEVICE-3-1-7	SYSTEM COMMAND FACTORY DEFAULT SOFT
DEVICE-3-1-8	SYSTEM COMMAND REBOOT
DEVICE-3-1-11	SYSTEM COMMAND SETSYSTEMDATEANDTIME
DEVICE-3-1-12	SYSTEM COMMAND SETSYSTEMDATEANDTIME USING NTP
DEVICE-3-1-14	START SYSTEM RESTORE
DEVICE-3-1-15	START SYSTEM RESTORE – INVALID BACKUP FILE
DEVICE-6-1-1	DEVICE MANAGEMENT – NAMESPACES (DEFAULT NAMESPACES FOR EACH TAG)
DEVICE-6-1-2	DEVICE MANAGEMENT – NAMESPACES (DEFAULT NAMESPACES FOR PARENT TAG)
DEVICE-6-1-3	DEVICE MANAGEMENT - NAMESPACES (NOT STANDARD PREFIXES)

DEVICE-6-1-4	DEVICE MANAGEMENT – NAMESPACES (DIFFERENT PREFIXES FOR THE SAME NAMESPACE)
DEVICE-6-1-5	DEVICE MANAGEMENT - NAMESPACES (THE SAME PREFIX FOR DIFFERENT NAMESPACES)
DEVICE-9-1-4	LAST REBOOT EVENT
DISCOVERY-1-1-2	HELLO MESSAGE VALIDATION
DISCOVERY-1-1-3	SEARCH BASED ON DEVICE SCOPE TYPES
DISCOVERY-1-1-4	SEARCH WITH OMITTED DEVICE AND SCOPE TYPES
DISCOVERY-1-1-5	RESPONSE TO INVALID SEARCH REQUEST
DISCOVERY-1-1-6	SEARCH USING UNICAST PROBE MESSAGE
DISCOVERY-1-1-9	DISCOVERY MODE CONFIGURATION
DISCOVERY-1-1-10	SOAP FAULT MESSAGE
DISCOVERY-1-1-11	DEVICE SCOPES CONFIGURATION
DISCOVERY-1-1-18	DEVICE SERVICE CAPABILITIES
DISCOVERY-2-1-1	DISCOVERY - NAMESPACES (DEFAULT NAMESPACES FOR EACH TAG)
DISCOVERY-2-1-2	DISCOVERY - NAMESPACES (DEFAULT NAMESPACES FOR PARENT TAG)
DISCOVERY-2-1-3	DISCOVERY - NAMESPACES (NOT STANDARD PREFIXES)
DISCOVERY-2-1-4	DISCOVERY - NAMESPACES (DIFFERENT PREFIXES FOR THE SAME NAMESPACE)
DISCOVERY-2-1-5	DISCOVERY - NAMESPACES (THE SAME PREFIX FOR DIFFERENT NAMESPACES)
IPCONFIG-1-1-3	IPV4 DHCP
IPCONFIG-2-1-2	IPV6 STATELESS IP CONFIGURATION - NEIGHBOUR DISCOVERY
IPCONFIG-2-1-3	IPV6 STATELESS IP CONFIGURATION - ROUTER ADVERTISEMENT
IPCONFIG-2-1-4	IPV6 STATEFUL IP CONFIGURATION

### Door Control

Test Case ID	Test Case Name
DOORCONTROL-5-1-2	DOOR CAPABILITIES CONSISTENCY

### Events

Test Case ID	Test Case Name
EVENT-3-1-33	REALTIME PULLPOINT SUBSCRIPTION – CONJUNCTION IN PULLMESSAGES FILTER (OR OPERATION)
EVENT-3-1-34	REALTIME PULLPOINT SUBSCRIPTION – TOPIC SUB-TREE IN PULLMESSAGES FILTER
EVENT-3-1-35	REALTIME PULLPOINT SUBSCRIPTION – CONJUNCTION IN NOTIFY FILTER (TOPIC SUB-TREE AND OR OPERATION)

### MQTT Notification Interface

Test Case ID	Test Case Name
EVENT-7-2-1	MQTT EVENTS PUBLISHING (MQTT, QoS=0)
EVENT-7-2-2	MQTT EVENTS PUBLISHING (MQTT TLS, QoS=0)
EVENT-7-2-3	MQTT EVENTS PUBLISHING (MQTT OVER WEBSOCKET, QoS=0)
EVENT-7-2-4	MQTT EVENTS PUBLISHING (MQTT TLS OVER WEBSOCKET, QoS=0)
EVENT-7-2-5	MQTT EVENTS PUBLISHING (MQTT, QoS=1)
EVENT-7-2-6	MQTT EVENTS PUBLISHING (MQTT, QoS=2)
EVENT-7-2-7	MQTT EVENTS PUBLISHING - PUBLISH FILTER (MQTT, QoS=0)

**Media2 Configuration**

Test Case ID	Test Case Name
MEDIA2-2-2-5	MODIFY ALL SUPPORTED VIDEO SOURCE CONFIGURATIONS
MEDIA2-2-4-2	SET VIDEO SOURCE MODES

**Quick Install**

Test Case ID	Test Case Name
QUICK_INSTALL-4-1-2	INVALID FIRMWARE UPLOAD

**Recording Control**

Test Case ID	Test Case Name
RECORDING-5-1-18	RECORDING CONTROL – JOB STATE EVENT
RECORDING-5-1-19	RECORDING CONTROL – JOB STATE CHANGE EVENT

## Real Streaming

Test Case ID	Test Case Name
RTSS-1-1-27	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP-Unicast/UDP)
RTSS-1-1-28	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP-Unicast/RTSP/HTTP/TCP)
RTSS-1-1-29	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP/RTSP/TCP)
RTSS-1-1-30	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (MIX OF TRANSPORT TYPES)
RTSS-1-1-49	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP-Unicast/UDP) (ALL VIDEO SOURCE CONFIGURATIONS)
RTSS-1-1-50	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP-Unicast/RTSP/HTTP/TCP) (ALL VIDEO SOURCE CONFIGURATIONS)
RTSS-1-1-51	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP/RTSP/TCP) (ALL VIDEO SOURCE CONFIGURATIONS)
RTSS-1-1-52	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (MIX OF TRANSPORT TYPES) (ALL VIDEO SOURCE CONFIGURATIONS)
RTSS-1-1-54	MEDIA STREAMING – JPEG (RTP-Unicast/UDP, IPv6)
RTSS-1-1-55	MEDIA STREAMING – JPEG (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-1-1-56	MEDIA STREAMING – JPEG (RTP/RTSP/TCP, IPv6)
RTSS-1-1-57	MEDIA STREAMING – MPEG4 (RTP-Unicast/UDP, IPv6)
RTSS-1-1-58	MEDIA STREAMING – MPEG4 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-1-1-59	MEDIA STREAMING – MPEG4 (RTP/RTSP/TCP, IPv6)
RTSS-1-1-60	MEDIA STREAMING – H.264 (RTP-Unicast/UDP, IPv6)
RTSS-1-1-61	MEDIA STREAMING – H.264 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-1-1-62	MEDIA STREAMING – H.264 (RTP/RTSP/TCP, IPv6)
RTSS-1-2-12	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP-Multicast/UDP)
RTSS-1-2-15	MEDIA STREAMING – H.264 (RTP-Multicast/UDP, IPv4)
RTSS-1-2-16	MEDIA STREAMING – JPEG (RTP-Multicast/UDP, IPv6)
RTSS-1-2-17	MEDIA STREAMING – MPEG4 (RTP-Multicast/UDP, IPv6)
RTSS-1-2-18	MEDIA STREAMING – H.264 (RTP-Multicast/UDP, IPv6)

RTSS-1-2-23	MEDIA STREAMING – GUARANTEED NUMBER OF VIDEO ENCODER INSTANCES (RTP-Multicast/UDP) (ALL VIDEO SOURCE CONFIGURATIONS)
RTSS-2-1-37	MEDIA STREAMING – G.711 (RTP-Unicast/UDP, IPv6)
RTSS-2-1-38	MEDIA STREAMING – G.711 (RTP-Unicast/RTSP/HTTP/ TCP, IPv6)
RTSS-2-1-39	MEDIA STREAMING – G.711 (RTP/RTSP/TCP, IPv6)
RTSS-2-1-40	MEDIA STREAMING – G.726 (RTP-Unicast/UDP, IPv6)
RTSS-2-1-41	MEDIA STREAMING – G.726 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-2-1-42	MEDIA STREAMING – G.726 (RTP/RTSP/TCP, IPv6)
RTSS-2-1-43	MEDIA STREAMING – AAC (RTP-Unicast/UDP, IPv6)
RTSS-2-1-44	MEDIA STREAMING – AAC (RTP-Unicast/RTSP/HTTP/ TCP, IPv6)
RTSS-2-1-45	MEDIA STREAMING – AAC (RTP/RTSP/TCP, IPv6)
RTSS-2-1-46	AUDIO STREAMING – G.711 (RTP-Unicast/UDP, IPv6)
RTSS-2-1-47	AUDIO STREAMING – G.711 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-2-1-48	AUDIO STREAMING – G.711 (RTP/RTSP/TCP, IPv6)
RTSS-2-1-49	AUDIO STREAMING – G.726 (RTP-Unicast/UDP,IPv6)
RTSS-2-1-50	AUDIO STREAMING – G.726 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-2-1-51	AUDIO STREAMING – G.726 (RTP/RTSP/TCP, IPv6)
RTSS-2-1-52	AUDIO STREAMING – AAC (RTP-Unicast/UDP, IPv6)
RTSS-2-1-53	AUDIO STREAMING – AAC (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-2-1-54	AUDIO STREAMING – AAC (RTP/RTSP/TCP, IPv6)
RTSS-2-2-12	MEDIA STREAMING – G.711 (RTP-Multicast/UDP,IPv6)
RTSS-2-2-14	MEDIA STREAMING – G.726 (RTP-Multicast/UDP,IPv6)
RTSS-2-2-16	MEDIA STREAMING – AAC (RTP-Multicast/UDP,IPv6)
RTSS-3-1-19	MEDIA STREAMING – JPEG/G.711 (RTP-Unicast/UDP, IPv6)
RTSS-3-1-20	MEDIA STREAMING – JPEG/G.711 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-3-1-21	MEDIA STREAMING – JPEG/G.711 (RTP/RTSP/TCP,IPv6)
RTSS-3-1-22	MEDIA STREAMING – JPEG/G.726 (RTP-Unicast/UDP, IPv6)

RTSS-3-1-23	MEDIA STREAMING – JPEG/G.726 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-3-1-24	MEDIA STREAMING – JPEG/G.726 (RTP/RTSP/TCP, IPv6)
RTSS-3-1-25	MEDIA STREAMING – JPEG/AAC (RTP-Unicast/UDP, IPv6)
RTSS-3-1-26	MEDIA STREAMING – JPEG/AAC (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
RTSS-3-1-27	MEDIA STREAMING – JPEG/AAC (RTP/RTSP/TCP, IPv6)
RTSS-3-2-17	MEDIA STREAMING – VIDEO AND G.711 AUDIO (RTPMulticast/ UDP, IPv6)
RTSS-3-2-19	MEDIA STREAMING – VIDEO AND G.726 AUDIO (RTPMulticast/UDP, IPv6)
RTSS-3-2-21	MEDIA STREAMING – VIDEO AND AAC AUDIO (RTPMulticast/UDP, IPv6)

## Real Streaming using Media2

Test Case ID	Test Case Name
MEDIA2_RTSS-1-1-1	MEDIA2 STREAMING – H.264 (RTP-Unicast/UDP)
MEDIA2_RTSS-1-1-2	MEDIA2 STREAMING – H.264 (RTP-Unicast/RTSP/HTTP/TCP)
MEDIA2_RTSS-1-1-3	MEDIA2 STREAMING – H.264 (RTP/RTSP/TCP)
MEDIA2_RTSS-1-1-4	MEDIA2 SET SYNCHRONIZATION POINT – H.264
MEDIA2_RTSS-1-1-5	MEDIA2 STREAMING – H.264 (RTP-Unicast/UDP, IPv6)
MEDIA2_RTSS-1-1-6	MEDIA2 STREAMING – H.264 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-1-1-7	MEDIA2 STREAMING – H.264 (RTP/RTSP/TCP, IPv6)
MEDIA2_RTSS-1-1-8	MEDIA2 STREAMING – H.265 (RTP-Unicast/UDP)
MEDIA2_RTSS-1-1-9	MEDIA2 STREAMING – H.265 (RTP-Unicast/RTSP/HTTP/TCP)
MEDIA2_RTSS-1-1-10	MEDIA2 STREAMING – H.265 (RTP/RTSP/TCP)
MEDIA2_RTSS-1-1-11	MEDIA2 SET SYNCHRONIZATION POINT – H.265
MEDIA2_RTSS-1-1-12	MEDIA2 STREAMING – H.265 (RTP-Unicast/UDP, IPv6)
MEDIA2_RTSS-1-1-13	MEDIA2 STREAMING – H.265 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-1-1-14	MEDIA2 STREAMING – H.265 (RTP/RTSP/TCP, IPv6)
MEDIA2_RTSS-1-1-15	MEDIA2 STREAMING – H.264 (RTP-Unicast/RTSP/HTTPS/TCP)
MEDIA2_RTSS-1-1-16	MEDIA2 STREAMING – H.265 (RTP-Unicast/RTSP/HTTPS/TCP)
MEDIA2_RTSS-1-1-17	MEDIA2 STREAMING – H.264 (RTP-Unicast/RTSP/HTTPS/TCP, IPv6)
MEDIA2_RTSS-1-1-18	MEDIA2 STREAMING – H.265 (RTP-Unicast/RTSP/HTTPS/TCP, IPv6)
MEDIA2_RTSS-1-1-19	MEDIA2 STREAMING – H.264 (RTP-Unicast/RTSP/WebSockets)
MEDIA2_RTSS-1-1-20	MEDIA2 STREAMING – H.265 (RTP-Unicast/RTSP/WebSockets)
MEDIA2_RTSS-1-1-21	MEDIA2 STREAMING – H.264 (RTP-Unicast/RTSP/WebSockets, IPv6)
MEDIA2_RTSS-1-1-22	MEDIA2 STREAMING – H.265 (RTP-Unicast/RTSP/WebSockets, IPv6)
MEDIA2_RTSS-1-1-23	VIDEO ENCODER INSTANCES
MEDIA2_RTSS-1-1-24	VIDEO ENCODER INSTANCES - H.264



MEDIA2_RTSS-1-1-25	VIDEO ENCODER INSTANCES - H.265
MEDIA2_RTSS-1-2-1	MEDIA2 STREAMING – H.264 (RTP-Multicast, IPv4)
MEDIA2_RTSS-1-2-2	MEDIA2 STREAMING – H.264 (RTP-Multicast, IPv6)
MEDIA2_RTSS-1-2-3	MEDIA2 STREAMING – H.265 (RTP-Multicast, IPv4)
MEDIA2_RTSS-1-2-4	MEDIA2 STREAMING – H.265 (RTP-Multicast, IPv6)
MEDIA2_RTSS-2-1-1	MEDIA2 STREAMING – G.711 (RTP-Unicast/UDP)
MEDIA2_RTSS-2-1-2	MEDIA2 STREAMING – G.711 (RTP-Unicast/RTSP/HTTP/TCP)
MEDIA2_RTSS-2-1-3	MEDIA2 STREAMING – G.711 (RTP/RTSP/TCP)
MEDIA2_RTSS-2-1-4	MEDIA2 STREAMING – G.711 (RTP-Unicast/UDP, IPv6)
MEDIA2_RTSS-2-1-5	MEDIA2 STREAMING – G.711 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-2-1-6	MEDIA2 STREAMING – G.711 (RTP/RTSP/TCP, IPv6)
MEDIA2_RTSS-2-1-7	MEDIA2 STREAMING – AAC (RTP-Unicast/UDP)
MEDIA2_RTSS-2-1-8	MEDIA2 STREAMING – AAC (RTP-Unicast/RTSP/HTTP/TCP)
MEDIA2_RTSS-2-1-9	MEDIA2 STREAMING – AAC (RTP/RTSP/TCP)
MEDIA2_RTSS-2-1-10	MEDIA2 STREAMING – AAC (RTP-Unicast/UDP, IPv6)
MEDIA2_RTSS-2-1-11	MEDIA2 STREAMING – AAC (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-2-1-12	MEDIA2 STREAMING – AAC (RTP/RTSP/TCP, IPv6)
MEDIA2_RTSS-2-1-13	MEDIA2 STREAMING – G.711 (RTP-Unicast/RTSP/HTTPS/TCP)
MEDIA2_RTSS-2-1-14	MEDIA2 STREAMING – AAC (RTP-Unicast/RTSP/HTTPS/TCP)
MEDIA2_RTSS-2-1-15	MEDIA2 STREAMING – G.711 (RTP-Unicast/RTSP/HTTPS/TCP, IPv6)
MEDIA2_RTSS-2-1-16	MEDIA2 STREAMING – AAC (RTP-Unicast/RTSP/HTTPS/TCP, IPv6)
MEDIA2_RTSS-2-1-17	MEDIA2 STREAMING – G.711 (RTP-Unicast/RTSP/WebSockets)
MEDIA2_RTSS-2-1-18	MEDIA2 STREAMING – AAC (RTP-Unicast/RTSP/WebSockets)
MEDIA2_RTSS-2-1-19	MEDIA2 STREAMING – G.711 (RTP-Unicast/RTSP/WebSockets, IPv6)
MEDIA2_RTSS-2-1-20	MEDIA2 STREAMING – AAC (RTP-Unicast/RTSP/WebSockets, IPv6)
MEDIA2_RTSS-2-1-21	MEDIA2 AUDIO STREAMING – G.711 (RTP-Unicast/UDP)

MEDIA2_RTSS-3-1-1	BACKCHANNEL – G.711 (RTP-Unicast/UDP, IPv4)
MEDIA2_RTSS-3-1-3	BACKCHANNEL – G.711 (RTP/RTSP/TCP, IPv4)
MEDIA2_RTSS-3-1-4	BACKCHANNEL – G.711 (RTP-Unicast/UDP, IPv6)
MEDIA2_RTSS-3-1-6	BACKCHANNEL – G.711 (RTP/RTSP/TCP, IPv6)
MEDIA2_RTSS-3-1-9	BACKCHANNEL – AAC (RTP/RTSP/TCP, IPv4)
MEDIA2_RTSS-3-1-12	BACKCHANNEL – AAC (RTP/RTSP/TCP, IPv6)
MEDIA2_RTSS-3-1-14	BACKCHANNEL – AAC (RTP-Unicast/RTSP/WebSockets)
MEDIA2_RTSS-3-1-16	BACKCHANNEL – AAC (RTP-Unicast/RTSP/WebSockets, IPv6)
MEDIA2_RTSS-3-1-21	BACKCHANNEL STREAMING BY POST – G.711 (RTPUnicast/RTSP/HTTP/TCP, IPv4)
MEDIA2_RTSS-3-1-22	BACKCHANNEL STREAMING BY POST – G.711 (RTPUnicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-3-1-23	BACKCHANNEL STREAMING BY POST – AAC (RTPUnicast/RTSP/HTTP/TCP, IPv4)
MEDIA2_RTSS-3-1-24	BACKCHANNEL STREAMING BY POST – AAC (RTPUnicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-3-1-25	BACKCHANNEL STREAMING BY POST – G.711 (RTPUnicast/RTSP/HTTPS/TCP, IPv4)
MEDIA2_RTSS-3-1-26	BACKCHANNEL STREAMING BY POST – AAC (RTPUnicast/RTSP/HTTPS/TCP, IPv4)
MEDIA2_RTSS-3-1-27	BACKCHANNEL STREAMING BY POST – G.711 (RTPUnicast/RTSP/HTTPS/TCP, IPv6)
MEDIA2_RTSS-3-1-28	BACKCHANNEL STREAMING BY POST – AAC (RTPUnicast/RTSP/HTTPS/TCP, IPv6)
MEDIA2_RTSS-5-2-4	MEDIA2 STREAMING – H.26X/AAC (RTP-Multicast/UDP, IPv6)

## Replay

Test Case ID	Test Case Name
REPLAY-3-1-1	PLAYBACK VIDEO STREAMING – MEDIA CONTROL
REPLAY-3-1-2	PLAYBACK VIDEO STREAMING – RTP-Unicast/UDP
REPLAY-3-1-3	PLAYBACK VIDEO STREAMING – RTP-Unicast/RTSP/HTTP/TCP
REPLAY-3-1-4	PLAYBACK VIDEO STREAMING – RTP/RTSP/TCP
REPLAY-3-1-5	REVERSE PLAYBACK VIDEO STREAMING – RTP-Unicast/UDP
REPLAY-3-1-6	REVERSE PLAYBACK VIDEO STREAMING – RTPUnicast/RTSP/HTTP/TCP
REPLAY-3-1-7	REVERSE PLAYBACK VIDEO STREAMING – RTP/RTSP/TCP
REPLAY-3-1-10	PLAYBACK VIDEO STREAMING – PLAY WITH RANGE
REPLAY-3-1-11	PLAYBACK VIDEO STREAMING - I-FRAMES
REPLAY-3-1-12	PLAYBACK VIDEO STREAMING – RATECONTROL
REPLAY-3-1-13	PLAYBACK VIDEO STREAMING – IMMEDIATE HEADER
REPLAY-3-1-15	PLAYBACK VIDEO STREAMING – PAUSE WITHOUT RANGE
REPLAY-3-1-16	PLAYBACK VIDEO STREAMING – PAUSE WITH RANGE
REPLAY-3-1-17	PLAYBACK VIDEO STREAMING – SEEK
REPLAY-3-2-1	PLAYBACK AUDIO STREAMING – MEDIA CONTROL
REPLAY-3-2-2	PLAYBACK AUDIO STREAMING – RTP-Unicast/UDP
REPLAY-3-2-3	PLAYBACK AUDIO STREAMING – RTP-Unicast/RTSP/HTTP/TCP
REPLAY-3-2-4	PLAYBACK AUDIO STREAMING – RTP/RTSP/TCP
REPLAY-3-2-10	PLAYBACK AUDIO STREAMING – PLAY WITH RANGE
REPLAY-3-2-11	PLAYBACK AUDIO STREAMING – RATECONTROL
REPLAY-3-2-12	PLAYBACK AUDIO STREAMING – IMMEDIATE HEADER
REPLAY-3-2-14	PLAYBACK AUDIO STREAMING – PAUSE WITHOUT RANGE
REPLAY-3-2-15	PLAYBACK AUDIO STREAMING – PAUSE WITH RANGE
REPLAY-3-2-16	PLAYBACK AUDIO STREAMING – SEEK

REPLAY-3-3-1	PLAYBACK METADATA STREAMING – MEDIA CONTROL
REPLAY-3-3-2	PLAYBACK METADATA STREAMING – RTP-Unicast/UDP
REPLAY-3-3-3	PLAYBACK METADATA STREAMING – RTPUnicast/RTSP/HTTP/TCP
REPLAY-3-3-4	PLAYBACK METADATA STREAMING – RTP/RTSP/TCP
REPLAY-3-3-5	REVERSE PLAYBACK METADATA STREAMING – RTPUnicast/UDP
REPLAY-3-3-6	REVERSE PLAYBACK METADATA STREAMING – RTPUnicast/RTSP/HTTP/TCP
REPLAY-3-3-7	REVERSE PLAYBACK METADATA STREAMING –RTP/RTSP/TCP
REPLAY-3-3-10	PLAYBACK METADATA STREAMING – PLAY WITH RANGE
REPLAY-3-3-11	PLAYBACK METADATA STREAMING – RATECONTROL
REPLAY-3-3-12	PLAYBACK METADATA STREAMING – IMMEDIATE HEADER
REPLAY-3-3-14	PLAYBACK METADATA STREAMING – PAUSE WITHOUT RANGE
REPLAY-3-3-15	PLAYBACK METADATA STREAMING – PAUSE WITH RANGE
REPLAY-3-3-16	PLAYBACK METADATA STREAMING – SEEK
REPLAY-3-4-1	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – MEDIA CONTROL
REPLAY-3-4-2	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – RTPUnicast/UDP
REPLAY-3-4-3	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – RTPUnicast/ RTSP/HTTP/TCP
REPLAY-3-4-4	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – RTP/RTSP/TCP
REPLAY-3-4-10	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – PLAY WITH RANGE
REPLAY-3-4-11	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – RATECONTROL
REPLAY-3-4-12	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – IMMEDIATE HEADER
REPLAY-3-4-14	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – PAUSE WITHOUT RANGE
REPLAY-3-4-15	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – PAUSE WITH RANGE
REPLAY-3-4-16	PLAYBACK VIDEO, AUDIO AND METADATA STREAMING – SEEK

## Removed Test Cases

The following tables list all test cases that have been removed in this version.

### Real Time Streaming

Test Case ID	Test Case Name
RTSS-6-1-2	BACKCHANNEL – G.711 (RTP-Unicast/RTSP/HTTP/TCP, IPv4)
RTSS-6-1-5	BACKCHANNEL – G.726 (RTP-Unicast/RTSP/HTTP/TCP, IPv4)
RTSS-6-1-8	BACKCHANNEL – AAC (RTP-Unicast/RTSP/HTTP/TCP, IPv4)

### Real Time Streaming using Media2

Test Case ID	Test Case Name
MEDIA2_RTSS-3-1-2	BACKCHANNEL – G.711 (RTP-Unicast/RTSP/HTTP/TCP, IPv4)
MEDIA2_RTSS-3-1-5	BACKCHANNEL – G.711 (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-3-1-8	BACKCHANNEL – AAC (RTP-Unicast/RTSP/HTTP/TCP, IPv4)
MEDIA2_RTSS-3-1-11	BACKCHANNEL – AAC (RTP-Unicast/RTSP/HTTP/TCP, IPv6)
MEDIA2_RTSS-3-1-17	BACKCHANNEL – G.711 (RTP-Unicast/RTSP/HTTPS/TCP, IPv4)
MEDIA2_RTSS-3-1-18	BACKCHANNEL – AAC (RTP-Unicast/RTSP/HTTPS/TCP, IPv4)
MEDIA2_RTSS-3-1-19	BACKCHANNEL – G.711 (RTP-Unicast/RTSP/HTTPS/TCP, IPv6)
MEDIA2_RTSS-3-1-20	BACKCHANNEL – AAC (RTP-Unicast/RTSP/HTTPS/TCP, IPv6)

## List of Device Test Specification Documents v21.06

Document	Release Date
ONVIF_Access_Control_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Access_Policy_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Access_Rules_Device_Test_Specification_20.06.pdf	Jun-20
ONVIF_Analytics_Engine_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Authentication_Behavior_Device_Test_Specification_19.06.pdf	Jun-19
ONVIF_Base_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Credential_Device_Test_Specification_20.12.pdf	Dec-20
ONVIF_DeviceIO_Device_Test_Specification_20.06.pdf	Jun-21
ONVIF_Device_Feature_Discovery_Specification_21.06.pdf	Jun-21
ONVIF_Door_Control_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Event_Handling_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Export_File_Format_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Imaging_Device_Test_Specification_20.06.pdf	Jun-20
ONVIF_Media2_Configuration_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Media_Configuration_Device_Test_Specification_20.12.pdf	Dec-20
ONVIF_Profiles_Conformance_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Profile_Q_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Provisioning_Device_Test_Specification_18.06.pdf	Jun-18
ONVIF_PTZ_Device_Test_Specification_20.06.pdf	Jun-20
ONVIF_Real_Time_Streaming_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Real_Time_Streaming_using_Media2_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Receiver_Device_Test_Specification_20.06.pdf	Jun-20
ONVIF_Recording_Control_Device_Test_Specification_21.06.pdf	Jun-21
ONVIF_Recording_Search_Device_Test_Specification_20.06.pdf	Jun-20
ONVIF_Replay_Control_Device_Test_Specification_19.12.pdf	Dec-19
ONVIF_Schedule_Device_Test_Specification_20.06.pdf	Jun-20
ONVIF_Security_Configuration_Device_Test_Specification_20.12.pdf	Dec-20
ONVIF_Thermal_Device_Test_Specification_18.06.pdf	Jun-18