Request for Quotation (RfQ)

For ONVIF Technical Services Committee,

Client Test Tool Working Group

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Profile D Working Group

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Profile M Working Group

Projects “Macallan” & “North Port”

Circulation: June 15, 2020

Quotation Due: June 29, 2020

Contents

1. Introduction

ONVIF™ is an open industry forum for the development of a global standard for the interface of IP-based physical security products. Information about ONVIF, its objectives and members can be found on http://www.onvif.org/.

The ONVIF Client Test Tool will be used by ONVIF members to test conformance of IP-based physical security products with the ONVIF Test Specification, which in turn is based on the ONVIF Network Interface Specifications, the ONVIF Profile Specifications and WSDL and XML schemas, as described in the ONVIF Conformance Process Specification.

2. Abbreviations

WG	Working Group
CT WG	ONVIF Client Testing Working Group
CTT	ONVIF Client Test Tool
ODP	ONVIF Developer's Plugfest

3. Projects Purpose

The purpose of these projects is to produce two service releases of the ONVIF Client Test Tool and ONVIF Client Test Specifications for released profiles S, G, C, Q, A and T and for profiles D and M which are under development.

Two incremental service releases of the ONVIF Client Test Tool and of the ONVIF Client Test Specifications will be delivered. The first release is at the end of ***Project Macallan*** in December 2020 followed by second release at the end of ***Project North Port*** in June 2021.

4. Service Requested

During the two successive Scope-of-Works: ***Project Macallan*** and ***Project North Port***,

- the Contractor must update and prepare the following items for public release:
    - ONVIF Client Test Specifications documents
    - ONVIF Client Test Tool software
- the Contractor must maintain up-to-date and improve the following internal items:
    - ONVIF Profiles Features Test Coverage Map document
    - ONVIF Client Test Tool internal wiki documentation
    - Automated regression testing documentation and framework
- the Contractor must handle priority changes caused by additional work items and requirements that may be identified during the projects and that will be prioritized by the ONVIF working groups.
- the Contractor must advise the ONVIF working groups and estimate the development efforts requested by the ONVIF working groups working with the ***ONVIF Client Testing WG***.
- the Contractor must inform the ***ONVIF Client Testing WG*** in case of conflicts between development items executed in parallel. The ***ONVIF Client Testing WG*** will be the main point of contact to the Contractor. It is responsible for the integration and coordination of the different ONVIF working groups development requests for the ONVIF Client Test Tool and ONVIF Client Test Specifications.
- the Contractor must operate the ONVIF Client Test Tool Clinic during the ONVIF Developers' Plugfests. This includes:
    - practical field testing of the latest intermediate release of the CTT with ONVIF member client companies
    - collecting ONVIF members feedback and improvement suggestions
    - training ONVIF members on how to use the CTT for conformance testing
    - planning and executing additional tasks and priorities that the ***CT WG*** may determine during the weeks preceding each ODP.

For a detailed description of the service requested, see section *Description of Requested Service*. Please note that the Test Tool Clinics maybe postponed or cancelled due to unforeseen circumstances.

5. Description of Requested Service

The service being requested MUST fulfill the following requirements. Requirement levels MUST be interpreted as described in RFC 2119[1] "Key words for use in RFCs to indicate requirement levels".

1. The projects MUST be developed in accordance with the schedule outlined in Appendix A.
2. Any deviations from the schedule outlined in Appendix A MUST be approved by ONVIF.
3. The Contractor MUST handle the following responsibilities:
    A) Project management.
    B) Development: design and implementation of ONVIF Client Test Tool features, new test case implementation, modification of existing test cases and bug fixing, **updating the technical and architectural documentation** of the tool.
    C) Testing: design and modification of test cases for ONVIF Client Test Specifications documents, validation of test cases, **automated** regression testing of bug fixes and modifications to existing test cases and features and technical documentation, **test reports publication** to the CT WG.
4. The projects SHOULD use the following resources (manpower equivalent) for respective projects.
    A) Project Macallan (600 man-hours total): The project MUST include the work items outlined in Appendix D. Evolution tasks are marked "EVO" in their title and figure in appendix D. Evolution tasks are to be developed in a separate branch in the SVN repository used to host and track all Onvif development. Once an evolution task is complete, it can be merged in the next project only. A MERGE task will be created in the tracking system. This task needs to be discussed and approved by the ***CT WG*** first. The Contractor cannot make the decision to merge the changes until then and, upon request from the ***CT WG***, MUST rollback any changes to the main branch and rearrange those changes in a separate branch at no additional charges if the merge is done without ***CT WG*** approval.
    B) Project North Port (500 man-hours total): The project MUST include the work items outlined in Appendix E.
    C) Service buffer (500 man-hours) - In addition to the above resources, another 500 man-hours of the resource are allocated as a service buffer. In case that the allocated resources for

[1] See: http://www.ietf.org/rfc/rfc2119.txt

respective projects run out and some more work items are essential to be carried out during this project, this resource should be used.

5. The CT WG can at any time decide to drop or postpone a work item and the Contractor MUST rollback the changes if any progress was made on the work item at no additional charge.
6. The scope of the projects' deliverables will be adjusted if necessary, to keep the release date of the official release (see Appendix A).
7. The projects MUST deliver an ONVIF Client Test Tool and Test Specification as outlined in Appendix B and Appendix C.
8. The projects MUST follow the technical requirements outlined in Appendix F during the ONVIF Client Test Tool development.
9. The projects MUST respect the style of the ONVIF Test Specification when updating the documents. The structure MUST be defined with the help of the ***CT WG.***
10. The final deliverables MUST pass a review before the service is considered delivered; up-to 30 days might be required to complete the review. If the workgroup does not provide feedback within the 30 days period; the service will automatically be considered delivered for all payment purpose.
11. Any further maintenance and expansion work done to the ONVIF Client Test Tool and/or ONVIF Test Specification is subject to further quotations and separate contracts. A renewed cooperation of the Contractor and ONVIF for these tasks over many development steps is possible and where possible appreciated, however not guaranteed.

6. Execution of Service

The execution of the service must fulfil the following requirements:

1. The service MUST be executed by capable and qualified employees or sub-contractors under the same rules.
2. The execution MUST comply with the requirements in appendix F and G. Any divergence must be approved by ***CT WG beforehand***.
3. The Contractor MUST provide a weekly progress report to the ***CT WG*** outlining the tasks performed and the issues encountered. The report must be done on the internal wiki for each project. It must be maintained and show what tasks have been completed, what the next tasks for next week will be and remaining time available to approve new tasks.
4. Throughout the projects the ***CT WG*** might call for telephone conferences and/or face-to-face meetings with the Contractor to address any possible open questions and to review the progress. The Contractor MUST attend those requested telephone conferences and face-to-face meetings.
    a. The Contractor MUST attend those requested telephone conferences and face-to-face meetings.
    b. The ***CT WG*** MUST give the Contractor a notice of at least two months in advance if participation is required.
    c. At least one technical resource and one manager assigned to the projects must be legally authorized to travel outside of their home country.
    d. In the event of any cancellation of face-to-face meetings and/or Developers' Plugfest due to unforeseen circumstances the Contractor may be requested to participate in the events through a combination of telephone conferences and remote testing sessions.

7. Protective Rights

1. ONVIF will hold all rights to the ONVIF Client Test Tool software (the development results), its source code, documentation, and related inventions, achieved by employees and sub-contractors of the Contractor.
2. ONVIF will obtain exclusive and discretional rights of use without any territorial restrictions or time limits.
3. The Contractor notifies ONVIF if and where it intends to use material in the ONVIF Client Test Tool which is affecting rights of a third party.
4. The Contractor will ensure in an appropriate way that ONVIF can claim inventions made by employees and sub-contractors of the Contractor.

8. Confidentiality

1. The Contractor MUST sign a non-disclosure agreement (NDA) with ONVIF prior to the initiation of the project. This NDA is for ONVIF to share draft technical specifications as well as other necessary non-public information of ONVIF, needed to fulfil this requested service.
2. The Contractor MUST keep all development results and related documents strictly confidential and must release them only to the ONVIF office and the assigned technical contacts of ONVIF.

9. Quotation

The quotation MUST at least contain the following information:

1. Cost of requested service and all other related cost. Travel cost will not be applicable if the meetings are cancelled.
2. Cost of travel expenses for two representatives of the Contractor at the Developers' Plugfest for "Client Test Tool Clinic".
    a. Possible travel request: Madrid (Spain), May 2021

    Estimate for travel expenses for two representatives of the Contractor. The Contractor may not be needed for the whole duration of the meetings.
    b. Possible travel requests for project North Port:
        i. Singapore, February 2021
        ii. Madrid (Spain), May 2021
3. Travel arrangements should be consolidated when possible in case the Contractor is working on parallel projects for ONVIF.

10.References

The following ONVIF documents MUST be used by the Contractor as a reference for any development task done during the project. Any development MUST respect the latest versions of these specifications.

- Profile S Specification (https://www.onvif.org/profiles/profile-s/)
- Profile C Specification (https://www.onvif.org/profiles/profile-c/)
- Profile G Specification (https://www.onvif.org/profiles/profile-g/)
- Profile Q Specification (https://www.onvif.org/profiles/profile-q/)
- Profile A Specification (https://www.onvif.org/profiles/profile-a/)
- Profile T Specification (https://www.onvif.org/profiles/profile-t/)
- Profile D Specification (under development, see contacts)
- Profile M Specification (under development, see contacts)
- Network Interface Specifications (https://www.onvif.org/profiles/specifications/)
- Client Test Specifications (https://www.onvif.org/profiles/conformance/client-test/)
- Conformance Process Specification (https://www.onvif.org/profiles/conformance/)
- Application Programmers Guide (https://www.onvif.org/profiles/whitepapers/)

These documents are to be delivered together with this document or upon request by the Contractor. These documents MAY be replaced with newer versions after the start of the project. In such a case, the ***Client Test Tool WG*** may inform the Contractor and discuss appropriate actions.

11.Contacts

General contact:

ONVIF

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San Ramon, CA 94583

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Fax: +1.925.275.6691

www.onvif.org

Technical Contacts:

Technical issues and questions concerning the ONVIF specifications, schemas, and this Request for Quotation MUST be addressed to:

ONVIF TSC Client Test Tool WG

Madhu Rao, Chairman, Client Test Tool Working Group

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ONVIF TSC Profile D WG

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ONVIF TSC Profile M WG

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Appendix A - Service Timeline

Due dates correspond to end of day in UTC time. See Appendix B for definition of deliverables.

15 Jun 2020	Circulation of this Request for Quotation
29 Jun 2020	Quotation must be received by the ***ONVIF Office*** and ***Client Test Tool WG*** by e-mail
13 Jul 2020	Contractor selected & agreement signed

Project Macallan

24 Aug 2020	Delivery of ONVIF Client Test Tool 1st Prototype & Test Specification 1stDraft
12 Oct 2020	Delivery of ONVIF Client Test Tool 2nd Prototype & Test Specification 2nd Draft
30 Nov 2020	Delivery of ONVIF Client Test Tool & Test Specification Release Candidate
14 Dec 2020	Delivery of Client Test Tool & Test Specification v20.12

Project North Port

15 Feb 2021	Delivery of ONVIF Client Test Tool 1st Prototype & Test Specification 1st Draft
Feb 2021	F2F Meetings (location to be determined)
19 Mar 2021	Delivery of ONVIF Client Test Tool 2nd Prototype & Test Specification 2nd Draft
23 Apr 2021	Delivery of ONVIF Client Test Tool 3rd Prototype & Test Specification 3rd Draft
May 2021	Developers' Plugfest (location to be determined)
May 2021	F2F Meetings (location to be determined)
28 May 2021	Delivery of ONVIF Client Test Tool & Test Specification Release Candidate
18 June 2021	Delivery of ONVIF Client Test Tool & Test Specification v21.06

Appendix B - Definition of Deliverables

Name	Description
ONVIF Test Specification Draft	• Document template updated. • "Test Cases/Use-Cases" integrated into their corresponding Test Specification document in draft form. • History document must be provided for each specification document and kept up to date with each subsequent delivery.
ONVIF Test Specification Release Candidate	• Only stable "Test Cases/Use-Cases" are included in this delivery. • Total List of "Test Cases/Use-Cases" must be provided. • From that point on, only fixes requested by WG are allowed.
ONVIF Test Specification Final Release	• Issues identified in Release Candidate fixed or documented in release notes. • All tickets for the corresponding Milestone have been addressed or postponed.
ONVIF Client Test Tool Prototype	• Partial implementation of "Test Cases/Use-Cases" validation and Test Tool features. Only tested "Test Cases/Use-Cases" and features should be delivered. • List of "Test Cases/Use-Cases" and features implemented in the prototype must also be provided.
ONVIF Client Test Tool Release Candidate	• Only stable "Test Cases/Use-Cases" and Features are included in this delivery. • From that point on, only fixes requested by WG are allowed.
ONVIF Client Test Tool Final Release	• Issues identified in Release Candidate fixed or documented in release notes. • All tickets for the corresponding Milestone have been addressed or postponed.
ONVIF Profile Feature coverage map	• A coverage map is maintained by the Contractor. • It is reviewed by the WG members. • It must be up to date for each delivery. • It contains all ONVIF Profiles features and by which Client Test Tool tests they are covered.

Appendix C - Delivery Packages and Responsibilities

Delivery Package	Item	Target	Editing Responsibility
Client Test Specification	Internal Releases Notes	Workgroup	Contractor
	Official Release Notes	Public	Workgroup
	Other Features Client Test Specification	Public	Contractor
	Profile D Test Specification	Workgroup	Contractor
	Profile M Test Specification	Workgroup	Contractor
	Profile S Test Specification	Public	Contractor
	Profile G Test Specification	Public	Contractor
	Profile C Test Specification	Public	Contractor
	Profile Q Test Specification	Public	Contractor
	Profile A Test Specification	Public	Contractor
	Profile T Test Specification	Public	Contractor
ONVIF Client Test Tool	Binaries	ONVIF Members	Contractor
	Source Code	Workgroup	Contractor
	Help Files	ONVIF Members	Contractor
	Installation Guide	ONVIF Members	Contractor
	Internal Release Notes	Workgroup	Contractor
	Official Release Notes	ONVIF Members	Workgroup
	Errata Document	ONVIF Members	Workgroup
Profile	Profile S Specification	Public	Device Testing WG
	Profile C Specification	Public	Device Testing WG
	Profile G Specification	Public	Device Testing WG
	Profile Q Specification	Public	Device Testing WG
	Profile A Specification	Public	Device Testing WG
	Profile T Specification	Public	Device Testing WG
	Profile D Specification	Workgroup	Profile D WG
	Profile M Specification	Workgroup	Profile M WG

Appendix D - Project Macallan – Initial Scope-of-work

The ***CT WG, Profile D WG and Profile M WG*** use a ticket system to manage all work items for the Contractor and for the working group. The tickets can be consulted at https://wush.net/trac/onvif-ext3/report/3. Only tickets targeted at the Milestone Macallan are part of this Scope-of-work. Additional tickets will be created during the project and will be prioritized by the workgroup.

The Contractor must follow the instructions detailed here https://wush.net/trac/onvif-ext3/wiki/best_practices_vendor_company when working with the tickets.

Ticket	Summary	Type	Priority
#323	Profile D Mandatory Features	task	High
Once the Profile D workgroup has agreed on a core set of Mandatory Features, those should be added to a new Profile T Client Test Specification and implemented in the Client Test Tool. The vendor MUST validate already implemented features with the Profile D WG. Currently a placeholder for future scope-of-work from Profile D workgroup. Profile D test coverage map needs to be update as soon as a test is delivered.			

Ticket	Summary	Type	Priority
#342	[Profile D] There are a lot of features that are mandatory for Clients and Conditional for Devices	Enhancement	High
Mandatory features need to pass with 3 devices. This means that up to 21 devices that would be needed in a worst-case scenario (7 device conditional features x 3 devices that implement each only one feature). It will not possible to change since Devices are different in capabilities. But Clients must catch this to cover main Client functionality. Simulator could be combined with devices. For example, you must pass Access Taken feature with Simulator and with at least one Device. The various options available are: Option 1: Reduce number of required Devices to one per feature Option 2: Create Profile D simulator to cover such features (the list of features to be discussed) Option 3: Simulator could be combined with devices. For example, you must pass Access Taken feature with Simulator and with at least one Device. The vendor MUST consult the WG and TSC and implement the option that is approved and agreed upon.			

Ticket	Summary	Type	Priority
#325	Profile M Mandatory Features	Task	High
Once the Profile M workgroup has agreed on a core set of Mandatory Features, those should be added to a new Profile M Client Test Specification and implemented in the Client Test Tool. The vendor MUST validate already implemented features with the Profile M WG. Currently a placeholder for future scope-of-work from Profile M workgroup. Profile M test coverage map needs to be update as soon as a test is delivered.			

Ticket	Summary	Type	Priority
#324	Profile D Conditional Features	Task	Medium
Once the Profile D workgroup has agreed on a core set of Conditional Features, those should be added to a new Profile T Client Test Specification and implemented in the Client Test Tool. The vendor MUST validate already implemented features with the Profile D WG. Currently a placeholder for future scope-of-work from Profile D workgroup. Profile D test coverage map needs to be update as soon as a test is delivered.			

Ticket	Summary	Type	Priority
#369	[PlugFest] RTSP parsing: CTT misses RTSP response when it sent in one packet with another protocol	Defect	Medium
We found one issue with RTSP parsing with some Plugfest traces. Parsing result does not have response on PLAY, but Wireshark trace contains it. The packet with this response is specific - it has not only RTSP. The issue occurs on other cameras from the same manufacturer. The problem is reproduced with streaming over HTTP and over RTSP. Corresponding test cases in the DTT are passed with this device. Streaming over UDP does not have such problem. The vendor MUST investigate and fix the issue.			

Ticket	Summary	Type	Priority
#370	[PlugFest] Improvement: to add service name in test log for test cases with equal commands	Enhancement	Medium
It is not clear why the test SETSYNCHRONIZATIONPOINT-1 SET SYNCHRONIZATION POINT is not detected when there is SetSynchronizationPoint in the trace. This test checks SetSynchronizationPoint from event service, but trace contains SetSynchronizationPoint from Media Service. The vendor MUST add service name in such test cases.			

Ticket	Summary	Type	Priority
#373	Analyze impact of removing requirement "Both device and client shall support [WS-Addressing] for event services.	New Task	Medium
The vendor MUST analyse the impact of this change on the profile conformance and based on the recommendation of the WG and TSC make the necessary changes.			

Ticket	Summary	Type	Priority
#374	CTT needs to be updated according to changes to Core spec and profile specs (Event Service)	New Task	Medium
The Core spec has been changed so that Event service is not mandatory anymore. It is instead mandated in the profile specifications. e.g. new products with only profile M must be able to pass conformance without supporting Event Service. Profile S and T devices that do not have event service support shall fail. The vendor MUST analyse the impact of the changes and make necessary changes in the tool.			

Ticket	Summary	Type	Priority
#377	[Profile M] Client DoC features for Profile M to be approved by Profile M WG	New Clarification	Medium
A draft for features listed in Profile M Declaration of Conformance is already available. The vendor MUST coordinate with the Profile M WG and finalise the features that will be included in the DoC.			

Ticket	Summary	Type	Priority
#326	Profile M Conditional Features	Task	Medium
Once the Profile M workgroup has agreed on a core set of Conditional Features, those should be added to a new Profile M Client Test Specification and implemented in the Client Test Tool. The vendor MUST validate already implemented features with the Profile D WG. Currently a placeholder for future scope-of-work from Profile M workgroup. Profile M test coverage map needs to be updated as soon as a test is delivered.			

Ticket	Summary	Type	Priority
#364	EVO: Proposal to split up test cases and features in the CTT	Enhancement	Medium
We have some features that re-use existing test cases inside. Engine of the CTT does not have a way to show such test cases that will useful for user. Therefore, we have features that can be: - Failed when all test cases listed inside feature are passed (because there is test case inside another feature that is not passed, but UI does not show this) - Passed when not one test inside the feature is passed (because the test case is inside another feature that is passed) - No test cases inside the feature Examples of such features: - Metadata Streaming Using Media2 (Profile T) - Event Handling - Get Services, Metadata Configuration Using Media2 (Profile M) This could be hard to analyze failed features for test operators. The vendor MUST propose changes to the CTT engine to show all related test cases inside each feature.			

Ticket	Summary	Type	Priority
#332	EVO - Media2 Streaming Advanced Support in CTT simulator	task	Low

The main goal is to make it easier to develop conformant Onvif clients. For this we could foresee the following requirements:

- scriptable behavior:
  - configurable numbers of VS, VSC, VEC, MC, AC, AS, ASC, AEC, AO, AOC, ADC.
  - configurable capabilities for these configurations.
  - configurable capabilities for Media2

This could only be used in diagnostics! No conformance possible as these features are present on real devices.

Ticket	Summary	Type	Priority
#333	EVO - Add Backchannel Support for CTT simulator	New task	Low

The main goal is to make it easier to develop conformant Onvif clients. For this we could foresee the following requirements:

- Workable single backchannel using Media2.
- Scriptable in the same "way" as #332.
- Basic decoding to validate that a supported codec is received by the simulator.

The vendor MUST come up with a proposal with the implementation details for WG review and approval. This could only be used in diagnostics! No conformance possible as this feature is present on real devices.

Ticket	Summary	Type	Priority
#334	EVO - Add Backchannel Support for CTT simulator	New task	Low

The main goal is to make it easier to develop conformant ONVIF clients. For this we could foresee the following requirements:

- Workable PTZ using Media2.
- Scriptable in the same "way" as #332.
- PTZ current position simulation.

The vendor MUST come up with a proposal with the implementation details for WG review and approval. This could only be used in diagnostics! No conformance possible as this feature is present on real devices.

Ticket	Summary	Type	Priority
#335	EVO - Analytics Support in CTT simulator	New task	Low

The main goal is to make it easier to develop conformant ONVIF clients. For this we could foresee the following requirements:

- Workable Analytics Service Specification implementation with Media2.
- Scriptable in the same "way" as #332.
- Basic analytics configuration with any kind of analytics that could be easily generated from the simulator. Example: number of packets sent and received analyzer or CPU usage analyzer.

The vendor MUST come up with a proposal with the implementation details for WG review and approval. This could only be used in diagnostics! No conformance possible as this feature is present on real devices.

Ticket	Summary	Type	Priority
#214	Improvement: verify that the client does not filter out the events it has checked	Enhancement	Low

Currently a client could check the event tns1:VideoSource/MotionAlarm, but it may filter it out when subscribing to events and CTT would let the client pass conformance with this event. The vendor MUST add a check to ensure that the client does not filter out the selected events.

Ticket	Summary	Type	Priority
#260	Remove requirement levels for tests	Enhancement	Low

It is not clear the purpose of Requirement level for test cases and it is not used in the CTT logic. The vendor MUST investigate the impact of removing the requirement level.

Investigation results reveal that tests are run even if the feature is not supported by the device. Not running these tests could improve conformance time. Also, the conformance process waits for all mandatory tests to be run. The vendor MUST also make the following changes:
Step 1 Run tests only if the devices chosen for conformance support the feature.
Step 2 Remove the test level requirements from test specifications

Ticket	Summary	Type	Priority
#286	MetroFramework removal	Enhancement	Low

The vendor MUST remove MetroFramework references in the tool for clearer code. Open source declaration in the help files must also be removed.

Ticket	Summary	Type	Priority
#306	[EVO] Parallel parsing of wireshark traces	Enhancement	Low

Parallel parsing of wireshark traces should be explored after parser improvements (HTTP, RTSP, Discovery) have been completed. The goal is reducing conformance time. This will apply when the user has many wireshark traces. The vendor MUST check if it will be possible to start parsing of 3 or 4 traces at the same time.

Ticket	Summary	Type	Priority
#328	Thermal Service Tests	Task	Low

Using the Thermal Service Specification, the vendor MUST:

Produce a coverage map
Implement new tests to test the service
Update the coverage map for any new test

Ticket	Summary	Type	Priority
#333	EVO - Add Backchannel Support for CTT simulator	Task	Low

The main goal is to make it easier to develop conformant ONVIF clients. For this we could foresee the following requirements:
- Workable single backchannel using Media2.
- Scriptable in the same "way" as in Media2 Streaming Advanced Support for Simulator.
- Basic decoding to validate that a supported codec is received by the simulator.

The vendor MUST add Backchannel support for the Simulator.

Ticket	Summary	Type	Priority
#334	EVO - PTZ Support in CTT simulator	Task	Low

The main goal is to make it easier to develop conformant ONVIF clients. For this we could foresee the following requirements:

- Workable PTZ using Media2
- Scriptable in the same "way" as in Media2 Streaming Advanced Support for Simulator.
- PTZ current position simulation.

The vendor MUST add PTZ support in the Simulator.

Ticket	Summary	Type	Priority
#335	EVO - Analytics Support in CTT simulator	Task	Low

The main goal is to make it easier to develop conformant ONVIF clients. For this we could foresee the following requirements:

- Workable Analytics Service Specification implementation with Media2.
- Scriptable in the same "way" as in Media2 Streaming Advanced Support for Simulator.
- Basic analytics configuration with any kind of analytics that could be easily generated from the simulator. Example: number of packets sent and received analyzer or CPU usage analyzer.

The vendor MUST add Analytics support in the Simulator.

Ticket	Summary	Type	Priority
#340	[PlugFest] Log of PTZ tests where we check space used for movement is unclear	Enhancement	Low

We have several PTZ test cases that tries to detect when PTZ space was used for movement:

PTZ Using Media2 Absolute Positioning - Spherical Position Space Degrees
PTZ Using Media2 Absolute Positioning - Pan Tilt Position Generic Space
PTZ Using Media2 Absolute Positioning - Zoom Position Generic Space

These tests use logic described in A.1 Get default PTZ space of PTZ Configuration corresponding to Move Operation (PTZ test spec). If PTZ space is not detected, the test is failed with unclear reason. This happens because it is not possible to provide all steps of Annex in the test log. CTT engine does not allow this in case complex logic checks. CTT tries to detect PTZ space in profile used in ContinuousMove and all of annex steps do not have results. In this case the CTT shows only one step and it is unclear why we check SetConfiguration in movement test case.

The vendor MUST investigate why this issue occurs and come up with a fix.

Appendix E - Project North Port – Initial Scope-of-work

The ***Client Test Tool WG*** uses a ticket system to manage all work items for the Contractor and for the working group. The tickets can be consulted at https://wush.net/trac/onvif-ext3/report/3. Only tickets targeted at the Milestone North Port are part of this Scope-of-work. Additional tickets will be created during the project and will be prioritized by the workgroup.

The Contractor must follow the instructions detailed here https://wush.net/trac/onvif-ext3/wiki/best_practices_vendor_company when working with the tickets.

Project North Port will also include all items postponed from Project Macallan.

Appendix F - Technical Requirements for the ONVIF Client Test Tool

1. The ONVIF Client Test Tool v20.06 MUST be used as a base for this project.
2. The existing functionality of the ONVIF Client Test Tool v20.06 MUST NOT be altered other than to incorporate the functions and operations requested herein or where the workgroup explicitly approves the changes.
3. Development and validation of the tool MUST be done on 64-bit versions of Windows 7/Windows 10.
4. Programming language MUST be C# and target a recent .Net framework (4.5.1 and up).
5. The software source code MUST be documented in good practice in English in the standard source code comments scheme. Documentation MUST at least cover classes, methods, parameters, return values, and exceptions. Level of details of the documentation must be such that ONVIF, or a knowledgeable third party requested by ONVIF, can further develop, and/or amend the software.
6. The software source code MUST be developed using the workgroup-provided Version Control System. The workgroup is currently using Subversion for version control of the Client Test Tool and Client Test Specification files.
7. All external frameworks used MUST be approved by the workgroup, actively maintained by the community, and covered by an open license.
8. The executable application, the source code and the accompanying documentation MUST be delivered in electronic form to the workgroups, using the External Wiki (https://wush.net/trac/onvif-ext3) before the projects closure or on request by the working group.
9. The workgroups MUST report defects against the executable application, the source code and the accompanying documentation using the External Wiki (https://wush.net/trac/onvif-ext3).
10. User interaction during execution of tests SHOULD be avoided where possible. Introduction of user interaction MUST be approved by the ***CT WG***.
11. Help pages MUST include images and text describing all operation modes of the ONVIF Client Test Tool.
12. Minimum hardware requirements: Ordinary Intel x86 architecture-based PC.
13. Software requirements
    a. Visual Studio 2017 and WiX Toolset
    b. Graphical User interface in US English language
14. Performance
    a. Memory usage SHOULD stay under 32 bits addressable memory space.
    b. Multithreading SHOULD be used when applicable.

Appendix G - Outline of Quality Related Deliverables

1. Document and execute test cases to validate the behavior of the ONVIF Client Test Tool, including but not restricted to:
    a. Correctness of documents generated by the Tool.
    b. Correctness of test procedure in Conformance Mode.
    c. Execute Test Tool with sample inputs provided by members of ONVIF.
    d. Plan and execute regression testing for each new feature added to the CTT using the automated testing tools documented in the external wush (https://wush.net/trac/onvif-ext3/wiki/ONVIF_CTT_Auto). Test reports must be provided in each wush ticket. These tests reports must be an overview of the tests that were chosen per feature under test in the CTT, their expected result and their finals results. When relevant, profile conformance status most also be provided and show the expected and the final results obtained. These tests reports are subject to improvements identified by the ***CT WG*** and the Contractor MUST adapt the reports once a change is required by the ***CT WG***.
    e. Generation of DoC only with full success run.
2. Report issues to the workgroup with all the necessary information to be easily reproduced, including but not restricted to:
    a. Description of issue
    b. Repro steps
    c. Network traces
3. Provide a “lessons learned” document regarding any relevant problems or issues found during development, including but not restricted to:
    a. Correctness of WSDL files.
    b. Correctness of technical specifications.
    c. Ambiguity or limitations of the specifications.
    d. Process and communication with the workgroup.