

## Call for Expression of Interest for Refresh of HbbTV Minimum Test Harness

The HbbTV Association invites expressions of interest (the "Expression of Interest") from potential suppliers ("Suppliers") for a new or updated minimum test harness for the HbbTV Test Suite.

The HbbTV Test Suite is a collection of several thousand unit tests according to a format defined by HbbTV in its Test Specification [1]. These tests are run on HbbTV implementations using what is referred to as a "test harness" which implemented according to the HbbTV Test Specification.

The use-cases for the current Minimum Test Harness ("MTH") are to enable HbbTV members to experiment with the HbbTV test suite before licensing a commercial test harness, making their own or some mixture of the two.

The current MTH arrangements have been in place for a number of years and the HbbTV Association seeks to explore the options for a new or updated MTH. A minimum test harness typically enables tests to be run manually and does not include any of the automation included in a commercial test harness.

It is anticipated that a new or updated MTH will address *additional* use-cases such as maintenance of tests in the HbbTV test suite (repair of tests and review of repairs), development or review of new tests for possible inclusion in the HbbTV test suite or debugging of individual failing tests by a development engineer working on an HbbTV implementation.

The content and structure of the Proposal should follow the guidance given in this call for expression of interest ("the Call"). Details of how to submit your Expression of Interest and the deadline for submission are given in the Call.

Dated this 13<sup>th</sup> June 2024

Signed by

Vincent Grivet

(no signature – electronic delivery)

For and on behalf of the HbbTV Association

[1] Attachment: HbbTV Test Specification

The current version of the HbbTV Test Specification is available to organisations with access to the HbbTV Test Suite repository at [https://hbbtv-association.assembla.com/spaces/HbbTV/subversion/source/HEAD/tags/HbbTV/HbbTV-TestSuite-2024-1/DOCUMENTS/HbbTV\\_Test\\_Spec\\_v2024-1\\_v1.0.pdf](https://hbbtv-association.assembla.com/spaces/HbbTV/subversion/source/HEAD/tags/HbbTV/HbbTV-TestSuite-2024-1/DOCUMENTS/HbbTV_Test_Spec_v2024-1_v1.0.pdf) .

## **Call for Expression of Interest**

### **Refresh of Minimum Test Harness for Hybrid Broadcast Broadband Television (HbbTV)**

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## 1. Scope of the Call for Expression of Interest

This Call for Expression of Interest (“the Call”) seeks interest and an indicative, non-binding, commercial proposal for a Minimum Test Harness (“MTH”) to accompany the HbbTV Test Suite for device (terminal) implementations.

The key attributes that differentiate a “minimum” test harness from a more complete “commercial” test harness include one or more of the following.

- An MTH may not include the functionality to run all the tests in the HbbTV test suite. It may not be able to run the tests for independent specifications such as operator applications or targeted advertising. It may not be able to run all the tests for the core specification such as media synchronisation, or those that require additional hardware such as a modified Clplus CAM.
- An MTH may not include support for automated execution of unit tests. It may be a much more time and effort consuming experience for the operator.

The use-cases that an MTH may or should meet can be found in clause\_3.1<sup>(OBJ)</sup> Use-cases below.

HbbTV invites responses along the following lines:

- A limited or restricted version of a current HbbTV test harness commercial product that would be supported on a continuing basis by its owner.  
The current MTH fits in this category.
- A test harness originally developed by an HbbTV implementer for internal use that is made available to the ecosystem without support.
- A new MTH created from scratch to meet the use-cases described below.

More details of these categories can be found in clause 3.2 below.

## 2. Guidance for Submissions

### 2.1. Non-Binding - Period of Validity

Responses are indicative and not legally binding. HbbTV would aim to decide and respond within a period of 3-4 months of the deadline for responses.

### 2.2. Delivery of Proposal

The deadline for submitting a response shall be at 4pm CET 28 calendar days from the date on the accompanying letter to this Call.

The response shall be submitted by the deadline by email to the <testmaterialrfp@hbbtv.org> email address.

### 2.3. Further Information

Contract, administrative and technical queries should be sent to the <testmaterialrfp@hbbtv.org> email address.

Queries should be clearly marked as confidential if the Supplier wishes them to be treated as such.

Potential responders are allowed to send in questions related to Call subjects within the first week from the date on the accompanying letter to this Call. Anonymized responses to these questions will be provided by HbbTV within 10 working days to all interested parties.

## 3 Requirements

### 3.1 Use-cases

HbbTVs expectation is for the new minimum test harness to address the following use cases.

- To enable HbbTV members to experiment with the HbbTV test suite before licensing a commercial test harness, making their own or some mixture of the two.
- Maintenance of tests in the HbbTV test suite (repair of tests and review of repairs). This includes maintenance by suppliers under contract to the HbbTV Association as well as by volunteers from among the members of the HbbTV Association.
- Development or review of new tests for possible inclusion in the HbbTV test suite.
- Debugging of individual failing tests by a development engineer working on an HbbTV implementation (i.e. not by a member of a certification or QA team).

### 3.2 Categories of MTH

#### 3.2.1 A limited or restricted version of a current HbbTV test harness commercial product

This category of MTH would be a commercial product with restrictions on both functionality and usage. One examples of restrictions of functionality could be disabling the support for cameras. One example of restriction of usage may be limiting the MTH to a minimum number of copies per HbbTV member and limiting it to running the tests in the currently approved HbbTV test suite.

#### 3.2.2 A test harness originally developed by an HbbTV implementer for internal use

Several HbbTV implementers have stated that they have made their own HbbTV test harness. It is possible that one of these may be made available to the HbbTV Association, most likely without any support. It would then be up to the HbbTV Association to arrange support and maintenance.

Such an MTH would most likely not be able to run all the tests in the HbbTV test suite, particularly those relating to independent specifications or advanced features such as media synchronisation.

#### 3.2.3 A new MTH created from scratch

Another category of MTH would be one developed from scratch to be an MTH. It would be up to the HbbTV Association to arrange support and maintenance. If a developer was also prepared to provide a support and maintenance component, then please advise in the response.

#### 3.2.4 Other categories

Proposals that do not fit in these categories will also be considered where they bring benefits to the HbbTV Association, its members and the ecosystem.

### 3.3. Response Structure and Contents

Responses should follow the proposal structure and contents given in Annex 1.

### 3.4. Pricing

The pricing is completely dependent on the category of MTH. Any pricing structure in a response will be considered.

### 3.5 General expertise

HbbTV expects that responding to this Request for Information requires pre-existing familiarity with the HbbTV test specification and test suite.

## 4 Appointment Process

### 4.1 Evaluation and Appointment

Proposals will be opened and reviewed internally at the convenience of HbbTV Association. Within 6 weeks of the submission deadline, HbbTV Association will have completed a comparative assessment of Responses to decide which Response should be selected.

- Familiarity with HbbTV Test Spec, HbbTV test development and running tests on HbbTV devices would be significant factor.
- The significant factors for the commercial/business review are the perceived ability and track record of the Supplier, the proposed delivery schedule and Supplier's experience in offering / operating similar services.
- None of these factors is dominant and Responses which score highly on one factor may be rejected due to scoring badly on another.
- An open-source contribution is viewed to have higher benefit to the Eco-system

Following this assessment, HbbTV Association will make a provisional appointment (the "Appointment"), at its entire discretion, of the Supplier who demonstrates the best ability to meet the requirements set out in this Call for Expression of Interest.

### 4.2 Clarification of Proposals / Changes to Process

Notwithstanding any other provision of the Call, HbbTV Association reserves, at its entire discretion, the right to:

- a) Conduct discussions with any or all potential Suppliers for the purpose of clarification of Responses;
- b) Waive, or decline to waive, any defect in any Response;
- c) Accept, reject, or negotiate any or all Response or the terms of any Response for the purpose of obtaining the best and final offer;
- d) Cancel or amend the Call or issue other Calls (and in doing so will endeavour to communicate transparently and in a timely manner with all Suppliers);
- e) Request Suppliers submitting Responses to resubmit Responses with the pricing for a modified scope;
- f) Select no Responses at all.

### 4.3 Negotiation and Execution of Agreements

Once a Supplier has been provisionally appointed, HbbTV and the provisionally appointed Supplier will negotiate at least;

- The structure and value of the fees to be paid by the HbbTV Association.
- A contract.

If the appointed Supplier and HbbTV Association are not able to reach agreement and execute such agreements within 30 days of the Appointment, HbbTV Association may declare the Appointment void and may provisionally appoint another Supplier or Suppliers or issue a new Call.

### 4.4 Not Accepted Proposals

HbbTV Association has no duty to provide Suppliers with any explanation or justification of its decisions not to accept a Proposal or to accept a Proposal only in part.

## 5 Intellectual Property

This depends on the category of the response as follows.

- A limited or restricted version of a current HbbTV test harness commercial product that would be supported on a continuing basis by its owner.  
HbbTV Association does not expect to acquire or license any IPR for this category. The users of the MTH would obtain a license direct from the MTH provider.
- A test harness originally developed by an HbbTV implementer for internal use that is made available to the ecosystem without support  
HbbTV Association would expect to acquire (co-)ownership with the original developer, perhaps over a period. Access to the source code would be necessary from the beginning in order to arrange maintenance.
- A new MTH created from scratch to meet the use-cases in this Call  
HbbTV Association would expect full ownership of the copyright on this code from the beginning. If Supplier would include any patents owned by them then this should be disclosed in advance.  
For this category of MTH, it is likely that HbbTV would decide to release the code under an open source license so that interested parties could contribute.

## 6 Exclusion of liability / Costs

The HbbTV Association has prepared this Call in good faith with a particular interest for swift and cooperative progress in the deployment a new or updated MTH. To the extent permitted by law, the HbbTV Association excludes any liability (whether in contract, tort, negligence or otherwise) for any incorrect or misleading information contained in this Call.

Any costs or expenses incurred by any Supplier or other person under the present submission process will not be reimbursed by the HbbTV Association and neither the HbbTV Association nor any of its representatives will be liable in any way to any Supplier or other person for any costs, expenses or losses incurred by any Supplier or other person in connection with this Call.

## 7 Confidentiality

Sections 1 to 7 of any Response may be shared with any member of the HbbTV Association. Sections 8 and 9 of the Response will only be shared with members who have been specifically tasked with considering the Response and will not be shared more widely.

## 8 Applicable Law and Dispute Settlement

This present Call, any subsequent Call as well as subsequent negotiations shall in all respects be governed by and construed in accordance with Swiss law.

## Annex 1: Response Structure

1. Table of Contents
2. Executive Summary
3. Service to be provided
4. Deviations from the Call
5. Supplier's Project Personnel
  - 5.1. List of Project Members and contact information
  - 5.2. Background, Experience and Skill Sets of Project Members
  - 5.3. Source of specialised or scarce expertise
  - 5.4. Staff overlap with other HbbTV-related work
6. Schedule for deliverables
7. Supplier Information
  - 7.1. Corporate Information
  - 7.2. References
  - 7.3. Involvement with other test suite developments
  - 7.4. QA processes
  - 7.5. Contact Information
8. Payments and terms & conditions
  - 8.1. Prices and terms & conditions relating to Pricing, Pricing models, warranty
  - 8.2. Support and maintenance prices and terms
  - 8.3. Any other costs
9. Supporting confidential information

Each section should start on a new page.

Section 9 should only be used for material that is clearly confidential. Use of section 9 for material that needs to be assessed by a wider audience within HbbTV may damage the chances of the Response being considered further.