Open Measurement SDK

Integration Validation Compliance Guide

Version 4.0 | December 2020

Table of Contents

Executive Summary

The Open Measurement Software Development Kit (OM SDK) is designed to facilitate third party viewability and verification measurement without requiring multiple Ad Verification Service Provider (Measurement Provider) SDKs. We have SDKs for ads served to mobile apps and web video applications that load and render all viewable content exclusively through HTML5.

The OM SDK consists of native libraries for iOS, Android, JavaScript (for web) as well as a JavaScript API, named Open Measurement Interface Definition (OMID), that Integration Partners develop into their mobile apps, ad SDKs, website or video player. The native library collects various signals, such as ad container geometry and playback events in the case of video, using direct communication with the mobile device's native operating system (OS) and media players, and publishes these signals via the OMID JavaScript API.

The collection, processing, analysis, and reporting of information surfaced by the OM SDK is the responsibility of the Measurement Provider using their respective JavaScript tag that is served with the ad creative.

Completing the SDK integration alone does not guarantee that it will be compatible with Measurement Provider tags or be accepted as valid for the purposes of measurement; implementation errors or other issues may interfere with compatibility. To ensure that the Measurement Provider is collecting data from a reliable implementation of the integration partner's OM SDK implementation, IAB Tech Lab has developed a certification program for validating the integration. The certification program outlined in this document is voluntary and serves to ensure that your integration is compatible with Measurement Provider measurement tags.

This guide describes the requirements and process of the OM SDK Integration Validation Compliance (OM IVC).

OM SDK is developed and managed by the [Open Measurement Working Group](#)

Change Log

Revision	Description	Author	Date
Version 1.0	Document created, First draft for Om SDK GA Release	Shailley Singh / Yashica Wilson (shailley@iabtechlab.com)	4/10/2018
Version 1.1	Modified Certification testing for ad types, session types Added Maintaining Compliance, New Ad types certification Modified recertification, continued certification	Shailley Singh (shailley@iabtechlab.com)	8/27/2018
Version 1.2	Added custom native rendering, transparent overlays or friendly obstructions	Shailley Singh (shailley@iabtechlab.com)	10/2/2018
Version 2.0	Modified Validation test cases	Shailley Singh (shailley@iabtechlab.com)	12/10/2018
Version 3.0	Updated for OM SDK 1.3	Jarrett Wold (jarrett@iabtechlab.com)	11/25/2019
Version 4.0	Updated to include OM SDK for Web Video Certification	Jill Wittkopp (jill@iabtechlab.com)	11/05/2020

Certification Process

The OM SDK Integration Validation Compliance (OM IVC) is voluntary and certifies an Integration Partner's implementation of OM SDK against a set of well defined test cases and results based on the output of the OMID API. The OM IVC is designed to ensure the compatibility of Integration Partner's implementation of OM SDK with Measurement Provider measurement tags.

The in-app certification is performed at the app and operating system level. For example a publisher may have two versions of its app: one for iOS and one for Android. In this case the publisher will need to get both implementations certified.

Web Video certification is performed across multiple browsers and operating systems for desktop web and mobile web platform certifications. In addition there are some CTV and OTT platforms that may support HTML5 video delivery. Certification for these devices is not included in the standard Web Video certification. Tech Lab will need to review if OM SDK for Web Video can be used for a specific CTV or OTT app. Please contact compliance@iabtechlab.com for a review of your HTML CTV or OTT app for Web Video Certification.

All test cases are executed by IAB Tech Lab for purposes of the compliance process. Detailed test cases and expected results can be found at the following URL:

https://omsdk-files.s3-us-west-2.amazonaws.com/docs/TestCases.pdf

Application

To apply for the OM IVC certification, the Integration Partner must have integrated the OM SDK in their app, Ad SDK, website or video player. OM SDK can be downloaded from IAB Tech Lab tools portal. You may register for a tools portal account here: https://tools.iabtechlab.com/ and request access by clicking on the OM SDK option on the dashboard.

The Integration Partner must provide the information requested in Appendix A as part of the application for certification.

Certification Fees

An annual fee for each certification program covers initial setup and multiple annual certifications. Please email compliance@iabtechlab.com for questions about certification pricing.

Qualification

Any company that is an OM SDK integration partner i.e. an app or web publisher or an Ad SDK provider or video player that has integrated the OM SDK for Ad verification purposes is eligible to apply for IVC compliance. Membership with IAB Tech Lab is not required to become an integration partner.

Geographic Applicability of Certification

The OM IVC certification is a global program and applies to all geographic regions. Since in-app certification is for an app on a specific operating system, it applies to any installation app on a device using that operating system. In the case of desktop web video and mobile web video, the certification is for the website, or player across browsers and operating systems.

Certification Testing Overview and Process

IAB Tech Lab applies validation test cases based on the OMID API outputs to certify the OM SDK integration.

Special Build Certification

The scope of Special Build validation testing covers the following:

1. **Legal Requirements:** The applicant meets the Special Build Requirements as defined in the Participation Agreement. This includes proof of a written company policy and process that requires it to use its own build process for third-party software.

2. **Technical Requirements:**

   a. The build includes the OMID js service version & service client version matches procedures identifier

   b. The the build uses the build command provided by Tech Lab ([link to build script](#))

   c. Integrator must provide the url at which the build is published, this will be included in the compliance API results for this integrator

In-App Certification

The scope of in-App validation testing covers the following (see detailed test cases https://omsdk-files.s3-us-west-2.amazonaws.com/docs/TestCases.pdf):

1. **Basic setup:** The OM SDK is providing the basic app and partner name (i.e. the namespace) data, OS platform and versions information on device, app/ SDK correctly via the API

2. **Initialization:** All OMID initialization parameters and events are captured

3. **Ad Format Types:** Comprehensive test cases are applied for each ad format type to test for viewability data and required OMID outputs. Following ad format types are covered at present:
   - HTML Display
   - Native Display
   - Video
   - Audio (Release 1.3 and up)

4. **Ad Session Type:** In addition to ad format types, the testing also verifies the ad session type as one of the following, based on how the creative is rendered :
   - HTML
   - Native
   - Javascript (Release 1.3 and up)

5. **Validate Impressions:** (Release 1.3 and up)
   - Loaded event for all creatives
   - Impression Events - validate the type of impression
     - beginToRender
     - onePixel
     - viewable
     - audible
     - other
     - unspecified

6. **Friendly Obstruction:** (Release 1.3 and up) nform of friendly obstructions and how they impact viewability
   - declaredFriendlyObstruction - Number of obstructions
   - friendlyObstructions - metadata about the obstruction
     - Geometry
     - Obstruction purpose
     - Detailed reason

Certification testing involves the following process:

1. Integration partner implements the OM SDK in their app.

2. Integration partner includes the Verification JS tag provided with OM SDK in their ad creatives.

3. Integration partner schedules ad creatives to be served in their app.

4. Integration partner provides the test app to IAB Tech Lab compliance team and walks through the navigation and placement of ads.

5. The test app must allow the user to scroll the ad fully in and out of the viewport of the device to test different levels of viewability i.e. from 0% in view to 100% in view

6. Tech Lab Compliance team executes the validation test cases and compiles the results.

7. Tech Lab Compliance team will report any issues to the integration partner and rerun the tests once issues are resolved.

8. Once all required tests are executed successfully, Tech Lab will compile the results and review to ensure all expected results are as expected.

9. After review, the Integration Partner is issued compliance certificate of OM IVC outlining the following information:

- Partner name
- Partner App/ SDK version
- OM SDK version
- Ad format type and ad session type tested
- Operating System

Web Video Certification

The scope of web video validation testing covers the following (see https://omsdk-files.s3-us-west-2.amazonaws.com/docs/TestCases.pdf for detailed test cases):

1. **Basic setup:** The OM SDK is providing the basic website and partner name (i.e. the namespace) data, OS platform and versions information on device, app/ SDK correctly via the API

2. **Initialization:** All OMID initialization parameters and events are captured

3. **Ad Format Types:** Comprehensive test cases are applied for each ad format type to test for viewability data and required OMID outputs. Only web video is covered.

4. **Ad Session Type:** In addition to ad format types, the testing also verifies the ad session type as one of the following, based on how the creative is rendered :
HTML
Javascript (Release 1.3 and up)

5. **Validate Impressions:** (Release 1.3 and up)
- Loaded event for all creatives
- Impression Events - validate the type of impression
  - beginToRender
  - onePixel
  - viewable
  - other
  - unspecified

7. **Friendly Obstruction:** (Release 1.3 and up) nform of friendly obstructions and how they impact viewability
- declaredFriendlyObstruction - Number of obstructions

Website: iabtechlab.com/omsdk
Support: omsdksupport@iabtechlab.com
Page 8 of 16

- friendlyObstructions - metadata about the obstruction
  - Geometry
  - Obstruction purpose
  - Detailed reason

Certification testing involves the following process:

1. Integration partner implements the OM SDK for Web Video in on their website or a video player that they distribute to other publishers for implementation in the publisher's website or devices where the content is delivered in HTML.

2. Integration partner includes the Verification JS tag provided with OM SDK in their ad creatives.

3. Integration partner schedules ad creatives to be served on their website.

4. Integration partner provides the test url to IAB Tech Lab compliance team and walks through the navigation and placement of ads.

5. The test URL must allow the user to scroll the ad fully in and out of the viewport of the device to test different levels of viewability i.e. from 0% in view to 100% in view

6. Tech Lab Compliance team executes the validation test cases and compiles the results.

7. Tech Lab Compliance team will report any issues to the integration partner and rerun the tests once issues are resolved.

8. Once all required tests are executed successfully, Tech Lab will compile the results and review to ensure all expected results are as expected.

9. After review, the Integration Partner is issued compliance certificate of OM IVC outlining the following information:

   - Partner name
   - Partner App/ SDK version
   - OM SDK version
   - Ad format type and ad session type tested
   - Platform of Web Video/Desktop and Web Video/Mobile or Web Video/ OTT device

Testing custom native rendering

Publishers making use of ad serving products may sometimes decide to create their own custom ad templates for their inventory. These templates define a look-and-feel for a kind of ad that is specific to an individual publisher, such as Google Custom Native Ad Templates. In these cases, the ad server a publisher uses is not directly involved in defining the user experience for these ads. The ad is rendered in a publisher specific environment and the ad server or Ad SDK is not in control of ensuring the required measurement.

For apps that perform custom rendering of the ad creatives but use an Ads SDK for ad request and/or delivery of creative assets should adhere to the following process:

1. The app performing the rendering must obtain a partner name (namespace) by signing up at the IAB Tech Lab portal with their company domain name.

2. The partner name obtained in #1 must be used in the OMID API.

3. The app must ensure that the partner name is properly communicated, either through the Ads SDK or their own implementation of OM SDK.

    a. If they use Ads SDK for executing native OM SDK capabilities (OM SDK iOS or Android libraries) then the Ads SDK must be certified.

    b. For custom rendering with multiple Ads SDKs, the publisher must implement their own OM SDK to work with multiple Ads SDKs.

    c. If they do not use Ads SDK for native OM SDK capabilities then they must implement their own OM SDK and initiate the session using their implementation.

4. The app is responsible for ensuring that their handshake with the Ads SDK works properly and the correct partner name is passed to the OMID API.

5. The partner is responsible for ensuring that compliance is maintained across their versions and releases. Compliance status is always tracked at partner name level.

6. In case there is breaking change resulting in defective OMID event data or signals introduced in any version released by the partner, it is entirely the partner's responsibility to correct the fault and coordinate with their Ads SDK partners.

Use of overlapping transparent layers over ad creative

In many ad executions the publisher or the Ad SDK may overlay the creative with transparent layers to include interactive elements. This results in 0% percentage in view values. OM SDK Release 1.3 addresses this by introducing declaration of "Friendly Obstructions". We highly recommend upgrading to release 1.3 to properly account for such obstructions.

Publication of Certification Status

Upon successful completion of the certification testing process and approval of OM IVC certification, the Integration Partner is issued the OM IVC certificate and IAB Tech Lab compliance seal. They can use the seal to publicly communicate their OM IVC certification. In addition IAB Tech Lab will also list the Integration partners who have

been issued IVC certification on our website here: https://iabtechlab.com/compliance-programs/compliant-companies/

IAB Tech Lab will also publish a machine readable list of all certification data for use by measurement providers and buyers on programmatic buying systems to validate the partner certifications in real time based on bid request information.

MRC guidance

The following guidance pertains to Media Rating Council (MRC) accreditation of data sourced from OM SDK implementations that are certified by IAB Tech Lab for Integration Validation Compliance:

- MRC fully supports OM SDK and suggested an industry initiative in mobile viewability guidelines as outlined in the following communication issued June 2016.
  http://mediaratingcouncil.org/062816%20Mobile%20Viewable%20Guidelines%20Final.pdf)

- Mobile Viewability guidelines stipulate required Quality Control (QC) and testing for APIs and SDKs. IAB Tech Lab IVC is sufficient acceptance of required QC and testing.

- Currently unaccredited vendors should undergo a successful accreditation audit of use of OM SDK.

- Currently accredited vendors must disclaim use as unaccredited until successfully audited by MRC at least once (as part of the next recurring audit or an accelerated one-off) for use of OM SDK. Subsequent changes of versions of either OM SDK or interrogations should not require such disclosure.

- Since use cases vary, MRC may need to discuss specific use cases with vendors to determine the level of testing.

- IVC certification will also apply to third party publishers and developers. For example, an Ads SDK provider obtains IVC certification and this SDK is used by third party publishers and developers. In this case, the third party publishers will not require additional certification except as outlined in the guidance under the section for Testing custom native rendering in this document.

- MRC processes will need to ensure data collection, processing, editing (IVT), and reporting consistently used audited systems.

- MRC will need to determine appropriate measured rate/coverage.

Continued Certification

Integration Partners who have achieved the OM IVC certification must maintain the certification continuously. This does not require that recertification is required every time

they change the OM SDK version or their software version. To properly maintain compliance of integration partners, IAB Tech Lab will maintain the results each time certification is performed by: Partner Name, Mobile Operating System/ Web/ OTT Device, Partner SDK/ App/ publisher domain/ Video Player, and OM SDK version for each integration partner under one of the following statuses:

- **Active:** Upon successful certification.
- **Expired:** If 12 months have passed since the last certification and the partner has not been recertified.
- **Suspended:** If a partner version does not successfully pass the certification test and the integration partner has not been able to correct the issues. Please read 'Maintaining Compliance" section for more details.

Recertification

To maintain continuous OM IVC certification, the Integration partner must submit their latest version of OM SDK implementation for recertification when:

1. A change of ad placements for existing ad types is made or a new ad placement has been added. Example: changing a banner placement from a top of the page position to an inline position between page content, or introducing an in-article video ad placement.
2. New ad format types have been added. Example: video has been added or a native display ad type has been added.
3. A significant change has been made to the way they serve or render ads. Example: a major change in the SDK or underlying technology for serving or rendering ads.
4. One or more significant new capabilities of OM SDK as identified and recommended by IAB Tech Lab has been adopted. Example: upgrade to a new version of OM SDK containing new capabilities.
   a. *Upgrade to OM SDK Release 1.3 requires recertification*
5. Twelve (12) months have passed since the last certification test, even if the integration partner has not made any changes to the integration. IAB Tech Lab will make all efforts to notify the integration partner in advance of the 12 month deadline to submit their App/SDK for recertification.
   b. If the integration partner cannot be certified within 12 months, then the status will be changed to 'expired' for all certification data with the given partner name. Example: Partner name A certified on 1/1/2017 with version 1.1, then again on 6/1/2017 with version 1.2. On 6/2/2018 both the certifications will be changed to 'expired' status for Partner name A.
   c. Once the recertification is completed, the status will be changed to 'active' for all certification data with the given partner name.
   d. During the expired status, measurement providers may define their own policy on whether to treat the data received from the expired partner

name as certified or not and for how long, up to a period of 90 days from the expiration date. In example (a) above, for a campaign running from 5/25/2018 to 6/25/2018, the measurement provider can decide whether the data from the campaign is valid.

Adding new ad types

An integration partner may introduce a new ad type after they have been certified. To continue certification after adding the new ad type, they need to submit the new version of their app or SDK for certification testing.

Adding new ad types involves the following process:

1. All ad types including new ad types will be subjected to certification testing.
2. Upon successful completion of compliance testing, the new version of the SDK or app will be certified for compliance.
3. The new version of the app or SDK will be listed as certified. The old version will continue to be listed as certified for old ad types.
4. Future certification tests will be performed on versions that have all the ad types.

For example, an SDK v1.0 is certified for Display HTML ad type on June 1, 2017. The SDK later added video ads on October 1, 2017 to their SDK v2.0. They must submit SDK v 2.0 for certification and all ad types. Display HTML and video ad types will be tested for certification in October. Once certified, SDK v2.0 will be listed as certified for display HTML and video ad types. Both SDK v1.0 and v2.0 are then listed as certified with respective ad types. The next certification is required in 12 months or when another change occurs as listed above under the Recertification heading in this document.

Maintaining Compliance

The integration partner is responsible for maintaining the accuracy and validity of OM SDK integration along with the data signals from new versions between certification cycles. This responsibility ensures reliable data and trust with advertisers and measurement providers.

Remedying a breaking change

If an integration partner's OM SDK implementation is updated in a manner that does not warrant recertification review, but a breaking change is identified that affects OMID signals sent by the implementation, the integration partner must provide a resolution for the breakage. In this context, a "breaking change" should be considered any scenario in which the accuracy or validity of one or more signals sent to the OMID API are demonstrably and materially incorrect in one or more version(s) of the app or SDK.

Continued certification compliance when a breaking change is identified requires adherence to the following process:

1. Breaking changes are observed and reported to IAB Tech Lab with the integration partner SDK or app version(s).
2. IAB Tech Lab will contact the integration partner to obtain the required app, website, SDK or video player builds to test and reproduce the issue.
3. The integration partner must provide the app, website, SDK or video player builds within 5 business days for certification testing.
4. Upon confirmation of the issue, the integration partner will be notified of the issue(s) observed.
5. The integration partner may resolve the issue(s) in a manner that does not involve reissuance of the integration partner's SDK. Examples may include:
    a. a patch issued using non-SDK code changes that corrects the affected OMID signals.
    b. a version-based SDK killswitch that disables implementation of and measurement of data sent from the affected version(s) of the OM SDK. Kill switch guidance is included in the developer integration guides for iOS and Android.
6. If the integration partner is not able to provide a resolution within 20 business days of the notification of breakage, IAB Tech Lab will list the Partner Name, OS, App/SDK, OM SDK partner version, and all subsequent released partner versions as 'suspended'.
7. The integration partner must provide all version numbers released subsequent to defective version.
8. Measurement providers must disclose using or reporting the data from the suspended partner.
9. The integration partner in suspended state must develop a new version of their app or SDK after fixing the integration defects and submit for certification testing.
10. Upon successful testing and certification of the new version that corrects the defects:
    a. If the integration partner implementation is an SDK, it must fix the issue and release an upgrade for all its developers using the defective version along with a notice informing them of the consequences for using the defective version.
    b. If the integration partner implementation is an app, they must release an upgrade to all their users that contains the fix
11. IAB Tech Lab will continue listing the suspended versions as well as active versions with the certified date. This will allow companies using that data to make a determination on how to interpret and use the certification status of integration partners.

Appendix A: Application Information

Please click OMSDK Intake Form to fill out the live form for the questionnaire below.

General	Please answer all questions. If not applicable, type (N/A).
What platform(s) are you planning to certify? iOS, android and/or web video?	
What is your expected date for integrating OMSDK?	
Please describe your development timeline deadlines that impact release(s)?	
When will you be ready to begin the certification process?	
Do you deploy frameworks that support multiple apps or websites? Or Do you plan to implement OMSDK in a framework that supports multiple apps or websites?	
Display	Please answer all questions. If not applicable, type (N/A).
Are you creating and managing your own custom ad containers or are you using an ad serving framework or SSP?	
If you are creating and managing custom ad containers, are display	

ads served natively or via a WebView?	
If you are using an ad serving framework, what ad types are you using from that ad serving framework?	
Video	Please answer all questions. If not applicable, type (N/A).
What ad serving or player framework are you using for video ads?	
Are your video ads being served natively or via a WebView container, if WebView, please confirm the video player?	
Are you utilizing a third party for ad stitching?	
Native	Please answer all questions. If not applicable, type (N/A).
Are you creating and managing your own custom ad containers or are you using an ad serving framework or SSP?	
If you are using an ad serving framework, what ad types are you using from that ad serving framework?	
Are you using native video ads?	