SAS® 360 Match

Platform Integration Guide

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Contents

Platform Integration

SAS® 360 Match partners with supply-side platforms (SSPs) and data management platforms (DMPs) to integrate bidding, ad serving, and audience data in a seamless, efficient process. The integration allows the SSP to bid on ad requests that can be accepted or declined based on floor prices.

Integrations with DMPs automate loading of the platform's audience data into SAS® 360 Match, which can then be used in targeting.

SSP Integration

Using an SSP integration offers several advantages: page load speeds are improved, count discrepancies are reduced, and passbacks are not required. All communication, whether it is the initial bid request or the ad payload, is handled directly between SAS® 360 Match and the SSP.

Each SSP integration requires four areas of configuration: partners, placements, biddable tiers, and back-end configuration. Configure the size and site mappings for the SSP using the **Partners** tab in SAS® 360 Match. This section lists the specific information about mappings for each SSP that SAS® 360 Match supports.

Placements offer extended control for SSP integration. Multiple placement entities can be created, allowing many different targeting combinations to be used. In addition, a placement can be configured to use multiple SSPs. Different floor prices can be set for each SSP by each biddable tier.

Each tier can be independently configured to solicit bids from SSPs. When the **Biddable** option on a tier is enabled, SSPs are solicited for bids when an ad request is received. An additional tier option, **Private Marketplace**, is detailed in the Magnite section below.

In addition, you can present an optional secondary ID in the ad calls for bidding, with separate controls for each SSP.

Each SSP also requires settings to be configured by SAS Technical Support. Before proceeding with partner and placement configuration in SAS® 360 Match, contact SAS Technical Support at support@sas.com to complete the necessary prerequisites.

Bidding

Once a partner and placement are configured, SAS® 360 Match begins soliciting bids when an ad request is received. An SSP is contacted only after a matching, traditional (non-placement) flight has been selected to serve on a tier with the **Biddable** option enabled. This ensures that if the request to the SSP times out, or if the bid does not meet the requirements, an ad response can still be sent to the visitor. If no matching placement is found, the SSP is not contacted, even on a biddable tier.

Once those criteria have been met, the floor price configured for the tier is sent as part of the bid request. However, if the tier is based on CPM or eCPM rates, the rate for the selected flight

is sent to the SSP as the floor price if the rate is greater than the placement floor price. This means that the SSP's bid needs to exceed both the placement floor and CPM or eCPM rate of the selected flight. If the bid meets or exceeds the floor price, then the SSP's ad response is served to the visitor. Otherwise, the engine serves the already selected flight from that tier or moves on to the next tier if there was no qualified flight to serve.

Any placement matching the request and meeting the floor price of the tier is served over any other flights that would have been served.

Currency Conversion

Regardless of the base currency, placement floor prices and flight CPM or eCPM rates are converted to U.S. dollars when bids are solicited from SSPs. The SSP's bid response is converted from U.S. dollars to the base currency for comparison to the floor price or CPM or eCPM and for logging purposes.

Specify the currency conversion rates in the **Currency** panel on the **Admin** tab.

Serial Bidding

A duration server, or DSERVER, request can engage in bidding when it is properly configured. A DSERVER bid is solicited for a placement only when its device type is set to video.

The bid request contains the maximum duration of the length of time in seconds that is left to fill for the request, subject to the restrictions placed on the duration by the bidder tokens `OPENRTB.IMP.VIDEO.MINDURATION` and `OPENRTB.IMP.VIDEO.MAXDURATION`.

For example, if 90 seconds remain to be filled and the `OPENRTB.IMP.VIDEO.MAXDURATION` is 120, then a max of 90 is requested from the bidder. However, if the `OPENRTB.IMP.VIDEO.MAXDURATION` is 30, then a max of 30 seconds is requested.

If bidding is done from a tier that prioritizes cost per second (CPS), the bids compete on a CPS basis rather than on absolute price. For example, assume that a 30-second ad paying $6.00 is the nominally selected ad. A bid providing a 60-second ad for $9.00 would not win, because it pays 15 cents per second but the nominal ad pays 20 cents per second.

If bidding is done from a non-CPS-prioritized tier, then the bid would win in the example above because its $9.00 price beats the $6.00 of the nominal ad.

An affirmative bid response must be VAST-compliant and include the XML `<Duration>` tag that provides the length of the ad in the VAST-specified format (HH:MM:SS).

If a bid is successful, its duration is subtracted from the total time that is left to fill. If more time is left to fill, another impression is selected, just as with any other nonbidding impression selected in this type of call.

The bidding behavior is similar in a non-DSERVER request that includes a `DURATION` tag that targets video ads. In this case, the bid request can provide a minimum and maximum duration to match the requested duration, as long as it is within the `OPENRTB.IMP.VIDEO.MINDURATION` and `OPENRTB.IMP.VIDEO.MAXDURATION` settings.

As with the DSERVER example above, the bid competes on a CPS or absolute basis, depending on the tier prioritization.

In cases where the requested duration is greater than `IMP.VIDEO.MAXDURATION` or is less than `IMP.VIDEO.MINDURATION`, the bid is not solicited and is recorded with a duration_out_of_range status.

SSP Cookies

For some SSPs, a visitor ID stored in a cookie is required for the SSP to respond with a bid. When an ad request is received, SAS® 360 Match determines whether the SAS® 360 Match cookie contains the relevant SSP's visitor ID. If it does, a bid can occur. If it does not, SAS® 360 Match appends a beacon to the ad response to solicit an ID from the SSP. On the next ad request, if the ID is present, a bid then can be requested from the SSP.

Most SSPs allow anonymous bidding if no visitor cookie is present.

Logging and Reporting

If a bid response from an SSP meets the criteria required to be served, the ad payload from the SSP is sent to the visitor in response to their ad request. An impression is counted as soon as the response is sent to the visitor. Clicks are not logged for SSPs.

Impressions are logged for each SSP under a single advertiser, campaign, flight, and creative unique to that partner. Each of these entities is hidden in the UI, but each entity is selectable and searchable in report interfaces.

In any reporting interface, SSP data can be specified by using the following naming convention:

- Advertiser – aiMatch_<SSP>_Integration_Advertiser
- Campaign – aiMatch_<SSP>_Integration_Campaign
- Flight – aiMatch_<SSP>_Integration_Flight
- Creative – aiMatch_<SSP>_Integration_<size>

A creative exists for each SSP and size combination. Note that because a single flight exists for each SSP, all impressions appear to have served from the default tier rather than the tier that served the placement.

The **BI Reports** tool in SAS® 360 Match includes the Bidsum data cube that can be accessed by opening the Bidsum_Empty analyzer view in BI. This data source includes bid information for each SSP. A bid is logged every time a bid request is made regardless of the response from the SSP. If a bid did not win, the reason why is logged as well. BI data is updated nightly up to include the previous day's data.

Supported SSPs

SAS® 360 Match supports several SSPs. Each SSP has specific configuration requirements. See the section on Extended Functionality to identify additional configuration options for each SSP that SAS Technical Support can help you set up.

Adela

Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable Adela integration:

- Host name that Adela bid requests are sent to

- Adela publisher ID

- Adela query string

These items are mapped as follows for partner configuration:

- Partner Site Mappings: Adela site mappings

- Partner Size Mappings: Supported ad sizes

Xandr

Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable Xandr (formerly AppNexus) integration:

- Xandr member ID

These items are mapped as follows for partner and placement configuration:

- Placement Key: Xandr placement code

- Partner Site Mappings: Xandr placement code

- Partner Size Mappings: Xandr dimensions

Magnite

Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable Magnite (formerly Rubicon) integration:

- Magnite account ID

These items are mapped as follows for partner and placement configuration:

- Placement Key: Magnite zone ID

- Partner Site Mappings: Magnite site ID(s)

- Partner Size Mappings: Magnite size ID(s)

Prebid

Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable Prebid integration:

- Prebid host ID

- Prebid publisher ID

PubMatic

Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable PubMatic integration:

- PubMatic publisher ID

- PubMatic site ID

These items are mapped as follows for partner and placement configuration:

- Placement Key: PubMatic ad tag ID

- Multiple SAS® 360 Match sizes can be mapped to a single PubMatic ad tag ID

- Multiple SAS® 360 Match sites can be mapped to a single PubMatic site ID

Index

Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable Index integration:

- Index publisher ID

TripleLift

Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable TripleLift integration:

- TripleLift publisher ID

These items are mapped as follows for partner and placement configuration:

- Placement Key: TripleLift tag ID

- Partner Site Mappings: TripleLift site ID(s)

- Partner Size Mappings: TripleLift size ID(s)

AdForm

Provide the following items to SAS Technical Support to enable AdForm SSP integration:

- AdForm publisher ID

You must configure the following information:

- AdForm site ID in the partner site mappings

- Placement key

SpotX

Use SpotX for single video ads of specified duration or of any duration and multiple video ads sequenced together (an ad pod) of a specified duration. Before proceeding with partner and placement configuration, provide the following items to SAS Technical Support to enable SpotX SSP integration:

- SpotX channel ID

These items are mapped as follows for partner and placement configuration:

- Placement Key: SpotX tag ID

- Partner Site Mappings: SpotX site ID(s)

- Partner Size Mappings: SpotX size ID(s)

Partner Configuration

Site and size mappings for SSPs are configured under the **Partners** tab in SAS® 360 Match. These values are used in bid requests to the SSPs. When SAS® 360 Match receives an ad request and selects a placement, the site and size from the SAS® 360 Match ad request is translated using the values specified in the partner configuration, and then used in the bid request.

Once the SSP is configured and enabled by SAS Technical Support, navigate to the specific SSP subtab under the **Partners** tab in SAS® 360 Match. Under the **Size Mappings** section for the SSP, identify which sizes defined in SAS® 360 Match to use with the SSP integration. Retrieve the corresponding value from the SSP and enter it in the matching size field.

The same needs to be completed for site values. Navigate to the **Site Mappings** section for the SSP and enter the corresponding value from the SSP for each SAS® 360 Match site value that will be used with the integration.

Finally, a target can be specified in the **Target** section for the SSP. This is useful if there is universal targeting that should be applied to all placements using the SSP. Be mindful of

targeting conflicts. If a placement is targeted to `site=abc` and the partner target contains `Site equals 123`, content is unable to serve.

Once this initial configuration has been completed, create placements to enable the integration.

Placements

Placements provide the configuration of targeting, SSP participation, and floor prices needed for integration. Placements allow multiple placement entities to be created, which allows for many different targeting combinations to be used. In addition, placements can be configured to use multiple SSPs. Different floor prices can be set for each SSP by each biddable tier. Configure placements in the **Targeting** tab in SAS® 360 Match.

Placement Properties and Targeting

Specify a target, sites, and a size in the **Properties** section under the **Placements** subtab. Targeting operates in much the same way as it does with flights. Any site values specified here are applied as targeting to the placement and are concatenated with any targets specified as well.

Ensure there are no conflicting statements. For example, if a target that is included has a rule `Site Equals A` and site B is specified in the **Sites** field, the placement would not be able to serve. It is a best practice to exclude any site targeting in targets used for placements.

For each unique combination of targeting, a separate placement is needed. For example, if different floor prices are needed for `Site Equals A` and `Site Equals B`, then two placements would be needed.

Any sites or sizes specified should be mapped to a corresponding value for the SSP in the **Partners** tab in SAS® 360 Match.

The **Device** type should be selected when configuring the placement. This setting controls which fields are sent in bid requests for some SSPs.

The **Default floor price** is used initially to populate the floor prices for each SSP and biddable tier in the **Floor Prices** section. If the default is later changed, it will not affect the floor prices specified in the **Floor Prices** section even if they have not been changed from the default value.

Parent Placements

A placement can specify a parent placement in the **Properties** section. If a parent placement is specified for a placement, the parent is requested in parallel with the child placement. A parent placement can also specify its own parent, which also is requested in parallel. All placements in this chain are requested in parallel until either a parent placement with no other parent is encountered, or a placement already requested is encountered.

Parent placements are requested regardless of whether the targeting matches the ad request. The original placement is still required to match the ad request targeting, but subsequent parents are not. This allows for masked bid requests to be made. A placement with a high floor

price could have a parent placement that has a lower floor price and different targeting. The SSP might decline to fulfill the higher floor price but might fulfill the parent's lower floor price.

Network Participation

For an SSP to be used with a placement, a placement key must be configured in the **Network Participation** section. A key can be specified for each site added to the placement, which are defined in the **Properties** section. The placement key values are sourced from the SSP, as described in the Supported SSPs section in this document.

The **Site override** fields in the **Network Participation** section allow a custom value to be used for the `site` parameter in bid requests to SSPs. Without a site override value specified, the mapping defined in the **Partners** tab is used in the bid request.

Configuring Floor Prices and Tiers

Before floor prices can be configured, a tier needs to be set as Biddable to be eligible to serve a placement. Create or edit a tier in the **Tiers** subtab under the **Traffic** tab in SAS® 360 Match and check the **Biddable** option.

The behavior of floor prices sent to SSPs can be controlled using the **Bid floor** options. The default behaviors for floor prices that are detailed in the Bidding section of this document can be overridden using the following options:

- **Flight eCPM** – The eCPM of the flight selected to compete against the placement is sent as the floor price to the SSPs.

- **Placement default** – The floor price specified for the placement is sent.

- **Higher of** – The higher value of either the flight eCPM or the placement is sent.

- **Lower of** – The lower value of either the flight eCPM or the placement is sent.

If any of the options involving eCPM are selected, and if a CPM rate has not been specified for the flight that is selected to serve, the floor rate sent to the SSPs is 0.

An additional option, **Private Marketplace (PMP),** is used for Magnite integrations. **Private Marketplace** can be used with **Biddable** on the tier is turned on.

Use the **Magnite Deal Prioritization** options to fine-tune how each type of private marketplace deal competes. Private marketplace deals from Magnite offer the following controls: **Private Auction Deals**, **Preferred Deals**, **Private Deals**, or **Guaranteed Deals**. The functionality of **Guaranteed Deals** is not yet available.

Enable **Private Marketplace** on the tier to assign one of the following behaviors to each deal type:

- **Compete w/all demand** – The deal is not considered any differently and competes normally with real-time bids (RTBs).

- **Trump RTB demand** – The deal supersedes non-PMP (RTB) bids.

- **Trump all demand** – The deal supersedes all other bid types and flight eCPMs.

Once a tier is biddable, floor prices can be configured for each biddable tier by SSP on the **Floor Prices** section in the **Placements** subtab.

The floor price specifies the lowest acceptable bid price from the configured SSPs. If a bid is lower than what is specified, the bid is rejected.

Extended Functionality

There are many configuration options available for each SSP that can be set up only by SAS Technical Support.

Settings

First-party data refers to any information that can be passed as a token. You can add first-party data to your programmatic bids for some of the partners that SAS 360 Match supports. Contact SAS Technical Support to configure the settings.

The list includes examples of first-party data:

- Data that can be looked up such as geolocation and device details

- A value in the ad request that is passed as a custom tag

- Data that is uploaded

- Data that is configured through SETSV

- External IDs

In addition, you can contact SAS Technical Support to enable or alter any of the following options.

Adela

- Allow anonymous visitors – This option controls whether anonymous visitors (visitors with no Adela ID) can make bid requests. The option is enabled by default.

- Support multiple sizes – This option controls whether SAS® 360 Match ad requests containing multiple sizes should serve Adela placements. This option is enabled by default.

- Include time-out value – This option controls whether the bid request passes information about how quickly an SSP must respond to avoid a time-out. The option is disabled by default.

Xandr

- Allow anonymous visitors – This option controls whether anonymous visitors (visitors with no Xandr ID) can make bid requests.

- Support alternate sizes – When enabled, this option populates the format field in the bid request with any additional sizes specified in the SAS® 360 Match ad request.

- Support multiple sizes – This option controls whether SAS® 360 Match ad requests containing multiple sizes should serve Xandr placements.

- Identify tier – The name of the tier selected to serve can be provided to Xandr in the bid request.

- Include the `tmax` parameter – This option controls whether the bid request passes information about how quickly an SSP must respond to avoid a time-out. The option is disabled by default.

Index

- Use placement size – Use the size assigned to a placement as the primary size in a bid request.

- Include time-out value – This option controls whether the bid request passes information about how quickly an SSP must respond to avoid a time-out. The option is disabled by default.

Prebid

- Support alternate sizes – This option controls whether SAS® 360 Match ad requests containing multiple sizes should serve Prebid placements.

- Include time-out value – This option controls whether the bid request passes information about how quickly an SSP must respond to avoid a time-out. The option is enabled by default.

PubMatic

- Extra targeting information – Additional targeting information can be passed to PubMatic in bid requests. This is placed in the `dctr` field of the bid request. Values in the SAS® 360 Match ad request can be passed in the bid request to PubMatic using this feature.

- Support alternate sizes – When enabled, this option populates the multisize parameter in the bid request with any additional sizes specified in the SAS® 360 Match ad request.

- Support multiple sizes – This option controls whether SAS® 360 Match ad requests that contain multiple sizes should serve PubMatic placements.

- Suppress frame parameters – This option controls whether the inIframe and frameName parameters are included in bid requests to PubMatic.

- Identify tier – The name of the tier selected to serve can be provided to PubMatic in the bid request.

- Use placement size – Use the size assigned to a placement as the primary size in a bid request.

- Pass device ID – Send unique device IDs for mobile devices to PubMatic. To do this, provide the unique device ID in the targeting path information of the ad request. For more information, see **PubMatic Device Parameters** in **Additional Parameters**.

- Pass platform information – Identify ad requests that are formatted for mobile applications. SAS® 360 Match can configure an ad request to notify PubMatic that the content is intended for mobile platforms.

- Include time-out value – This option controls whether the bid request passes information about how quickly an SSP must respond to avoid a time-out. The option is disabled by default.

Magnite

- Bid parallel sizes – If an ad request to SAS® 360 Match contains multiple sizes, this option makes multiple bid requests in parallel for each size.

- Extra targeting information – Additional targeting information can be passed to Magnite in bid requests. This is placed in the target object of the bid request, sometimes referred to as Rp_Inventory. Values in the SAS® 360 Match ad request can be passed in the bid request to Magnite using this feature.

- Support alternate sizes – When enabled, this option populates the alt_size_id field in the bid request with any additional sizes specified in the SAS® 360 Match ad request.

- Support multiple sizes – This option controls whether SAS® 360 Match ad requests containing multiple sizes should serve Magnite placements.

- Support parent placements – This option controls parent placement functionality for Magnite.

- Identify tier – The name of the tier selected to serve can be provided to Magnite in the bid request.

- Do not send floor prices – You can choose not to send a floor price so that Magnite sends its best bid on every request.

- Count viewed impressions – You can embed a pixel in your bid response that will enable you to count the number of times the response is rendered.

- Use placement size – Use the size assigned to a placement as the primary size in a bid request.

- Include time-out value – This option controls whether the bid request passes information about how quickly an SSP must respond to avoid a time-out. The option is disabled by default.

TripleLift

- Allow anonymous visitors – This option controls whether anonymous visitors (visitors with no TripleLift ID) can make bid requests.

- Support multiple sizes – This option controls whether SAS® 360 Match ad requests containing multiple sizes should serve TripleLift placements.

- Replace auction price macro

- Include time-out value – This option controls whether the bid request passes information about how quickly an SSP must respond to avoid a time-out. The option is disabled by default.

- (Optional) Use the `ext.fpd.user.data.segment` token to pass Krux segments in the bid request. Contact SAS Technical Support to configure this setting.

OpenRTB Parameters

The SSPs that are integrated with SAS® 360 Match use OpenRTB, a protocol that enables users to provide additional details to SSPs in bid requests. SAS® 360 Match supports a subset of these parameters.

Specify the value for a parameter in the targeting path information using the key=value format. Contact SAS Technical Support to configure the mapping between the keys that you provide and the corresponding parameters for the SSPs.

For example, once SAS Technical Support has configured `videopos` to map to `IMP.VIDEO.POS`, path information that contains `/videopos=top` results in the `IMP.VIDEO.POS` parameter being assigned the value of `top`.

When available, SAS® 360 Match passes IPv6 addresses to enhance monetization opportunities.

You can pass the following user privacy attributes to the SSPs in the bid request:

- `device.dnt`: Signals if the Do Not Track flag is set. A passed value of 0 indicates that tracking is allowed. A value of 1 indicates tracking is not allowed.

- `device.lmt`: Signals if the limit ad tracking flag is set. A passed value of 0 indicates that tracking is unrestricted. A value of 1 indicates tracking is limited.

- `imp.ext`: A placeholder for extensions to OpenRTB.

  - `imp.ext.gpid`: A globally unique identifier that represents an ad or a placement on a publisher's site. The expected value is similar to an ad call with variable tags between pairs of parentheses without any user-specific information, such as `/site=%%SITE%%/area=%%AREA%%/size=%%SIZE%%`. Contact SAS Technical Support to configure the values that are specific to each SSP.

  - For Prebid integrations, the `imp.ext` token is set to the value of the placement key. Therefore, you must update the placement key for your Prebid integration to include the `imp.ext.gpid` token.

  - The `imp.ext.rp` token is for Magnite implementations only.

- `regs.ext.coppa`: Signals if the request is subject to the Children's Online Privacy Protection Act (COPPA). A passed value of 0 indicates that the request is exempt from COPPA regulations. A value of 1 indicates that the request is subject to COPPA regulations.

- `regs.ext.gdpr`: Signals if the request is subject to GDPR. A passed value of 0 indicates that the request is exempt from GDPR regulations. A value of 1 indicates that the request is subject to GDPR regulations.

- `regs.ext.us_privacy`: Signals if the request is subject to the California Consumer Privacy Act (CCPA). A passed value of 0 indicates that the request is exempt from CCPA regulations. A value of 1 indicates that the request is subject to CCPA regulations.

- `site.mobile`: Signals if the site is optimized for mobile devices. A value of 0 indicates that the site is not optimized for mobile devices. A value of 1 indicates that the site is optimized. **Note:** This attribute is available for Index only.

- `test`: Signals if this is a test bid request, where the return bid response is not counted as an actual bid. A passed value of 1 indicates that the bid request is a test bid.

- `user.ext.consent`: The GDPR consent string that contains the data structure developed by the GDPR Consent Working Group under IAB Europe.

- `user.ext.rp.target`: Used to pass information from DMPs to Magnite. This token is specific to Magnite.

- `source.ext.omidpn`: Identifies the Open Measurement SDK integration. This is the same as the `name` parameter for the Open Measurement Interface Definition Partner object.

- `source.ext.omidpv`: Identifies the version of the Open Measurement SDK integration. This is the same as the `versionString` parameter for the Open Measurement Interface Definition Partner object.

The table lists the that you can pass to the SSPs in the bid request based on the object that is specified in the placement.

Table 1: Object Attributes in an SSP Bid Request

Object	Parameter (Object.Attribute)

App	`APP.APPSTOREID`
	`APP.BUNDLE`
	`APP.DOMAIN`
	`APP.ID`
	`APP.KEYWORDS`
	`APP.NAME`
	`APP.PRIVACYPOLICY`
	`APP.STORERATING`
	`APP.STOREURL`
	`APP.VER`
	`DEVICE.DNT`
	`DEVICE.IFA`

Video	`IMP.VIDEO.API`
	`IMP.VIDEO.BATTR`
	`IMP.VIDEO.BOXINGALLOWED`
	`IMP.VIDEO.LINEARITY`
	`IMP.VIDEO.MAXDURATION`
	`IMP.VIDEO.MIMES`
	`IMP.VIDEO.MINDURATION`
	`IMP.VIDEO.PLAYBACKMETHOD`
	`IMP.VIDEO.POS`
	`IMP.VIDEO.PROTOCOLS`
	`IMP.VIDEO.STARTDELAY`

Banner	`IMP.BANNER.API`

For a full list of OpenRTB parameters and their definitions, go to https://iabtechlab.com/wp-content/uploads/2016/07/OpenRTB-API-Specification-Version-2-5-FINAL.pdf. For more information about OpenRTB parameters related to GDPR, see https://iabtechlab.com/wp-content/uploads/2018/02/OpenRTB_Advisory_GDPR_2018-02.pdf.

SAS® 360 Match also supports the IAB Supply Chain standard. For more information, see https://github.com/InteractiveAdvertisingBureau/openrtb/blob/master/supplychainobject.md. Contact SAS Technical Support to configure the nodes for your supply chain. The default is 0.

Universal ID

You can use universal IDs in SAS® 360 Match to identify your users without third-party cookies. All the SSPs that partner with SAS® 360 Match except Adela support universal IDs, also known as ID5.

To set up a universal ID, specify at least one source and one ID value for the source. Some values for the bidding tokens are normal token strings with a %%TAG%%. Others are constant strings without tags.

Provide the following information to SAS Technical Support:

- The source of the IDs expressed as a top-level domain. This value is required and is a constant string.

- The array of extended identifiers that enable SSPs to use audience data in real-time bidding, such as objects that identify the platform or cookie. This setting is required and is a token string.

- The agent type expressed as an integer. An agent specifies how the ID was generated, such as from a browser, a particular device, or a specific vendor. This value is optional. For agent types, see https://github.com/InteractiveAdvertisingBureau/AdCOM/blob/master/AdCOM%20v1.0%20FINAL.md#list--agent-types-.

- (Optional) The real-time identifier partner. For a list of RTI providers, see https://kb.indexexchange.com/publishers/identity/send_rti_identifiers.htm. The table below includes examples of RTI providers.

Table 2: RTI Providers

RTI Provider	`source` Field (Required)	`rtipartner` Field (Optional)
Unified ID	adserver.org	TDID
Unified ID 2.0	uidapi.org	UID2

- The source type for the ID data. Supported values are DMP, publisher, or an agent type based on the origin of the ID. For valid agent types, see https://github.com/InteractiveAdvertisingBureau/AdCOM/blob/master/AdCOM%20v1.0%20FINAL.md#list--agent-types-. This is an optional setting for Magnite.

DMP Integration

Integrations with DMPs enable you to automatically convert audience segments into tag values in SAS® 360 Match. In most cases, the segment values for a given visitor are automatically provided to SAS® 360 Match through a cookie synchronization beacon. This enables flights in SAS® 360 Match to be targeted to audience segments and the visitors assigned to those segments.

Audience segments are updated and translated into SAS® 360 Match tag values nightly as part of the overnight processing sequence.

DMP Cookies

For all supported DMPs except for Krux, a cookie synchronization beacon in the form of JavaScript code is appended to each ad response. The synchronization beacon retrieves the audience segments assigned to a visitor from the DMP and provides it to SAS® 360 Match in the form of a cookie. A visitor's ad requests automatically contain their assigned segment values.

The Krux integration differs from the other DMP integrations because here is no cookie synchronization beacon. You can use a SAS® 360 Match snippet to build rules about synchronizing cookies with Krux.

Supported DMPs

SAS® 360 Match supports several DMPs. Each DMP has specific configuration requirements.

AdForm

Provide the following items to SAS Technical Support to enable AdForm integration:

- AdForm publisher ID

- AdForm data provider ID

- AdForm API user name and password

- SAS® 360 Match tag name for audience segment values

Krux

Krux provides a mapping of visitor IDs and audience segments that is downloaded from Krux nightly as part of the overnight processing sequence. The audience segments are then translated into tag values. When a Krux visitor ID is received in a SAS® 360 Match ad request, the visitor ID is obtained from the data downloaded from Krux and the corresponding segment values are automatically included as part of the visitor's ad requests.

Provide the following items to SAS Technical Support to enable Krux integration:

- Krux S3 folder path

- Krux visitor ID ad request parameter

- SAS® 360 Match tag name for audience segment values

Lotame

Provide the following items to SAS Technical Support to enable Lotame integration:

- Lotame publisher ID

- SAS® 360 Match tag name for audience segment values

PMP Integration

A private marketplace (PMP) enables a buyer and a seller to come to a business agreement and leave the technical details about delivery to a selected exchange. By using a pre-agreed deal ID, an exchange returns the correct creative to the seller's ad server. The expectation is

that the details about how to import the deal ID from the buyer to the seller via the exchange is automated. The seller uses the deal ID to request the creative at the appropriate time.

Use PMP deal IDs in a flight to configure PMPs. To do this, choose **PMP** from the **Flight Type** drop-down menu for a flight and specify the vendor (the exchange) and the deal ID. Using a flight that is configured in this way gives you access to the existing scheduling options for SAS® 360 Match, including targets, tiers, schedule priority, frequency caps, and reporting. You are responsible for uploading and modifying the options.

Be aware of these limitations when you configure a PMP deal:

- Open market bidding is allowed against PMP deals in a flight.

- Not all exchanges support PMPs.

- Magnite supports multiple PMP tiers.

- Not all exchanges that offer PMPs populate the deal ID field of the response. Therefore, SAS® 360 Match cannot verify if the response is what was requested. The availability of the deal ID field differs among exchanges. The default values match the exchange's documented behavior.

- SAS® 360 Match is dependent upon the support that the exchanges provide for PMP deals. Determine how the exchange implements PMP deals before configuring SAS® 360 Match.

User-Defined Networks and Headerbidding

In addition to predefined networks, SAS® 360 Match also supports user-defined networks using headerbidding.

User-defined networks integrate with solutions that SAS® 360 Match does not support yet and provide access to advanced features that some SSPs provide only through Prebid JavaScript and other similar services. You can define your own networks to configure vendors that are not provided by SAS® 360 Match. SAS® 360 Match also provides a basic headerbidding network without a named vendor.

The user-defined networks use a process called headerbidding where publishers reach out simultaneously to many bidders from a web page before calling the ad server. The process is triggered by JavaScript code that is embedded on the web page. The bid results in single winning option. The auction is conducted on the client side.

SAS® 360 Match treats the bid like any other bid in the system and passes the exact value for the bid and the SSP for reporting. Currently, the implementation supports customers who already use some form of headerbidding.

All user-defined networks are grouped under a network called `headerbid` in Bidsum reports, along with the rest of the programmatic server-to-server (S2S) partners.

Configuration

To configure user-defined networks, add the new network on the **Partners** tab. Then edit the fields to map the network configuration.

Contact SAS Technical Support at support@sas.com to enable and configure the generic, unnamed headerbidding network.

Include the following specifications in the ad call:

- Include the bid price with `HBID=<value>` in the request.

- Create a template for the bid and a flight for logging purposes and name both `headerbid`. The template is where users can insert code to trigger the serving of the winning creative that the browser has cached for that impression.

- For user-defined networks only, specify the exchange with `HBID_V=<vendor>`. You can use the name of the vendor or the number that represents the vendor. For example, if MyVendor has a vendor ID of 100, the calls `HBID_V=MyVendor` and `HBID_V=100` are logged for the MyVendor network.

  If the value of the `HBID_V` tag is not a valid user-defined network, the call is attributed to the generic headerbidding network if the network is enabled. Otherwise, the headerbidding information in the ad request is ignored and the rest of the ad call is handled normally.

  If the value of the `HBID_V` tag refers to a network that is supported by SAS® 360 Match, the call is attributed to the headerbidding version of the vendor. For example, if the call includes the `HBID_V=Xandr` tag, the call is attributed to the Xandr headerbidding network, not the Xandr S2S vendor.

IAB Transparency and Consent Framework

SAS® 360 Match supports the IAB Transparency and Consent Framework (TCF) 2.0. For more information about IAB TCF, see https://iabeurope.eu/tcf-2-0/.

Configuration

By default, support for IAB TCF is not enabled. Contact SAS Technical Support to enable this feature.

SAS Technical Support can also configure the name of the tag that contains the consent string that SAS® 360 Match reads from the path information. By default, the tag with the consent string is called GDPR_CONSENT.

When IAB TCF is disabled, none of the behaviors described in this section are performed.

Rotating IDs

Use the ROTATINGID token to generate a universally unique ID (UUID) for a user that changes each month. The rotating ID is a stable visitor identifier that can be shared with third parties in a GDPR context. The UUID is forced to change monthly, so that long-term tracking becomes impossible.

The rotating UUID is generated at the start of a visitor session. It is a combination of the user's MID value and the current month. For registered users who are using different devices, the UUID is consistent across devices because the DM value is consistent across the devices.

The same UUID is always produced for the same user when the session begins in the same month. When the current time rolls into a new month, the user gets a new UUID. However, the UUID remains constant for the duration of a session, even if the current time rolls over to the next month. The UUID is logged in sampling files to aid in debugging.

By default, SAS® 360 Match does not produce rotating IDs. Contact SAS Technical Support to enable this feature.

Ad Calls

For SAS® 360 Match to apply the IAB TCF rules, all ad calls must include the GDPR=1 tag and the consent string. The tags cannot be provided at the start of a session, nor can they be set via a SETSV API call.

When the GDPR tag is absent from the ad call, its value defaults to 1. Contact SAS Technical Support if you want to change the default value for a missing GDPR tag to 0.

If no IAB TCF behavior is desired for a visitor, all calls that are made for that visitor should include GDPR=0. When GDPR=0, no IAB TCF behavior is engaged during the call and no user privacy choices are available for targeting, even if a consent string is provided.

When GDPR=1, the IAB TCF consent string (version 2) must be provided. Otherwise, there is no legal basis to use the sections related to Purposes, Special Features, and Vendors in the IAB TCF.

When an ad call does not include an explicit visitor ID in the URL (MID value or other configured ID name), the GDPR tag is set to 1, and either no consent string is provided or the string indicates that there is no consent for IAB TCF Purpose 1, then no cookies are used or written by that request. Instead, the request is processed using a SAS® 360 Match phantom MID, which is produced by a creating a hash code using the visitor's IP address and the user agent sent with the request.

Further, when a phantom MID is used for a request, the GDPR tag is set to 1 and either no consent string is provided or the consent string indicates that there is no legal basis for IAB TCF Purpose 2, then the request is considered anonymous. SAS® 360 Match assumes that the publisher uses Legitimate Interest as the legal basis for Purpose 2 and checks the corresponding portion of the consent string.

For an anonymous request, the visitor cannot be served flights that rely on any ad-serving history or visitor data. This means that flights that are configured with specific requirements such as frequency capping and sequential ads are not served to the visitor in that request. No visitor data is activated during the request. Such requests are not included when counting unique visitors in reports. If the request is a SETSV API call, it is ignored.

When the consent string includes the Publisher segment, SAS® 360 Match searches the segment for signals for Purposes 1 and 2. Otherwise, SAS® 360 Match searches the Core segment for the signals.

Tag Synthesis and Usage

SAS® 360 Match parses portions of the consent string to populate tags that contain a user's privacy choices. The table below summarizes these tags and the portion of the consent string their values are taken from. For more information, see the consent string specifications for IAB TCF at https://github.com/InteractiveAdvertisingBureau/GDPR-Transparency-and-Consent-Framework/blob/master/TCFv2/IAB%20Tech%20Lab%20-%20Consent%20string%20and%20vendor%20list%20formats%20v2.md.

Table 3: SAS® 360 Match Tags and Information Sources

SAS® 360 Match Tag Name	Consent String Source in IAB Specification
TC_SPECIAL_FEATURE_OPTIN	SpecialFeatureOptIns
TC_PURPOSE_CONSENT	PurposesConsent
TC_PURPOSE_LEGINT	PurposesLITransparency
TC_VENDOR_CONSENT	Vendor Consent Section
TC_VENDOR_LEGINT	Vendor Legitimate Interest Section
TC_PUB_PURPOSE_CONSENT	PubPurposesConsent
TC_PUB_PURPOSE_LEGINT	PubPurposesLITransparency
TC_CUSTOM_PURPOSE_CONSENT	CustomPurposesConsent
TC_CUSTOM_PURPOSE_LEGINT	CustomPurposesLITransparency

The tags are populated with one or more integers. Each tag is populated with only the source that is set to "true" or 1. For example, when the Publisher segment of the consent string indicates that only Purposes 1 and 3 have consent, then the tag TC_PUB_PURPOSE_CONSENT is synthesized with two values, 1 and 3.

When a tag's source in the consent string has no true values, the tag is given the value 0. For example, if the PurposesLITransparency section of the consent string has no true values, the TC_PURPOSE_LEGINT tag is given the value 0.

When a consent string does not include tags for a particular segment, those tags have the value -1. For example, when a consent string is present, but it has no Publisher segment, the publisher-related tags that begin with TC_PUB and TC_CUSTOM have the value -1. In addition, when no consent string is present, all tags have the value -1.

These tags act as normal tags in SAS® 360 Match and can be used in other ways, such as for targeting. You can use these tags to target certain ads away from or toward users who have made specific privacy choices. You can apply appropriate additional targeting involving these tags to a flight or creative whose other targeting references user data under GDPR regulation.

For example, to serve a flight only when Purpose 3 has consent in the Publisher segment, the flight's target must include TC_PUB_PURPOSE_CONSENT Equals 3. Such a target would match the example above, where the tag has both values 1 and 3.

To serve a flight only when a user has given consent for Vendor 123, the flight's target must include TC_VENDOR_CONSENT Equals 123. If any of the values of the TC_VENDOR_CONSENT tag is 123, then the target matches.

The GDPR tag also is available for targeting. In cases where a flight should be able to serve either when GDPR is not required or a required purpose has consent, the flight could have the following target:

```
Match Any:
      GDPR Equals 0
      TC_PUB_PURPOSE_CONSENT Equals 3
```

Engaging SSPs

To engage an SSP only when a user has given consent or not objected to the IAB TCF vendor that is associated with the SSP (depending on the legal basis chosen by the publisher), add or modify the target defined for the SSP on the **Partners** tab in the user interface.

For example, if an SSP's vendor ID is 123, you can define a target to match any of these rules.

```
Match Any:
      GDPR Equals 0
      TC_VENDOR_CONSENT Equals 123
```

When that target is applied to an SSP, an ad request engages the SSP if either GDPR does not apply or the vendor consent string includes a positive signal for Vendor 123.

Per IAB's policy, there is no need for a publisher to restrict the user data that is sent to a vendor (in this case, an SSP). A vendor is expected to ignore any protected data that the consent string indicates it has no legal basis to use. SAS® 360 Match already includes the GDPR value and consent string in OpenRTB requests to SSPs, so there is no need to control the content of the requests going to SSPs.

Best Practices

Create pre-defined targets with descriptive names that capture the different targeting cases that are needed to comply with IAB TCF guidelines, according to the publisher's needs. Predefined targets make it easier to apply appropriate targeting to flights and SSPs and they centralize the rules that define each targeting case. As needs change, the central target definitions can be changed and all flights using the targets automatically pick up those changes.

Here are some examples of possible predefined targets.

Use this rule to create a target that matches when the GDPR tag indicates that the visitor's data usage is subject to GDPR restrictions.

Target name: gdpr_applies

```
Match Any
        GDPR Equals 1
```

Use this rule to create a target that matches when the GDPR tag indicates that the visitor's data usage is not subject to GDPR restrictions. The Don't Match Any option negates the gdpr_applies target.

Target name: gdpr_doesnt_apply

```
Don't Match Any
        TARGET Equals gdpr_applies
```

Use this rule to create a match when IAB TCF Purpose 3 is allowed, either because GDPR does not apply or because the consent string indicates that Legitimate Interest (TC_PUB_PURPOSE_LEGINT) has been established for Purpose 3 in the Publisher segment of the string. The example assumes that the publisher has chosen Legitimate Interest as the legal basis for Purpose 3. If the publisher requires Consent instead, then the tag in the rule would be TC_PUB_PURPOSE_CONSENT.

This target demonstrates how you can use a target reference (gdpr_doesnt_apply) to create compound targets. If the publisher wants to change how the GDPR decision is made, only the gdpr_applies target needs to be changed. All other targets that reference the updated target automatically use the new definition.

Also, if the publisher changes its legal basis for a purpose, then only the target that specifies legal basis needs to be edited. All flights that use this target pick up that revision automatically.

Target name: purpose3_allowed

```
Match Any
        TARGET Equals gdpr_doesnt_apply
        TC_PUB_PURPOSE_LEGINT Equals 3
```

Use these rules to create a match when IAB TCF Purpose 3 is not allowed. The Don't Match Any option is used to negate the target for purpose3_allowed.

Target name: purpose3_not_allowed

```
Don't Match Any
        TARGET Equals purpose3_allowed
```

Use these rules to create a match when IAB TCF Special Feature 1 is allowed, either because GDPR does not apply or because the consent string indicates that the user opted to enable the feature.

Target name: special_feature1_allowed

```
Match Any
        TARGET Equals gdpr_doesnt_apply
        TC_SPECIAL_FEATURE_OPTIN Equals 1
```

When you create targets, make sure that you choose descriptive names. A descriptive target name conveys the purpose of the target and makes it easier for traffickers to determine which target to use. For example, the previous target could be called precise_geo_location_allowed because that is the definition of Special Feature 1.

CDP Integration

SAS® 360 Match supports integration with the Tealium customer data platform. You can use SAS® 360 Match to make the segments in Tealium available for targeting. The feature enables you to obtain segment values from Tealium and automatically populate the information into a tag in SAS® 360 Match. Contact SAS Technical Support to enable the feature.