



# **SUPPLY SIDE PLATFORM**

## **SOFTWARE REQUIREMENTS SPECIFICATION**

Classification: Confidential Document  
Author: Clearcode  
Version: 1.0

# 1 DOCUMENT HISTORY

## DOCUMENT LOCATION

The source of the document will be found in <directory>

## REVISION HISTORY

Date of this revision : May 4, 2022	Date of next revision
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Revision Number	Revision Date	Summary of Changes	Changes marked
1.0.0	April 6, 2022	Initial document	(N)
1.0.1	May 4 2022	Added features up to Sprint #5	(N)
1.0.2	December 16, 2022	Draft for stage 2 initiated	

## APPROVAL

This document requires following approvals.

Name	Title

## DISTRIBUTION

This document has been distributed to

Name	Title

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# 3

## 4 LIST OF FIGURE

NO TABLE OF FIGURES ENTRIES FOUND.

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## 5 INTRODUCTION

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### 5.1 PURPOSE

The purpose of this document is to gain consensus the requirement and the deliverables of this project for evaluation. This Software Requirements Specification provides the description of all the functions and specifications of SSP – Supply Side Platform.

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### 5.2 REFERENCE

Reference of this document is:

- Meeting and Discussion
- Business Requirement

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### 5.3 AUDIENCE

Audiences for this document are includes:

- Developers
- Testers
- Business Analyst
- Project manager
- Project owner

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### 5.4 TERM & DEFINITIONS

Abbreviation	Description
SSP	Supply Side Platform

## 6 OVERVIEW

### 6.1 BACKGROUND

[[Nature of project, what is it trying to address in the business...]]

### 6.2 PROJECT SCOPES

Project scope(s) of this project are listed below:

1. PMP
2. PMP extension
3. Data migration
4. DSP integration
5. Reporting system extension
6. Integration with BIMA

### 6.3 [M] PMP / PMP-G

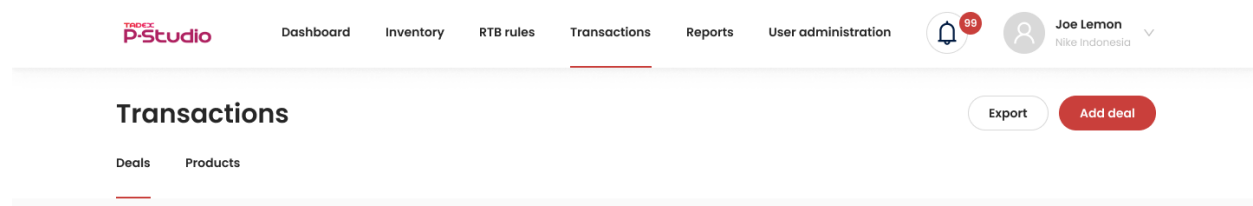
#### 6.3.1 ✓ DEAL CREATION (ALL EXCEPT THE AUDIENCE)

User needs to define in SSP deal which he made outside of the system. Deal allows to prioritize ads from one Advertisers.

Deal id need to be in both sides of the adtech system SSP and DSP and it was decided that SSP generates deal id which will be provided to DSP.

Agreed format of the deal id is: *TEL-5 random letters-random number*.

In order to create a new deal, user has to click the “Add deal” button (it can be found on a Deal list view which sits under Transactions).



After clicking the “Add deal” button the user is redirected to “Add deal view”.



Dashboard
Inventory
RTB rules
Transactions
Reports
User administration

Joe Lemon  
Nike Indonesia

### Add Deal

- Basic info
- Inventory
- Targeting
- Audience
- Day parting

Save

### Basic info

Deal name \*

Provide deal name

Channel type \*

Select channel type

Priority \*

Select priority

Demand Partner (DSP) \*

Select demand partner (DSP)

Demand Partner (buyers) \*

Select demand partners (buyers)

Timezone

WIB

Start date

End date

☒ Ongoing

Auction type \*

Select auction type

Floor price \*

0.01

USD

Auction type can't be edited once deal has been created.

Previous

Next

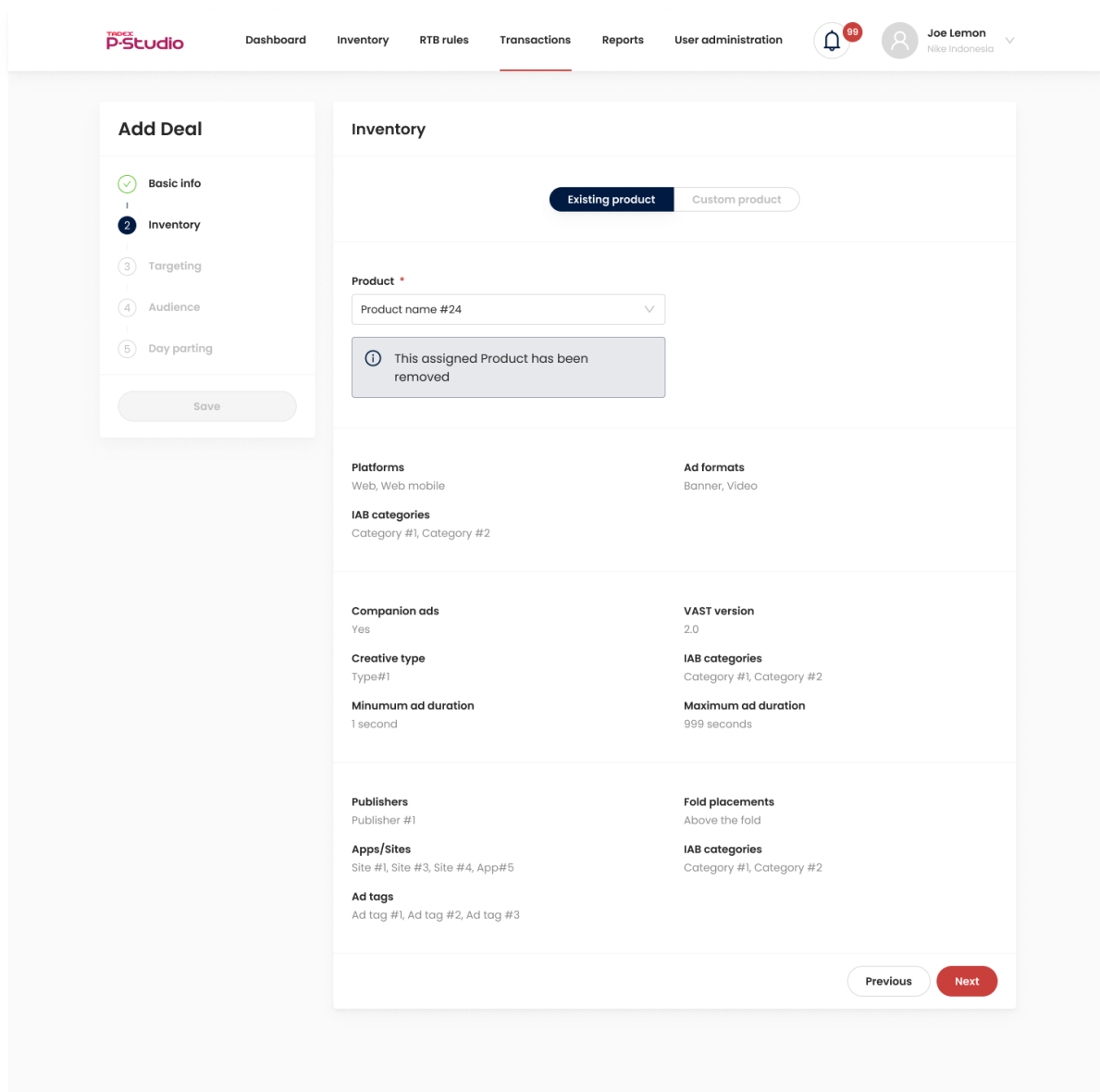
The first step is Basic info. It consists of the following fields:

Field name	Field description	Data Type	Mandatory	Validation
Name	Deal name	String limited to 100 characters	Yes	
Deal id	Cannot be edited / changed later - not included in UI - generated automatically	STRING(128)	Yes	

<b>Channel type</b>	Deal type to choose: PMP or PMP-G	Select - single	Yes	
<b>Priority</b>	Deal priority to choose: - for PMP-G from 1 to 5; - for PMP from 6 to 10	Select - single	Yes	
<b>Demand partner (DSP)</b>	(for PMP-G only one can be selected, for PMP more than one) for now can be empty list cause there is no DSP integration	PMP - Select - multiple  PMP-G - Select - single	Yes	
<b>Demand partner (buyers)</b>	(seat ID -> 3335 TSEL seat ID in TTD) for now can be empty list there is no DSP integration	Select - multiple	Yes	
<b>Timezone</b>	It is sent with a start and end date. Implemented in the same way as in RTB rules	Select - single (blocked)	No	
<b>Start date</b>	Datetime from which the deal is active. If not selected then current date is set as start date.	Datetime picker	Yes	
<b>End date</b>	Datetime to which the deal is active. Null value means ongoing.	Datetime picker	No	If Ongoing flag is checked, this field is disabled.

<b>Auction type</b>	This field cannot be edited / changed once deal is created	Select - single Options: <ul style="list-style-type: none"> <li>• First price</li> <li>• Second price</li> <li>• Fixed price</li> </ul>	Yes	
<b>Floor price</b>	The floor price under which the inventory won't be sold. Price in CPM and USD.	Float, 2 decimal points, max 5 digits, with min value of 0,01 and max value of 999,0	Yes	

After clicking Next, the user is redirected to the second step - Inventory. Here user can choose if he wants to connect a deal to an already existing product or if he wants to choose custom ad tags for the deal.




When choosing “Existing product” there is only one field:



Field name	Field description	Data Type	Mandatory	Validation
Product	List of products existing in inventory	Select - single	Yes	

After choosing the product all values below will be updated to match the chosen product.

When choosing “Custom product” there is a form:



DashboardInventoryRTB rulesTransactionsReportsUser administration

### Add Deal

✓ Basic info

2 Inventory

3 Targeting

4 Audience

5 Day parting

Save

### Inventory

Existing productCustom product

Platforms \*  
Select platforms

Ad formats \*  
Select ad formats

Minimum ad duration \*  
1Seconds

Maximum ad duration \*  
999Seconds

Publishers  
All publishers

Fold placements  
All placements

Apps/sites  
All Apps/sites

Ad tags  
All ad tags

Previous

Next

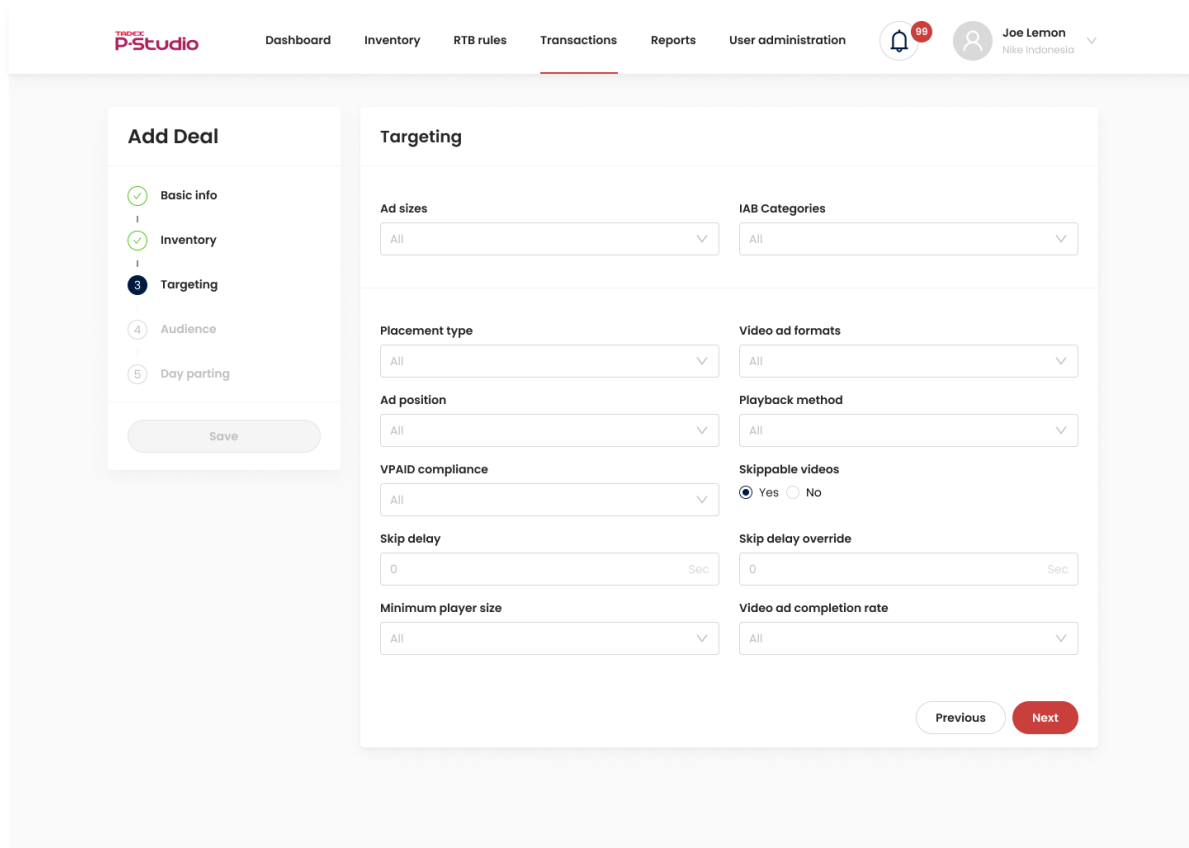
Field name	Field description	Data Type	Mandatory	Validation
Platforms	Selection of platforms to which the rule applies to.	Select - multiple  Options: <ul style="list-style-type: none"> <li>• All platforms (default)</li> <li>• Web</li> <li>• Mobile web</li> <li>• Mobile apps IOS</li> <li>• Mobile App Android</li> </ul>	Yes	
Ad formats	Ad formats filter.	Select - multiple	Yes	

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 Subject : Software Requirement Specification

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		Options: <ul style="list-style-type: none"> <li>• banner</li> <li>• video</li> </ul>		
<b>Minimum ad duration</b>	Minimal ad duration in seconds	Number from 1 to 999	Yes (only when the ad format = video)	min 1 second
<b>Maximum ad duration</b>	Maximum ad duration in seconds	Number from 1 to 999	Yes (only when the ad format = video)	max 999 seconds
<b>Publishers</b>		Select - single  Options: List of Publishers in the platform	No	
<b>Fold placements</b>	Selection of platforms to which the rule applies to.	Checkbox - multiple  Options: <ul style="list-style-type: none"> <li>• above the fold</li> <li>• below the fold</li> <li>• partially above the fold</li> <li>• unknown</li> </ul>	No	
<b>App/Sites</b>	Selection of Apps/Sites in which the ad tag will be used	Select - multiple  Options: All Apps/Sites in SSP pulled from database	No	
<b>Ad tags</b>	Ad tags filter.	Select - multiple  Options for admin: list of all ad tags in the platform	No	

After clicking Next, the user is redirected to the third step - Targeting.



**Add Deal**

- Basic info
- Inventory
- Targeting**
- Audience
- Day parting

Save

**Targeting**

Ad sizes: All

IAB Categories: All

Placement type: All

Video ad formats: All

Ad position: All

Playback method: All

VPAID compliance: All

Skippable videos: ☒ Yes ☐ No

Skip delay: 0 Sec

Skip delay override: 0 Sec

Minimum player size: All

Video ad completion rate: All

Previous Next

It consists of the following fields:

Field name	Field description	Data Type	Mandatory	Validation
Ad sizes	Selection of ad sizes to which the rule applies to.	Select - multiple Options: <ul style="list-style-type: none"> <li>All sizes (default)</li> <li>970 x 250</li> <li>300 x 50</li> <li>320 x 50</li> <li>728 x 90</li> <li>970 x 90</li> <li>300 x 1050</li> <li>160 x 600</li> <li>300 x 250</li> </ul>	No	

		<ul style="list-style-type: none"> <li>• 120 x 60</li> <li>• 640 x 1136</li> <li>• 750 x 1334</li> <li>• 1080 x 1920</li> <li>• 120 x 20</li> <li>• 168 x 28</li> <li>• 216 x 36</li> </ul>		
<b>IAB Categories</b>	Selection of IAB categories to be allowed in ad.	Select - multiple  Options: <ul style="list-style-type: none"> <li>• Arts &amp; Entertainment</li> <li>• Automotive</li> <li>• Business</li> <li>• Careers</li> <li>• Education</li> <li>• Family &amp; Parenting</li> <li>• Health &amp; Fitness</li> <li>• Food &amp; Drink</li> <li>• Hobbies &amp; Interests</li> <li>• Home &amp; Garden</li> <li>• Law Gov't &amp; Politics</li> <li>• News</li> <li>• Personal Finance</li> <li>• Society</li> <li>• Science</li> <li>• Pets</li> <li>• Sports</li> <li>• Style &amp; Fashion</li> <li>• Technology &amp; Computing</li> <li>• Travel</li> <li>• Real Estate</li> <li>• Shopping</li> <li>• Religion &amp; Spirituality</li> </ul>	No	



		<ul style="list-style-type: none"> <li>• Uncategorized</li> <li>• Non-Standard Content</li> <li>• Illegal Content</li> </ul>		
<b>Placement type</b>	Placement type with default option: Static (In-Stream)	Select - single Options: <ul style="list-style-type: none"> <li>• Static (In-Stream)</li> <li>• Static (Out-Stream)</li> <li>• Dynamic</li> </ul>	No	
<b>Ad position</b>		Select - single Options: <ul style="list-style-type: none"> <li>• Pre-roll</li> <li>• In-roll</li> <li>• Post-roll</li> </ul>	No	
<b>Playback method</b>	Supported playback method	Select - single Options: <ul style="list-style-type: none"> <li>• Autoplay on Page Load, Sound On</li> <li>• Autoplay on Page Load, Sound Off</li> <li>• Click-to-Play</li> <li>• Mouse-Over</li> <li>• Autoplay on entering the Viewport, Sound on</li> <li>• Autoplay on entering the</li> </ul>	No	

		Viewport, Sound off		
<b>VPAID compliance</b>		Select - single  Options: <ul style="list-style-type: none"> <li>• NO VPAID</li> <li>• VPAID 2.0</li> </ul>	No	
<b>Skippable videos</b>	Selection in the video ad is skippable	Select - single  Options: <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	No	
<b>Minimum player size</b>	Minimum player size of ad tags for which the deal is used. - If <b>Small</b> (or null if the field is nullable), then any size is allowed. - If <b>Medium</b> , only a static size of at least 641 pixel width is allowed. - If <b>Large</b> , a width of at least 641 pixels and height of at least 577 pixels are required.	Select - single  Options: <ul style="list-style-type: none"> <li>• Small</li> <li>• Medium</li> <li>• Large</li> </ul>	No	

If the data type is “checkbox - multi” and a user choses nothing, the system treats this field as “all chosen”.

After clicking Next, the user is redirected to the fourth step - Audience [[✓ SSP targeting deals at audiences \(PMP and RTB\)](#)]

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Inventory
RTB rules
Transactions
Reports
User administration
Joe Lemon
Nile Indonesia

## Add Deal

- Basic info
- Inventory
- Targeting
- Audience**
- Day parting

Save

## Audience

The prices for audiences usage will be added to the floor price.

Name	Total users	CPM Price	
Audience long long name #1	637 910	0.7 \$	+ Use
Audience #2	200 910	0.7 \$	+ Use
Audience #3	1 500 200	0.7 \$	+ Use
Audience long long name #4	1 983	0.7 \$	+ Use
Audience #5	637 910	0.7 \$	+ Use
Audience #6	22 456	0.7 \$	+ Use
Audience long long name #7	1 500 200	0.7 \$	+ Use
Audience #8	637 910	0.7 \$	+ Use
Audience long long name #9	200 333	0.7 \$	+ Use
Audience #10	1 983	0.7 \$	+ Use

10 / page
Showing 1 to 10 of 222 results
1
2
...
50
>

### Audience configuration

Total price
0.00 \$
Operation
Not In Any

No audience is selected

Previous
Next

The list consists of:

Field name	Field description	Data Type
Name	Audience name	Free text

Total users		
CPM Price		
+ Use button		

After clicking Next, the user is redirected to the fifth step - Day parting.

The screenshot shows the 'Add Deal' workflow in the P-Studio interface. On the left, a sidebar lists the steps: Basic info, Inventory, Targeting, Audience, and Targeting. The 'Day parting' step is currently active. The main area displays a calendar view with days Mon through Sun. Below the calendar, there are input fields for 'Start time' (set to 00:00) and 'End time' (set to 23:59). At the bottom right of the main area are 'Previous' and 'Next' navigation buttons. A red 'Save' button is located at the bottom of the sidebar.

It works the same as in RTB rules. Admin can choose days and hours when the deal is active. For example if admin choses Monday and Tuesday together with Start date: 8pm and End date: 6am deal will be active:

- on Monday from 12am to 6am
- during night, from 8pm on Monday to 6am on Tuesday

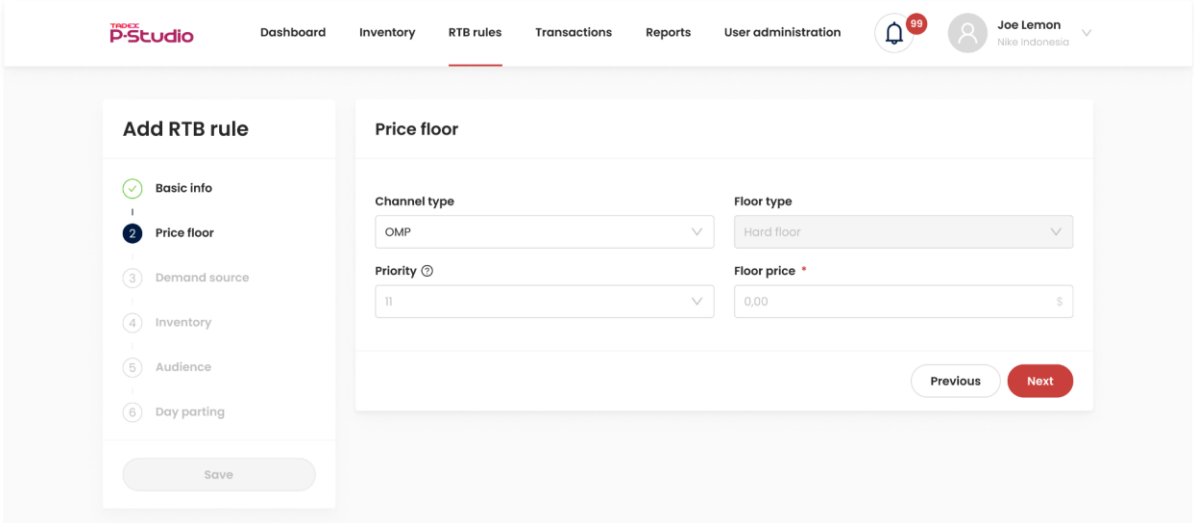
- on Tuesday from 8pm to 12am

### 6.3.2 ✓ EXTEND RTB RULES TO SUPPORT PMP

The goal of this story is to enable user to choose whether a RTB rule should be applied for OMP, PMP/PMP-g or in both.

Filter select for channel attribute of RTB rules should be active and have following options to choose:

- OMP
- OMP & PMP



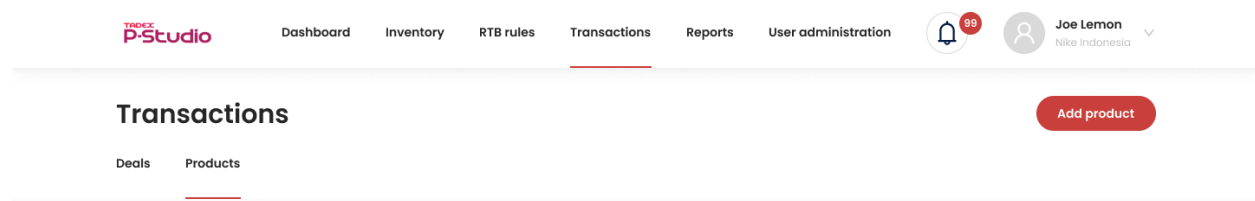
New priorities will be available to choose:

- OMP (11-15)
- OMP & PMP (11-15)

### 6.3.3 ✓ PMP PRODUCT MANAGEMENT

Only the Telkomsel administrator can create, edit, copy, list or delete a product that will be used to create a specific deal. Product is a list (package) of ad tags that meet certain conditions, selected for the appropriate deal.

In order to create a new product, user has to click the “Add product” button (it can be found on a Products list view which sits under Transactions).



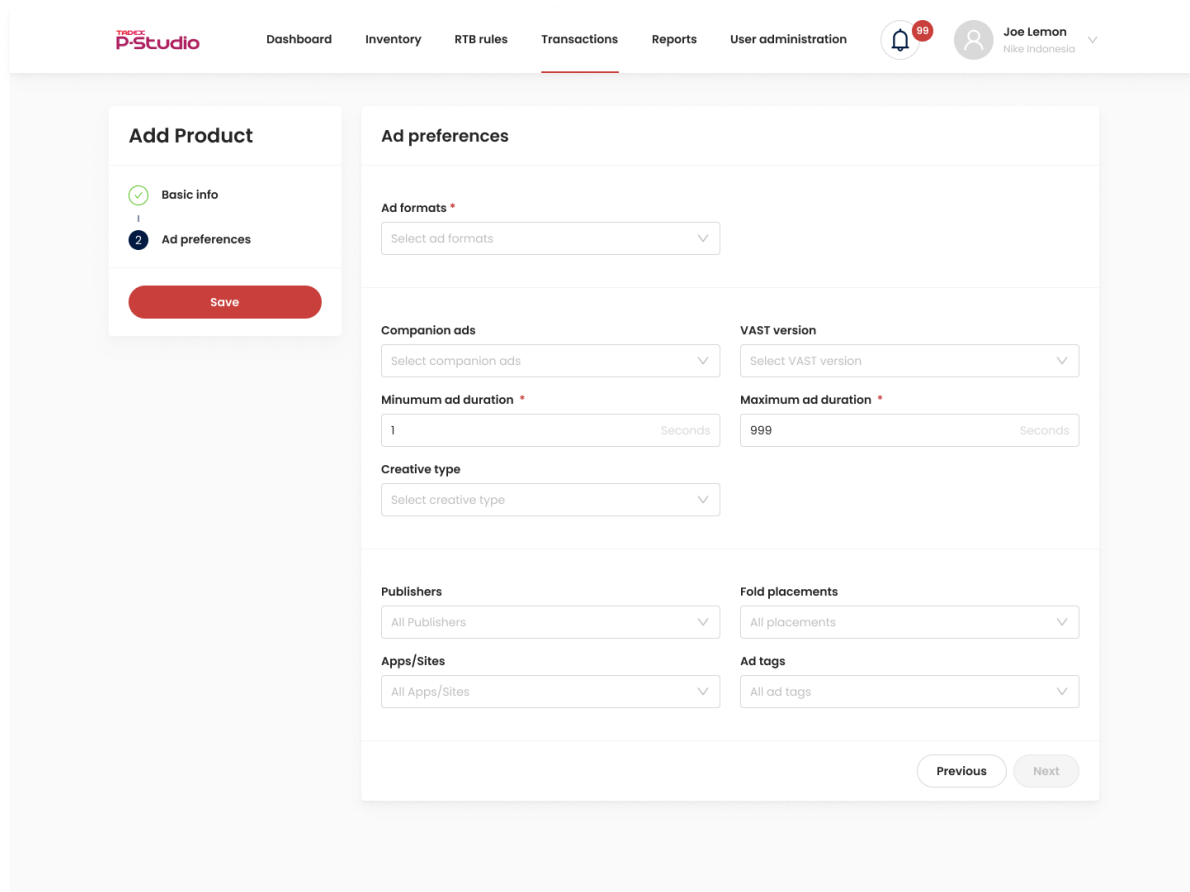
After clicking the “Add product” button the user is redirected to “Add product view”.

The first step is Basic info. It consists of the following fields:

Field name	Field description	Data Type	Mandatory	Validation
Product name		Free text, max 60 characters	Yes	
Status		Select - single  Options: <ul style="list-style-type: none"> <li>Active</li> <li>Inactive</li> </ul>	No	

<b>Description</b>		Free text, max 255 characters	No	
<b>Platforms</b>		Select - multiple  Options: <ul style="list-style-type: none"> <li>• All platforms (default)</li> <li>• Web</li> <li>• Mobile web</li> <li>• Mobile apps IOS</li> <li>• Mobile App Android</li> </ul>	Yes	

After clicking Next, the user is redirected to the second step - Ad preferences.



**Add Product**

Basic info  
Ad preferences

Save

**Ad preferences**

Ad formats \*

Select ad formats

Companion ads

Select companion ads

VAST version

Select VAST version

Minimum ad duration \*

1 Seconds

Maximum ad duration \*

999 Seconds

Creative type

Select creative type

Publishers

All Publishers

Fold placements

All placements

Apps/Sites

All Apps/Sites

Ad tags

All ad tags

Previous Next

It consists of the following fields:

Field name	Field description	Data Type	Mandatory	Validation
<b>Ad formats</b>		Select - multiple  Options: <ul style="list-style-type: none"> <li>● banner</li> <li>● video</li> </ul>	Yes Also cannot be edited after creating a Product.	
<b>Companion ads</b>		Select - single  Options: <ul style="list-style-type: none"> <li>● yes</li> <li>● no</li> <li>● any</li> </ul>	No	
<b>VAST version</b>		Select - single  Options: <ul style="list-style-type: none"> <li>● 2.0</li> <li>● 3.0</li> <li>● any</li> </ul>	No	
<b>Minimum ad duration</b>	Minimal ad duration in seconds	Number from 1 to 999	Yes (only when the ad format = video)	It's min 1 and max 999 seconds (validated to be less or equal than maximum ad duration)
<b>Maximum ad duration</b>	Maximum ad duration in seconds	Number from 1 to 999	Yes (only when the ad format = video)	It's min 1 and max 999 seconds
<b>Creative type</b>		Select - single  Options: <ul style="list-style-type: none"> <li>● all (default)</li> <li>● video/mp4</li> <li>● video/webm</li> <li>● video/ogg</li> </ul>	No	



		<ul style="list-style-type: none"> <li>• application/javascript</li> </ul>		
<b>Publishers</b>		Select - multiple  if nothing is selected, that means all publishers.	No	
<b>Fold placements</b>		Select - multiple  Options: <ul style="list-style-type: none"> <li>• all (default)</li> <li>• above the fold</li> <li>• below the fold</li> <li>• partially above the fold</li> <li>• unknown</li> </ul>	No	
<b>App/Sites</b>	Selection of Apps/Sites in which the ad tag will be used	Select - multiple  Options: all Apps/Sites for selected Publishers (all of them chosen by default)	No	
<b>Ad tags</b>	Ad tags filter.	Select - multiple  all ad tags for chosen App/Sites (all of them chosen by default)	No	

All products are visible on the list that can be found under Transactions in the top menu.

## Transactions

Add product

Deals Products

Hide filters 7

Search

Name

Publisher

Description 1

Platforms 6

Ad formats

Categories 1

Apps/Sites

Ad tags

Status

Clear all

Name	Publisher	Description	Deals	Platforms	Ad formats	Categories	Apps/Sites	Ad tags
Product name #1	Publ... +1	Description	Deal name #1	Web +1	Banner +1	Cate... +1	App #1 +2	Tag#1
Product name #2	Publ... +1	Description exam...	Deal name #2	Web +1	Banner +1	Cate... +1	App #1 +2	Tag#1
Product name #3	Publ... +1	Description exam...	Deal name #3	Web +1	Banner	Cate... +1	App #1 +2	Tag#1
Product name #4	Publ... +1	Desc.	Deal name #4	Web +1	Banner	Cate... +1	App #1 +2	Tag#1
Product name #5	Publ... +1	Description exam...	Deal name #5	Web +1	Banner	Cate... +1	App #1 +2	Tag#1
Product name #6	Publ... +1	Description	Deal name #6	Web +1	Banner +1	Cate... +1	App #1 +2	Tag#1
Product name #7	Publ... +1	Description	Deal name #7	Web +1	Banner +1	Cate... +1	App #1 +2	Tag#1
Product name #8	Publ... +1	Description exam...	Deal name #8	Web +1	Banner	Cate... +1	App #1 +2	Tag#1
Product name #9	Publ... +1	Description ex.	Deal name #9	Web +1	Banner	Cate... +1	App #1 +2	Tag#1
Product name #10	Publ... +1	Description exam...	Deal name #10	Web +1	Banner	Cate... +1	App #1 +2	Tag#1

10 / page

Showing 1 to 10 of 222 results

< 1 2 3 4 5 ... 50 >

Product list contains information:

Field name	Field description
Name	Product name

<b>Publisher</b>	Publisher(s) connected to the product
<b>Description</b>	Product's description
<b>Deals</b>	Deal name connected to the product
<b>Platforms</b>	Chosen platforms
<b>Ad formats</b>	Chosen ad formats
<b>App/Sites</b>	Chosen app/sites
<b>Ad tags</b>	Chosen ad tags
<b>Status</b>	Active/Inactive



At the end of each product row there is a button which allows user to:

- Activate/Deactivate product
- Edit product
- Duplicate product
- Delete product (the delete action has to be confirmed by the user on appearing modal)

Filtering options:

- **Name**
  - Filter shows the list of available products
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- **Publisher**
  - Filter shows the list of available publishers and subpublishers
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- **Description**
  - Filter shows the available Descriptions
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- **Platforms**
  - Filter shows the available Platforma
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- **Ad formats**
  - Filter shows the available Ad formats
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- **Categories**
  - Filter shows the IAB Categories list
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- **App/Sites**
  - Filter shows the available Apps / Sites
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
  - Admin sees all Apps / Sites; Publishers only see their own Apps / Sites
- **Ad tags**
  - Filter shows the available Ad tags
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
  - Admin sees all Ad tags; Publishers only see their own Ad tags
- **Status**
  - Filter shows the available Statuses
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- **Clear all - button resets all filters**

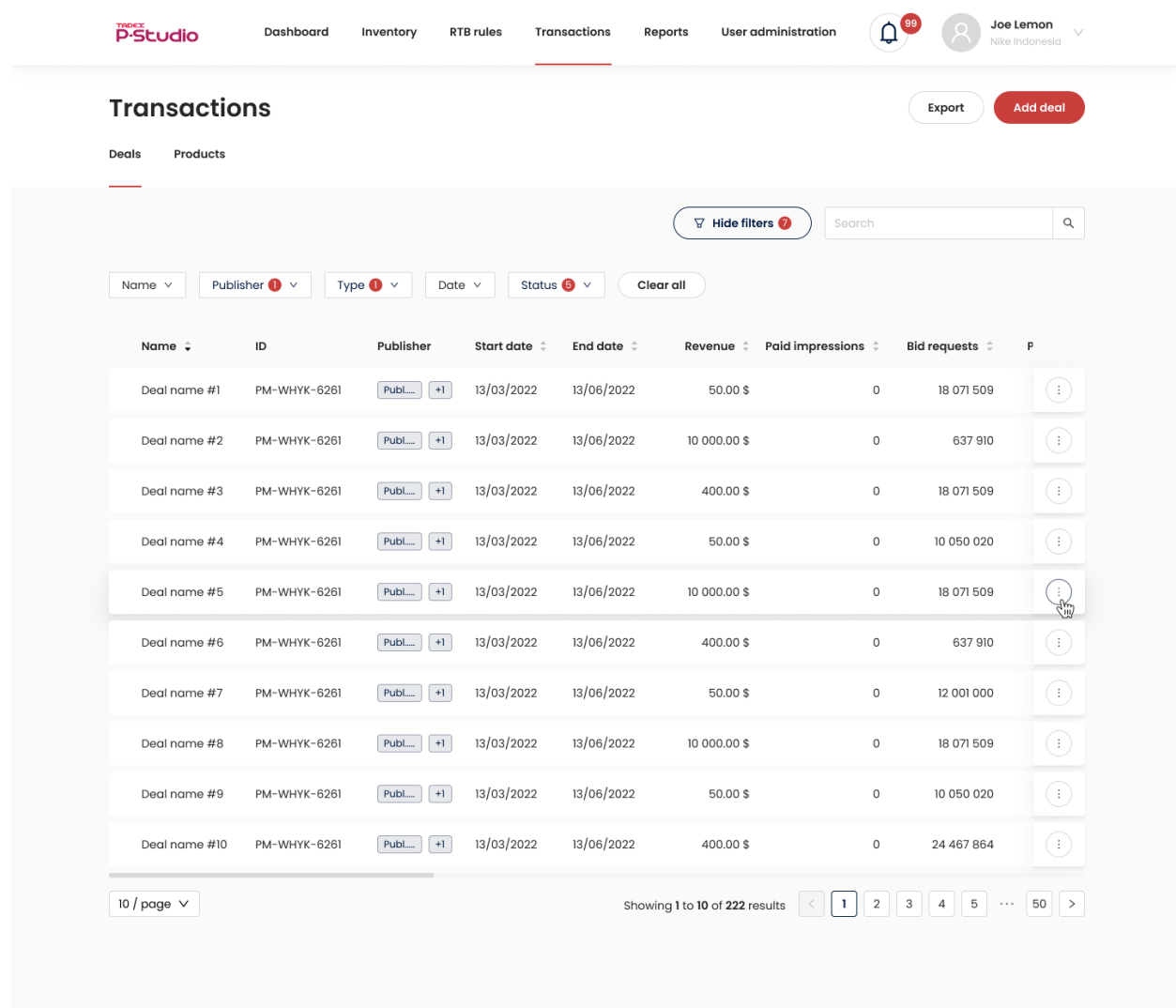
User can also search for product by product name. To search, the user has to input the text and click the loop button.

### 6.3.4 ✓ SHOW DEAL LIST

The deal is a contract between the advertiser and the publisher to serve an advertisement. The deal is for PMP or PMP-G

The deal list can be found under Transactions in the top menu.

Publishers will not see this link as they do not have an access to deals.



The screenshot shows the 'Transactions' page in the P-Studio interface. The top navigation bar includes 'Dashboard', 'Inventory', 'RTB rules', 'Transactions' (active), 'Reports', and 'User administration'. The user profile 'Joe Lemon' is visible. The 'Transactions' section has tabs for 'Deals' and 'Products'. A search bar and a 'Hide filters' button are present. Below the filters, a table lists 10 deals. Each deal row includes columns for Name, ID, Publisher, Start date, End date, Revenue, Paid impressions, Bid requests, and a 'P' column with a dropdown menu. The deals are all from publisher 'PM-WHYK-6261' and have a start date of 13/03/2022 and an end date of 13/06/2022. The revenue varies, and the bid requests range from 637 910 to 24 467 864.

Name	ID	Publisher	Start date	End date	Revenue	Paid impressions	Bid requests	P
Deal name #1	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	50.00 \$	0	18 071 509	⋮
Deal name #2	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	10 000.00 \$	0	637 910	⋮
Deal name #3	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	400.00 \$	0	18 071 509	⋮
Deal name #4	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	50.00 \$	0	10 050 020	⋮
Deal name #5	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	10 000.00 \$	0	18 071 509	⋮
Deal name #6	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	400.00 \$	0	637 910	⋮
Deal name #7	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	50.00 \$	0	12 001 000	⋮
Deal name #8	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	10 000.00 \$	0	18 071 509	⋮
Deal name #9	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	50.00 \$	0	10 050 020	⋮
Deal name #10	PM-WHYK-6261	Publ..... +1	13/03/2022	13/06/2022	400.00 \$	0	24 467 864	⋮

10 / page Showing 1 to 10 of 222 results

Deal list contains information:

Field name	Field description
------------	-------------------

<b>Name</b>	Deal name
<b>Id</b>	Automatically generated deal id
<b>Publishers</b>	Publishers who are connected to the particular deal
<b>Start date</b>	Deal start date Date format: DD/MM/YYYY
<b>End date</b>	Deal end date Date format: DD/MM/YYYY
<b>Revenue</b>	The revenue amount generated by the deal.
<b>Paid impressions</b>	The number of paid impressions served by the deal
<b>Bid requests</b>	Total number of bid requests sent by this deal
<b>Priority</b>	For PMP-G = 1-5  For PMP = 6-10

<b>DSP name</b>	In current version only The Trade Desk will be presented
<b>Modified</b>	Last modification date Date format: DD/MM/YYYY
<b>Status</b>	Available options: <ul style="list-style-type: none"> <li>• live</li> <li>• paused</li> <li>• completed</li> <li>• scheduled</li> <li>• failed</li> </ul>
<b>Created date</b>	Visible only in backend Original date when the deal is created (format: DD/MM/YYYY).



At the end of each deal row there is a button which allows user to:

- Pause/Resume deal
- Edit deal (described [here](#))
- Duplicate deal

Filtering options:

- Name
  - Filter shows the list of available deals
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- Publisher
  - Filter shows the list of available publishers and subpublishers
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- Type
  - Filter shows the list of available deal types:
    - All
    - PMP
    - PMP-G
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- Date
  - there is a datepicker for start date

- there is a datepicker for end date
- selecting dates applies the filter
- clicking (x) resets the filter
- Status
  - Filter shows the list of available deal types:
    - live
    - paused
    - completed
    - scheduled
    - failed
  - there is a reset button
  - selecting on list applies the filter
  - clicking reset resets the filter
- Clear all - button resets all filters

User can also search for deal by deal name. To search, the user has to input the text and click the loop button.

### 6.3.5 ✓ TARGETING IN DEAL CREATION

Described in [Deal creation](#).

### 6.3.6 ✓ SYNCHRONIZATION OF DEAL DATA BETWEEN SSP AND EXCHANGE

Deal data needs to be transferred to the Exchange. There is an existing SSP endpoint, from which Exchange gets data for RTB auctions. This endpoint needs to be extended with Deal data. Below is a high-level diagram of communication between SSP backend and exchange.



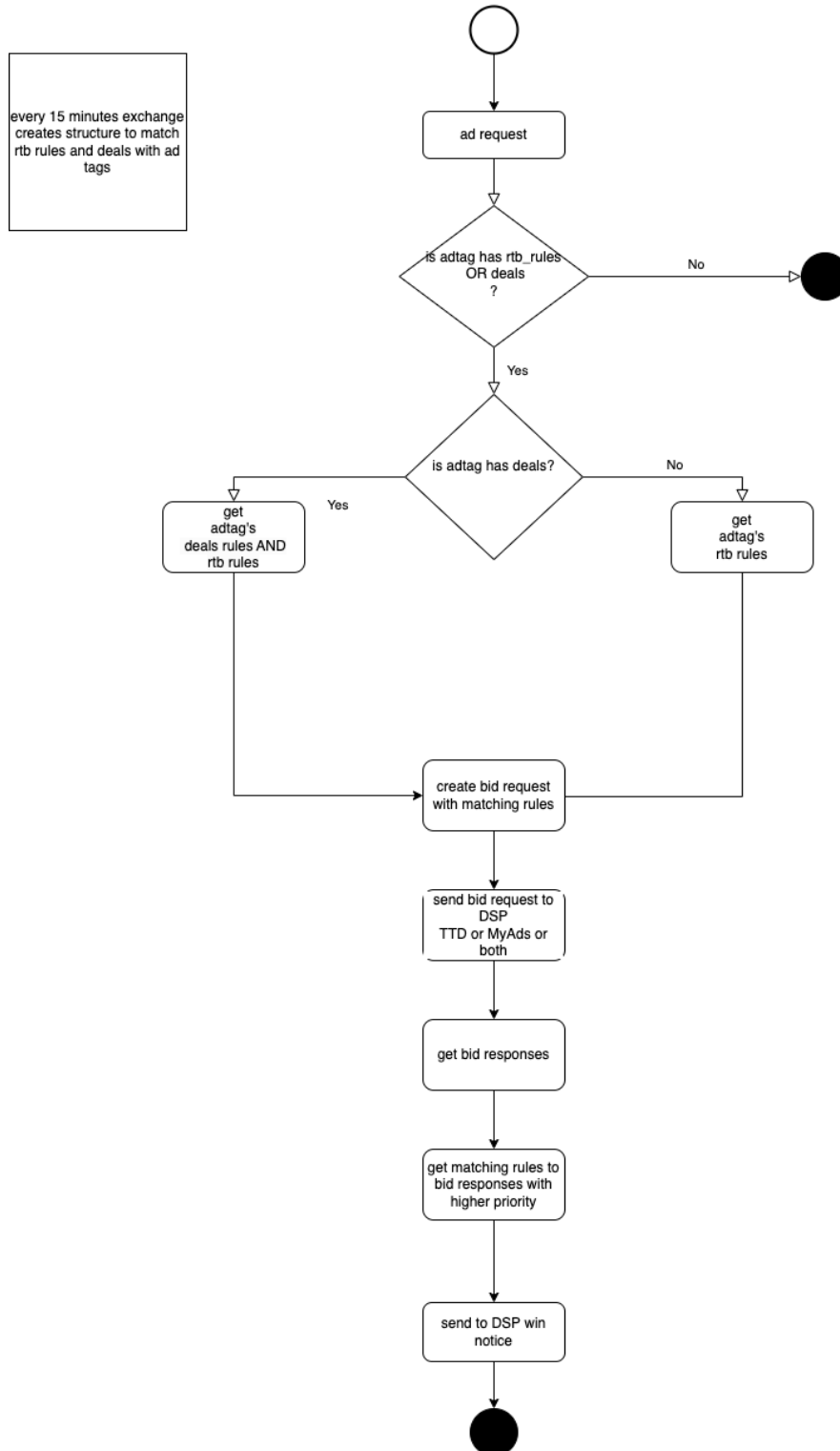
### 6.3.7 ✓ EXCHANGE GETS INFO FROM SSP ABOUT DEALS

To handle deals when creating bid requests in the exchange application the information stored in exchange cache (index) needs to be extended by deal information.

Here is the diagram which shows the flow.



## GENERAL FLOW



### 6.3.8 ✓ EDIT AND VIEW DEAL DETAILS



In order to edit a deal admin has to click the button which can be found at the end of each deal row on the deal list. There is an option "Edit".

When editing a deal the edit form is fulfilled with attributes of the particular deal that could be changed. During deal editing there is information about deleted products on a deal view (in case of deleted product assigned to deal).

The "Auction type" field cannot be changed during deal edition.

Only admin can manage deals.

Publisher will not be able to see the deal list and make any action on deals.

## 6.4 [OLA] REPORTING SYSTEM EXTENSION

### 6.4.1 ✓ DASHBOARDS

Dashboard is the landing page after logging in. It can also be found in the top menu:



The dashboard page is divided into 3 tabs: Summary, Insides and Viewability and metrics shown in the dashboard vary depending on the user (different for the admin and different for the publisher/subpublisher).

Filters in dashboards are common for all tabs (if user chooses eg. a channel then data on the rest of tabs will be filtered by chosen channel)

Dashboard is not updated in real time. It will be updated every time when user changes at least one filter and click "Apply filters" button.

Below is the description of each dashboard section:

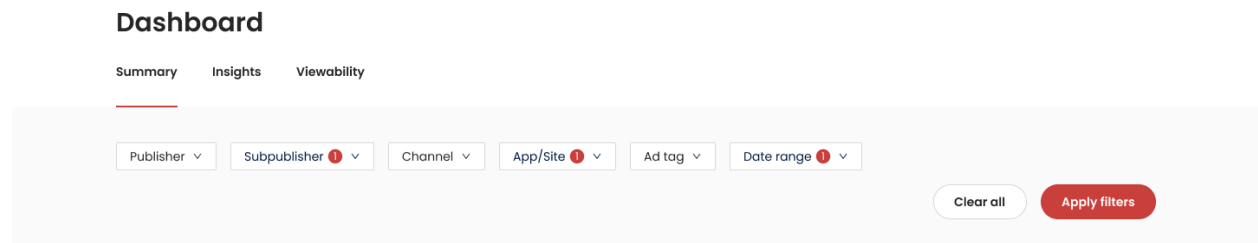
#### 6.4.1.1 ✓ SUMMARY

There are 6 filters available for admin (5 for publisher):

Filter name	Description
Publisher	<p>Select - multiple (search available)</p> <p>List of all publishers in the system ordered alphabetically. Default: first publisher from the list</p> <p>This filter is visible only for admins.</p>
Subpublisher	<p>Select - multiple (search available)</p> <p>List of all subpublishers (for admin) / all subpublishers connected to logged in publisher</p>

	<p>Default: blank</p> <p>This filter is visible only for admins and publishers.</p>
Channel	<p>Select - multiple (search available)</p> <p>To choose from:</p> <ul style="list-style-type: none"> <li>• OMP</li> <li>• PMP using Tadex DSP</li> <li>• PMP using Tadex Client's DSP</li> </ul> <p>In the future, when Header bidding will be implemented, there will be additional values there:</p> <ul style="list-style-type: none"> <li>• HB-OMP</li> <li>• HB PMP using Tadex DSP</li> <li>• HB PMP using Tadex Client's DSP</li> </ul> <p>Default: blank</p>
App/Site	<p>Select - multiple (search available)</p> <p>List of all apps/sites (for admin) / list of apps/sites used by logged in publisher</p> <p>Default: blank</p>
Ad tag	<p>Select - multiple (search available)</p> <p>List of all ad tags under (for admin) / list of ad tags used by logged in publisher</p> <p>Default: blank</p>
Date range	<p>Select - single + datapicker</p> <p>Available options:</p> <ul style="list-style-type: none"> <li>- Today</li> <li>- Yesterday</li> <li>- Last 7 days</li> <li>- Last 30 days</li> <li>- Last Week</li> <li>- This month</li> <li>- Last month</li> <li>- Quarter-to-Date</li> <li>- Custom date range*</li> </ul> <p>*after choosing "Custom date range" and clicking "Save" the second select appears, where user can choose date range from two datapickers (but no further than 3 months from current date)</p>

Here is the example of how active filters look like (there are 3 active filters on the example):



And 2 buttons:

- Clear all - resets all filters beside date range (it turns into its default value - last 7 days)
- Generate - updates metrics and charts visible below according to chosen filters

The default view for admin contains data for the first publisher from the list for the last 7 days

The default view for a publisher / subpublisher contains data available only for that publisher / subpublisher for the last 7 days.

Under the filters there are 4 main metrics:

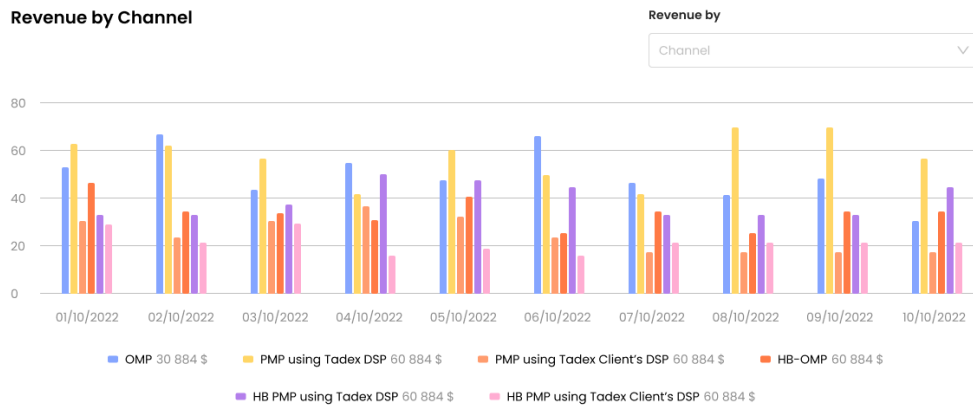
Metric name	Description
SSP Total revenue	Total amount of revenue (from the whole platform) Visible only for admin.
Publisher's Revenue Share	Amount counted for all chosen publishers + info how many % of SSP total revenue share it is  The % info is visible only for admin
Total Paid Impressions	Number of all paid impressions
Fill rate	Percent of ad requests covered by ads (paid impressions / total request * 100)

Under the metrics there are 5 charts. All of them consist of data filtered by chosen filters.

All charts can be scrolled horizontally.

- Revenue by

Revenue by Channel



- the select on the right hand side gives the ability to choose between Channel and Platform (heading will be updated according to chosen value from select)
- data are divided into single days (the number of days depends on the chosen date range)
- each channel/platform has its own color (the legend is visible under the chart)
- the number next to the channel/platform name is a total revenue for chosen date range
- each bar in the chart shows the revenue of particular channel/platform per day
- for Channels we can have following data sets and legend labels:
  - OMP
  - PMP using Tadex DSP (data from PMP)
  - PMP using Tadex Client's DSP (data from PMP-G)
  - HB-OMP (to be done in drop 4)
  - HB PMP using Tadex DSP (to be done in drop 4)
  - HB PMP using Tadex Client's DSP (to be done in drop 4)
- for Platforms we can have following data sets and legend labels:
  - Web
  - Mobile Web
  - Mobile App IOS
  - Mobile App Android

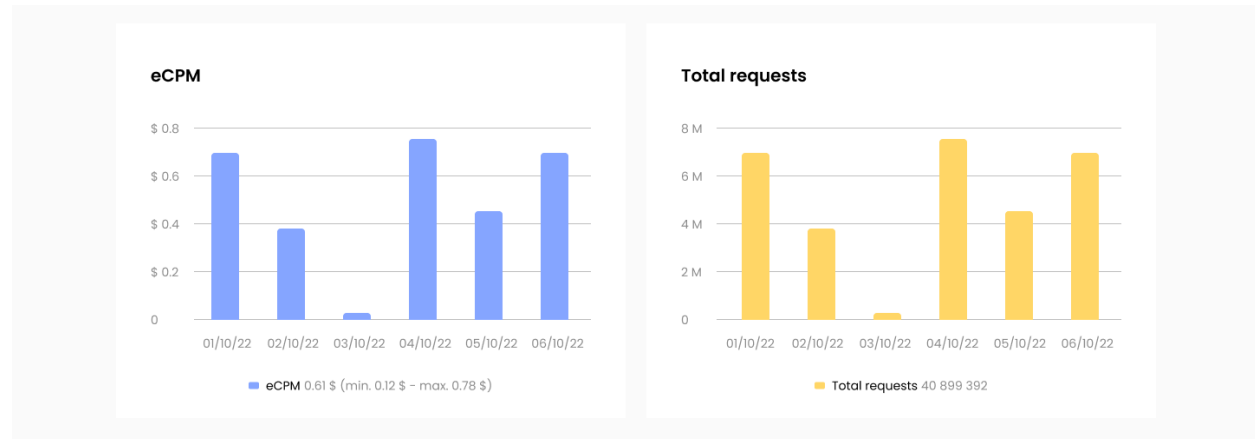
• Paid impression by

Paid impression by Site



- the select on the right hand side gives the ability to choose between Site and Channel (heading will be updated according to chosen value from select)
- data are divided into single days (the number of days depends on the chosen date range)
- each site/channel has its own color (the legend is visible under the chart)
- the number next to the site/channel name is a total number of paid impressions for chosen date range
- each bar in the chart shows the number of paid impressions for all sites/channels per day; bars are divided into colors to show the value for each site/channel

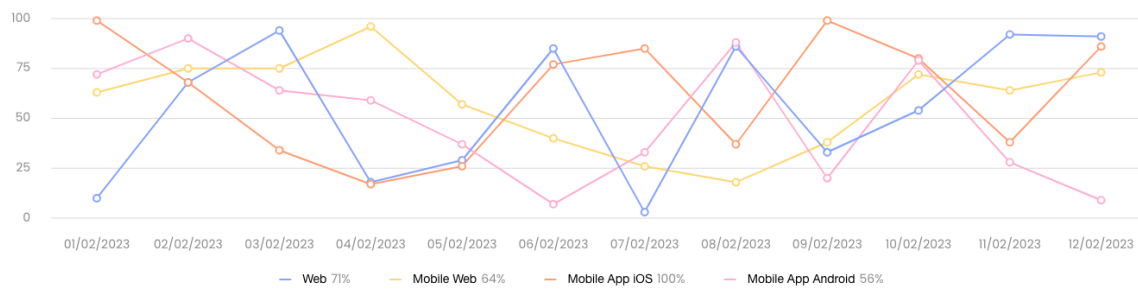
- eCPM & Total requests



- eCPM
  - data are divided into single days (the number of days depends on the chosen date range)
  - legend label contains average value + minimum and maximum value
- Total requests
  - data are divided into single days (the number of days depends on the chosen date range)
  - legend label contains the summarized value for the chosen date range

- Fill rate by platform

Fill rate by platform



- data are divided into single days (the number of days depends on the chosen date range)
- there are platforms shown in the chart with their % value (it is an average value for each platform):
  - Web 71%
  - Mobile Web 64%
  - Mobile App iOS 100%
  - Mobile App Android 56%

#### 6.4.1.2 ✓ INSIGHTS

This tab is visible only for admin user.

Filters and buttons and their rules are the same as in the Summary section (described [here](#)).

Under the filters there is the “Top 10” table. It is sorted descending, by the value in column Total.

Top 10 by Demand sources

Top 10 by

Demand sources

Name ▾	Yesterday ▾	Last 7 days ▾	% of total ▾	Total ▾
DSP with long name #1	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #2	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #3	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #4	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #5	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #6	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #7	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #8	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #9	150.00 \$	450.00 \$	80%	1 456.82 \$
DSP with long name #10	150.00 \$	450.00 \$	80%	1 456.82 \$

The select on the right hand side gives the ability to choose between Demand sources, Deals and Ad request filters.

Here is a description of the table for each of them:

- Demand sources:

Column name	Description
Name	DSP name (for now it will be MyAds or The Trade Desk)
Yesterday	value for the previous day, in \$ Date range should not impact on this column
Last 7 days	value for the last 7 days, in \$ Date range should not impact on this column
% of total	Total for single demand source / total for all demand sources*100% (for chosen date range)
Total	Total for single demand source for chosen date range

- Deals

Column name	Description
Name	Deal name
Yesterday	value for the previous day, in \$ Date range should not impact on this column
Last 7 days	value for the last 7 days, in \$ Date range should not impact on this column
% of total	Total for single deal / total for all deals *100% (for chosen date range)
Total	Total for single deal for chosen date range

- Ad request filters

Column name	Description
Name	Ad request  Possible values: <ul style="list-style-type: none"> <li>- No RTB rules match the ad request.</li> <li>- DSP failed to respond with a valid response.</li> <li>- DSP responded with no bid.</li> <li>- All bids returned by DSP are blocked by RTB rules or the blocklist.</li> </ul>



	<ul style="list-style-type: none"> <li>- All bids returned by DSP and not blocked have prices below the bid floor.</li> <li>- All bids returned by DSP are invalid according to the bid request.</li> <li>- Matched RTB rules are known to reject every possible bid, so no bid request is sent.</li> <li>- Bid request not sent due to rate limiting.</li> <li>- Domain was rejected because it is not verified by ads.txt file.</li> </ul>
Yesterday	value for the previous day  Date range should not impact on this column
Last 7 days	value for the last 7 days  Date range should not impact on this column
% of total	Total for single ad request / total for all ad requests *100% (for chosen date range)
Total	Total for single ad request for chosen date range

Under the “Top 10” table there is “Ad distribution” one. It is sorted alphabetically by name.

Ad distribution by Platform			
		Ad distribution by	
		Platform	
Name	Revenue	Impressions	eCPM
Platform with long name #1	150.00 \$	450	1.456.82 \$
Platform with long name #2	150.00 \$	450	1.456.82 \$

The select on the right hand side gives the ability to choose between Platform, Ad format, Channel. Here is a description of the table for each of them:

- Platform

Column name	Description
Name	Possible values: <ul style="list-style-type: none"> <li>- Web</li> <li>- Mobile Web</li> <li>- Mobile App IOS</li> <li>- Mobile App Android</li> </ul>
Revenue	Sum of win price for events where Paid impression count> 0
Impressions	Number of paid impressions for chosen date range
eCPM	Revenue / Paid impressions *1000 (for chosen date range)

- Ad format

Column name	Description
Name	Possible values: <ul style="list-style-type: none"> <li>- Banner</li> <li>- Video</li> </ul>
Revenue	Sum of win price for events where Paid impression count> 0
Impressions	Number of paid impressions for chosen date range
eCPM	Revenue / Paid impressions *1000 (for chosen date range)

- Channel

Column name	Description
Name	Possible values: <ul style="list-style-type: none"> <li>- OMP</li> <li>- PMP using Tadex DSP (data from PMP)</li> <li>- PMP using Tadex Client's DSP (data from PMP-G)</li> <li>- HB-OMP (to be done in drop 4)</li> <li>- HB PMP using Tadex DSP (to be done in drop 4)</li> <li>- HB PMP using Tadex Client's DSP (to be done in drop 4)</li> </ul>
Revenue	Sum of win price for events where Paid impression count> 0
Impressions	Number of paid impressions for chosen date range
eCPM	Revenue / Paid impressions *1000 (for chosen date range)

The last part of the Insights tab are two small tables: Ad request flow and Bid flow:

Ad request flow			Bid flow		
Stage	Ad requests	Remaining ad requests	Stage	Bids	Remaining bid requests
Total ad requests	42 274 400	100%	Bid requests	42 274 400	100%
Inventory matched	29 256 500	68.02%	Non-zero bids	29 256 500	68.02%
Winning bids	2 525 658	5.92%	Winning bids	2 525 658	5.92%
Paid impressions	2 213 824	5.08%			

- Ad request flow

Column name	Description
Stage	Possible values: <ul style="list-style-type: none"> <li>- Total ad requests</li> <li>- Inventory matched</li> <li>- Winning bids</li> </ul>

	- Paid impressions
Ad requests	First line - Total ad requests for chosen date range The rest - Number of ad requests in particular stage
Remaining ad requests	Number of ad requests in the particular row / Total ad requests * 100

- Bid flow

Column name	Description
Stage	Possible values: <ul style="list-style-type: none"> <li>- Bid requests</li> <li>- Non-zero Bids</li> <li>- Winning bids</li> </ul>
Bids	First line - Total bid requests for chosen date range The rest - Number of bid requests in particular stage
Remaining bid requests	Number of bid requests in the particular row / Total bid requests * 100

#### 6.4.1.3 VIEWABILITY

Filters and buttons and their rules are the same as in the Summary section (described [here](#)).

Here we have one table - Viewability rate by domain.

### Viewability rate by domain

Private Market Deal				Open Market by DSP		
Domain ▾	Impressions ▾	Viewability rate ▾	CTR ▾	Impressions ▾	Viewability rate ▾	CTR ▾
example_name.com	30 168	77.34%	1.59%	30 168	39.73%	0.00%
name.com	30 168	26.11 %	0.05%	30 168	52.26%	0.00%
variant.dk	30 168	60.89%	0.22%	30 168	74.48%	0.28%
variant.com	30 168	31.02%	0.08%	30 168	51.89%	0.22%
variant.co.uk	30 168	31.12%	0.04%	30 168	77.34 %	0.10%
fujicolor.com	30 168	21.26%	0.0.0%	30 168	51.89%	0.04%
fujiprofessional.com	30 168	50.18%	0.14%	30 168	59.85%	0.23%
fujitips.com	30 168	85.66%	0.03%	30 168	60.89%	0.12%
times.com	30 168	49.60%	0.04%	30 168	35.21%	0.29%
times.co.uk	30 168	19.00%	0.02%	30 168	77.34%	0.13%
<b>Total</b>	<b>1 456 798</b>	<b>44.00%</b>	<b>0.18%</b>	<b>1 456 798</b>	<b>44.00%</b>	<b>0.18%</b>

10 / page ▾ Showing 1 to 10 of 222 results < 1 2 ... 50 >

Border values determining the colors are

- for viewability:
  - <=40 - 40.99%
  - 41-54.99%
  - 55 - 55.99%
  - 56-64.99%
  - >=65%
- for CTR
  - <= 0.1 - 0.109%
  - 0.11-0.12%
  - 0.13%
  - 0.14-0.149%
  - >=0.15%

It is divided into two parts - Private Market Deal and Open Market by DSP. Both have the same columns:

Column name	Description
Domain	Domain name
Impressions	Number of paid impressions for chosen date range
Viewability rate	% Sum of valid and viewable Impression / sum of impression analyzed

CTR	% Clicks / Paid impressions * 100 for chosen date range
-----	---

At the bottom there is a “Total” line:

Total impressions	Sum of impression analyzed
Total viewability rate	% Total sum of valid and viewable Impression / total sum of impression analyzed
Total CTR	% Sum of clicks / sum of paid impressions * 100 for chosen date range

#### 6.4.2 ✓ PRECALCULATE DASHBOARD METRICS

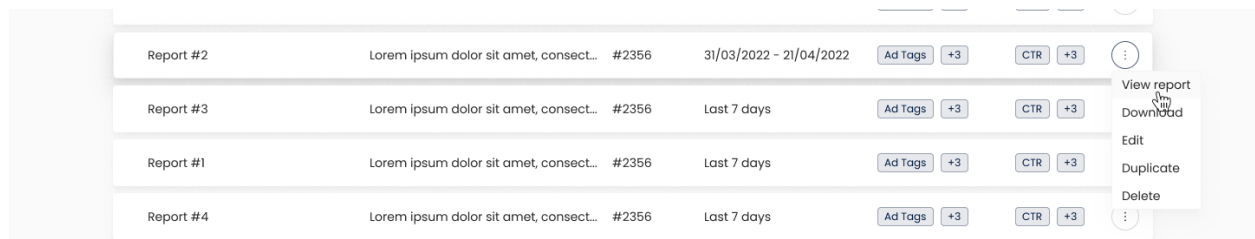
Dashboard has many metrics aggregating tracker and exchange events with limited filtering. It should be fast, so we have to pre calculate the data.

- For every ad tag and date, all base metrics shown in the dashboard (not ones calculated from other aggregated metrics like CTR) are stored in a database table.
- They are periodically updated based on ETL data.

The default filters for the dashboard is: one chosen publisher and 7 days date range.

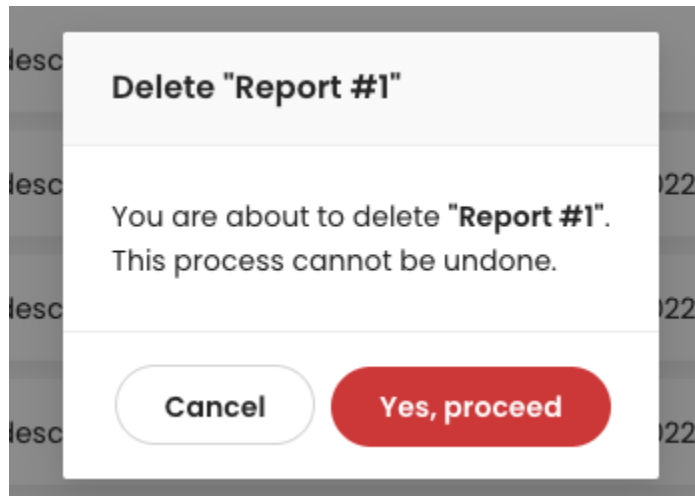
#### 6.4.3 ✓ DELETE THE REPORT FROM THE LIST

On the report list, in each row, there is a menu. The last position in the menu is “Delete”



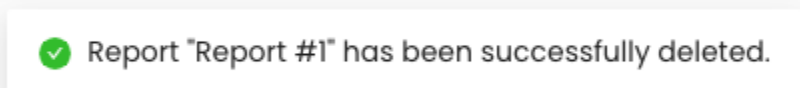
Report #2	Lorem ipsum dolor sit amet, consectetur...	#2356	31/03/2022 - 21/04/2022	Ad Tags +3	CTR +3	⋮
Report #3	Lorem ipsum dolor sit amet, consectetur...	#2356	Last 7 days	Ad Tags +3	CTR +3	⋮
Report #1	Lorem ipsum dolor sit amet, consectetur...	#2356	Last 7 days	Ad Tags +3	CTR +3	⋮
Report #4	Lorem ipsum dolor sit amet, consectetur...	#2356	Last 7 days	Ad Tags +3	CTR +3	⋮

After clicking the “Delete” button the confirmation modal is displayed:

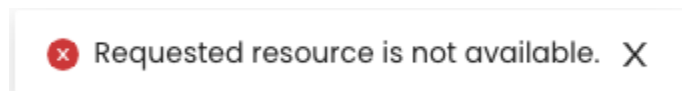


After clicking the confirm button, the list is refreshed.

After successful deleting, the notification is displayed:



If an error occurs, an appropriate notification is displayed (eg. the below error appears when user tries to remove the report which is already deleted):



#### 6.4.4 **✓ AGGREGATE DOMAIN REPORT DATA**

The Domain report depends on report data that should be aggregated; then it can be quickly processed into reports with slight rendering differences for publishers and Telkomsel users.

- Exact metrics to show in the report:
  - Publisher
  - Site ID
  - Site
  - Ad tag ID
  - Ad tag
  - Domain
  - Date
  - Passback reason
  - Total request
  - Overall passback impressions
  - Paid impressions
  - Revenue \$
- Date range of the report data.

#### 6.4.5 ✓ AGGREGATE AD TAG REPORT DATA

The ad tag report depends on report data that should be aggregated; then it can be quickly processed into reports with slight rendering differences for publishers and Telkomsel users.

- Exact metrics to show in the report
  - Publisher
  - Publisher ID
  - Site
  - Site ID
  - Ad tag
  - Ad tag ID
  - Remarks
  - Ad Tag Created Date
  - Ad Tag Status
  - Total Request
  - Paid Impressions
  - Revenue (\$)
  - Bid Win Rate (%)
  - Fill Rate (%)
  - (% Paid Impression / Ad Request)

#### 6.4.6 ✓ GENERATE AD TAG REPORT

An Admin or publisher can request an ad tag report for any publisher.

A publisher can request an ad tag report which is exactly for their publisher.

The report is available in CSV and XLSX formats.

The report is also available as a paginated JSON response for use by the frontend.

An Admin or publisher can set remark % Paid Impression / Ad Request threshold.

Here is the [sample xls for ad tag report](#) and the description of the columns:

Field name	Field description
Publisher	Publisher's name (from database)
Publisher ID	Publisher's ID (from database)
Site	Publisher's site name (from database)
Site ID	Publisher's site ID (from database)
Ad tag	Publisher's ad tag name (from database)
Ad tag ID	Publisher's ad tag ID (from database)
Remarks	! (exclamation mark will show if % Paid Impression / Total Request is less than the value set in <i>Remark level</i> input on Ad tag report page in application)

Ad Tag Creation Date	From database (visible also on deal report table)
Ad Tag Status	<p>if the ad tag had any ad requests within the period the report was generated for, possible values:</p> <ul style="list-style-type: none"> <li>• Implemented</li> <li>• Not implemented</li> </ul> <p>where:  implemented = active (it has at least 1 ad request within the report date period)  not implemented = inactive (it did not have any ad requests)</p>
Total Request	Total requests received by SSP
Paid Impressions	Monetized impression count
Revenue (\$)	Total revenue sum per publisher
Bid Win Rate (%)	% of winning bids among received bids
Fill Rate (%) (% Paid Impression / Ad Request)	% Paid Impression / Total Request

#### 6.4.7 ✓ **GENERATE DOMAIN REPORT**

An admin/publisher relationship can request a domain report for any publisher.

Here is the [sample xls for domain report](#) and the description of the columns:

Field name	Field description
Publisher	Publisher's name (from database)
Publisher ID	Publisher's ID (from database)
Site	Publisher's site name (from database (visible also on deal report table)
Site ID	Publisher's site ID (from database (visible also on deal report table)
Ad tag	Publisher's ad tag name (from database (visible also on deal report table)
Ad tag ID	Publisher's ad tag ID (from database (visible also on deal report table)
Domain	Publisher's domain name (from database) (eg. pstudio.tadex.id)
Date	Denotes for what date a specific row contains data
Passback reason	<p>reasons the impression was not monetized, possible values:</p> <ul style="list-style-type: none"> <li>• <i>no_rule_match</i> - No RTB rules match the ad request</li> <li>• <i>dsp_error</i> - DSP failed to respond with a valid response</li> </ul>



	<ul style="list-style-type: none"> <li>• <i>no_bid</i> - DSP responded with no bid</li> <li>• <i>bid_blocked</i> - All bids returned by DSP are blocked by RTB rules or the blocklist</li> <li>• <i>bid_under_floor</i> - All bids returned by DSP and not blocked have prices below the bid floor</li> <li>• <i>invalid_bid</i> - All bids returned by DSP are invalid according to the bid request</li> <li>• <i>all_demand_blocked</i> - Matched RTB rules are known to reject every possible bid, so no bid request is sent</li> <li>• <i>bid_request_rate_limited</i> - Bid request not sent due to rate limiting</li> <li>• <i>domain_rejected</i> - Domain was rejected because it is not verified by ads.txt file</li> <li>• <i>impression_not_passed_back</i> - exchange returned ad for the user</li> </ul>
Total Request	Total requests received by SSP
Overall Passback impressions	Non-monetized impression count
Paid Impressions	Monetized impression count
Revenue (\$)	Total revenue sum per publisher

A publisher can request an ad tag report which is exactly for their publisher.

The report is available in CSV and XLSX formats.

The report is also available as a paginated JSON response for use by the frontend.

In XLSX it is formatted like in the attached template.

Admin/publisher relationship can set the % Paid Impression / Ad Request threshold.

#### 6.4.8 ✓ FUNNEL ANALYSIS

Funnel is the second tab on the Reports page.

At the top, there are 6 filters

All reports
Funnel
Invocing

Platforms

Select platforms

Apps/Sites

Select apps/sites

Deals

Select deals

Ad formats

Select ad formats

DSPs

All DSPs

Date range

Custom date range

Start date \*

01/04/2022

End date \*

30/04/2022

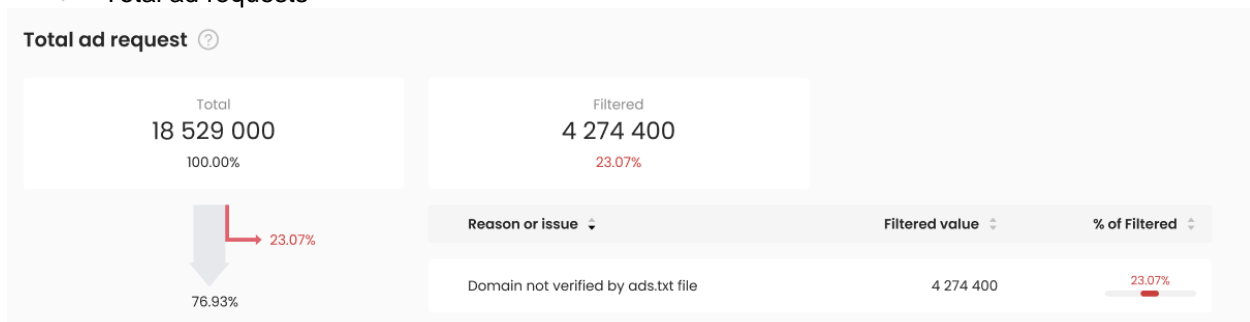
Apply filters

Filter Name	Description
Platform	Select: multiple  Available options: <ul style="list-style-type: none"> <li>Web</li> <li>Mobile Web</li> <li>Mobile app IOS</li> <li>Mobile app Android</li> </ul>
Apps/Sites	Select: multiple  List of all sites (for admin) / all sites connected to logged in publisher Default: options in multi-selects are sorted alphabetically, the first option is selected by default
Deals	Select: multiple  List of all deals (for admin) *this filter is visible only for admin
Ad formats	Select: multiple  Available options: <ul style="list-style-type: none"> <li>Banner</li> <li>Video</li> </ul>
DSP's	Select: multiple  List of DSPs integrated with SSP; currently only MyAds is available Default: all
Date range	Select - single + datapicker  Available options: <ul style="list-style-type: none"> <li>Today - current day</li> <li>Yesterday</li> <li>Last 7 days - last 7 days starting from day -1</li> </ul>

	<ul style="list-style-type: none"> <li>• Last 30 days - last 30 days starting from day -1</li> <li>• Last week - last full week monday-sunday</li> <li>• This month - current month starting from the 1st</li> <li>• Last month - last full month - 1st-28/30/31st</li> <li>• Quarter-to-Date - last 90 days - the full dataset that we have in database</li> <li>• Custom - custom pick of start and end date*</li> </ul> <p>When Custom date range is selected there appear 2 new datepickers:</p> <ul style="list-style-type: none"> <li>• Start date - required - date</li> <li>• End date - required - date</li> </ul>
--	---

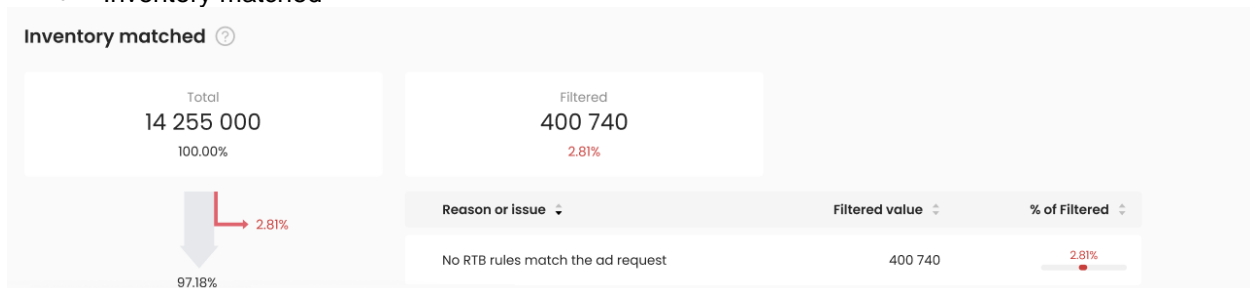
Below the filters there are 6 funnel reports:

- Total ad requests



Column name	Description
Reason or issue	Possible values: - Domain not verified by ads.txt file
Filtered value	Number of filtered ad requests
% of Filtered	Number of filtered ad requests as a percentage value

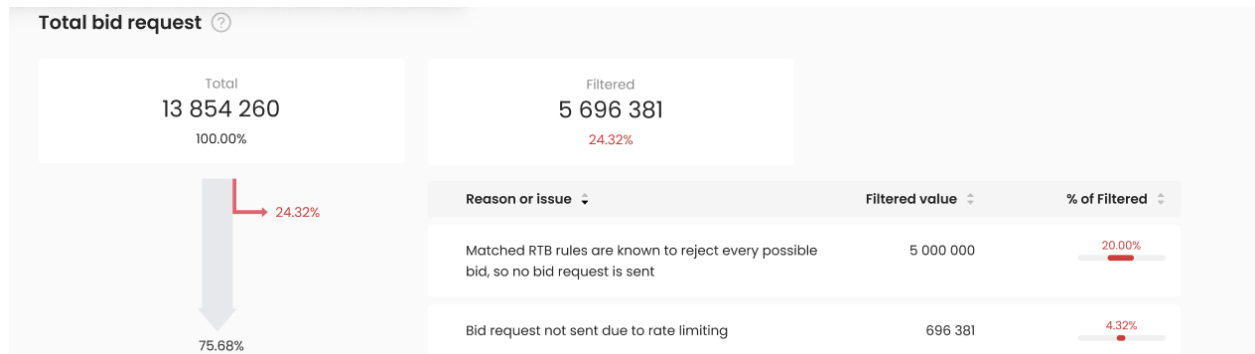
- Inventory matched



Column name	Description
Reason or issue	Possible values: - No RTB rules match the ad request

Filtered value	Number of filtered ad requests
% of Filtered	Number of filtered ad requests as a percentage value

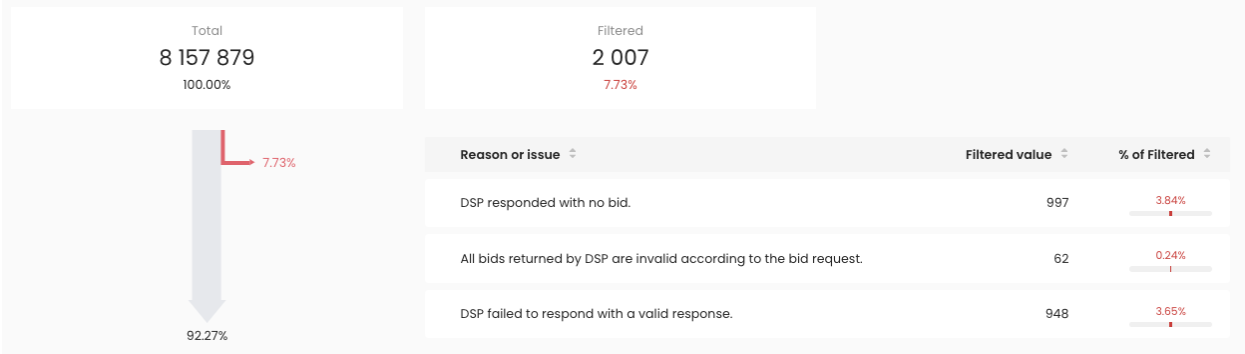
- Total bid request



Column name	Description
Reason or issue	<p>Possible values:</p> <ul style="list-style-type: none"> <li>- Matched RTB rules are known to reject* every possible bid, so no bid request is sent</li> <li>- Bid request not sent due to rate limiting**</li> </ul> <p>*There is a passback reason for no rules, it is the situation when rules allow some categories and domains and other rules disallow the same categories and domains so no bid matches</p> <p>**rate limit can be managed in environment variables (on production, this can be done through a service called "vault"). Also application has to be restarted in order to make this change "live". The defaults are in the code, and they are set or overwritten once, and as long as it needs to function as it is set, that's the end of it.)</p>
Filtered value	Number of filtered ad requests
% of Filtered	Number of filtered ad requests as a percentage value

- Non-zero bids

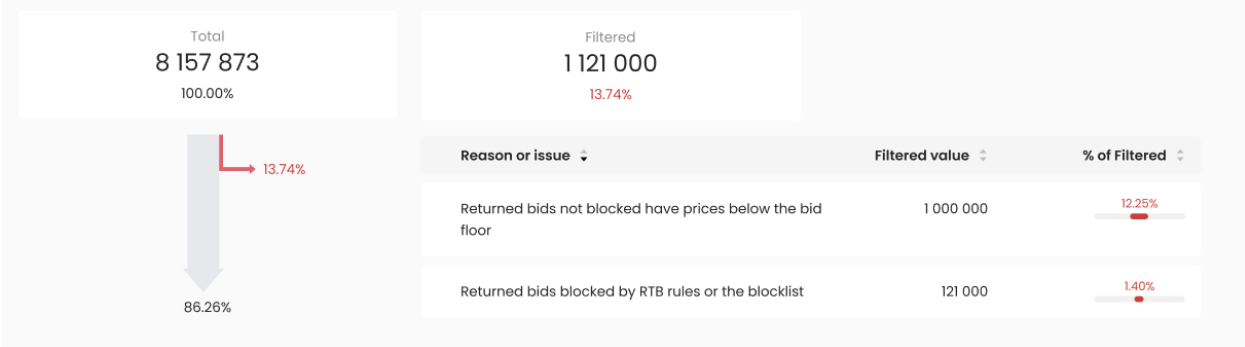
## Non-zero bids



Column name	Description
Reason or issue	Possible values: <ul style="list-style-type: none"> <li>- DSP responded with no bid</li> <li>- All bids returned by DSP are invalid according to the bid request</li> <li>- DSP failed to respond with a valid response.</li> </ul>
Filtered value	Number of filtered ad requests
% of Filtered	Number of filtered ad requests as a percentage value

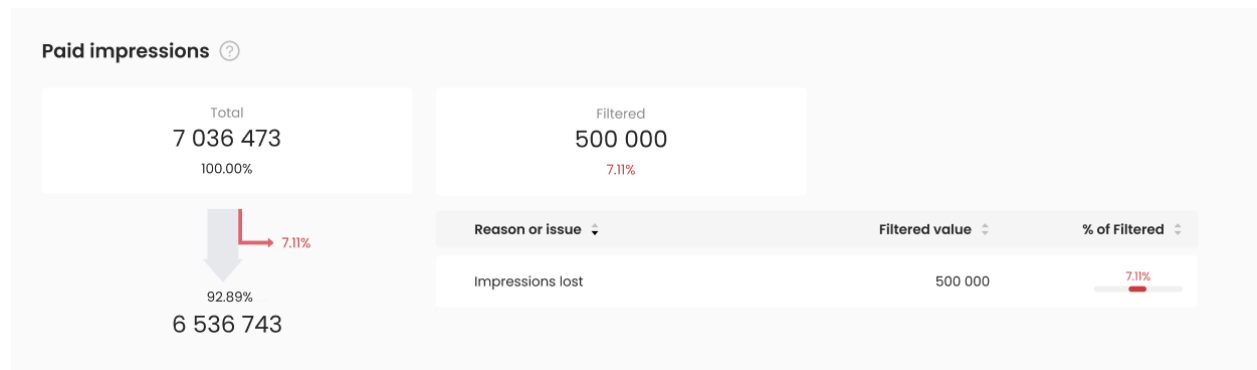
## • Winning bids

### Winning bids



Column name	Description
Reason or issue	Possible values: <ul style="list-style-type: none"> <li>- Returned bids not blocked have prices below the bid floor</li> <li>- Returned bids blocked by RTB rules or the blocklist</li> </ul>
Filtered value	Number of filtered ad requests
% of Filtered	Number of filtered ad requests as a percentage value

## • Paid impressions

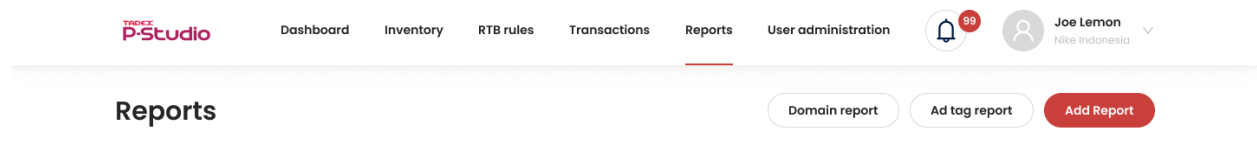


Column name	Description
Reason or issue	Possible values: - Impressions lost
Filtered value	Number of filtered ad requests
% of Filtered	Number of filtered ad requests as a percentage value

#### 6.4.9 ✓ ACCESS AD TAG REPORT

Ad tag report page is available for Admins, Publishers and Subpublishers. The subpublisher should be consistent with the platform and allowed to access domain/adtag reports and show subpublishers data when admins access it.

It is accessible by clicking the “Ad tag report” button on the Reports page.



At the top there are date filters:

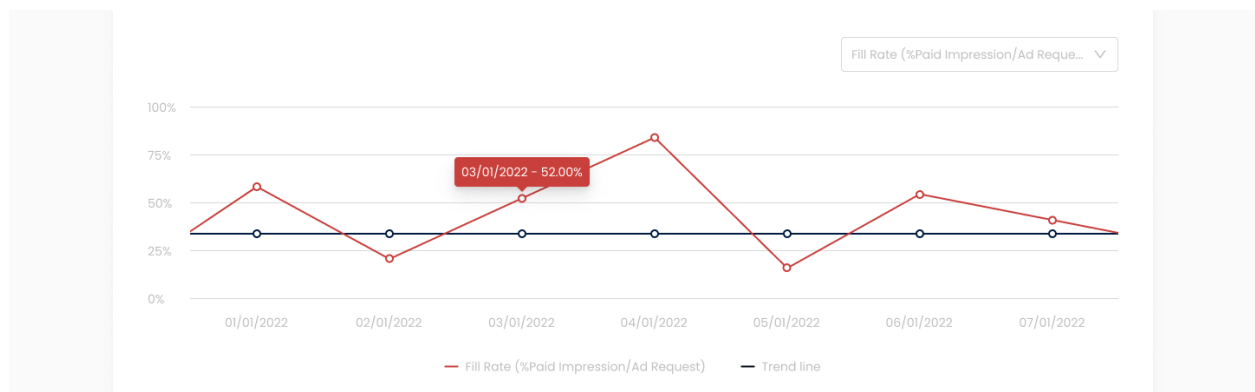


Filter name	Filter description
Date range	Select - single + datapicker  Available options: • Today

	<ul style="list-style-type: none"> <li>• Yesterday</li> <li>• Last 7 days</li> <li>• Last 30 days</li> <li>• Last Week</li> <li>• This month</li> <li>• Last month</li> <li>• Quarter-to-Date</li> <li>• Custom date range*</li> </ul> <p>*after choosing “Custom date range” and clicking “Save” the second selects appears, where user can choose date range from two datpickers</p> <p>Initial value for date range filter is: last 7 days</p>
Start date	Datapickers which are displayed after choosing “Custom date range” in the first select
End date	

And the Download button which allows to download report in two file extensions (xlsx and csv). The file is described [here](#).

Below the filters there is a chart:



On the right hand side there is a select with possible metrics to choose:

- Total Request:
- Paid Impressions
- Revenue
- Bid Win Rate
- Fill Rate (% Paid Impression / Total Request)

The graph shows the daily aggregate of the selected metric for all the dimensions in the report (e.g. for all Publishers). This is shown using a red line.

Dark blue line represents the trend line of the selected metric for all the dimensions in the report.

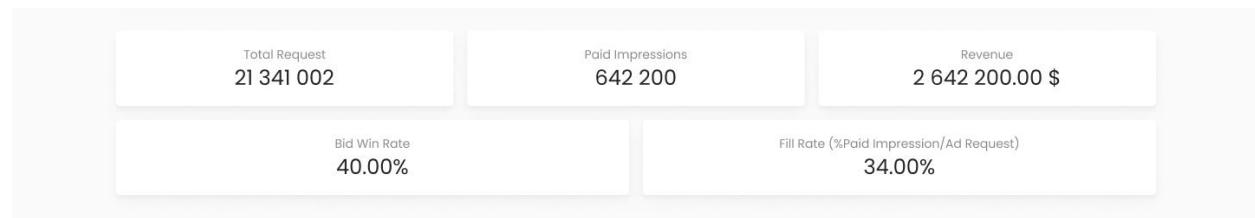
Line has a tooltip on hover for a specific point - days on graph.

The axis description changes with the selection of metrics.

The data presented is for the whole selected time period from reports configuration.

The graph has a legend below.

Below the chart there are 5 boxes:



This section consists of boxes with aggregates for all metrics related to ad tags:

- Total Request:
- Paid Impressions
- Revenue
- Bid Win Rate
- Fill Rate (% Paid Impression / Total Request)

The data in boxes represent the total aggregate for selected metric among all dimensions (e.g. for all Publishers).

Below the boxes there is a table with Remark level input:

Remark level

Publisher	Creation date	Status	Total Request	Paid Impressions	Revenue	Bid
▼ TELKOMSEL	08/03/2022		224 682	24 682	4 200.00 \$	
▼ MEIKO HOLDING	08/03/2022		224 682	24 682	4 200.00 \$	
▼ CG Press	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Hissau Group	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Pepsico	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Pepsico	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Typespect	08/03/2022		224 682	24 682	4 200.00 \$	
▼ ROSEFIELD	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Flack	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Higma	08/03/2022		224 682	24 682	4 200.00 \$	

10 / page ▼
Showing 1 to 10 of 222 results

<
1
2
3
4
5
...
11
>



Remark level

10%

Apply

Status	Total Request	Paid Impressions	Revenue	Bid Win Rate	Fill Rate (%Paid Impression/Ad Request)
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%
	224 682	24 682	4 200.00 \$	40.00%	34.00%

10 / page

Showing 1 to 10 of 222 results

<

1

2

3

4

5

...

11

>

User can click on the arrow next to the publisher's name and it will expand the row:

Remark level

10%

Apply

Publisher	Creation date	Status	Total Request	Paid Impressions	Revenue	Bid
▼ TELKOMSEL	08/03/2022		224 682	24 682	4 200.00 \$	
Subpublisher	Creation date	Status	Total Request	Paid Impressions	Revenue	Bid V
▼ TELKOMSEL	08/03/2022		224 682	24 682	4 200.00 \$	
Site (3 Total)	Creation date	Status	Total Request	Paid Impressions	Revenue	Bid V
▼ Site #1	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Site #2	08/03/2022		224 682	24 682	4 200.00 \$	
▼ Site #2	08/03/2022		224 682	24 682	4 200.00 \$	
Fill Rate (% Paid Impression / Total Request) is less than chosen remark level	Creation date	Status	Total Request	Paid Impressions	Revenue	Bid V
Ad tag #1	08/03/2022	Active	224 682	24 682	4 200.00 \$	
Ad tag #2	08/03/2022	Inactive	224 682	24 682	4 200.00 \$	
Ad tag #3	08/03/2022	Inactive	224 682	24 682	4 200.00 \$	
Ad tag #4	08/03/2022	Active	224 682	24 682	4 200.00 \$	
▼ MEIKO HOLDING	08/03/2022		224 682	24 682	4 200.00 \$	

Status - based on UX good practices we leave the publisher's and site's row empty and display the status only for ad tags. It is done, because as Publisher may be active but none of his ad tags are active - the report would then show distorted information if we showed "Active" status in publisher row. Under the publisher the subpublishers dimension will always be visible (even if no subpublisher exists). Publisher then will "hop" to subpublishers, which will allow to display his data - not belonging to subpublishers. This will allow to display his data and the data from his subpublishers.

Remark level input - indicates maximum fill rate value to gain a red mark next to its name. Exclamation mark will show if % Paid Impression / Total Request is less than the value set in Remark level input on Ad tag report page in application.

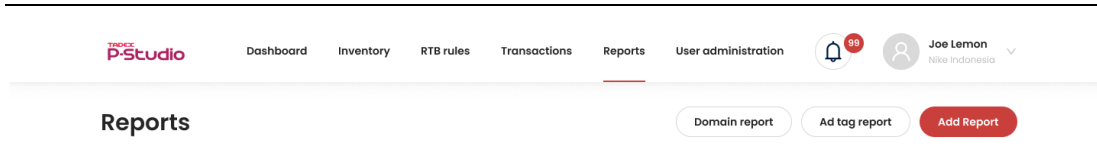
Here is the description of a table:

Column name	Column description
Publisher	Publisher name
Site	Sites that are connected to the publisher (visible after clicking the arrow)
Ad tags	Ad tags that are connected to site (visible after clicking the arrow)
Creation date	Date format: DD/MM/YYYY
Status	Possible values: <ul style="list-style-type: none"> <li>- Active</li> <li>- Inactive</li> </ul> as this is an ad tag report, status will be displayed only for ad tag. In publisher's and site's row it will be empty
Total request	Total requests per site/ad tag (visible after clicking the arrow)
Paid impressions	Monetized impression count
Revenue	Total revenue sum per publisher
Bid win rate	% of winning bids among received bids
Fill rate (% Paid impression / Total Request)	% Paid Impression / Total Request

#### 6.4.10 ✓ ACCESS DOMAIN REPORT

Domain report page is available for Admins, Publishers and Subpublishers.

It is accessible by clicking the "Domain report" button on the Reports page.



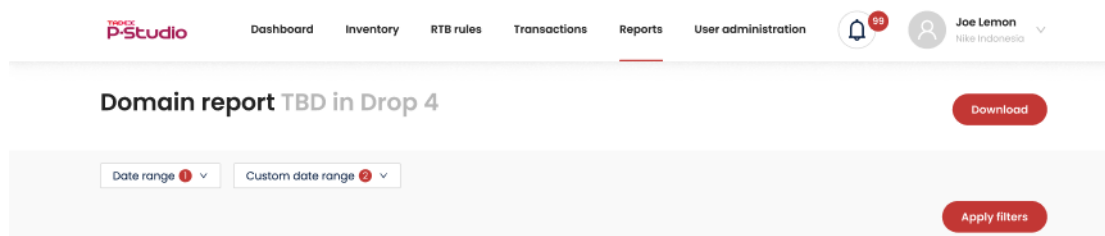
When the button is clicked the user is redirected to the Domain report view.

The report consists of 4 sections:

## Section 1

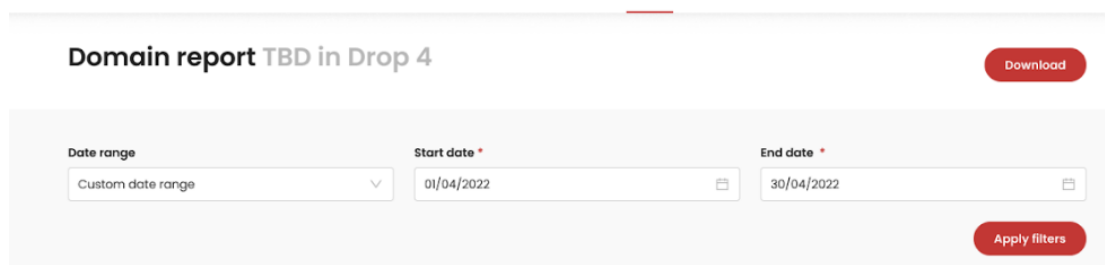
Consists of the name - "Domain report", and an option to select the date range of the report with options:

- Today - current day
- Yesterday
- Last 7 days - last 7 days starting from day -1
- Last 30 days - last 30 days starting from day -1
- Last week - last full week monday-sunday
- This month - current month starting from the 1st
- Last month - last full month - 1st-28/30/31st
- Quarter-to-Date - last 90 days - the full dataset that we have in database
- Custom - custom pick of start and end date



When Custom date range is selected there appear 2 new datepickers:

- Start date - required - date
- End date - required - date



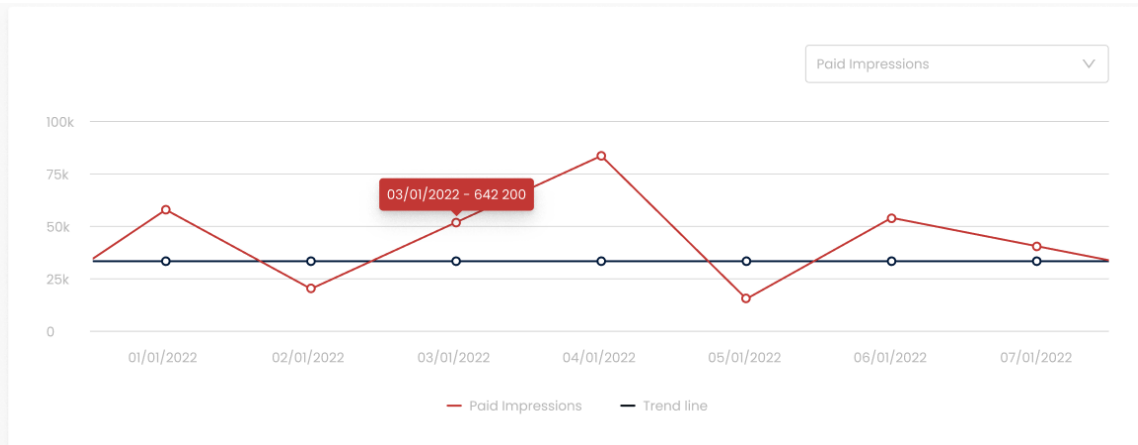
There is also a Download button here to download the file on your computer. Here is the [sample xls for domain report](#)

## Section 2

This is where we use a graph to represent one of the four metrics. You can choose which one you want to see (Total Request, Overall passback impressions, Paid impressions, Revenue).

The Graph shows the daily aggregate of the selected metric for all the dimensions in the report (e.g. for all Publisher's sites). This is shown using a red line. The line has a tooltip on hover for specific points -

days on graph. The axis description changes with the selection of metrics. The data presented is for the whole selected time period from reports configuration. The graph has a legend.



### Section 3

This section consists of boxes with aggregates for all metrics in the report. The data in boxes represent the total aggregate for metric among all dimensions (e.g. for all Publisher's sites).

Total Request 3 100 893	Overall passback impressions 1 637 910	Paid Impressions 642 200	Revenue 2 863 080.00 \$
----------------------------	---	-----------------------------	----------------------------

### Section 4

This section presents the detailed data for selected dimensions and metrics in reports configuration. The list is nested for all the dimensions - next dimension from the list is a child of the previous one. The data are aggregated at every level of nesting. The table is paginated.

Site	Total Request	Overall passback impressions	Paid Impressions	Revenue
▼ example (ID 396206)	637 910	224 682	1 682	4 200.00 \$
▼ example 2 (ID 396432)	637 910	224 682	1 682	4 200.00 \$
▼ example 3 (ID 396423)	637 910	224 682	1 682	4 200.00 \$
▼ long_name_example_na...	637 910	224 682	1 682	4 200.00 \$
▼ example 5 (ID 123456)	637 910	224 682	1 682	4 200.00 \$
▼ example 6 (ID 396206)	637 910	224 682	1 682	4 200.00 \$
▼ example 7 (ID 567853)	637 910	224 682	1 682	4 200.00 \$
▼ example 8 (ID 876543)	637 910	224 682	1 682	4 200.00 \$
▼ example 9 (ID 543221)	637 910	224 682	1 682	4 200.00 \$
▼ example 10 (ID 396206)	637 910	224 682	1 682	4 200.00 \$

10 / page ▼
Showing 1 to 10 of 222 results
1 2 3 4 5 ... 11 >

Dimensions that are available:

- Site (Site ID)
- Ad tag (Ad tag ID)
- Domain
- Date
- Passback reason

Metrics that we can choose:

- Total requests
- Overall passback impressions
- Paid impressions
- Revenue

Site	Total Request	Overall passback impressions	Paid Impressions	Revenue
▼ example (ID 396206)	637 910	224 682	1 682	4 200.00 \$
^ example 2 (ID 396432)	637 910	224 682	1 682	4 200.00 \$
Ad tag	Total Request	Overall passback impressions	Paid Impressions	Revenue
▼ Ad tag #1 (ID 396333)	637 910	224 682	1 682	4 200.00 \$
▼ Ad tag #2 (ID 396444)	637 910	224 682	1 682	4 200.00 \$
^ Ad tag #3 (ID 396555)	637 910	224 682	1 682	4 200.00 \$
Domain	Total Request	Overall passback impressions	Paid Impressions	Revenue
^ example.com	637 910	224 682	1 682	4 200.00 \$
Date	Total Request	Overall passback impressions	Paid Impressions	Revenue
^ 08/03/2022	637 910	224 682	1 682	4 200.00 \$
Passback reason	Total Request	Overall passback impressions	Paid Impressions	Revenue
Unauthorized in ...	637 910	224 682	1 682	4 200.00 \$
▼ example 3 (ID 396423)	637 910	224 682	1 682	4 200.00 \$
▼ long_name_example_na...	637 910	224 682	1 682	4 200.00 \$
▼ example 5 (ID 123456)	637 910	224 682	1 682	4 200.00 \$

#### 6.4.11 ✓ PULL DATA FROM MOAT

\*This part is backend only

The metrics to be pulled from MOAT are:

Metric name	Metric description
Impressions Analyzed	The number of impressions tracked by Moat filtered for General and Sophisticated Invalid Traffic, and IVT unmeasurable impressions.
Valid and Viewable Impressions	The number of valid impressions that were viewable under the MRC standard (50% of pixels in-view for at least 2 continuous seconds).
Valid and Viewable Rate	The percentage of valid impressions that were viewable under the MRC standard (50% of pixels in-view for at least 2 continuous seconds).

For measuring viewability of ads we use an external service called MOAT. Scope of the integration with MOAT is divided into two areas, with a shared component being: the logic of how reporting dimensions are hashed.

#### Hashing data

We need to assign the viewability metrics obtained from MOAT to existing reporting data that comes from ETL, that is divided by the following dimensions:

```
publisher_id, publisher_name, subpublisher_id, subpublisher_name, site_id,
site_name, ad_tag_id, ad_tag_name, domain, platform, ad_format, ad_size,
channel, campaign_period, passback_reason, dsp_name, deal_id.
```

The difficulty here is that MOAT limits the number of available fields to six (4 levels + 2 slicers). As a result there are not enough slots available in MOAT so that we would be able to just pass all the dimensions used for grouping in ETL as is. In order to solve the issue, instead of transferring actual dimension values we calculate sha256 hash out of all the dimensions that need to be matched in the reporting database and send such a hash as the value of a single field to MOAT. Then later, when we obtain data from the MOAT API, we are able to find corresponding rows for update by calculating respective hashes on the reporting database level and finding the matching ones.

#### Sending data to MOAT

From the perspective of a site visitor it's a 3rd party JS library that is dynamically appended to paid impressions' ads code by exchange.

Dimensions passed in placeholders to MOAT the tracking script generated by exchange:

- level1 → publisher\_id,
- level2 → domain,
- level3 → ad\_tag\_id,
- level4 → sha256 hash made out of all the dimensions used for grouping data in the reporting database (refer to Hashing data section for more details),
- slicer1 → site\_id,
- slicer2 → sentinel value (eg. tadex\_ssp) shared between Exchange and SSP that is used for differentiating Tadex P-Studio SSP data from other MOAT data exported there by other services

Probability of appending MOAT tracking code can be adjusted in exchange via an environment variable, ie. not all paid impressions have to be tracked.

#### Obtaining data from MOAT

Once data is exported, processed and made available by the MOAT service a daily background task fetches it using the MOAT API. Fields that are fetched and preserved in the reporting database:

`impressions_analyzed, valid_and_viewable, valid_and_viewable_perc, level4`  
(ie. sha256 hash of reporting dimensions)

The daily task starts with making a call to the MOAT API requesting the desired fields, filtered by:

- a specific day - configurable via env variable, by default script obtains data for the day before yesterday of the day the script is run for (eg. run on 2023-04-03 will obtain data for 2023-04-01); data for the same day is not available as per MOAT docs: "start: The beginning date of the inclusive range. Cannot be today's date",
- slicer2 - this field is used for filtering only data that applies to TADDEX PStudio, its value is shared between SSP and Exchange and configured via environment variables, by default: `tadex_ssp`.

Once the data is obtained, the returned JSON is transformed into a list of arguments for a subsequent task that handles preserving the data in the reporting database. In case of failure in the process of obtaining data from MOAT an immediate retry takes place. Maximum number of retries is defined in an environment variable and defaults to 5. In case of a permanent failure (ie. exhausting the pool of available retries) the task backs off with appropriate information in logs. Regardless of the result, the next task run is scheduled for the following day.

The last step of the process is preserving data into the reporting database. A dedicated task handles that responsibility. It starts with introspection of the reporting database. In case that columns for `IMPRESSIONS_ANALYZED` (integer), `VALID_AND_VIEWABLE` (integer),

`VALID_AND_VIEWABLE_PERC` (float) are missing then the columns are created. Next, hashes of dimensions in the reporting database side are calculated, and finally the list of obtained rows from MOAT is traversed so that rows with matching hashes get updated with values for `IMPRESSIONS_ANALYZED`, `VALID_AND_VIEWABLE`,

`VALID_AND_VIEWABLE_PERC` columns based on data obtained from the previous task.

## 6.5 [OLA] INTEGRATION WITH BIMA

### 6.5.1 ✓ SSP DOWNLOAD AUDIENCE DATA FROM BIMA

\*This part is backend only

To properly configure audiences in Deals and RTB Rules, the backend side of SSP do once a month a synchronization process with BIMA API. The synchronization process exports all audiences to our system. Audiences that exist in BIMA are taken into account as a source of

truth which means that any changes applied to them in BIMA side will be synchronized in our system.

## Synchronization process

### Flow

The process takes place in the background as a task that consists of two stages:

#### Stage 1 - obtain audiences

In this stage request for audiences is sent from SSP to BIMA. If the request fails in case of timeout or other abnormalities then it will be the appropriate number of times retried. If the request success then the all obtained audience data will be parsed and prepared for the next stage

#### Stage 2 - synchronize audiences

In this stage, the process receives parsed audience data from the previous stage and creates, updates, or deletes audiences in the SSP database to be up-to-date with audiences from the BIMA.

The decision of whether the audience is created, updated, or deleted depends on below criteria:

1. The obtained audience will be **created** if it does not exist in the SSP database.
2. The obtained audience will be **updated** if it exists in the SSP database and its data changed since the previous synchronization.
3. All audiences that exist in the SSP database but do not exist in obtained audiences are **deleted**.

### Versioning

Audiences are versioning, so it's easy to track the changes taken during multiple synchronization processes.

### Configuration

The process itself is fully configurable, we can control the configuration used during synchronization such as:

1. API key,
2. API secret,
3. API list audience endpoint URL,
4. maximum number of retries taken in case of failure in obtaining audiences stage,
5. time in seconds between the above retries,
6. the time that indicates how often the whole synchronization process is taken.



## Audience storage

Audiences are stored in SSP backend's database with table schema:

Audiences		
name	type	description
id	uuid	generated by SSP
external_id	varchar(255)	from BIMA (segment_id)
name	varchar(255)	from BIMA (segment_name)
total_users	bigint	from BIMA (uniq_msisdn)
created_at	timestamp	timestamp of creation
updated_at	timestamp	timestamp of the last updation
deleted	timestamp	timestamp of deletion

### 6.5.2 ✓ SSP TARGETING DEALS AT AUDIENCES (PMP AND RTB)

When creating a new deal or RTB rule, in the “Audience” section, admin user can choose one or more audiences to which a given deal / RTB rule will be targeted.

### Add RTB rule

- Basic info
- Price floor
- Demand source
- Inventory
- Audience**
- Day parting

Save

### Audience

The prices for audiences usage will be added to the floor price.

Name	Total users	CPM Price	
Audience long long name #1	637 910	0.70 \$	+ Use
Audience #2	200 910	0.70 \$	+ Use
Audience #3	1 500 200	0.70 \$	+ Use
Audience long long name #4	1 983	0.70 \$	+ Use
Audience #5	637 910	0.70 \$	+ Use
Audience #6	22 456	0.70 \$	+ Use
Audience long long name #7	1 500 200	0.70 \$	+ Use
Audience #8	637 910	0.70 \$	+ Use
Audience long long name #9	200 333	0.70 \$	+ Use
Audience #10	1 983	0.70 \$	+ Use

10 / page
Showing 1 to 10 of 222 results
1 2 ... 50

#### Audience configuration

Total price 0.00 \$

Operation
Not in Any

No audience is selected

Previous

Next

The above view presents list of audiences that we receive from BIMA. Audiences are fetched from BIMA once per moth (as default) but this period is configurable via environment variables.

Field name	Field description
Name	Audience name (data from BIMA). Sortable.

<b>Total users</b>	Number of users in audience (data from BIMA). Sortable.
<b>CPM Price</b>	Default CPM price (0.7) that will be used after adding audience to RTB rule / Deal.

Search input above the table allows to search audiences by its name.

“Audience configuration” section shows selected audiences from the table. After clicking “Use” button the selected audience will be added to the RTB rule / Deal configuration as shown below.

#### Audience configuration

Total price **4 000.00 \$**

*i* Assigned audiences that have been removed:

- Audience #20
- Audience #21
- Audience #22

**Operation**  

Not in Any

In Any

Not in Any

In All

Not in All

Name	Total users	CPM Price ⓘ ⚙	
Audience #2	637 910	1 000.00 \$	X Remove
Audience #5	637 910	1 000.00 \$	X Remove
Audience long long name #7	1 500 200	1 000.00 \$	X Remove
Audience long long name #9	200 333	1 000.00 \$	X Remove

Admin user can edit default CPM price for audiences under “CPM Price” column. Also, it is possible to remove audience from RTB rule / Deal after clicking on “Remove” button.

Total price shows summarized price of selected audiences. Total price means that this value will be added to floor price of such RTB rule / Deal.

Information about deleted audiences is shown only in edit view when some of selected audiences during Deal / RTB rule creation have been deleted in BIMA. In such situation RTB rule / Deal is automatically inactive and user must edit selected audiences (so its not include the deleted) in order to activate it again. After saving changes RTB rule / Deal will be active. There is also a case when audience from BIMA will

be undeleted, then user still see such audience on the list of deleted in RTB rule / Deal and its status is inactive until user edit audiences and save new configuration.

Operation determines the logic how user visiting publisher page is matched with audiences in RTB rule / Deal. After selecting operator description is shown with example, so user know how selected operator works for matching audiences to user visiting publisher page (as shown in the below screenshot).

**Audience configuration**

Total price 1 005.00 \$

Operation  
Not in Any

*Assigned audiences that have been removed:*

- Audience #20
- Audience #21
- Audience #22

Not In Any operation means BLACKLIST of selected multiple audiences.

For example: "Cooking" and "Fashion" audiences are selected then the user will be headed to this RTB rule if their profile is not Cooking or Fashion.

If their profile is only cooking, they also will be blocked.

Name	Total users	CPM Price	
Audience #2	637 910	5.00 \$	X Remove
Audience long long name #7	1 500 200	1 000.00 \$	X Remove

Previous

Next

Possible operations are shown in the below table.

Operation	Description	Example
in any	UNION of selected multiple audiences	"Cooking" and "Fashion" audiences is selected then the user will be headed to this deal if their profile is Cooking or Fashion.
not in any	INTERSECT of selected multiple audiences	"Cooking" and "Fashion" audiences are selected then the user will be headed to this deal if their profile is Cooking and Fashion.
in all	BLACKLIST of selected multiple audiences	"Cooking" and "Fashion" audiences are selected then the user will be headed to this deal if their profile is not Cooking or Fashion. If their profile is only cooking, they

		also will be blocked.
not in all	INTERSECT AND BLACKLIST of selected multiple audiences	"Cooking" and "Fashion" audiences are selected then the user will be headed to this deal if their profile is not Cooking and Fashion. If their profile is only cooking, the deal will be headed for them.

If publisher user use edit view the list of audiences that can be added to RTB rule / Deal is not shown and audience configuration is not editable (as publisher has no such permission).

### Audience

#### Audience configuration

Total price **4 000.00 \$**

Operation  
Not in Any

*i* Assigned audiences that have been removed:

- Audience #20
- Audience #21
- Audience #22

Name	Total users	CPM Price
Audience #2	637 910	1 000.00 \$
Audience #5	637 910	1 000.00 \$
Audience long long name #7	1 500 200	1 000.00 \$
Audience long long name #9	200 333	1 000.00 \$

Previous

Next

### 6.5.3 ✓ SYNCHRONIZATION OF AUDIENCE DATA BETWEEN SSP AND EXCHANGE

\*This part is backend only

After a user configures a Deal or RTB Rule including audiences, the relevant audience data is made available to Exchange along with Deals and RTB Rules. Exchange retrieves this data by calling the GET HTTP method on the /internal/exchange-export/ endpoint.

The endpoint is documented here:

[https://docs.dev.pstudio.tadex.id/swagger/?urls.primaryName=Backend%20for%20exchange#/default/get\\_internal\\_exchange\\_export](https://docs.dev.pstudio.tadex.id/swagger/?urls.primaryName=Backend%20for%20exchange#/default/get_internal_exchange_export)

The audience data is located under the audience\_config key in the Deal and RTB Rule objects. If Deal or RTB Rule don't have an audience configuration then the value for this key is null.

Audience configuration for RTB Rule and Deal can look like this:

```
"audience_config": {
  "ids": [
    "TSEL_3_41",
    "TSEL_5_01",
    "TSEL_4_02"
  ],
  "operation": "in_any",
  "price": "2.1"
},
```

where:

ids - IDs from BIMA for audiences,

price - total price of audiences,

operation - contains one of four options:

in\_any - means UNION of selected multiple audiences,

not\_in\_any - means BLACKLIST of selected multiple audiences,

in\_all - means INTERSECT of selected multiple audiences,

not\_in\_all - means INTERSECT AND BLACKLIST of selected multiple audiences.


#### 6.5.4 ✓ ADMIN CAN SET DISCOUNTED PRICE FOR AUDIENCE

The discounted price is set per specific deal. In the deal management admin can set up discounted price for each individual audience used in a deal. The discounted price is to be sent to the Exchange via existing API instead of the regular price.

**Won't do, covered by SSP targeting deals at audiences**

## 7 CLIENT CONFIRMATION ACCEPTANCE

Provide client's signature to confirm that this document has been reviewed and agreed by both development as well as end user side

Position	Name	Signature	Date
Manager Digital Advertising Ad Tech Development	Aji Atturmudzi		5-Jun-2023
Manager Mobile Advertising System Management	Mahfut Effendi		