

Section 4: Adobe Target and supported touch points

(6%)

This toolkit is designed for Master Exam Aspirants. There are 8 Modules. Study 2 modules per week to stick to schedule. Technical Parts of applications are depicted in Videos, you can learn more about them from experience League. You can visit [Get prep page](#) to understand the contents and anticipate the learning journey.

Integrate Recommendations with email

Adobe Target supports send-time personalization of recommendations in email.

Three methods for integrating Target Recommendations with your Email Service Provider (ESP) are available. Your ESP's capabilities determine which method to use. Your account manager or consultant can help you choose the option that works best for you.

Method	Details
Method 1: Adobe Target Delivery API (Preferred)	Use the Adobe Target Delivery API to make per-customer/per-email requests for recommendations.
Method 2: Adobe Rawbox API	Use the Adobe Target Rawbox API to make per-customer/per-email requests for recommendations.
Method 3: Recommendations Download API	Use the Recommendations Download API to request bulk recommendations for a list of products or categories in CSV format.

Using method 1 or method 2 requires your ESP to make calls to an external API on a per-customer/per-email basis and wait for content to be returned. These methods are not supported by all ESPs; contact your ESP to determine if it is compatible with this integration pattern.

Using method 3 requires your ESP to join a list of recommendations by product ID or category ID to your list of emails. This method can be based on an attribute such as the customer's last viewed product, last purchased product, or most viewed category. However, your ESP must have access to this data in its customer profile in order to perform the join. Contact your ESP to determine if it has access to this data and is compatible with this integration pattern.

Open-time personalization of recommendations is not supported by Adobe Target.

IMPORTANT

The following capacity guidelines apply to the Delivery API and rawbox email template methods described below (methods 1 and 2):

- Requests should be rate-limited to the lower of 1,000 requests per second or 25 times your peak daily traffic.
- Ramp traffic in steps of 200 requests per second each minute.

Contact your account manager if you want to use higher rate limits.

Method 1: Use the delivery API (Preferred)

The delivery API is a POST request that works with build-time email. This option is the preferred method for build-time email.

Most email clients do not allow POST requests. Therefore, this API is not recommended for open-time use cases. Some email clients, such as Gmail or Outlook, can cache the content or block the image and require the recipient to pro-actively allow the image to render.

You cannot return default content using the delivery API.

The following code is a sample API delivery request:

```
curl -X POST \  
  'https://clientcode.tt.omtrdc.net/rest/v1/mbox/?client=clientcode' \  
  -H 'authorization: Bearer 3423614b-4843-4664-83c4-c6c3f6c8869b' \  
  -H 'cache-control: no-cache' \  
  -H 'content-type: application/json' \  
  -d '{  
    "mbox" : "email-mbox",  
    "tntId" : "111499796294071-449025.28_44",  
    "requestLocation" : {  
      "host" : "prod"  
    },  
    "profileParameters" : {  
    },  
    "mboxParameters" : {  
      "at_property": "b468a242-64a4-32a0-ca0c-890bddd78789",  
      "entity.id": "article-123",  
      "entity.event.detailsOnly" : "true"  
    }  
    "contentAsJson": true  
  }'
```

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Where clientcode is your Target client code.

NOTE

Be sure to provide a unique value for both sessionId and one of tntId or thirdPartyId for each email recipient (for example, for each API call). If you do not provide unique values for these fields, API response can slow or fail due to many events generated within a single profile.

See [Delivery API documentation](#) for more information.

Method 2: Use a rawbox email template

A rawbox is similar to an mbox request, but for non-Web environments, such as email service providers (ESPs). Because you don't have the Adobe Experience Platform Web SDK or at.js to use in rawbox requests, you must create your requests manually. The examples below explain how to work with rawbox requests in email.

NOTE

When using a rawbox and Target, see the important security notice under [Create allowlists that specify hosts that are authorized to send mbox calls to Target](#).

This approach allows you to track performance of recommendations in emails, test them in the normal way with a recommendation, and continue tracking on the site.

Set up a Recommendations activity in Target, using the [Form-Based Experience Composer](#) option. For the location, select the name of the mbox you've chosen to use in the rawbox request coming from the ESP. Select a design with the look and feel you want for your email. At email build time, the ESP makes a call to the Target servers for each rawbox in each email being generated. Your ESP must have a way to include the returned HTML in the email when it is sent.

The email system you use must be able to handle the following scenarios:

A valid response is received, but no recommendations are present

- In this case, the response is whatever is set as the mboxDefault parameter value. See explanation below on this parameter.
- The email provider should have a default HTML block of recommendations to use in this case.

The Target server times out and returns without data

- In this case, the Target server returns the following content:

```
//ERROR: application server timeout
```

- The email application should search for that text and must be able to handle the error. The email provider has multiple options for handling this case:
 - Try another server call immediately (recommended, perhaps with an attempt counter).
 - Toss out that particular email and continue to the next one.
 - Queue that particular email and rerun failed emails as a batch at the end of the initial run.

Sample request URL

https://client_code.tt.omtrdc.net/m2/client_code/ubox/raw?mbox=mbox_name&mboxSession=1396032094853-955654&mboxPC=1396032094853-955654&mboxXDomain=disabled&entity.event.detailsOnly=true&mboxDefault=nocontent&mboxNoRedirect=1&entity.id=2A229&entity.categoryId=5674

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Required parameters:

NOTE

To use Recommendations in email, the rawbox call must usually include either the entity.id or entity.categoryId or both, depending on the type of recommendation criteria. The sample call above includes both.

Parameter	Value	Description	Validation
client_code	<i>client_code</i>	The client's code used in Recommendations. Your Adobe consultant can provide this value.	
mbox	<i>mboxName</i>	The mbox name that is used for targeting.	Same validation as for all mbox calls. 250 character limit. Cannot contain any of the following characters: ', ", %22, %27, <, >, %3C, %3E
mboxXDomain	disabled	Prevents the response from setting a cookie in non-web environments.	

Parameter	Value	Description	Validation
entity.id (Required for certain types of criteria: view/view, view/bought, bought/bought)	<i>entity_id</i>	The productId the recommendation is based on, such as an abandoned product in the cart, or a previous purchase. If required by the criteria, the rawbox call must include the entity.id.	
entity.event.detailsOnly	true	If entity.id is passed, it is highly recommended to also pass this parameter to prevent the request from incrementing the number of tallied page views for an item, so as not to skew product view-based algorithms.	
entity.categoryId (Required for certain types of criteria: most viewed by category and top sellers by category)	<i>category_id</i>	The category the recommendation is based on, such as top sellers in a category. If required by the criteria, the rawbox call must include the entity.categoryId.	

Parameter	Value	Description	Validation
mboxDefault	<i>https://www.default.com</i>	<p>If the mboxNoRedirect parameter is not present, mboxDefault should be an absolute URL that returns default content if no recommendation is available. This URL can be an image or other static content.</p> <p>If the mboxNoRedirect parameter is present, mboxDefault can be any text indicating there are no recommendations, for example no_content. The email provider must handle the case where this value is returned and insert default HTML into the email.</p> <p>Security best practice: If the domain used in the mboxDefault URL is not allowlisted, you can be exposed to a risk of an Open Redirect Vulnerability. To avoid the unauthorized use of Redirector links or mboxDefault by third parties, Adobe recommends you use “authorized hosts” to allowlist the default redirect URL domains. Target uses hosts to allowlist domains to which you want to allow redirects. For more information, see Create Allowlists that specify hosts that are authorized to send mbox calls to Target in <i>Hosts</i>.</p>	

Parameter	Value	Description	Validation
mboxHost	<i>mbox_host</i>	The domain that is added to the default environment (host group) when the call fires.	
mboxPC	Empty	(Required for recommendations that use a visitor's profile.) If no "thirdPartyId" was provided, a new tntId is generated and returned as part of the response. Otherwise remains empty. Note: Be sure to provide a unique value of mboxSession and mboxPC for each email recipient (i.e., for each API call). If you do not provide unique values for these fields, API response can slow or fail due to the large number of events generated within a single profile.	1 < Length < 128 Cannot contain more than a single "." (dot). The only dot allowed is for profile location suffix.

Optional parameters

Parameter	Value	Description	Validation
mboxPC (Optional)	<i>mboxPCId</i>	<p>Target visitor ID. Use this value when if you want to track a user full-circle back to your site across multiple visits, or when using a user profile parameter.</p> <p>This value must be the actual Adobe Target PCID for the user, which would be exported from the website to your CRM. The email provider would retrieve this ID from your CRM or Data Warehouse, and use it for the value of this parameter.</p> <p>The mboxPC value is also useful for tracking visitor site behavior across multiple visits for metrics tracking when a recommendation is part of an A/B activity.</p> <p>Note: Be sure to provide a unique value of mboxSession and mboxPC for each email recipient (i.e., for each API call). If you do not provide unique values for these fields, API response can slow or fail due to the large number of events generated within a single profile.</p>	<p>1 < Length < 128</p> <p>Cannot contain more than a single “.” (dot).</p> <p>The only dot allowed is for profile location suffix.</p>
mboxNoRedirect (Optional)	1	By default, the caller is redirected when no deliverable content is found. Use to disable the default behavior.	
mbox3rdPartyId	<i>xxx</i>	Use this option if you have your own custom visitor ID to use for profile targeting.	

Potential Target server responses

Response	Description
//ERROR:	Generated by load balancer when it can't return content

Response	Description
Success	The mboxNoRedirect parameter is set to 'true' and the server does not return any recommendations (i.e., there is no match for the mbox or the server cache is not initialized).
bad request	The mbox parameter is missing. <ul style="list-style-type: none"> • Either mboxDefault or the mboxNoRedirect parameter is not specified. • mboxTrace request parameter is specified but mboxNoRedirect is not. • mboxTargetparameter is not specified when mbox names end with -clicked suffix.
Cannot redirect to default content, please specify mboxDefault parameter	mboxDefault not specified when no match for the request exists and mboxNoRedirect parameter is not specified.
Invalid mbox name:= MBOX_NAME	Indicates mbox parameter contains invalid characters.
Mbox name [MBOX_NAME] is too long	Indicates mbox parameter is longer than 250 characters.

Method 3: Use the Recommendations Download API

Set up a recommendation as usual, but choose **download only** in the presentation section instead of a template and mbox combination. Then in the ESP, tell the ESP what recommendation ID you created. The ESP accesses the recommendation data via API. This data shows which items should be recommended for a particular category or key item, such as items in an abandoned cart. The ESP stores this data, connects it with their own look and feel, displays information about each item, and delivers that in the emails.

With this option, the recommendations server cannot directly track the performance of a recommendation or split traffic across multiple algorithm/template combinations. Also, the recommendations are not tied to a visitor profile.

For more information about the download API, see [Legacy APIs > Download](#).

[Form-Based Experience Composer](#)

The Adobe Target Form-Based Experience Composer is a non-visual experience and offer creation interface that's useful in creating experiences for use in A/B Test, Experience Targeting, Automated Personalization, and Recommendations activities when the Visual Experience Composer (VEC) is not available or practical for use. For example, you might use the Form-Based Experience Composer to create experiences and offers for delivery in emails, kiosks, and voice assistants.

If you are creating a Recommendations activity, there are no experiences. Choose your criteria and design. If you choose multiple criteria or designs, Target automatically generates the experiences.

1. Click **Create Activity**, then select the type of activity you want to create.

The Form-Based Experience Composer is available for A/B Test, Experience Targeting, Automated Personalization, and Recommendations activities.

2. Select **Form** from the Create Activity dialog box.
3. (Conditional) Choose a workspace and property.
4. Click **Next**.

The Form-Based Experience Composer opens.

This screen is different if you are creating a Recommendations activity. Recommendations activities do not include experiences.

5. Name the activity by clicking “Untitled Activity.”
6. Select a location.

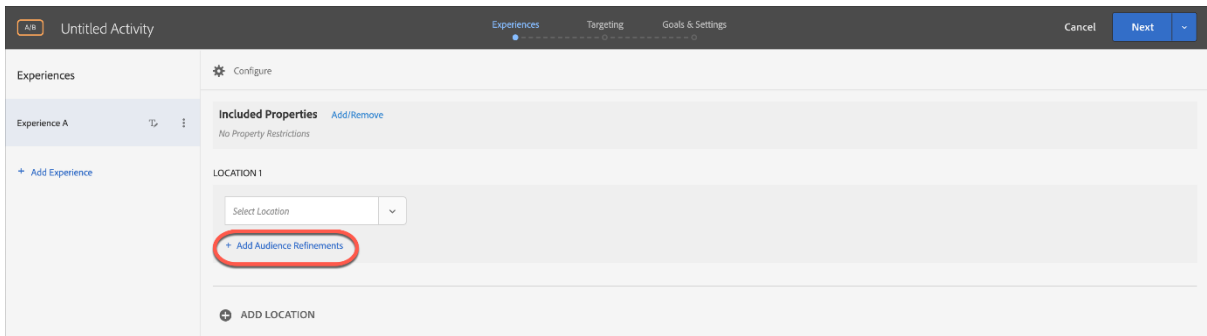
When you click in the Select Location box, a list of available locations appears. Select one of those locations.

You can also enter a location that is not listed here. This can be useful if the mbox has not yet been created or viewed on a page. Type the name of the location. Be careful when entering a location that does not yet exist. If the spelling or capitalization does not match the spelling and capitalization when the mbox call is made, the activity will not deliver. Manually entered locations are saved to the list of available locations. The next time you try to select a manually entered location, it will be available from the Select Location drop-down list for that activity.

NOTE

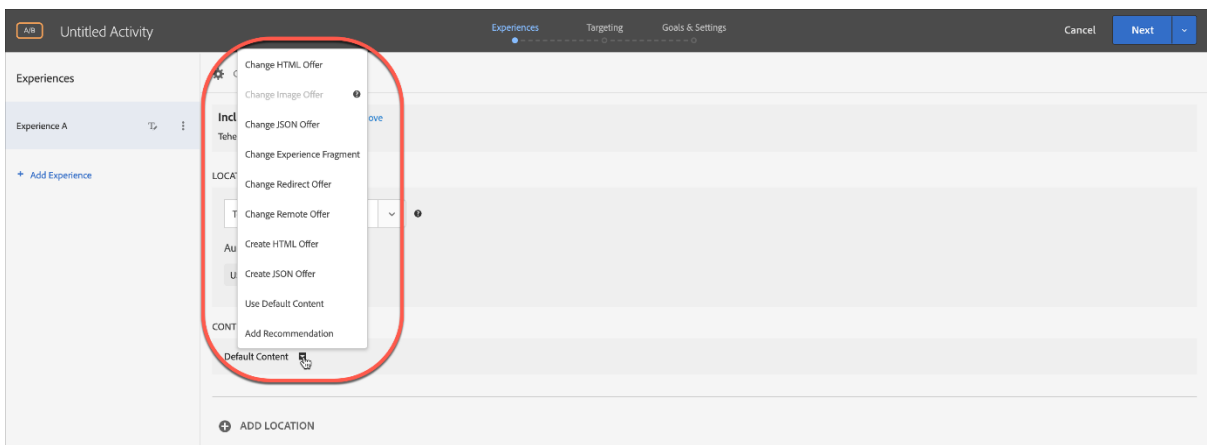
Creating a manually entered location during activity creation does not automatically create a new location. The location name is saved only in the context of the activity. The location is created when there is a content delivery call. Subsequent to the location being created, it will be available for use in other activities, for creating audiences, etc. from the drop-down list of available locations.

7. Click **Add Audience Refinements**, choose one or more [audience](#) for this activity, then click **Done**.



In the Form-based Experience Composer, refinements have been replaced with full audience functionality. Refinements for existing activities have been migrated to [activity-only audiences](#).

8. Select the type of content you want to appear in that location.



9. For the content type you selected, specify the content.

Change HTML Offer: Choose an HTML offer.

Change Image Offer: Choose an image saved in the content library in Target.

You can also add a link to an image (click-through, destination, landing, and so forth.)

- a. Click Change Image Offer.
- b. Select the desired image, then click Edit Links.
- c. Specify the desired URL or page on your site, then click Update.

Change JSON offer: Choose a json offer.

Change Experience Fragment: Choose an Experience Fragment. For more information, see [Experience Fragment](#).

Change Redirect Offer: Choose a redirect offer. For more information, see [Create redirect offers](#).

Change Remote Offer: Choose a remote offer. For more information, see [Create remote offers](#).

Create HTML Offer:

- d. Click Offers, then select the Code Offers tab.
- e. Click Create > HTML Offer.
- f. Type an offer name.
- g. Type or paste your HTML code in the Code box.
- h. Click Save.

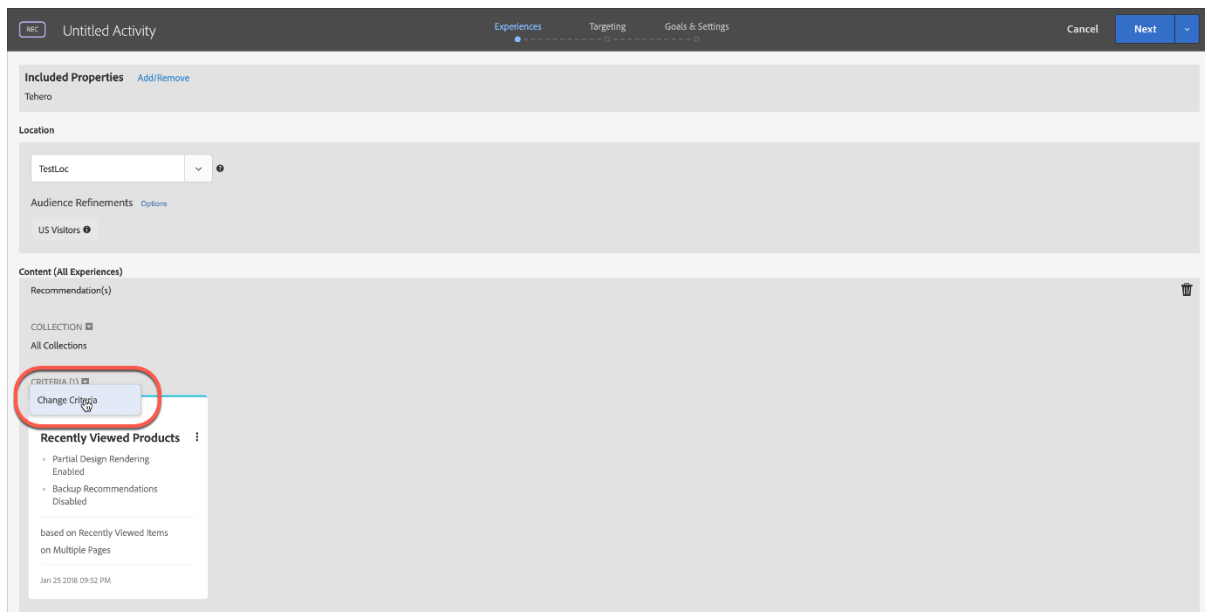
Create JSON Offer:

- i. Click Offers, then select the Code Offers tab.
- j. Click Create > JSON Offer.
- k. Type an offer name.
- l. Type or paste your JSON code in the Code box.
- m. Click Save.

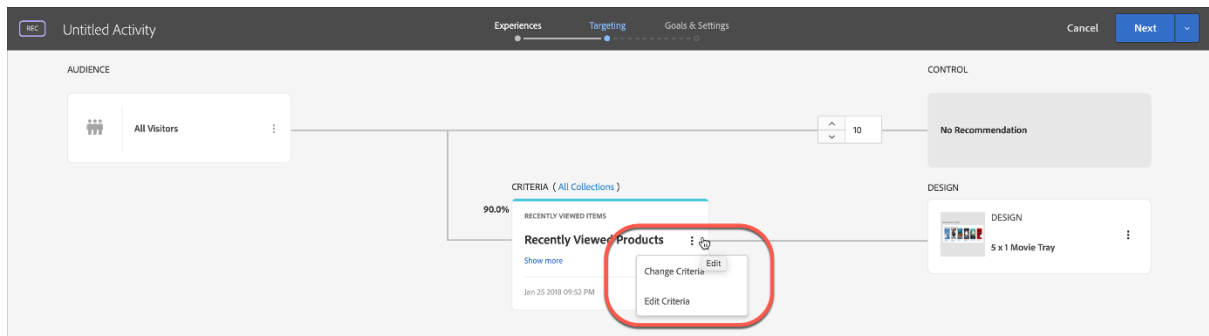
Add Recommendation:

For a Recommendations activity, the Content drop-down gives you the Add Recommendation option. Click **Add Recommendation**, then select the page type. Then follow the usual steps as defined in the interface to [create a Recommendations activity](#).

While selecting Recommendations criteria in the Form-Based Experience Composer, there is now a direct link to the selected Criteria card so you can quickly and easily edit the criteria.



From the Targeting page of the Target three-step guided workflow:



Add Offer Decision:

Add an offer created in Adobe Journey Optimizer (AJO) to an Adobe Target activity to present the best dynamic offer and experience to your visitors on your website or mobile site using offer decisioning. This option is available for manual A/B Test and Experience Targeting (XT) activities only.

For more information, see [Use offer decisions](#).

10. (Optional, for A/B Test, Automated Personalization, and Experience Targeting activities) To repeat this process for additional locations, click **Add Location** and configure the location and content.
11. Click **Next**, then complete the activity creation steps as usual for your activity type.
 - [Create an A/B Test](#)
 - [Create an Experience Targeting Activity](#)
 - [Create a Recommendations Activity](#)

Create JSON offers

Create JSON offers in the Offer Library in Adobe Target for use in the Form-Based Experience Composer.

JSON offers can be used in form-based activities whereby enabling use cases where Target decisioning is required to send an offer in JSON format for consumption in SPA framework or server-side integrations.

JSON considerations

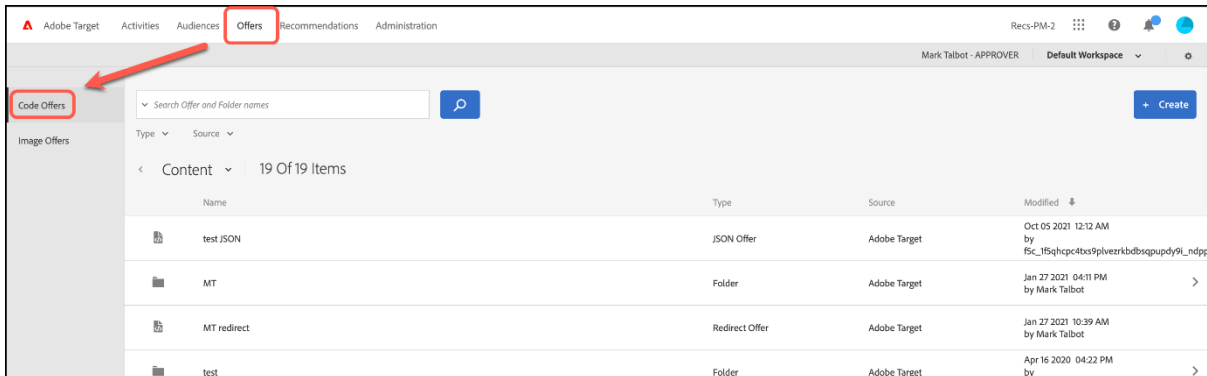
Consider the following information as you work with JSON offers:

- JSON offers are currently available only for A/B Test, Automated Personalization (AP), and Experience Targeting (XT) activities.
- JSON offers can be used in [form-based activities](#) only.
- JSON offer can be retrieved directly when you are using the [Server Side APIs and Mobile Node.js, Java, .NET, and Python SDKs](#).
- In the browser, JSON offers can be retrieved ONLY via at.js 1.2.3 (or later) and using [getOffer\(\)](#) by filtering actions using the setJson action.

- JSON offers are delivered as native JSON objects rather than as strings. Consumers of these objects are no longer required to handle objects as strings and convert them to JSON objects.
- JSON offers are not applied automatically as opposed to other offers (such as HTML offers) because JSON offers are non-visual offers. Developers must write code to explicitly get the offer using [getOffer\(\)](#).

Create a JSON offer

1. Click **Offers > Code Offers**.



2. Click **Create > JSON Offer**.

3. Type an offer name.
4. Type or paste your JSON code in the **Code** box.
5. Click **Save**.

JSON example

JSON offers are supported only in activities created using the [Form-Based Experience Composer](#). Currently the only way to be able to use JSON offers is via direct API/SDK calls.

Here is an example:

```
adobe.target.getOffer({
  mbox: "some-mbox",
  success: function(actions) {
    console.log('Success', actions);
  }
});
```

```
},  
error: function(status, error) {  
  console.log('Error', status, error);  
}  
});
```

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The actions passed to success callback is an array of object. Assuming that we have a single JSON offer, that has this content:

```
{  
  "demo": {"a": 1, "b": 2}  
}
```

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The actions array has this structure:

```
[  
  {  
    action: "setJson",  
    content: [{  
      "demo": {"a": 1, "b": 2}  
    }  
  }  
]
```

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To extract the JSON offer, you iterate through actions and find the action with the setJson action, and then iterate through the content array.

Use case

Let's say the following JSON offer gets delivered to your web page:

```
{  
  "_id": "5a65d24d8fafc966921e9169",  
  "index": 0,
```

```
"guid": "7c006504-c6f7-468d-a46f-f72531ea454c",
"isActive": true,
"balance": "$2,075.06",
"picture": "https://placeholder.it/32x32",
"tags": [
  "esse",
  "commodo",
  "excepteur",
],
"friends": [
  {
    "id": 0,
    "name": "Carla Lyons"
  },
  {
    "id": 1,
    "name": "Ollie Mooney"
  },
],
"greeting": "Hello, Stephenson Fernandez! You have 4 unread messages.",
"favoriteFruit": "strawberry"
}
```

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The following code shows how to access the “greeting” attribute:

```
adobe.target.getOffer({
  "mbox": "name_of_mbox",
  "params": {},
  "success": function(offer) {
    console.log(offer[0].content[0].greeting);
  }
});
```



```
},  
"error": function(status, error) {  
    console.log('Error', status, error);  
}  
});
```

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JSON offer example using Real-time CDP Profile Attributes

Real-time CDP Profile Attributes can be shared with Target for use in HTML and JSON offers.

For more information, see [Share Real-time CDP Profile Attributes with Target](#).

Filtering offers by the JSON offer type

You can filter the Offers library by the JSON offer type by clicking the **Type** drop-down list, then by selecting the **JSON** checkbox.

