

Directive for Portfolio Managers, Mutual Fund Managers, and Mutual Fund Trustees in the Matter of Portfolio Management Service 2.0

Explanatory Note to the Directive

One of the main goals of the ISA is to invest efforts to expand the public capital market through various measure that include support for the development of new products and services. Accordingly, the ISA, in conjunction with relevant market players, has worked on the development of a new investment model — the Portfolio Management Service 2.0. This service is designed to achieve the following goals:

- (a) To promote competition in the portfolio management market by creating the tools that help investors to compare the performance records of multiple portfolio management firms;
- (b) To make available personal portfolio management services at a relatively low cost that benefit from the built-in tax advantages of investment management on a mutual fund platform;
- (c) To expand the potential customer base of portfolio management firms, especially targeting customers with relatively limited investment amounts compared the amounts typically invested with portfolio management firms.

The Portfolio Management Service 2.0 Directive (“**the 2.0 Service**”) establishes the regulatory foundation for a new service that may be offered to the public – Portfolio Management Service 2.0.

According to the Directive, the Portfolio Management Service 2.0 is a service in which the customer undergoes a needs clarification procedure and, based on the results of the procedure, is given a recommendation to purchase units of a special-purpose mutual fund suited to their risk profile, managed by an outsourced portfolio manager for 2.0 Service customers with a specific risk profile (or such units are purchased on the customer’s behalf under a power of attorney). If the customer confirms said recommendation, the investment decision may be executed and the units in the special-purpose mutual fund may be purchased for the customer’s securities account.

The Directive defines the features and the terms that must be met by the Portfolio Service 2.0, and permits the service to be offered to the public in three possible outlines:

- (1) Outline 1 – In this outline, a **2.0 Portfolio Management Service Provider** renders investment marketing services and gives the customer recommendations to purchase units

in a special-purpose fund, managed by the service provider (in an outsourcing model and in other words "hosting") and that matches the customer's risk profile.

- (2) Outline 2 – In this outline, a **2.0 Distributor** gives the customer recommendations to purchase units in one of several special-purpose mutual funds that match the customer's risk profile' that are managed (in a hosting model) by portfolio managers with which the Distributor has service distribution agreements;
- (3) Outline 3 – In this outline, a **2.0 Portfolio Management Service Provider** renders portfolio management services to the customer through a managed account.

One of the conditions that outlines 1 and 2 must meet is that the service must be rendered exclusively online, through the Service Provider's dedicated app. Therefore, in order to offer the 2.0 Service to the public, potential service providers must first develop a dedicated app through which the public can access the service, and then potential service providers must also ensure that an API is in place to enable communications between their dedicated app and a stock exchange member that manages the customer's securities account, in order to execute the investment recommendation. The Directive also defines various conditions that must be included in special-purpose fund distribution agreements that are designed to enhance the efficiency of the 2.0 Service distribution channels and ensure that the special-purpose funds are purchased only on behalf of 2.0 Service customers.

In the third outline, a **2.0 Portfolio Management Service Provider** may also render the 2.0 portfolio management services (rather than investment marketing services, which is the relevant service for the outlines described above) if they meet certain conditions specified in the Directive. According to this outline, after the 2.0 Service Provider performs a (generic or specific) needs clarification procedure for the customer, participation units in a single special-purpose fund that matches the customer's risk profile are purchased for the customer's managed account. The units are purchased by the 2.0 Portfolio Manager based on the power of attorney that the customer granted as part of their agreement, which is conventional practice in portfolio management service agreements (and for this reason the dedicated app is not required to include an interface with a bank that enables customers to purchase mutual fund units directly for their accounts).

In this outline, the fund managers do not sign with the bank on a distribution agreement to distribute the special-purpose mutual funds that are managed by the 2.0 Service Provider (outsourced) on behalf of the 2.0 Service customers, and therefore any investor who is not a customer of the 2.0 Service and who wishes to purchase a special-purpose fund through a bank will be charged a distribution fee, and this distribution fee will constitute an effective barrier that deters independent customers from purchasing such funds through the platforms that banks make available for purchasing mutual funds. The purpose of this condition is to ensure that also in this outline, as far

as possible, the special-purpose funds will be purchased only by 2.0 Service customers, who are the target audience of these funds.

Notable, the 2.0 Service in this outline is not required to be rendered online although it may be offered online, either in entirety or in part, subject to the Online Services Directive.¹

Furthermore, an existing managed account customer may be converted into a 2.0 managed account customer subject to the conditions specified in the Directive.

To remove all doubt, this Directive does not detract from the obligations that apply to portfolio management firms and mutual fund managers under other laws, regulations, and ISA directives, unless stated forth otherwise in the Directive below.

Pursuant to the decision of the ISA and by the power vested in it under Sections 28(b) of the Advice Law and Section 97(b) of the Funds Law, the following directive is hereby issued:

¹ Directive for Licensees in Connection with Services Rendered through Technological Means.

The Directive

1. In this Directive –

Special Purpose Fund – an open-ended mutual fund whose agreement determines that its sole purpose is to function as a platform for the 2.0 Service, and that has the features defined in Section 2 of the Directive;

The 2.0 Service or the **2.0 Portfolio Management Service** – An investment marketing service in which a customer receives an investment recommendation to purchase units of a special-purpose fund that matches their risk profile, or a portfolio management service in which a units in a single special purpose fund that matches the customer’s risk profile are purchased for a managed account, rendered through a service provider, where the service provider and the special purpose fund have the features and meet the conditions specified in this Directive;

2.0 Managed Account Service – a 2.0 Service that is rendered by a **2.0 Portfolio Management Service Provider** in a managed account, as mentioned in the term “2.0 Portfolio Management Service.”

2.0 Service Provider – any of the following:

- (a) A 2.0 Portfolio Manager;
- (b) A 2.0 Distributor.

2.0 Portfolio Manager– a portfolio management company (that is also engaged in investment marketing) which manages the investment portfolio of the special-purpose funds in an outsourced model (“hosting” model);

2.0 Distributor – A licensed investment marketer who is a party to a distribution agreement concerning the 2.0 portfolio management service (“a Distribution Agreement”) with portfolio management companies to which management of special-purpose funds is outsourced.

Generic Customer Needs Clarification Procedure - a customer needs clarification questionnaire and data-processing algorithm that were developed by several licensees and are distributed as an off-the-shelf product that is used to determine the risk profile of 2.0 Service customers.

2. A 2.0 Service is a service that meets the following conditions and has the following features:

- (a) Not including a **2.0 Managed Account Service**, enrollment in a 2.0 Service and all the stages of the service involving the customer are performed online, on the 2.0 Service Provider’s Dedicated App (“Dedicated App” or “the Service Provider’s Online System”): needs

clarification and signing of an agreement, assignation of a risk profile to the customer, developing a recommendation about the suitable special-purpose fund, purchasing units in the Special Purpose Fund (by the customer), and communicating regularly with the customer (including delivery of information to the customer, and increasing or reducing the invested amount).

- (b) Before performing a needs clarification procedure, the 2.0 Service Provider will give the customer an explanation of the features of the 2.0 Service. This explanation will also be included in the agreement that the customer signs.

The explanation given by a 2.0 Portfolio Management Service Provider — The explanation will state, among other things, that a 2.0 Service is a service in which a customer is given a recommendation to manage their money exclusively through a special purpose fund that is managed specifically for this service, and that matches the customer’s risk profile (based on the results of the need clarification procedure) and is selected of four special purpose funds that match various customer risk profiles. Accordingly, when the service is rendered, the Service Provider does not review other ~~or additional~~ investment alternatives that might suit the customer based on the customer’s profile. Furthermore, the Service Provider manages the investment portfolios of the Special Purpose Funds, and therefore the specific securities and financial assets and their proportions in each fund are determined at the Service Provider’s discretion according to the fund’s investment policy, the investment rules under the Mutual Funds Law, and the customer’s assigned risk profile.

After the needs clarification procedure is completed and a risk profile has been assigned to the customer, the Service Provider must inform the customers of their assigned risk profile, and also provide information about the special purpose fund’s investment policy,² in addition to any information required by the Needs Clarification Directive.³

The explanation to be given by a 2.0 Managed Account Service – Because this service is a portfolio management service, the above explanation will be provided with the necessary changes.

² In the matter of the fund’s investment policy, also see paragraph 6 below.

³According to the Directive to Licensees in Connection with Client Needs Clarification and Guidelines (New Version-2014) (hereinafter, “the Client Needs Clarification Directive”). [LINK](#).

The explanation to be given by a 2.0 Distributor – The explanation will state, among other things, that in a 2.0 Portfolio Management Service, the customer receives a recommendation to purchase units of a Special Purpose Fund that matches their assigned risk profile (based on the needs clarification procedure).

In its recommendation to the customer, the 2.0 Distributor will present all the Special Purpose Funds whose risk profile matches the customer where management of the investment portfolios of these funds are outsourced to various portfolio managers with whom the 2.0 Distributor signed a Distribution Agreement; and the customer may select **one** of these Special Purpose Funds, at the customer’s discretion.

To assist customers in making investment decisions, the 2.0 Distributor will, as far as possible, provide information that includes data on the Special Purpose Funds’ returns.

Furthermore, the 2.0 Distributor’s explanation will state that —

- while rendering the service, the 2.0 Distributor did not examine other investment alternatives that might match the customer based on their assigned risk profile.
- the types of securities and financial assets in the Special Purposes Funds and their proportions are determined at the discretion of the relevant portfolio managers, based on each Special Fund’s investment policy, the investment rules in the Funds Law, and the risk profile assigned to the customer.

After the customer’s needs clarification procedure has been completed and a risk profile has been assigned to the customer, the 2.0 Distributor must, while informing the customer of their assigned risk profile, and in addition to the information required by the Needs Clarification Directive, also provide information on the investment policy of each of the special purpose funds with the same risk profile that is relevant for that customer.⁴

(c) **Determining the investment policy for a customer of the service** – In the needs clarification procedure, the customer will be requested to respond to a series of questions and the customer will be assigned one of the following risk profiles based on their responses:

- 1 – Low risk: maximum exposure to shares and foreign currency – 10%
- 2 – Moderate risk: maximum exposure to shares and foreign currency – 30%
- 3 – Moderate-high risk: maximum exposure to shares and foreign currency – 50%

⁴ In the matter of the fund’s investment policy, also see paragraph 6 below.

4 – High risk: maximum exposure to shares and foreign currency – 120%

Based on the risk profile assigned to the customer, the customer will receive an investment recommendation to purchase units in a Special Purpose Fund whose investment strategy matches the customer's risk profile. The 2.0 Distributor will recommend only those Special Purpose Funds whose investment strategy matches the customer's risk profile, and the management of whose investment portfolios are outsourced to portfolio management companies with which the 2.0 Distributor signed Distribution Agreements.

- (d) After the customer approves the investment policy and the selected Special Purpose Fund, the customer will be given an opportunity to make an online purchase of units in the Special Purpose Funds for their own securities account, in such amount as the customer wishes to invest, through the interface between the Dedicated App and the TASE member's system. In the case of a 2.0 Distributor, it is clarified that the 2.0 Distributor's Dedicated App will allow customers to purchase units in only one Special Purpose Fund (that is to say, customer who entered into an agreement with a 2.0 Distributor will not be given an opportunity to use the dedicated app to purchase units of special purpose funds whose management was outsourced to several portfolio managers). Notwithstanding the above, in a 2.0 Managed Account Service, the portfolio manager will purchase the special purpose fund that was selected for the customer's account.

(e) Managing the Special Purpose Funds' investments

- (1) To provide 2.0 Services, the Portfolio Management Service Provider must manage (in a hosting model) four Special Purpose Funds, each corresponding to a different risk profile, as described in (c) above, which the Portfolio Management Service Provider may recommend to their 2.0 Service customers (or in the event of a managed account service – may purchase for their customers' managed accounts). To provide the 2.0 Service, the 2.0 Distributor must enter into a Distribution Agreement with portfolio management companies, each of which will manage four Special Purpose Funds representing different risk profiles (as described in (c) above), which the 2.0 Distributor may recommend to their customers as part of the 2.0 Service.
- (2) No portfolio management company will manage more than one Special Purpose Fund at each risk level.
- (3) The investments of the Special Purpose Funds will be managed by portfolio managers (in a hosting model) according to each fund's investment policy and according to the portfolio manager's judgment of the investments suitable for customers assigned to the same risk profile as the special purpose fund.

(f) Communicating regularly with customers -

- (1) If a needs clarification update procedure⁵ indicates that a change in the customer's profile justifies a revision to the customer's assigned risk profile, the customer will receive a recommendation to move their investments to a special purpose fund that matches their new risk profile. If the customer wishes to implement the service provider's recommendation, the customer (using the Dedicated App) will sell all their units in the original Special Purpose Fund and purchase units in the Special Purpose Fund that matches the revised risk profile that was assigned. Notwithstanding the above, in a 2.0 Managed Account Service, the portfolio manager will redeem the special purpose units held in the customer's account and in their stead will purchase units in a special purpose fund that matches the customer's revised risk profile.
- (2) **Increasing or reducing the portfolio** – A customer who wishes to purchase additional units of the Special Purpose Fund (that is, to increase their portfolio) or alternatively to liquidate their investment in a special purpose fund (that is, to reduce their portfolio), may do so only through the Dedicated App (and in the 2.0 Managed Account Service — by giving an order to the portfolio manager).
- (3) **Reports** – Using the Dedicated App, customers may view the reports that the Special Purpose Fund's manager and trustee are required by the Funds Law to file to the ISA and the TASE, on the dates they are filed. Furthermore, customers will receive “push” messages or links to the relevant reports regarding the Special Purpose Fund that are required by law to be published in a newspaper. If the Service Provider elects to “push” such messages to the customer, the Service Provider will include a summary of the contents of the report in easily comprehensible language. Customers of the 2.0 Managed Account Service will receive quarterly reports pursuant to the portfolio manager's obligation under the Regulation of Investment Advising, Investment Marketing, and Investment Portfolio Management (Reports) Regulations 5772-2012.

⁵ The customer receives a statement through the online means [Dedicated App]. If the customer does not actively approve the statement or responds that their situation has changed without providing additional details, although the customer was requested to do so in the notification, the Service Provider must send at least one online reminder per period until the customer's response is obtained.

(4) Information on the investment portfolio

- a. On a monthly basis, the 2.0 Service Provider will present to the customer the information contained in the Due Disclosure File about the assets held by the Special Purpose Fund (exposure rates). This information will be presented to the customer in an easy-to-understand format using relevant means of illustration (tables, graphs, etc.), and will give customers always access to information that refers to the three most recent reporting months or more.
- b. Customers will be given access to a performance calculator,⁶ which they can use to calculate the performance of a Special Purpose Fund for any selected period.
- c. This section does not apply to a 2.0 Managed Account Service.

(g) Terms of the Special Purpose Fund Distribution Agreements –

Any distribution fee agreement that is signed by a fund manager and a bank with respect to a Special Purpose Fund, according to the Distribution Fee Regulations⁷ (“Distribution Fee Agreement”) will include all of the following terms:

- (1) The bank will block any option to independently purchase or sell units of the Special Purpose Fund through the bank’s mutual fund transaction system. Any purchase or sale of units will be possible only through the Service Provider’s online system.⁸
- (2) On the digital channels that the bank makes available to its customers, the bank will provide a link to the Service Provider’s online system, which the bank’s customers can use to avail themselves of the 2.0 Service, and the bank may refer its customers to said link if it believes that the service may be relevant to them;
- (3) The bank will develop an infrastructure that will allow its customers to execute purchase /sale decisions from the Service Provider’s Online System. The infrastructure may be based on the API attached as an Appendix to the Directive;

⁶ Pursuant to the provisions of Section 2(c) of the Joint Investments in Trust Regulations (Calculation of Returns) 5755-1995.

⁷ Joint Investments in Trust Regulations (Distribution Fee) 5766-2006.

⁸ To remove all doubt, Special Purpose Funds in respect of which no Distribution Fee Agreement with a bank was signed will not be sold through the bank’s system.

- (4) The bank will market the service by referring its customers on the bank's digital systems to the 2.0 Service Provider's online system. On its digital systems, the bank will display links to the Dedicated Apps of all 2.0 Service Providers that provide 2.0 Portfolio Management Services for Special Purpose Funds whose managers signed a Distribution Fee Agreement with the bank. The information and links will be displayed in a standard, neutral format.
- (5) The distribution fee payable according to the Distribution Fee Agreement will be zero (0) with respect to units that are purchased in the following circumstances:
 - (a) The customer purchased the units when joining the 2.0 Service but did not join the service through a referral on the bank's website;
 - (b) The customer purchased the units to increase their holdings in a Special Purpose Fund through a referral from the bank's website, where the units of the Special Purpose Fund in the customer's account were purchased by the customer under circumstances such as described in (a).
- (6) Any account management fees ("Custody Fees") charged in respect of holding a Special Purpose Fund will not exceed the fees that the customer would have paid for custodial services for a mutual fund that is not a Special Purpose Fund.

(h) Fees collected by 2.0 Distributors

- (1) 2.0 Distributors will charge the same distribution fee to all portfolio managers with whom they signed a distribution agreement.
- (2) A 2.0 Distributor that enters into a Distribution Agreement with a portfolio manager must agree to enter into distribution agreements with all other portfolio managers who request to do so on the same payment terms and terms of service, provided that both the 2.0 Distributor and the portfolio manager use the same Generic Needs Clarification Procedure to assign risk profiles to customers.

(i) Customers' cost of service

The cost of the service will be equal to the sum of the fee of the fund manager and the trustee ("Management Fees") that are collected only from the Special Purpose Fund. It is clarified that the fund manager may not charge addition fee. Service Providers will not charge customers for the 2.0 Service: Portfolio Manager Service Providers will be remunerated by the fund manager (for the outsourced services they render) and 2.0 Distributors will be remunerated by the portfolio managers with which they have Distribution Agreements. In

their agreement with customers, the 2.0 Service Provider must specify the Management Fees charged to the customer and the fact that they may vary from time to time according to changes in the Management Fees in the fund, subject to advance notice pursuant to the provisions of law.

3. Investment marketers or portfolio management companies engaged in investment marketing that wish to render 2.0 Portfolio Management Services may do so only if the service meets all the conditions and has all the features described in Section 2 above.

4. **Advertising**

- (a) To advertise the Service, Service Providers may present the Special Purpose Funds in respect of which they provide the 2.0 Service in the marketing publications published on their behalf, and the ISA will not consider such advertisements as misleading information or as a violation of the provisions of law⁹. Such advertisements will be approved by the fund manager and trustee and will be subject to the relevant rules in the Funds Law concerning advertising of mutual funds, including but not limited to advertising of mutual fund returns¹⁰¹¹.

- (b) Publication on a 2.0 Service Provider's website of data of all the funds with the same risk profile that are managed by all fund managers in the 2.0 Portfolio Management Services shall not be considered a misleading publication; all the mutual funds in the 2.0 Service with the same risk profile are deemed funds that are classified in a single class in the publication; and the provisions of Section 73(c)(2) of the Funds Law and Regulation 3A of the Calculation of Returns Regulations shall apply, where .

5. **Instructions for fund managers with respect to a special purpose fund:**

⁹ Directive to Licensees regarding the Presentation of Returns in Managed Portfolios to Anyone Who is Not the Owner of the Managed Portfolio, and the Advertisement of the Returns. [LINK](#)

¹⁰ Section 73 of the Funds Law and the Regulations promulgated under it, including ISA staff positions published on this issue.

¹¹ In their marketing materials, alongside the returns of the special purpose funds, 2.0 service providers may add an asterisk that refers to a footnote explaining that the returns of the Special Purpose Fund are presented net of the fees of the fund manager and the trustee (net returns).

- (a) If a distribution fee agreement is signed by a fund manager and a bank with respect to a special purpose fund, said agreement will include the terms listed in paragraph 2(g) above.
- (b) No fund manager will sign a distribution fee agreement with a bank with respect to a Special Purpose Fund that is designated for the customers of a 2.0 Managed Account Service.
- (c) Fund managers will include the following information in the prospectus of a new special purpose fund:
 - (1) Regarding the fund's key features, under "fund type" the information will state, among other things, that the fund is a Special Purpose Fund that is marketed exclusively to the 2.0 Services Provider's customers in a 2.0 Portfolio Management Service;
 - (2) The fund's investment policy in the prospectus will state, among other things:
 - a. The risk level that corresponds to the fund's investment strategy, and the fact that the fund's investments will be managed according to this risk level;
 - b. The fund's maximum exposure to shares and foreign currency, and any additional obligations and restrictions that the fund manager assumed;
 - c. Restrictions as a result of which the fund is not required to add an exclamation point to its name;
 - d. The obligation not to make any material change to the fund's investment strategy.
- (d) To prevent the fund from using a misleading name and to ensure that the fund's name represents to investors that the fund is a Special Purpose Fund used exclusively for customers of a specific risk profile in the 2.0 Service, the fund manager must determine the names for the Special Purpose Funds that he manages in the following format, containing the following two elements:
 - a. a brief identifier of the portfolio management firm, provided that it is not misleading;
 - b. "Low/Moderate/Moderate-High/High Risk 2.0 Portfolio."

- (e) A fund manager will not manage more than one Special Purpose Fund in each risk level through any portfolio management firm.
- (f) A fund manager will bear the costs of purchasing and selling the assets in the Special Purpose Funds that they manage.
- (g) The fund manager will not make any publications concerning the Special Purpose Funds under their management, other than publications required by law.

6. Special directives regarding 2.0 Portfolio Management Service and clarifications

- (a) A portfolio manager may transfer a managed customer (a customer who receives traditional portfolio management services from the portfolio manager) to the 2.0 Portfolio Management Service provided that they obtained the customer's consent to the transfer after the customer receives an explanation about the features of the service and the implications of the transition, among other things;
- (b) Notwithstanding the provisions of the Directive to Licensees in the matter of Services Using Technological Means,¹² 2.0 Service Providers must give their customers access to human support services that are limited to technical support, and may do so through an outsourced service.¹³ Furthermore, 2.0 Service Providers must permit customers to make investments in Special Purpose Funds in a manner that is not consistent with the investment recommendation received, and in such event must verify the customer's wishes in a conversation (or chat) between the customer and a licensed professional representing the 2.0 Service Provider.
- (c) If the bank does not provide links to the Dedicated Apps of all 2.0 Service Providers, the bank will inform its customers that 2.0 Services are also available from other service providers whose links do not appear on the bank's digital channels.
- (d) For the sake of clarification, customers may undergo a needs clarification procedure for the 2.0 Portfolio Management Service outside the Service Provider's Dedicated App, by a bank, provided the Generic Needs Clarification Procedure (that is also used by the 2.0 Service Provider to assign risk profiles to its customers) was performed. In this case, the 2.0 Service Provider may rely on the procedure performed by the referring bank and the

¹² [LINK](#).

¹³ To remove all doubt, the Service Provider may also provide professional human customer support.

needs clarification process will be deemed to have been performed by the Service Provider, subject to the conditions listed in the Customer Clarification Directive.¹⁴

Date of publication on the ISA website: January 7, 2020

Date of publication in Reshumot: June 28, 2020

Date of publication of amended to the directive on ISA website: August 12, 2020

Date of publication of amendment to the directive on ISA website: March 20, 2021.

Date of effect: January 7, 2020

Appendix

API for the 2.0 Portfolio Management Service application (“the API”)

Aim of this document

To create a standard API for TASE members (banks and non-banking corporation members) and application developers, for the 2.0 Portfolio Service application. This document does not describe the development environment of the Service application or the protocols required to securely manage and transfer information between the systems of the Service Providers and the TASE members.

¹⁴ Section 5 of the Needs Clarification Directive.

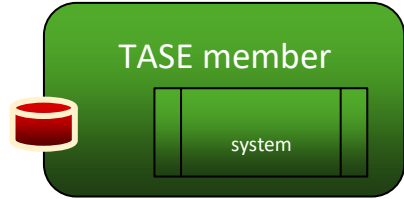
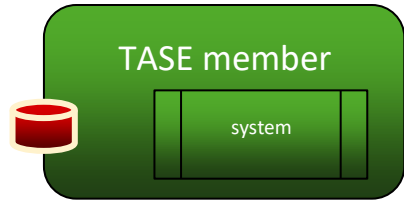
Connecting to banks and to TASE members

The API defines the standard for connecting parties and transmitting orders in the system, and eliminates the need to link to each TASE member in a different way

When the client accesses the 2.0 Service, the client should be in the 2.0 Portfolio Service application environment and the secure environment of the TASE members' server that is used for buying and selling mutual funds. The API's records are designed to define the format of information transferred between the two platforms – the application used by 2.0 Service Providers to render ongoing service to customers and to manage the database required for such service; while the TASE members' server is used to authenticate the customer's identity, receive orders from the application, execute the orders in the trading system, and notify the application of the orders' status.

A customer may connect to the 2.0 Service in one of the following two ways:

1. The customer accesses the Service through a website or mobile phone app that the TASE member made available to all its customers (for the purpose of authentication; customers identify themselves according to the protocol typically used by each TASE member). Then, through a dedicated referral link, the customer accesses the portfolio manager's application; All the customer's relevant data for the services rendered on the application are transferred through the API record described in this document.
2. The customer accesses the Service Provider's application, and from there the customer accesses the relevant TASE members. That is, the customer is first "transparently" referred to the TASE members' server where his securities account is administered. There, the customer completes the authentication process, similar to the process described above in section (1.). After the client's identity is authenticated, the client "transparently" returns to the Service Provider's application, and all the relevant customer information required to render 2.0 Services to the customer on the application, is transferred through API records, as stated hereinafter.



System data structure

The following table illustrates the main objects and tables in the system and their relations.

Table	Description	Table Relation
users	App users	Has many accounts
accounts	Accounts	Has many orders , holdings
orders	Buy and sell orders for a Special Purpose Fund	
holdings	Special Purpose Funds in the client's portfolio	
products	List of Special Purpose Funds in the App	
Exchange members	List of TASE members	

Clients

TASE members

Accounts

Special Purpose funds

Orders

Assets in the portfolio

Structure of API Calls

Format

All API calls are JSON messages sent over HTTPS.

Supported versions

The API will support new versions, where the version number is included in the URL. Clients or service providers who use the old API will be able to use it until it is dropped. Examples of two calls that refer to versions 1.1 and 1.2:

- https://tikim2.co.il/api/v1.1/cancel_order?uid=388214
- https://tikim2.co.il/api/v1.2/cancel_order?uid=388214&token=uu34389osdsioa

Identifying customers and applications in the system

The system will use tokens for the application users. All customers and all portfolio manager apps will be assigned PINs for identification when calling the API. The following two fields will be added to each call:

- (1) User token
- (2) Application token

Tokens will be created and managed according to a conventional procedure (such as applications for Twitter or Facebook) that includes the registration and assignment of a private key and public key for each application, and appropriate authorization management according to these keys.

Accessing the system through the bank's OAUTH

This call takes place behind the scenes: The customer presses the button "Access account of [TASE Member Name]." The TASE member displays the access dialogue and returns a LOGIN record

including the account details, outstanding orders, and the Special Purpose Funds of the 2.0 Service Provider that are held in the account.

```
{  
    user_token : xxx,  
    name: "ישראל ישראלי",  
    Account_no: "XXX-32321",  
    open_orders: [ { keren_id: 5121212, qty: 3000 , op: BUY , status: 502 } ]  
}
```

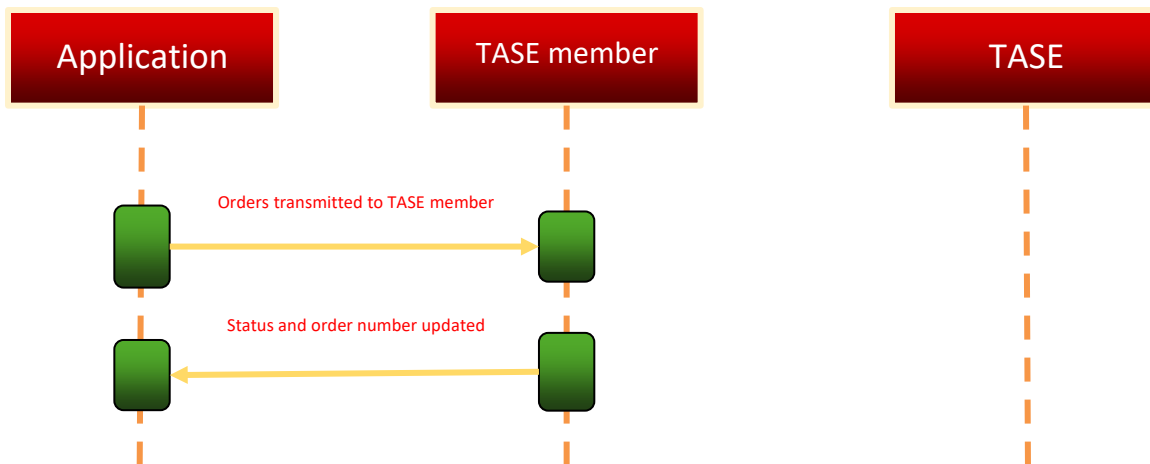
Scenarios

Customer buys or sells fund units

When a customer approves the sale or purchase of a recommended Special Purpose Fund, a new order; which includes the details of the fund and the transaction, is transmitted.

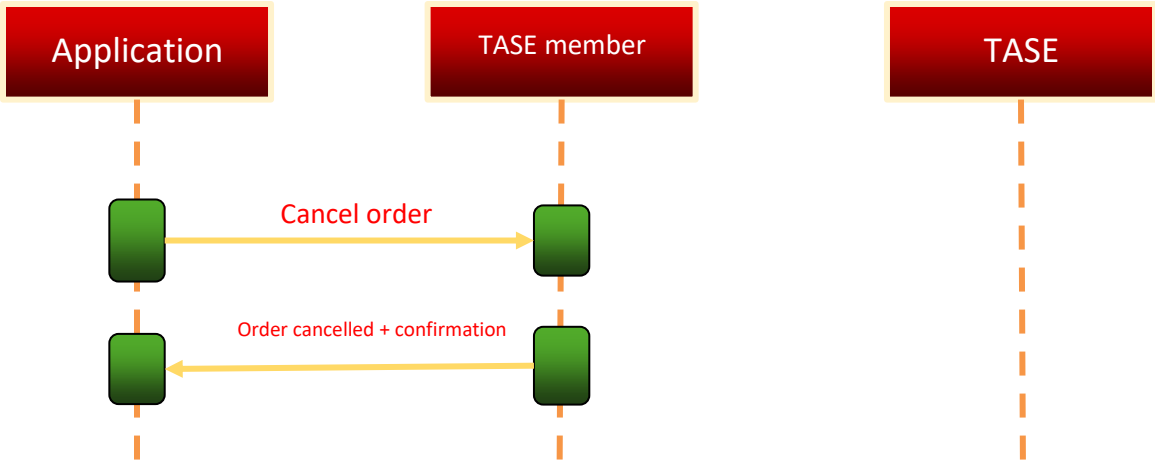
The TASE member adds the new order and updates its status to "Received," and returns the order number that was assigned by his system.

If any problem in reception of the order is encountered, the system will return an ERROR status accompanied by the appropriate error code.



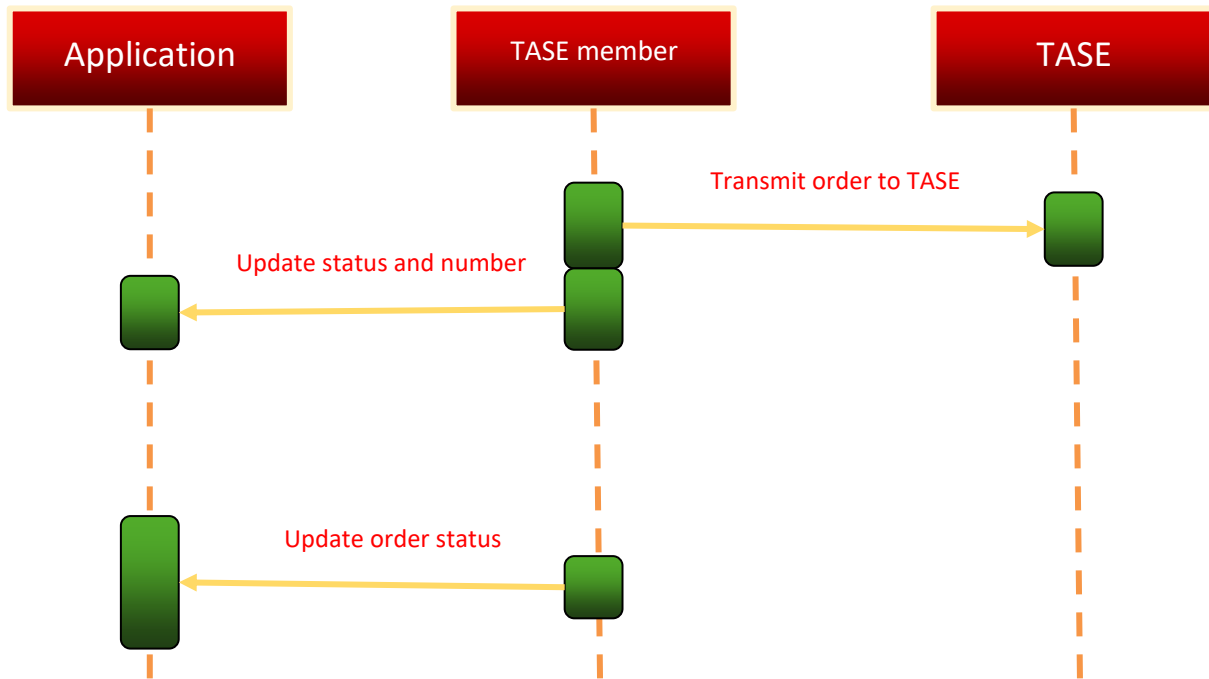
Customer cancels an order

If a customer wishes to cancel an order that was transmitted from the application to the TASE member's server before the designated time for transmitting orders in the Special Purpose Fund, the customer may cancel the order. In this case, a cancellation request is transmitted, and a cancellation confirmation is returned, or alternatively, an ERROR message with an error code is returned. See the table of errors below.



Transmitting orders to the TASE and updating status of TASE members' orders

After the TASE member sends an order to the TASE, a status update notice is transmitted to the application. When the status of the order changes, a notice is transmitted to the application.



API Calls

Trading calls

Purchase of fund units

Ex. of a call	<code>https://tikim2.co.il/api/v1/place_order?keren_id=5121212&qty=4200&op=BUY&user_token=213123123123&app_token=92347923847932847</code>
Call type	POST

Fields	user_token app_token keren_id Op - Operation Qty - order quantity
Reply	{ status: "OK" , order_id: 1234 }
Error reply	

Sale of fund units

Ex. of a call	https://tikim2.co.il/api/v1/place_order?keren_id=5121212&qty=4200&op=SELL&user_token=213123123123&app_token=92347923847932847
Call type	POST
Fields	Op – Operation Qty - order quantity
Reply	{ status: "OK" , order_id: 1234 }
Error reply	

Order cancellation

Ex. of a call	https://tikim2.co.il/api/v1/cancel_order?oid=9877321&user_token=213123123123&app_token=92347923847932847
Call type	DELETE

Fields	Oid: the order id to cancel
Answer	{ status: "OK" , order_id: 1234 }
Error reply	

Updating order status (this message is sent from a TASE member when updating order status)

Ex. of a call	https://tikim2.co.il/api/v1/update_order_status
Call type	POST
Fields	Oid: the order id to cancel
Answer	{ , status: "OK" , order_id: 1234 }
Error reply	

System tables and codes

Error code

301	Insufficient funds in the account
302	Account is not recognized by the system
303	Insufficient quantity for sale
304	USER_TOKEN-INVALID
305	APP-TOKEN-INVALID

Call status

501	New call
502	Call received by TASE member
503	Transmitted to the TASE
504	Order executed
505	Order rejected (error)
506	Request to cancel order
507	Order cancelled successfully
508	Order not cancelled (error)

Order record structure

oid	Order number in the application
keren_id	Fund symbol
op	Buy/sell
qty	Quantity
status	Order status
bid	TASE member request number
sid	TASE order number
user_token	User account identified
app_token	Identified of the application used to transmit the order