



# **Alternative Data Service Service Guide**

Version 2.0

July 2025

JPX Market Innovation and Research, Inc.

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The contents of this document are subject to change without notice.

## Revision history

#	Date	Chapter	Change description	Remark
1	2021/9/21	-	Initial version.	-
2	2021/10/6	3.1.3	Added a disclaimer about the possibility of missing content in the dataset due to unexpected system issue or rapid increase of orders and trades in a day.	Version 1.1
3	2022/4/1	1 4.2 4.3 5	Revision due to transfer of service jurisdiction to JPX Market Innovation and Research, Inc.	Version 1.2
4	2022/9/20	3.1.2	Added explanations about data upload timing and data availability of J-GATE Information for a holiday trading day.	Version 1.3
5	2022/10/31	3.1.1 5	Added GW/TAP stats file and PTP Offset stats file to J-GATE Information (System Stats Data).	Version 1.4
6	2022/12/5	3.1.2 3.2.3	Added explanations about J-GATE Information (Timestamp Data) for a weekend test. Added Notes to arrowhead Information (System Stats).	Version 1.5
7	2023/8/7	1 3.1.1 3.1.2 3.1.3 5	Updated to reflect additional J-GATE Information (Drop Copy Data). Added points to note about possibilities of missing data for OSE Data.	Version 1.6
8	2024/10/1	5	Updated the fee schedule of J-GATE Information (Timestamp Data). Added the processing fee for each order for the Spot Data Service. Added description of Japanese consumption tax.	Version 1.7
9	2024/11/5	3.2.2	Changed provision timing for arrowhead Information (System Stats) on EOD due to extension of arrowhead trading hours.	Version 1.8
10	2025/4/30	1 6	Changed “Terms and Conditions for Alternative Data Service” to “Terms and Conditions for JPX Market Innovation & Research, Inc. Information Services.”	Version 1.9
11	2025/7/22	1 2 3.2.1 3.2.2	Updated to reflect additional arrowhead Information (Timestamp Data). Updated the fee schedule of J-GATE Information (Timestamp Data).	Version 2.0

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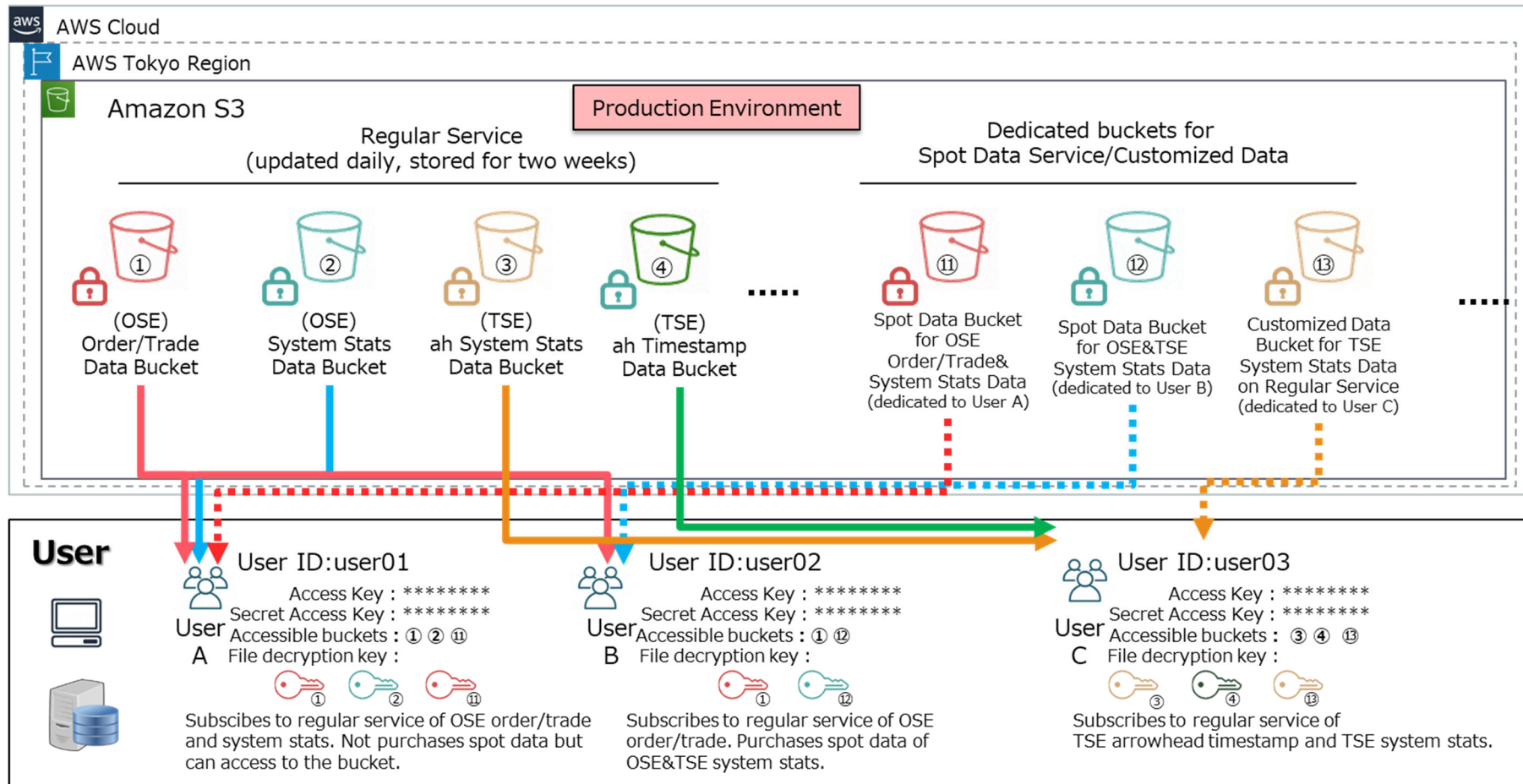
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# 1 Service Overview

- JPX Market Innovation & Research, Inc. (“JPXI”) provides “Alternative Data Service” (“the Service”), which is expected to contribute to the development of securities market.
- The Service is offered in the environment described in “2. Data Service Environment”.
- As described in “3. Dataset Overview”, six types of data: “J-GATE Information (Order/Trade Data)”, “J-GATE Information (System Stats Data)”, “J-GATE Information (Timestamp Data)”, “J-GATE Information (ITCH Binary Data)”, “J-GATE Information (ITCH Historical CSV Data)”, “J-GATE Information (Drop Copy Data)” as OSE (Osaka Exchange, Inc.) Data (Including Tokyo Commodity Exchange, Inc. (“TOCOM”) Data), and one types of data: “arrowhead Information (System Stats)”, “arrowhead Information (Timestamp Data)” as TSE (Tokyo Stock Exchange, Inc.) Data are offered.
- Users need to agree on “Terms and Conditions for JPX Market Innovation & Research, Inc. Information Services” stipulated by JPXI when they apply for the Service and sign the contract.
- Users can choose from the following two options according to their needs and preferences.
  - ✓ Regular Service: Data is updated daily and available on an AWS-S3 bucket. The data uploaded to the bucket is deleted in about two weeks.
  - ✓ Spot Data Service: Historical data for the certain period of time which users specify in an application is available.

## 2 Data Service Environment

- For the Production environment, users are granted access permission to the Service which they subscribe to for the duration of the contract.
- For the Spot Data Service, the purchased data is provided in the user's dedicated bucket for a certain period of time.



\*Access Key and File decryption key are changeable if requested.

## 3 Dataset Overview

### 3.1 OSE Data (Including Tokyo Commodity Exchange, Inc. ("TOCOM") Data)

#### 3.1.1 List of Data

Name	Overview	File
J-GATE Information (Order/Trade Data)	<p>J-GATE orders and trades event by event.</p> <p>The data includes "Immediate or Cancel" orders (e.g. FOK, FAK etc.) which are unavailable on API or ITCH.</p> <p>Information that can identify the trader (e.g. participant code, user IDs) is not included.</p>	CSV file containing trading data of all products in Osaka Exchange and TOCOM markets.
J-GATE Information (System Stats Data)	<p>Data related to running status of Matching Engine, ITCH and OUCH servers of J-GATE (e.g. CPU usage, Memory usage, NIC usage, PTP time synchronization offset value, transaction volume per GW/TAP, etc.).</p>	CSV file containing stats for each resource per server in chronological order.
J-GATE Information (Timestamp Data)	<p>Timestamps of each order message recorded on network paths in arrownet and J-GATE.</p> <p>The data shows the time when an individual order message passes each timestamping point in nanoseconds.</p> <p>Information that can identify the trader (e.g. participant code, user IDs) is not included.</p> <p>The data might miss some of the order information when the number of orders rapidly increases in a day or some malformed packets in the traffic cause any unexpected issues in relevant system.</p>	CSV file containing timestamps at each timestamping point per order message.



J-GATE Information (ITCH Binary Data)	<p>Binary data of messages in Full Order Information (ITCH data) disseminated by J-GATE3.0 via ITCH protocol.</p> <p>The data needs to be decoded according to a designated binary format before being used.</p>	Binary file containing ITCH data per multicast group.
J-GATE Information (ITCH Historical CSV Data)	<p>CSV data of messages in Full Order Information (ITCH data) disseminated by J-GATE2.0 via ITCH protocol.</p> <p>It is only available through the Spot Data Service.</p> <p>The data only covers Full Order Information (ITCH data) disseminated from July2016 to September 2021 when J-GATE2.0 was running. It does not cover any data from the J-GATE3.0 launch and onward. (Historical) data from the J-GATE3.0 launch and onward can be purchased as J-GATE Information (ITCH Binary Data) above through the Spot Data Service.</p>	CSV file containing ITCH data per multicast group.
J-GATE Information (Drop Copy Data)	<p>Data of order/trade-related broadcast messages for each user disseminated by J-GATE via OMnetAPI.</p> <p>It is only available through the Regular Service.</p> <p>It is only available for trading participants who own sponsoring sub-participant codes, and they can only view the data for their own users (trading participants), because the data includes trading information that can identify the traders.</p> <p>Furthermore, for information security reasons, the data is uploaded to an S3 bucket that is only accessible from certain IP addresses. In applying for the data, users need to submit a global IP address from which they access the bucket.</p>	JSON LINES file containing broadcast data per sub-participant code.

### 3.1.2 Upload Frequency

- In principle, for J-GATE Information (Order/Trade Data), J-GATE Information (System Stats Data), J-GATE Information (Timestamp Data), and J-GATE Information (ITCH Binary Data), and J-GATE Information (Drop Copy Data), data of the day is provided by 15:00 of the following

business day. (E.g. The data for Jul.1, 2025 is uploaded by 15:00 of Jul. 2, 2025. )

- On and after Dec 4, 2022, J-GATE Information (Timestamp Data) for a weekend test is also provided in the Regular Service. The data is basically uploaded within six hours from the end of the weekend test. (E.g. When a weekend test ends at 13:00 of Dec 18, 2022, its data is uploaded by 19:00. All times are in JST.) However, the data may not be available due to a J-GATE internal test or other operations.
- J-GATE Information (ITCH Historical CSV Data) is not uploaded daily because it is only provided through the Spot Data Service covering historical data from August 2016 to September 2021.
- Historical data for the Regular Service is kept in the server for about two weeks. If older data is needed, it can be purchased as per the Spot Data Service.
- Data for a holiday trading day is also uploaded, in principle, by 15:00 of the following business day.

### **3.1.3 Points to Note**

- All data is encrypted by AES256bit and compressed in zip format. A password for decryption can be found on a service environment information form to be sent after users applied for the Service. (However, ITCH Historical CSV Data is not encrypted and only compressed in zip format.)
- Any devices and communications users need to access the production environment must be prepared and paid for by the users.
- In the event of J-GATE failure, other unexpected incidents or rapid increase of the order flows, the data may be entirely unavailable or partially miss some of the entries. If the data cannot be provided within the day, notification will be emailed to the emergency contact address. Furthermore, historical data purchased through the Spot Data Service may be missing part of the data.
- All data is basically uploaded by 15:00 of the day, but it may be delayed if there are more orders than expected.
- The Spot Data Service only offers data of at least two-week old. (E.g. As of April 23, 2021, data for April 8, 2021 and before is available.)
- Data of the Spot Data Service is kept in the server for about two weeks from upload. Please download the data while it is available.
- J-GATE Information (Drop Copy Data) may take a few months from an application to the usage start due to capacities of our system.

## 3.2 TSE Data

### 3.2.1 List of Data

Name	Overview	File
arrowhead Information (System Stats)	<p>Data related to status of arrowhead servers or other information.</p> <ol style="list-style-type: none"><li>1. Symbol Allocation Information</li><li>2. CPU Usage Rate (GW and Trading Servers)</li><li>3. Number of Orders per Millisecond (GW Servers, per Resource Groups)</li><li>4. Number of Executions per Millisecond (GW Servers, per Symbols)</li><li>5. FLEX Throttling Count</li><li>6. Number of Connected Virtual Servers (per GW Servers)</li><li>7. Virtual Server Allocation Information</li></ol> <p>*#1-6 is common data for all users.</p> <p>*#7 is customized data for each user, and only available to user having LLT or Participant Code.</p>	See data catalogue for details.
arrowhead Information (Timestamp Data)	<p>Data featuring the timestamp information of each order message stamped within the arrowhead system. The timestamp is recorded by the nanosecond when each order message, acceptance notification, and execution notification passes through each measurement. Information that could identify the message types or who submitted the order is not included. In the event of a sudden increase in the number of orders or a problem in related systems, it may not be possible to record data for all orders.</p>	See data catalogue for details.

### 3.2.2 Upload Frequency

#### [arrowhead Information (System Stats)]

- System Stats data on the business day is basically provided three times a day: Morning by 8:50, Daytime by 11:55, EOD by 20:00 of the day. (See data catalogue for details. All times are in JST.)
- #1 is provided at Morning; #2, #6, and #7 are provided at Morning, Daytime, and EOD; #3, #4, and #5 are provided at EOD.
- Historical data for the Regular Service is kept in the server for about two weeks. If older data is needed, it can be purchased as per the Spot Data Service.

#### [arrowhead Information (Timestamp Data)]

- In principle, data of the day is provided by 15:00(JST) of the following business day. (E.g., the data for Jul. 1, 2025 is uploaded by 15:00 on Jul. 2, 2025.)
- Historical data for the Regular Service is kept in the server for about two weeks. If older data is needed, it can be purchased through the Spot Data Service.

### 3.2.3 Points to Note

- Please note that JPXI can only respond to requests pertaining to format and/or content. In order to ensure fairness among all contracted parties, JPXI refrains from conducting any investigations or analyses that may assist with data interpretation.
- Any devices and communications users need to access the production environment must be prepared and paid for by the users.
- In the event of arrowhead failure, other unexpected incidents or rapid increase of the order flows, the data may be entirely unavailable, partially missing some entries, or delayed. Furthermore, historical data purchased through the Spot Data Service may be partially missing some entries.
- If the data cannot be provided within the day, a notification will be emailed to the emergency contact address.

- Data of the Spot Data Service is kept in the server for about two weeks from upload. Please download the data while it is available.

#### [arrowhead Information (System Stats)]

- All data is encrypted by AES256bit and compressed in zip format. A password for decryption can be found on a service environment information form to be sent after users applied for the Service.
- User without LLT or Participant Code is offered System Stats data ①-⑥.
- If the User is the participant, the scope of ⑦ provided is the virtual servers which the participant subscribe. If the User is the LLT, the scope of ⑦ provided is the virtual servers which are dedicated for the LLT.
- In the spot data service, ② is provided the data uploaded at EOD.

#### [arrowhead Information (Timestamp Data)]

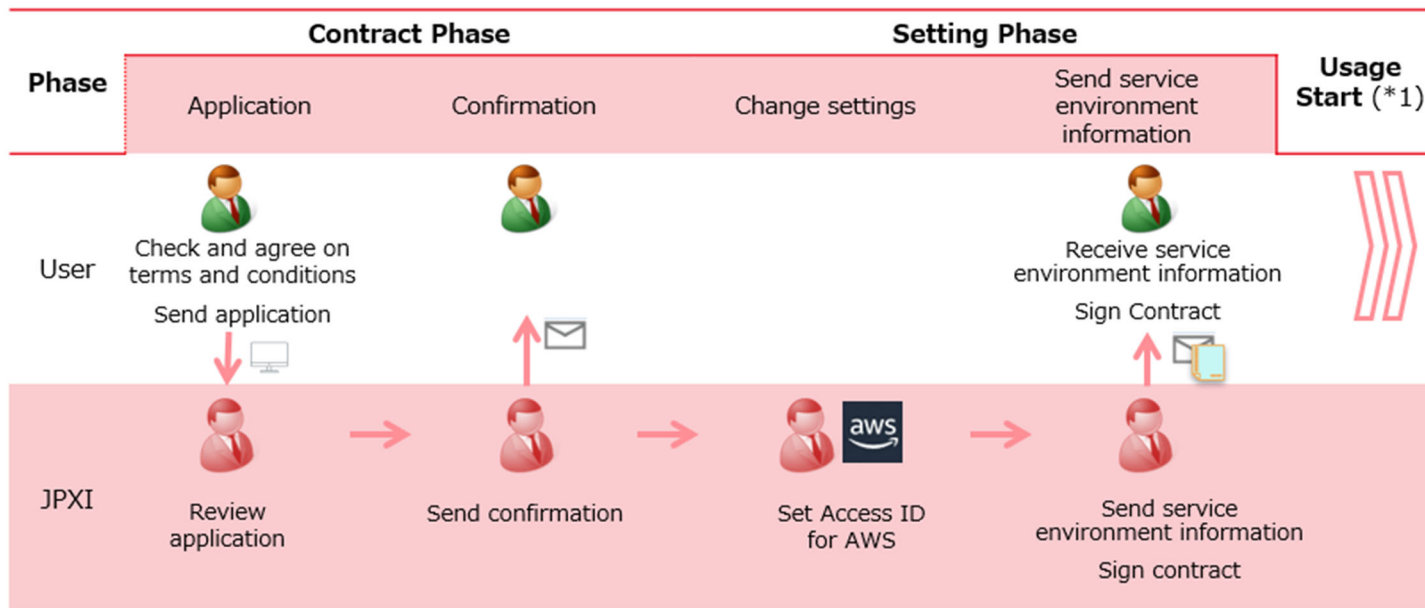
- arrowhead Information (Timestamp Data) is provided in a compressed gzip format.

## 4 Contract and Fee

### 4.1 Contact

E-mail : [jpx-alternativedata@jpx.co.jp](mailto:jpx-alternativedata@jpx.co.jp)

### 4.2 Process Before Usage Start



\*1: See operation manuals for data download.

\*The process above is an example of the Regular Service. The Spot Data Service has additional steps of contract, billing, and payment before sending a service environment information.

### 4.3 Fee (Regular Service)

- The first month's fee is pro-rate.
- However, for J-GATE Information (Timestamp Data) and arrowhead Information (Timestamp Data), the first month is free of charge if deemed appropriate by JPXI.
- The invoice for the current month is emailed on around the 15<sup>th</sup> day of the month. Please make the payment through bank transfer by the date specified on the invoice.

The Spot Data Service has additional steps of contract, billing, and payment before sending a service environment information.

## 5 Price List

It is prohibited to externally distribute to third parties the information acquired through the Service.

For conditions of the Affiliated companies, application process, etc., please contact us at [jpx-alternativedata@jpx.co.jp](mailto:jpx-alternativedata@jpx.co.jp).

(Japanese consumption tax (national and local) will be added for domestic users.)

Data type	Regular Service (per month)		Spot Data Service (per day) (*1)	
	Internal use only (*2)	Shared with Affiliated Companies (*3)	Internal use only	Shared with Affiliated Companies
J-GATE Information (Order/Trade Data)	JPY 450,000	JPY 600,000	JPY 20,000	JPY 30,000
J-GATE Information (System Stats Data)	JPY 300,000	JPY 450,000	JPY 15,000	JPY 20,000
J-GATE Information (Timestamp Data)	Variable depending on the number of OUCH Login IDs (IDs to be used to enter orders in J-GATE) owned by the user. (*4)			
J-GATE Information (ITCH Binary Data)	JPY 80,000	JPY 120,000	JPY 4,000	JPY 6,000
J-GATE Information (ITCH Historical CSV Data)	(*5)	(*5)	JPY 2,000	JPY 3,000
J-GATE Information (Drop Copy Data)	JPY 600,000	(*7)	(*7)	(*7)
arrowhead Information (System Stats)	JPY 300,000	JPY 450,000	JPY 15,000	JPY 20,000
arrowhead Information (Timestamp Data)	Variable depending on the number of virtual servers exclusively used by the user. (*8)			



(\*1) In the Spot Data Service, data can be purchased from a minimum of five business days. Please note that it will take some time to deliver the data since the whole process will start after confirming the payment.

Data availability varies for each data type, as shown in the table below. For J-GATE Information, Order/Trade Data and System Stats Data for September 21, 2021 and before have different files names and formats. Contact us for details.

For the Spot Data Service, the processing fee of JPY 50,000 will be charged separately for each order.

Data type	Data availability period
J-GATE Information (Order/Trade Data)	Data for July 1, 2019 ~
J-GATE Information (System Stats Data) (*6)	Data for July 1, 2019 ~
J-GATE Information (Timestamp Data)	Data for September 21, 2019 ~
J-GATE Information (ITCH Binary Data)	Data for September 21, 2019 ~
J-GATE Information (ITCH Historical CSV Data)	Data for July 19, 2016 ~ September 17, 2021
J-GATE Information (Drop Copy Data)	Not available in the Spot Data Service.
arrowhead Information (System Stats)	Data for June 1, 2020 ~
arrowhead Information (Timestamp Data)	Data for November 5, 2024 ~

(\*2) Internal use only: Data can be only used by the contracting party.

(\*3) Shared with Affiliated Companies: In addition to the use by the contracting party, data can be shared with the Affiliated Companies which JPXI has approved.

(\*4) The table below shows the number of OUCH Login IDs and corresponding fees of the Timestamp Data. The fee for the month is determined by the number of OUCH Login IDs at the beginning of the month.

Number of OUCH Login IDs	Regular Service (per month)		Spot Data Service (per day)	
	Internal use only	Shared with Affiliated Companies	Internal use only	Shared with Affiliated Companies
91~	JPY 700,000	JPY 1,050,000	JPY 35,000	JPY 52,000
31~90	JPY 500,000	JPY 750,000	JPY 25,000	JPY 37,000
0~30	JPY 220,000	JPY 330,000	JPY 11,000	JPY 16,000

For the Spot Data Service, the processing fee of JPY 50,000 will be charged separately for each order.

(\*5) ITCH Historical CSV Data is only available through the Spot Data Service.

(\*6) PTP offset stats file and GW/TAP stats file offer data for October 31, 2022 and onward.

(\*7) Drop Copy Data is only available for internal use of the Regular Service.

(\*8) The table below shows the number of virtual servers exclusively used by the user and corresponding fees of the Timestamp Data. The fee for the month is determined by the number of virtual servers exclusively used by the user at the beginning of the month.

Number of Virtual Servers	Regular Service (per month)		Spot Data Service (per day)	
	Internal use only	Shared with Affiliated Companies	Internal use only	Shared with Affiliated Companies
91~	JPY 1,100,000	JPY 1,600,000	JPY 55,000	JPY 80,000
31~90	JPY 750,000	JPY 1,100,000	JPY 37,000	JPY 55,000
0~30	JPY 350,000	JPY 500,000	JPY 17,000	JPY 25,000

For the Spot Data Service, the processing fee of JPY 50,000 will be charged separately for each order.

## 6 Prohibited Acts, Penalties, Disclaimer

- For prohibited acts, penalties, and disclaimer, please see “Terms and Conditions for JPX Market Innovation & Research, Inc. Information Services”.
- For the Regular Service and the Spot Data Service, each file can be downloaded from the service environment up to five times.
- The Spot Data Service is available from a minimum of data for five business days.
- Delinquency and any other breach of what’s set down in “Terms and Conditions for JPX Market Innovation & Research, Inc. Information Services” may result in the revocation of Access ID to the service environment.

## 7 Inquiry

For any inquiries on J-GATE Information and arrowhead Information, please contact us at the email address or the inquiry form listed below:

E-mail : [jpx-alternativedata@jpx.co.jp](mailto:jpx-alternativedata@jpx.co.jp)

Inquiry form: <https://reg18.smp.ne.jp/regist/is?SMPFORM=lhmc-lbmflg-61d243111a4c5a3ffc6c5800bf890edf>