



Expansion of FLEX Historical Service

Tokyo Stock Exchange, Inc.
September 2020

Overview of FLEX Historical Service Expansion



- Tokyo Stock Exchange, Inc. (TSE) has provided historical tick data as “FLEX Historical Service”.
- TSE is planning to expand FLEX Historical Service. TSE will contribute to the enhancement of service value and user convenience through the expansion of this service. The changes from the current service are shown in the table below.
- The new service will be launched at the end of May 2021, and the current service will end at September 2021. Please see page 9 for schedule details.

#	Item	Current	New	Expected effect
1	Data format	CSV File	PCAP(Packet Capture) File	<ul style="list-style-type: none"> •Improvement of analysis on Linux •Utilization for reality back-testing
2	Data item	-	Addition of Timestamp in JPX Collocation	
3	Compression method	ZIP	GZIP	<ul style="list-style-type: none"> •Improvement of operability on Linux •Improvement of compression ratio
4	Delivery channel	FTP	Web API	<ul style="list-style-type: none"> •Bandwidth alleviation •Efficient data reception
5	Access authority /Fees	Data for the entire period	Monthly /All-period/Spot	<ul style="list-style-type: none"> •Optimization of cost burden

#1 Data format

- TSE will add new headers such as the timestamp of the captured packets to the current message structure.
- Currently the messages are decoded. But in the new service, it will not be decoded.

【Packet Structure】

(Current)

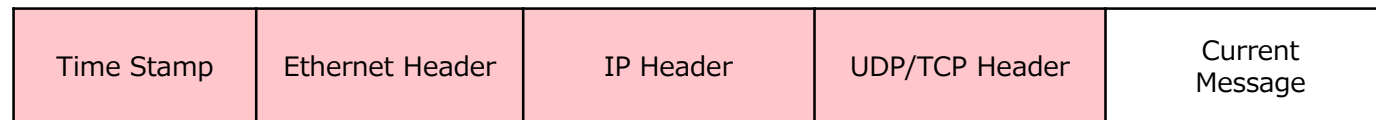
It is decoded.

Service Header							User Data						
Message Length	Message Serial No.	Message Type	Exchange Code	Session Distinction	Issue Classification Code	Issue Code	Tag		Tag		Tag	
							ID	Data		ID	Data	ID	Data

ex. 1301_BP 201209034 1780000+4 2280000+4 1280000+1__ 103032000000094001 0111

(New in PCAP format)

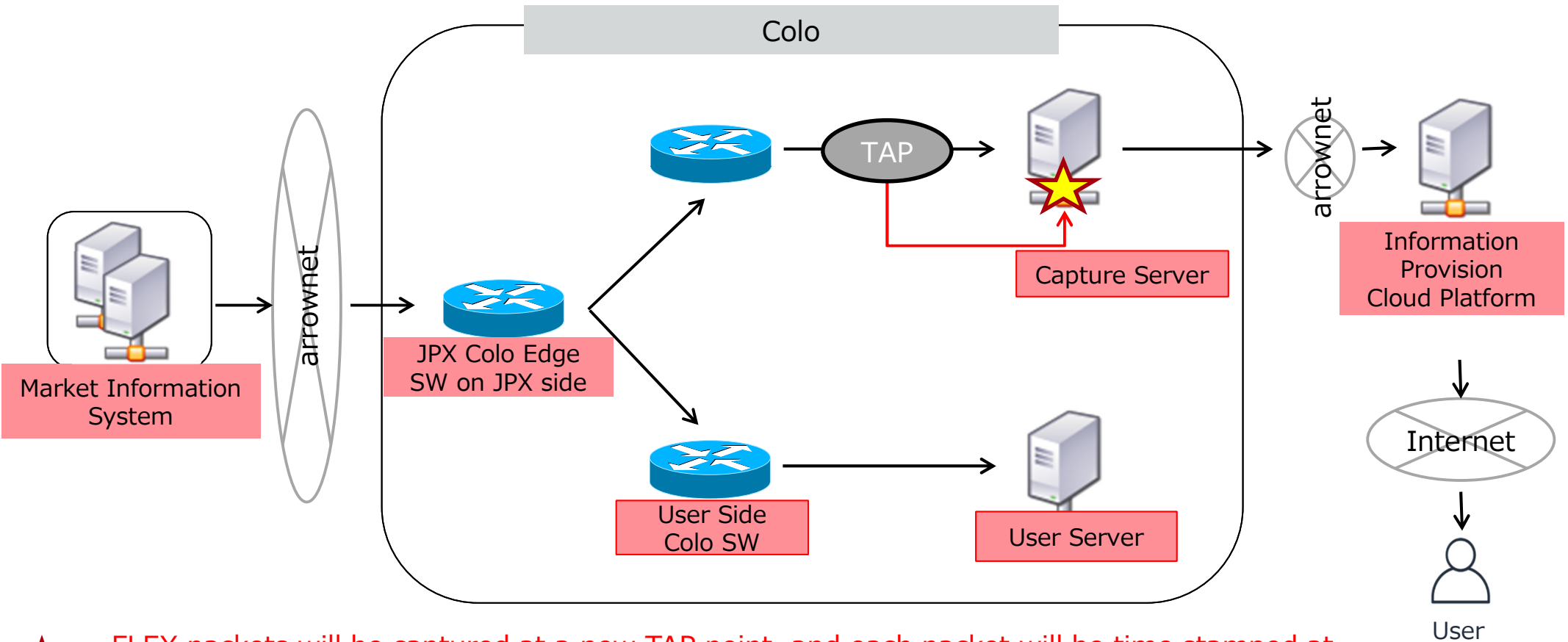
It is not decoded. (binary data)



Service Header							User Data						
Message Length	Message Serial No.	Message Type	Exchange Code	Session Distinction	Issue Classification Code	Issue Code	Tag		Tag		Tag	
							ID	Data		ID	Data	ID	Data

#2 Data item

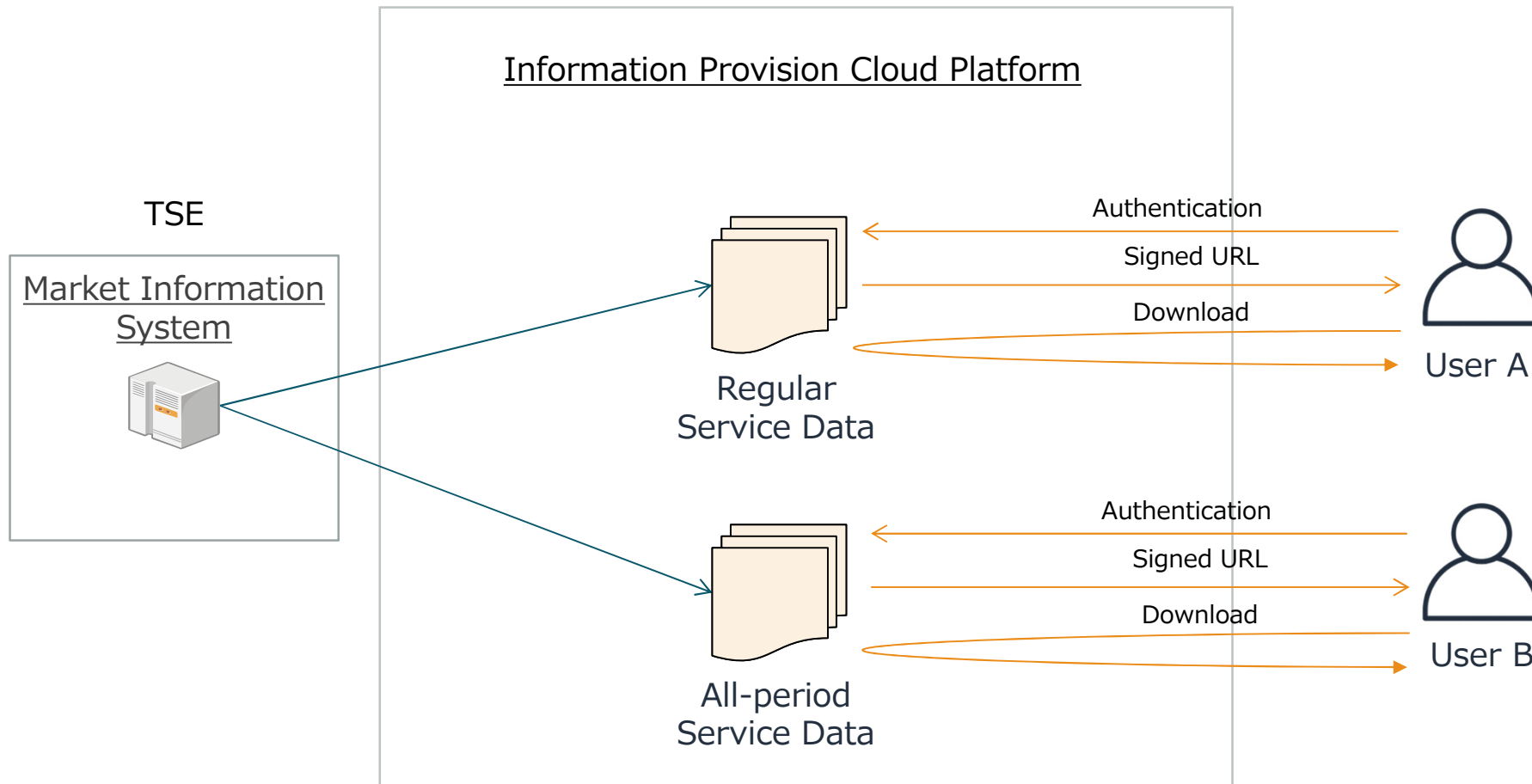
- FLEX Historical Data provides information for each multicast group acquired from both FLEX lines.
- A high-accuracy packet capture is achieved by pressing a time stamp in the JPX collocation area.
- In order to enable Colo users of the data to conduct close-to-reality back testing, TSE is planning to install New Server in a network similar to what a Colo user established.
- For details on the file structure and correspondence when the packet is lost, etc., please refer to the "Announce of Test Data①" on page 9.



 FLEX packets will be captured at a new TAP point, and each packet will be time stamped at the Capture Server.

#4 Delivery channel

- We will change the delivery channel using FTP from the TMI server to Information Provision Cloud Platform(New).
- Currently, the transfer rate is set no more than 20Mbps, but using Information Provision Cloud Platform will reduce the bandwidth limit and shorten the download time.
- We will divide the plan according to the period of the target data and grant access authority according to the contracted plan. Details are described on next pages.



#5 Access authority/Fees

- We will revise the price list according to access authority.
- Those who are subscribed as of May 31, 2021 can use the current price list until September 2021.

[Current]

per month, (JPY)

Service	Single Entity Corporate Usage	Group Company Corporate Usage	External Distribution Volume Charge Type (per user)	External Distribution Fixed Rate Type
FLEX Standard Historical (Cash Equities)	95,000	142,500	57,000	285,000
FLEX Full Historical	142,000	213,000	85,200	426,000
FLEX Standard Historical (Cash Equities) & FLEX Full Historical Set	177,750	266,625	106,650	533,250
ToSTNeT Historical	50,000	75,000	30,000	150,000
Real Time TOPIX Historical	50,000	75,000	30,000	150,000
FLEX Standard Historical (Futures)	60,000	90,000	36,000	180,000

#5 Access authority/Fees

- We will grant access authority according to the contracted plan.
 - Regular Service : Data for the last month
 - All-period Service : Data for all historical
 - Spot Data Service : Data for one month from the period before Regular Service.

[update]

per month , (JPY)

Service	Regular Service Single Entity Corporate Usage	Regular Service Group Company Corporate Usage	External Distribution Volume Charge Type (per user)	All-period Data Service	Spot Data Service
FLEX Standard Historical (Cash Equities)	100,000	150,000	59,900	300,000	40,000
FLEX Full Historical	150,000	225,000	89,500	450,000	60,000
FLEX Standard Historical (Cash Equities) & FLEX Full Historical Set	187,000	280,500	112,000	561,000	74,800
ToSTNeT Historical	50,000	75,000	31,500	150,000	20,000
Real Time TOPIX Historical	50,000	75,000	31,500	150,000	20,000
FLEX Standard Historical (Futures)	60,000	90,000	37,800	180,000	24,000

#5 Access authority/Fees

- The following price list applies for academic use*.

per month , (JPY)

Service	All-period Data Service Academic usage
FLEX Standard Historical (Cash Equities)	50,000
FLEX Full Historical	75,000
FLEX Standard Historical (Cash Equities) & FLEX Full Historical Set	94,000
ToSTNeT Historical	25,000
Real Time TOPIX Historical	25,000
FLEX Standard Historical (Futures)	30,000

* Use of the information for non-commercial activity by a non-profit organization or an individual belonging to such organization for conducting research/studies whose results are not used for commercial purposes. The customer shall not publish the results of the research/study in a form where the original information may be obtained by a third party. The customer shall cooperate with TSE's requests regarding the results of the research/study.

- For inquiries about data format and delivery channel, please contact:

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- For inquiries about contracts and price list, please contact:

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