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JROC Workstream 1 – Levelling Up TPP Reporting Data Metrics

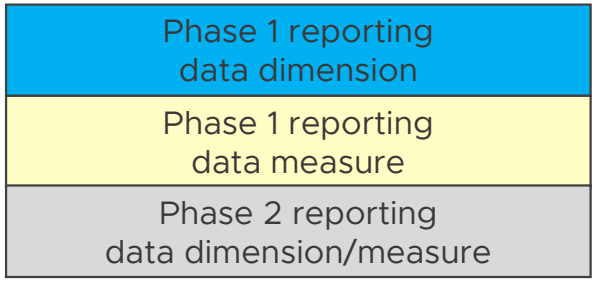
Classification: Confidential

Version Control

Date	Version	Details
09/11/2023	1.0	• Initial version presented in tutorial.
16/11/2023	1.1	**Return 1 - Failed API calls - Technical** • Requirement to not report 5xx errors during planned downtime removed, following tutorial feedback.

TPP Data Metrics

- This document provides further information for the data metrics required to be reported by TPPs, following the JROC workstream 1 consultation.
- Reporting template includes both phase 1 and phase 2 data requirements.
- Reporting is currently optional; however, JROC have indicated they expect TPPs to provide data voluntarily:
  - Phase 1 data – from February 2024 (based on January 2024 performance).
  - Phase 2 data – from July 2024 (based on June 2024 performance); however, TPPs may submit this data sooner if they are able.
- TPP data will be used to monitor and corroborate ASPSPs own reporting.
- Reporting data key:



Required data allowing OBL to report performance at different levels of granularity.

Required data allowing OBL to report performance metrics.

Secondary colour indicates where metric is a dimension or measure - data can be reported as soon as data is available.

- Monthly submissions to OBL will initially be due by 3pm on working day 10 of the following month. (This may be reduced in future).
- OBL will confirm submission email address ahead of first submissions.
- A secure file transfer platform [Cocoon Data SafeShare or an AWS based solution] is available as an alternative to email

Return 1 – Performance and Availability

Reporting Date	Report Time *[Phase 2 Req.]*	TPP Brand ID	ASPSP Brand ID	Endpoint ID	API Version	Successful API calls	Failed API calls - Business	Failed API calls - Technical	API Calls generating Rejection Status *[Phase 2 req.]*	API calls – no response	Perceived Downtime % *[Phase 2 req.]*	Total TTFB (m/s) *[Phase 2 req.]*	Total TTLB (m/s) *[Phase 2 req.]*
2023-10-01	01:00	9999	9999	8	v3.1.10	14785542	1	12	0	6	0.75	6224713182	6313426434
2023-10-01	17:00	9999	9999	8	v3.1.10	488524	28	461	0	17	0.16	260383292	264291484
2023-10-01		9999	9999	8	V3.1.10	15274066	29	473		23			

Return 1 – Performance and Availability

Field Name	Description	Data Type	Data Format/ Constraints	Additional Information
Reporting Date	The reporting date for each calendar day during the reporting period.	ISOdate(10)	YYYY-MM-DD	Reporting Date is a mandatory field and combines with TPP Brand ID, ASPSP Brand ID, Endpoint ID, and API Version to create the unique record key.
Report Time *[Phase 2 Req.]*	The one-hour time-period to which the reporting relates to.	Time(5)	HH:00	Hourly timestamps using 24-hour clock. Timestamp represents the start of the reporting period.
TPP Brand ID	Reporting TPP Brand ID as defined in Brand ID reference data.	INT(4)	0-9999	TPP Brand ID is a mandatory field and combines with Reporting Date, ASPSP Brand ID, Endpoint ID, and API Version to create the unique record key.
ASPSP Brand ID	Connected ASPSP Brand ID as defined in Brand ID reference data, to which the reporting relates.	INT(4)	0-9999	ASPSP Brand ID is a mandatory field and combines with Reporting Date, TPP Brand ID, Endpoint ID, and API Version to create the unique record key.
Endpoint ID	Reported Endpoint ID as defined in API Endpoint List. https://openbankinguk.github.io/mi-docs-pub/v3.1.10-aspsp/specification/mi-data-reporting-api-specification.html#_2-1-api-endpoint-list	INT(4)	0-9999	TPPs must only report for endpoints that have gone live in their systems systems. Endpoint ID is a mandatory field and combines with Reporting Date, TPP Brand ID, ASPSP Brand ID, and API Version to create the unique record key.
API Version	The Open Banking Standards version of the endpoint implementation by the ASPSP. Must include major, minor, and point version.	TEXT(10)	vN.N.nn	API Version is a mandatory field and combines with Reporting Date, TPP Brand ID, ASPSP Brand ID, and Endpoint ID to create the unique record key.

Return 1 – Performance and Availability (cont.)

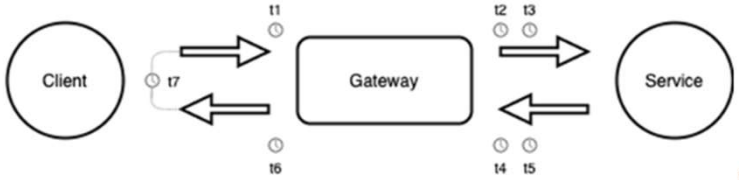
Field Name	Description	Data Type	Data Format/ Constraints	Additional Information
Successful API calls	The total number of successful calls for each endpoint, that have been made by the TPP/TSP to the reported ASPSP during the reporting period.	INT(10)	0-2147483647	Calls generating a HTTP Status Code of 200, 201 or 204 depending on the HTTP method of the endpoints.
Failed API calls - Business	The total number of failed endpoint calls for each endpoint, that have been made by the TPP/TSP to the reported ASPSP during the reporting period and failed due to business rules reasons.	INT(10)	0-2147483647	Calls generating a HTTP Status Code of 4xx.
Failed API calls - Technical	The total number of failed endpoint calls for each endpoint, that have been made by the TPP/TSP to the reported ASPSP during the reporting period and failed due to technical rules reasons.	INT(10)	0-2147483647	Calls generating an HTTP Status Code of 5xx. (NB: the requirement to *not* report 5xx errors during periods of planned downtime has been removed).

Return 1 – Performance and Availability (cont.)

Field Name	Description	Data Type	Data Format/ Constraints	Additional Information
API Calls generating Rejection Status *[Phase 2 req.]*	The total number of successful calls for each endpoint, that have been made by the TPP/TSP to the reported ASPSP during the reporting period, and received a rejected status.	INT(10)	0-2147483647	Where: a) Payments consent resources in the rejected state due to authorisation failing or consent authorisation being rejected. b) Payment resources in the rejected state due to payment initiation being rejected as part of proceeding checks such as technical validation and customer profile. c) Account access consent resources in the rejected state due to authorisation failing or consent authorisation being rejected. d) Funds-confirmation-consent resources in the rejected state due to authorisation failing or consent authorisation not agreed.
API calls – no response	The total number of failed endpoint calls for each endpoint, that has been made by the TPP/TSP to the reported ASPSP during the reporting period, and generated no response message back to the TPP/TSP.	INT(10)	0-2147483647	TPPs should exclude the impact of no response calls during a period of Planned Outage.
Perceived Downtime *[Phase 2 req.]*	The percentage of time a TPP perceives the reported ASPSP endpoint to be unavailable during the reporting period.	Decimal(5,2)	0.00-100.00	Data should be expressed as a percentage without the '%' symbol in the data. Any unplanned duration that the API endpoints are 'perceived' to have become unavailable due to technical faults or any other reasons. The clock for unavailability should start as defined in section 4.1 of the v3.1.11 MI Specification.

Return 1 – Performance and Availability (cont.)

Field Name	Description	Data Type	Data Format/ Constraints	Additional Information
Total TTFB (m/s) *[Phase 2 req.]*	The sum of all the TTFB responses of all endpoint calls of each endpoint type during the reported 1-hour period for each reported ASPSP.	LONGINT	TTFB <= TTLB	For the avoidance of doubt, this is the sum of all the TTFB response times generated by the Total Number of API calls for each endpoint (excluding any timed-out API Calls).
Total TTLB (m/s) *[Phase 2 req.]*	This is the sum of all the TTLB responses of all endpoint calls of each endpoint type during the reported 1-hour period for each reported ASPSP.	LONGINT	TTFB <= TTLB	For the avoidance of doubt, this is the sum of all the TTLB response times generated by the Total Number of API calls for each endpoint (excluding any timed-out API Calls).



Definitions

t1: The timestamp recorded when the request is initially received by the Gateway.
t2: The time when the request was initiated to the next available service.
t3: The time when the request write was started.
t4: The response time for each service.
t5: This is the read time for response content.
t6: The timestamp when the request write was initiated.
t7: The overall time taken between receipt of the incoming request and streaming of the complete response to the client.

Based on the above diagram and definitions:
TTLB = time period (t7) - (t1)
TTFB = time period (t6) - (t1)

Return 2 – Conversion Rate

Reporting Period	TPP Brand ID	ASPSP Brand ID	API Type	TPP Channel	ASPSP Channel *[Phase 2 req.]*	Requests started	Consents requiring Authentication	Consents abandoned by PSU before redirection *[Phase 2 req.]*	Consents abandoned by TPP before redirection *[Phase 2 req.]*	Consents Succeeded	Average journey time (m/s) *[Phase 2 req.]*	Payments successfully initiated
2023-10-01	9999	9999	AIS	Non-browser	Unknown	55364	52479	3244	102	36597	30554	
2023-10-01	9999	9999	PIS-Other	Browser	App	108579	102664	2934	84	87265		81002
2023-10-01	9999	9999	AIS	Non-browser		55364	52479			36597		
2023-10-01	9999	9999	PIS-Other	Browser		108579	102664			87265		81002

Return 2 – Conversion Rate

Field Name	Description	Data Type	Data Format/ Constraints	Additional Information
Reporting Period	The start of the monthly reporting period the data relates too.	ISOdate(10)	YYYY-MM-01	Reporting Period is a mandatory field and combines with TPP Brand ID, ASPSP Brand ID, API Type, and TPP Channel to create the unique record key.
TPP Brand ID	Reporting TPP Brand ID as defined in Brand ID reference data.	INT(4)	0-9999	TPP Brand ID is a mandatory field and combines with Reporting Period, ASPSP Brand ID, API Type, and TPP Channel to create the unique record key.
ASPSP Brand ID	Connected ASPSP Brand ID as defined in Brand ID reference data, to which the reporting relates.	INT(4)	0-9999	ASPSP Brand ID is a mandatory field and combines with Reporting Period, TPP Brand ID, API Type, and TPP Channel to create the unique record key.
API Type	The type of OBL service the consent relates to. It includes Account Information Services (AIS), Payment Initiation Services, excluding VRPs (PIS-Other), Variable Recurring Payments (Sweeping/Commercial), and Card-Based Payment Instrument Issuers (CBPIIs).	TEXT(10)	AIS PIS-Other PIS-sVRP PIS-cVRP CBPII	For the avoidance of doubt, PIS-Other reporting should include internal transfers, FPS (single domestic), SO, FDP, International, BACS and CHAPS payments. API Type is a mandatory field and combines with Reporting Period, TPP Brand ID, ASPSP Brand ID, and TPP Channel to create the unique record key.
TPP Channel	The channel used by the TPP/TSP to initiate the AIS, PIS (single or VRP) or CBPII consent.	TEXT(15)	Browser Non-browser Unknown	TPP Channel is a mandatory field and combines with Reporting Period, TPP Brand ID, ASPSP Brand ID, and API Type to create the unique record key.

Return 2 – Conversion Rate (cont.)

Field Name	Description	Data Type	Data Format/ Constraints	Additional Information
ASPSP Channel *[Phase 2 req.]*	The reported ASPSP Authentication channel. It can be web-based (Web) or using the mobile banking app (App). In some cases, this may be unknown.	TEXT(10)	App Web Unknown	
Requests started	The number of requests initiated with the TPP/TSP.	INT(10)	0-2147483647	For the avoidance of doubt, this is the total number of 'POST - consent' endpoint requests and is the first box in the example flowchart.
Consents requiring Authentication	The number of requests where the 'POST - consent' API call is successful (201 created status) and the PSU is required to provide consent, before the request can be completed.	INT(10)	0-2147483647	For the avoidance of doubt, this is starred box number 1 in the example flowchart.
Consents abandoned by PSU before redirection *[Phase 2 req.]*	The total number of PSU consents requiring authentication that have been abandoned by the PSUs before redirection.	INT(10)	0-2147483647	PSUs have dropped the journey (they have left, closed the web page or app or timed out before redirection).
Consents abandoned by TPP before redirection *[Phase 2 req.]*	The total number of PSU consents requiring authentication that have been abandoned by the TPP where there was no redirection.	INT(10)	0-2147483647	(E.g. Polling).
Consents Succeeded	The number of requests where the PSU consent step was completed successfully, and the consent status = 'Authorised'.	INT(10)	0-2147483647	For the avoidance of doubt, this is starred box number 5 in the example flowchart.

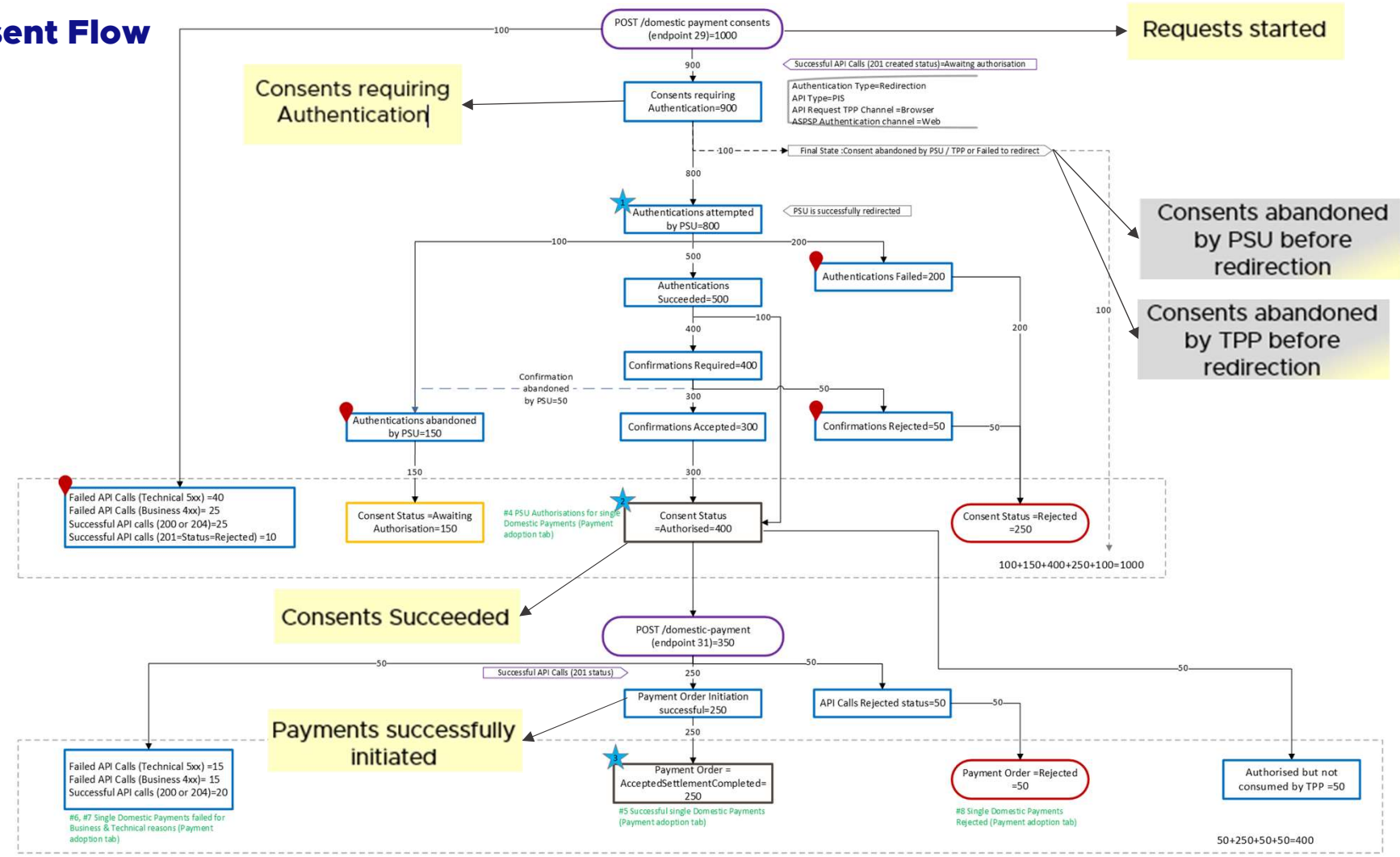
Return 2 – Conversion Rate (cont.)

Field Name	Description	Data Type	Data Format/ Constraints	Additional Information
Average journey time *[Phase 2 req.]*	The total average time in m/s it took to complete a journey during the reporting period.	INT(10)	0-2147483647	Total average time=Ttot (for the sum of T1 + T2 + T3 + T4 + T5 + T6 time segments) Refer to MI Requirements for TPPs v3.1.11 Section 8.2-Measuring-End-to-End-Response-times for Ttot example
Payments successfully initiated	The number of 'PIS-Other' consents where the authorisation token is subsequently consumed and the POST - payment order initiation is successful.	INT(10)	0-2147483647	Should be reported for PIS-Other consents only.

Additional data validations

1) Consents Requiring Authentication <= Requests Started
2) Consents abandoned by PSU before redirection <= Consents Requiring Authentication
3) Consents abandoned by TPP before redirection <= Consents Requiring Authentication
4) Consents succeeded <= Consents Requiring Authentication
5) Payments successfully initiated <= Consents succeeded

Typical Consent Flow



ASPSP & TPP Brand IDs

- OBL are currently investigating if it is possible to use data sources for ASPSP and TPP Brand IDs.
- OBL will confirm the brand ID's to be used by each TPP ahead of first data collection.

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What we plan to do with the data

- TPP data will be used to corroborate ASPSP submissions and we will then report to JROC - we assume this may drive discussions if underperformance of certain ASPSPs is seen or a wide delta between what ASPSPs report and what TPP data shows is found
- Data will be held securely and only accessible to a restricted list of OBL employees
- We will not publish TPP data and do not envisage a need to share sources with JROC either – we will merely use it to shine a light on ASPSP reporting if it seems to overstate (or understate) reality
- We are finalising a data sharing agreement and will share it with TPPs soon