flooid

SUPPORT & MAINTENANCE POLICY

This Support & Maintenance Policy ("SMP") applies to the ongoing support and maintenance of the Subscription following implementation and is part of the Subscription Agreement by and between Flooid and Customer (the "Agreement"). In the event of a conflict between this SMP and the Agreement, unless otherwise expressly provided, the Agreement will control. All capitalized terms not defined herein have the meaning ascribed to them in the Agreement.

SERVICE DEFINITION, SERVICE LEVEL OBJECTIVES AND TARGETS

1.   Standard Subscription Service Definition
Flooid offers retailers a transparent software as a service model (SaaS).

The Subscription includes product, maintenance, support, and the Flooid Cloud Platform. Provided as part of the Subscription Fees, Flooid manages the Flooid Cloud Platform, including the provision and management of the cloud environment, reasonably ensuring scalability and elasticity as standard. Our Subscription model includes:

- Flooid Cloud Platform
- Customer application software
- Customer application maintenance
- Level 3 support
- Flooid Customer Success Manager

2.   Standard Flooid Cloud Platform Delivery

The Flooid Cloud Platform delivers the agreed product versions and components as per the relevant Order Form. It includes: the production estate in a fault tolerant, multi region deployment; Flooid support environments and a number of Customer test environments as defined in the Order Form.

The Flooid Cloud Platform is designed to deliver availability and performance for the core components of Flooid Cloud Platform in accordance with the agreed nonfunctional requirements.

The Flooid Cloud Platform is delivered from a primary cloud region across private network links to the Customer. Through Flooid's Infrastructure as Code (IaC), the Flooid Cloud Platform makes use of multiple availability zones in the region, reasonably ensuring maximum availability and rapid scalability. The same IaC allows for failover to an alternate region in the event of a geographical failure of the cloud provider. Flooid also utilizes the same IaC to deliver test environments reasonably guaranteed to mirror production while enabling new release testing.

3.   Service Level Objectives and Targets

The following detail the individual service functions along with the Service Level Objective (SLOs) for each service. Unless otherwise stated, any availability or performance percentages are measured across a 1 month rolling period. Unless otherwise stated, metrics are for within normal operations of the system, i.e., the system is not in a recovery state, DR failover has not been invoked, there have been no outages either internal to the system or external to it.

All SLOs assume that the estate is operating within the agreed Non-Functional Requirements (NFRs), especially the following:

1. Number of Points of Sale (POS) devices.
2. Number of Stores.
3. Flooid Core baskets per month, per hour.
4. Application Program Interface (API) requests per month, per hour.
5. Retention period for transactions and other data.
6. Trading Hours and non-trading hours.
7. Processing window for bulk operations.
8. Rate of change per day
9. Preferred maintenance window during trading day/week.

Each metric will define the SLO and a service target. The SLO defines the expected state, whereas the service target defines the minimum acceptable state.

4. Standard Flooid Services

Standard services are defined as the default services that all customers will require, i.e., transaction flows, reference data flows and management of those services.

4.1 Transaction processing
The following defines the flow of transaction data through the system:
POS devices send transactions to the Center. POS sends its transactions as soon as possible when the network is available and then there are no running transactions. POS keeps record of 30 days of transactions (configurable). Transaction uploading is therefore dependent on resources available to the Customer (device, power, connectivity) and out of scope of the end-to-end service provided by Flooid.
- Transactions are completed on PoS
- The Transaction in PoSLog format is stored locally on the physical PoS device
- PoS sends the transaction to the center (see Transaction Consumption) when network is available to communicate to the center and the PoS is not building a new transaction
- The transaction (following synchronization to center via Transaction Consumption) is retained on the PoS for up to 30 days (this is configurable)
Flooid is reliant on the Customer network connections to the Flooid center in GCP and the processing resources on the PoS hardware device.

5. This section covers the service definition and service levels.

Service Levels Definition	Service Level	Availability
<u>Transaction consumption</u> This is the service that receives transactions from all the POS devices.	• 100% of transactions will be received in server side (in either CDB or error database/queue) • 99% of CDB transactions available in the publish queue in 60 seconds • 100% of CDB transactions available in the publish queue in 300 seconds • After an interruption to the transaction submission, the system will process queued transactions at a rate to enable to recover the peak trading day while maintaining service within 24 hours of recovery from the outage. This is not part of standard SLO reporting dashboards.	99.85% of the time within a 1-month period,

<u>Transaction Delivery to Customer (XML3 egress)</u>
This is the service that transmits all received transactions to Customer.
	• 99% of XML3 CDB transactions will be ready to send to the Customer in 200 seconds
	• 100% of XML3 CDB transactions will be ready to send to the Customer in 300 seconds
	• If transaction build up due to any circumstances, egress will exceed the greater of the following [XML3]:
	  - 110% of peak hour ingress
	  - 200% of peak day averaged across 24 hours
	• Customer system is to consume transaction 24x7 with an uptime of no less than 90% and a rate of consumption matching the rate of transaction availability.
	
	It is expected that:
	• The Customer consuming application is available to read the Flooid queue 99.85% of the time
	• Following an availability issue in the Customer's consuming
		Transaction Publisher (and other product transaction outbound queues) is available for 99.85% of the time within a 1-month period. (That is, over a 1-month calendar reporting period it will have a 99.85% availability.)

	application, it will be able to process 110% of the normal peak XML3 transaction volume per hour • Following an availability issue in the Customer's consuming application, it will be able to process 200% of the normal daily XML3 transaction volume	
Transaction lookup Metrics are provided from the point in time where a transaction lookup request is received, once committed to CDB. (Transaction lookup service is used by POS; therefore exposed to network latency and availability out of scope.)	Transaction Lookup is available 99.85% within a 1-month period.	99% of all queries will be responded to within 500 milliseconds. The service target is 90% within 5 seconds.
Stock processing From the point in time where a transaction is delivered to the service.	The stock services is available 99.85% within a 1-month period.	99% of all updates will be written to the database within 300 seconds not exceeding 900 seconds.
Additional services Unless otherwise itemized, standard SLOs can apply to all additional transaction services requested by Customer, assuming standard commercial coverage.	The service will be available 99.85% within a 1-month period.	while the service is available, 99% of all messages will be delivered to the external service within 60 seconds, and no more than 300 seconds, subject to revision if 3rd party systems are involved.

6.   Data Distribution

Customer sends data updates to Data Flow Manager (DFM) via batches following Flooid's document format (XML 1) and recommendations for shaping batches (batches are made of commands in documents

that are grouped by transactions. Batches also can indicate a priority level. Other capabilities are not described under this Schedule but that information is available upon request.) Bulk data processing performance and stability is highly dependent on the volume, frequency, formatting, grouping and quality of the data received by Flooid from Customer. Any failure of the data distribution process caused by incorrectly formatted, sized data, or not compliant to Flooid's recommendations is out of scope of this definition.

This section covers the service definition and service level for Data Distribution

Service	Service Level	Availability
Batch processing (excluding store caching) The system will be sized to support agreed data structure and volumes and nonfunctional requirements (cf. introduction of section 3) to match the following levels:	• During normal operations, 99.99% of changes (device, operator, product, price, promotion) will be available for delivery to the end point within 15 minutes of the change being received by DFM. (Normal operations are defined as any time outside of any bulk data upload to the system and subsequent processing). The remaining percentile not to exceed 1 hour. • For bulk data load 100% of all data up to the maximum rate of change defined within the NFRs provided to the system by the agreed time will be processed and made available to POS devices by the agreed time (e.g., messages delivered to Flooid by 02:00 will be available to be downloaded by the POS by 06:00 the following morning. If messages are delivered to DFM after 2:00, the service measurement is waived and not measured)	The DFM input service will be available 99.85% within a 1-month period.
Store caching All SLOs are based on normal processing hours. SLOs are not valid during bulk data processing periods unless the workload	• for requests of up to 10 concurrent store-level cache builds, all caches will be built and available for download within 45 minutes. • For full estate cache builds (circa 400 stores), which is considered an exceptional event, the caching rate will be 200 stores in 30 minutes.	the DFM input service will be available 99.85% within a 1-month period.

is dedicated to caching.		
<u>Data delivery</u> The service exposes a Lookup Service for POS to obtain the details of outstanding updates (as generated by DFM, cf. above) and a Content Delivery Service to deliver these updates. Finally, once POS has ingested (or rejected) updates, it reports to a Delivery Audit Service.	• The Delivery lookup service will have a latency of <400ms for 99% of the requests up to 5 seconds. • No service level exists for the time to deliver content as this is primarily based on size of files to be delivered which is dependent on the structure of data sent to Flooid from the customer and the network latency. The service will have a capacity limit of 6,000 concurrent deliveries (i.e., 6,000 tills fetching data at the same time) with a 600 second timeout (in case network latency is too high). In the event a POS fails to download updates, after some retries, it will report the failure to the Audit Service and further operational actions can be engaged. • The Delivery Audit Service, which received the status of deliveries by tills, will update the audit database (DB) within 600 seconds.	the Lookup Service, Content Delivery Service, and Audit Delivery Service are available 99.85% within a 1-month period.
<u>Back Office</u> Back Office services provide store and head office user access to maintenance and reporting functions.	• Back Office scales to sustain the maximum concurrent users defined in the nonfunctional requirements. Back Office generated transactions (e.g., Cash Office transactions) are falling in the same SLO as defined for transaction processing.	Back Office is available 99.85% availability within a 1-month period.
Flooid Estate Manager provides a view of the health of the estate and		

defined functions to aid the management and control of the estate.		
Estate Health The service provides a visualization of the overall health of the estate.	all dashboards will be available in a reasonable time based on selected time interval. POS events will be ingested in the system in less than a second 99% of the time and no more than 5 minutes.	*Availability:* 99.85% within a 1-month period.
Estate Control The service delivers an interface to manage functional aspects of the software solution and control of the POS platform elements.	The service target is 99.0%	Will be available 99.85% within a 1-month period.
Micro Front End Delivery Micro Front Ends (MFEs) are delivered (for updates) from a central web service to devices on the customer's private network.	while the MFE Delivery service is available, 99% of all requests will be responded to within 500 milliseconds. The effective availability of the refreshed MFE will vary depending on network latency.	MFE distribution service is available for 99.85% of the time.

7. Business Continuity and Disaster Recovery

7.1 Disaster Recovery (DR)

For all services that are read / write against the core databases (DBs), a "single site with DR" approach is taken.

All databases are replicated in near real time to the DR location.
- Recovery Point Objective (RPO): 1 hour, Service target 2 hours

- Recovery Time Objective (RTO): 4 hours , Service target 6 hours

An RPO of 1 hour requires the DR DB to be within 1 hour of the live DB. Log transmission may not fall further behind.

The RTO defines the time for the service to be back online. Within this time, all logs will need to be applied to the standby database, the database set to active and the application restarted.

7.2 Maintenance

Flooid requires an agreed maintenance window per service and per environment on a regular schedule.

Planned outages due to maintenance as detailed below do not affect SLOs or targets defined above.

All servers will need cycling monthly to enable patching and updating of Reference Architecture and to ensure optimum, secure operations of the estate.

For the purposes of this section, components are divided into 3 key areas:

- Clustered applications. Can be updated with a rolling update with no drop in service
- Single instance applications. Typically, batch processing and can stop and restart within the above SLOs
- Dependent services. Queue services and databases are provided as single instances. Restarting of these services will result in a minor outage.

For applications, Flooid will agree daily, weekly and / or monthly schedules for each component. For standard maintenance, these will not require additional change control over and above Flooid internal processes.

For the dependent services, an agreed monthly/quarterly outage will be agreed with the customer and will likely obey both Flooid and customer change control processes.

Occasional updates to the application tier will require a service outage and this will be treated as per the dependent services and will be agreed with the customer and will obey both Flooid and customer change control processes.

The following is an example schedule. This will be agreed in detail with individual customers:

Service	Time	Day	Week	Controls
Transaction processing	07:00 – 08:00	Monday	All weeks of month	Flooid Change Control
Data Distribution	08:00 – 10:00	Monday	1st, 2nd and 3rd weeks of month	Flooid Change Control

Back Office	20:00 – 22:00	Sunday	Avoid last week of month	Flooid Change Control
Reporting Database (MREP)	20:00 – 22:00	Sunday	Avoid last week of month	Flooid Change Control, inform customer
Central Database (CDB)	20:00 – 22:00	Monday	2nd week of month	Full change control

7.3 Availability

For the avoidance of doubt, the following apply:

Exceptions to Availability	No period of Subscription degradation or inoperability will be included in calculating Availability to the extent that such downtime or degradation is due to any of the following ("Exceptions"): (a) Customer's or any Authorized User's misuse of the Subscription; (b) Failure of Customer's or Authorized User's internet connectivity; (c) Internet or other network issues other than those arising from networks actually or required to be provided or controlled by Supplier; (d) Scheduled downtime (including DR time in case of disaster); (e) A material breach of this Agreement by the Customer; (f) A Force Majeure Event; (g) Failure to comply with Equipment minimum specifications as outlined in the Acceptable Use Policy; (h) Customer uploading corrupted data (including corrupted, malformed, non-compliant and/or outdated data) to the Supplier's cloud platform; (i) Actions or omissions of Customer or its subcontractors in breach of this Agreement; (j) Data centers or network connectivity are not available due to the actions or inactions of google cloud platform or any third-party network connectivity provider; or (k) Customer's out of compliance with nonfunctional requirements.
Scheduled Downtime	At least ten (10) days in advance of all scheduled outages for routine maintenance of the Subscription in whole or in part during which Supplier performs maintenance of its platform ("Scheduled Downtime"), the parties shall consult and agree, acting reasonably, on the parameters governing such Scheduled Downtime for the purpose of ensuring the lowest possible impact on Customer's operations. All such Scheduled Downtime shall, unless otherwise agreed: (a) last no longer than 3.5 hours; and

	(b) Unless mutually agreed by the parties, occur no more frequently than once per month. The parties may agree in advance, acting reasonably, on specific service outages for emergency maintenance (e.g., patching known vulnerabilities) within a 24-hour period, or such other reasonable timeframe as the parties may agree, provided that such downtime shall not prejudice the quality of the Subscription.
Service Availability Reports	Within ten days after the end of each service period, Supplier shall provide to Customer a report describing the Availability and other performance of the Subscription during that calendar month and the calendar year-to-date as compared to the Availability requirement and Specifications. The report shall be in electronic format or such other form as the parties may agree and shall include, at a minimum: (a) the actual performance of the Subscription relative to the Availability requirement and Specifications; (b) if the Subscriptionperformance has failed in any respect to meet or exceed the Availability requirement or Specifications during the reporting period, a description in sufficient detail to inform Customer of the cause of such failure and the corrective actions the Supplier has taken and will take to ensure that the Availability requirement and Specifications are fully met; and (c) compliance with nonfunctional requirements.

LEVEL 3 SUPPORT SERVICE LEVELS AND HOURS

1. **Definitions**

1.1 The following definitions apply to the Level 3 support service and hours.

Incident: means any fault, issue, bug or any other event that in a live environment prevents the Software from operating in material accordance with the functional and non-functional specification in the Documentation and is reproducible in the Supplier's support environment.

Operational: means the standard core support hours to undertake Business as Usual operational support tasks

Response: means Flooid's initial response only to confirm receipt of an Incident.

Resolution: means provision of either a fix, workaround or agreed hand off to a third party, including defined known error or defect and is based on the contracted support hours.

Reactive: means an escalation outside core operational hours for Critical Incidents.

2. **Service Level Agreements**

	Response	**Resolution**	**Update Interval**
Priority 1	15 minutes	4 hours	Hourly or as agreed
Priority 2 High	15 minutes	8 hours	Twice a day or as agreed
Priority 3 Medium	1 hour	48 hours	Daily or as agreed
Priority 4 Low	4 hours	5 working days	Weekly or as agreed

3. **Standard Support Hours (UK hours)**

Service Description	**Monday to Friday**		**Weekends**	
	Operational	**Reactive**	**Operational**	**Reactive**
Third Line Support	08:00 to 18:00	00:00 – 23:59	Not applicable	00:00 – 23:59

4.   **Priority Levels**

Priority Level means the level of impact assigned to an Incident based on the classifications set out below:

4.1 Subscription Priority Levels

The following priority level definitions are in place for the Subscription and are provided as standard. Flooid shall determine the priority of any Incident in accordance with the following table.

	Description	Examples
Priority 1	Store unable to trade	75% or more of the till estate of a single store is inoperative and has been triaged (not be store hardware related issues) and is unable to trade with no workaround in place.
Priority 2	Major business impact or report sales	Card payments are unavailable for online processing and/or Data integration files, or XML3 fail and/or Promotions are not ringing in the store and/or Products and prices are incorrect across more than 50% of the store estate and/or More than 50% of a single store is inoperative and there is no workaround in place.
Priority 3	Moderate business impact	Inaccurate or incorrect reports being generated and/or A single PoS is unable to cash up and send transactional information to database; and/or More than 25% of a single store is inoperative and there is no workaround in place.
Priority 4	Minor business impact	Cosmetic issue and/or Request and/or General inquiry

LEVEL 1 AND 2 SUPPORT SERVICE LEVELS AND HOURS

The following shall apply should the optional Level 1 or Level 2 support service be purchased in an Order Form.

1. Standard Support Hours

Service Description	Monday to Friday		Weekends	
	Operational	Reactive	Operational	Reactive
First line	24/7	N/A	24/7	N/A
Second line	08:00 to 18:00	N/A	08:00 to 18:00	N/A

The following priority level definitions are in place for 1st & 2nd Line Service Desk support services which are provided as an optional service. The Supplier shall determine the priority of any incident in accordance with the following table.

2,   Subscription Priority Levels

	Description	Examples

Priority 1	Store unable to trade	75% or more of the till estate of a single store is inoperative and has been triaged (not be store hardware related issues) and is unable to trade with no workaround in place.
Priority 2	Major business impact or report sales	Card payments are unavailable for online processing and/or Data integration files, or XML3 fail and/or Promotions are not ringing in the store and/or Products and prices are incorrect across more than 50% of the store estate and/or More than 50% of a single store is inoperative and there is no workaround in place.
Priority 3	Moderate business impact	Inaccurate or incorrect reports being generated and/or A single PoS is unable to cash up and send transactional information to database; and/or More than 25% of a single store is inoperative and there is no workaround in place.
Priority 4	Minor business impact	Cosmetic issue and/or Request and/or General inquiry