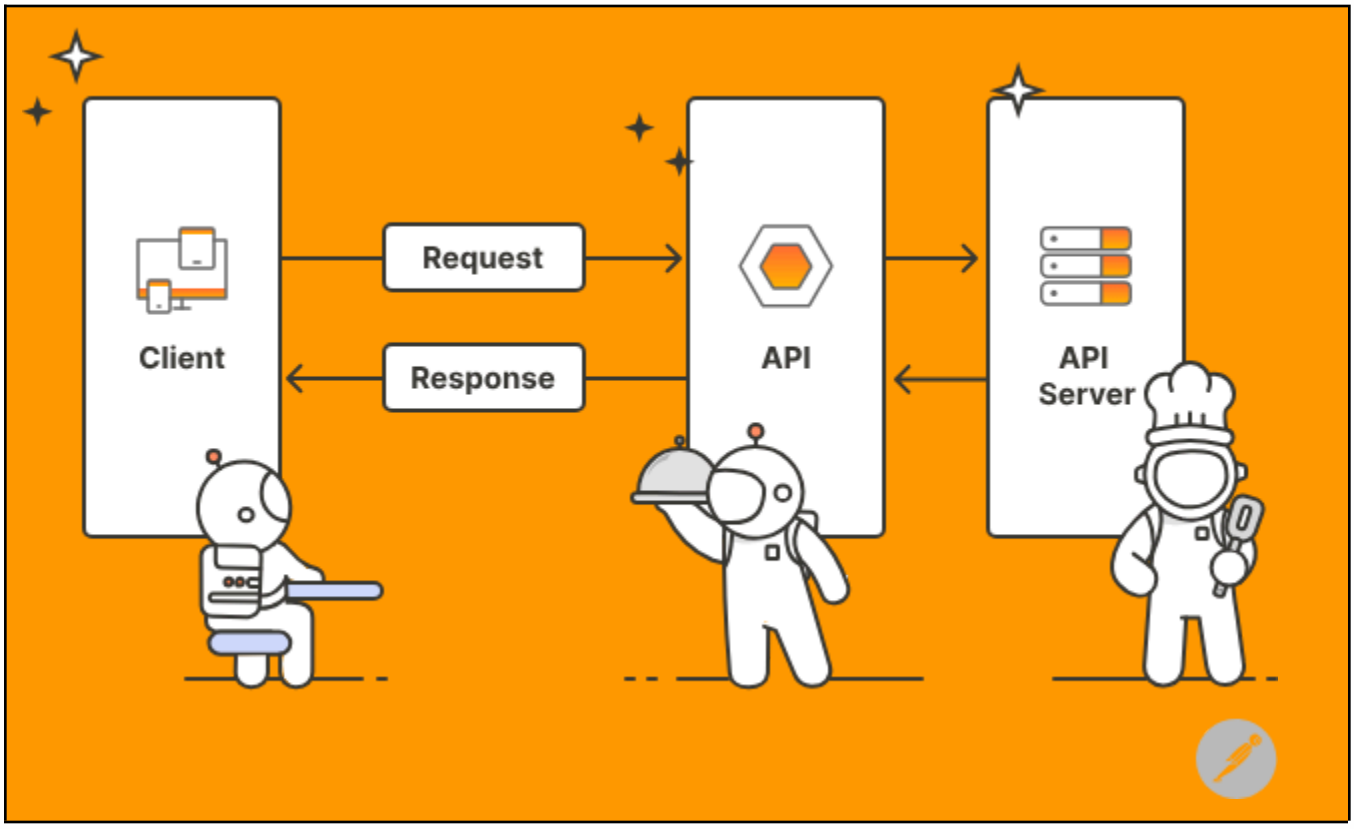

Payment Flow APIs

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Version 0.2

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Payment overview

Figure 1 below shows the high level view of payment flow using [Clientbrand name], POSMON, POS and Payment Gateway.

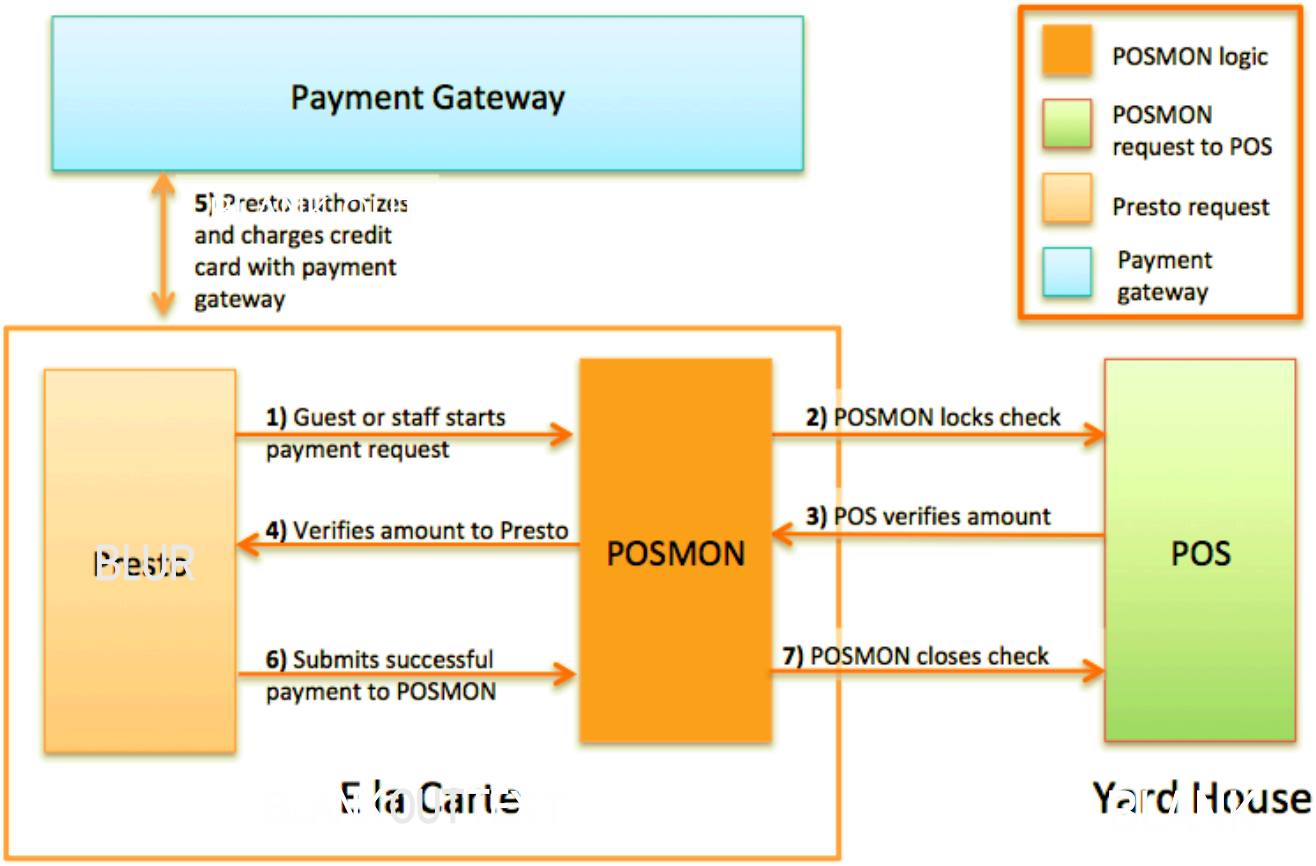

Figure 1: [Client product] Payment overview workflow

1. Guest or staff starts a payment request.
2. POSMON locks the check.
3. POS verifies the amount with POSMON.
4. POSMON verifies the amount with [Client brand name]
5. [Client brand name] authorizes credit card with payment gateway, then charges credit card.
6. [Client brand name] submits successful payment to POS.
7. POSMON closes check.

Payment flow processes

This section contains flowcharts that describe the following processes:

- Successful payment process flow
- POSMON lock check error
- Check values don't match
- Error submitting POS payment
- Card authorization failure

Successful payment process flow

Figure 2 shows the payment flow processes of a successful payment.

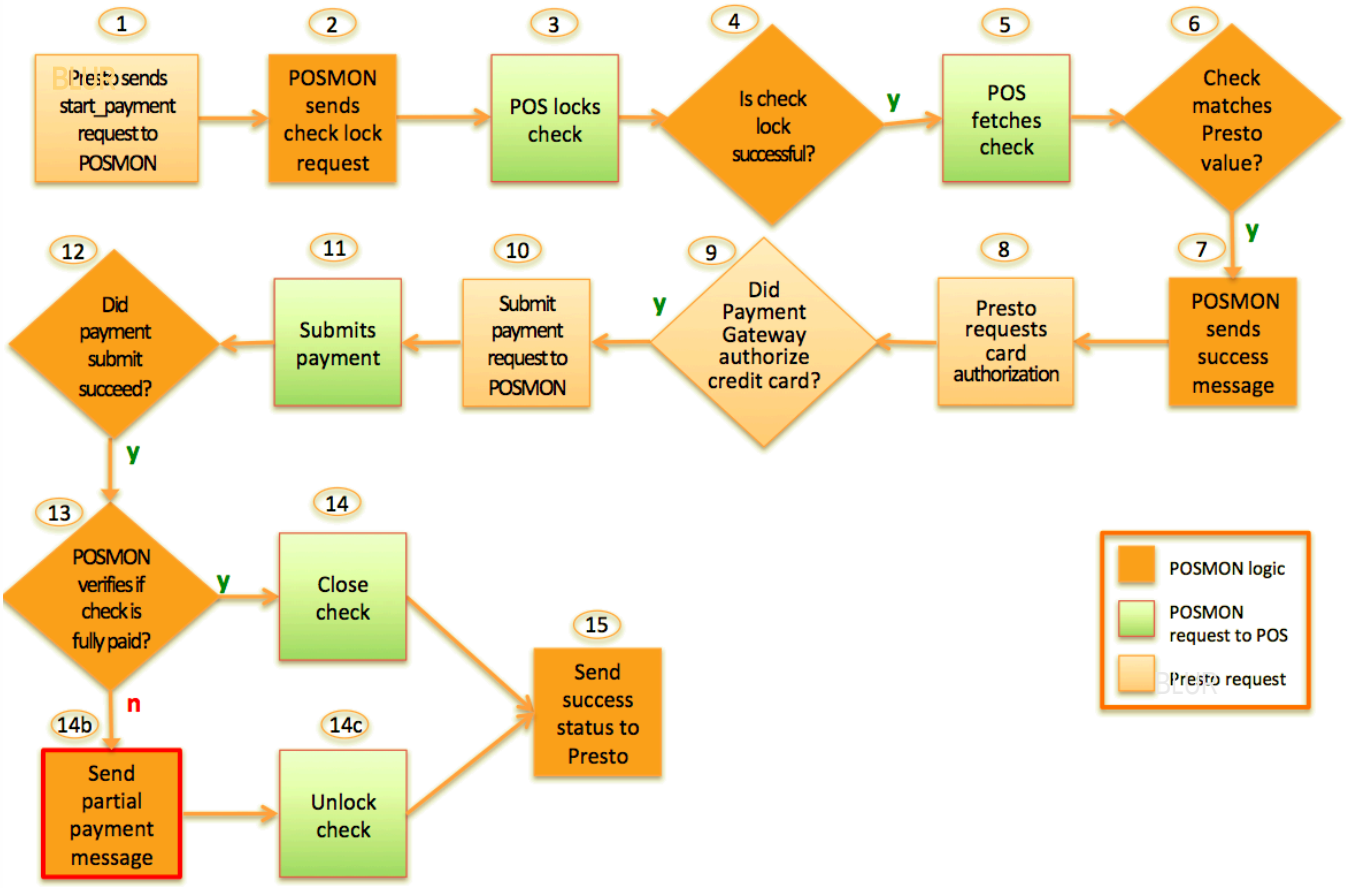

Figure 2: [Client product] Payment successful check request and payment workflow

1. [Client brand name] sends start payment request to POSMON.
2. POSMON sends a check lock request to POS.
3. POS locks the check.
4. Is check lock successful?
5. POS fetches locked check.

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POSMON lock check error

Figure 3 shows payment flow process interrupted by a lock check error.

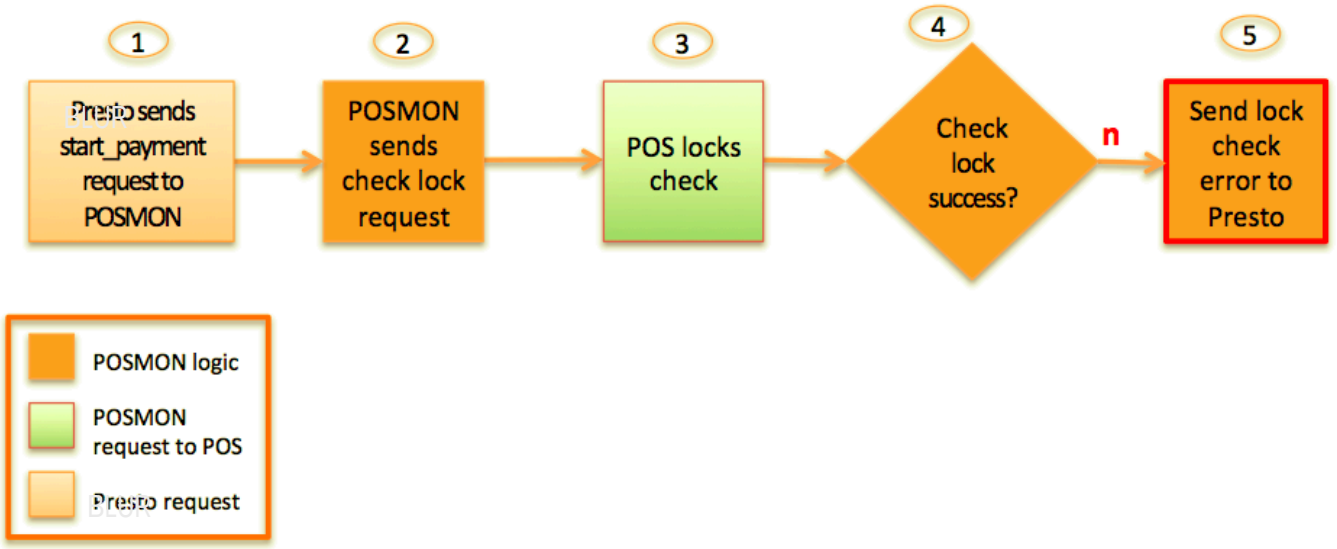

Figure 3: [Client product] Payment unsuccessful locking check request workflow

1. [Client brand name] sends start payment request to POSMON.
2. POSMON sends a check lock request to POS.
3. POS locks the check.
4. Is check lock successful?
   The check is not locked.
5. POSMON sends lock check error to [Client brand name].

Check values do not match

Figure 4 shows a payment flow process when the check values in [Client brand name] and POS don't match.

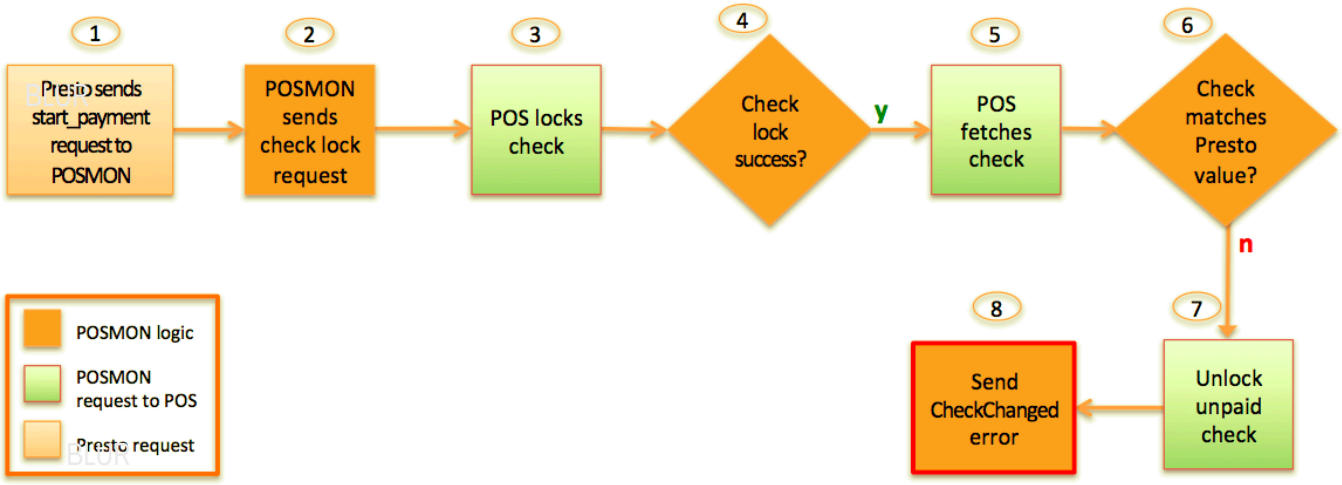

Figure 4: [Client product] Payment check value does not match workflow

1. [Client brand name] sends start payment request to POSMON.
2. POSMON sends a check lock request to POS.
3. POS locks the check.
4. Is check lock successful?
5. POS fetches locked check.
6. Does POS check value match [Client brand name] check value?
   The check value does not not match.
7. POSMON sends check changed error.
8. POS unlocks unpaid check

Error submitting POS payment

Figure 5 shows a payment flow process when POSMON sends a payment to POS and it does not succeed.

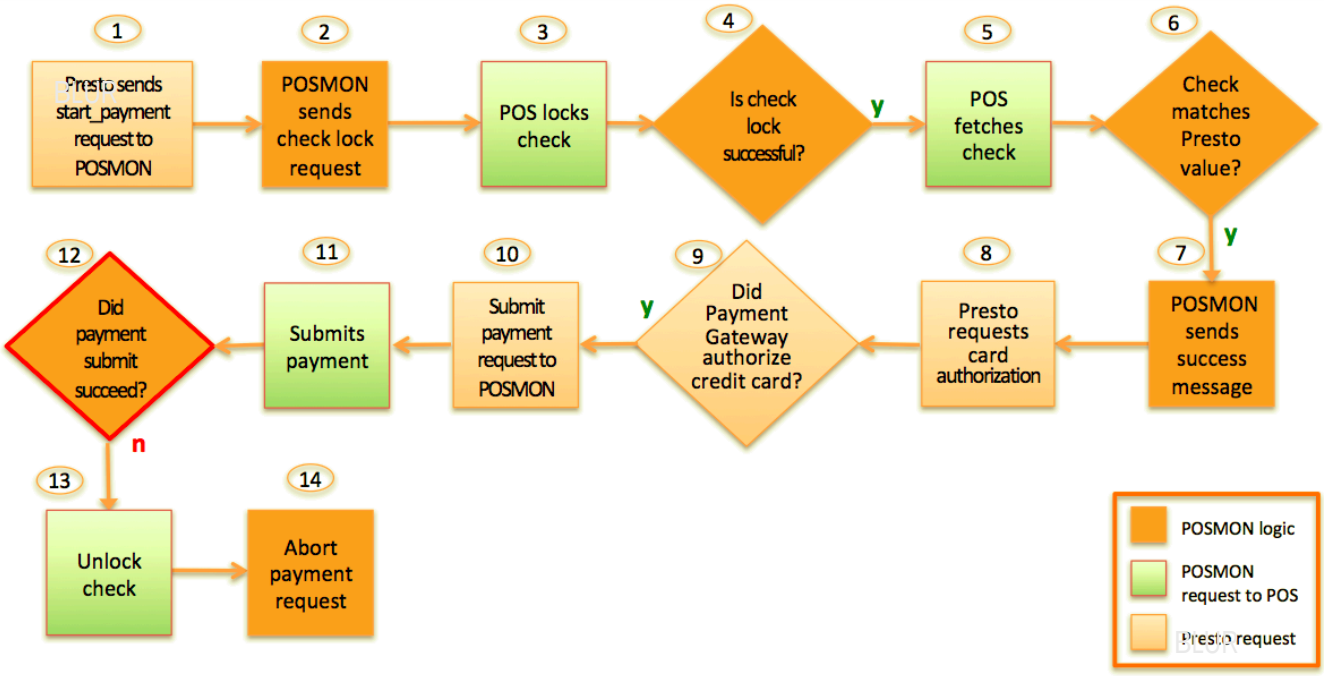

Figure 5: [Client product] Payment error submitting POS payment workflow

1. [Client brand name] sends start payment request to POSMON.
2. POSMON sends a check lock request to POS.
3. POS locks the check.
4. Is check lock successful?
5. POS fetches locked check.
6. Does POS check value match [Client brand name] check value?
7. POSMON sends success message to [Client brand name].
8. [Client brand name] authorizes credit card with payment gateway, then charges credit card.
9. Was the credit card authorized?
10. [Client brand name] submits a payment request to POSMON.
11. POSMON submits payment to POS.
12. Did the payment submission to succeed?
    The payment submission was not successful.
13. POS unlocks (unpaid) check.
14. [Client brand name] reverses previously authorized transaction
15. POSMON aborts payment request.

Card authorization failure

Figure 6 shows a payment flow process when the credit card is declined.

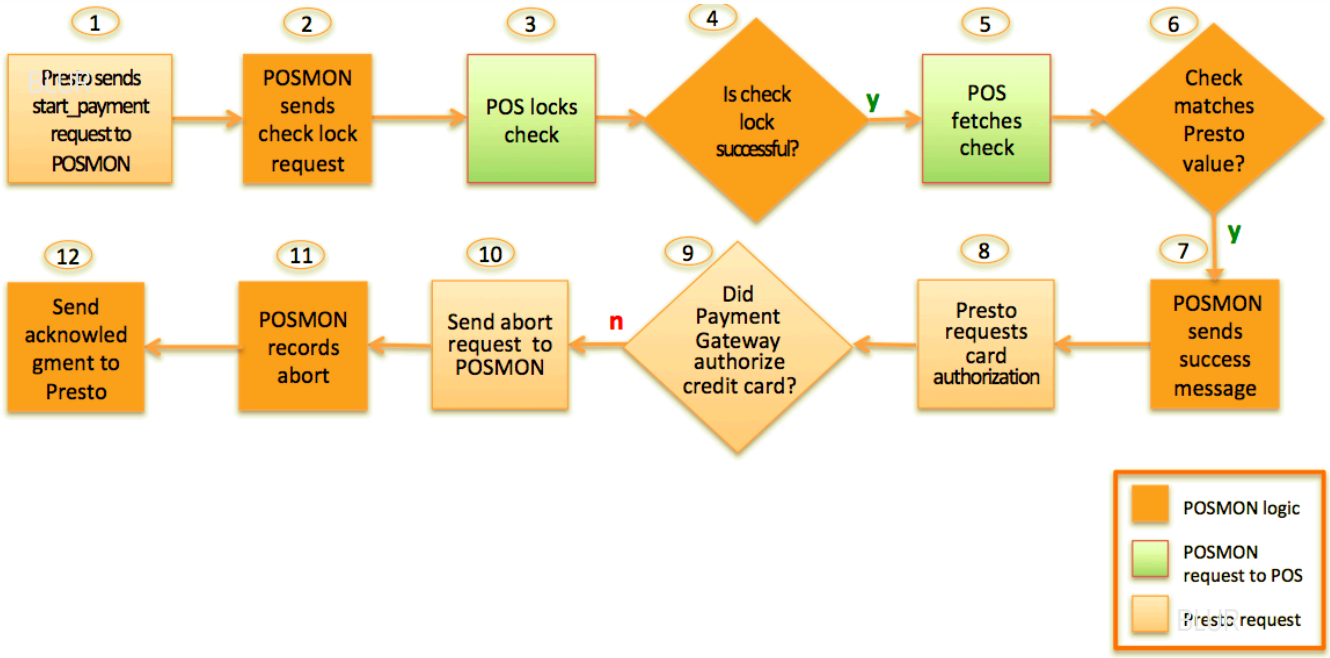

Figure 6: [Client product] Payment card authorization failure workflow

1. [Client brand name] sends start payment request to POSMON.
2. POSMON sends a check lock request to POS.
3. POS locks the check.
4. Is check lock successful?
5. POS fetches locked check.
6. Does POS check value match [Client brand name] check value?
7. POSMON sends success message to [Client brand name].
8. [Client brand name] authorizes credit card with payment gateway, then charges credit card.
9. Was the credit card authorized?
   The credit card was not given authorization.
10. [Client brand name] sends abort request to POSMON.
11. POSMON records the abort.
12. POSMON sends abort acknowledgement to [Client brand name].

Technical notes

To keep checks current at payment time, [Client brand name] uses real-time check data sent directly from POS, which keeps the check amount in sync at the time the check is locked.

Item update requests are stored in the POSMON cache. [Client brand name] periodically checks for item updates such as item prices, and refreshes the cache.

Table 1 describes API calls during the payment process. The details explain payment transaction call details and clarify logical processes in [Client brand name] and POSMON.

Table 1: API call definitions

API calls	Description
start_payment	The start_payment call verifies that the [Client brand name] check is in synch with the POS check, and that [Client brand name] can lock the check before it authorizes the credit card.
submit_payment	The submit_payment call is for [Client brand name] to submit the payment authorization details to POS.
abort_payment	The abort_payment call is for record keeping purpose for POSMON. It closes the transaction in the POSMAN database, keeps the [Client brand name] and POSMON in synch, and clears the state for the next transaction. The information stays in POSMON.

Table 2: Status statements

Statuses
locked success
lock checked
partial payment success
payment success
closed check success
abort acknowledgement

Table 3: Errors statements

Errors	Description
check changed	This could happen when the customer tries to pay on [Client brand name] at the same time that the waiter tries to modify the check. When the two transactions arrive at POS simultaneously, the state is out of synch and the CheckChanged error occurs.
send back check	
lock check error	A check would not be locked if a waiter is accessing the check on the POS when the customer tries to pay the check from [Client brand name].
payment submit error	Error submitting POS payment happens when POSMON sends a payment to POS and it doesn't succeed. This is a rare condition and happens for some unknown issue, e.g. POS or network issue.