

## TM902 - \*REPORT SPAM PREVENTION (USE CASE) (SECURITY)

### 1. Overview of the present system

N/A

### 2. Problems with the present system

Currently, the Menu Map application allows any MM User to submit multiple menu verification reports without restriction. This can result in report spamming, where a single actor floods the system with excessive submissions that may result in poor report quality undermining the reliability of the verification feature.

### 3. USE CASE ANALYSIS

#### SSLS Actors

- MM User - Anyone who is using the Menu Map application.
- System Administrator - Configures system rules such as report frequency limits.

*Use Case ID:* TM902 - Report Spam Prevention

*Use Story (Brief):*

As a system, I want to be able to check the number of reports submitted by a single MM User within a designated time window so that I can prevent spamming and ensure fair use of the menu verification feature.

*Details (Functional Requirements)*

*Actor:* MM User

*Pre-conditions:*

1. The MM User has successfully logged onto the system.
2. The MM User attempts to submit a menu verification report.
3. The system administrator has configured a maximum number of reports allowed within a specified time window (e.g., 2 reports per hour).

*Description:*

1. Use case begins when the MM User selects the **Report** button on the Menu Verification form.
2. The system checks the number of reports previously submitted by this MM User within the defined time window.
3. If the number of reports is below the system-defined constraints:
  - The report submission proceeds as normal.
  - A report record is generated, a unique report ID is allocated, and the submission is stored.
  - The MM User receives confirmation that the report was submitted successfully.
4. If the number of reports meets or exceeds the limits:
  - The system blocks the submission.
  - The MM User is notified with a message: "You have reached the maximum number of reports allowed within this time period. Please try again later."

- No new report record is generated.

*Post Conditions:*

- If the submission is accepted, the number of reports stored in the system increases by one.
- If the submission is blocked, the report is not stored.

*Alternative Courses of Action:*

- If the MM User cancels the submission before sending, no validation occurs.
- If the system administrator has not set a limit, the system should default to an internal standard (e.g., 2 reports per hour).

*Exceptions:*

- Connectivity issues prevent the system from checking report history; the system shows an error and advises retry.

*Related Use Cases:*

- **TM901 - Menu Verification** (submissions that trigger spam prevention are based on this use case).

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## Decision Support

- Frequency: TBD.
- Criticality: High - prevents system misuse and ensures reliability of menu verification reports.
- Risk: Medium - requires tracking/reports limits per user.

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## Constraints (or Non-Functional Requirements) (*need to quantify*):

- Usability:
  - The system should clearly communicate the reason for blocked submissions.
  - Error/warning messages should be concise and understandable.
- Reliability:
  - The system must accurately count reports per user in real-time.
  - Error margin for counting must be negligible.
- Performance:
  - The report count check must complete within 5 seconds.
- Supportability:
  - Should work on current Android and iOS versions.

## Modification History:

Owner: Alfonso Oramas Jr.

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