Requirement #: 23 **Requirements Type:** 2 **Use Case:** 23

Date: 01/23/2110

Introduction: The most common action performed at an ATM is the withdrawal of funds. The ATM must support this functionality.

Rationale: Survey ABC-345 indicates that withdrawals are highly desirable. The success of the product hinges on successful withdrawal of funds.

Author: Mats Heimdahl **Source:** Survey ABC-345

Inputs: *Card number, PIN,* Requested *Amount*

Requirement Description: The user shall be able to withdraw funds from the ATM
- A withdrawal shall be allowed if and only if:
    1. The *Card Number* can be validated (Req 35)
    2. The *PIN* is valid for the *card* (Req 45)
    3. The funds in the *card account* exceeds the Requested *Amount* requested in the withdrawal
- If a withdrawal is allowed, exactly the Requested *Amount* of *money* shall be dispensed.

Outputs: *Customer Receipt*, Requested *Amount* of *Money*

Persistent Changes: The Requested *Amount* will be deducted from the *Customer Account*.

User Satisfaction: 5 **User Dissatisfaction:** 5

Related Requirements: 35, 45, 56

Conflicts: None

Support Materials: None

Test Cases: TBD

Requirement #: 35   **Requirements Type:** 2   **Use Case:** 23

Date: 01/23/2110

Introduction: Card number validation. To use a card, the card must be valid, activated, and not blocked because of, for example, theft, overdraft, etc.

Rationale: The customer has in the past had problems with customers using outdated or stolen cards for withdrawals. This habit cannot be allowed to continue.

Author: Mats Heimdahl   **Source:** Robert Safe; XY Bank Security Manager

Inputs: *Card number*

Requirement Description: The system shall be able to determine if a *card number* is valid or not. A *card number* shall be considered valid unless
      1. The *card number* is not active
      2. The *card number* is indicated as blocked
      3. The *card number* is indicated as overdrawn
Any one or any combination of the above makes a card number invalid.

Outputs: *Validation Status* – OK or Denied

Persistent Changes: None

User Satisfaction: 5   **User Dissatisfaction:** 5

Related Requirements: 23

Conflicts: None

Support Materials: Encryption Standard ES-34, data models for the card account database (internal document ID-23-5)

Test Cases: TBD

Requirement #: 23   **Requirements Type:** 2   **Use Case:** 23

Date: 01/23/2110

Introduction: The most common action performed at an ATM is the withdrawal of
   funds. The ATM must support this functionality. **Note that this is an example of
   how <u>not</u> to do it! The description is a mess.**

Rationale: Survey ABC-345 indicates that withdrawals are highly desirable. The success
   of the product hinges on successful withdrawal of funds.

Author: Mats Heimdahl   **Source:** Survey ABC-345

Inputs: *Card number, PIN,* Requested *Amount*

Requirement Description: If the card is accepted, the user has entered the correct PIN,
and there are sufficient funds in the account, the amount of cash shall be dispensed. If the
card is invalid (in which case it should be ejected), the PIN does not match the one
required for the card (in which case a tone shall sound and the user given the option to try
again—the tries shall be limited to 3), or the balance is insufficient (in which case a tone
shall sound and the user shall have the opportunity to enter a new amount) cash shall not
be dispensed.

Outputs: *Customer Receipt*, Requested *Amount* of *Money*, *Alarm*

Persistent Changes: The Requested *Amount* will be deducted from the *Customer
   Account*.

User Satisfaction: 5   **User Dissatisfaction:** 5

Related Requirements: 35, 45, 56

Conflicts: None

Support Materials: None

Test Cases: TBD