###### <Emulator> Verify ticket

Figure .. <Emulator> Verify ticket

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| **USE CASE – PCCC01** | | | |
| **Use Case No.** | GBTS01 | **Use Case Version** | 1.1 |
| **Use Case Name** | Verify ticket | | |
| **Author** | Doan Minh Duc | | |
| **Date** | September 13, 2016 | **Priority** | High |
| **Actor:**   * Emulator.   **Summary:**   * This use case allows emulator to verify passenger’s card.   **Goal:**   * Verify card by checking the balance then decide to grant access or not.   **Triggers:**   * Passenger taps his/her NFC card on the emulator.   **Preconditions:**   * N/A   **Post Conditions:**   * **Success:** Emulator charges card’s holder for boarding. * **Fail:** Emulator display an error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Emulator reads the UID of the card then send verify ticket command. | System checks the balance mapped with the UID.  +If the balance is equal or more than the cost fare of the line, the system will charge the card.  +If the balance is less than the cost fare of the line, the system will display an error message.  +System creates notification about the transaction |   **Alternative Scenario:** **N/A**  **Exceptions: N/A**  **Relationships: N/A**  **Business Rules:**   * Card ID is unique on each card. * Emulator send card ID along with the route number to the server each time the card is tapped. * If the passenger forgets his/her card, he/she can buy a single trip card on the bus. * Emulator’s screen turns green and plays a single beep sound indicated a passenger can pass. * Emulator’s screen turns red and plays a triple beep sound indicated a passenger cannot pass. * Auto Handler pushes a notification to remind passenger to top-up when the money left in the card is less than 10.000 VND. | | | |

Table .. <Emulator> Verify ticket

###### <Emulator> Write NFC card

Figure .. <Emulator> Write NFC card

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| **USE CASE – PCCC02** | | | |
| **Use Case No.** | GBTS02 | **Use Case Version** | 1.1 |
| **Use Case Name** | Write NFC card | | |
| **Author** | Doan Minh Duc | | |
| **Date** | September 13, 2016 | **Priority** | High |
| **Actor:**   * Emulator.   **Summary:**   * This use case allows emulator to insert new card into the system to use the system and to be managed.   **Goal:**   * New UID in inserted into the system, available for using or activating.   **Triggers:**   * Emulator send write card command.   **Preconditions:**   * Valid card.   **Post Conditions:**   * **Success:** Emulator displays a successful message. * **Fail:** Emulator displays an error message   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Emulator reads the card ID then send write card command | System checks the existence of the UID in the database  Systems insert the card ID into the system then display successful message along with an appropriate sound.  [Exception 1] |   **Alternative Scenario: N/A**  **Exceptions:**  [Exception 1]   |  |  |  | | --- | --- | --- | | Step | Cause | System Response | | 1 | Card ID is already existed in the system | System display an error message along with an appropriate sound. |   **Relationships: N/A**  **Business Rules:**   * Card ID is unique on each card. * Card ID is inserted into the system with the default status “Chưa kích hoạt”. * Only written card can be used in the system. * Emulator’s screen turns green and plays a single beep sound to indicate a success. * Emulator’s screen turns red and plays a triple beep sound to indicate an error. | | | |

###### <Emulator> Configure settings

Figure .. <Emulator> Write NFC card

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| **USE CASE – PCCC02** | | | |
| **Use Case No.** | GBTS02 | **Use Case Version** | 1.1 |
| **Use Case Name** | Configure settings | | |
| **Author** | Doan Minh Duc | | |
| **Date** | Octobor 1, 2016 | **Priority** | High |
| **Actor:**   * Emulator.   **Summary:**   * This use case allows emulator to configure emulator information   **Goal:**   * Emulator is configured with route number and information about the line number.   **Triggers:**   * Emulator send configure settings command   **Preconditions:**   * N/A   **Post Conditions:**   * **Success:** Emulator displays new configuration settings. * **Fail:** Emulator displays an error message   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | User sends configure settings command | System display configuration settings view with these components  +”Nhập tuyến”: number text input  +Save command | | 2 | User inputs the route number then sends save command  [Alternative 1] | System gets information of input route number then saves new configuration to emulator storage.  System update UI with the new configuration. |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | User inputs wrong route number then sends save command | System display an error message along. |   **Exceptions: N/A**  **Relationships: N/A**  **Business Rules:**   * User must use the right format for route number. The format is 0x with x is the actual route number. * Emulator loads previous configuration each time user launch the application. | | | |