

ICS 11.020
CCS C 07

WS

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

WS/T 543.4-2017

**Resident health card technical specifications - Part 4:
Command set of the user card
(English Translation)**

Issued on: July 25, 2017

Implemented on: December 1, 2017

**Issued by: National Health and Family Planning Commission of the
People's Republic of China**

Table of Contents

Foreword
1 Scope of application
2 Normative references
3 Abbreviations
4 Answer to reset
5 Command
5.1 Overview
5.2 Command APDU format
5.3 Response APDU format
5.4 Basic commands

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

WS/T 543 "Technical Specifications for Resident Health Cards" is divided into 6 parts.

- Part 1: General Provisions;
- Part 2: Technical Specification of User Card;
- Part 3: User Card Application Specification;
- Part 4: User card command set;
- Part 5: Terminal technical specifications;
- Part 6: User card and terminal product testing specifications;

This part is part 4 of WS/T 543.

Drafting organizations of this section. National Health and Family Planning Commission Statistical Information Center, Inner Mongolia Autonomous Region Health Information Center, Sichuan Provincial Health and Planning Fertility Commission Information Center, Chongqing Municipal Health Information Center.

1 Scope of application

This part of WS/T 543 specifies the functions that the resident health card user card should support, the format of the response to reset, and the command and response of the card List.

This section applies to all medical and health institutions, third-party joint card issuers, cardholders, and cardholders that produce, issue, and use resident health cards.

manufacturer.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

3 Abbreviations

The abbreviations and symbols defined in WS/T 543.2 and in Table 1 apply to this document.

4 Answer to reset

The first 8 bytes of the history byte in the answer to reset are sequentially fixed as the registration identifier of the chip provider (2 bytes, by the National IC Card Registration Center the assigned registration identification number), the registration identification of the card manufacturer (2 bytes, the registration identification number assigned by the National IC Card Registration Center) and the card Chip serial number (4 bytes).

5.1 Overview

In the process of reading and writing the card, the card is in the idle state (the card has not obtained the read and write permission) or the safe state (the card has obtained certain reading Write authorization, read and write operations can be performed), the execution of commands in different states is different. A "firewall" is built between different applications on the card to Prevent illegal access across applications. The card gets a certain read and write authorization through the EXTERNAL AUTHENTICATION command, when when the card receives a command from the terminal, it must first check whether the current state allows the command to be executed. After the command is executed successfully, the card the film will enter the specified state. The status changes after the command is successfully executed are shown in Table 1. The whole table shows the status of a command in the current state after a successful execution.

The first line indicates the current state of the card when the command is issued, the first column indicates the issued command, and N/A indicates that the command is invalid.

5.3 Response APDU format

The response APDU format consists of a variable-length condition body followed by a two-byte mandatory trailer, as shown in Table 5.

5.4.1.1 Definition and scope

The APPLICATION BLOCK command invalidates the currently selected application.

When the APPLICATION BLOCK command is successfully completed, use the SELECT command to select a temporarily locked application, a status will be returned the status code is 6283' (the selected file is invalid), and FCI is returned at the same time.

The impact on other commands depends on different applications.

5.4.1.2 Command message

See Table 7 for the message encoding of APPLICATION BLOCK command.

5.4.1.3 Command message data field

The command message data field includes the message authentication code (MAC) data encoded according to the provisions of WS/T 543.2-2017 Chapter 8.4.2 yuan.

5.4.1.4 Response message data field

The data field of the response message does not exist.

5.4.1.5 Response message status code

Regardless of whether the application has expired, the status code for successful execution of this command is 9000'.

The error status codes that the IC card may return are shown in Table 8.

5.4.2.1 Definition and scope

The APPLICATION UNBLOCK command can unlock temporarily locked applications. When the APPLICATION UNBLOCK command becomes After the work is completed, the application can be correctly selected with the SELECT command, and the application function will be restored at the same time.

5.4.2.2 Command message

See Table 9 for the encoding of the APPLICATION UNBLOCK command message.

5.4.2.4 Response message data field

The data field of the response message does not exist.

5.4.2.5 Response message status code

The status code for successful execution of this command is 9000'.

The error status codes that the IC card may return are shown in Table 10.

5.4.3.1 Definition and scope

The CARD BLOCK command disables all applications in the card permanently.

When the CARD BLOCK command is successfully completed, all subsequent commands will return the status code "This function is not supported." Yes" (SW1SW2=6A81'), and does not perform any other operations.

5.4.3.2 Command message

The message encoding of CARD BLOCK command is shown in Table 11.

5.4.3.3 Command message data field

The command message data field includes the message authentication code (MAC) data encoded according to the provisions of WS/T 543.2-2017 Chapter 8.4.2 yuan.

5.4.3.4 Response message data field

The data field of the response message does not exist.

5.4.3.5 Response message status code

The status code for successful execution of this command is 9000'.

The error status codes that the IC card may return are shown in Table 12.

5.4.4.1 Definition and scope

The EXTERNAL AUTHENTICATION command requires the application in the IC card to verify the validity of the security module in the interface device, so that the interface device gets some kind of authorization.

The response of the IC card includes the return of the command processing status.