3GPP TSG-T (Terminals) Meeting #23
Phoenix, USA
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TP-040022

Agenda Item: 5.3.3

Source: T3

Title: CRs to TS 11.14, R99: Specification of the SIM ME Interface for the SIM application toolkit

Document for: Approval

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This document contains the following change request for TS 11.14 R99 that is approved by 3GPP TSG T3 and forwarded to 3GPP TSG T#23 for approval:

Spec	CR	Rev	Phase	Subject	Cat	Version Current	Version New	Doc-2nd-Level
11.14	A219	-	R99	Clarification of Alpha Identifier for BIP commands	F	8.15.0	8.16.0	T3-040117

## 6.4.28	CLOSE CHANNEL

This subclause applies only if class "e" is supported.

This command requests the ME to close the channel corresponding to the Channel identifier.

Upon receiving this command, the ME shall decide if it is able to execute the command:

- If the command is rejected because the channel identifier is not valid, the ME informs the SIM using TERMINAL RESPONSE (Bearer independent protocol error);

- If the command is rejected because the requested channel is in error, the ME informs the SIM using TERMINAL RESPONSE (Bearer independent protocol error);

If the ME is able to process the command:

- the ME shall release the data transfer, discard the remaining data and inform the SIM that the command has been successfully executed, using TERMINAL RESPONSE;

- Optionally, during CLOSE CHANNEL, the ME can give some audible or display indication concerning what is happening. In this intention, the SIM may include in this command an alpha-identifier. The use of this alpha-identifier by the ME is described below:

  - If the alpha identifier is provided by the SIM and is not a null data object, the ME shall use it to indicate the link closing phase. If an icon is provided by the SIM, the icon indicated in the command may be used by the ME to inform the user, in addition to, or instead of the alpha identifier, as indicated with the icon qualifier (see subclause 6.5.4);.

  - If the alpha identifier is provided by the SIM and is a null data object (i.e. length = '00' and no value part), this is an indication that the ME should not give any indication to the user during the link closing phase;

  - If the alpha identifier is not provided by the SIM or is a null data object (i.e. length = '00' and no value part), the ME may give an indication information to the user during the link closing phase.

6.4.29 RECEIVE DATA

This subclause applies only if class "e" is supported.

This command requests the ME to return data from a dedicated Channel identifier according to the number of bytes specified by the SIM.

Upon receiving this command, the ME shall return the data available in the Rx buffer corresponding to the Channel identifier. Examples are given below, but the list is not exhaustive:

If the ME is unable to process the command:

- If the command is rejected because the requested channel is already closed the ME informs the SIM using TERMINAL RESPONSE (Bearer independent protocol error);

- If the user has indicated the need to end the proactive SIM session, the ME informs the SIM using TERMINAL RESPONSE (Proactive SIM session terminated by the user).

If the ME is able to process the command:

- If the requested number of bytes is available in the buffer, the ME shall inform the SIM that the command has been successfully executed, using TERMINAL RESPONSE and return the requested data and the number of bytes remaining in the channel buffer (or FF if more than the maximum bytes remains).

- If the requested number of bytes is available in the buffer but the whole requested data cannot be included in the TERMINAL RESPONSE because of APDU size limits, the ME shall return the maximum number of bytes possible according to the length of other TLVs. The ME shall inform the SIM that the command has been successfully executed, using TERMINAL RESPONSE and shall indicate the number of bytes remaining in the channel buffer (or FF if more than the maximum bytes remains).

- If the requested number of bytes is not yet available in the buffer, the ME shall NOT wait for the requested number of bytes to arrive. The ME shall inform the SIM, using TERMINAL RESPONSE (Command performed with missing information) and returns the data currently available in the channel buffer.

- In the case of packet/datagram transmission, the ME shall put in the Rx buffer a complete packet SDU and only one at one time. For example, if UDP datagrams are received by the ME, the latter shall insert only the SDU of each UDP packet received in the Rx buffer. After one SDU has been downloaded by the SIM (using one or several RECEIVE DATA commands), the ME shall insert the next SDU of UDP datagram, and so on.

- Optionally, the SIM may include in the command an alpha identifier. The use of this alpha identifier by the ME is described below:

  - If the alpha identifier is provided by the SIM, the ME shall use it to inform the user. The ME may also use it to inform the user during data transfer. If an icon is provided by the SIM, the icon indicated in the command may be used by the ME to inform the user, in addition to, or instead of the alpha identifier, as indicated with the icon qualifier (see subclause 6.5.4);

  - If the alpha identifier is provided by the SIM and is a null data object (i.e. length = '00' and no value part), this is an indication that the ME should not inform the user during data transfer;

  - If the alpha identifier is not provided by the SIM, the ME may inform the user during data transfer.

6.4.30 SEND DATA

This subclause applies only if class "e" is supported.

This command requests the ME to send data through a previously set up data channel corresponding to a dedicated Channel identifier. The SIM informs the ME if the data is :

- to be sent immediately;

- or to be stored in a Tx buffer. Then it is up to the ME to manage the data sending in order to use the bearer in an optimised way. To send the data stored in a Tx buffer, the ME shall be notified by a "send data immediately" and it shall consider the data presently and previously concatenated in its Tx buffer as one SDU, and send it in only one PDU. The Tx buffer shall then be emptied before returning the TERMINAL RESPONSE to the SIM and allowing new SIM sending.

Upon receiving this command, the ME shall either immediatly send data or store provided data into the Tx buffer corresponding to the Channel identifier. Examples are given below, but the list is not exhaustive:

- If the ME is unable to process the command:

    - If the command is rejected because the requested channel is already closed the ME informs the SIM using TERMINAL RESPONSE (Bearer Independent Protocol error – channel identifier not valid);

    - If the command is rejected because the ME could not establish the link (after OPEN CHANNEL (on demand)) or the link was dropped, the ME informs the SIM using TERMINAL RESPONSE (Bearer Independent Protocol error – channel closed);

    - If the command is rejected because the channel is temporarily unavailable the ME informs the SIM using TERMINAL RESPONSE (ME currently unable to process command);

    - If the requested number of bytes of empty space is not yet available in the buffer the ME informs the SIM using TERMINAL RESPONSE (Bearer Independent Protocol error);

    - If the user has indicated the need to end the proactive SIM session, the ME informs the SIM using TERMINAL RESPONSE (Proactive SIM session terminated by the user).

- If the ME is able to process the command:

    - if the requested number of bytes of empty space is available in the buffer the ME shall inform the SIM that the command has been successfully executed, using TERMINAL RESPONSE and return the number of bytes of empty space available in the Tx buffer (or FF if more then 255 bytes are available);

    - in the case of packet/datagram transmission, the structure of the SDU sent by the SIM to the ME shall be fully respected while sending to the ME external interface. The size of the SDU is therefore limited by the size of the packet PDU sent over the ME external interface. In order to send one complete SDU, the SAT application may fill the Tx buffer with several SEND DATA commands, if necessary . Then the ME shall send the complete SDU in one packet PDU;

    - Optionally, the SIM may include in the command an alpha identifier. The use of this alpha identifier by the ME is described below:

        - if the alpha identifier is provided by the SIM, the ME shall use it to inform the user. The ME may also use it to inform the user during data transfer. If an icon is provided by the SIM, the icon indicated in the command may be used by the ME to inform the user, in addition to, or instead of the alpha identifier, as indicated with the icon qualifier (see subclause 6.5.4);

        - if the alpha identifier is provided by the SIM and is a null data object (i.e. length = '00' and no value part), this is an indication that the ME should not inform the user during data transfer;

        - if the alpha identifier is not provided by the SIM, the ME may inform the user during data transfer.