DISPLAY_MESSAGE

This command displays a text message box on the screen for a given time frame.
Using DISPLAY MESSAGE command, the user can also insert new line or line break, by using line feed or carriage, like  or
, return in POS request.

Device UI Required: Yes

Request Packet

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
FUNCTION_TYPE	Required	Static value	N/A	N/A	DEVICE	Type of function.
COMMAND	Required	Static value	N/A	N/A	DISPLAY_MESSA GE	Command name
DISPLAY_TEXT	Required	Character	1	4000		Display Text. Examples for inserting new line or line break in DISPLAY_MESSA GE command: `< DISPLAY_TEXT> Summary  Line1  Line2  Line3  Line4  Line5  Line6 Line3 Line7 Line8</ DISPLAY_TEXT>`. **NOTE:** Using the above inputs, the user can also scroll the screen. **Example:** WELCOME TO VERIFONE
BUTTON_DISPLAY	Optional	Numeric	1	1	• 0 – Button will not be displayed • 1 – Button will be displayed (Default value)	This is used for displaying button. Even if this field is not sent from POS, Button will be displayed.

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
BUTTON_LABEL	Optional	Character	1	• 20 (for M400, M424 and M440) • 8 (for other small screen devices)	Default value is OK.	This label should be displayed on the single button. If it is not sent from POS, then "OK" text will be shown on screen. If BUTTON_LABEL is sent from POS, then the same text will be displayed on the button. Maximum length of the text can be sent from POS is 20 characters. For M400, M424 and M440, 20 characters can be shown on the button. For small screen devices, if text length is more than 8 characters it may go hidden/overlap.
DISPLAY_TEXT_TOP	Optional	Character	1	• 65 • 30 (for e280/e285)		Top section display text. Maximum size limit is 65 characters. In e280/e285 devices, the maximum size limit is 30 characters. This will override and replace the title logo image.

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
DISPLAY_IMG_TOP	Optional	Base64 Encoded Data	1	30000		Top section display image. Value is base64 encoded string (maximum 30000) to be converted to an image. Displays image on top of the screen. This will override and replace the title logo image. DISPLAY_TEXT_TOP will be ignored if DISPLAY_IMG_TOP data is present. This field is supported for all devices which has title logo support.
TIMEOUT_DATA	Required	Numeric	1	9	• 0 - indicates an infinite timeout. • 1 - 999 seconds	Timeout duration in seconds. When the TIMEOUT_DATA value is sent as 0, Application should keep the display message visible until the next command (requiring UI) is received from the POS.

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
POS_RECON	Optional	Character	1	30		POS reconciliation. POS Reconciliation field to be echoed back in response to POS. **Example:** RetailPOS1
COUNTER	Required	Numeric	1	10		COUNTER is used for a given MAC label. Each COUNTER should be higher than the last one. This is used to authenticate the POS. **Example:** 100
MAC	Required	Base64 Encoded Data	N/A	N/A	N/A	Message Authentication Code. This is used to authenticate the POS.
MAC_LABEL	Required	Character	1	50		Associated label that tells the device which MAC_KEY to use to decrypt the value of MAC. This is used to authenticate the POS. **Example:** REG1

Example

Following is an example of request packet

```
<TRANSACTION>
<FUNCTION_TYPE>DEVICE</FUNCTION_TYPE>
<COMMAND>DISPLAY_MESSAGE</COMMAND>
<DISPLAY_TEXT>WELCOME TO VERIFONE</DISPLAY_TEXT>
<TIMEOUT_DATA>10</TIMEOUT_DATA>
<COUNTER>1</COUNTER>
<MAC> … </MAC>
<MAC_LABEL>REG2</MAC_LABEL>
</TRANSACTION>
```

Response Packet

Field	Type	Value	Description
RESPONSE_TEXT	Character		Processor response text. **Example:** Operation SUCCESSFUL
RESULT	Character		This indicates the Result details. **Example:** OK
RESULT_CODE	Numeric	Expected result code: -1, 59001, 59006, 59040	This indicates the result code. Refer to Result/Error Codes for details.
TERMINATION_STATUS	Character	SUCCESS or FAILURE	This indicates the transaction termination status. This is the overall status of the transaction irrespective of approved or declined. Like, if the output is generated then the status is SUCCESS and if no output is generated then the status will be FAILURE.
TIMEOUT_RESULT	Character	• SUCCESS (if OK selected) • TIMEOUT (if message box times out)	Return the timeout result with value mentioned in Value column. Not included in response for Classic implementation as of this publication.
POS_RECON	Character		POS reconciliation field echoed back if sent in request. **Example:** RetailPOS1

Field	Type	Value	Description
COUNTER	Numeric		Echoes counter sent in the request. **Example:** 100

Transaction Performance Metric

> Note
>
> These fields are returned, if SCAPERFMETRIC parameter ([Application Parameters](#)) is enabled.

Field	Type	Value	Description
UI_TIME	Time		This indicates the time duration, for which the device screen is displayed (like error message, prompt screen, remove card screen) till any user action is performed in the command execution flow. This field is not applicable to capture the time for the Processing, Authorizing and transaction status screen. The format of the returned value would be S.sss, where S is seconds (this can be 0 to any positive integer) and sss is milliseconds. In case of any insignificant time or 0.000 value, will not be returned in the response. **Example:** `<UI_TIME>44.028</UI_TIME>`

Field	Type	Value	Description
HOST_TIME	Time		This indicates the time taken for the Connection to the host, sending request and receives data from the host. This field also take the cumulative time for multiple requests which may sent to the host during the transaction including two legged transactions, timeout requests, Auto Last Tran requests, DCC, Credit app proxy. The format of the returned value would be S.sss, where S is seconds (this can be 0 to any positive integer) and sss is milliseconds. In case of any insignificant time or 0.000 value, will not be returned in the response. **Example:** `<HOST_TIME>1.389</HOST_TIME>`
CMD_TIME	Time		This field indicates the total amount of time for a command, which is executed by the application from request received to the response sent. The format of the returned value would be S.sss, where S is seconds (this can be 0 to any positive integer) and sss is milliseconds. In case of any insignificant time or 0.000 value, will not be returned in the response. **Example:** `<CMD_TIME>70.765</CMD_TIME>`

Example

Following is an example of response packet

```
<RESPONSE>
<TERMINATION_STATUS>SUCCESS</TERMINATION_STATUS>
<RESULT_CODE>-1</RESULT_CODE>
<RESULT>OK</RESULT>
<RESPONSE_TEXT>Operation SUCCESSFUL</RESPONSE_TEXT>
```

```
<TIMEOUT_RESULT>SUCCESS</TIMEOUT_RESULT>
</RESPONSE>
```

Example Request	Example Response
``` <TRANSACTION> <FUNCTION_TYPE>SAF</FUNCTION_TYPE> <COMMAND>EDIT</COMMAND> <SAF_NUM>0001</SAF_NUM> <SET_SAF_STATUS>ELIGIBLE</SET_SAF_STATUS> <SET_TRANS_AMOUNT>5.00</SET_TRANS_AMOUNT> <COUNTER>1</COUNTER> <MAC> … </MAC> <MAC_LABEL>REG2</MAC_LABEL> </TRANSACTION> ```	``` <RESPONSE> <RESPONSE_TEXT> 1 SAF RECORD(S)UPDATED< RESPONSE_TEXT> <RESULT>OK</RESULT> <RESULT_CODE>-1</RESULT_CODE> <TERMINATION_STATUS>SUCCESS</TERMINATION_STATUS> <COUNTER>1</COUNTER> <RESPONSE> ```

If the transaction is already processed or Maximum number of EDIT exceeded:

Example Request	Example Response
``` <TRANSACTION> <FUNCTION_TYPE>SAF</FUNCTION_TYPE> <COMMAND>EDIT</COMMAND> <SAF_NUM>0017</SAF_NUM> <SET_SAF_STATUS>ELIGIBLE</SET_SAF_STATUS> <MAC_LABEL>P_UWSQPX</MAC_LABEL> <COUNTER>58</COUNTER> <MAC>I1XaWqAELXO5Wbi2CZ/dXxcAX4h04u3WiT8jwme88Gg= </MAC> </TRANSACTION> ```	``` <RESPONSE> <RESPONSE_TEXT>SAF EDIT NOTALLOWED</RESPONSE_TEXT > <RESULT>ERROR</RESULT> <RESULT_CODE>59053</RESULT_CODE> <TERMINATION_STATUS>FAILURE</TERMINATION_STATUS> <COUNTER>58</COUNTER> </RESPONSE> ```

When a Transaction with particular SAF_NUM is not present in device:

Example Request	Example Response

```
<TRANSACTION>
<FUNCTION_TYPE>SAF</FUNCTION_TYPE>
<COMMAND>EDIT</COMMAND>
<SAF_NUM>0019</SAF_NUM>
<SET_SAF_STATUS>ELIGIBLE</SET_SAF_STATUS>
<MAC_LABEL>P_UWSQPX</MAC_LABEL>
<COUNTER>59</COUNTER>  <MAC
VfJk4OoDKtPJdxkEpXVYMl3a3DR1m7f64maNT6MLJlk=</MAC
>
</TRANSACTION>
```

```
<RESPONSE>
<RESPONSE_TEXT>NO SAF RECORDS FOUND</
RESPONSE_TEXT>
<RESULT>ERROR</RESULT>
<RESULT_CODE>59053</RESULT_CODE>
<TERMINATION_STATUS>FAILURE</TERMINATION_STATUS>
<COUNTER>59</COUNTER>
</RESPONSE>
```

Editing Multiple transactions using SAF Edit:

Example Request	Example Response
 ``` <TRANSACTION> <FUNCTION_TYPE>SAF</FUNCTION_TYPE> <COMMAND>EDIT</COMMAND> <SET_SAF_STATUS>ELIGIBLE</SET_SAF_STATUS> <SAF_NUM_BEGIN>25</SAF_NUM_BEGIN> <SAF_NUM_END>29</SAF_NUM_END> <MAC_LABEL>P_0HNIMC</MAC_LABEL> <COUNTER>46</COUNTER> <MAC>hymEGwd4lkxfRzrsGv0316lAKsn/qhvzEO//Rsuqhus= </MAC> </TRANSACTION> ```	 ``` <RESPONSE> <RESPONSE_TEXT>2 SAFRECORD(S)UPDATED</ RESPONSE_TEXT> <RESULT>OK</RESULT> <RESULT_CODE>-1</RESULT_CODE> <TERMINATION_STATUS>SUCCESS</TERMINATION_STATUS> <COUNTER>46</COUNTER> </RESPONSE> ```