SAF REMOVE

This command clears all SAF transactions from the database as specified. If a range is specified, only that range is affected.

The application has settings to purge the queue after the transactions have been processed. You do not need to initiate that process. The safpurgedays parameter controls how many days the transactions are kept before purging.

> **Warning**
>
> To avoid potential conflicts, never run FUNCTION_TYPE SAF transactions during an 'open' session between the POS and the payment device.

> **Note**
>
> Removal of an ELIGIBLE transaction essentially voids the offline transaction. Removal of a PROCESSED transaction simply removes the SAF record.

Device UI Required: No

Request Packet

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
FUNCTION_TYPE	Required	Static Value			SAF	Type of function
COMMAND	Required	Static Value			REMOVE	Command name
SAF_NUM_BEGIN	Optional	Numeric	1	4		SAF transaction beginning numbers. **Example:** 1235
SAF_NUM_END	Optional	Numeric	1	4		SAF transaction ending numbers. **Example:** 1236
POS_RECON	Optional	Character	1	30		POS reconciliation. POS Reconciliation field to be echoed back in response to POS. **Example:** RetailPOS1

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
SAF_STATUS	Optional	List			Valid values: • ELIGIBLE - Queued/waiting to be processed. • IN_PROCESS In proce	If specified, SAF transactions returned will be filtered by this status.

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
COUNTER	Required	Numeric	1	10		COUNTER is used for a given MAC label. Each COUNTER should be higher than the last one. Used to authenticate the POS. **Example:** 100
MAC	Required	Base64 Encoded Data				Message Authentication Code. 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. Used to authenticate the POS. **Example:** REG1

Example (Clear Range)

Following is an example of request packet

```
<TRANSACTION>
<FUNCTION_TYPE>SAF</FUNCTION_TYPE>
<COMMAND>REMOVE</COMMAND>
<COUNTER>1</COUNTER>
<MAC> … </MAC>
<MAC_LABEL>REG2</MAC_LABEL>
<SAF_NUM_BEGIN>1235</SAF_NUM_BEGIN>
<SAF_NUM_END>1236</SAF_NUM_END>
</TRANSACTION>
```

Response Packet

Field	Type	Value(s)	Description
RESPONSE_TEXT	Character	SAF RECORD(S) REMOVED	Processor response text
RESULT	Character	OK	This indicates the Result details.
RESULT_CODE	Numeric	Expected result code: -1, 59046, 59047, 59048, 59043, 59040	This indicates the result code.
TERMINATION_STATUS	Character	Valid values: 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.
POS_RECON	Character		POS reconciliation field echoed back if sent in request. **Example:** RetailPOS1
COUNTER	Numeric		Echoes counter sent in the request. **Example:** 100
MERCHID	Numeric		Merchant ID. **Example:** 900000000123
TERMID	Numeric		Terminal ID. **Example:** 001
RECORD_COUNT	Numeric		Number of stored records. **Example:** 5
TOTAL_AMOUNT	Floating point number		Total amount of all SAF records. **Example:** 5.00
RECORDS			See RECORD section for child elements. When no records, this element will still be present.

RECORD Child Elements

Field	Type	Value(s)	Description

ACCT_NUM	Numeric		Returns the masked account number. This is a conditional field. **Example:** 400555******0019
TRANS_AMOUNT	Floating point number		Returns the transaction amount. This is a conditional field. **Example:** 5.00
INVOICE	Character		Merchant invoice number. This is a conditional field. **Example:** 123456
PAYMENT_TYPE	Character		Returns the type of payment used. This is a conditional field. **Example:** CREDIT
PAYMENT_MEDIA	Character		Mode of payment. This is a conditional field. **Example:** VISA
SAF_NUM	Numeric		SAF number. This is a conditional field. **Example:** 0045
SAF_STATUS	Character		SAF transaction status. This is a conditional field. **Example:** QUEUED
CTROUTD	Numeric		Returns Client-specific Transaction routing ID. This is a conditional field. **Example:** 124
AUTH_CODE	Character		Authorization code. This is a conditional field. **Example:** 17760K
CARD_TOKEN	Character		Card Token. This is a conditional field. **Example:** 8834134431340010|0AB5DD
TOKEN_SOURCE	Character		Source of token. This is a conditional field. **Example:** PWC

| BANK_USERDATA | Character | | Bank User Data, normally returned with CARD_TOKEN. Maximum 50 alphanumeric characters. This is a conditional field. **Example:** /CustData`JANE`K`DOE`````00` |
| CVV2_CODE | Character | | Result of CVV2 check. This is a conditional field. **Example:** M |

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 1

Following is an example when there are SAF records to be removed

```
<RESPONSE>
<RESPONSE_TEXT>2 SAF RECORDS REMOVED</RESPONSE_TEXT>
<RESULT>OK</RESULT>
<RESULT_CODE>-1</RESULT_CODE>
```

```
<TERMINATION_STATUS>SUCCESS</TERMINATION_STATUS>
<COUNTER>1</COUNTER>
<RECORD_COUNT>2</RECORD_COUNT>
<TOTAL_AMOUNT>10.40</TOTAL_AMOUNT>
<RECORDS>
<RECORD>
<RECORD>
<ACCT_NUM>523456******1594</ACCT_NUM>
<TRANS_AMOUNT>5.20</TRANS_AMOUNT>
<INVOICE>123456</INVOICE>
<PAYMENT_TYPE>CREDIT</PAYMENT_TYPE>
<PAYMENT_MEDIA>MASTERCARD</PAYMENT_MEDIA>
<SAF_STATUS>QUEUED</SAF_STATUS>
<SAF_NUM>1235</SAF_NUM>
<CTROUTD>124</CTROUTD>
<AUTH_CODE>17760K</AUTH_CODE>
<CARD_TOKEN>8834134431340010|0AB5DD</CARD_TOKEN>
<CVV2_CODE>M</CVV2_CODE>
<BANK_USERDATA>/CustData`JANE`K`DOE`````00`</BANK_USERDATA>
</RECORD>
<RECORD>
<ACCT_NUM>400555******0019</ACCT_NUM>
<TRANS_AMOUNT>5.20</TRANS_AMOUNT>
<INVOICE>123456</INVOICE>
<PAYMENT_TYPE>CREDIT</PAYMENT_TYPE>
<PAYMENT_MEDIA>VISA</PAYMENT_MEDIA>
<SAF_STATUS>QUEUED</SAF_STATUS>
<SAF_NUM>1236</SAF_NUM>
<CTROUTD>123</CTROUTD>
<AUTH_CODE>17760K</AUTH_CODE>
<CARD_TOKEN>8834134431340010|0AB5DD</CARD_TOKEN>
<CVV2_CODE>M</CVV2_CODE>
<BANK_USERDATA>/CustData`JANE`K`DOE`````00`</BANK_USERDATA>
</RECORD>
</RECORDS>
</RESPONSE>
```

Example 2

Following is an example when there are SAF records are not present

```
<RESPONSE>
<RESPONSE_TEXT>NO SAF RECORDS REMOVED</RESPONSE_TEXT>
<RESULT>OK</RESULT>
<RESULT_CODE>-1</RESULT_CODE>
<TERMINATION_STATUS>SUCCESS</TERMINATION_STATUS>
<COUNTER>1</COUNTER>
<RECORD_COUNT>0</RECORD_COUNT>
<RECORDS />
</RESPONSE>
```