**3GPP TSG-CT WG6 Meeting #119bis *C6-240519***

**Maastricht, Netherlands; 20th – 23rd August 2024**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **31.124** | **CR** | **0771** | **rev** | **1** | **Current version:** | **17.3.0** |  |
|  |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)*** *on using this form: comprehensive instructions can be found at <http://www.3gpp.org/Change-Requests>.* |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps | **x** | ME | **x** | Radio Access Network | **x** | Core Network | **x** |

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| --- |
|  |
| ***Title:***  | Add testcase of POLLING OFF for NG-RAN  |
|  |  |
| ***Source to WG:*** | China Mobile |
| ***Source to TSG:*** | CT6 |
|  |  |
| ***Work item code:*** | UEConTest\_R16 |  | ***Date:*** | 2024-08-22 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | There is no testcase about POLLING OFF for NG-RAN. |
|  |  |
| ***Summary of change:*** | Add testcase of POLLING OFF for NG-RAN. |
|  |  |
| ***Consequences if not approved:*** | The test cases for POLLING OFF are not fully covered in NG-RAN. |
|  |  |
| ***Clauses affected:*** | 3.4, 27.22.4.14 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **x** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **x** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | C6-240452 |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*start of changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## 3.4 Applicability table

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **27.22.4.14** |   | **POLLING OFF** |  |  |  |  |  |  |  |
|  | 1.1 | POLLING OFF | R99 |  | C180 | E.1/23 | USS orSS only |  |  |
|  | R99 | Rel-7 | C180 | E.1/23 | USS orSS only |  |  |
|  | Rel-8 | Rel-11 | C180 ANDC183 | E.1/23 | USS orSS only |  |  |
|  | Rel-12 |  | C183 | E.1/23 | USS orSS only |  |  |
|  | 1.2 | POLLING OFF, E-UTRAN | Rel-8 | Rel-12 | C190 | E.1/23 | E-USS orNB-SS(See NOTE) |  |  |
|  | Rel-12 |  | C222 | E.1/23 | E-USS orNB-SS(See NOTE) |  |  |
|  | 1.X | POLLING OFF, NG-RAN | Rel-12 |  | C231 | E.1/23 | NG-SS only |  |  |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*next of changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 27.22.4.14 POLLING OFF

##### 27.22.4.14.1 Definition and applicability

See clause 3.2.2.

##### 27.22.4.14.2 Conformance requirement

The ME shall support the POLLING OFF as defined in:

- TS 31.111 [15] clause 5.2, clause 6.4.14, clause 6.8, clause 6.11, clause 8.6 and clause 8.7.

##### 27.22.4.14.3 Test purpose

To verify that the ME cancels the effect of any previous POLL INTERVAL commands and does not effect UICC presence detection.

##### 27.22.4.14.4 Method of test

27.22.4.14.4.1 Initial conditions

For sequence 1.1:

- The elementary files are coded as Toolkit default.

- The ME is connected to the USIM Simulator and to the USS.

For sequence 1.2:

- The default E-UTRAN/EPC UICC, the default E-UTRAN parameters are used.

- The ME is connected to the USIM Simulator and to the E-USS/NB-SS.

For sequence 1.X:

- The default NG-RAN UICC , the default NG-RAN parameters are used.

- The ME is connected to the USIM Simulator and to the NG-SS.

Prior to this test the ME shall have been powered on and performed the PROFILE DOWNLOAD procedure.

27.22.4.14.4.2 Procedure

Expected Sequence 1.1 (POLLING OFF)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | UICC → ME | PROACTIVE COMMAND PENDING: POLL INTERVAL 1.1.1 |  |
| 2 | ME → UICC | FETCH |  |
| 3 | UICC → ME | PROACTIVE COMMAND: POLL INTERVAL 1.1.1 | Interval = 1 min |
| 4 | ME → UICC | TERMINAL RESPONSE: POLL INTERVAL 1.1.1 A orTERMINAL RESPONSE: POLL INTERVAL 1.1.1B | [command performed successfully, duration depends on the ME's capabilities] |
| 5 | UICC → ME | PROACTIVE COMMAND PENDING: POLLING OFF 1.1.2 |  |
| 6 | ME → UICC | FETCH |  |
| 7 | UICC → ME | PROACTIVE COMMAND: POLLING OFF 1.1.2 |  |
| 8 | ME → UICC | TERMINAL RESPONSE: POLLING OFF 1.1.2 | [command performed successfully] |
| 9 | USER  ME | Call to be set up  | A call shall be set up using the generic call setup for circuit switched call or to activate a PDP context. |
| 10 | ME  UICC | Periods of inactivity on the UICC-ME interfaceshall not exceed 30 seconds | In case of PDP context for a terminal that supports Rel-12 or later, exchange of data with the network may be required to guarantee the correct result of the test. |
| 11 | USER  ME | Call to be terminated 3 minutes after call setup |  |

PROACTIVE COMMAND: POLL INTERVAL 1.1.1

Logically:

Command details

 Command number: 1

 Command type: POLL INTERVAL

 Command qualifier: "00"

Device identities

 Source device: UICC

 Destination device: ME

Duration

 Time unit: Minutes

 Time interval: 1

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 0D | 81 | 03 | 01 | 03 | 00 | 82 | 02 | 81 | 82 | 84 |
|  | 02 | 00 | 01 |  |  |  |  |  |  |  |  |  |

TERMINAL RESPONSE: POLL INTERVAL 1.1.1A

Logically:

Command details

 Command number: 1

 Command type: POLL INTERVAL

 Command qualifier: "00"

Device identities

 Source device: ME

 Destination device: UICC

Result

 General Result: Command performed successfully

Duration

 Time unit: Minutes

 Time interval: 1

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 03 | 00 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |
|  | 84 | 02 | 00 | 01 |  |  |  |  |  |  |  |  |

TERMINAL RESPONSE: POLL INTERVAL 1.1.1B

Logically:

Command details

 Command number: 1

 Command type: POLL INTERVAL

 Command qualifier: "00"

Device identities

 Source device: ME

 Destination device: UICC

Result

 General Result: Command performed successfully

Duration

 Time unit: Seconds

 Time interval: 60

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 03 | 00 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |
|  | 84 | 02 | 01 | 3C |  |  |  |  |  |  |  |  |

Note: If the requested poll interval is not supported by the ME, the ME is allowed to use a different one as stated in TS 31.111 [15], clause 6.4.6.

PROACTIVE COMMAND: POLLING OFF 1.1.2

Logically:

Command details

 Command number: 1

 Command type: POLLING OFF

 Command qualifier: "00"

Device identities

 Source device: UICC

 Destination device: ME

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | D0 | 09 | 81 | 03 | 01 | 04 | 00 | 82 | 02 | 81 | 82 |

TERMINAL RESPONSE: POLLING OFF 1.1.2

Logically:

Command details

 Command number: 1

 Command type: POLLING OFF

 Command qualifier: "00"

Device identities

 Source device: ME

 Destination device: UICC

Result

 General Result: Command performed successfully

Coding:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BER-TLV: | 81 | 03 | 01 | 04 | 00 | 82 | 02 | 82 | 81 | 83 | 01 | 00 |

Expected Sequence 1.2 (POLLING OFF, E-UTRAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | ME → E-USS/NB-SS  | The ME successfully performs EPS bearer context activation |  |
| 2 | UICC → ME | PROACTIVE COMMAND PENDING: POLL INTERVAL 1.1.1 |  |
| 3 | ME → UICC | FETCH |  |
| 4 | UICC → ME | PROACTIVE COMMAND: POLL INTERVAL 1.1.1 | Interval = 1 min |
| 5 | ME → UICC | TERMINAL RESPONSE: POLL INTERVAL 1.1.1 A orTERMINAL RESPONSE: POLL INTERVAL 1.1.1B | [command performed successfully, duration depends on the ME's capabilities] |
| 6 | UICC → ME | PROACTIVE COMMAND PENDING: POLLING OFF 1.1.2 |  |
| 7 | ME → UICC | FETCH |  |
| 8 | UICC → ME | PROACTIVE COMMAND: POLLING OFF 1.1.2 |  |
| 9 | ME → UICC | TERMINAL RESPONSE: POLLING OFF 1.1.2 | [command performed successfully] |
| 10 | ME  UICC | Periods of inactivity on the UICC-ME interface shall not exceed 30 seconds | For a terminal that supports Rel-12 or later, exchange of data with the network is required to guarantee the correct result of the test. |

Expected Sequence 1.X (POLLING OFF, NG-RAN)

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Direction | MESSAGE / Action | Comments |
| 1 | ME → NG-SS  | ME successfully REGISTER with NG-RAN cell, and an PDU Session is established successfully. |  |
| 2 | UICC → ME | PROACTIVE COMMAND PENDING: POLL INTERVAL 1.1.1 |  |
| 3 | ME → UICC | FETCH |  |
| 4 | UICC → ME | PROACTIVE COMMAND: POLL INTERVAL 1.1.1 | Interval = 1 min |
| 5 | ME → UICC | TERMINAL RESPONSE: POLL INTERVAL 1.1.1 A orTERMINAL RESPONSE: POLL INTERVAL 1.1.1B | [command performed successfully, duration depends on the ME's capabilities] |
| 6 | UICC → ME | PROACTIVE COMMAND PENDING: POLLING OFF 1.1.2 |  |
| 7 | ME → UICC | FETCH |  |
| 8 | UICC → ME | PROACTIVE COMMAND: POLLING OFF 1.1.2 |  |
| 9 | ME → UICC | TERMINAL RESPONSE: POLLING OFF 1.1.2 | [command performed successfully] |
| 10 | ME  UICC | Periods of inactivity on the UICC-ME interface shall not exceed 30 seconds | Exchange of data with the network is required to guarantee the correct result of the test. |

##### 27.22.4.14.5 Test requirement

The ME shall operate in the manner defined in expected sequences 1.1 - 1.X.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*end of changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*