



# RESTful bindings for Parlay X Web Services –

## Terminal Status

Approved Version 1.0 – 24 Jul 2012

---

**Open Mobile Alliance**

OMA-TS-ParlayREST\_TerminalStatus-V1\_0-20120724-A

Use of this document is subject to all of the terms and conditions of the Use Agreement located at <http://www.openmobilealliance.org/UseAgreement.html>.

Unless this document is clearly designated as an approved specification, this document is a work in process, is not an approved Open Mobile Alliance™ specification, and is subject to revision or removal without notice.

You may use this document or any part of the document for internal or educational purposes only, provided you do not modify, edit or take out of context the information in this document in any manner. Information contained in this document may be used, at your sole risk, for any purposes. You may not use this document in any other manner without the prior written permission of the Open Mobile Alliance. The Open Mobile Alliance authorizes you to copy this document, provided that you retain all copyright and other proprietary notices contained in the original materials on any copies of the materials and that you comply strictly with these terms. This copyright permission does not constitute an endorsement of the products or services. The Open Mobile Alliance assumes no responsibility for errors or omissions in this document.

Each Open Mobile Alliance member has agreed to use reasonable endeavors to inform the Open Mobile Alliance in a timely manner of Essential IPR as it becomes aware that the Essential IPR is related to the prepared or published specification. However, the members do not have an obligation to conduct IPR searches. The declared Essential IPR is publicly available to members and non-members of the Open Mobile Alliance and may be found on the “OMA IPR Declarations” list at <http://www.openmobilealliance.org/ipr.html>. The Open Mobile Alliance has not conducted an independent IPR review of this document and the information contained herein, and makes no representations or warranties regarding third party IPR, including without limitation patents, copyrights or trade secret rights. This document may contain inventions for which you must obtain licenses from third parties before making, using or selling the inventions. Defined terms above are set forth in the schedule to the Open Mobile Alliance Application Form.

NO REPRESENTATIONS OR WARRANTIES (WHETHER EXPRESS OR IMPLIED) ARE MADE BY THE OPEN MOBILE ALLIANCE OR ANY OPEN MOBILE ALLIANCE MEMBER OR ITS AFFILIATES REGARDING ANY OF THE IPR'S REPRESENTED ON THE “OMA IPR DECLARATIONS” LIST, INCLUDING, BUT NOT LIMITED TO THE ACCURACY, COMPLETENESS, VALIDITY OR RELEVANCE OF THE INFORMATION OR WHETHER OR NOT SUCH RIGHTS ARE ESSENTIAL OR NON-ESSENTIAL.

THE OPEN MOBILE ALLIANCE IS NOT LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OF DOCUMENTS AND THE INFORMATION CONTAINED IN THE DOCUMENTS.

© 2012 Open Mobile Alliance Ltd. All Rights Reserved.

Used with the permission of the Open Mobile Alliance Ltd. under the terms set forth above.

# Contents

<b>1. SCOPE</b> .....	<b>9</b>
<b>2. REFERENCES</b> .....	<b>10</b>
<b>2.1 NORMATIVE REFERENCES</b> .....	<b>10</b>
<b>2.2 INFORMATIVE REFERENCES</b> .....	<b>10</b>
<b>3. TERMINOLOGY AND CONVENTIONS</b> .....	<b>11</b>
<b>3.1 CONVENTIONS</b> .....	<b>11</b>
<b>3.2 DEFINITIONS</b> .....	<b>11</b>
<b>3.3 ABBREVIATIONS</b> .....	<b>11</b>
<b>4. INTRODUCTION</b> .....	<b>12</b>
<b>4.1 VERSION 1.0</b> .....	<b>12</b>
<b>5. TERMINAL STATUS API DEFINITION</b> .....	<b>13</b>
<b>5.1 RESOURCES SUMMARY</b> .....	<b>13</b>
<b>5.2 TERMINAL STATUS PARLAYREST API DATA STRUCTURES</b> .....	<b>17</b>
5.2.1 Type: TerminalStatusCollectionList .....	17
5.2.2 Type: TerminalStatusCollection .....	18
5.2.3 Type: AccessibilityStatusForCollection.....	18
5.2.4 Type: RoamingStatusForCollection.....	18
5.2.5 Type: ConnectionTypeForCollection.....	19
5.2.6 Type: TerminalAccessibilityStatusList .....	19
5.2.7 Type: TerminalAccessibilityStatus .....	19
5.2.8 Type: TerminalRoamingStatusList .....	20
5.2.9 Type: TerminalRoamingStatus .....	20
5.2.10 Type: TerminalConnectionTypeList .....	20
5.2.11 Type: TerminalConnectionType .....	21
5.2.12 Type: NotificationSubscriptionList.....	21
5.2.13 Type: StatusCollectionChangeSubscription.....	22
5.2.14 Type: AccessibilityChangeSubscription .....	23
5.2.15 Type: RoamingChangeSubscription .....	24
5.2.16 Type: ConnectionChangeSubscription.....	26
5.2.17 Type: StatusCollectionChangeNotification .....	27
5.2.18 Type: AccessibilityChangeNotification .....	27
5.2.19 Type: RoamingChangeNotification .....	28
5.2.20 Type: ConnectionChangeNotification .....	28
5.2.21 Type: SubscriptionCancellationNotification .....	29
5.2.22 Type: MobileCountryNetworkCode .....	29
5.2.23 Enumeration: AccessibilityStatus .....	29
5.2.24 Enumeration: RoamingStatus .....	30
5.2.25 Enumeration: ConnectionType .....	30
5.2.26 Values of the Link “rel” attribute.....	30
<b>5.3 SEQUENCE DIAGRAMS</b> .....	<b>31</b>
5.3.1 Status collection query .....	31
5.3.2 Accessibility status query.....	32
5.3.3 Accessibility status change notification .....	33
<b>5.4 RESOURCE: TERMINAL STATUS COLLECTION</b> .....	<b>34</b>
5.4.1 Request URI variables .....	34
5.4.2 Response Codes .....	35
5.4.2.1 <i>Response Codes</i> .....	35
5.4.2.2 <i>Exception fault codes</i> .....	35
5.4.3 GET.....	35
5.4.3.1 <i>Example 1: Get status collection of multiple terminal addresses (Informative)</i> .....	35
5.4.3.1.1 Request.....	35
5.4.3.1.2 Response.....	35
5.4.4 PUT.....	36

5.4.5	POST.....	36
5.4.6	DELETE .....	36
<b>5.5</b>	<b>RESOURCE: TERMINAL ACCESSIBILITY STATUS .....</b>	<b>36</b>
5.5.1	Request URI variables .....	37
5.5.2	Response Codes .....	37
5.5.2.1	Response Codes .....	37
5.5.2.2	Exception fault codes .....	37
5.5.3	GET.....	37
5.5.3.1	Example 1: Get accessibility status of single terminal address (Informative).....	37
5.5.3.1.1	Request.....	37
5.5.3.1.2	Response.....	37
5.5.3.2	Example 2: Get accessibility status of multiple terminal addresses (Informative).....	38
5.5.3.2.1	Request.....	38
5.5.3.2.2	Response.....	38
5.5.3.3	Example 3: Get accessibility status (invalid input value) (Informative) .....	39
5.5.3.3.1	Request.....	39
5.5.3.3.2	Response.....	39
5.5.4	PUT.....	39
5.5.5	POST.....	39
5.5.6	DELETE .....	39
<b>5.6</b>	<b>RESOURCE: TERMINAL ROAMING STATUS.....</b>	<b>39</b>
5.6.1	Request URI variables .....	40
5.6.2	Response Codes .....	40
5.6.2.1	Response Codes .....	40
5.6.2.2	Exception fault codes .....	40
5.6.3	GET.....	40
5.6.3.1	Example 1: Get roaming status of single terminal address (Informative).....	40
5.6.3.1.1	Request.....	40
5.6.3.1.2	Response.....	40
5.6.3.2	Example 2: Get roaming status of multiple terminal addresses (Informative).....	41
5.6.3.2.1	Request.....	41
5.6.3.2.2	Response.....	41
5.6.3.3	Example 3: Get roaming status (invalid input value) (Informative).....	42
5.6.3.3.1	Request.....	42
5.6.3.3.2	Response.....	42
5.6.4	PUT.....	42
5.6.5	POST.....	42
5.6.6	DELETE .....	42
<b>5.7</b>	<b>RESOURCE: TERMINAL CONNECTION TYPE .....</b>	<b>42</b>
5.7.1	Request URI variables .....	43
5.7.2	Response Codes .....	43
5.7.2.1	Response Codes .....	43
5.7.2.2	Exception fault codes .....	43
5.7.3	GET.....	43
5.7.3.1	Example 1: Get connection type of single terminal address (Informative) .....	43
5.7.3.1.1	Request.....	43
5.7.3.1.2	Response.....	43
5.7.3.2	Example 2: Get connection type of multiple terminal addresses (Informative).....	44
5.7.3.2.1	Request.....	44
5.7.3.2.2	Response.....	44
5.7.3.3	Example 3: Get connection type (invalid input value) (Informative) .....	44
5.7.3.3.1	Request.....	44
5.7.3.3.2	Response.....	45
5.7.4	PUT.....	45
5.7.5	POST.....	45
5.7.6	DELETE .....	45
<b>5.8</b>	<b>RESOURCE: STATUS COLLECTION CHANGE NOTIFICATION SUBSCRIPTIONS.....</b>	<b>45</b>
5.8.1	Request URI variables .....	45
5.8.2	Response Codes .....	46
5.8.2.1	Response Codes .....	46
5.8.2.2	Exception fault codes .....	46

- 5.8.3 GET..... 46
  - 5.8.3.1 Example: Get status collection subscriptions (Informative)..... 46
    - 5.8.3.1.1 Request..... 46
    - 5.8.3.1.2 Response..... 46
- 5.8.4 PUT..... 47
- 5.8.5 POST..... 47
  - 5.8.5.1 Example: Create new status collection subscription (Informative)..... 47
    - 5.8.5.1.1 Request..... 47
    - 5.8.5.1.2 Response..... 47
- 5.8.6 DELETE..... 48
- 5.9 RESOURCE: INDIVIDUAL STATUS COLLECTION CHANGE NOTIFICATION SUBSCRIPTION ..... 48**
  - 5.9.1 Request URI variables ..... 48
  - 5.9.2 Response Codes ..... 49
    - 5.9.2.1 Response Codes ..... 49
    - 5.9.2.2 Exception fault codes ..... 49
  - 5.9.3 GET..... 49
    - 5.9.3.1 Example: Read individual status collection subscription (Informative)..... 49
      - 5.9.3.1.1 Request..... 49
      - 5.9.3.1.2 Response..... 49
  - 5.9.4 PUT..... 49
    - 5.9.4.1 Example: Update individual status collection subscription (Informative)..... 50
      - 5.9.4.1.1 Request..... 50
      - 5.9.4.1.2 Response..... 50
  - 5.9.5 POST..... 50
  - 5.9.6 DELETE..... 51
    - 5.9.6.1 Example: Delete individual status collection subscription (Informative) ..... 51
      - 5.9.6.1.1 Request..... 51
      - 5.9.6.1.2 Response..... 51
- 5.10 RESOURCE: ACCESSIBILITY STATUS CHANGE NOTIFICATION SUBSCRIPTIONS ..... 51**
  - 5.10.1 Request URI variables ..... 51
  - 5.10.2 Response Codes ..... 51
    - 5.10.2.1 Response Codes ..... 51
    - 5.10.2.2 Exception fault codes ..... 51
  - 5.10.3 GET..... 52
    - 5.10.3.1 Example: Get accessibility status subscriptions (Informative)..... 52
      - 5.10.3.1.1 Request..... 52
      - 5.10.3.1.2 Response..... 52
  - 5.10.4 PUT..... 52
  - 5.10.5 POST..... 53
    - 5.10.5.1 Example: Create new accessibility status subscription (Informative) ..... 53
      - 5.10.5.1.1 Request..... 53
      - 5.10.5.1.2 Response..... 53
  - 5.10.6 DELETE..... 54
- 5.11 RESOURCE: INDIVIDUAL ACCESSIBILITY STATUS CHANGE NOTIFICATION SUBSCRIPTION ..... 54**
  - 5.11.1 Request URI variables ..... 54
  - 5.11.2 Response Codes ..... 54
    - 5.11.2.1 Response Codes ..... 54
    - 5.11.2.2 Exception fault codes ..... 54
  - 5.11.3 GET..... 54
    - 5.11.3.1 Example: Read individual accessibility status subscription (Informative) ..... 54
      - 5.11.3.1.1 Request..... 54
      - 5.11.3.1.2 Response..... 55
  - 5.11.4 PUT..... 55
    - 5.11.4.1 Example: Update individual accessibility status subscription (Informative)..... 55
      - 5.11.4.1.1 Request..... 55
      - 5.11.4.1.2 Response..... 55
  - 5.11.5 POST..... 56
  - 5.11.6 DELETE..... 56
    - 5.11.6.1 Example: Delete individual accessibility status subscription (Informative) ..... 56
      - 5.11.6.1.1 Request..... 56
      - 5.11.6.1.2 Response..... 56

- 5.12 RESOURCE: ROAMING STATUS CHANGE NOTIFICATION SUBSCRIPTIONS .....56**
- 5.12.1 Request URI variables ..... 57
- 5.12.2 Response Codes ..... 57
  - 5.12.2.1 Response Codes ..... 57
  - 5.12.2.2 Exception fault codes..... 57
- 5.12.3 GET..... 57
  - 5.12.3.1 Example: Get roaming status subscriptions (Informative) ..... 57
    - 5.12.3.1.1 Request ..... 57
    - 5.12.3.1.2 Response..... 57
- 5.12.4 PUT ..... 58
- 5.12.5 POST..... 58
  - 5.12.5.1 Example: Create new roaming status subscription (Informative) ..... 58
    - 5.12.5.1.1 Request ..... 58
    - 5.12.5.1.2 Response..... 59
- 5.12.6 DELETE ..... 59
- 5.13 RESOURCE: INDIVIDUAL ROAMING STATUS CHANGE NOTIFICATION SUBSCRIPTION .....59**
- 5.13.1 Request URI variables ..... 59
- 5.13.2 Response Codes ..... 60
  - 5.13.2.1 Response Codes ..... 60
  - 5.13.2.2 Exception fault codes..... 60
- 5.13.3 GET..... 60
  - 5.13.3.1 Example: Read individual roaming status subscription (Informative) ..... 60
    - 5.13.3.1.1 Request ..... 60
    - 5.13.3.1.2 Response..... 60
- 5.13.4 PUT ..... 60
  - 5.13.4.1 Example: Update individual roaming status subscription (Informative)..... 61
    - 5.13.4.1.1 Request ..... 61
    - 5.13.4.1.2 Response..... 61
- 5.13.5 POST..... 61
- 5.13.6 DELETE ..... 62
  - 5.13.6.1 Example: Delete individual roaming status subscription (Informative) ..... 62
    - 5.13.6.1.1 Request ..... 62
    - 5.13.6.1.2 Response..... 62
- 5.14 RESOURCE: CONNECTION TYPE CHANGE NOTIFICATION SUBSCRIPTIONS .....62**
- 5.14.1 Request URI variables ..... 62
- 5.14.2 Response Codes ..... 62
  - 5.14.2.1 Response Codes ..... 62
  - 5.14.2.2 Exception fault codes..... 62
- 5.14.3 GET..... 63
  - 5.14.3.1 Example: Get connection type subscriptions (Informative)..... 63
    - 5.14.3.1.1 Request ..... 63
    - 5.14.3.1.2 Response..... 63
- 5.14.4 PUT ..... 63
- 5.14.5 POST..... 64
  - 5.14.5.1 Example: Create new connection type subscription (Informative) ..... 64
    - 5.14.5.1.1 Request ..... 64
    - 5.14.5.1.2 Response..... 64
- 5.14.6 DELETE ..... 65
- 5.15 RESOURCE: INDIVIDUAL CONNECTION TYPE CHANGE NOTIFICATION SUBSCRIPTION .....65**
- 5.15.1 Request URI variables ..... 65
- 5.15.2 Response Codes ..... 65
  - 5.15.2.1 Response Codes ..... 65
  - 5.15.2.2 Exception fault codes..... 65
- 5.15.3 GET..... 65
  - 5.15.3.1 Example: Read individual connection type subscription (Informative) ..... 65
    - 5.15.3.1.1 Request ..... 65
    - 5.15.3.1.2 Response..... 66
- 5.15.4 PUT ..... 66
  - 5.15.4.1 Example: Update individual connection type subscription (Informative)..... 66
    - 5.15.4.1.1 Request ..... 66
    - 5.15.4.1.2 Response..... 66

5.15.5 POST..... 67

5.15.6 DELETE ..... 67

    5.15.6.1 Example: Delete individual connection type subscription (Informative)..... 67

        5.15.6.1.1 Request..... 67

        5.15.6.1.2 Response..... 67

**5.16 RESOURCE: CLIENT NOTIFICATION ABOUT TERMINAL STATUS CHANGES ..... 67**

5.16.1 Request URI variables ..... 68

5.16.2 Response Codes ..... 68

    5.16.2.1 Response Codes..... 68

    5.16.2.2 Exception fault codes..... 68

5.16.3 GET..... 68

5.16.4 PUT..... 68

5.16.5 POST..... 68

    5.16.5.1 Example1: Status collection change notification (Informative)..... 68

        5.16.5.1.1 Request..... 68

        5.16.5.1.2 Response..... 69

    5.16.5.2 Example 2: Accessibility status change notification (one terminal) (Informative)..... 69

        5.16.5.2.1 Request..... 69

        5.16.5.2.2 Response..... 69

    5.16.5.3 Example 3: Final accessibility status change notification (Informative)..... 69

        5.16.5.3.1 Request..... 69

        5.16.5.3.2 Response..... 70

    5.16.5.4 Example 4: Accessibility status change subscription cancellation notification (Informative)..... 70

        5.16.5.4.1 Request..... 70

        5.16.5.4.2 Response..... 70

5.16.6 DELETE ..... 71

**APPENDIX A. CHANGE HISTORY (INFORMATIVE)..... 72**

**A.1 APPROVED VERSION HISTORY ..... 72**

**APPENDIX B. STATIC CONFORMANCE REQUIREMENTS (NORMATIVE)..... 73**

**B.1 SCR FOR PARLAYREST.TERMINALSTATUS SERVER ..... 73**

        B.1.1 SCR for ParlayREST.TerminalStatus.StatusCollection Server..... 73

        B.1.2 SCR for ParlayREST.TerminalStatus.AccessibilityStatus Server ..... 73

        B.1.3 SCR for ParlayREST.TerminalStatus.RoamingStatus Server..... 73

        B.1.4 SCR for ParlayREST.TerminalStatus.ConnectionType Server ..... 74

        B.1.5 SCR for ParlayREST.TerminalStatus.StatusCollection.Subscr Server..... 74

        B.1.6 SCR for ParlayREST.TerminalStatus.Individual.StatusCollection.Subscr Server ..... 74

        B.1.7 SCR for ParlayREST.TerminalStatus.AccessibilityStatus.Subscr Server..... 75

        B.1.8 SCR for ParlayREST.TerminalStatus.Individual.AccessibilityStatus.Subscr Server ..... 75

        B.1.9 SCR for ParlayREST.TerminalStatus.RoamingStatus.Subscr Server..... 75

        B.1.10 SCR for ParlayREST.TerminalStatus.Individual.RoamingStatus.Subscr Server ..... 76

        B.1.11 SCR for ParlayREST.TerminalStatus.ConnectionType.Subscr Server..... 76

        B.1.12 SCR for ParlayREST.TerminalStatus.Individual.ConnectionType.Subscr Server ..... 76

        B.1.13 SCR for ParlayREST.TerminalStatus.ClientNotificationCallback Server..... 77

**APPENDIX C. APPLICATION/X-WWW-FORM-URLENCODED REQUEST FORMAT FOR POST OPERATIONS (NORMATIVE)..... 78**

**C.1 CREATE STATUS COLLECTION SUBSCRIPTION ..... 78**

            C.1.1 Example (Informative)..... 79

                C.1.1.1 Request..... 79

                C.1.1.2 Response ..... 80

**C.2 CREATE ACCESSIBILITY STATUS SUBSCRIPTION ..... 80**

            C.2.1 Example (Informative)..... 81

                C.2.1.1 Request..... 81

                C.2.1.2 Response ..... 82

**C.3 CREATE ROAMING STATUS SUBSCRIPTION..... 82**

            C.3.1 Example (Informative)..... 84

                C.3.1.1 Request..... 84

                C.3.1.2 Response ..... 84

**C.4 CREATE CONNECTION TYPE SUBSCRIPTION ..... 84**

C.4.1 Example (Informative)..... 86

    C.4.1.1 Request..... 86

    C.4.1.2 Response..... 86

**APPENDIX D. JSON EXAMPLES (INFORMATIVE) ..... 87**

**D.1 GET STATUS COLLECTION OF MULTIPLE TERMINAL ADDRESSES (SECTION 5.4.3.1) ..... 87**

**D.2 GET ACCESSIBILITY STATUS OF SINGLE TERMINAL ADDRESS (SECTION 5.5.3.1) ..... 88**

**D.3 GET ACCESSIBILITY STATUS OF MULTIPLE TERMINAL ADDRESSES (SECTION 5.5.3.2) ..... 88**

**D.4 GET ACCESSIBILITY STATUS (INVALID INPUT VALUE) (SECTION 5.5.3.3) ..... 89**

**D.5 GET ROAMING STATUS OF SINGLE TERMINAL ADDRESS (SECTION 5.6.3.1)..... 90**

**D.6 GET ROAMING STATUS OF MULTIPLE TERMINAL ADDRESSES (SECTION 5.6.3.2) ..... 90**

**D.7 GET ROAMING STATUS (INVALID INPUT VALUE) (SECTION 5.6.3.3)..... 91**

**D.8 GET CONNECTION TYPE OF SINGLE TERMINAL ADDRESS (SECTION 5.7.3.1)..... 92**

**D.9 GET CONNECTION TYPE OF MULTIPLE TERMINAL ADDRESSES (SECTION 5.7.3.2) ..... 92**

**D.10 GET CONNECTION TYPE (INVALID INPUT VALUE) (SECTION 5.7.3.3)..... 93**

**D.11 GET STATUS COLLECTION SUBSCRIPTIONS (SECTION 5.8.3.1)..... 93**

**D.12 CREATE NEW STATUS COLLECTION SUBSCRIPTION (SECTION 5.8.5.1)..... 94**

**D.13 READ INDIVIDUAL STATUS COLLECTION SUBSCRIPTION (SECTION 5.9.3.1)..... 95**

**D.14 UPDATE INDIVIDUAL STATUS COLLECTION SUBSCRIPTION (SECTION 5.9.4.1)..... 96**

**D.15 DELETE INDIVIDUAL STATUS COLLECTION SUBSCRIPTION (SECTION 5.9.6.1) ..... 96**

**D.16 GET ACCESSIBILITY STATUS SUBSCRIPTIONS (SECTION 5.10.3.1) ..... 97**

**D.17 CREATE NEW ACCESSIBILITY STATUS SUBSCRIPTION (SECTION 5.10.5.1) ..... 97**

**D.18 READ INDIVIDUAL ACCESSIBILITY STATUS SUBSCRIPTION (SECTION 5.11.3.1) ..... 98**

**D.19 UPDATE INDIVIDUAL ACCESSIBILITY STATUS SUBSCRIPTION (SECTION 5.11.4.1) ..... 99**

**D.20 DELETE INDIVIDUAL ACCESSIBILITY STATUS SUBSCRIPTION (SECTION 5.11.6.1)..... 99**

**D.21 GET ROAMING STATUS SUBSCRIPTIONS (SECTION 5.12.3.1) ..... 100**

**D.22 CREATE NEW ROAMING STATUS SUBSCRIPTION (SECTION 5.12.5.1) ..... 101**

**D.23 READ INDIVIDUAL ROAMING STATUS SUBSCRIPTION (SECTION 5.13.3.1) ..... 101**

**D.24 UPDATE INDIVIDUAL ROAMING STATUS SUBSCRIPTION (SECTION 5.13.4.1) ..... 102**

**D.25 DELETE INDIVIDUAL ROAMING STATUS SUBSCRIPTION (SECTION 5.13.6.1) ..... 103**

**D.26 GET CONNECTION TYPE SUBSCRIPTIONS (SECTION 5.14.3.1) ..... 103**

**D.27 CREATE NEW CONNECTION TYPE SUBSCRIPTION (SECTION 5.14.5.1) ..... 104**

**D.28 READ INDIVIDUAL CONNECTION TYPE SUBSCRIPTION (SECTION 5.15.3.1) ..... 104**

**D.29 UPDATE INDIVIDUAL CONNECTION TYPE SUBSCRIPTION (SECTION 5.15.4.1) ..... 105**

**D.30 DELETE INDIVIDUAL CONNECTION TYPE SUBSCRIPTION (SECTION 5.15.6.1) ..... 106**

**D.31 STATUS COLLECTION CHANGE NOTIFICATION (SECTION 5.16.5.1) ..... 106**

**D.32 ACCESSIBILITY STATUS CHANGE NOTIFICATION (SECTION 5.16.5.2)..... 107**

**D.33 FINAL ACCESSIBILITY STATUS CHANGE NOTIFICATION (SECTION 5.16.5.3) ..... 107**

**D.34 ACCESSIBILITY STATUS CHANGE SUBSCRIPTION CANCELLATION NOTIFICATION (SECTION 5.16.5.4) ..... 108**

**APPENDIX E. PARLAY X OPERATIONS MAPPING (INFORMATIVE) ..... 109**

## Figures

**Figure 1 Resource structure defined by this specification..... 14**

**Figure 2 Status collection query ..... 32**

**Figure 3 Accessibility status query ..... 33**

**Figure 4 Accessibility status change notification..... 34**

## Tables

**Table 1: Parlay X operations mapping ..... 109**



# 1. Scope

This specification defines a RESTful Terminal Status API using an HTTP protocol binding, based on the similar API defined in [3GPP 29.199-08].

## 2. References

### 2.1 Normative References

- [3GPP29.199-08] 3GPP Technical Specification, “Open Service Access (OSA); Parlay X Web Services; Part 8: Terminal Status (Release 8)”, URL:<http://www.3gpp.org/>
- [ITU-T E.212] List of Mobile Country or Geographical Area Codes, URL: [http://www.itu.int/itudoc/itu-t/ob-lists/icc/e212\\_685.pdf](http://www.itu.int/itudoc/itu-t/ob-lists/icc/e212_685.pdf)
- [OMA\_REST\_TS\_Common] “Common definitions and specifications for OMA REST interfaces”, Open Mobile Alliance™, OMA-TS\_REST\_Common-V1\_0, URL: <http://www.openmobilealliance.org/>
- [REST\_TS\_Common] “RESTful bindings for Parlay X Web Services – Common”, Open Mobile Alliance™, OMA-TS-ParlayREST\_Common-V1\_1, URL:<http://www.openmobilealliance.org/>
- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, March 1997, URL:<http://www.ietf.org/rfc/rfc2119.txt>
- [RFC2616] “Hypertext Transfer Protocol -- HTTP/1.1”, R. Fielding et. al, January 1999, URL:<http://www.ietf.org/rfc/rfc2616.txt>
- [RFC4627] “The application/json Media Type for JavaScript Object Notation (JSON)”, D. Crockford, July 2006, URL: <http://www.ietf.org/rfc/rfc4627.txt>
- [SCRRULES] “SCR Rules and Procedures”, Open Mobile Alliance™, OMA-ORG-SCR\_Rules\_and\_Procedures, URL:<http://www.openmobilealliance.org/>
- [W3C-URLENC] W3C HTML 2.0 Specification, form-urlencoded Media Type, URL: [http://www.w3.org/MarkUp/html-spec/html-spec\\_8.html#SEC8.2.1](http://www.w3.org/MarkUp/html-spec/html-spec_8.html#SEC8.2.1)

### 2.2 Informative References

- [OMADICT] “Dictionary for OMA Specifications”, Version 2.7, Open Mobile Alliance™, OMA-ORG-Dictionary-V2\_7, URL:<http://www.openmobilealliance.org/>
- [REST\_WP] “White Paper on Guidelines for ParlayREST API specifications”, Open Mobile Alliance™, OMA-WP-Guidelines\_for\_ParlayREST\_API\_specifications, URL:<http://www.openmobilealliance.org/>

## 3. Terminology and Conventions

### 3.1 Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except “Scope” and “Introduction”, are normative, unless they are explicitly indicated to be informative.

### 3.2 Definitions

For the purpose of this TS, all definitions from the OMA Dictionary apply [OMADICT].

### 3.3 Abbreviations

<b>API</b>	Application Programming Interface
<b>CDMA</b>	Code Division Multiple Access
<b>EDGE</b>	Enhanced Data rates for GSM Evolution
<b>GPRS</b>	General Packet Radio Service
<b>HTTP</b>	HyperText Transfer Protocol
<b>HSDPA</b>	High-Speed Downlink Packet Access
<b>HSPA+</b>	Evolved High-Speed Packet Access
<b>HSUPA</b>	High-Speed Uplink Packet Access
<b>JSON</b>	JavaScript Object Notation
<b>LTE</b>	Long Term Evolution
<b>MCC</b>	Mobile Country or Geographical Area Codes
<b>MIME</b>	Multipurpose Internet Mail Extensions
<b>MNC</b>	Mobile Network Code
<b>MNO</b>	Mobile Network Operator
<b>MVNO</b>	Mobile Virtual Network Operator
<b>OMA</b>	Open Mobile Alliance
<b>REST</b>	REpresentational State Transfer
<b>SCR</b>	Static Conformance Requirements
<b>TD-SCDMA</b>	Time Division Synchronous Code Division Multiple Access
<b>TS</b>	Technical Specification
<b>TSB</b>	Telecommunications Standardisation Bureau
<b>UMTS</b>	Universal Mobile Telecommunications System
<b>URI</b>	Uniform Resource Identifier
<b>URL</b>	Uniform Resource Locator
<b>WCDMA</b>	Wideband Code Division Multiple Access
<b>WiMAX</b>	Worldwide Interoperability for Microwave Access
<b>WLAN</b>	Wireless Local Area Network
<b>XML</b>	eXtensible Markup Language
<b>XSD</b>	XML Schema Definition

## 4. Introduction

The ParlayREST Technical Specification for Terminal Status contains the HTTP protocol binding for the Parlay X Terminal Status Web Services specification, using the REST architectural style. The specification provides resource definitions, the HTTP verbs applicable for each of these resources, and the element data structures, as well as support material including flow diagrams and examples using the various supported message body formats (i.e. XML, JSON, and form-urlencoded).

Generic guidelines for REST API specification development in OMA can be found in [REST\_WP].

### 4.1 Version 1.0

Version 1.0 of Terminal Status ParlayREST API specification supports the following operations:

- Retrieve the current terminal status collection
- Retrieve the current terminal accessibility status, roaming status and connection type respectively
- Manage client-specific subscriptions to status collection change notifications
- Manage client-specific subscriptions to accessibility status, roaming status and connection type change notifications respectively

## 5. Terminal Status API definition

This section is organized to support a comprehensive understanding of the Terminal Status API design. It specifies the definition of all resources, definition of all data structures, and definitions of all operations permitted on the specified resources.

Common data types, naming conventions, fault definitions and namespaces are defined in [REST\_TS\_Common] and [OMA\_REST\_TS\_Common].

The remainder of this document is structured as follows:

Section 5 starts with a table listing all the resources (and their URL) used by this API, along with the data structure and the supported HTTP verbs (section 5.1). What follows are the data structures (section 5.2). A sample of typical use cases is included in section 5.3, described as high level flow diagrams.

The remaining subsections in section 5 contain the detailed specification for each of the resources. Each such subsection defines the resource, the request URI variables that are common for all HTTP commands, the possible HTTP response codes, and the supported HTTP verbs. For each supported HTTP verb, a description of the functionality is provided, along with an example of a request and an example of a response. For each unsupported HTTP verb, the returned HTTP error status is specified, as well as what should be returned in the Allow header.

All examples in section 5 use XML as the format for the message body. Form-urlencoded examples are provided in Appendix C, while JSON examples are provided in Appendix D. Appendix B provides the Static Conformance Requirements (SCR). Finally, Appendix E lists the Parlay X equivalent method for each supported ParlayREST resource and method combination, where applicable.

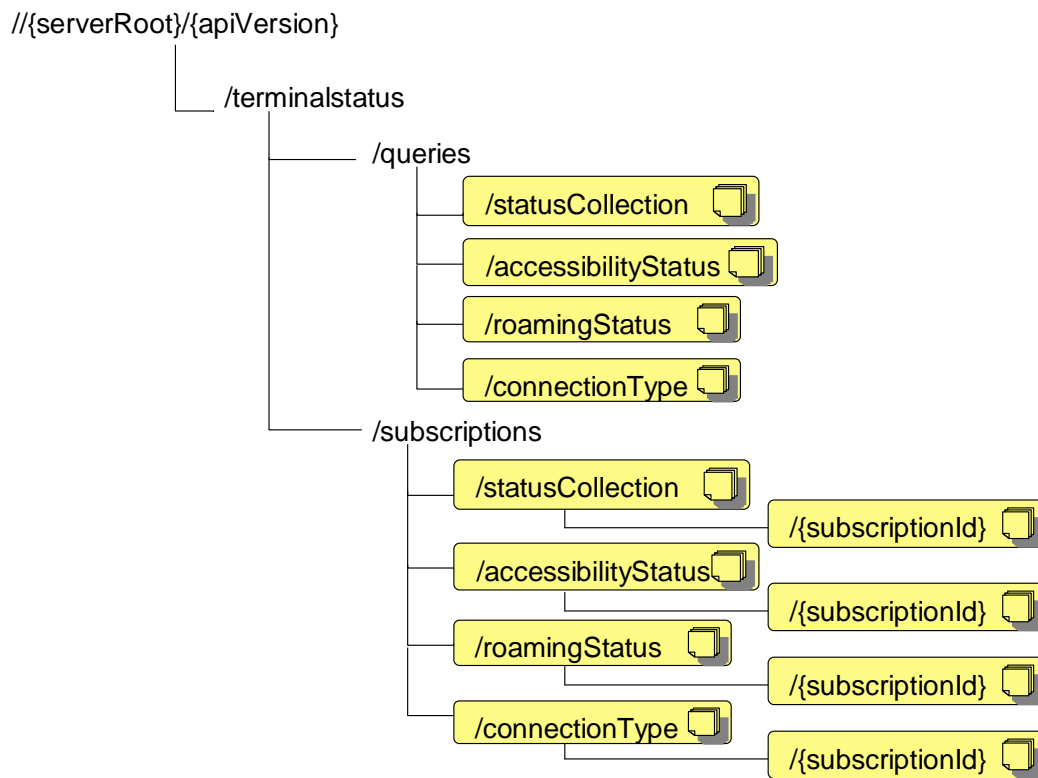
For requests and responses that have a body, the following applies: in the requests received, the server SHALL support JSON and XML encoding of the parameters in the body, and MAY support www-form-urlencoded parameters in the body. The Server SHALL return either JSON or XML encoded parameters in the response body, according to the result of the content type negotiation as specified in [OMA\_REST\_TS\_Common]. In notifications to the Client, the server SHALL use either XML or JSON encoding, depending on which format the client has specified in the related subscription.

Note: Throughout this document client and application can be used interchangeably.

### 5.1 Resources Summary

This section summarizes all the resources used by the Terminal Status API.

The figure below visualizes the resource structure defined by this specification. Note that those nodes in the resource tree which have associated HTTP methods defined in this specification are depicted by solid boxes.



**Figure 1 Resource structure defined by this specification**

The following tables give a detailed overview of the resources defined in this specification, the data type of their representation and the allowed HTTP methods.

**Purpose: To allow the client to retrieve terminal status collection, terminal accessibility status, roaming status, and connection type**

Resource	URL Base URL: http://{serverRoot}/{apiVersion}/terminalstatus	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Terminal status collection	/queries/statusCollection?address={terminalId} or  /queries/statusCollection?address={terminalId1}&address={terminalId2}...	TerminalStatusCollectionList	return current accessibility status, roaming status, and connection type of the terminal or multiple terminals	no	no	no
Terminal accessibility status	/queries/accessibilityStatus?address={terminalId} or  /queries/accessibilityStatus?address={terminalId1}&address={terminalId2}...	TerminalAccessibilityStatusList	return current accessibility status of the terminal or multiple terminals	no	no	no
Terminal roaming status	/queries/roamingStatus?address={terminalId} or  /queries/roamingStatus?address={terminalId1}&address={terminalId2}...	TerminalRoamingStatusList	return current roaming status of the terminal or multiple terminals	no	no	no
Terminal connection type	/queries/connectionType?address={terminalId} or  /queries/connectionType?address={terminalId1}&address={terminalId2}...	TerminalConnectionTypeList	return current connection type of the terminal or multiple terminals	no	no	no

**Purpose: To allow the client to manage its subscriptions for terminal status change notifications**

Resource	URL Base URL: http://{serverRoot}/{apiVersion}/terminalstatus	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Status collection change notification subscriptions	/subscriptions/statusCollection	NotificationSubscriptionList (used for GET)  StatusCollectionChangeSubscription (used for	return all subscriptions	no	create new subscription	no

Resource	URL Base URL: http://{serverRoot}/{apiVersion}/terminalstatus	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
		POST)  common:ResourceReference (optional alternative for POST response)				
Individual status collection change notification subscription	/subscriptions/statusCollection/{subscriptionId}	StatusCollectionChangeSubscription (used for GET and PUT)	return one subscription	update subscription	no	delete one subscription
Accessibility status change notification subscriptions	/subscriptions/accessibilityStatus	NotificationSubscriptionList (used for GET)  AccessibilityChangeSubscription (used for POST)  common:ResourceReference (optional alternative for POST response)	return all subscriptions	no	create new subscription	no
Individual accessibility status change notification subscription	/subscriptions/accessibilityStatus/{subscriptionId}	AccessibilityChangeSubscription (used for GET and PUT)	return one subscription	update subscription	no	delete one subscription
Roaming status change notification subscriptions	/subscriptions/roamingStatus	NotificationSubscriptionList (used for GET)  RoamingChangeSubscription (used for POST)  common:ResourceReference (optional alternative for POST response)	return all subscriptions	no	create new subscription	no
Individual roaming status change notification subscription	/subscriptions/roamingStatus/{subscriptionId}	RoamingChangeSubscription (used for GET and PUT)	return one subscription	update subscription	no	delete one subscription
Connection type change notification subscriptions	/subscriptions/connectionType	NotificationSubscriptionList (used for GET)  ConnectionChangeSubscription (used for POST)  common:ResourceReference (optional alternative	return all subscriptions	no	create new subscription	no



Resource	URL Base URL: http://{serverRoot}/{apiVersion}/terminalstatus	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
		for POST response)				
Individual connection type change notification subscription	/subscriptions/connectionType/{subscriptionId}	ConnectionChangeSubscription (used for GET and PUT)	return one subscription	update subscription	no	delete one subscription

**Purpose: To allow the server to inform the client about terminal status changes**

Resource	URL <provided by the client>	Data Structures	HTTP verbs			
			GET	PUT	POST	DELETE
Client notification about terminal status changes	{provided by client}	StatusCollectionChange Notification AccessibilityChangeNotification RoamingChangeNotification ConnectionChangeNotification SubscriptionCancellation Notification	no	no	Notify client about a terminal status change	no

## 5.2 Terminal Status ParlayREST API Data Structures

The namespace for the Terminal Status data types is:

urn:oma:xml:rest:terminalstatus:1

The 'xsd' namespace is used in the present document to refer to the XML Schema data types defined in XML Schema [XMLSchema1, XMLSchema2]. The 'common' namespace is used in the present document to refer to the data types defined in [REST\_TS\_Common]. The use of the names 'xsd' and 'common' is not semantically significant.

### 5.2.1 Type: TerminalStatusCollectionList

List of terminal status collection

Element	Type	Optional	Description
collection	TerminalStatusCollection [1..unbounded]	No	Collection of the terminal status collection
resourceURL	xsd:anyURI	No	Self referring URL.

A root element named terminalCollectionStatusList of type TerminalStatusCollectionList is allowed in request and/or response bodies.

## 5.2.2 Type: TerminalStatusCollection

Current terminal status collection

Element	Type	Optional	Description
address	xsd:anyURI	No	Address of the terminal device to which the status collection information applies
accessibility	AccessibilityStatusForCollection	Yes	Accessibility status of terminal.
roaming	RoamingStatusForCollection	Yes	Roaming status of terminal.
connectionType	ConnectionTypeForCollection	Yes	Connection type of terminal.

## 5.2.3 Type: AccessibilityStatusForCollection

Current terminal accessibility status

Element	Type	Optional	Description
retrievalStatus	common:RetrievalStatus	No	Status of retrieval for this terminal device address
currentAccessibility	AccessibilityStatus	Yes	Accessibility status of terminal. It is only provided if retrievalStatus=Retrieved
homeMccMnc	MobileCountryNetworkCode	Yes	MobileCountryCode/ Mobile NetworkCode tuple for the home network
errorInformation	common:ServiceError	Yes	If retrievalStatus=Error, this is the reason for the error

## 5.2.4 Type: RoamingStatusForCollection

Current terminal roaming status

Element	Type	Optional	Description
retrievalStatus	common:RetrievalStatus	No	Status of retrieval for this terminal device address
currentRoaming	RoamingStatus	Yes	Roaming status of terminal. It is only provided if retrievalStatus=Retrieved
servingMccMnc	MobileCountryNetworkCode	Yes	MobileCountryCode/ Mobile

	de		NetworkCode tuple for the serving network. servingMccMnc is not populated if currentRoaming=NotRoaming.
errorInformation	common:ServiceError	Yes	If retrievalStatus=Error, this is the reason for the error

### 5.2.5 Type: ConnectionTypeForCollection

Current terminal connection type

Element	Type	Optional	Description
retrievalStatus	common:RetrievalStatus	No	Status of retrieval for this terminal device address
currentConnectionType	ConnectionType [0..unbounded]	Yes	Connection type of terminal. It is only provided if retrievalStatus=Retrieved
errorInformation	common:ServiceError	Yes	If retrievalStatus=Error, this is the reason for the error

### 5.2.6 Type: TerminalAccessibilityStatusList

List of terminal accessibility status

Element	Type	Optional	Description
accessibility	TerminalAccessibilityStatus [1..unbounded]	No	Collection of the terminal accessibility status
resourceURL	xsd:anyURI	No	Self referring URL.

A root element named terminalAccessibilityStatusList of type TerminalAccessibilityStatusList is allowed in request and/or response bodies.

### 5.2.7 Type: TerminalAccessibilityStatus

Current terminal accessibility status

Element	Type	Optional	Description
address	xsd:anyURI	No	Address of the terminal device to which the accessibility status information applies
retrievalStatus	common:RetrievalStatus	No	Status of retrieval for this terminal device address
currentAccessibility	AccessibilityStatus	Yes	Accessibility status of terminal. It is only provided if retrievalStatus=Retrieved

homeMccMnc	MobileCountryNetworkCode	Yes	MobileCountryCode/ Mobile NetworkCode tuple for the home network
errorInformation	common:ServiceError	Yes	If retrievalStatus=Error, this is the reason for the error

## 5.2.8 Type: TerminalRoamingStatusList

List of terminal roaming status

Element	Type	Optional	Description
roaming	TerminalRoamingStatus [1..unbounded]	No	Collection of the terminal roaming status
resourceURL	xsd:anyURI	No	Self referring URL.

A root element named terminalRoamingStatusList of type TerminalRoamingStatusList is allowed in request and/or response bodies.

## 5.2.9 Type: TerminalRoamingStatus

Current terminal roaming status

Element	Type	Optional	Description
address	xsd:anyURI	No	Address of the terminal device to which the roaming status information applies
retrievalStatus	common:RetrievalStatus	No	Status of retrieval for this terminal device address
currentRoaming	RoamingStatus	Yes	Roaming status of terminal. It is only provided if retrievalStatus=Retrieved
servingMccMnc	MobileCountryNetworkCode	Yes	MobileCountryCode/ Mobile NetworkCode tuple for the serving network. servingMccMnc is not populated if currentRoaming=NotRoaming.
errorInformation	common:ServiceError	Yes	If retrievalStatus=Error, this is the reason for the error

## 5.2.10 Type: TerminalConnectionTypeList

List of terminal connection type

Element	Type	Optional	Description
connectionType	TerminalConnectionType	No	Collection of the terminal connection type

	[1..unbounded]		
resourceURL	xsd:anyURI	No	Self referring URL.

A root element named terminalConnectionTypeList of type TerminalConnectionTypeList is allowed in request and/or response bodies.

## 5.2.11 Type: TerminalConnectionType

Current terminal connection type

Element	Type	Optional	Description
address	xsd:anyURI	No	Address of the terminal device to which the connection type information applies
retrievalStatus	common:RetrievalStatus	No	Status of retrieval for this terminal device address
currentConnectionType	ConnectionType [0..unbounded]	Yes	Connection type of terminal. It is only provided if retrievalStatus=Retrieved
errorInformation	common:ServiceError	Yes	If retrievalStatus=Error, this is the reason for the error

## 5.2.12 Type: NotificationSubscriptionList

List of status collection accessibility, roaming and connection change notification subscription

Element	Type	Optional	Description
collectionChangeSubscription	StatusCollectionChangeSubscription [0..unbounded]	Yes	Collection of StatusCollectionChangeSubscription elements
accessibilityChangeSubscription	AccessibilityChangeSubscription [0..unbounded]	Yes	Collection of AccessibilityChangeSubscription elements
roamingChangeSubscription	RoamingChangeSubscription [0..unbounded]	Yes	Collection of RoamingChangeSubscription elements
connectionChangeSubscription	ConnectionChangeSubscription [0..unbounded]	Yes	Collection of ConnectionChangeSubscription elements
resourceURL	xsd:anyURI	No	Self referring URL.

A root element named notificationSubscriptionList of type NotificationSubscriptionList is allowed in request and/or response bodies.

## 5.2.13 Type: StatusCollectionChangeSubscription

Terminal status collection change notification subscription

Element	Type	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server SHALL not alter its value, and SHALL provide it as part of the representation of this resource. In case the field is not present, the server SHALL NOT generate it
resourceURL	xsd:anyURI	Yes	Self referring URL. SHALL NOT be included in POST requests, MUST be included in responses to any HTTP method that returns an entity body, and in PUT requests.
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource
callbackReference	common:CallbackReference	No	Notification callback definition
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
accessibilityCriteria	AccessibilityStatus [0..unbounded]	Yes	List of accessibility status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in accessibility status
roamingCriteria	RoamingStatus [0..unbounded]	Yes	List of roaming status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in roaming status
connectionTypeCriteria	ConnectionType [0..unbounded]	Yes	List of connection type values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in connection type
checkImmediate	xsd:boolean	No	Check status immediately after

			establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notifications, expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

A root element named statusCollectionChangeSubscription of type StatusCollectionChangeSubscription is allowed in request and/or response bodies.

Note that the clientCorrelator is used for purposes of error recovery as specified in [REST\_TS\_Common], and internal client purposes. The server is NOT REQUIRED to use the clientCorrelator value in any form in the creation of the URL of the resource. [REST\_TS\_Common] provides a recommendation regarding the generation of the value of this field.

## 5.2.14 Type: AccessibilityChangeSubscription

Terminal accessibility status change notification subscription

Element	Type	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server SHALL not alter its value, and SHALL provide it as part of the representation of this resource. In case the field is not present, the server SHALL NOT generate it
resourceURL	xsd:anyURI	Yes	Self referring URL. SHALL NOT be included in POST requests, MUST be included in responses to any HTTP method that returns an entity body, and in PUT requests.
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource

callbackReference	common:CallbackReference	No	Notification callback definition
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
accessibilityCriteria	AccessibilityStatus [0..unbounded]	Yes	List of accessibility status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in accessibility status
checkImmediate	xsd:boolean	No	Check status immediately after establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notification expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

A root element named `accessibilityChangeSubscription` of type `AccessibilityChangeSubscription` is allowed in request and/or response bodies.

Note that the `clientCorrelator` is used for purposes of error recovery as specified in [REST\_TS\_Common], and internal client purposes. The server is NOT REQUIRED to use the `clientCorrelator` value in any form in the creation of the URL of the resource. [REST\_TS\_Common] provides a recommendation regarding the generation of the value of this field.

## 5.2.15 Type: RoamingChangeSubscription

Terminal roaming status change notification subscription

Element	Type	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server



			SHALL not alter its value, and SHALL provide it as part of the representation of this resource. In case the field is not present, the server SHALL NOT generate it
resourceURL	xsd:anyURI	Yes	Self referring URL. SHALL NOT be included in POST requests, MUST be included in responses to any HTTP method that returns an entity body, and in PUT requests.
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource
callbackReference	common:CallbackReference	No	Notification callback definition
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
roamingCriteria	RoamingStatus [0..unbounded]	Yes	List of roaming status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in roaming status
checkImmediate	xsd:boolean	No	Check status immediately after establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notifications, expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

A root element named roamingChangeSubscription of type RoamingChangeSubscription is allowed in request and/or response bodies.

Note that the clientCorrelator is used for purposes of error recovery as specified in [REST\_TS\_Common], and internal client purposes. The server is NOT REQUIRED to use the clientCorrelator value in any form in the creation of the URL of the resource. [REST\_TS\_Common] provides a recommendation regarding the generation of the value of this field.

## 5.2.16 Type: ConnectionChangeSubscription

Terminal connection type change notification subscription

Element	Type	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server SHALL not alter its value, and SHALL provide it as part of the representation of this resource. In case the field is not present, the server SHALL NOT generate it
resourceURL	xsd:anyURI	Yes	Self referring URL. SHALL NOT be included in POST requests, MUST be included in responses to any HTTP method that returns an entity body, and in PUT requests.
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource
callbackReference	common:CallbackReference	No	Notification callback definition
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
connectionTypeCriteria	ConnectionType [0..unbounded]	Yes	List of connection type values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in connection type
checkImmediate	xsd:boolean	No	Check status immediately after establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notifications, expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will

			continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

A root element named connectionChangeSubscription of type ConnectionChangeSubscription is allowed in request and/or response bodies.

Note that the clientCorrelator is used for purposes of error recovery as specified in [REST\_TS\_Common], and internal client purposes. The server is NOT REQUIRED to use the clientCorrelator value in any form in the creation of the URL of the resource. [REST\_TS\_Common] provides a recommendation regarding the generation of the value of this field.

## 5.2.17 Type: StatusCollectionChangeNotification

Terminal status collection for change notification

Element	Type	Optional	Description
callbackData	xsd:string	Yes	CallbackData if passed by the application during the associated startNotification operation.  See [REST_TS_Common]
collection	TerminalStatusCollection [1..unbounded]	No	Collection of the terminal status collection
isFinalNotification	xsd:boolean	Yes	Will be set to true if it is a final notification about status collection change
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource

A root element named statusCollectionChangeNotification of type StatusCollectionChangeNotification is allowed in request and/or response bodies.

## 5.2.18 Type: AccessibilityChangeNotification

Terminal accessibility status for change notification

Element	Type	Optional	Description
callbackData	xsd:string	Yes	CallbackData if passed by the application during the associated startNotification operation.  See [REST_TS_Common]
accessibility	TerminalAccessibilityStatus	No	Collection of the terminal accessibility status

	[1..unbounded]		
isFinalNotification	xsd:boolean	Yes	Will be set to true if it is a final notification about accessibility status change
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource

A root element named accessibilityChangeNotification of type AccessibilityChangeNotification is allowed in request and/or response bodies.

## 5.2.19 Type: RoamingChangeNotification

Terminal roaming status for change notification

Element	Type	Optional	Description
callbackData	xsd:string	Yes	CallbackData if passed by the application during the associated startNotification operation.  See [REST_TS_Common]
roaming	TerminalRoamingStatus [1..unbounded]	No	Collection of the terminal roaming status
isFinalNotification	xsd:boolean	Yes	Will be set to true if it is a final notification about roaming status change
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource

A root element named roamingChangeNotification of type RoamingChangeNotification is allowed in request and/or response bodies.

## 5.2.20 Type: ConnectionChangeNotification

Terminal connection type for change notification

Element	Type	Optional	Description
callbackData	xsd:string	Yes	CallbackData if passed by the application during the associated startNotification operation.  See [REST_TS_Common]
connectionType	TerminalConnectionType [1..unbounded]	No	Collection of the terminal connection type
isFinalNotification	xsd:boolean	Yes	Will be set to true if it is a final notification about connection type change
link	common:Link	Yes	Link to other resources that are in

	[0..unbounded]		relationship with the resource
--	----------------	--	--------------------------------

A root element named connectionChangeNotification of type ConnectionChangeNotification is allowed in request and/or response bodies.

### 5.2.21 Type: SubscriptionCancellationNotification

Cancellation for subscription notification

Element	Type	Optional	Description
callbackData	xsd:string	Yes	CallbackData if passed by the application during the associated startNotification operation.  See [REST_TS_Common]
address	xsd:anyURI	Yes	Address of terminal if the error applies to an individual terminal, or not specified if it applies to the whole notification
reason	common:ServiceError	No	Reason notification is being discontinued
link	common:Link [0..unbounded]	Yes	Link to other resources that are in relationship with the resource

A root element named subscriptionCancellationNotification of type SubscriptionCancellationNotification is allowed in request and/or response bodies.

### 5.2.22 Type: MobileCountryNetworkCode

A type that contains the country code and the network code of the home or serving network

Element	Type	Optional	Description
mcc	xsd:string	No	Mobile Country Code as defined in The ITU-T Recommendation E.212
mnc	xsd:string	No	Mobile Network Code. (MNCs are administered by the designated administrator within each country or by the TSB in the case of shared MCCs.)

### 5.2.23 Enumeration: AccessibilityStatus

An enumeration, defining the accessibility status of a terminal.

Enumeration	Description
Reachable	Terminal is reachable
Unreachable	Terminal is not reachable

Busy	Terminal is busy
------	------------------

### 5.2.24 Enumeration: RoamingStatus

An enumeration, defining the roaming status of a terminal.

Enumeration	Description
InternationalRoaming	Terminal is roaming internationally, i.e., in a country different from that in which it is registered for service with its home MNO/MVNO
DomesticRoaming	Terminal is roaming domestically, i.e., in the same country in which it is registered for service with its home MNO/MVNO
NotRoaming	Terminal is not roaming, i.e., is connected to its home MNO/MVNO

### 5.2.25 Enumeration: ConnectionType

An enumeration, defining the connection type of a terminal.

Enumeration	Description
EDGE	Terminal is connected via an EDGE bearer connection
GPRS	Terminal is connected via a GPRS bearer connection
UMTS	Terminal is connected via a UMTS bearer connection
HSDPA	Terminal is connected via a HSDPA bearer connection
HSUPA	Terminal is connected via a HSUPA bearer connection
HSPA+	Terminal is connected via a HSPA+ bearer connection
LTE	Terminal is connected via a LTE bearer connection
WLAN	Terminal is connected via a WLAN bearer connection
PACKET	Terminal is connected via a PACKET bearer connection
WCDMA	Terminal is connected via a WCDMA bearer connection
CDMA	Terminal is connected via a CDMA bearer connection
TD-SCDMA	Terminal is connected via a TD-SCDMA bearer connection
WiMAX	Terminal is connected via a WiMAX bearer connection

### 5.2.26 Values of the Link “rel” attribute

The “rel” attribute of the Link element is a free string set by the server implementation, to indicate a relationship between the current resource and an external resource. The following are possible strings (list is non-exhaustive, and can be extended):

- TerminalStatusCollectionList
- TerminalStatusCollection

- TerminalAccessibilityStatusList
- TerminalAccessibilityStatus
- TerminalRoamingStatusList
- TerminalRoamingStatus
- TerminalConnectionTypeList
- TerminalConnectionType
- NotificationSubscriptionList
- StatusCollectionChangeSubscription
- AccessibilityChangeSubscription
- RoamingChangeSubscription
- ConnectionChangeSubscription
- StatusCollectionChangeNotification
- AccessibilityChangeNotification
- RoamingChangeNotification
- ConnectionChangeNotification
- SubscriptionCancellationNotification

These values indicate the kind of resource that the link points to.

## 5.3 Sequence Diagrams

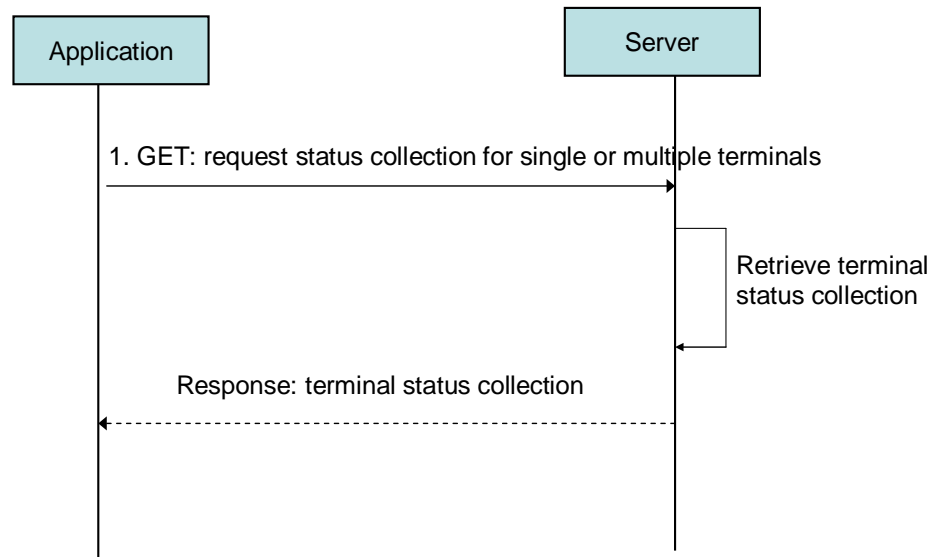
### 5.3.1 Status collection query

This figure below shows a scenario to return status collection for single terminal or a group of terminals.

The resources:

- To get the status collection information for single terminal or a group of terminals, read the resource below with the URL parameters terminal address or addresses

**`http://{serverRoot}/{apiVersion}/terminalstatus/queries/statusCollection`**



**Figure 2 Status collection query**

Outline of flow:

1. An application requests status collection information for single or multiples terminals with the URL parameters such as terminal address or addresses (i.e. group) using GET and receives the terminal status collection information (i.e. accessibility status, roaming status, connection type).

### 5.3.2 Accessibility status query

This figure below shows a scenario to return accessibility status for single terminal or group of terminals.

The resources:

- To get the accessibility status information for a single terminal or a group of terminals, read the resource below with the URL parameters terminal address or addresses

**`http://{serverRoot}/{apiVersion}/terminalstatus/queries/accessibilityStatus`**



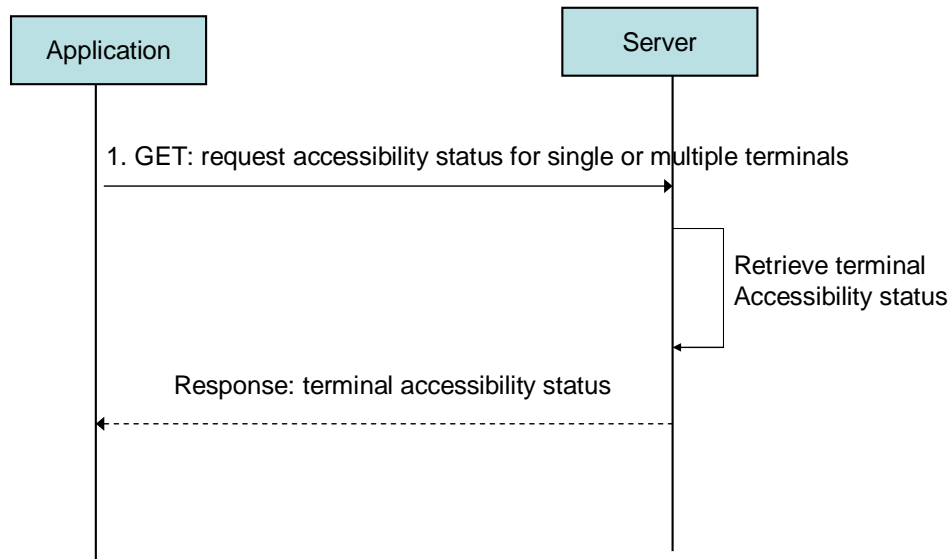


Figure 3 Accessibility status query

Outline of flow:

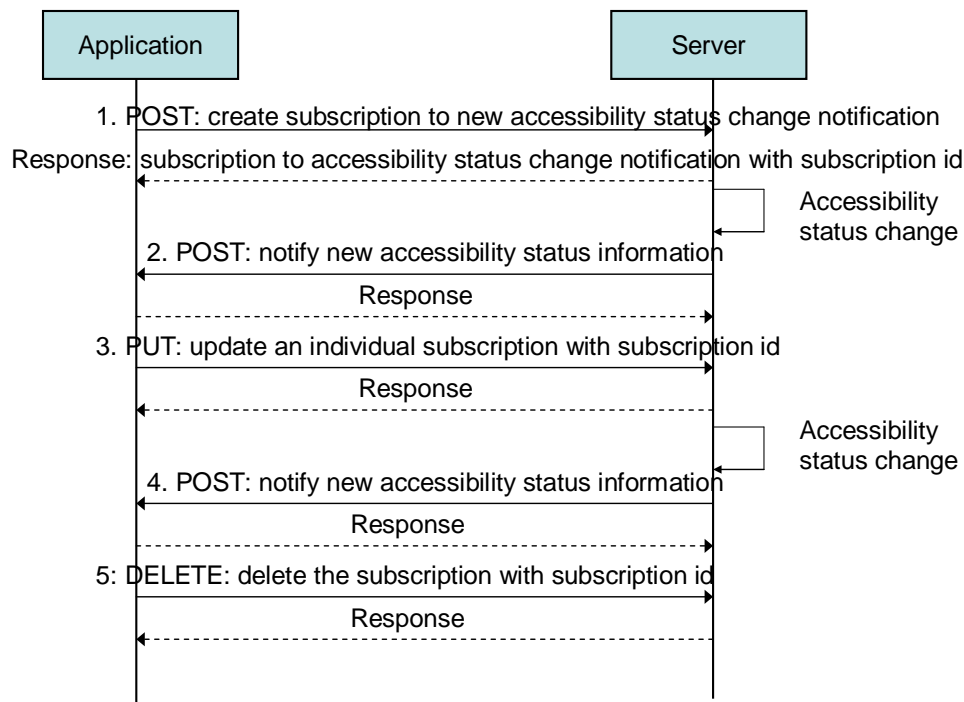
1. An application requests accessibility status for single or multiples terminals with Request URL parameters such as terminal address or addresses (i.e. group) using GET and receives the terminal accessibility status information (i.e. current accessibility status, mobile country and mobile network code).

### 5.3.3 Accessibility status change notification

This figure below shows a scenario to control subscriptions to notification about terminal accessibility status change.

The resources:

- To start subscription to notifications about terminal accessibility status change, create new resource under **`http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/accessibilityStatus`**
- To update or delete an individual subscription to notifications about terminal accessibility status change, use the resource **`http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/accessibilityStatus/{subscriptionId}`**



**Figure 4 Accessibility status change notification**

Outline of flow:

1. An application creates a new subscription to accessibility status change notification by using POST and receives the resulting resource URL containing the subscriptionId.
2. When the terminal accessibility status changes, the server notifies the application using POST to the application supplied notifyURL.
3. An application updates an individual subscription to accessibility status change notification by using PUT to resource URL containing the subscriptionId.
4. When the terminal accessibility status changes, the server notifies the application using POST to the application supplied notifyURL.
5. An application stops the notifications of the particular subscription by using DELETE to a resource URL containing the subscriptionId.

## 5.4 Resource: Terminal status collection

The resource used is:

**`http://{serverRoot}/{apiVersion}/terminalstatus/queries/statusCollection`**

This resource is used to return status collection information of single terminal or group of terminals.

### 5.4.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

## 5.4.2 Response Codes

### 5.4.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.4.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.4.3 GET

This operation is used for reading the terminal status collection information.

Request URL parameter is:

Name	Type/Values	Optional	Description
address	xsd:anyURI [1..unbounded]	No	Address(es) of the terminal device(s) for which the status collection information is requested

### 5.4.3.1 Example 1: Get status collection of multiple terminal addresses (Informative)

This example shows also an alternative way to indicate desired content type in response from the server, by using URL query parameter “?resFormat” which is described in [OMA\_REST\_TS\_Common].

#### 5.4.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/statusCollection?resFormat=XML&address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101 HTTP/1.1
Host: example.com
```

#### 5.4.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:terminalStatusCollectionList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <collection>
    <address>tel:+1-555-555-0100</address>
    <accessibility>
      <retrievalStatus>Retrieved</retrievalStatus>
```

```

    <currentAccessibility>Reachable</currentAccessibility>
  </accessibility>
  <roaming>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentRoaming>NotRoaming</currentRoaming>
  </roaming>
  <connectionType>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentConnectionType>EDGE</currentConnectionType>
  </connectionType>
</collection>
<collection>
  <address>tel:+1-555-555-0101</address>
  <accessibility>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentAccessibility>Reachable</currentAccessibility>
  </accessibility>
  <roaming>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentRoaming>InternationalRoaming</currentRoaming>
  </roaming>
  <connectionType>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentConnectionType>CDMA</currentConnectionType>
  </connectionType>
</collection>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/queries/statusCollection</resourceURL>
</ts:terminalStatusCollectionList>

```

#### 5.4.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

#### 5.4.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

#### 5.4.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

### 5.5 Resource: Terminal accessibility status

The resource used is:

**http://{serverRoot}/{apiVersion}/terminalstatus/queries/accessibilityStatus**

This resource is used to return accessibility status of single terminal or group of terminals.

## 5.5.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

## 5.5.2 Response Codes

### 5.5.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.5.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.5.3 GET

This operation is used for reading the terminal accessibility status information.

Request URL parameter is:

Name	Type/Values	Optional	Description
address	xsd:anyURI [1..unbounded]	No	Address(es) of the terminal device(s) for which the accessibility status information is requested

### 5.5.3.1 Example 1: Get accessibility status of single terminal address (Informative)

#### 5.5.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/accessibilityStatus?address=tel%3A%2B1-555-555-0100 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.5.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:terminalAccessibilityStatusList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <accessibility>
    <address>tel:+1-555-555-0100</address>
    <retrievalStatus>Retrieved</retrievalStatus>
```

```

<currentAccessibility>Reachable</currentAccessibility>
<homeMccMnc>
  <mcc>310</mcc>
  <mnc>010</mnc>
</homeMccMnc>
</accessibility>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/queries/accessibilityStatus</resourceURL>
</ts:terminalAccessibilityStatusList>

```

### 5.5.3.2 Example 2: Get accessibility status of multiple terminal addresses (Informative)

#### 5.5.3.2.1 Request

```

GET /exampleAPI/1/terminalstatus/queries/accessibilityStatus?address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101 HTTP/1.1
Accept: application/xml
Host: example.com

```

#### 5.5.3.2.2 Response

```

HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:terminalAccessibilityStatusList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <accessibility>
    <address>tel:+1-555-555-0100</address>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentAccessibility>Reachable</currentAccessibility>
  </accessibility>
  <accessibility>
    <address>tel:+1-555-555-0101</address>
    <retrievalStatus>Error</retrievalStatus>
    <errorInformation>
      <messageId>SVC0001</messageId>
      <text>A service error occurred. %1 %2</text>
      <variables>Status information is not available for</variables>
      <variables>tel:+1-555-555-0101</variables>
    </errorInformation>
  </accessibility>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/queries/accessibilityStatus</resourceURL>
</ts:terminalAccessibilityStatusList>

```

### 5.5.3.3 Example 3: Get accessibility status (invalid input value) (Informative)

#### 5.5.3.3.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/accessibilityStatus?address=tel%3A%2B1-555-555-0199 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.5.3.3.2 Response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<common:requestError xmlns:common="urn:oma:xml:rest:common:1">
<link rel="TerminalAccessibilityStatus" href="http://example.com/exampleAPI/1/terminalstatus/queries/accessibilityStatus"/>
  <serviceException>
    <messageId>SVC0002</messageId>
    <text>Invalid input value for message part %1</text>
    <variables>tel:+1-555-555-0199</variables>
  </serviceException>
</common:requestError>
```

### 5.5.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

### 5.5.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

### 5.5.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

## 5.6 Resource: Terminal roaming status

The resource used is:

**http://{serverRoot}/{apiVersion}/terminalstatus/queries/roamingStatus**

This resource is used to return roaming status for single terminal or group of terminals.

## 5.6.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

## 5.6.2 Response Codes

### 5.6.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.6.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.6.3 GET

This operation is used for reading the terminal roaming status information.

Request URL parameter is:

Name	Type/Values	Optional	Description
address	xsd:anyURI [1..unbounded]	No	Address(es) of the terminal device(s) for which the roaming status information is requested

### 5.6.3.1 Example 1: Get roaming status of single terminal address (Informative)

#### 5.6.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/roamingStatus?address=tel%3A%2B1-555-555-0100 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.6.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:terminalRoamingStatusList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <roaming>
    <address>tel:+1-555-555-0100</address>
    <retrievalStatus>Retrieved</retrievalStatus>
```



```

<currentRoaming>InternationalRoaming</currentRoaming>
<servingMccMnc>
  <mcc>310</mcc>
  <mnc>010</mnc>
</servingMccMnc>
</roaming>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/queries/roamingStatus</resourceURL>
</ts:terminalRoamingStatusList>

```

### 5.6.3.2 Example 2: Get roaming status of multiple terminal addresses (Informative)

#### 5.6.3.2.1 Request

```

GET /exampleAPI/1/terminalstatus/queries/roamingStatus?address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101
HTTP/1.1
Accept: application/xml
Host: example.com

```

#### 5.6.3.2.2 Response

```

HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:terminalRoamingStatusList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <roaming>
    <address>tel:+1-555-555-0100</address>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentRoaming>InternationalRoaming</currentRoaming>
  </roaming>
  <roaming>
    <address>tel:+1-555-555-0101</address>
    <retrievalStatus>Error</retrievalStatus>
    <errorInformation>
      <messageId>SVC0001</messageId>
      <text>A service error occurred. %1 %2</text>
      <variables>Roaming status information is not available for</variables>
      <variables>tel:+1-555-555-0101</variables>
    </errorInformation>
  </roaming>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/queries/roamingStatus</resourceURL>
</ts:terminalRoamingStatusList>

```

### 5.6.3.3 Example 3: Get roaming status (invalid input value) (Informative)

#### 5.6.3.3.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/roamingStatus?address=tel%3A%2B1-555-555-0199 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.6.3.3.2 Response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<common:requestError xmlns:common="urn:oma:xml:rest:common:1">
<link rel="TerminalRoamingStatus" href="http://example.com/exampleAPI/1/terminalstatus/queries/roamingStatus"/>
  <serviceException>
    <messageId>SVC0002</messageId>
    <text>Invalid input value for message part %1</text>
    <variables>tel:+1-555-555-0199</variables>
  </serviceException>
</common:requestError>
```

### 5.6.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

### 5.6.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

### 5.6.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

## 5.7 Resource: Terminal connection type

The resource used is:

**http://{serverRoot}/{apiVersion}/terminalstatus/queries/connectionType**

This resource is used to return connection type for single terminal or group of terminals.

## 5.7.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

## 5.7.2 Response Codes

### 5.7.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.7.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.7.3 GET

This operation is used for reading the terminal connection type information.

Request URL parameter is:

Name	Type/Values	Optional	Description
address	xsd:anyURI [1..unbounded]	No	Address(es) of the terminal device(s) for which the connection type status information is requested

### 5.7.3.1 Example 1: Get connection type of single terminal address (Informative)

#### 5.7.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/connectionType?address=tel%3A%2B1-555-555-0100 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.7.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:terminalConnectionTypeList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <connectionType>
    <address>tel:+1-555-555-0100</address>
    <retrievalStatus>Retrieved</retrievalStatus>
```

```
<currentConnectionType>GPRS</currentConnectionType>
</connectionType>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/queries/connectionType</resourceURL>
</ts:terminalConnectionTypeList>
```

### 5.7.3.2 Example 2: Get connection type of multiple terminal addresses (Informative)

#### 5.7.3.2.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/connectionType?address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101
HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.7.3.2.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:terminalConnectionTypeList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <connectionType>
    <address>tel:+1-555-555-0100</address>
    <retrievalStatus>Retrieved</retrievalStatus>
    <currentConnectionType>GPRS</currentConnectionType>
  </connectionType>
  <connectionType>
    <address>tel:+1-555-555-0101</address>
    <retrievalStatus>Error</retrievalStatus>
    <errorInformation>
      <messageId>SVC0001</messageId>
      <text>A service error occurred. %1 %2</text>
      <variables>Connection type information is not available for</variables>
      <variables>tel:+1-555-555-0101</variables>
    </errorInformation>
  </connectionType>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/queries/connectionType</resourceURL>
</ts:terminalConnectionTypeList>
```

### 5.7.3.3 Example 3: Get connection type (invalid input value) (Informative)

#### 5.7.3.3.1 Request

```
GET /exampleAPI/1/terminalstatus/queries/connectionType?address=tel%3A%2B1-555-555-0199 HTTP/1.1
Accept: application/xml
Host: example.com
```

### 5.7.3.3.2 Response

```

HTTP/1.1 400 Bad Request
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<common:requestError xmlns:common="urn:oma:xml:rest:common:1">
<link rel="TerminalConnectionType" href="http://example.com/exampleAPI/1/terminalstatus/queries/connectionType"/>
  <serviceException>
    <messageId>SVC0002</messageId>
    <text>Invalid input value for message part %1</text>
    <variables>tel:+1-555-555-0199</variables>
  </serviceException>
</common:requestError>

```

### 5.7.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

### 5.7.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

### 5.7.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET' field in the response as per section 14.7 of [RFC 2616].

## 5.8 Resource: Status collection change notification subscriptions

The resource used is:

**`http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/statusCollection`**

This resource is used to control subscriptions to notification about terminal status collection change for a particular client.

### 5.8.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: <code>http://example.com/exampleAPI</code>
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

## 5.8.2 Response Codes

### 5.8.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.8.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.8.3 GET

This operation is used for reading all active subscriptions to status collection change notifications for the particular client.

### 5.8.3.1 Example: Get status collection subscriptions (Informative)

#### 5.8.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/statusCollection HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.8.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:notificationSubscriptionList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<collectionChangeSubscription>
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Reachable</accessibilityCriteria>
  <roamingCriteria>InternationalRoaming</roamingCriteria>
  <connectionTypeCriteria>CDMA</connectionTypeCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</collectionChangeSubscription>
<collectionChangeSubscription>
  <clientCorrelator>0002</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub124</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0101</address>
  <address>tel:+1-555-555-0102</address>
```

```

<accessibilityCriteria>Reachable</accessibilityCriteria>
<roamingCriteria>InternationalRoaming</roamingCriteria>
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</collectionChangeSubscription>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection</resourceURL>
</ts.notificationSubscriptionList>

```

## 5.8.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, POST' field in the response as per section 14.7 of [RFC 2616].

## 5.8.5 POST

This operation is used for creating a new subscription to status collection change notification for the particular client.

Note: server implementation may use clientCorrelator value, if provided by client, as subscriptionId. Otherwise, sequence number should be generated for subscriptionId. This is to make sure that client can have a stable and predictable URL for online subscriptions. May be required when multiple client instances are used for performance reasons.

### 5.8.5.1 Example: Create new status collection subscription (Informative)

#### 5.8.5.1.1 Request

```

POST /exampleAPI/1/terminalstatus/subscriptions/statusCollection HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:statusCollectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<clientCorrelator>0001</clientCorrelator>
<callbackReference>
  <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
</callbackReference>
<address>tel:+1-555-555-0100</address>
<accessibilityCriteria>Reachable</accessibilityCriteria>
<roamingCriteria>InternationalRoaming</roamingCriteria>
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:statusCollectionChangeSubscription >

```

#### 5.8.5.1.2 Response

```

HTTP/1.1 201 Created
Content-Type: application/xml

```

Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123  
 Content-Length: nnnn  
 Date: Thu, 04 Jun 2009 02:51:59 GMT

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:statusCollectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1" >
<clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
<accessibilityCriteria>Reachable</accessibilityCriteria>
<roamingCriteria>InternationalRoaming</roamingCriteria>
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:statusCollectionChangeSubscription>
```

## 5.8.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, POST' field in the response as per section 14.7 of [RFC 2616].

## 5.9 Resource: Individual status collection change notification subscription

The resource used is:

**http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/statusCollection/{subscriptionId}**

This resource is used to control individual subscription to notification about terminal status collection change for a particular client.

### 5.9.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)
subscriptionId	identifier of the subscription



## 5.9.2 Response Codes

### 5.9.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.9.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.9.3 GET

This operation is used for reading an individual subscription for status collection change notification for the particular client.

### 5.9.3.1 Example: Read individual status collection subscription (Informative)

#### 5.9.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.9.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:statusCollectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1" >
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Reachable</accessibilityCriteria>
  <roamingCriteria>InternationalRoaming</roamingCriteria>
  <connectionTypeCriteria>CDMA</connectionTypeCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</ts:statusCollectionChangeSubscription>
```

## 5.9.4 PUT

This operation is used for updating an individual subscription to status collection change notification for the particular client.

### 5.9.4.1 Example: Update individual status collection subscription (Informative)

#### 5.9.4.1.1 Request

```
PUT /exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123 HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:statusCollectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Reachable</accessibilityCriteria>
  <roamingCriteria>NotRoaming</roamingCriteria>
  <connectionTypeCriteria>EDGE</connectionTypeCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:statusCollectionChangeSubscription>
```

#### 5.9.4.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:statusCollectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Reachable</accessibilityCriteria>
  <roamingCriteria>NotRoaming</roamingCriteria>
  <connectionTypeCriteria>EDGE</connectionTypeCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:statusCollectionChangeSubscription>
```

### 5.9.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, PUT, DELETE' field in the response as per section 14.7 of [RFC 2616].

## 5.9.6 DELETE

This operation is used for deleting a subscription to status collection change notification and stop notifications for a particular client.

### 5.9.6.1 Example: Delete individual status collection subscription (Informative)

#### 5.9.6.1.1 Request

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.9.6.1.2 Response

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## 5.10 Resource: Accessibility status change notification subscriptions

The resource used is:

**`http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/accessibilityStatus`**

This resource is used to control subscriptions to notification about terminal accessibility status change for a particular client.

### 5.10.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: <code>http://example.com/exampleAPI</code>
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

### 5.10.2 Response Codes

#### 5.10.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

#### 5.10.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.10.3 GET

This operation is used for reading all active subscriptions to accessibility status change notifications for the particular client.

### 5.10.3.1 Example: Get accessibility status subscriptions (Informative)

#### 5.10.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.10.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:notificationSubscriptionList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<accessibilityChangeSubscription>
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Reachable</accessibilityCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</accessibilityChangeSubscription>
<accessibilityChangeSubscription>
  <clientCorrelator>0002</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub124</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0101</address>
  <address>tel:+1-555-555-0102</address>
  <accessibilityCriteria>Reachable</accessibilityCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</accessibilityChangeSubscription>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus</resourceURL>
</ts:notificationSubscriptionList>
```

## 5.10.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the ‘Allow:GET, POST’ field in the response as per section 14.7 of [RFC 2616].

## 5.10.5 POST

This operation is used for creating a new subscription to accessibility status change notification for the particular client.

Note: server implementation may use clientCorrelator value, if provided by client, as subscriptionId. Otherwise, sequence number should be generated for subscriptionId. This is to make sure that client can have a stable and predictable URL for online subscriptions. May be required when multiple client instances are used for performance reasons.

### 5.10.5.1 Example: Create new accessibility status subscription (Informative)

#### 5.10.5.1.1 Request

```
POST /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<clientCorrelator>0001</clientCorrelator>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
<accessibilityCriteria>Reachable</accessibilityCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:accessibilityChangeSubscription>
```

#### 5.10.5.1.2 Response

```
HTTP/1.1 201 Created
Content-Type: application/xml
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
<accessibilityCriteria>Reachable</accessibilityCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:accessibilityChangeSubscription>
```

## 5.10.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, POST' field in the response as per section 14.7 of [RFC 2616].

## 5.11 Resource: Individual accessibility status change notification subscription

The resource used is:

`http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/accessibilityStatus/{subscriptionId}`

This resource is used to control individual subscription to notification about terminal accessibility status change for a particular client.

### 5.11.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: <code>http://example.com/exampleAPI</code>
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)
subscriptionId	identifier of the subscription

### 5.11.2 Response Codes

#### 5.11.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

#### 5.11.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

### 5.11.3 GET

This operation is used for reading an individual subscription to accessibility status change notification for the particular client.

#### 5.11.3.1 Example: Read individual accessibility status subscription (Informative)

##### 5.11.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

### 5.11.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Reachable</accessibilityCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</ts:accessibilityChangeSubscription>
```

## 5.11.4 PUT

This operation is used for updating an individual subscription to accessibility status change notification for the particular client.

### 5.11.4.1 Example: Update individual accessibility status subscription (Informative)

#### 5.11.4.1.1 Request

```
PUT /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123 HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Unreachable</accessibilityCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:accessibilityChangeSubscription>
```

#### 5.11.4.1.2 Response

```
HTTP/1.1 200 OK
```

```
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <accessibilityCriteria>Unreachable</accessibilityCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:accessibilityChangeSubscription>
```

## 5.11.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, PUT, DELETE' field in the response as per section 14.7 of [RFC 2616].

## 5.11.6 DELETE

This operation is used for deleting a subscription to accessibility status change notification and stop notifications for a particular client.

### 5.11.6.1 Example: Delete individual accessibility status subscription (Informative)

#### 5.11.6.1.1 Request

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.11.6.1.2 Response

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## 5.12 Resource: Roaming status change notification subscriptions

The resource used is:

**http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/roamingStatus**

This resource is used to control subscriptions to notification about terminal roaming status change for a particular client.



## 5.12.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

## 5.12.2 Response Codes

### 5.12.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.12.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.12.3 GET

This operation is used for reading all active subscriptions to roaming status change notifications for the particular client.

### 5.12.3.1 Example: Get roaming status subscriptions (Informative)

#### 5.12.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/roamingStatus HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.12.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:notificationSubscriptionList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<roamingChangeSubscription>
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <roamingCriteria>InternationalRoaming</roamingCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
```

```

</roamingChangeSubscription>
<roamingChangeSubscription>
  <clientCorrelator>0002</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub124</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0101</address>
  <address>tel:+1-555-555-0102</address>
  <roamingCriteria>DomesticRoaming</roamingCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</roamingChangeSubscription>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus</resourceURL>
</ts.notificationSubscriptionList>

```

## 5.12.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, POST' field in the response as per section 14.7 of [RFC 2616].

## 5.12.5 POST

This operation is used for creating a new subscription to roaming status change notification for the particular client.

Note: server implementation may use clientCorrelator value, if provided by client, as subscriptionId. Otherwise, sequence number should be generated for subscriptionId. This is to make sure that client can have a stable and predictable URL for online subscriptions. May be required when multiple client instances are used for performance reasons.

### 5.12.5.1 Example: Create new roaming status subscription (Informative)

#### 5.12.5.1.1 Request

```

POST /exampleAPI/1/terminalstatus/subscriptions/roamingStatus HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:roamingChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<clientCorrelator>0001</clientCorrelator>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <roamingCriteria>InternationalRoaming</roamingCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</ts:roamingChangeSubscription>

```

### 5.12.5.1.2 Response

```

HTTP/1.1 201 Created
Content-Type: application/xml
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:roamingChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123</resourceURL>
<callbackReference>
  <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
</callbackReference>
<address>tel:+1-555-555-0100</address>
<roamingCriteria>InternationalRoaming</roamingCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:roamingChangeSubscription>

```

### 5.12.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, POST' field in the response as per section 14.7 of [RFC 2616].

## 5.13 Resource: Individual roaming status change notification subscription

The resource used is:

**http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/roamingStatus/{subscriptionId}**

This resource is used to control individual subscription to notification about terminal roaming status change for a particular client.

### 5.13.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)
subscriptionId	identifier of the subscription

## 5.13.2 Response Codes

### 5.13.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.13.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.13.3 GET

This operation is used for reading an individual subscription to roaming status change notification for the particular client.

### 5.13.3.1 Example: Read individual roaming status subscription (Informative)

#### 5.13.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.13.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:roamingChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <roamingCriteria>InternationalRoaming</roamingCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</ts:roamingChangeSubscription>
```

## 5.13.4 PUT

This operation is used for updating an individual subscription to roaming status change notification for the particular client.

### 5.13.4.1 Example: Update individual roaming status subscription (Informative)

#### 5.13.4.1.1 Request

```
PUT /exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123 HTTP/1.1
```

```
Content-Type: application/xml
```

```
Accept: application/xml
```

```
Content-Length: nnnn
```

```
Host: example.com
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:roamingChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <roamingCriteria>NotRoaming</roamingCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:roamingChangeSubscription>
```

#### 5.13.4.1.2 Response

```
HTTP/1.1 200 OK
```

```
Content-Type: application/xml
```

```
Content-Length: nnnn
```

```
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:roamingChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <roamingCriteria>NotRoaming</roamingCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:roamingChangeSubscription>
```

### 5.13.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, PUT, DELETE' field in the response as per section 14.7 of [RFC 2616].

## 5.13.6 DELETE

This operation is used for deleting a subscription to roaming status change notification and stop notifications for a particular client.

### 5.13.6.1 Example: Delete individual roaming status subscription (Informative)

#### 5.13.6.1.1 Request

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.13.6.1.2 Response

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## 5.14 Resource: Connection type change notification subscriptions

The resource used is:

**http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/connectionType**

This resource is used to control subscriptions to notification about terminal connection type change for a particular client.

### 5.14.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: http://example.com/exampleAPI
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)

### 5.14.2 Response Codes

#### 5.14.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

#### 5.14.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.14.3 GET

This operation is used for reading all active subscriptions to connection type change notifications for the particular client.

### 5.14.3.1 Example: Get connection type subscriptions (Informative)

#### 5.14.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/connectionType HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.14.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:notificationSubscriptionList xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<connectionChangeSubscription>
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
</connectionChangeSubscription>
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</connectionChangeSubscription>
<connectionChangeSubscription>
  <clientCorrelator>0002</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub124</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0101</address>
  <address>tel:+1-555-555-0102</address>
</connectionChangeSubscription>
<connectionTypeCriteria>LTE</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</connectionChangeSubscription>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType</resourceURL>
</ts:notificationSubscriptionList>
```

## 5.14.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, POST' field in the response as per section 14.7 of [RFC 2616].

## 5.14.5 POST

This operation is used for creating a new subscription to connection type change notification for the particular client.

Note: server implementation may use clientCorrelator value, if provided by client, as subscriptionId. Otherwise, sequence number should be generated for subscriptionId. This is to make sure that client can have a stable and predictable URL for online subscriptions. May be required when multiple client instances are used for performance reasons.

### 5.14.5.1 Example: Create new connection type subscription (Informative)

#### 5.14.5.1.1 Request

```
POST /exampleAPI/1/terminalstatus/subscriptions/connectionType HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:connectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<clientCorrelator>0001</clientCorrelator>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:connectionChangeSubscription>
```

#### 5.14.5.1.2 Response

```
HTTP/1.1 201 Created
Content-Type: application/xml
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

<?xml version="1.0" encoding="UTF-8"?>
<ts:connectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:connectionChangeSubscription>
```



## 5.14.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, POST' field in the response as per section 14.7 of [RFC 2616].

## 5.15 Resource: Individual connection type change notification subscription

The resource used is:

`http://{serverRoot}/{apiVersion}/terminalstatus/subscriptions/connectionType/{subscriptionId}`

This resource is used to control individual subscription to notification about terminal connection type change for a particular client.

### 5.15.1 Request URI variables

The following request URI variables are common for all HTTP commands:

Name	Description
serverRoot	server base url: hostname+port+base path. Example: <code>http://example.com/exampleAPI</code>
apiVersion	version of the ParlayREST API clients want to use (e.g. 1 for version 1.x)
subscriptionId	identifier of the subscription

### 5.15.2 Response Codes

#### 5.15.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

#### 5.15.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

### 5.15.3 GET

This operation is used for reading an individual subscription to connection type change notification for the particular client.

#### 5.15.3.1 Example: Read individual connection type subscription (Informative)

##### 5.15.3.1.1 Request

```
GET /exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

### 5.15.3.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:connectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <connectionTypeCriteria>CDMA</connectionTypeCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>10</frequency>
</ts:connectionChangeSubscription>
```

## 5.15.4 PUT

This operation is used for updating an individual subscription to connection type change notification for the particular client.

### 5.15.4.1 Example: Update individual connection type subscription (Informative)

#### 5.15.4.1.1 Request

```
PUT /exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123 HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: example.com
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:connectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <connectionTypeCriteria>LTE</connectionTypeCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:connectionChangeSubscription>
```

#### 5.15.4.1.2 Response

```
HTTP/1.1 200 OK
Content-Type: application/xml
```

Content-Length: nnnn

Date: Thu, 04 Jun 2009 02:51:59 GMT

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:connectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
  <clientCorrelator>0001</clientCorrelator>
  <resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123</resourceURL>
  <callbackReference>
    <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
  </callbackReference>
  <address>tel:+1-555-555-0100</address>
  <connectionTypeCriteria>LTE</connectionTypeCriteria>
  <checkImmediate>true</checkImmediate>
  <frequency>5</frequency>
</ts:connectionChangeSubscription>
```

## 5.15.5 POST

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:GET, PUT, DELETE' field in the response as per section 14.7 of [RFC 2616].

## 5.15.6 DELETE

This operation is used for deleting a subscription to connection type change notification and stop notifications for a particular client.

### 5.15.6.1 Example: Delete individual connection type subscription (Informative)

#### 5.15.6.1.1 Request

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123 HTTP/1.1
Accept: application/xml
Host: example.com
```

#### 5.15.6.1.2 Response

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## 5.16 Resource: Client notification about terminal status changes

This resource is a client provided callback URL for notification about status collection, accessibility status, roaming status or connection type changes. ParlayREST does not make any assumption about the structure of this URL.

## 5.16.1 Request URI variables

Client provided.

## 5.16.2 Response Codes

### 5.16.2.1 Response Codes

For HTTP response codes, see [OMA\_REST\_TS\_Common].

### 5.16.2.2 Exception fault codes

For Policy Exception and Service Exception fault codes applicable to Terminal Status, see [3GPP 29.199-08].

## 5.16.3 GET

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:POST' field in the response as per section 14.7 of [RFC 2616].

## 5.16.4 PUT

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:POST' field in the response as per section 14.7 of [RFC 2616].

## 5.16.5 POST

This operation is used for notifying client about message arrival.

### 5.16.5.1 Example1: Status collection change notification (Informative)

#### 5.16.5.1.1 Request

```
POST /notifications/StatusCollectionNotification HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: application:example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:statusCollectionChangeNotification xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<collection>
<address>tel:+1-555-555-0100</address>
<accessibility>
<retrievalStatus>Retrieved</retrievalStatus>
  <currentAccessibility>Reachable</currentAccessibility>
</accessibility>
<roaming>
  <retrievalStatus>Retrieved</retrievalStatus>
  <currentRoaming>NotRoaming</currentRoaming>
</roaming>
<connectionType>
  <retrievalStatus>Retrieved</retrievalStatus>
```

```

<currentConnectionType>EDGE</currentConnectionType>
</connectionType>
</collection>
<isFinalNotification>>false</isFinalNotification>
<link rel="StatusCollectionChangeSubscription"
href="http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123"/>
</ts:statusCollectionChangeNotification>

```

### 5.16.5.1.2 Response

```

HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT

```

## 5.16.5.2 Example 2: Accessibility status change notification (one terminal) (Informative)

### 5.16.5.2.1 Request

```

POST /notifications/AccessibilityStatusNotification HTTP/1.1
Content-Type: application/xml
Accept: application/xml
Content-Length: nnnn
Host: application:example.com

<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeNotification xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<accessibility>
  <address>tel:+1-555-555-0100</address>
  <retrievalStatus>Retrieved</retrievalStatus>
  <currentAccessibility>Reachable</currentAccessibility>
</accessibility>
<isFinalNotification>>false</isFinalNotification>
<link rel="AccessibilityChangeSubscription"
href="http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"/>
</ts:accessibilityChangeNotification>

```

### 5.16.5.2.2 Response

```

HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT

```

## 5.16.5.3 Example 3: Final accessibility status change notification (Informative)

### 5.16.5.3.1 Request

```

POST /notifications/AccessibilityStatusNotification HTTP/1.1
Accept: application/xml

```

Content-Type: application/xml  
 Content-Length: nnnn  
 Host: application:example.com

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeNotification xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<accessibility>
  <address>tel:+1-555-555-0100</address>
<retrievalStatus>Retrieved</retrievalStatus>
<currentAccessibility>Reachable</currentAccessibility>
</accessibility>
<isFinalNotification>true</isFinalNotification>
<link rel="FinalAccessibilityChangeNotificationSubscription"
href="http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"/>
</ts:accessibilityChangeNotification>
```

### 5.16.5.3.2 Response

HTTP/1.1 204 No Content  
 Date: Thu, 04 Jun 2009 02:51:59 GMT

## 5.16.5.4 Example 4: Accessibility status change subscription cancellation notification (Informative)

### 5.16.5.4.1 Request

POST /notifications/AccessibilityStatusNotification HTTP/1.1  
 Content-Type: application/xml  
 Accept: application/xml  
 Content-Length: nnnn  
 Host: application:example.com

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:subscriptionCancellationNotification xmlns:ts="urn:oma:xml:rest:terminalstatus:1">
<address>tel:+1-555-555-0100</address>
<reason>
  <messageId>SVC0001</messageId>
  <text>A service error occurred. %1 %2</text>
  <variables>Accessibility status information is not available for</variables>
  <variables>tel:+1-555-555-0100</variables>
</reason>
<link rel="AccessibilityChangeNotificationSubscriptionCancellation"
href="http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"/>
</ts:subscriptionCancellationNotification>
```

### 5.16.5.4.2 Response

HTTP/1.1 204 No Content  
 Date: Thu, 04 Jun 2009 02:51:59 GMT

## 5.16.6 DELETE

Method not allowed by the resource. The returned HTTP error status is 405. The server should also include the 'Allow:POST' field in the response as per section 14.7 of [RFC 2616].

## Appendix A. Change History

(Informative)

### A.1 Approved Version History

Reference	Date	Description
OMA-TS-ParlayREST_TerminalStatus-V1_0-20120724-A	24 Jul 2012	Status changed to Approved by TP Ref TP Doc# OMA-TP-2012-0280-INP_ParlayREST_2_0_for_Final_Approval



## Appendix B. Static Conformance Requirements (Normative)

The notation used in this appendix is specified in [SCRRULES].

### B.1 SCR for ParlayREST.TerminalStatus Server

Item	Function	Reference	Requirement
PARLAYREST-STA-SUPPORT-S-001-M	Support for the TerminalStatus REST API	5	
PARLAYREST-STA-SUPPORT-S-002-M	Support for the XML request & response format	5	
PARLAYREST-STA-SUPPORT-S-003-M	Support for the JSON request & response format	5	
PARLAYREST-STA-SUPPORT-S-004-O	Support for the application/form-urlencoded format	Appendix C	

#### B.1.1 SCR for ParlayREST.TerminalStatus.StatusCollection Server

Item	Function	Reference	Requirement
PARLAYREST-STA-COL-S-001-M	Support for returning current accessibility status, roaming status and connection type of terminal(s)	5.4	
PARLAYREST-STA-COL-S-002-M	Read current accessibility status, roaming status and connection type of terminal(s) -GET	5.4.3	

#### B.1.2 SCR for ParlayREST.TerminalStatus.AccessibilityStatus Server

Item	Function	Reference	Requirement
PARLAYREST-STA-ACC-S-001-O	Support for returning current accessibility status of terminal(s)	5.5	PARLAYREST-STA-ACC-S-002-O
PARLAYREST-STA-ACC-S-002-O	Read current accessibility status of terminal(s) -GET	5.5.3	

#### B.1.3 SCR for ParlayREST.TerminalStatus.RoamingStatus Server

Item	Function	Reference	Requirement
PARLAYREST-STA-ROAM-S-001-O	Support for returning current roaming status of terminal(s)	5.6	PARLAYREST-STA-ROAM-S-002-O
PARLAYREST-STA-ROAM-S-002-O	Read current roaming status of terminal(s) -	5.6.3	

Item	Function	Reference	Requirement
	GET		

#### B.1.4 SCR for ParlayREST.TerminalStatus.ConnectionType Server

Item	Function	Reference	Requirement
PARLAYREST-STA-CON-S-001-O	Support for returning current connection type of terminal(s)	5.7	PARLAYREST-STA-CON-S-002-O
PARLAYREST-STA-CON-S-002-O	Read current connection type of terminal(s) -GET	5.7.3	

#### B.1.5 SCR for ParlayREST.TerminalStatus.StatusCollection.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-COL-SUBSCR-S-001-O	Support status collection subscriptions	5.8	PARLAYREST-STA-COL-SUBSCR-S-003-O
PARLAYREST-STA-COL-SUBSCR-S-002-O	Read all active subscriptions -GET	5.8.3	
PARLAYREST-STA-COL-SUBSCR-S-003-O	Create a new status collection notification subscription for the client -POST	5.8.5	

#### B.1.6 SCR for ParlayREST.TerminalStatus.Individual.StatusCollection.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-IND-COL-SUBSCR-S-001-O	Support controlling individual subscription of status collection	5.9	PARLAYREST-STA-IND-COL-SUBSCR-S-003-O PARLAYREST-STA-IND-COL-SUBSCR-S-004-O
PARLAYREST-STA-IND-COL-SUBSCR-S-002-O	Read individual subscription of status collection -GET	5.9.3	
PARLAYREST-STA-IND-COL-SUBSCR-S-003-O	Update individual subscription of status collection -PUT	5.9.4	
PARLAYREST-STA-IND-COL-SUBSCR-S-004-O	Delete a subscription of status collection for the client -DELETE	5.9.6	

### B.1.7 SCR for ParlayREST.TerminalStatus.AccessibilityStatus.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-ACC-SUBSCR-S-001-O	Support accessibility status subscriptions	5.10	PARLAYREST-STA-ACC-SUBSCR-S-003-O
PARLAYREST-STA-ACC-SUBSCR-S-002-O	Read all active subscriptions -GET	5.10.3	
PARLAYREST-STA-ACC-SUBSCR-S-003-O	Create a new accessibility status notification subscription for the client -POST	5.10.5	

### B.1.8 SCR for ParlayREST.TerminalStatus.Individual.AccessibilityStatus.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-IND-ACC-SUBSCR-S-001-O	Support controlling individual subscription of accessibility status	5.11	PARLAYREST-STA-IND-ACC-SUBSCR-S-003-O PARLAYREST-STA-IND-ACC-SUBSCR-S-004-O
PARLAYREST-STA-IND-ACC-SUBSCR-S-002-O	Read individual subscription of accessibility status -GET	5.11.3	
PARLAYREST-STA-IND-ACC-SUBSCR-S-003-O	Update individual subscription of accessibility status -PUT	5.11.4	
PARLAYREST-STA-IND-ACC-SUBSCR-S-004-O	Delete a subscription of accessibility status for the client -DELETE	5.11.6	

### B.1.9 SCR for ParlayREST.TerminalStatus.RoamingStatus.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-ROAM-SUBSCR-S-001-O	Support roaming status subscriptions	5.12	PARLAYREST-STA-ROAM-SUBSCR-S-003-O
PARLAYREST-STA-ROAM-SUBSCR-S-002-O	Read all active subscriptions -GET	5.12.3	
PARLAYREST-STA-ROAM-SUBSCR-S-003-O	Create a new roaming status notification subscription for the client -POST	5.12.5	

### B.1.10 SCR for ParlayREST.TerminalStatus.Individual.RoamingStatus.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-IND-ROAM-SUBSCR-S-001-O	Support controlling individual subscription of roaming status	5.13	PARLAYREST-STA-IND-ROAM-SUBSCR-S-003-O PARLAYREST-STA-IND-ROAM-SUBSCR-S-004-O
PARLAYREST-STA-IND-ROAM-SUBSCR-S-002-O	Read individual subscription of roaming status -GET	5.13.3	
PARLAYREST-STA-IND-ROAM-SUBSCR-S-003-O	Update individual subscription of roaming status -PUT	5.13.4	
PARLAYREST-STA-IND-ROAM-SUBSCR-S-004-O	Delete a subscription of roaming status for the client -DELETE	5.13.6	

### B.1.11 SCR for ParlayREST.TerminalStatus.ConnectionType.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-CON-SUBSCR-S-001-O	Support connection type subscriptions	5.14	PARLAYREST-STA-CON-SUBSCR-S-003-O
PARLAYREST-STA-CON-SUBSCR-S-002-O	Read all active subscriptions -GET	5.14.3	
PARLAYREST-STA-CON-SUBSCR-S-003-O	Create a new connection type notification subscription for the client -POST	5.14.5	

### B.1.12 SCR for ParlayREST.TerminalStatus.Individual.ConnectionType.Subscr Server

Item	Function	Reference	Requirement
PARLAYREST-STA-IND-CON-SUBSCR-S-001-O	Support controlling individual subscription of connection type	5.15	PARLAYREST-STA-IND-CON-SUBSCR-S-003-O PARLAYREST-STA-IND-CON-SUBSCR-S-004-O
PARLAYREST-STA-IND-CON-SUBSCR-S-002-O	Read individual subscription of connection type -GET	5.15.3	
PARLAYREST-STA-IND-CON-SUBSCR-S-003-O	Update individual subscription of connection type -PUT	5.15.4	
PARLAYREST-STA-	Delete a subscription	5.15.6	

Item	Function	Reference	Requirement
IND-CON-SUBSCR-S-004-O	of connection type for the client -DELETE		

### B.1.13 SCR for ParlayREST.TerminalStatus.ClientNotificationCallback Server

Item	Function	Reference	Requirement
PARLAYREST-STA-CLIENT-NOTIF-CALLB-S-001-O	Support for notifying client about terminal status changes	5.16	PARLAYREST-STA-CLIENT-NOTIF-CALLB-S-002-O
PARLAYREST-STA-CLIENT-NOTIF-CALLB-S-002-O	Notify client about terminal status changes -POST	5.16.5	

## Appendix C. Application/x-www-form-urlencoded Request Format for POST Operations (Normative)

This section defines a format for the Terminal Status REST API requests where the body of the request is encoded using the application/x-www-form-urlencoded MIME type.

Note: only the request body is encoded as application/x-www-form-urlencoded, the response is still encoded as XML or JSON depending on the preference of the client and the capabilities of the server.

The encoding is defined below for all Terminal Status REST operations which are based on POST requests.

### C.1 Create status collection subscription

This operation is used to create new status collection subscription, see section 5.8.5.

The request parameters are as follows:

Name	Type/Values	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server SHALL not alter its value, and SHALL provide it as part of the representation of this resource. In case the field is not present, the server SHALL NOT generate it
notifyURL	xsd:anyURI	No	Notification endpoint definition
callbackData	xsd:string	Yes	Data the application can register with the server when subscribing to notifications, and that are passed back unchanged in each of the related notifications.
notificationFormat	common:NotificationFormat	Yes	Default: XML Application can specify format of the resource representation in notifications that are related to this subscription. The choice is between {XML, JSON}
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
accessibilityCriteria	AccessibilityStatus [0..unbounded]	Yes	List of accessibility status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in accessibility status

roamingCriteria	RoamingStatus [0..unbounded]	Yes	List of roaming status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in roaming status
connectionTypeCriteria	ConnectionType [0..unbounded]	Yes	List of connection type values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in connection type
checkImmediate	xsd:boolean	No	Check status immediately after establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notifications, expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

## C.1.1 Example

(Informative)

### C.1.1.1 Request

```
POST /exampleAPI/1/terminalstatus/subscriptions/statusCollection HTTP/1.1
```

```
Content-Type: application/x-www-form-urlencoded
```

```
Accept: application/xml
```

```
Content-Length: nnnn
```

```
Host: example.com
```

```
notifyURL=http%3A%2F%2Fapplication.example.com%2Fnotifications%2FStatusCollectionNotification&
address=tel%3A%2B1-555-555-0100&
accessibilityCriteria=Reachable&
roamingCriteria=InternationalRoaming&
```

```
connectionTypeCriteria=CDMA&
checkImmediate=true&
frequency=10&
clientCorrelator=0001
```

### C.1.1.2 Response

```
HTTP/1.1 201 Created
Content-Type: application/xml
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:statusCollectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1" >
<clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123</resourceURL>
<callbackReference>
  <notifyURL>http://application.example.com/notifications/StatusCollectionNotification</notifyURL>
</callbackReference>
  <address>tel:+1-555-555-0100</address>
<accessibilityCriteria>Reachable</accessibilityCriteria>
<roamingCriteria>InternationalRoaming</roamingCriteria>
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:statusCollectionChangeSubscription>
```

## C.2 Create accessibility status subscription

This operation is used to create new accessibility status subscription, see section 5.10.5.

The request parameters are as follows:

Name	Type/Values	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server SHALL not alter its value, and SHALL provide it as part of the representation of this resource. In case the field is not present, the server SHALL NOT generate it
notifyURL	xsd:anyURI	No	Notification endpoint definition
callbackData	xsd:string	Yes	Data the application can register with the server when subscribing to



			notifications, and that are passed back unchanged in each of the related notifications.
notificationFormat	common:NotificationFormat	Yes	Default: XML  Application can specify format of the resource representation in notifications that are related to this subscription. The choice is between {XML, JSON}
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
accessibilityCriteria	AccessibilityStatus [0..unbounded]	Yes	List of accessibility status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in accessibility status
checkImmediate	xsd:boolean	No	Check status immediately after establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notifications, expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

## C.2.1 Example

(Informative)

### C.2.1.1 Request

```
POST /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus HTTP/1.1
Content-Type: application/x-www-form-urlencoded
Accept: application/xml
```

Content-Length: nnnn  
Host: example.com

notifyURL=http%3A%2F%2Fapplication.example.com%2Fnotifications%2FAccessibilityStatusNotification&  
address=tel%3A%2B1-555-555-0100&  
accessibilityCriteria=Reachable&  
checkImmediate=true&  
frequency=10&  
clientCorrelator=0001

### C.2.1.2 Response

HTTP/1.1 201 Created  
Content-Type: application/xml  
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123  
Content-Length: nnnn  
Date: Thu, 04 Jun 2009 02:51:59 GMT

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:accessibilityChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1" >
<clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123</resourceURL>
<callbackReference>
  <notifyURL>http://application.example.com/notifications/AccessibilityStatusNotification</notifyURL>
</callbackReference>
<address>tel:+1-555-555-0100</address>
<accessibilityCriteria>Reachable</accessibilityCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:accessibilityChangeSubscription>
```

## C.3 Create roaming status subscription

This operation is used to create new roaming status subscription, see section 5.12.5.

The request parameters are as follows:

Name	Type/Values	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server SHALL not alter its value, and SHALL provide it as part of the representation of this resource. In case the field is not present, the server SHALL NOT generate it
notifyURL	xsd:anyURI	No	Notification endpoint definition

callbackData	xsd:string	Yes	Data the application can register with the server when subscribing to notifications, and that are passed back unchanged in each of the related notifications.
notificationFormat	common:NotificationFormat	Yes	Default: XML Application can specify format of the resource representation in notifications that are related to this subscription. The choice is between {XML, JSON}
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
roamingCriteria	RoamingStatus [0..unbounded]	Yes	List of roaming status values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in roaming status
checkImmediate	xsd:boolean	No	Check status immediately after establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notifications, expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

## C.3.1 Example

(Informative)

### C.3.1.1 Request

```
POST /exampleAPI/1/terminalstatus/subscriptions/roamingStatus HTTP/1.1
Content-Type: application/x-www-form-urlencoded
Accept: application/xml
Content-Length: nnnn
Host: example.com
```

```
notifyURL=http%3A%2F%2Fapplication.example.com%2Fnotifications%2FRoamingStatusNotification&
address=tel%3A%2B1-555-555-0100&
roamingCriteria=InternationalRoaming&
checkImmediate=true&
frequency=10&
clientCorrelator=0001
```

### C.3.1.2 Response

```
HTTP/1.1 201 Created
Content-Type: application/xml
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ts:roamingChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1" >
<clientCorrelator>0001</clientCorrelator>
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123</resourceURL>
<callbackReference>
  <notifyURL>http://application.example.com/notifications/RoamingStatusNotification</notifyURL>
</callbackReference>
<address>tel:+1-555-555-0100</address>
<roamingCriteria>InternationalRoaming</roamingCriteria>
<checkImmediate>true</checkImmediate>
<frequency>10</frequency>
</ts:roamingChangeSubscription>
```

## C.4 Create connection type subscription

This operation is used to create new connection type subscription, see section 5.14.5.

The request parameters are as follows:

Name	Type/Values	Optional	Description
clientCorrelator	xsd:string	Yes	A correlator that the client MAY use to tag this particular resource representation during a request to create a resource on the server. In case the field is present, the server SHALL not alter its value, and SHALL provide it as part of the

			representation of this resource. In case the field is not present, the server SHALL NOT generate it
notifyURL	xsd:anyURI	No	Notification endpoint definition
callbackData	xsd:string	Yes	Data the application can register with the server when subscribing to notifications, and that are passed back unchanged in each of the related notifications.
notificationFormat	common:NotificationFormat	Yes	Default: XML Application can specify format of the resource representation in notifications that are related to this subscription. The choice is between {XML, JSON}
address	xsd:anyURI [1..unbounded]	No	Addresses of terminals to monitor
connectionTypeCriteria	ConnectionType [0..unbounded]	Yes	List of connection type values to generate notifications for (these apply to all addresses specified). If this element is missing, a notification is requested to be generated for any change in connection type
checkImmediate	xsd:boolean	No	Check status immediately after establishing notification
frequency	xsd:int	No	Maximum frequency (in seconds) of notifications, expressed as minimum time between notifications
duration	xsd:int	Yes	Period (in seconds) of time notifications are provided for. If set to "0" (zero), a default duration time, which is specified by the service policy, will be used. If the parameter is omitted, the notifications will continue until the maximum duration time, which is specified by the service policy, unless the notifications are stopped by deletion of subscription for notifications
count	xsd:int	Yes	Maximum number of notifications per individual address. For no maximum, either do not specify this part or specify a value of zero. Default value is 0

## C.4.1 Example

(Informative)

### C.4.1.1 Request

```
POST /exampleAPI/1/terminalstatus/subscriptions/connectionType HTTP/1.1
```

```
Content-Type: application/x-www-form-urlencoded
```

```
Accept: application/xml
```

```
Content-Length: nnnn
```

```
Host: example.com
```

```
notifyURL=http%3A%2F%2Fapplication.example.com%2Fnotifications%2FConnectionTypeNotification&
address=tel%3A%2B1-555-555-0100&
connectionTypeCriteria=CDMA&
checkImmediate=true&
frequency=10&
clientCorrelator=0001
```

### C.4.1.2 Response

```
HTTP/1.1 201 Created
```

```
Content-Type: application/xml
```

```
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123
```

```
Content-Length: nnnn
```

```
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<ts:connectionChangeSubscription xmlns:ts="urn:oma:xml:rest:terminalstatus:1" >
```

```
<clientCorrelator>0001</clientCorrelator>
```

```
<resourceURL>http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123</resourceURL>
```

```
<callbackReference>
```

```
  <notifyURL>http://application.example.com/notifications/ConnectionTypeNotification</notifyURL>
```

```
</callbackReference>
```

```
<address>tel:+1-555-555-0100</address>
```

```
<connectionTypeCriteria>CDMA</connectionTypeCriteria>
```

```
<checkImmediate>true</checkImmediate>
```

```
<frequency>10</frequency>
```

```
</ts:connectionChangeSubscription>
```

## Appendix D. JSON examples (Informative)

JSON (JavaScript Object Notation) is a lightweight, text-based, language-independent data interchange format. It provides a simple means to represent basic name-value pairs, arrays and objects. JSON is relatively trivial to parse and evaluate using standard JavaScript libraries, and hence is suited for Parlay REST invocations from browsers or other processors with JavaScript engines. Further information on JSON can be found at [RFC 4627].

The following examples show the request and response for various operations using a JSON binding. The examples follow the XML to JSON serialization rules in [OMA\_REST\_TS\_Common]. A JSON response can be obtained by using the content type negotiation mechanism specified in [OMA\_REST\_TS\_Common].

For full details on the operations themselves please refer to the section number indicated.

### D.1 Get status collection of multiple terminal addresses (section 5.4.3.1)

Request:

```
GET /exampleAPI/1/terminalstatus/queries/statusCollection?resFormat=JSON&address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101 HTTP/1.1
Host: example.com
```

Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"terminalStatusCollectionList": {
  "collection": [
    {
      "accessibility": {
        "currentAccessibility": "Reachable",
        "retrievalStatus": "Retrieved"
      },
      "address": "tel:+1-555-555-0100",
      "connectionType": {
        "currentConnectionType": "EDGE",
        "retrievalStatus": "Retrieved"
      },
      "roaming": {
        "currentRoaming": "NotRoaming",
        "retrievalStatus": "Retrieved"
      }
    },
    {
      "accessibility": {
        "currentAccessibility": "Reachable",
        "retrievalStatus": "Retrieved"
      },
      "address": "tel:+1-555-555-0101",
      "connectionType": {
        "currentConnectionType": "CDMA",
        "retrievalStatus": "Retrieved"
      }
    }
  ]
}
```

```

    },
    "roaming": {
      "currentRoaming": "InternationalRoaming",
      "retrievalStatus": "Retrieved"
    }
  }
],
"resourceURL": "http://example.com/exampleAPI/1/terminalstatus/queries/statusCollection"
}}

```

## D.2 Get accessibility status of single terminal address (section 5.5.3.1)

Request:

```

GET /exampleAPI/1/terminalstatus/queries/accessibilityStatus?address=tel%3A%2B1-555-555-0100 HTTP/1.1
Accept: application/json
Host: example.com

```

Response:

```

HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"terminalAccessibilityStatusList": {
  "accessibility": {
    "address": "tel:+1-555-555-0100",
    "currentAccessibility": "Reachable",
    "homeMccMnc": {
      "mcc": "310",
      "mnc": "010"
    },
    "retrievalStatus": "Retrieved"
  },
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/queries/accessibilityStatus"
}}

```

## D.3 Get accessibility status of multiple terminal addresses (section 5.5.3.2)

Request:

```

GET /exampleAPI/1/terminalstatus/queries/accessibilityStatus?address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101 HTTP/1.1
Accept: application/json
Host: example.com

```

Response:



```

HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"terminalAccessibilityStatusList": {
  "accessibility": [
    {
      "address": "tel:+1-555-555-0100",
      "currentAccessibility": "Reachable",
      "retrievalStatus": "Retrieved"
    },
    {
      "address": "tel:+1-555-555-0101",
      "errorInformation": {
        "messageId": "SVC0001",
        "text": "A service error occurred. %1 %2",
        "variables": [
          "Status information is not available for",
          "tel:+1-555-555-0101"
        ]
      },
      "retrievalStatus": "Error"
    }
  ],
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/queries/accessibilityStatus"
}}

```

## D.4 Get accessibility status (invalid input value) (section 5.5.3.3)

### Request:

```

GET /exampleAPI/1/terminalstatus/queries/accessibilityStatus?address=tel%3A%2B1-555-555-0199 HTTP/1.1
Accept: application/json
Host: example.com

```

### Response:

```

HTTP/1.1 400 Bad Request
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"requestError": {
  "link": {
    "href": "http://example.com/exampleAPI/1/terminalstatus/queries/accessibilityStatus",
    "rel": "TerminalAccessibilityStatus"
  },
  "serviceException": {
    "messageId": "SVC0002",
    "text": "Invalid input value for message part %1",
    "variables": "tel:+1-555-555-0199"
  }
}

```

```
}}
```

## D.5 Get roaming status of single terminal address (section 5.6.3.1)

Request:

```
GET /exampleAPI/1/terminalstatus/queries/roamingStatus?address=tel%3A%2B1-555-555-0100 HTTP/1.1
Accept: application/json
Host: example.com
```

Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"terminalRoamingStatusList": {
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/queries/roamingStatus",
  "roaming": {
    "address": "tel:+1-555-555-0100",
    "currentRoaming": "InternationalRoaming",
    "retrievalStatus": "Retrieved",
    "servingMccMnc": {
      "mcc": "310",
      "mnc": "010"
    }
  }
}}
```

## D.6 Get roaming status of multiple terminal addresses (section 5.6.3.2)

Request:

```
GET /exampleAPI/1/terminalstatus/queries/roamingStatus?address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101
HTTP/1.1
Accept: application/json
Host: example.com
```

Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"terminalRoamingStatusList": {
```



## D.8 Get connection type of single terminal address (section 5.7.3.1)

### Request:

```
GET /exampleAPI/1/terminalstatus/queries/connectionType?address=tel%3A%2B1-555-555-0100 HTTP/1.1
Accept: application/json
Host: example.com
```

### Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"terminalConnectionTypeList": {
  "connectionType": {
    "address": "tel:+1-555-555-0100",
    "currentConnectionType": "GPRS",
    "retrievalStatus": "Retrieved"
  },
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/queries/connectionType"
}}
```

## D.9 Get connection type of multiple terminal addresses (section 5.7.3.2)

### Request:

```
GET /exampleAPI/1/terminalstatus/queries/connectionType?address=tel%3A%2B1-555-555-0100&address=tel%3A%2B1-555-555-0101 HTTP/1.1
Accept: application/json
Host: example.com
```

### Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"terminalConnectionTypeList": {
  "connectionType": [
    {
      "address": "tel:+1-555-555-0100",
      "currentConnectionType": "GPRS",
      "retrievalStatus": "Retrieved"
    },
    {
      "address": "tel:+1-555-555-0101",
      "errorInformation": {
```

```

    "messageId": "SVC0001",
    "text": "A service error occurred. %1 %2",
    "variables": [
      "Connection type information is not available for",
      "tel:+1-555-555-0101"
    ]
  },
  "retrievalStatus": "Error"
}
],
"resourceURL": "http://example.com/exampleAPI/1/terminalstatus/queries/connectionType"
}}

```

## D.10 Get connection type (invalid input value) (section 5.7.3.3)

### Request:

```

GET /exampleAPI/1/terminalstatus/queries/connectionType?address=tel%3A%2B1-555-555-0199 HTTP/1.1
Accept: application/json
Host: example.com

```

### Response:

```

HTTP/1.1 400 Bad Request
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"requestError": {
  "link": {
    "href": "http://example.com/exampleAPI/1/terminalstatus/queries/connectionType",
    "rel": "TerminalConnectionType"
  },
  "serviceException": {
    "messageId": "SVC0002",
    "text": "Invalid input value for message part %1",
    "variables": "tel:+1-555-555-0199"
  }
}}

```

## D.11 Get status collection subscriptions (section 5.8.3.1)

### Request:

```

GET /exampleAPI/1/terminalstatus/subscriptions/statusCollection HTTP/1.1
Accept: application/json
Host: example.com

```

### Response:

```

HTTP/1.1 200 OK

```

```

Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"notificationSubscriptionList": {"collectionChangeSubscription": [
  {
    "accessibilityCriteria": "Reachable",
    "address": "tel:+1-555-555-0100",
    "callbackReference": {"notifyURL": "http://application.example.com/notifications/StatusCollectionNotification"},
    "checkImmediate": "true",
    "clientCorrelator": "0001",
    "connectionTypeCriteria": "CDMA",
    "frequency": "10",
    "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123",
    "roamingCriteria": "InternationalRoaming"
  },
  {
    "accessibilityCriteria": "Reachable",
    "address": [
      "tel:+1-555-555-0101",
      "tel:+1-555-555-0102"
    ],
    "callbackReference": {"notifyURL": "http://application.example.com/notifications/StatusCollectionNotification"},
    "checkImmediate": "true",
    "clientCorrelator": "0002",
    "connectionTypeCriteria": "CDMA",
    "frequency": "10",
    "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub124",
    "roamingCriteria": "InternationalRoaming"
  }
],
"resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection"
}}

```

## D.12 Create new status collection subscription (section 5.8.5.1)

Request:

```

POST /exampleAPI/1/terminalstatus/subscriptions/statusCollection HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: example.com

{"statusCollectionChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/StatusCollectionNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "CDMA",
  "frequency": "10",
  "roamingCriteria": "InternationalRoaming"
}

```

```
}}
```

**Response:**

```
HTTP/1.1 201 Created
Content-Type: application/json
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"statusCollectionChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/StatusCollectionNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "CDMA",
  "frequency": "10",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123",
  "roamingCriteria": "InternationalRoaming"
}}
```

## D.13 Read individual status collection subscription (section 5.9.3.1)

**Request:**

```
GET /exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123 HTTP/1.1
Accept: application/json
Host: example.com
```

**Response:**

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"statusCollectionChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/StatusCollectionNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "CDMA",
  "frequency": "10",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123",
  "roamingCriteria": "InternationalRoaming"
}}
```

## D.14 Update individual status collection subscription (section 5.9.4.1)

### Request:

```
PUT /exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123 HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: example.com

{"statusCollectionChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/StatusCollectionNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "EDGE",
  "frequency": "5",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123",
  "roamingCriteria": "NotRoaming"
}}
```

### Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"statusCollectionChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/StatusCollectionNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "EDGE",
  "frequency": "5",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123",
  "roamingCriteria": "NotRoaming"
}}
```

## D.15 Delete individual status collection subscription (section 5.9.6.1)

### Request:

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123 HTTP/1.1
Accept: application/json
Host: example.com
```

### Response:



HTTP/1.1 204 No Content  
Date: Thu, 04 Jun 2009 02:51:59 GMT

## D.16 Get accessibility status subscriptions (section 5.10.3.1)

Request:

```
GET /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus HTTP/1.1
Accept: application/json
Host: example.com
```

Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"notificationSubscriptionList": {"accessibilityChangeSubscription": [
  {
    "accessibilityCriteria": "Reachable",
    "address": "tel:+1-555-555-0100",
    "callbackReference": {"notifyURL": "http://application.example.com/notifications/AccessibilityStatusNotification"},
    "checkImmediate": "true",
    "clientCorrelator": "0001",
    "frequency": "10",
    "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"
  },
  {
    "accessibilityCriteria": "Reachable",
    "address": [
      "tel:+1-555-555-0101",
      "tel:+1-555-555-0102"
    ],
    "callbackReference": {"notifyURL": "http://application.example.com/notifications/AccessibilityStatusNotification"},
    "checkImmediate": "true",
    "clientCorrelator": "0002",
    "frequency": "10",
    "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub124"
  }
],
"resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus"
}}
```

## D.17 Create new accessibility status subscription (section 5.10.5.1)

Request:

```
POST /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus HTTP/1.1
```

```
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: example.com
```

```
{"accessibilityChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/AccessibilityStatusNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "frequency": "10"
}}
```

**Response:**

```
HTTP/1.1 201 Created
Content-Type: application/json
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{"accessibilityChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/AccessibilityStatusNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "frequency": "10",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"
}}
```

## D.18 Read individual accessibility status subscription (section 5.11.3.1)

**Request:**

```
GET /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123 HTTP/1.1
Accept: application/json
Host: example.com
```

**Response:**

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{"accessibilityChangeSubscription": {
  "accessibilityCriteria": "Reachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/AccessibilityStatusNotification"},
```

```
"checkImmediate": "true",
"clientCorrelator": "0001",
"frequency": "10",
"resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"
}}
```

## D.19 Update individual accessibility status subscription (section 5.11.4.1)

Request:

```
PUT /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123 HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: example.com

{"accessibilityChangeSubscription": {
  "accessibilityCriteria": "Unreachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/AccessibilityStatusNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "frequency": "5",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"
}}
```

Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"accessibilityChangeSubscription": {
  "accessibilityCriteria": "Unreachable",
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/AccessibilityStatusNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "frequency": "5",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123"
}}
```

## D.20 Delete individual accessibility status subscription (section 5.11.6.1)

Request:

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123 HTTP/1.1
```

Accept: application/json  
Host: example.com

**Response:**

HTTP/1.1 204 No Content  
Date: Thu, 04 Jun 2009 02:51:59 GMT

## D.21 Get roaming status subscriptions (section 5.12.3.1)

**Request:**

GET /exampleAPI/1/terminalstatus/subscriptions/roamingStatus HTTP/1.1  
Accept: application/json  
Host: example.com

**Response:**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: nnnn  
Date: Thu, 04 Jun 2009 02:51:59 GMT

```
{
  "notificationSubscriptionList": {
    "roamingChangeSubscription": [
      {
        "address": "tel:+1-555-555-0100",
        "callbackReference": {
          "notifyURL": "http://application.example.com/notifications/RoamingStatusNotification"
        },
        "checkImmediate": "true",
        "clientCorrelator": "0001",
        "frequency": "10",
        "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123",
        "roamingCriteria": "InternationalRoaming"
      },
      {
        "address": [
          "tel:+1-555-555-0101",
          "tel:+1-555-555-0102"
        ],
        "callbackReference": {
          "notifyURL": "http://application.example.com/notifications/RoamingStatusNotification"
        },
        "checkImmediate": "true",
        "clientCorrelator": "0002",
        "frequency": "10",
        "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub124",
        "roamingCriteria": "DomesticRoaming"
      }
    ]
  },
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus"
}
```

## D.22 Create new roaming status subscription (section 5.12.5.1)

### Request:

```
POST /exampleAPI/1/terminalstatus/subscriptions/roamingStatus HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: example.com

{"roamingChangeSubscription": {
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/RoamingStatusNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "frequency": "10",
  "roamingCriteria": "InternationalRoaming"
}}
```

### Response:

```
HTTP/1.1 201 Created
Content-Type: application/json
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT

{"roamingChangeSubscription": {
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/RoamingStatusNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "frequency": "10",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123",
  "roamingCriteria": "InternationalRoaming"
}}
```

## D.23 Read individual roaming status subscription (section 5.13.3.1)

### Request:

```
GET /exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123 HTTP/1.1
Accept: application/json
Host: example.com
```

### Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{"roamingChangeSubscription": {  
  "address": "tel:+1-555-555-0100",  
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/RoamingStatusNotification"},  
  "checkImmediate": "true",  
  "clientCorrelator": "0001",  
  "frequency": "10",  
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123",  
  "roamingCriteria": "InternationalRoaming"  
}}
```

## D.24 Update individual roaming status subscription (section 5.13.4.1)

### Request:

```
PUT /exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123 HTTP/1.1  
Content-Type: application/json  
Content-Length: nnnn  
Accept: application/json  
Host: example.com
```

```
{"roamingChangeSubscription": {  
  "address": "tel:+1-555-555-0100",  
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/RoamingStatusNotification"},  
  "checkImmediate": "true",  
  "clientCorrelator": "0001",  
  "frequency": "5",  
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123",  
  "roamingCriteria": "NotRoaming"  
}}
```

### Response:

```
HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: nnnn  
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{"roamingChangeSubscription": {  
  "address": "tel:+1-555-555-0100",  
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/RoamingStatusNotification"},  
  "checkImmediate": "true",  
  "clientCorrelator": "0001",  
  "frequency": "5",  
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123",  
  "roamingCriteria": "NotRoaming"  
}}
```

## D.25 Delete individual roaming status subscription (section 5.13.6.1)

### Request:

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/roamingStatus/sub123 HTTP/1.1
Accept: application/json
Host: example.com
```

### Response:

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## D.26 Get connection type subscriptions (section 5.14.3.1)

### Request:

```
GET /exampleAPI/1/terminalstatus/subscriptions/connectionType HTTP/1.1
Accept: application/json
Host: example.com
```

### Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{
  "notificationSubscriptionList": {
    "connectionChangeSubscription": [
      {
        "address": "tel:+1-555-555-0100",
        "callbackReference": {
          "notifyURL": "http://application.example.com/notifications/ConnectionTypeNotification"
        },
        "checkImmediate": "true",
        "clientCorrelator": "0001",
        "connectionTypeCriteria": "CDMA",
        "frequency": "10",
        "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123"
      },
      {
        "address": [
          "tel:+1-555-555-0101",
          "tel:+1-555-555-0102"
        ],
        "callbackReference": {
          "notifyURL": "http://application.example.com/notifications/ConnectionTypeNotification"
        },
        "checkImmediate": "true",
        "clientCorrelator": "0002",
        "connectionTypeCriteria": "LTE",
        "frequency": "10",
        "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub124"
      }
    ],
    "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType"
  }
}
```

```
}}
```

## D.27 Create new connection type subscription (section 5.14.5.1)

### Request:

```
POST /exampleAPI/1/terminalstatus/subscriptions/connectionType HTTP/1.1
```

```
Content-Type: application/json
```

```
Content-Length: nnnn
```

```
Accept: application/json
```

```
Host: example.com
```

```
{"connectionChangeSubscription": {  
  "address": "tel:+1-555-555-0100",  
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/ConnectionTypeNotification"},  
  "checkImmediate": "true",  
  "clientCorrelator": "0001",  
  "connectionTypeCriteria": "CDMA",  
  "frequency": "10"  
}}
```

### Response:

```
HTTP/1.1 201 Created
```

```
Content-Type: application/json
```

```
Location: http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123
```

```
Content-Length: nnnn
```

```
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{"connectionChangeSubscription": {  
  "address": "tel:+1-555-555-0100",  
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/ConnectionTypeNotification"},  
  "checkImmediate": "true",  
  "clientCorrelator": "0001",  
  "connectionTypeCriteria": "CDMA",  
  "frequency": "10",  
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123"  
}}
```

## D.28 Read individual connection type subscription (section 5.15.3.1)

### Request:

```
GET /exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123 HTTP/1.1
```

```
Accept: application/json
```

```
Host: example.com
```

### Response:



```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{"connectionChangeSubscription": {
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/ConnectionTypeNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "CDMA",
  "frequency": "10",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123"
}}
```

## D.29 Update individual connection type subscription (section 5.15.4.1)

Request:

```
PUT /exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123 HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: example.com
```

```
{"connectionChangeSubscription": {
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/ConnectionTypeNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "LTE",
  "frequency": "5",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123"
}}
```

Response:

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: nnnn
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

```
{"connectionChangeSubscription": {
  "address": "tel:+1-555-555-0100",
  "callbackReference": {"notifyURL": "http://application.example.com/notifications/ConnectionTypeNotification"},
  "checkImmediate": "true",
  "clientCorrelator": "0001",
  "connectionTypeCriteria": "LTE",
  "frequency": "5",
  "resourceURL": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123"
}}
```

## D.30 Delete individual connection type subscription (section 5.15.6.1)

### Request:

```
DELETE /exampleAPI/1/terminalstatus/subscriptions/connectionType/sub123 HTTP/1.1
Accept: application/json
Host: example.com
```

### Response:

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## D.31 Status collection change notification (section 5.16.5.1)

### Request:

```
POST /notifications/StatusCollectionNotification HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: application:example.com
```

```
{
  "statusCollectionChangeNotification": {
    "collection": {
      "accessibility": {
        "currentAccessibility": "Reachable",
        "retrievalStatus": "Retrieved"
      },
      "address": "tel:+1-555-555-0100",
      "connectionType": {
        "currentConnectionType": "EDGE",
        "retrievalStatus": "Retrieved"
      },
      "roaming": {
        "currentRoaming": "NotRoaming",
        "retrievalStatus": "Retrieved"
      }
    },
    "isFinalNotification": "false",
    "link": {
      "href": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/statusCollection/sub123",
      "rel": "StatusCollectionChangeSubscription"
    }
  }
}
```

### Response:

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## D.32 Accessibility status change notification (section 5.16.5.2)

Request:

```
POST /notifications/AccessibilityStatusNotification HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: application:example.com
```

```
{"accessibilityChangeNotification": {
  "accessibility": {
    "address": "tel:+1-555-555-0100",
    "currentAccessibility": "Reachable",
    "retrievalStatus": "Retrieved"
  },
  "isFinalNotification": "false",
  "link": {
    "href": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123",
    "rel": "AccessibilityChangeSubscription"
  }
}}
```

Response:

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## D.33 Final accessibility status change notification (section 5.16.5.3)

Request:

```
POST /notifications/AccessibilityStatusNotification HTTP/1.1
Accept: application/json
Content-Type: application/json
Content-Length: nnnn
Host: application:example.com
```

```
{"accessibilityChangeNotification": {
  "accessibility": {
    "address": "tel:+1-555-555-0100",
    "currentAccessibility": "Reachable",
    "retrievalStatus": "Retrieved"
  },
  "isFinalNotification": "true",
  "link": {
    "href": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123",
    "rel": "FinalAccessibilityChangeNotificationSubscription"
  }
}}
```

Response:

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## D.34 Accessibility status change subscription cancellation notification (section 5.16.5.4)

Request:

```
POST /notifications/AccessibilityStatusNotification HTTP/1.1
Content-Type: application/json
Content-Length: nnnn
Accept: application/json
Host: application:example.com

{"subscriptionCancellationNotification": {
  "address": "tel:+1-555-555-0100",
  "link": {
    "href": "http://example.com/exampleAPI/1/terminalstatus/subscriptions/accessibilityStatus/sub123",
    "rel": "AccessibilityChangeNotificationSubscriptionCancellation"
  },
  "reason": {
    "messageId": "SVC0001",
    "text": "A service error occurred. %1 %2",
    "variables": [
      "Accessibility status information is not available for",
      "tel:+1-555-555-0100"
    ]
  }
}}
```

Response:

```
HTTP/1.1 204 No Content
Date: Thu, 04 Jun 2009 02:51:59 GMT
```

## Appendix E. Parlay X operations mapping (Informative)

The table below illustrates the mapping between REST resources/method and Parlay X equivalent operations.

ParlayREST Resource	ParlayREST Method	ParlayREST Section reference	Parlay X equivalent method
Terminal accessibility status	GET	5.5.3	GetStatus GetStatusForGroup
Accessibility status change notification subscriptions	POST	5.10.5	StartNotification
Individual accessibility status change notification subscription	DELETE	5.11.6	EndNotification
Client notification about terminal status changes	POST	5.16.5	StatusNotification StatusEnd StatusError

**Table 1: Parlay X operations mapping**