



RESTful bindings for Parlay X Web Services – Terminal Status

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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
- [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

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

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

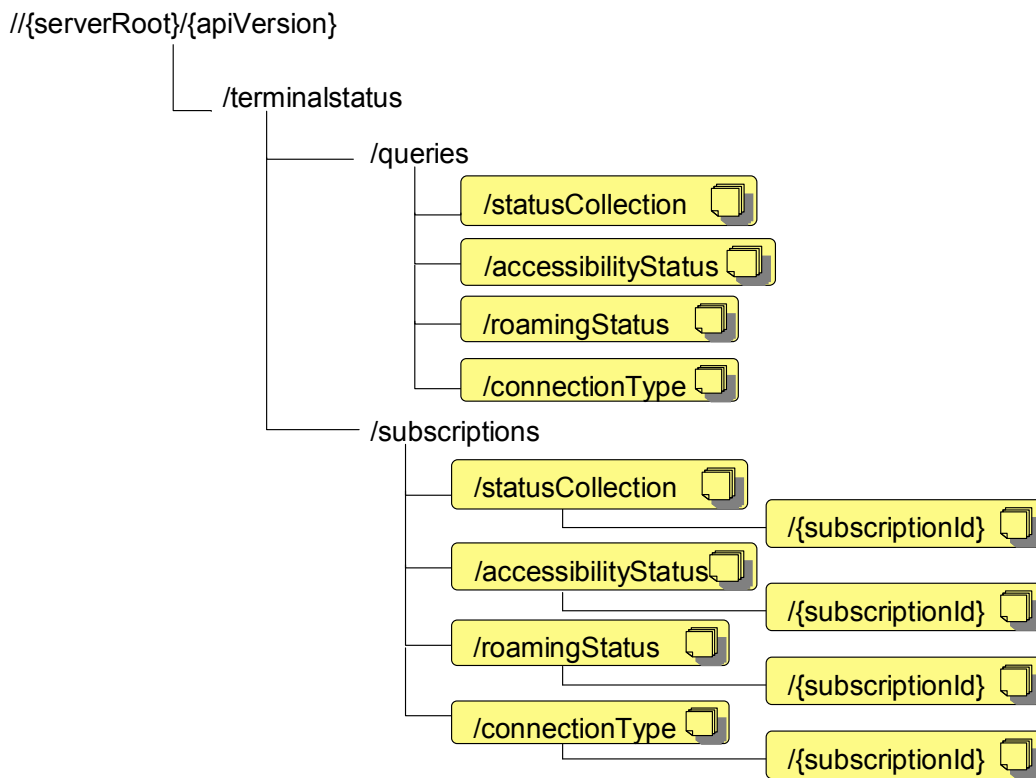


Figure 1 Resource structure defined by this specification

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	Yes	Link to the resource, 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.
--	--	--	--

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 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	Yes	Link to the resource, 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.

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	Yes	Link to the resource, 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.

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 [1..unbounded]	No	Collection of the terminal connection type
resourceURL	xsd:anyURI	Yes	Link to the resource, 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.

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	Yes	Collection of AccessibilityChangeSubscription

	[0..unbounded]		elements
roamingChangeSubscription	RoamingChangeSubscription [0..unbounded]	Yes	Collection of RoamingChangeSubscription elements
connectionChangeSubscription	ConnectionChangeSubscription [0..unbounded]	Yes	Collection of ConnectionChangeSubscription elements

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	Link to the resource, 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	Link to the resource, 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	Link to the resource, 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
<code>clientCorrelator</code>	<code>xsd:string</code>	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
<code>resourceURL</code>	<code>xsd:anyURI</code>	Yes	Link to the resource, 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.
<code>link</code>	<code>common:Link</code> [0..unbounded]	Yes	Link to other resources that are in relationship with the resource
<code>callbackReference</code>	<code>common:CallbackReference</code>	No	Notification callback definition
<code>address</code>	<code>xsd:anyURI</code> [1..unbounded]	No	Addresses of terminals to monitor
<code>connectionTypeCriteria</code>	<code>ConnectionType</code> [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 [1..unbounded]	No	Collection of the terminal accessibility status
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
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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 [0..unbounded]	Yes	Link to other resources that are in 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`

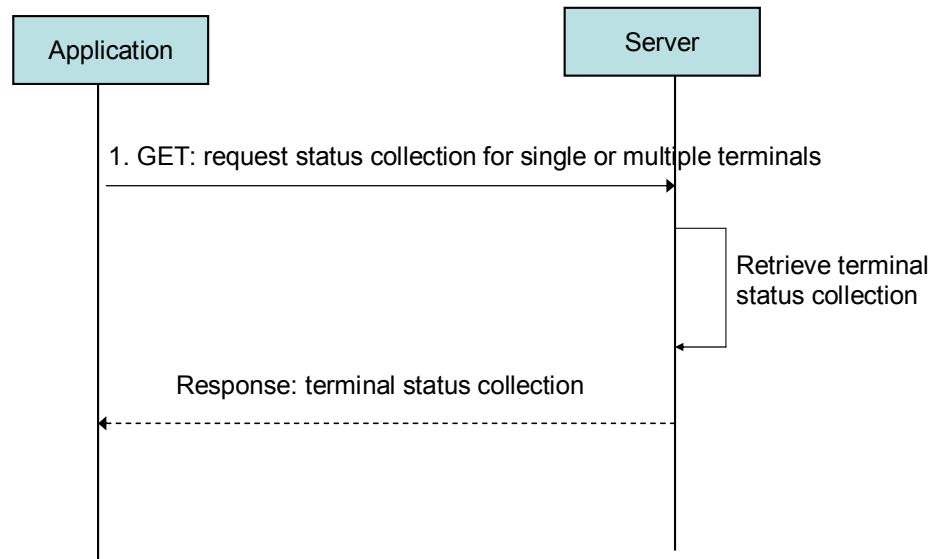


Figure 2 Status collection query

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`

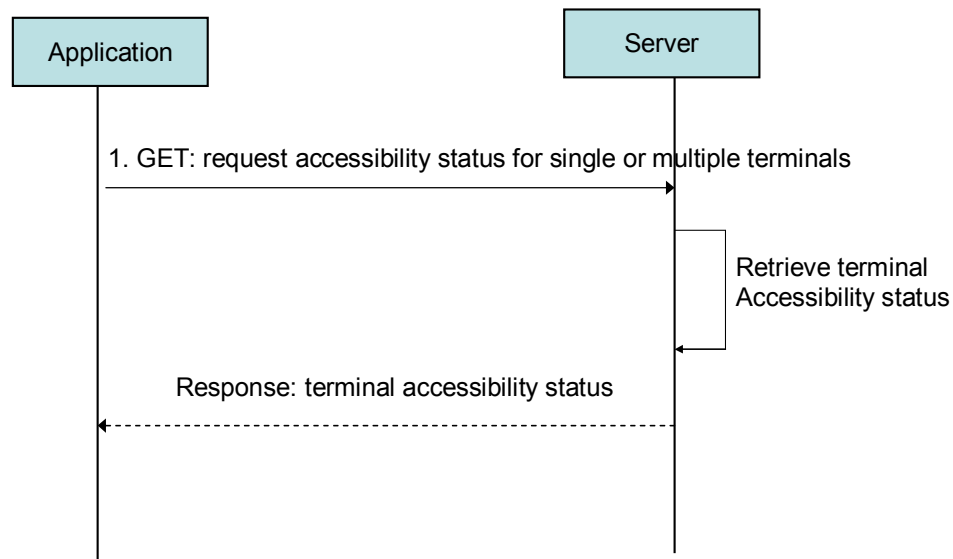


Figure 3 Accessibility status query

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}`**

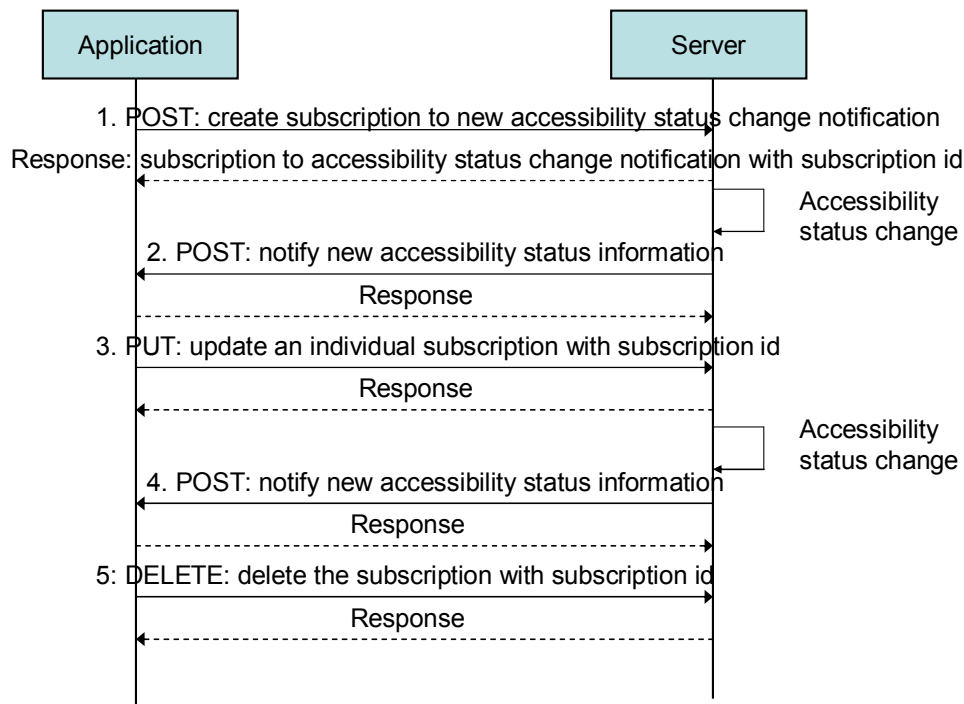


Figure 4 Accessibility status change notification

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>
</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>
</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>
</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>
</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
n/a	n/a	No prior version –or- No previous version within OMA

A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions: OMA-TS-ParlayREST_TerminalStatus-V1_0	15 Apr 2010	Many	Skeleton document
	30 Apr 2010	3,3, 5.2-5.9	Implementation of CR <ul style="list-style-type: none"> OMA-ARC-REST-2010-0183R03-INP_CR_TerminalStatus_TS_resources_datastructures_flows OMA-ARC-REST-2010-0197R01-CR_TerminalStatus_TS_operations Change Upper case to Lower case in the resource, I.e, terminalStatus -> terminalstatus
	17 May 2010	5.2-5.9	Implementation of CR <ul style="list-style-type: none"> OMA-ARC-REST-2010-0217-CR_TerminalStatus_RetrievalStatus_related_change OMA-ARC-REST-2010-0232-CR_TerminalStatus_TS_replace_ServiceException_to_ServiceError
	8 Jul 2010	5.2-5.16	Implementation of CR <ul style="list-style-type: none"> OMA-ARC-REST-2010-0283R06-CR_TerminalStatus_TS_restructure_Resource_add_Subscription_Criteria OMA-ARC-REST-2010-0309R01-CR_TerminalStatus_update_section_5.3 Changes are made to figure 3 and figure 4 in CR 309R01, i.e. reachable->accessibility <ul style="list-style-type: none"> OMA-ARC-REST-2010-0310-CR_TerminalStatus_update_section_5.4 According to the base (CR283R06), changes are made to 5.4-5.16 in CR 310, i.e. <ol style="list-style-type: none"> reachable->accessibility reachability->accessibility collectionChangeNotificationSubscription->statusCollectionChangeSubscription accessibilityChangeNotificationSubscription->accessibilityChangeSubscription roamingChangeNotificationSubscription->roamingChangeSubscription connectionChangeNotificationSubscription->connectionChangeSubscription CollectionSubscriptionNotification->StatusCollectionChangeNotification AccessibilitySubscriptionNotification->AccessibilityChangeNotification RoamingSubscriptionNotification->RoamingChangeNotification ConnectionSubscriptionNotification->ConnectionChangeNotification

Document Identifier	Date	Sections	Description
	10 Sep 2010	all	Implementation of CR <ul style="list-style-type: none"> • OMA-ARC-REST-2010-0378-CR_SCRs_for_terminalStatus • OMA-ARC-REST-2010-0379-CR_JSON_for_terminalStatus • OMA-ARC-REST-2010-0406-CR_FormUrlEncoded_for_terminalStatus • OMA-ARC-REST-2010-0407-CR_add_example_titles_to_terminalStatus • OMA-ARC-REST-2010-0408-CR_terminalStatus_TS_corrections • OMA-ARC-REST-2010-0467-CR_restructure_of_statusCollection_in_terminalStatus • OMA-ARC-REST-2010-0470-CR_terminalStatus_AI_68_from_346R02 • OMA-ARC-REST-2010-0471-CR_terminalStatus_AI_77_from_394 • OMA-ARC-REST-2010-0472R02-CR_terminalStatus_AI_83_from_431R02 • OMA-ARC-REST-2010-0488-CR_shorten_element_name_in_terminalStatus
	26 Sep 2010	all	Implementation of CR <ul style="list-style-type: none"> • OMA-ARC-REST-2010-0494R01-CR_Terminal_Status_remove_ConnectionType_editors_note • OMA-ARC-REST-2010-0523-CR_removing_TimeMetric_from_terminalStatus • OMA-ARC-REST-2010-0528-CR_terminalStatus_xml_and_json_update • OMA-ARC-REST-2010-0521R02-CR_Add_operator_codes_to_TerminalStatus • Implement AI REST-2010-A102 which is related to OMA-ARC-REST-2010-0516R01-CR_Presence_update_references_to_Common_TSs
	08 Nov 2010	all	Implementation the following OMA-REST-AI: <ul style="list-style-type: none"> • A122: reflect Content-Length: nnnn, add the missing Content-Length to each examples • A125: replace [OMA-DICT] with [OMADICT] • A126: include abbreviation of MIME • A133: state the Appendix C is normative • A139: dashes to be used for resources , 1,2,3...for sequences • A141: make figure caption centered • A145: adding a table caption to this table for Parlay X operations mapping • A152: remove all charset=UTF-8 in Content-Type header line. • A174 till A179 which are from terminalStatus CONRR
	10 Nov 2010		Implementation of : <ol style="list-style-type: none"> (1) OMA-ARC-REST-2010-0645R02-CR_CONRR_resolutions_terminalStatus (2) OMA-ARC-REST-2010-0673R01-CR_CONRR_resolution_H003_H0025_terminalStatus

Document Identifier	Date	Sections	Description
	09 Dec 2010		<p>Remove of wrong implementation of</p> <ul style="list-style-type: none"> OMA-ARC-REST-2010-0673R01-CR_CONRR_resolution_H003_H0025_terminalStatus <p>Implementation of:</p> <ul style="list-style-type: none"> OMA-ARC-REST-2010-0673R02-CR_CONRR_resolution_H003_H0025_terminalStatus OMA-ARC-REST-2010-0682-CR_CONRR_resolution_H0025_terminalStatus OMA-ARC-REST-2010-0683-CR_CONRR_resolution_H008_9_12_13_terminalStatus OMA-ARC-REST-2010-0684-CR_CONRR_resolution_H004_H0014_terminalStatus Swap PUT & POST columns in resource summary tables section 5.1 - implement TS use real values and no curly brackets in examples OMA-ARC-REST-2010-0700-CR_A214_CONRR_comment_H002_Terminal_Status
Candidate Version: OMA-TS-ParlayREST_TerminalStatus-V1_0	11 Jan 2011	All	<p>Status changed to Candidate by TP:</p> <p>OMA-TP-2010-0531R01-INP_ParlayREST_2_0_for_Candidate_approval</p>

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": {
```

```

"resourceURL": "http://example.com/exampleAPI/1/terminalstatus/queries/roamingStatus",
"roaming": [
  {
    "address": "tel:+1-555-555-0100",
    "currentRoaming": "InternationalRoaming",
    "retrievalStatus": "Retrieved"
  },
  {
    "address": "tel:+1-555-555-0101",
    "errorInformation": {
      "messageId": "SVC0001",
      "text": "A service error occurred. %1 %2",
      "variables": [
        "Roaming status information is not available for",
        "tel:+1-555-555-0101"
      ]
    },
    "retrievalStatus": "Error"
  }
]
}
}

```

D.7 Get roaming status (invalid input value) (section 5.6.3.3)

Request:

```

GET /exampleAPI/1/terminalstatus/queries/roamingStatus?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/roamingStatus",
    "rel": "TerminalRoamingStatus"
  },
  "serviceException": {
    "messageId": "SVC0002",
    "text": "Invalid input value for message part %1",
    "variables": "tel:+1-555-555-0199"
  }
}
}

```

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"
  }
]}

```

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"
  }
]}]}
```

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"
  }
]
}}
```

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"
  }
]}
}}
```

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