3GPP TSG CN Plenary Meeting #26 **NP-040609**
08-10 December 2004, Athens, GREECE

Source: **CN5 (OSA)**

Title: **Rel-6 CR 29.199-04 OSA Parlay X Web Services; Part 4: Short messaging**

Agenda item: **9.7 (OSA Enhancements [OSA3])**

Document for: **APPROVAL**

Doc-1st-Level	Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Doc-2nd-Level	Workitem
NP-040609	29.199-04	002	1	Rel-6	Add PXWS SMS Notification Delivery Reception	B	6.0.0	NP-040609	OSA3

3GPP TSG CN Plenary Meeting #26 **NP-040609**
08-10 December 2004, Athens, GREECE

joint-API-group (Parlay, ETSI Project OSA, 3GPP TSG_CN WG5) ~~**N5-040880**~~
Meeting #29, Barcelona, SPAIN, 01-05 November 2004

CR-Form-v7

CHANGE REQUEST

⌘ **29.199-04** **CR** **002** ⌘**rev** **1** ⌘ Current version: **6.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Add Notification Delivery Reception to PXWS SMS
Source:	⌘	CN (CN5 Orange)
Work item code:	⌘	OSA3
Date:	⌘	09/12/2004
Category:	⌘	**B**
Release:	⌘	*REL-6*

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Applications should be able to receive notification when a SMS is delivered to the terminal.
Summary of change:	⌘	Addition of notification interface for delivery reception and a deliveryreceptionNotification to sendSMS operations
Consequences if not approved:	⌘	Lack of above interface functions limit application development

Clauses affected:	⌘	7.1, 8.1, New 8.2.2, New 9.1.4, Annex A

	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
		X	Test specifications	
		X	O&M Specifications	

Other comments:	⌘	

Change in Clause 7.1

7.1 DeliveryStatus enumeration

List of delivery status values.

Enumeration	Description
DeliveredToNetwork	Successful delivery to network
DeliveryUncertain	Delivery status unknown: e.g. because it was handed off to another network.
DeliveryImpossible	Unsuccessful delivery; the message could not be delivered before it expired.
MessageWaiting	The message is still queued for delivery. This is a temporary state, pending transition to one of the preceding states.
DeliveredToTerminal	Successful delivered to Terminal
DeliveryNotificationNotSupported	Unable to provide delivery receipt notification. NotifySMSDeliveryReceipt function will provide ìDeliveryNotificationNotSupportedî to indicate that delivery receipt for the specified address in a SendSMSRequest is not supported.

End of Change in Clause 7.1

Change in Clause 8.1.1

8.1.1 Operation: SendSms

The invocation of **sendSms** requests to send an SMS, specified by the String **Message** to the specified address (or address set), specified by **Addresses**. Optionally the application can also indicate the sender name (**SenderName**), i.e. the string that is displayed on the user's terminal as the originator of the message, ~~and~~ the charging information and a ReceiptRequest. The ReceiptRequest which is a SimpleReference structure indicates the application endpoint, interface used for notification of delivery receipt and a correlator that uniquely identifies the sending request. ~~-~~By invoking this operation with the optional ReceiptRequest parameter the application requires to receive the notification of the status of the SMS delivery.

If Notification mechanism is not supported by a network a serviceexception(SVC0283) will be returned to the application and the message will not be sent to the addresses specified. Notification to the application is done by invoking the **notifiySMSDeliveryReceipt** operation at the endpoint specified in ReceiptRequest.

~~In order to receive this information the~~The application can also ~~has~~ ~~to~~ explicitly invoke the **getSmsDeliveryStatus** using t~~. T~~he **RequestIdentifier**~~,~~ returned by the **sendSMS** invocation~~, can be used to identify the SMS delivery request~~ to get the delivery status.~~.~~

Addresses may include group URIs as defined in the Address List Management specification. If groups are not supported, a PolicyException (POL0006) will be returned to the application.

For GSM systems, if **Message** contains characters not in the GSM 7-bit character set, the SMS is sent as a Unicode SMS.

If **Message** is longer than the maximum supported length (e.g. for GSM, 160 GSM 7-bit characters or 70 Unicode characters), the message will be sent as several concatenated short messages.

The correlator provided in the ReceiptRequest must be unique for this Web Service and application at the time the notification is initiated, otherwise a ServiceException (SVC0005) will be returned to the application.

8.1.1.1 Input message: SendSmsRequest

Part name	Part type	Description
Addresses	xsd:anyURI [0..unbounded]	Addresses to which the SMS will be sent
SenderName	xsd:string	If present, it indicates the SMS sender name, i.e. the string that is displayed on the user's terminal as the originator of the message
Charging	common:ChargingInformation	Charge to apply to this message (optional)
Message	xsd:string	Text to be sent in SMS
ReceiptRequest	common:SimpleReference	It defines the application endpoint, interfaceName and correlator that will be used to notify the application when the message has been delivered to terminal or if delivery is impossible(Optional).

8.1.1.2 Output message : SendSmsResponse

Part name	Part type	Description
RequestIdentifier	xsd:string	It identifies a specific SMS delivery request

8.1.1.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0004 - No valid addresses.
- SVC0006 - Invalid group.
- SVC0280 - Message too long.
- SVC0283 ñ Delivery Receipt Notification not supported

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.
- POL0006 - Groups not allowed.
- POL0007 - Nested groups not allowed.
- POL0008 - Charging not allowed.

End of Change in Clause 8.1.1

Change in Clause 8.1.2

8.1.2 Operation: SendSmsLogo

The invocation of **sendSmsLogo** requests to send an SMS logo, specified by the byte array **image** to the specified address (or address set), specified by **destinationAddressSet**. Optionally the application can also indicate the sender name (**senderName**), i.e. the string that is displayed on the user's terminal as the originator of the message, ~~and~~ the charging information (**charging**) and a ReceiptRequest. The **receiptRequest** which is a SimpleReference structure indicates the application endpoint, interface used for notification of delivery receipt and a correlator that uniquely identifies the sending request.~~.~~ By invoking this operation with the optional **receiptRequest** parameter the application requires to receive the notification of the status of the SMS delivery.

If Notification mechanism is not supported by a network a serviceexception(SVC0283) will be returned to the application and the message will not be sent to the addresses specified. Notification to the application is done by invoking the **notifiySMSDeliveryReceipt** operation at the endpoint specified in ReceiptRequest.

~~In order to receive this information t~~The application ~~has to~~can also explicitly invoke the **getSmsDeliveryStatus** using t~~.~~ ~~T~~he **requestIdentifier**~~,~~ returned by the **sendSMSLogo** invocation~~, can be used to identify the SMS delivery request~~ to get the delivery status.

Addresses may include group URIs as defined in the Address List Management specification. If groups are not supported, a PolicyException (POL0006) will be returned to the application.

The correlator provided in the ReceiptRequest must be unique for this Web Service and application at the time the notification is initiated, otherwise a ServiceException (SVC0005) will be returned to the application.

8.1.2.1 Input message: SendSmsLogoRequest

Part name	Part type	Description
Addresses	xsd:anyURI [0..unbounded]	Addresses to which the SMS logo will be sent
SenderName	xsd:string	SMS sender name, i.e. the string that is displayed on the user's terminal as the originator of the message (optional)
Charging	common:ChargingInformation	Charge to apply to this message (optional)
Image	xsd:base64Binary	The image in jpeg, gif or png format. The image will be scaled to the proper format
SmsFormat	SmsFormat	Possible values are: 'Ems' or 'SmartMessaging'
ReceiptRequest	common:SimpleReference	It defines the application endpoint, interfaceName and correlator that will be used to notify the application when the message has been delivered to terminal or if delivery is impossible

8.1.2.2 Output message: SendSmsLogoResponse

Part name	Part type	Description
requestIdentifier	String	It identifies a specific SMS delivery request

8.1.2.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0004 - No valid addresses.
- SVC0006 - Invalid group.
- SVC0281 - Unrecognized data format.

- SVC0283 ñ Delivery Receipt Notification not supported

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.
- POL0006 - Groups not allowed.
- POL0007 - Nested groups not allowed.
- POL0008 - Charging not allowed.

End of Change in Clause 8.1.2

Change in Clause 8.1.3

8.1.3 Operation: SendSmsRingtone

The invocation of **sendSmsRingtone** requests to send an SMS ringtone, specified by the String **ringtone** (in RTX format) to the specified addresses, specified by **Addresses**. Optionally the application can also indicate the sender name (**senderName**) i.e. the string that is displayed on the user's terminal as the originator of the message, ~~and~~ the charging information (**charging**) and a **receiptRequest**. The **receiptRequest** which is a SimpleReference structure indicates the application endpoint, interface used for notification of delivery receipt and a correlator that uniquely identifies the sending request. ~~.~~ By invoking this operation with the optional **receiptRequest** parameter the application requires to receive the notification of the status of the SMS delivery.

If Notification mechanism is not supported by a network a serviceexception(SVC0283) will be returned to the application and the message will not be sent to the addresses specified. Notification to the application is done by invoking the **notifiySMSDeliveryReceipt** operation at the endpoint specified in ReceiptRequest.

~~In order to receive this information t~~The application ~~has to~~can also explicitly invoke the **getSmsDeliveryStatus** using~~.~~ t~~T~~he **requestIdentifier**~~,~~ returned by the **sendSMSRingTone** invocation to get delivery status.~~, can be used to identify the SMS delivery request.~~ ~~.~~

Addresses may include group URIs as defined in the Address List Management specification. If groups are not supported, a PolicyException (POL0006) will be returned to the application.

The correlator provided in the ReceiptRequest must be unique for this Web Service and application at the time the notification is initiated, otherwise a ServiceException (SVC0005) will be returned to the application.

Depending on the length of the ringtone, it may be sent as several concatenated short messages.

NOTE: On the RTX Ringtone Specification : An RTX file is a text file, containing the ringtone name, a control subclause and a subclause containing a comma separated sequence of ring tone commands.

8.1.3.1 Input message: SendSmsRingtoneRequest

Part name	Part type	Description
Addresses	xsd:anyURI [0..unbounded]	Addresses to which the SMS logo will be sent
SenderName	xsd:string	SMS sender name, i.e. the string that is displayed on the user's terminal as the originator of the message (optional)
Charging	common:ChargingInformation	Charge to apply to this message (optional)
Ringtone	xsd:string	The ringtone in RTX format (see note above). (http://www.logomanager.co.uk/help/Edit/RTX.html)
SmsFormat	SmsFormat	Possible values are: 'Ems' or 'SmartMessaging'
ReceiptRequest	common:SimpleReference	It defines the application endpoint, interfaceName and correlator that will be used to notify the application when the message has been delivered to terminal or if delivery is impossible

8.1.3.2 Output message: SendSmsRingtoneResponse

Part name	Part type	Description
RequestIdentifier	xsd:string	It identifies a specific SMS delivery request

8.1.3.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0004 - No valid addresses.
- SVC0006 - Invalid group.
- SVC0281 - Unrecognized data format.
- SVC0283 ñ Delivery Receipt Notification not supported

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.
- POL0006 - Groups not allowed.
- POL0007 - Nested groups not allowed.
- POL0008 - Charging not allowed.

End of Change in Clause 8.1.3

Change in Clause 8.1.4

8.1.4 Operation: GetSmsDeliveryStatus

The invocation of **getSmsDeliveryStatus** requests the status of a previous SMS delivery request identified by **requestIdentifier**. The information on the status is returned in **deliveryStatus**, which is an array of status related to the request identified by **requestIdentifier**. The status is identified by a couplet indicating a user address and the associated delivery status. This method can be invoked multiple times by the application even if the status has reached a final value. However, after the status has reached a final value, status information will be available only for a limited period of time that should be specified in an off-line configuration step. The following four different SMS delivery status have been identified:

- 'DeliveredToNetwork': in case of concatenated messages, only when all the SMS-parts have been successfully delivered to the network.
- 'DeliveryUncertain': e.g. because it was handed off to another network.
- 'DeliveryImpossible': unsuccessful delivery; the message could not be delivered before it expired.
- 'MessageWaiting': the message is still queued for delivery.
- 'DeliveredToTerminal': in case of concatenated messages, only when all the SMS-parts have been successfully delivered to the terminal.

8.1.4.1 Input message: GetSmsDeliveryStatusRequest

End of Change in Clause 8.1

Begin of new Clause 8.2.2

8.2.2 Operation: NotifySmsDeliveryReceipt

The **notifySmsDeliveryReceipt** method must be implemented by a Web Service at the ***application side*** if it requires notification of SMSdelivery receipt. It will be invoked by the Parlay X server to notify the application when a SMS sent by an application has been delivered to the terminal of the recipient or if delivery is impossible. The notification will occur if and only if the status of the sent SMS is ëDeliveredToTerminalí or ëDeliveryImpossibleí and the application has specified interest in notification when sending an SMS message by specifying the optional receiptRequest parameter. The correlator returned corresponds to the identifier specified by the application in the **receiptRequest** of the original **sendSMS** request

When a SMS message is sent to multiple addresses, the notification from the server will send notification for each terminal as and when a SMS message is delivered to a terminal.

The following three different SMS delivery status will be returned in NotifySMSDeliveryReceiptResponse:

- 'DeliveryImpossible': unsuccessful delivery; the message could not be delivered before it expired.
- 'DeliveredToTerminal': in case of concatenated messages, only when all the SMS-parts have been successfully delivered to the terminal.
- ëDeliveredNotificationNotSupportedí - If notification is supported by the network but it does not support delivery receipt for one or more addresses specified in the **sendSMS** message. The service will send this status for those addresses

8.2.2.1 Input message: NotifySmsDeliveryReceiptRequest

Part name	Part type	Description
Correlator	xsd:string	The identifier defining the original SendRequest. This correlator was passed by the application during the SendSMS request
DeliveryStatus	DeliveryInformation	It lists the variations on the delivery status of the SMS to a terminal

8.2.2.2 Output message: NotifySmsDeliveryReceiptResponse

Part name	Part type	Description
None		

8.2.2.3 Referenced faults

None.

End of New Clause 8.2.2

Begin of new Clause 9.1.4

9.1.4 SVC0283: Delivery Receipt Notification not supported

Name	Description
Message Id	SVC0283
Text	Delivery Receipt Notification not supported
Variables	

End of New Clause 9.1.4
End of Document

Begin change in Annex A

Annex A (normative): WSDL for Short Messaging

The document/literal WSDL representation of this interface specification is compliant to 3GPP TS 29.199-1 [6] and is contained in text files (contained in archive 29199-04-~~600~~610-doclit.zip) which accompanies the present document.

End of Change in Annex A
End of Document