

**3GPP TSG-CN Meeting #24  
02 – 04 June 2004, Seoul, KOREA**

**NP-040252**

**Source: CN5 (OSA)**  
**Title: All LSs sent from CN5 since TSG CN#23 Meeting**  
**Agenda item: 6.5.1 (Status report from CN5)**  
**Document for: INFORMATION**

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<b>N5-040357</b>	<b>LS from CN5 to SA2 on update of Rel-6 OSA stage 2, containing draft CR to SA2's TS 23.127</b>
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**Title:** LS on update of OSA stage 2, containing draft CR to SA2's TS 23.127  
**Release:** Rel-6  
**Work Item:** OSA3

**Source:** CN5  
**To:** SA2

**Contact Person:**

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**Attachments:** draft CR to OSA stage 2 in SA2's TS 23.127

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**1. Overall Description:**

CN5 would like to move forward on the Web Services related part of the cooperation between 3GPP and OMA. For this purpose, CN5 would like to use the 3GPP OSA stage 2 specification in TS 23.127, since it is a very friendly document that summarizes the functionality provided by OSA in a readable way.

The OSA stage 2 specification currently lags behind the stage 3 work, lacking information on OSA at a higher level of abstraction (Parlay X Web Services) as specified in 3GPP SA1's TS 22.127. Attempts to motivate companies to contribute to it in SA2 have failed so far. For this reason CN5 companies decided to organize an evening drafting session during CN5's last meeting (Miami, 10-14 May 2004), to update the OSA stage 2 with the afore mentioned capabilities, so that the co-operation with OMA can progress.

This update to OSA stage 2 has thus been prepared by 3GPP member companies active in CN5 and has been presented and discussed during the CN5 meeting to ensure consensus among all the companies involved in this activity. It is presented to SA2 in the unusual form of a LS to highlight this consensus.

CN5 would like to note that this draft CR does not deal with all the updates necessary for the OSA stage 2 to reflect all Rel-6 functionality. But the purpose of this CR is to make the OSA stage 2 usable for liaison purposes. Further updates are left for company contributions, as usual.

**2. Actions:**

**To SA2 group.**

**ACTION:** CN5 asks SA2 group to approve the proposed CR to OSA stage 2 during their Sophia meeting in order to reflect the current status of the stage 3 which is based on the requirements in TS 22.127.

**3. Date of Next CN5 Meetings:**

TITLE	TYPE	DATES	LOCATION	CTRY
<a href="#">3GPPCN5#28</a>	WG	9 - 13 Aug 2004	New Jersey	US
<a href="#">3GPPCN5#29</a>	WG	1 - 5 Nov 2004	Zurich	CH

## CHANGE REQUEST

⌘ **23.127 CR CRNum** ⌘ rev **-** ⌘ 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

<b>Title:</b>	⌘ Add descriptions of OSA high-level abstraction interfaces		
<b>Source:</b>	⌘ CN5		
<b>Work item code:</b>	⌘ OSA3	<b>Date:</b>	⌘ 12/05/2004
<b>Category:</b>	⌘ <b>B</b>	<b>Release:</b>	⌘ REL-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> 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)

<b>Reason for change:</b>	⌘ Aligning the 3GPP Release 6 stage 2 OSA architecture specification with the OSA stage 1 requirements and the OSA stage 3 interfaces, fulfilling those requirements.
<b>Summary of change:</b>	⌘ There is an OSA stage 1 requirement for High-level abstracted interfaces, which is currently being implemented in OSA stage 3 TS 29.199 by a suite of Parlay X Web Service interfaces. These high-level Parlay X Web Services interfaces provide a high-level abstraction of some of the existing available OSA API interfaces. The stage 1 and stage 3 material is not yet reflected in the OSA stage 2 architecture document.  This CR proposes the introduction of the appropriate descriptions of this functionality, in order to bring the stage 1, stage 2, and stage 3 to the same consistent level.  These descriptions are included in a proposed new clause, clause 9, in TS 23.127.
<b>Consequences if not approved:</b>	⌘ The stage 1, stage2, and stage 3 Release 6 specifications for OSA are misaligned. The OSA stage 2 does not reflect the OSA stage 1 requirements, and the OSA stage 3 interfaces specification.

<b>Clauses affected:</b>	⌘ 9										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	X	X	X	X	X	X	⌘	
Y	N										
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<b>Other comments:</b>	⌘										

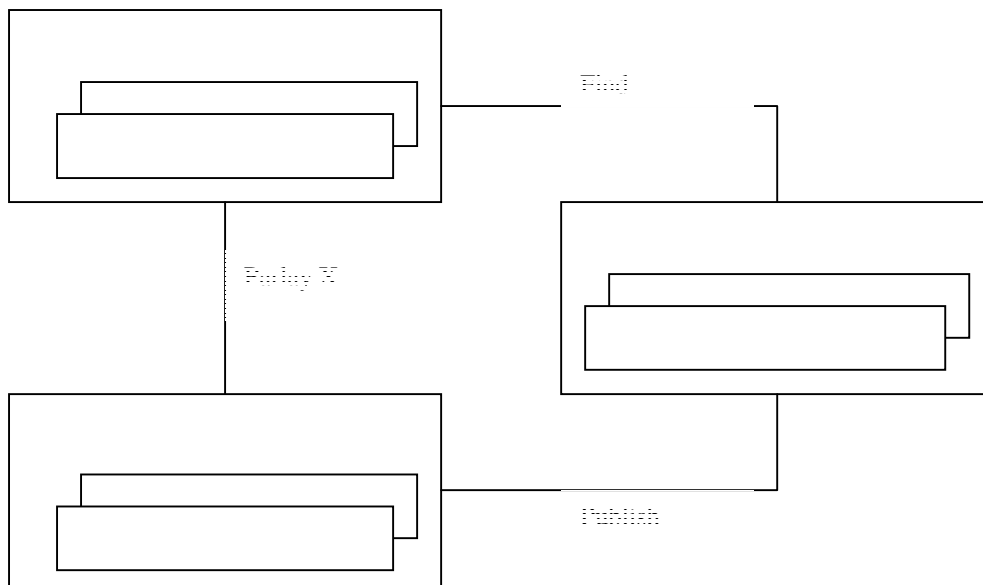
**9 Parlay X Web Services: OSA at a higher level of abstraction**

The OSA APIs are designed to enable creation of telephony applications as well as to "telecom-enable" IT applications. IT developers, who develop and deploy applications outside the traditional telecommunications network space and business model, are viewed as crucial for creating a dramatic whole-market growth in next generation applications, services and networks.

The Parlay X Web Services are intended to stimulate the development of next generation network applications by developers in the IT community who are not necessarily experts in telephony or telecommunications. The selection of Web Services should be driven by commercial utility and not necessarily by technical elegance. The goal is to define a set of powerful yet simple, highly abstracted, imaginative, telecommunications capabilities that developers in the IT community can both quickly comprehend and use to generate new, innovative applications.

The general architecture of a solution including Web Services and/or OSA links in deployment allows a number of deployment configurations. These configuration are derivatives of a basic architecture model, enabling a variety of deployment options.

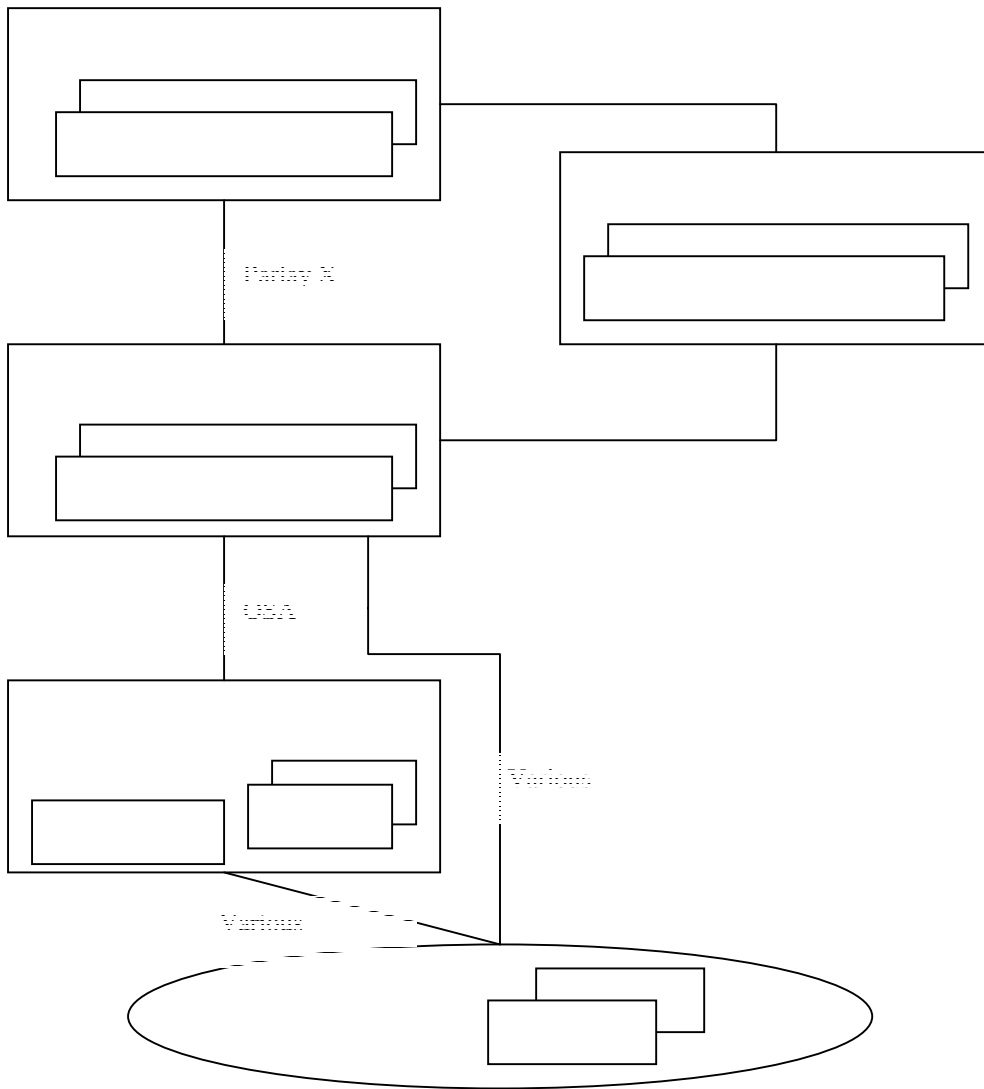
A typical Parlay X Web Services deployment model is shown in the following figure. This model shows the publication of Parlay X Web Services through a registry, making those Web Services available for discovery, and for applications to use Web Services access methods to interact with the Gateway, where the Web Service interfaces are implemented.



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Interfaces to the Web Services Registry are drawn here for consistency with Web Service architectures, but they are not in the scope of the Parlay X Web Services.

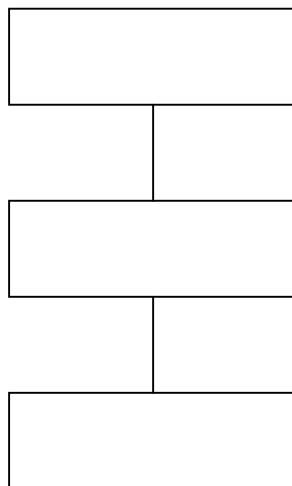
This architecture may be combined with existing OSA deployment configurations, providing the following overall architecture:




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**Deployment Scenario A: Web Services to OSA**

This scenario addresses solutions that combine Web Services interfaces facing the exterior of the network with OSA interfaces facing the interior of the network.



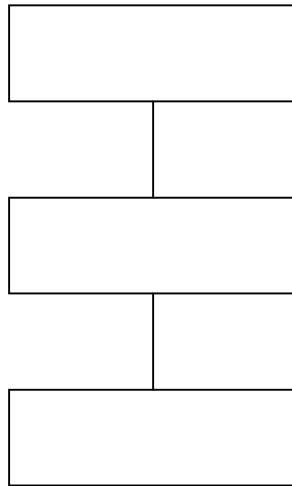

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**- Environment Description**

The Application will utilize Web Services to discover and interact with the network, and will not have visibility to the OSA implementation behind the Parlay X Web Services Gateway. The Parlay X Web Services Gateway attaches to the OSA Gateway through an OSA interface. The information published to the Web Services Registry provides the Application with the connection information required to connect with the Parlay X Web Services Gateway.

### **Deployment Scenario B: Web Services to Network Element**

This scenario addresses solutions that combine Web Services interfaces facing the exterior of the network with network element specific interfaces facing the interior of the network.



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### **- Environment Description**

The Application will utilize Web Services to discover and interact with the network, and will not have visibility to the implementation behind the Parlay X Web Services Gateway. The Parlay X Web Services Gateway attaches to the Network Element through an interface defined by the element. The information published to the Web Services Registry provides the Application with the connection information required to connect with the Parlay X Web Services Gateway.

The next sections describe the Web Services supported by OSA Rel6.

## **9.1 Third Party Call**

The third party call is a very simple way for creating and managing a call initiated by an application (third party call). Using the Third Party Call Web Service, applications can invoke call handling functions without detailed telecommunication knowledge. The functionality provided is:

- Make a call which sets up a call between two addresses
- Get call information gives information about how the call progressed in the network
- End call will cease the call
- Cancel Call Request allows the network to prevent call setup before completion

## **9.2 Network-Initiated Third Party Call**

These functions are for handling calls initiated by a subscriber in the network. A (third party) application determines how the call should be treated. The overall scope of this Web service is to provide simple functions

to application developers to determine how a call should be treated. Using the Network-Initiated Third Party Call Web Service, application developers can perform simple handling of network-initiated calls without specific Telco knowledge. The Web services allow the application to handle the following conditions occurring in the set-up of a call:

- Destination busy
- Address is not Reachable
- Destination is not answering
- A specific number has been called by subscriber
- The subscriber has taken the terminal "off-hook"

## 9.3 SMS

The overall scope of this Web Service is to provide to applications the means to handle SMS in a simple way. For receiving a message from the network, the application may use either polling or notification mechanisms. The notification mechanism is more common: network-initiated messages are sent to autonomous application-side web services. Both mechanisms are supported, but the provisioning of the notification-related criteria is not specified. Services are specified to enable an application to:

- Send any SMS
- Send a logo embodied in an SMS
- Send a ringtone embodied in an SMS
- Retrieve the delivery status of an SMS
- Request to be notified of received SMSs
- Retrieve SMS messages sent to an address

## 9.4 Multimedia Message

This is additional to the SMS web services and handles more general messaging case. Multimedia Message services provide generic messaging features (including SMS) to send and receive messages. For receiving a message from the network the application may use either polling or notification mechanisms. Network-initiated messages are sent to autonomous application-side web services. The following functions are supported:

- Send a message to an address
- Retrieve the delivery status of a message
- Retrieve by polling for received messages
- Retrieve message parts by URI references
- Retrieve whole messages as SOAP attachments
- Notification to the application that a message has been received for a specific address

## 9.5 Payment

The Payment Web Services support payment reservation, pre-paid payments, and post-paid payments. They support charging of both volume and currency amounts, a conversion function, and a settlement function in case of a financially resolved dispute. The functions supported enable the application to:

- [Charge/refund an account by a currency amount](#)
- [Charge/refund an account by volume \(e.g. minutes\)](#)
- [Calculate a currency amount from a volume for a specific account](#)
- [Reserve a currency amount on an account](#)
- [Charge a prior reservation to the account](#)
- [Release a reservation by returning to an account the amount remaining in a reservation](#)
- [Reserve a volume amount of an account](#)

## 9.6 Account Management

[The Parlay X Account Management supports account querying, direct recharging and recharging through vouchers. The application can manage various aspects of an account using the functionality to:](#)

- [Return the currency balance on an account](#)
- [Request what date the credit on an account is due to expire](#)
- [Update the currency/account balance on an account](#)
- [Return the transaction history on an account](#)

## 9.7 User Status

[The Parlay X User Status Web Service is used for getting user status information. The functionality supported is simple:](#)

- [Requests a user's status subject to the user's policies.](#)

## 9.8 Terminal Location

[The Parlay X Terminal Location Web Service is used for getting location information, it does not require specific telecommunication skills, but a knowledge of location co-ordinates is required. One service is specified to:](#)

- [Request the location of one terminal subject to user's privacy policies.](#)

**End of Change in Clause9**

**End of Changes**