Source:	**Alcatel, Ericsson, Lucent Technologies**
Title:	**CR to 22.127 on High Availability requirement for OSA (Rel-6) – Proposed changes to coversheet**
Document for:	**Approval**
Agenda Item:	**7.1.3**

CR-Form-v7

CHANGE REQUEST

⌘ 22.127 CR 070 ⌘rev 1- ⌘ Current version: 6.4.0 ⌘

*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:	⌘	High Availability requirement for OSA
Source:	⌘	~~SA1 (3, KPN, TIM,~~ Ericsson~~)~~
Work item code:	⌘	OSA3
Date:	⌘	15/01/2004
Category:	⌘	F ~~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:	⌘	~~The support for High Availability in~~ OSA ~~is~~ currently provides support for increasing the availability of applications by providing the application with the capability to inform the network that both primary and backup versions of the application exist and the means to communicate with them. This is currently not reflected in sthe stage 1 and in the stage 3 this may be limited to a small subset of the available OSA features, e.g., Call Control. The purpose of this CR is to confirm the need for this capability to be available across all of the OSA features.~~The absence of a fully defined high availability approach for OSA requires vendor specific solutions for realizing high availability including geographical redundancy. These vendor specific solutions are neither technology independent nor interoperable in a multi-vendor deployment.~~
Summary of change:	⌘	A Stage 1 requirement for OSA High Availability
Consequences if not approved:	⌘	~~Currently, OSA only provides High Availability support for a small subset of the available OSA features, e.g., Call Control. SA2 and CN5 cannot start the stage2/3 work to define a complete solution for OSA High Availability until SA1 has approved an OSA High Availability requirement. The consequence is that vendor specific solutions for High Availability will emerge that are not interoperable in a multi-vendor environment.~~The application may only be able to inform the network to communicate with a backup instance of the application for some of the OSA features and hence the application developer may not be able to increase the availaibility of the application to the end user.

Clauses affected:	⌘	6			
		Y	**N**		
Other specs	⌘	✓		Other core specifications	⌘ SA2 23.127, CN5 29.198-xy (To be submitted at a later TSG meeting)
Affected:			✓	Test specifications	
			✓	O&M Specifications	
Other comments:	⌘	This CR is a revision of S1-031232.			

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

Change in Clause 6

6 High level requirements to OSA

The following high level requirements apply to the OSA application programming interface (API). The standardised API shall be:

- independent of vendor specific solutions;
- independent of programming languages, operating systems, underlying communication technologies, etc. used in the service capabilities;
- secure, scalable and extensible;
- independent of the location where service capabilities are implemented;
- independent of supported server capabilities in the network;
- independent of the transport mechanism between the service capability features server and the application server;
- It shall be possible for an OSA application to continue operation in case of a consecutive upgrade of the underlying OSA capabilities. This ability to operate may be limited to a specific time period which is managed by the network operator.
- Access to Service Capability Features shall be realised using modern state of the art access technologies, e.g. distributed object oriented technique and Web Services technologies might be considered.;
- OSA shall be aligned as far as possible with equivalent work in other bodies, such as ETSI SPAN,Parlay and JAIN;
- OSA shall allow applications access to home network service capability features. Access to Service capability features in another network shall be possible.;
- When access to Service capability features in another network or administrative domain exists, the following requirements apply:
  - The application shall not be aware that the SCF is in another network
  - The SCF shall not need to support additional functionality in order to be accessed from a different network
  - The network providing the SCF shall be able to control the visibility and usage of the SCF by another network.
- It is not required that network entities, which provide the implementation of OSA interfaces (SCFs), be mappable to 3GPP standardised functionality, nor that the existence of a standardised interface / protocol to communicate with 3GPP standardized network elements is required.Thus it is permissible to e.g. build a OSA API function into a WAP gateway to retrieve terminal capabilities from terminal supporting the WAP protocol.

Note: If the network entity, to which OSA provides an API interface, is a 3GPP standardised entity and if a standardised interface / protocol to communicate with that network entity exists it is recommended that 3GPP defines a mapping of the OSA API functions to that interface / protocol.

OSA shall allow Service Capability Features to communicate with backup instances of an application in the case where the primary application instance is not responding. This shall be possible also when the primary and backup instances of the application are physically located in different locations.

End of Change in Clause 6
End of Document