3GPP TSG CN Plenary Meeting #16
5th - 7th June 2002. Marco Island, USA.

Source: **CN5 (OSA)**

Title: **Rel-5 CR 29.198-08 OSA API Part 8: Data session control**

Agenda item: **8.2**

Document for: **APPROVAL**

Doc-1st-Level	Spec	CR	Rv	Pha	Subject	Cat	Ver Curr	Ver New	Doc-2nd-Level	Work item
NP-020192	29.198-08	008	-	Rel-5	Adding missing text concerning the activity timer and criteria overlap	F	4.4.0	5.0.0	N5-020505	OSA2

CR-Form-v5

CHANGE REQUEST

| ⌘ | **29.198-08** CR **008** | ⌘**rev** | **-** | ⌘ | Current version: | **4.4.0** | ⌘ |

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

Proposed change affects: ⌘   (U)SIM ☐   ME/UE ☐   Radio Access Network ☐   Core Network **X**

Title:	⌘	Adding missing text concerning the activity timer and criteria overlap		
Source:	⌘	CN5		
Work item code: ⌘		OSA2	***Date:*** ⌘	30/05/2002
Category:	⌘ **F**		***Release:*** ⌘	REL-5

Use <u>one</u> 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 <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)

Reason for change:	⌘	In Call Control there is an activity timer that is started when an application is given control of the call after an INTERRUPT event. If the application doesn't do anything with the call within a specified amount of time, then the call is released with a cause of P_TIMER_EXPIRY. This timer is equally applicable here as we are giving control of the data session to an application and need to ensure that it doesn't hold on to resources needlessly. Also, text needs to be added to clarify that only one application can place a request in INTERRUPT mode, otherwise we will be giving control of the data session to multiple applications.
Summary of change: ⌘		Add some text to the definition of the reportNotification method, stating that the timer will be started when the method is invoked with INTERRUPT mode. Add some text to createNotification to state that only one application can place a request in INTERRUPT mode for a single set of criteria.
Consequences if not approved:	⌘	Some implementations will exist with an activity timer and others will not, which will lead to problems when an application runs on different implementations.

Clauses affected:	⌘	8.2, 8.4
Other specs affected:	⌘ ☐ ☐ ☐	Other core specifications ⌘ Test specifications O&M Specifications
Other comments:	⌘	

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.

8.2 Interface Class IpAppDataSessionControlManager

Inherits from: IpInterface.

The data session control manager application interface provides the application data session control management functions to the data session control SCF.

<<Interface>>
IpAppDataSessionControlManager
dataSessionAborted (dataSession : in TpSessionID) : void
reportNotification (dataSessionReference : in TpDataSessionIdentifier, eventInfo : in TpDataSessionEventInfo, assignmentID : in TpAssignmentID) : IpAppDataSessionRef
dataSessionNotificationContinued () : void
dataSessionNotificationInterrupted () : void

Method
dataSessionAborted()

This method indicates to the application that the Data Session object has aborted or terminated abnormally. No further communication will be possible between the Data Session object and the application.

Parameters

dataSession : in TpSessionID

Specifies the session ID of the data session that has aborted or terminated abnormally.

Method
reportNotification()

This method notifies the application of the arrival of a data session-related event. Returns appDataSession : Specifies a reference to the application object which implements the callback interface for the new data session. If this method is invoked with a monitor mode of P_DATA_SESSION_MONITOR_MODE_INTERRUPT, then the APL has control of the data session. If the APL does nothing with the data session within a specified time period (the duration of which forms a part of the service level agreement), then the data session in the network shall be released and dataSessionFaultDetected() shall be invoked, giving a fault code of P_DATA_SESSION_TIMEOUT_ON_INTERRUPT.

Parameters

dataSessionReference : in TpDataSessionIdentifier

Specifies the session ID and the reference to the Data Session object to which the notification relates. This parameter will be null if the notification is being given in NOTIFY mode.

eventInfo : in TpDataSessionEventInfo

 Specifies data associated with this event. This data includes the destination address provided by the end-user and the quality of service requested or negotiated for the data session.

assignmentID : in TpAssignmentID

 Specifies the assignment id which was returned by the createNotification() method. The application can use assignment ID to associate events with event-specific criteria and to act accordingly.

Returns

IpAppDataSessionRef

Method
dataSessionNotificationContinued()

This method indicates to the application that all event notifications are resumed.

Parameters
No Parameters were identified for this method

Method
dataSessionNotificationInterrupted()

This method indicates to the application that event notifications will no longer be sent (for example, due to faults detected).

Parameters
No Parameters were identified for this method

8.4 Interface Class IpDataSessionControlManager

Inherits from: IpService.
This interface is the 'SCF manager' interface for Data Session Control.

<<Interface>>
IpDataSessionControlManager
createNotification (appDataSessionControlManager : in IpAppDataSessionControlManagerRef, eventCriteria : in TpDataSessionEventCriteria) : TpAssignmentID destroyNotification (assignmentID : in TpAssignmentID) : void changeNotification (assignmentID : in TpAssignmentID, eventCriteria : in TpDataSessionEventCriteria) : void getNotification () : TpDataSessionEventCriteria

Method
createNotification()

This method is used to enable data session notifications so that events can be sent to the application. This is the first step an application has to do to get initial notifications of data session happening in the network. When such an event happens, the application will be informed by reportNotification(). In case the application is interested in other events during the context of a particular data session it has to use the connectReq() method on the data session object. The application will get access to the data session object when it receives the reportNotification().

The createNotification method is purely intended for applications to indicate their interest to be notified when certain data session events take place. It is possible to subscribe to a certain event for a whole range of addresses, e.g. the application can indicate it wishes to be informed when a data session is setup to any number starting with 800.

If some application already requested notifications with criteria that overlap the specified criteria, the request is refused with P_INVALID_CRITERIA. The criteria are said to overlap if both originating and terminating ranges overlap and the same number plan is used.

If a notification is requested by an application with monitor mode set to notify, then there is no need to check the rest of the criteria for overlapping with any existing request as the notify mode does not give control of a data session. Only one application can place an interrupt request if the criteria overlaps.

If the same application requests two notifications with exactly the same criteria but different callback references, the second callback will be treated as an additional callback. Both notifications will share the same assignmentID. The gateway will always use the most recent callback. In case this most recent callback fails the second most recent is used. In case the createNotification contains no callback, at the moment the application needs to be informed the gateway will use as callback the callback that has been registered by setCallback().

Returns assignmentID : Specifies the ID assigned by the Data Session Manager object for this newly-enabled event notification.

Parameters

appDataSessionControlManager : in
IpAppDataSessionControlManagerRef

If this parameter is set (i.e. not NULL) it specifies a reference to the application interface which is used for callbacks. If set to NULL, the application interface defaults to the interface specified via the setCallback() method.

eventCriteria : in TpDataSessionEventCriteria

Specifies the event specific criteria used by the application to define the event required. Individual addresses or address ranges may be specified for destination and/or origination. Examples of events are "Data Session set up".

Returns

`TpAssignmentID`

Raises

`TpCommonExceptions, P_SERVICE_INFORMATION_MISSING,`
`P_SERVICE_FAULT_ENCOUNTERED, P_INVALID_NETWORK_STATE,`
`P_INVALID_ADDRESS, P_INVALID_CRITERIA, P_INVALID_EVENT_TYPE`

Method
destroyNotification()

This method is used by the application to disable data session notifications.

Parameters

`assignmentID : in TpAssignmentID`

Specifies the assignment ID given by the data session manager object when the previous createNotification() was done.

Raises

`TpCommonExceptions, P_SERVICE_INFORMATION_MISSING,`
`P_SERVICE_FAULT_ENCOUNTERED, P_INVALID_NETWORK_STATE,`
`P_INVALID_ASSIGNMENT_ID`

Method
changeNotification()

This method is used by the application to change the event criteria introduced with the createNotification method. Any stored notification request associated with the specified assignmentID will be replaced with the specified events requested.

Parameters

`assignmentID : in TpAssignmentID`

Specifies the ID assigned by the manager interface for the event notification.

`eventCriteria : in TpDataSessionEventCriteria`

Specifies the new set of event criteria used by the application to define the event required. Only events that meet these criteria are reported.

Raises

`TpCommonExceptions, P_SERVICE_INFORMATION_MISSING,`
`P_SERVICE_FAULT_ENCOUNTERED, P_INVALID_NETWORK_STATE,`
`P_INVALID_ASSIGNMENT_ID, P_INVALID_CRITERIA,`
`P_INVALID_EVENT_TYPE`

Method
getNotification()

This method is used by the application to query the event criteria set with createNotification or changeNotification.
Returns eventCriteria : Specifies the event criteria used by the application to define the event required. Only events that meet these requirements are reported.

Parameters
No Parameters were identified for this method

Returns

TpDataSessionEventCriteria

Raises

TpCommonExceptions, P_SERVICE_INFORMATION_MISSING, P_SERVICE_FAULT_ENCOUNTERED, P_INVALID_NETWORK_STATE