INAP API Library for Windows

Release Notes for INAP API V5.04

1 Overview

This release adds support for the CAMEL Version 4 and CAMEL Version 4 for IMS protocols.

Various corrections have also been introduced to the other protocols supported by the API. All protocols have had some corrections, except for the AIN protocol which is unchanged. The corrections are listed below.

This release is backwards compatible with the previous release.

2 New Functionality

2.1 CAMEL VERSION 4 Protocol Support

The INAP API library now fully supports the CAMEL Version 4 Protocol. The CAMEL V4 Specification supported by the module is 3GPP TS 29.078 7.3.0 (2006-06).

See the Dialogic® DSI INAP Programmer's Manual Issue 12 or later for further details.

2.2 CAMEL VERSION 4 for IMS Protocol Support

The INAP API library now supports the CAMEL Version 4 for IMS Protocol. The CAMEL V4 for IMS Specification supported by the module is 3GPP TS 29.278 7.0.0 (2005-12).

See the Dialogic® DSI INAP Programmer's Manual Issue 12 or later for further details.

2.3 Protocol Definition Pointers

The protocol definitions previously used by the INAP API library cannot be exposed outside of the Windows DLL therefore the function IN_get_prot_spec() has been added. It must be used in place of the direct reference to the protocol definition.

e.g. Instead of

```
INETS_300_374_1_protocol_data_ptr
```

use

```
IN_get_prot_spec(INETS_300_374_1_PROTOCOL)
```

The full set of the new protocol definition values are given below and are also included in the file in_inc.h.

Previous Protocol Pointer	Protocol Definition Mnemonic	Value
INETS_300_374_1_protocol_data_ptr	INETS_300_374_1_PROTOCOL	0x00
INITU_Q1218_protocol_data_ptr	INITU_Q1218_PROTOCOL	0x10
INCAP_v1_protocol_data_ptr	INCAP_V1_PROTOCOL	0x20
INCAP_v2_protocol_data_ptr	INCAP_V2_PROTOCOL	0x21
INEN_301_140_1_protocol_data_ptr	INEN_301_140_1_PROTOCOL	0x30
INCAP_v3_protocol_data_ptr	INCAP_V3_PROTOCOL	0x50
AINGR_1299_protocol_data_ptr	AINGR_1299_PROTOCOL	0x60

3 Faults cleared

3.1 Finding NULL length parameters after recovery

It was found that if the last recovered parameter in the ‘cpt’ structure was NULL length, then the IN_get_component_param() function fails to find the parameter. This has been fixed in this release.

3.2 AchBillingChargingCharacteristics now fully defined for CAMEL V2

The CAMEL v2 protocol no longer represents the Apply Charging operation’s AchBillingChargingCharacteristics type as a single parameter. The type is now defined using the sequences and parameters from the specification.

3.3 SuppressionofAnnouncement parameter changed to be NULL length

The INPN_SuppressionOfAnnouncement parameter has changed to force it to be coded and decoded as a NULL length parameter. This change affects the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.4 OCSIApplicable parameter changed to be NULL length

The INPN_OCSIApplicable parameter has changed to force it to be coded and decoded as a NULL length parameter. This change affects

the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.5 SubscriberState table parameters changed to NULL length

The parameters assumedIdle, camelBusy and notProvidedFromVLR in the SubscriberState table have been changed to force them to be coded and decoded as a NULL length parameter. This change affects the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.6 ExtensionContainer now coded and decoded as a SEQ parameter

The ExtensionContainer changed to be ASN.1 coded as a SEQ (as per specification) although it is still specified by the user as a parameter and recovered to a parameter. This change affects the following protocols : ETSI CS-2, CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.7 All error code values are now checked for validity

Previously the code accepted error codes greater than 31 as valid. This has been changed so that any error code value returns the expected result. This change affects all protocols and the API functions :IN_set_error and IN_decode_error.

3.8 Call Segment ID for CS-2 PlayAnnouncement now optional

For the ETSI CS-2 protocol, the INPN_CallSegmentID parameter for the Play Announcement operation has been changed from a mandatory parameter to an optional parameter to match the specification.

3.9 Recovery of GenericNumbers Corrected

The coding of GenericNumbers has been corrected so that numbers after the first are recoverable. This change affects the following protocols : CAMEL V1, CAMEL V2, CAMEL V3 and CAMEL V4.

3.10 LocationInformationGPRS table parameters revised

Some parameters for the LocationInformationGPRS table have been revised. The parameters INPN_SGSNumber, INPN_SelectLSAIdentity and INPN_SAIPresent are replaced by the new parameters INPN_LocationInformationGPRS_SGSNumber, INPN_LocationInformationGPRS_SelectLSAIdentity and INPN_LocationInformationGPRS_SAIPresent. This has been done to prevent possible parameter duplication. This change affects the

following protocols : CAMEL V3 and CAMEL V4, and the operations : InitialDPGPRS, EventReportGPRS and InitialDPSMS.

3.11 cGEncountered Parameter enabled for the InitialDP Operation

The cGEncountered parameter for the InitialDP operation is now usable for the CAMEL V3 protocol. In previous releases the parameter was disabled for this protocol.

3.12 Extensions Parameter removed from the ResetTimerGPRS Operation

The Extensions parameter has been removed from the ResetTimerGPRS operation for the CAMEL v3 protocol, since it is not in the specification.

3.13 Enable error for FurnishChargingInformationGPRS Operation

The ‘unknownPDPID’ error code is now recognised for the FurnishChargingInformationGPRS operation for the CAMEL V3 protocol.

3.14 ChargingRollOver table Now Usable

A problem has been corrected in the implementation of the CAMEL V3 ApplyChargingReportGPRS operation. The problem prevented user parameters defined for the ChargingRollOver table being recognised.

3.15 ApplyCharging PartyToCharge parameter changed

For the CAMEL v3 ApplyCharging operation, the PartyToCharge parameter has been changed from LegID to SendingSideID.

3.16 Parameter INPN_MiscCall_Ellipsis removed

The INPN_MiscCall_Ellipsis parameter has been removed from the MiscCallInfo table in the EventReportBCSM, EventReportSMS and EventReportGPRS operations for the CAMEL v3 protocol, since it is not in the specification.

4 Known Limitations

4.1 Number of BCSM Events

For CAMEL v4, the maximum number of BCSM events should be increased to 30 (from 10 for CAMEL v3). For implementation reasons the number of possible BCSM events for CAMEL v4 has only been increased to 16.

4.2 Default Values set on Parameters in Sub-tables

Due to implementation reasons, parameter DEFAULT values set for parameter defined in a sub-table of the current table are not recovered into the parameter structure when a received component is processed. These parameters are coded to be Optional. DEFAULT values for the current table will be correctly processed.

Dialogic
18-Aug-07

INAP API Library for Windows

Release Notes for INAP API V5.06

1 Overview

This release introduces two versions of the INAP API library to support either 32 or 64 bit applications. The user should ensure they select the correct one for the applications being built.

This release also adds Network Context and Report Cause parameters to the API and updates the IN_set_dialogue_param() function to support them. It also corrects a fault in the handling of parameters longer than 255 octets.

It is recommended the users upgrade to this version of the INAP API library. It is the first released version since V5.04 and is backwards compatible with that version.

2 New Functionality

2.1 Support for 64-bit applications

The distribution now includes 32 and 64 bit versions of the library stub and DLL files (inapapi.lib and inapapi.dll). These are located in the `lib` or `lib64` directories within the zip file. It is recommended that the appropriate files be copied into the same location as used for the gctlib lib and DLL files.

Further information on the use of 64 bit applications can be found in Issue 7 or later of the Dialogic® DSI Sofware Environment Programmer's Manual.

2.2 Support for INDP_nc and INDP_report_cause parameters

The previous release did not support the use of the Network Context (NC) and Report Cause dialogue parameters from the INAP binary module. This release adds the parameters:

- INDP_report_cause (30) (0x1e)
- INDP_nc (31) (0x1f)

The parameters are used with the IN_set_dialogue_param() and IN_get_dialogue_param() functions.

3 Other Changes

3.1 Handling of long parameters

A fault in the handling of the INAPPN_CODE_SHIFT parameter prevented the support for parameters longer than 255 octets from functioning correctly. This has been resolved in this release.

3.2 IN_set_dialogue_param() length handling

A fault in this procedure can result in incorrect encoding of the parameter length in certain situations. This fault has now been cleared.

Dialogic
04-Feb-10