

**Oracle® Communications ASAP Cartridge 1.0 for  
the Nagravision CAS Cartridge**

Nagravision CAS Cartridge Guide

Third Edition

February 2011

Copyright © 2011 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure the safe use of this software. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

---

---

# Contents

## 1 Cartridge Overview

Hardware and Software Requirements.....	1-1
NE Interface .....	1-1
ASAP Version .....	1-1
Connecting to the NE.....	1-2
Services, Features, and Options.....	1-2
Communication Parameters .....	1-3

## 2 Atomic Service Description Layer (ASDL) Commands

ASDL Commands.....	2-2
A_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II .....	2-8
MML commands.....	2-11
Output Parameters.....	2-12
A_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-RESUME.....	2-12
MML commands.....	2-12
Output Parameters.....	2-12
A_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-STOP .....	2-12
MML commands.....	2-13
Output Parameters.....	2-13
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS .....	2-13
MML commands.....	2-13
Output Parameters.....	2-15
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-INIT.....	2-15
MML commands.....	2-15
Output Parameters.....	2-16
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-RESUME .....	2-16
MML commands.....	2-16
Output Parameters.....	2-16
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-RESUME-ROLLBACK.....	2-16
MML commands.....	2-16
Output Parameters.....	2-17
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-START .....	2-17
MML commands.....	2-17
Output Parameters.....	2-17
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-STOP .....	2-17

MML commands.....	2-18
Output Parameters.....	2-18
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-STOP-ROLLBACK.....	2-18
MML commands.....	2-18
Output Parameters.....	2-18
A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-VIRTUAL-1.....	2-18
MML commands.....	2-18
Output Parameters.....	2-18
A_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT .....	2-19
MML commands.....	2-19
Output Parameters.....	2-20
A_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT-RESUME .....	2-20
MML commands.....	2-20
Output Parameters.....	2-20
A_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT-START .....	2-21
MML commands.....	2-21
Output Parameters.....	2-21
A_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT-STOP .....	2-21
MML commands.....	2-21
Output Parameters.....	2-21
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS.....	2-21
MML commands.....	2-22
Output Parameters.....	2-23
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-INIT .....	2-23
MML commands.....	2-23
Output Parameters.....	2-24
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-RESUME.....	2-24
MML commands.....	2-24
Output Parameters.....	2-24
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-RESUME-ROLLBACK.....	2-24
MML commands.....	2-24
Output Parameters.....	2-25
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-START.....	2-25
MML commands.....	2-25
Output Parameters.....	2-25
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-STOP .....	2-25
MML commands.....	2-26
Output Parameters.....	2-26
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-STOP-ROLLBACK.....	2-26
MML commands.....	2-26
Output Parameters.....	2-26
A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-VIRTUAL-1 .....	2-26
MML commands.....	2-26
Output Parameters.....	2-26
A_NAGRA-CAS_2-7-6_ADD_PRODUCT .....	2-27
MML commands.....	2-27
Output Parameters.....	2-28

A_NAGRA-CAS_2-7-6_ADD_PRODUCT-INIT .....	2-28
MML commands.....	2-28
Output Parameters.....	2-28
A_NAGRA-CAS_2-7-6_ADD_PRODUCT-OLD .....	2-28
MML commands.....	2-29
Output Parameters.....	2-30
A_NAGRA-CAS_2-7-6_ADD_PRODUCT-RESUME .....	2-30
MML commands.....	2-30
Output Parameters.....	2-30
A_NAGRA-CAS_2-7-6_ADD_PRODUCT-RESUME-ROLLBACK.....	2-30
MML commands.....	2-31
Output Parameters.....	2-31
A_NAGRA-CAS_2-7-6_ADD_PRODUCT-START .....	2-31
MML commands.....	2-31
Output Parameters.....	2-31
A_NAGRA-CAS_2-7-6_ADD_PRODUCT-STOP.....	2-32
MML commands.....	2-32
Output Parameters.....	2-32
A_NAGRA-CAS_2-7-6_ADD_PRODUCT-STOP-ROLLBACK .....	2-32
MML commands.....	2-32
Output Parameters.....	2-32
A_NAGRA-CAS_2-7-6_ADD_PRODUCT-VIRTUAL-1.....	2-32
MML commands.....	2-33
Output Parameters.....	2-33
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT .....	2-33
MML commands.....	2-33
Output Parameters.....	2-34
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-INIT .....	2-34
MML commands.....	2-34
Output Parameters.....	2-34
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-OLD .....	2-34
MML commands.....	2-34
Output Parameters.....	2-35
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-RESUME .....	2-35
MML commands.....	2-36
Output Parameters.....	2-36
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-RESUME-ROLLBACK.....	2-36
MML commands.....	2-36
Output Parameters.....	2-36
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-START .....	2-37
MML commands.....	2-37
Output Parameters.....	2-37
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-STOP.....	2-37
MML commands.....	2-37
Output Parameters.....	2-37
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-STOP-ROLLBACK .....	2-37
MML commands.....	2-38

Output Parameters.....	2-38
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-VIRTUAL-1.....	2-38
MML commands.....	2-38
Output Parameters.....	2-38
A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-VIRTUAL-2.....	2-38
MML commands.....	2-38
Output Parameters.....	2-39
A_NAGRA-CAS_2-7-6_CANCEL_ICC.....	2-39
MML commands.....	2-39
A_NAGRA-CAS_2-7-6_CANCEL_ICC-INIT.....	2-40
MML commands.....	2-40
Output Parameters.....	2-40
A_NAGRA-CAS_2-7-6_CANCEL_ICC-RESUME.....	2-40
MML commands.....	2-40
Output Parameters.....	2-40
A_NAGRA-CAS_2-7-6_CANCEL_ICC-RESUME-ROLLBACK.....	2-41
MML commands.....	2-41
Output Parameters.....	2-41
A_NAGRA-CAS_2-7-6_CANCEL_ICC-START.....	2-41
MML commands.....	2-42
Output Parameters.....	2-42
A_NAGRA-CAS_2-7-6_CANCEL_ICC-STOP.....	2-42
MML commands.....	2-42
Output Parameters.....	2-42
A_NAGRA-CAS_2-7-6_CANCEL_ICC-STOP-ROLLBACK.....	2-42
MML commands.....	2-42
Output Parameters.....	2-43
A_NAGRA-CAS_2-7-6_CANCEL_ICC-VIRTUAL.....	2-43
MML commands.....	2-43
Output Parameters.....	2-43
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS.....	2-43
MML commands.....	2-43
Output Parameters.....	2-45
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-INIT.....	2-45
MML commands.....	2-45
Output Parameters.....	2-46
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-RESUME.....	2-46
MML commands.....	2-46
Output Parameters.....	2-46
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-RESUME-ROLLBACK.....	2-46
MML commands.....	2-47
Output Parameters.....	2-47
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-START.....	2-47
MML commands.....	2-47
Output Parameters.....	2-47
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-STOP.....	2-47
MML commands.....	2-48

Output Parameters.....	2-48
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-STOP-ROLLBACK .....	2-48
MML commands .....	2-48
Output Parameters.....	2-48
A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-VIRTUAL-1 .....	2-48
MML commands .....	2-48
Output Parameters.....	2-48
A_NAGRA-CAS_2-7-6_CANCEL_MOP .....	2-49
MML commands .....	2-49
Output Parameters.....	2-50
A_NAGRA-CAS_2-7-6_CANCEL_MOP-INIT .....	2-50
MML commands .....	2-50
Output Parameters.....	2-50
A_NAGRA-CAS_2-7-6_CANCEL_MOP-RESUME .....	2-50
MML commands .....	2-50
Output Parameters.....	2-50
A_NAGRA-CAS_2-7-6_CANCEL_MOP-RESUME-ROLLBACK.....	2-51
MML commands .....	2-51
Output Parameters.....	2-51
A_NAGRA-CAS_2-7-6_CANCEL_MOP-START .....	2-51
MML commands .....	2-52
Output Parameters.....	2-52
A_NAGRA-CAS_2-7-6_CANCEL_MOP-STOP .....	2-52
MML commands .....	2-52
Output Parameters.....	2-52
A_NAGRA-CAS_2-7-6_CANCEL_MOP-STOP-ROLLBACK .....	2-52
MML commands .....	2-52
Output Parameters.....	2-52
A_NAGRA-CAS_2-7-6_CANCEL_MOP-VIRTUAL.....	2-53
MML commands .....	2-53
Output Parameters.....	2-53
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT.....	2-53
MML commands .....	2-53
Output Parameters.....	2-54
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-INIT.....	2-54
MML commands .....	2-54
Output Parameters.....	2-54
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-RESUME.....	2-55
MML commands .....	2-55
Output Parameters.....	2-55
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-RESUME-ROLLBACK .....	2-55
MML commands .....	2-55
Output Parameters.....	2-56
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-START .....	2-56
MML commands .....	2-56
Output Parameters.....	2-56
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-STOP .....	2-56

MML commands.....	2-56
Output Parameters.....	2-57
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-STOP-ROLLBACK.....	2-57
MML commands.....	2-57
Output Parameters.....	2-57
A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-VIRTUAL-1.....	2-57
MML commands.....	2-57
Output Parameters.....	2-57
A_NAGRA-CAS_2-7-6_CREATE_CREDIT-FOR-IPPV.....	2-57
MML commands.....	2-58
Output Parameters.....	2-59
A_NAGRA-CAS_2-7-6_CREATE_MOP.....	2-59
MML commands.....	2-59
Output Parameters.....	2-60
A_NAGRA-CAS_2-7-6_CREATE_MOP-INIT.....	2-60
MML commands.....	2-60
Output Parameters.....	2-60
A_NAGRA-CAS_2-7-6_CREATE_MOP-RESUME.....	2-60
MML commands.....	2-61
Output Parameters.....	2-61
A_NAGRA-CAS_2-7-6_CREATE_MOP-RESUME-ROLLBACK.....	2-61
MML commands.....	2-61
Output Parameters.....	2-61
A_NAGRA-CAS_2-7-6_CREATE_MOP-START.....	2-62
MML commands.....	2-62
Output Parameters.....	2-62
A_NAGRA-CAS_2-7-6_CREATE_MOP-STOP.....	2-62
MML commands.....	2-62
Output Parameters.....	2-62
A_NAGRA-CAS_2-7-6_CREATE_MOP-STOP-ROLLBACK.....	2-62
MML commands.....	2-63
Output Parameters.....	2-63
A_NAGRA-CAS_2-7-6_CREATE_MOP-VIRTUAL.....	2-63
MML commands.....	2-63
Output Parameters.....	2-63
A_NAGRA-CAS_2-7-6_ENABLE_AUTOMATIC-CALLBACK.....	2-63
MML commands.....	2-64
Output Parameters.....	2-65
A_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT-RESUME.....	2-65
MML commands.....	2-65
Output Parameters.....	2-65
A_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT-STOP.....	2-66
MML commands.....	2-66
Output Parameters.....	2-66
A_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD.....	2-66
MML commands.....	2-66
Output Parameters.....	2-68

A_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD-RESUME .....	2-68
MML commands.....	2-68
Output Parameters.....	2-68
A_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD-STOP.....	2-68
MML commands.....	2-68
Output Parameters.....	2-69
A_NAGRA-CAS_2-7-6_FORCE_STAND-BY .....	2-69
MML commands.....	2-69
Output Parameters.....	2-70
A_NAGRA-CAS_2-7-6_FORCE_STAND-BY-RESUME.....	2-70
MML commands.....	2-70
Output Parameters.....	2-71
A_NAGRA-CAS_2-7-6_FORCE_STAND-BY-STOP .....	2-71
MML commands.....	2-71
Output Parameters.....	2-71
A_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK.....	2-71
MML commands.....	2-72
Output Parameters.....	2-73
A_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK-RESUME.....	2-73
MML commands.....	2-73
Output Parameters.....	2-73
A_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK-STOP .....	2-74
MML commands.....	2-74
Output Parameters.....	2-74
A_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION .....	2-74
MML commands.....	2-74
Output Parameters.....	2-75
A_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION-RESUME.....	2-76
MML commands.....	2-76
Output Parameters.....	2-76
A_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION-STOP .....	2-76
MML commands.....	2-76
Output Parameters.....	2-77
A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK .....	2-77
MML commands.....	2-77
Output Parameters.....	2-78
A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-OLD .....	2-78
MML commands.....	2-78
Output Parameters.....	2-79
A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-RESUME .....	2-79
MML commands.....	2-80
Output Parameters.....	2-80
A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-STOP .....	2-80
MML commands.....	2-80
Output Parameters.....	2-80
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS.....	2-80
MML commands.....	2-81

Output Parameters.....	2-82
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-INIT .....	2-82
MML commands.....	2-83
Output Parameters.....	2-83
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-RESUME .....	2-83
MML commands.....	2-83
Output Parameters.....	2-83
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-RESUME-ROLLBACK.....	2-84
MML commands.....	2-84
Output Parameters.....	2-84
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-START .....	2-84
MML commands.....	2-84
Output Parameters.....	2-84
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-STOP .....	2-85
MML commands.....	2-85
Output Parameters.....	2-85
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-STOP-ROLLBACK .....	2-85
MML commands.....	2-85
Output Parameters.....	2-85
A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-VIRTUAL-1 .....	2-85
MML commands.....	2-86
Output Parameters.....	2-86
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC .....	2-86
MML commands.....	2-86
Output Parameters.....	2-87
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-INIT.....	2-87
MML commands.....	2-87
Output Parameters.....	2-87
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-RESUME.....	2-87
MML commands.....	2-88
Output Parameters.....	2-88
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-RESUME-ROLLBACK .....	2-88
MML commands.....	2-88
Output Parameters.....	2-88
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-START .....	2-89
MML commands.....	2-89
Output Parameters.....	2-89
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-STOP .....	2-89
MML commands.....	2-89
Output Parameters.....	2-89
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-STOP-ROLLBACK.....	2-89
MML commands.....	2-90
Output Parameters.....	2-90
A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-VIRTUAL .....	2-90
MML commands.....	2-90
Output Parameters.....	2-90
A_NAGRA-CAS_2-7-6_INSTALL_INIT.....	2-90

MML commands.....	2-90
Output Parameters.....	2-91
A_NAGRA-CAS_2-7-6_INSTALL_RESUME .....	2-91
MML commands.....	2-91
Output Parameters.....	2-91
A_NAGRA-CAS_2-7-6_INSTALL_RESUME-ROLLBACK .....	2-91
MML commands.....	2-92
Output Parameters.....	2-92
A_NAGRA-CAS_2-7-6_INSTALL_START .....	2-92
MML commands.....	2-92
Output Parameters.....	2-92
A_NAGRA-CAS_2-7-6_INSTALL_STOP.....	2-92
MML commands.....	2-93
Output Parameters.....	2-93
A_NAGRA-CAS_2-7-6_INSTALL_STOP-ROLLBACK.....	2-93
MML commands.....	2-93
Output Parameters.....	2-93
A_NAGRA-CAS_2-7-6_INSTALL_VIRTUAL-1.....	2-93
MML commands.....	2-93
Output Parameters.....	2-93
A_NAGRA-CAS_2-7-6_INSTALL_VIRTUAL-2.....	2-94
MML commands.....	2-94
Output Parameters.....	2-94
A_NAGRA-CAS_2-7-6_NAGRA_PING.....	2-94
MML commands.....	2-94
Output Parameters.....	2-95
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB.....	2-95
MML commands.....	2-95
Output Parameters.....	2-96
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-INIT .....	2-96
MML commands.....	2-96
Output Parameters.....	2-96
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-OLD.....	2-97
MML commands.....	2-97
Output Parameters.....	2-98
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-RESUME .....	2-98
MML commands.....	2-98
Output Parameters.....	2-98
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-RESUME-ROLLBACK.....	2-98
MML commands.....	2-99
Output Parameters.....	2-99
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-START.....	2-99
MML commands.....	2-99
Output Parameters.....	2-99
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-STOP .....	2-100
MML commands.....	2-100
Output Parameters.....	2-100

A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-STOP-ROLLBACK .....	2-100
MML commands .....	2-100
Output Parameters .....	2-100
A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-VITUAL .....	2-100
MML commands .....	2-101
Output Parameters .....	2-101
A_NAGRA-CAS_2-7-6_REACTIVATE_IMPULSE-PURCHASE .....	2-101
MML commands .....	2-101
Output Parameters .....	2-102
A_NAGRA-CAS_2-7-6_REDEFINE_CREDIT-LIMIT .....	2-102
MML commands .....	2-102
Output Parameters .....	2-103
A_NAGRA-CAS_2-7-6_RESET_STB-PIN .....	2-103
MML commands .....	2-103
Output Parameters .....	2-105
A_NAGRA-CAS_2-7-6_RESET_STB-PIN-RESUME .....	2-105
MML commands .....	2-105
Output Parameters .....	2-105
A_NAGRA-CAS_2-7-6_RESET_STB-PIN-STOP .....	2-105
MML commands .....	2-106
Output Parameters .....	2-106
A_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS .....	2-106
MML commands .....	2-106
Output Parameters .....	2-107
A_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS-RESUME .....	2-107
MML commands .....	2-108
Output Parameters .....	2-108
A_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS-STOP .....	2-108
MML commands .....	2-108
Output Parameters .....	2-108
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND .....	2-109
MML commands .....	2-109
Output Parameters .....	2-110
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I .....	2-110
MML commands .....	2-111
Output Parameters .....	2-112
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-RESUME .....	2-112
MML commands .....	2-112
Output Parameters .....	2-112
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-STOP .....	2-113
MML commands .....	2-113
Output Parameters .....	2-113
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II .....	2-113
MML commands .....	2-113
Output Parameters .....	2-114
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-RESUME .....	2-114
MML commands .....	2-115

Output Parameters.....	2-115
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-STOP .....	2-115
MML commands .....	2-115
Output Parameters.....	2-115
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-RESUME .....	2-115
MML commands .....	2-116
Output Parameters.....	2-116
A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-STOP .....	2-116
MML commands .....	2-116
Output Parameters.....	2-116
A_NAGRA-CAS_2-7-6_SET_CALLBACK-IPADDRESS .....	2-117
MML commands .....	2-117
Output Parameters.....	2-118
A_NAGRA-CAS_2-7-6_SET_CALLBACK-PHONENUMBER .....	2-118
MML commands .....	2-118
Output Parameters.....	2-119
A_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE .....	2-119
MML commands .....	2-119
Output Parameters.....	2-121
A_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE-RESUME.....	2-121
MML commands .....	2-121
Output Parameters.....	2-121
A_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE-STOP .....	2-121
MML commands .....	2-121
Output Parameters.....	2-122
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP .....	2-122
MML commands .....	2-122
Output Parameters.....	2-123
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-INIT.....	2-123
MML commands .....	2-123
Output Parameters.....	2-123
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-RESUME.....	2-123
MML commands .....	2-123
Output Parameters.....	2-124
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK .....	2-124
MML commands .....	2-124
Output Parameters.....	2-124
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-START .....	2-125
MML commands .....	2-125
Output Parameters.....	2-125
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-STOP .....	2-125
MML commands .....	2-125
Output Parameters.....	2-125
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK.....	2-125
MML commands .....	2-126
Output Parameters.....	2-126
A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-VIRTUAL .....	2-126

MML commands.....	2-126
Output Parameters.....	2-126
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-ICC .....	2-126
MML commands.....	2-126
Output Parameters.....	2-127
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-INIT .....	2-127
MML commands.....	2-127
Output Parameters.....	2-128
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-RESUME.....	2-128
MML commands.....	2-128
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-RESUME-ROLLBACK .....	2-128
MML commands.....	2-128
Output Parameters.....	2-128
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-START .....	2-129
MML commands.....	2-129
Output Parameters.....	2-129
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-STOP .....	2-129
MML commands.....	2-129
Output Parameters.....	2-129
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-STOP-ROLLBACK.....	2-130
MML commands.....	2-130
Output Parameters.....	2-130
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-VIRTUAL-1 .....	2-130
MML commands.....	2-130
Output Parameters.....	2-130
A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-VIRTUAL-2.....	2-130
MML commands.....	2-131
Output Parameters.....	2-131
A_NAGRA-CAS_2-7-6_SWAP_STB-INIT .....	2-131
MML commands.....	2-131
Output Parameters.....	2-131
A_NAGRA-CAS_2-7-6_SWAP_STB-RESUME.....	2-131
MML commands.....	2-131
Output Parameters.....	2-131
A_NAGRA-CAS_2-7-6_SWAP_STB-RESUME-ROLLBACK .....	2-132
MML commands.....	2-132
Output Parameters.....	2-132
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-INIT.....	2-132
MML commands.....	2-133
Output Parameters.....	2-133
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-RESUME .....	2-133
MML commands.....	2-133
Output Parameters.....	2-133
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-RESUME-ROLLBACK .....	2-134
MML commands.....	2-134
Output Parameters.....	2-134
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-START .....	2-134

MML commands.....	2-134
Output Parameters.....	2-134
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-STOP.....	2-135
MML commands.....	2-135
Output Parameters.....	2-135
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-STOP-ROLLBACK.....	2-135
MML commands.....	2-135
Output Parameters.....	2-135
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-1.....	2-135
MML commands.....	2-136
Output Parameters.....	2-136
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-2.....	2-136
MML commands.....	2-136
Output Parameters.....	2-136
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-3.....	2-136
MML commands.....	2-136
Output Parameters.....	2-136
A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-4.....	2-137
MML commands.....	2-137
Output Parameters.....	2-137
A_NAGRA-CAS_2-7-6_SWAP_STB-START.....	2-137
MML commands.....	2-137
Output Parameters.....	2-137
A_NAGRA-CAS_2-7-6_SWAP_STB-STOP.....	2-137
MML commands.....	2-138
Output Parameters.....	2-138
A_NAGRA-CAS_2-7-6_SWAP_STB-STOP-ROLLBACK.....	2-138
MML commands.....	2-138
Output Parameters.....	2-138
A_NAGRA-CAS_2-7-6_SWAP_STB-VIRTUAL-1.....	2-138
MML commands.....	2-138
Output Parameters.....	2-138
A_NAGRA-CAS_2-7-6_UNPAIR_ICC-WITH-STB.....	2-139
MML commands.....	2-139
Output Parameters.....	2-140
A_NAGRA-CAS_2-7-6_UNPAIR_ICC-WITH-STB-OLD.....	2-140
MML commands.....	2-140
Output Parameters.....	2-141
A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP.....	2-141
MML commands.....	2-141
Output Parameters.....	2-142
A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP-INIT.....	2-142
MML commands.....	2-142
Output Parameters.....	2-142
A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP-RESUME.....	2-143
MML commands.....	2-143
Output Parameters.....	2-143

A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK	2-143
MML commands.....	2-143
Output Parameters.....	2-144
A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP-START	2-144
MML commands.....	2-144
Output Parameters.....	2-144
A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP-STOP	2-144
MML commands.....	2-144
Output Parameters.....	2-145
A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK	2-145
MML commands.....	2-145
Output Parameters.....	2-145
A_NAGRA-CAS_2-7-6_UNsuspend_ALL-SUBSCRIBER-MOP-VIRTUAL	2-145
MML commands.....	2-145
Output Parameters.....	2-145
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-ICC	2-145
MML commands.....	2-146
Output Parameters.....	2-147
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-INIT	2-147
MML commands.....	2-147
Output Parameters.....	2-147
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-RESUME	2-147
MML commands.....	2-147
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-RESUME-ROLLBACK	2-147
MML commands.....	2-148
Output Parameters.....	2-148
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-START	2-148
MML commands.....	2-148
Output Parameters.....	2-148
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-STOP	2-149
MML commands.....	2-149
Output Parameters.....	2-149
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-STOP-ROLLBACK	2-149
MML commands.....	2-149
Output Parameters.....	2-149
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-VIRTUAL-1	2-149
MML commands.....	2-150
Output Parameters.....	2-150
A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-VIRTUAL-2	2-150
MML commands.....	2-150
Output Parameters.....	2-150
<b>User Exit Types</b> .....	2-150
Understanding User Exit Type XML Files	2-151
<b>User Defined ASDL Exit Types</b> .....	2-152
<b>UserExitType.xml</b> .....	2-153

### 3 Service Definition

<b>CSDL Commands</b> .....	3-2
C_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-HZN-CLK.....	3-3
Mapping to ASDLs .....	3-6
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK.....	3-6
Mapping to ASDLs .....	3-7
C_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT.....	3-7
Mapping to ASDLs .....	3-8
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK .....	3-8
Mapping to ASDLs .....	3-8
C_NAGRA-CAS_2-7-6_ADD_PRODUCT .....	3-9
Mapping to ASDLs .....	3-9
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT .....	3-9
Mapping to ASDLs .....	3-10
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK.....	3-10
Mapping to ASDLs .....	3-11
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK.....	3-11
Mapping to ASDLs .....	3-11
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK.....	3-12
Mapping to ASDLs .....	3-12
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK .....	3-12
Mapping to ASDLs .....	3-13
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT.....	3-13
Mapping to ASDLs .....	3-13
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK .....	3-14
Mapping to ASDLs .....	3-14
C_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT.....	3-14
Mapping to ASDLs .....	3-15
C_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD .....	3-15
Mapping to ASDLs .....	3-15
C_NAGRA-CAS_2-7-6_FORCE_STAND-BY.....	3-15
Mapping to ASDLs .....	3-16
C_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK.....	3-16
Mapping to ASDLs .....	3-16
C_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION .....	3-16
Mapping to ASDLs .....	3-17
C_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-HZN-ELK.....	3-17
Mapping to ASDLs .....	3-17
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK .....	3-18
Mapping to ASDLs .....	3-18
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK.....	3-19
Mapping to ASDLs .....	3-19
C_NAGRA-CAS_2-7-6_INSTALL_NEW.....	3-19
Mapping to ASDLs .....	3-20
C_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-HZN-ELK .....	3-21
Mapping to ASDLs .....	3-21
C_NAGRA-CAS_2-7-6_RESET_STB-PIN.....	3-21

Mapping to ASDLs .....	3-22
C_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS.....	3-22
Mapping to ASDLs .....	3-22
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND.....	3-22
Mapping to ASDLs .....	3-23
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-HZN-ELK .....	3-23
Mapping to ASDLs .....	3-23
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-HZN-ELK.....	3-24
Mapping to ASDLs .....	3-24
C_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE.....	3-24
Mapping to ASDLs .....	3-25
C_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK.....	3-25
Mapping to ASDLs .....	3-25
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER.....	3-26
Mapping to ASDLs .....	3-26
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK .....	3-26
Mapping to ASDLs .....	3-27
C_NAGRA-CAS_2-7-6_SWAP_STB.....	3-27
Mapping to ASDLs .....	3-27
C_NAGRA-CAS_2-7-6_SWAP_STB-SC.....	3-28
Mapping to ASDLs .....	3-29
C_NAGRA-CAS_2-7-6_UNSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK.....	3-30
Mapping to ASDLs .....	3-30
C_NAGRA-CAS_2-7-6_UNSPEND_SUBSCRIBER .....	3-30
Mapping to ASDLs .....	3-30
C_NAGRA-CAS_2-7-6_UNSPEND_SUBSCRIBER-MOP-HZN-ELK.....	3-31
Mapping to ASDLs .....	3-31

#### **4 Configuring ASAP to Support Additional NE Instances**

Extracting Source Files .....	4-1
Loading a New XML File.....	4-1
Configuration XML File.....	4-1

#### **5 Service Model for Asynchronous Interface**

About Service Model Details for Asynchronous Interface.....	5-1
About Service Model Mapping for the Services of CAS 2.7.6.....	5-1
About Service Model Mapping for the Services of ELK/CLK 3.0.0 (CSDL with HZN-ELK/CLK Suffix) .....	5-2
ASDL and Their Descriptions .....	5-2
About Listener Thread .....	5-3

---

---

# Cartridge Overview

This guide provides a detailed description of the Nagravision CAS cartridge. It contains overview and technical information to assist with extending and integrating the cartridge into a customer environment.

The scope of this guide includes Oracle Communications ASAP (ASAP) as it pertains to the use of this cartridge. It is not intended to be a complete ASAP reference guide. For additional information when using this cartridge, refer to the ASAP documentation.

The Nagravision CAS cartridge provides the ASAP service configuration and network element (NE) interface to activate subscriber services on NAGRA-CAS\_2-7-6-HOST NEs.

## Hardware and Software Requirements

The following sections contain the high-level software and hardware environment requirements for provisioning subscriber services on authentication center:

- NE Interface
- ASAP Version

### NE Interface

The following database tables in Service Activation Request Manager (SARM) are configured to support the NE configuration:

- tbl\_host\_lli
- tbl\_lli\_route
- tbl\_comm\_param
- tbl\_resource\_pool
- tbl\_ne\_config

### ASAP Version

This cartridge was developed and tested using ASAP version 7.0.

For more information on the operating environment of this ASAP version, refer to the ASAP version 7.0 *Release Notes*.

## Connecting to the NE

The cartridge uses Socket protocol.

## Services, Features, and Options

This cartridge supports the following services:

**Table 1–1 Supported Services**

Service	Description
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	Cancel all products.
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK	Cancel all products.
C_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	Suspends all management operators (MOPs). This means that all entitlements of services and PPV will be denied.
C_NAGRA-CAS_2-7-6_UNSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	Reactivates all entitlements of services and PPV in a device as well as entitlements of the "free access" services.
C_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-HZN-ELK	Request a smart card/set to box to call back the Conditional Access System immediately.
C_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT	Force callback and reset the credit limit.
C_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE	Allows head-end to change the set-top box community type.
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK	To Add enhanced list of new products (entitlements of services or/and PPV) for a given UA.
C_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT	Add an event product subscription.
C_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS	Restore factory settings of the set top box.
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK	Cancel or Erase all records associated within a given smart card.
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK	Initialize the management operator zone of a new smart card.
C_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-HZN-ELK	Used to pair a smart card with set top box.
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND	Allows to send a Generic IRD command.
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-HZN-ELK	Allows to send a Generic IRD command I.
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-HZN-ELK	Allows to send a Generic IRD command II.
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK	To Add a list of new products (entitlements of services or/and PPV) for a given UA.
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK	To cancel a list of products (entitlements of services or/and PPV) for a given UA.
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK	To Initialize UA and Add a list of new products (entitlements of services or/and PPV) for a given UA.
C_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK	Formats one or several logical disks of a set-top box.

**Table 1–1 (Cont.) Supported Services**

Service	Description
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK	This command is to remove from a subscriber profile an entire MOP record and all its associated data.
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK	To add a new MOP (management operator) for the given UA.
C_NAGRA-CAS_2-7-6_INSTALL_NEW	New installation.
C_NAGRA-CAS_2-7-6_ADD_PRODUCT	Add a new product subscription.
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT	Remove product subscription from the smart card.
C_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION	Forces the set-top box to format the HDD partition(s) containing the push-VOD content.
C_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-HZN-CLK	This command is used to Activate smart card II.
C_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD	Allows head-end to ask the set-top box to check if a download stream is available and performs the software upgrade if necessary.
C_NAGRA-CAS_2-7-6_FORCE_STAND-BY	Reset and force the set top box to get a software download.
C_NAGRA-CAS_2-7-6_SWAP_STB	Swap the set top box.
C_NAGRA-CAS_2-7-6_RESET_STB-PIN	Reset the set top box pin.
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	Swap the set top box and smart card.
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	Suspend all the subscriptions on the smart card.
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	Reactivate all the subscriptions on the smart card.
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK	Suspend all the entitlements of a given management operator.
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-MOP-HZN-ELK	Reactivate all the entitlements of a given management operator.

## Communication Parameters

The following is the list of parameters for the sample NE configuration XML used by Service Activation Configuration Tool (SACT).

**Table 1–2 Communication Parameters**

Parameter Label	Parameter Value	Description
HOST_IPADDR	srvtorvobs	The host name or IP Address of the remote NE.
PORT	60002	Port number to connect on remote NE host.
OPEN_TIMEOUT	20	Connection timeout in seconds.
READ_TIMEOUT	30	Read timeout in seconds.
SOURCE_ID	0001	Source identifier of the client provided by Nagravision
DEST_ID	0002	Client destination identifier
MOP_PPID	30993	Technical management operator id

**Table 1–2 (Cont.) Communication Parameters**

Parameter Label	Parameter Value	Description
RESPONSELOG	TRUE	Flag to turn off or on Response log.
OBJECT_NAME	SMS_GWY	Name of the application service to which connection should be established.
OPERATION_MODE	1	Data transfer operation mode.
BROADCAST_MODE	N	Broadcasting mode N Normal, B Batch
ADDRESS_TYPE	U	EMM addressing mode for EMM command. U Unique, G Global
IDLE_TIMER_ASDL	A_NAGRA-CAS_2-7-6_ NAGRA_PING	Name of the ping ASDL
IDLE_TIMER_INT	240	Inactivity time interval specified in seconds within which to trigger the ping ASDL.
URL	t3://10.147.251.17:4777	Url of weblogic
QUEUE_NAME	nagra_cas_2_7_6_ request_queue	Queue name of the JMS
TIME_ZONE	UTC	Time zone used for creation date in request messages.
THROTTLE	50	Time in milliseconds to throttle multiple requests

## Atomic Service Description Layer (ASDL) Commands

ASDL commands represent a set of atomic actions that ASAP can perform on a network element (NE). ASAP can combine ASDLs to create meaningful services (CSDLs) within a cartridge.

This chapter presents detailed information on the ASDL parameters that we provide with this cartridge. The following table lists and describes the type of parameter information that is included.

**Table 2–1 ASDL Parameter Information**

Item	Description
Parameter Name	Identifies the parameter that is configured for the stated service.
Description	Describes the parameter.
Range	Describes or lists the range of values that can be used to satisfy this parameter.
Default Value	Configures a default value for the parameter so that it is not mandatory for the upstream system to provide a value.
Type	<p>Indicates one of the following parameter types:</p> <ul style="list-style-type: none"> <li>■ S - Scalar, specifies the parameter label transmitted on the ASDL command. Scalar parameters are conventional name-value pair parameters.</li> <li>■ C - Compound, specifies the base name of the compound parameter transmitted on the ASDL command. A compound parameter contains structures or arrays of information that are represented by a particular structure name or compound parameter name. Each compound parameter can contain a large number of elements. If you use compound parameters, you only require a single entry in the ASAP translation tables to call the compound parameter and all its associated parameter elements.</li> <li>■ I - Indexed, identifies a parameter that contains a sequential numerical index value to tell the SARM that it should execute the same operation (for example, an ASDL command) for all occurrences of that index. Consequently, if there are several options on a particular CSDL command (OPT1, OPT2, OPT3, etc.), you can specify the OPT parameter as an indexed parameter. When you specify the OPT parameter as an indexed parameter, the SARM generates several occurrences of that same ASDL command and each command has a different value for the option being transmitted to the NEP.</li> </ul> <p>For more information on parameter types, refer to the <i>ASAP Developer's Guide</i>.</p>

**Table 2-1 (Cont.) ASDL Parameter Information**

Item	Description
Class	Indicates one of the following parameter classifications: <ul style="list-style-type: none"> <li>■ R - Required scalar parameter</li> <li>■ O - Optional scalar parameter</li> <li>■ C - Required compound parameter</li> <li>■ N - Optional compound parameter</li> <li>■ M - Mandatory indexed parameter</li> <li>■ I - Optional indexed parameter</li> <li>■ S - Parameter count</li> </ul>

For a detailed description of the Required and Optional parameter classifications, refer to the *ASAP System Administrator's Guide*.

## ASDL Commands

This cartridge provides the following ASDL commands:

- A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II
- A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-RESUME
- A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-STOP
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-INIT
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-RESUME
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-START
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-STOP
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT
- A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-RESUME
- A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-START
- A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-STOP
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-INIT
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-RESUME
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-START
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-STOP
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-VIRTUAL-1

- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-INIT
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-OLD
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-RESUME
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-START
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-STOP
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-INIT
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-OLD
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-RESUME
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-START
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-STOP
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-VIRTUAL-2
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-INIT
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-RESUME
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-START
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-STOP
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-VIRTUAL
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-INIT
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-RESUME
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-START
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-STOP
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-INIT

- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-RESUME
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-START
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-STOP
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-VIRTUAL
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-INIT
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-RESUME
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-START
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-STOP
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_CREATE\_CREDIT-FOR-IPPV
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-INIT
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-RESUME
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-START
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-STOP
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-VIRTUAL
- A\_NAGRA-CAS\_2-7-6\_ENABLE\_AUTOMATIC-CALLBACK
- A\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT-RESUME
- A\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT-STOP
- A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD
- A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD-RESUME
- A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD-STOP
- A\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY
- A\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY-RESUME
- A\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY-STOP
- A\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK
- A\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK-RESUME
- A\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK-STOP
- A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION
- A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION-RESUME

- A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION-STOP
- A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK
- A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-OLD
- A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-RESUME
- A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-STOP
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-INIT
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-RESUME
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-START
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-STOP
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-INIT
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-RESUME
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-START
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-STOP
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-VIRTUAL
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_INIT
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_RESUME
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_START
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_STOP
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_INSTALL\_VIRTUAL-2
- A\_NAGRA-CAS\_2-7-6\_NAGRA\_PING
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-INIT
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-OLD
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-RESUME
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-START
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-STOP

- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-VITUAL
- A\_NAGRA-CAS\_2-7-6\_REACTIVATE\_IMPULSE-PURCHASE
- A\_NAGRA-CAS\_2-7-6\_REDEFINE\_CREDIT-LIMIT
- A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN
- A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN-RESUME
- A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN-STOP
- A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS
- A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS-RESUME
- A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS-STOP
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-RESUME
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-STOP
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-RESUME
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-STOP
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-RESUME
- A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-STOP
- A\_NAGRA-CAS\_2-7-6\_SET\_CALLBACK-IPADDRESS
- A\_NAGRA-CAS\_2-7-6\_SET\_CALLBACK-PHONENUMBER
- A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE
- A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE-RESUME
- A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE-STOP
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-INIT
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-RESUME
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-START
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-STOP
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-VIRTUAL
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-ICC
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-INIT
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-RESUME
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-RESUME-ROLLBACK

- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-START
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-STOP
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-VIRTUAL-2
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-INIT
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-RESUME
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-INIT
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-RESUME
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-START
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-STOP
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-2
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-3
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-4
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-START
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-STOP
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_UNPAIR\_ICC-WITH-STB
- A\_NAGRA-CAS\_2-7-6\_UNPAIR\_ICC-WITH-STB-OLD
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-INIT
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-RESUME
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-START
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-STOP
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-VIRTUAL
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER-ICC
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER-INIT
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER-RESUME
- A\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER-RESUME-ROLLBACK

- A\_NAGRA-CAS\_2-7-6\_UN SUSPEND\_SUBSCRIBER-START
- A\_NAGRA-CAS\_2-7-6\_UN SUSPEND\_SUBSCRIBER-STOP
- A\_NAGRA-CAS\_2-7-6\_UN SUSPEND\_SUBSCRIBER-STOP-ROLLBACK
- A\_NAGRA-CAS\_2-7-6\_UN SUSPEND\_SUBSCRIBER-VIRTUAL-1
- A\_NAGRA-CAS\_2-7-6\_UN SUSPEND\_SUBSCRIBER-VIRTUAL-2

## A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II

This command is used to Activate smart card II. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.ActivateSmartCardII`.

**Table 2-2 A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
CAS_NETWORK_ID	CAS network identifier. The Range is from 000 to 999.	N/A	N/A	S	R
STB_CONTEXT	STB context. Combination of STB kind (e.g Nagravision native STB or MediaGuard) and CAK kind (e.g Nagra Media Access CLK or MediaGuard). The Range is from 00 to 99.	N/A	N/A	S	R
ZIP_CODE	Subscribers zip code. Range is restricted to either alphanumeric (Right padded with trailing space) or numeric (left padded with 0) values of length 9.	N/A	N/A	S	R
CREATE_CREDIT	Flag specifying whether the credit must be created (Y) or not (N). If not defined, it will be defaulted to N.	N/A	N/A	S	O
CREDIT	Credit amount representing the range: 00000.00 to 65535.99. This parameter is used only when the CREATE_CREDIT flag is set to Y.	N/A	N/A	S	O
ENABLE_RETURN_PATH	Flag specifying whether the return path is enabled (Y) or not (N). If not defined, it will be defaulted to N.	N/A	N/A	S	O
THRESHOLD_CREDIT	Lower limit under which the smart card must do a low credit call back representing the range 0.00 to 255.99. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
CREDIT_LIMIT	Credit limit within the range 0.00 to 65535.99. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
CALL_FREQUENCY	The call back frequency. Valid values are 01 - annual, 02 - semi annual, 03 - quarterly, 04 - monthly, 05 - semi monthly or 1m days (m is 1 to F). This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O

**Table 2-2 (Cont.) A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II**

Parameter Name	Description	Range	Default Value	Type	Class
DATE_FIRST_CALL	The first date (UTC) on which the smart card should call back. 8 byte of the format YYYYMMDD. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
CC_NUMBER_1	Call Collector phone number. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
PHONE_NUM_1	Primary phone number for the call collector. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
PHONE_NUM_2	Alternate phone number for the call collector. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
PHONE_NUM_3	Alternate phone number for the call collector. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
ENABLE_PURCHASE_PROFILE	Flag specifying whether the purchase profile is enabled (Y) or not (N). If not defined, it will be defaulted to N.	N/A	N/A	S	O
CATEGORY	Subscribers category. Range is from 000 to 255. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
ENABLE_ONLINE_PURCHASE	Flag specifying whether online purchases must be accepted (Y) or not (N). This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
ENABLE_PPV_PURCHASE	Flag specifying whether PPV purchases must be accepted (Y) or not (N). This applies to both online and SMS purchase modes. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
ENABLE_AUTO_PAYMENT	Flag specifying whether online purchases should be debited automatically (Y) or not (N). This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O

**Table 2-2 (Cont.) A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II**

Parameter Name	Description	Range	Default Value	Type	Class
FREE_PRODUCT_MODE	To specify whether the number of free products are of absolute (A) or relative (R) values.. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
PRODUCT_CATEGORY	Product category ID. Range is from 000 to 009. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	C	O
NO_OF_FREE_PRODUCTS	Number of free PPV or PPT product for the given product category. Range is from 00 to 99. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	C	O
STU_NUMBER	CA STB serial number in decimal.A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	O
SEGMENT_CATEGORY	Segment category. Range is 00 to 55.	N/A	N/A	C	O
SEGMENT_SUBCATEGORY	Segment subcategory. Range is 000 to 255.	N/A	N/A	C	O
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 004294967295.	N/A	N/A	C	O
PURCHASE_MODE	Flag specifying whether it is a new purchase of the product (P) or a re-hit of the product (R).	N/A	N/A	C	O
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	O
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	O
BEGIN_TIME	Subscription begin time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	O
END_TIME	Subscription end time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	O
PRODUCT_NAME	Product name as displayed in the PPV purchase library in the STB user interface.	N/A	N/A	C	O
PRICE	Price of the product. 5 Byte of range from 000.00 to 999.99.	N/A	N/A	C	O
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 004294967295.	N/A	N/A	C	O

**Table 2-2 (Cont.) A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II**

Parameter Name	Description	Range	Default Value	Type	Class
PPV_PURCHASE_MODE	PPV products purchase mode value. Flag specifying whether it is a new purchase of the product (P) or a re-hit of the product (R).	N/A	N/A	C	O
PPV_PRODUCT_NAME	PPV products, product name as displayed in the PPV purchase library in the STB user interface.	N/A	N/A	C	O
PPV_PRICE	Price of the PPV product. 5 Byte of range from 000.00 to 999.99.	N/A	N/A	C	O

## MML commands

### MML Syntax :

This method is used to Activate Smart Cardd II.  
This command could be used as a substitute for SMS commands (122,51,52, 48, 13, 100, 101, 49, 61, 46, 107/106 and 2/10/903/905).

#### MML Command Example:

```
0x1 0x62 0x30 0x30 0x30 0x30 0x30 0x31 0x33
0x38 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x31 0x30 0x31 0x31
0x39 0x4e 0x32 0x30 0x31 0x31 0x30 0x31
0x31 0x39 0x32 0x30 0x31 0x31 0x30 0x31
0x31 0x39 0x55 0x31 0x32 0x34 0x34 0x35
0x30 0x30 0x30 0x39 0x39 0x30 0x39 0x32
0x33 0x30 0x31 0x36 0x30 0x33 0x30 0x30
0x30 0x31 0x32 0x33 0x34 0x35 0x33 0x59
0x30 0x30 0x31 0x32 0x33 0x39 0x35 0x59
0x30 0x30 0x31 0x32 0x33 0x39 0x37 0x30
0x30 0x31 0x32 0x33 0x39 0x38 0x30 0x32
0x32 0x30 0x31 0x31 0x30 0x31 0x31 0x39
0x31 0x32 0x33 0x35 0x36 0x37 0x38 0x39
0x39 0x20 0x20 0x20 0x20 0x20 0x20 0x20
0x33 0x34 0x35 0x33 0x34 0x36 0x35 0x34
0x35 0x20 0x20 0x20 0x20 0x20 0x20 0x20
0x34 0x35 0x36 0x37 0x36 0x38 0x36 0x35
0x37 0x20 0x20 0x20 0x20 0x20 0x20 0x20
0x36 0x37 0x38 0x37 0x36 0x38 0x39 0x38
0x38 0x36 0x37 0x20 0x20 0x20 0x20 0x20
0x59 0x30 0x34 0x34 0x59 0x4e 0x59 0x59
0x30 0x30 0x31 0x30 0x30 0x34 0x30 0x33
0x30 0x31 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x36 0x35 0x35 0x33 0x36
0x30 0x31 0x34 0x34 0x32 0x32 0x32 0x30
0x31 0x30 0x30 0x30 0x31 0x31 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x50 0x32 0x30
0x31 0x31 0x30 0x31 0x31 0x39 0x31 0x30
0x31 0x30 0x31 0x30 0x32 0x30 0x31 0x31
0x30 0x31 0x31 0x39 0x31 0x31 0x31 0x31
0x31 0x31 0x31 0x36 0x49 0x4d 0x53 0x20
0x50 0x52 0x4f 0x44 0x55 0x43 0x54 0x20
0x4e 0x41 0x4d 0x45 0x0 0x0 0x0 0x0
```

```

0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
0x0 0x0 0x0 0x0 0x30 0x30 0x31 0x32
0x33 0x30 0x32 0x30 0x31 0x30 0x30 0x30
0x31 0x31 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x50 0x32 0x30 0x49 0x4d 0x53 0x20
0x50 0x50 0x56 0x20 0x50 0x52 0x4f 0x44
0x55 0x43 0x54 0x20 0x4e 0x41 0x4d 0x45
0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
0x0 0x0 0x0 0x0 0x30 0x30 0x31 0x32
0x33 0x39 0x39

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-RESUME

It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.ActivateSmartCardIIResume`.

**Table 2–3 A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-STOP

It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.ActivateSmartCardIIStop`.

**Table 2–4 A\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS**

To Add enhanced list of new products (entitlements of services or/and PPV) for a given UA. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.AddEnhListOfProducts`.

**Table 2–5 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
PURCHASE_MODE	Purchase mode value. This value will be defaulted to P if not defined. Current release supports only P.	N/A	N/A	C	O
BEGIN_TIME	Subscription begin time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	R
END_TIME	Subscription end time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	R
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O
PPV_PURCHASE_MODE	PPV products purchase mode value. This value will be defaulted to P if not defined. Current release supports only P.	N/A	N/A	C	O

**MML commands**

**MML Syntax :**

This method is used to Add enhanced list of new products (entitlements of services or/and PPV) for a given UA.

**MML Command Example:**

```
0x0 0xffffffffc8 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x30 0x31 0x30 0x30
0x30
0x31 0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35 0x37 0x32 0x30 0x30 0x35 0x30 0x33
0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30
0x34 0x55 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39 0x30 0x39 0x30 0x35
0x30
0x31 0x30 0x31 0x32 0x4e 0x32 0x30
0x30
0x35 0x30 0x32 0x32 0x34 0x31 0x30 0x31 0x30 0x31 0x30 0x31 0x30 0x32 0x30 0x30
0x39
0x30 0x36 0x31 0x34 0x31 0x30 0x31 0x30 0x31 0x30 0x31 0x30 0x30 0x30
0x0 0x0
0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
0x30 0x30 0x30 0x30 0x30
0x30 0x31 0x30 0x31 0x32 0x4e 0x30
0x30
0x0 0x0
0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

**Data Length:**

-----

Length- 200- 0x0 0xffffffffc8

**Root Header:**

-----

Transaction id- 000000001- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

**EMM Address Header:**

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body: - Where only one IMS\_PRODUCT\_ID[1] is defined in the WO

-----

Add product command id- 0905- 0x30 0x39 0x30 0x35

No of Products- 01- 0x30 0x31 (This will be the number of IMS\_PRODUCT\_ID[n] defined in the wo.)

Ims product id- 00000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30

```

0x31 0x32
IMS purchase mode- P- 0x4e
Begin date- 20050224- 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x34
Begin time- 101010- 0x31 0x30 0x31 0x30 0x31 0x30 0x31 0x30
End date- 20090614- 0x32 0x30 0x30 0x39 0x30 0x36 0x31 0x34
End time- 101010- 0x31 0x30 0x31 0x30 0x31 0x30 0x31 0x30
INS Event length- 00 (Always)- 0x30 0x30
IMS Event name- 32 Spaces (Always)- 0x0 0x0
0x0 0x0 0x0
    0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
    0x0 0x0 0x0 0x0 0x0 0x0
IMS Price- 00000 (Always)- 0x30 0x30 0x30 0x30 0x30

```

```

No of PPV Products- 01- 0x30 0x31
(Check whether this could be the same as IMS_PRODUCT_ID[n] or this will be the number
of IMS_PPV_PRODUCT_ID[n] defined in the wo.)
Ims PPV product id- 000000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x31 0x32
IMS PPV purchase mode- P- 0x4e
INS PPV Event length of event- 00 (Always)- 0x30 0x30
IMS PPV Event name- 32 Spaces (Always)- 0x0 0x0
0x0 0x0 0x0 0x0
    0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
    0x0 0x0 0x0 0x0 0x0 0x0
IMS PPV Price- 00000 (Always)- 0x30 0x30 0x30 0x30 0x30

```

**Note:**

The above six parameter (IMS Event length, IMS Event name, IMS Price, IMS PPV Event length, IMS PPV Event name and IMS PPV Price) values are not supported by CAS, so will always be the same for any number of IMS\_PRODUCT\_ID[n] or IMS\_PPV\_PRODUCT\_ID[n].

The Purchase mode parameter is optional and will be defaulted to P for all IMS product ID (PPV) if it is not defined.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-INIT**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-6 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddEnhListOfProductsResume`.

**Table 2-7 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-RESUME-ROLLBACK**

Rollback action to clean up on failure of adding the enhanced list of products. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddEnhListOfProductsResumeRollback`.

**Table 2-8 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-9 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddEnhListOfProductsStop`.

**Table 2-10 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddEnhListOfProductsStopRollback`.

**Table 2-11 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-VIRTUAL-1**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-12 A\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

## A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT

Add an event product subscription. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.addEventProduct`.

**Table 2-13 A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
EVENT_NAME	Event name to display on set top box.	N/A	N/A	I	R
PRICE	Price of the product	N/A	N/A	I	R

### MML commands

#### MML Syntax :

This method is used to Add an event product subscription.

MML Command Example:

```
0x0 0x73 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x33
0x32 0x35 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31
0x34 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x55 0x31 0x32 0x34 0x34 0x35
0x30 0x30 0x30 0x39 0x39 0x30 0x30 0x31
0x30 0x30 0x30 0x30 0x31 0x31 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x31 0x30 0x54
0x45 0x53 0x54 0x5f 0x45 0x56 0x45 0x4e
0x54 0x0 0x0 0x0 0x0 0x0 0x0 0x0
0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x31
0x32 0x33 0x34 0x35
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

```
-----
Length- 115- 0x0 0x73
```

Root Header:

```
-----
Transaction id- 00000325- 0x30 0x30 0x30 0x30 0x30 0x30 0x33 0x32 0x35
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 30993- 0x33 0x30 0x39 0x39 0x33
Creation date- 20100914- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x34
```

```

EMM Address Header:
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Broadcast end date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Address Type- U- 0x55
Unique Address- 1244500099- 0x31 0x32 0x34 0x34 0x35 0x30 0x30 0x30 0x39 0x39

Command Body:
-----
Add Event Product command id- 0010- 0x30 0x30 0x31 0x30
IMS Product id(12 byte)- 110000000 - 0x30 0x30 0x30 0x31 0x31 0x30 0x30 0x30 0x30
0x30 0x30 0x30
IMS Event length of event name- 10 (TEST_EVENT)- 0x31 0x30
IMS Event name- TEST_EVENT- 0x54 0x45 0x53 0x54 0x5f 0x45 0x56 0x45 0x4e 0x54 0x0
0x0
    0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
    0x0 0x0 0x0 0x0 0x0 0x0
Price- 12345- 0x31 0x32 0x33 0x34 0x35
    
```

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method **com.metasolv.cartridge.oss.nagra\_cas\_2\_7\_6.prov.VTProvisioning.addEventProductResume.**

**Table 2-14 A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

- TRANSACTION\_NUMBER[i]
- COMMAND\_ID[i]
- STATUS[i]
- ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–15 A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.addEventProductStop`.

**Table 2–16 A\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS

To Add a list of new products (entitlements of services or/and PPV) for a given UA. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.addListOfProducts`.

**Table 2-17 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O

## MML commands

### MML Syntax :

This method is used to Initialize UA and add a list of new products (entitlements of services or/and PPV) for a given UA.

MML Command Example:

```
0x0 0xfffffa6 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x30 0x31
0x30 0x30 0x30 0x31 0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35 0x37 0x32
0x30 0x30 0x35 0x30 0x33 0x30 0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34 0x55 0x30 0x37 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x39 0x30 0x39 0x30 0x32 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x36 0x35 0x35 0x33 0x39 0x30 0x30 0x30
0x30 0x30 0x30 0x31 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x34 0x32 0x30 0x30 0x39
0x30 0x36 0x31 0x34 0x30 0x31 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x31 0x32 0x31 0x30 0x54 0x45 0x53 0x54 0x5f 0x45 0x56 0x45
0x4e 0x54 0x0 0x0
0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x31 0x32 0x33 0x34 0x35
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 166- 0x0 0xfffffa6

Root Header:

-----

Transaction id- 000000001- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

```

-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body: - Where only one IMS_PRODUCT_ID[1] is defined in the WO
-----
Add product command id- 0902- 0x30 0x39 0x30 0x32
Stu Number- 00000000065539- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x36 0x35
0x35 0x33 0x39
Zip Code- 00000- 0x30 0x30 0x30 0x30 0x30

No of Products- 01- 0x30 0x31 (This will be the number of IMS_PRODUCT_ID[n]
defined in the wo.)
Ims product id- 000000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32
Begin date- 20050224- 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x34
End date- 20090614- 0x32 0x30 0x30 0x39 0x30 0x36 0x31 0x34

No of PPV Products- 01- 0x30 0x31
(Check whether this could be the same as IMS_PRODUCT_ID[n] or this will the number
of IMS_PPV_PRODUCT_ID[n] defined in the wo.)
Ims PPV product id- 000000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x31 0x32
IMS Event length of event name- 10 (TEST_EVENT)- 0x31 0x30
IMS Event name- TEST_EVENT- 0x54 0x45 0x53 0x54 0x5f 0x45 0x56 0x45 0x4e 0x54 0x0
0x0
    0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
    0x0 0x0 0x0 0x0 0x0 0x0
Price- 12345- 0x31 0x32 0x33 0x34 0x35

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-18 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddListOfProductsResume`.

**Table 2-19 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-RESUME-ROLLBACK**

Rollback action to clean up on failure of adding the list of products. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddListOfProductsResumeRollback`.

**Table 2-20 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–21 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddListOfProductsStop`.

**Table 2–22 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.AddListOfProductsStopRollback`.

**Table 2–23 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-VIRTUAL-1**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–24 A\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

## A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT

Add a new product subscription. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.addProduct`.

**Table 2–25 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	I	R
END_DATE	Subscription end date.	N/A	N/A	I	R

### MML commands

#### MML Syntax :

This method is used to add a subscription product to an end user smart card.

#### MML Command Example:

```
0x0 0x5c 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x31 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x30
0x32 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x31 0x32 0x32 0x30 0x30
0x35 0x30 0x32 0x32 0x34 0x32 0x30 0x30
0x39 0x30 0x36 0x31 0x34
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

#### Data Length:

-----

Length- 92- 0x0 0x5c

#### Root Header:

-----

Transaction id- 000000001- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 5

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

#### EMM Address Header:

-----

Broadcast mode- N- 0x4e  
 Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34  
 Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34  
 Address Type- U- 0x55  
 Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----  
 Add product command id- 0002- 0x30 0x30 0x30 0x32  
 Ims product id- 000000000012- 0x30  
 0x31 0x32  
 Begin date- 20050224- 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x34  
 End date- 20090614- 0x32 0x30 0x30 0x39 0x30 0x36 0x31 0x34

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-26 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-OLD

Add the old product subscription. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.addProductOld`.

**Table 2-27 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-OLD**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
OLD_UA	Unique address of the old smart card	N/A	N/A	S	R

**Table 2–27 (Cont.) A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-OLD**

Parameter Name	Description	Range	Default Value	Type	Class
OLD_IMS_PRODUCT_ID	Old IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
OLD_BEGIN_DATE	Old subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	I	R
OLD_END_DATE	Old subscription end date.	N/A	N/A	I	R

## MML commands

### MML Syntax :

This method is used to add the old subscription product to an end user smart card.

MML Command Example:

```
0x0 0x5c 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x31 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x30
0x32 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x31 0x32 0x32 0x30 0x30
0x35 0x30 0x32 0x32 0x34 0x32 0x30 0x30
0x39 0x30 0x36 0x31 0x34
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 92- 0x0 0x5c

Root Header:

-----

Transaction id- 00000001- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 5

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 070000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

```

-----
Add product command id- 0002- 0x30 0x30 0x30 0x32
Ims product id- 000000000000012- 0x30 0x30
0x31 0x32
Begin date- 20050224- 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x34
End date- 20090614- 0x32 0x30 0x30 0x39 0x30 0x36 0x31 0x34
    
```

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method **com.metasolv.cartridge.oss.nagra\_cas\_2\_7\_6.prov.VTProvisioning.addProductResume.**

**Table 2–28 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

- TRANSACTION\_NUMBER[i]
- COMMAND\_ID[i]
- STATUS[i]
- ERROR\_CODE[i]
- ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-RESUME-ROLLBACK**

Rollback action to clean up on failure of adding a product. It is implemented by the Java method **com.metasolv.cartridge.oss.nagra\_cas\_2\_7\_6.prov.VTProvisioning.addProductResumeRollback.**

**Table 2–29 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–30 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.addProductStop`.

**Table 2–31 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.addProductStopRollback`.

**Table 2–32 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-VIRTUAL-1

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–33 A\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT**

Remove all subscriptions and pay-per-view from the smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.cancelAllProduct`.

**Table 2–34 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to remove all the subscriptions and PPV stored in the ICC.

**MML Command Example:**

```
0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x33 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x30
0x37
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

**Data Length:**

-----

Length- 64- 0x0 0x40

**Root Header:**

-----

```
Transaction id- 000000013- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x33
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
```

```

EMM Address Header:
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:
-----
Cancel all products Command id- 0007- 0x30 0x30 0x30 0x37
    
```

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-INIT**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–35 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-OLD**

Remove all subscriptions and pay-per-view from the old smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.cancelAllProductOld`.

**Table 2–36 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-OLD**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
OLD_UA	Unique address of the old smart card	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to remove all the subscriptions and PPV stored in the old ICC.

## MML Command Example:

```

0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x33 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x30
0x37

```

The MML Command is constructed as below:

(The values are internally converted by the code into Message Bytes)

## Data Length:

-----

Length- 64- 0x0 0x40

## Root Header:

-----

Transaction id- 000000013- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x33

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

## EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

## Command Body:

-----

Cancel all products Command id- 0007- 0x30 0x30 0x30 0x37

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method

**com.metasolv.cartridge.oss.nagra\_cas\_2\_7\_6.prov.VTProvisioning.cancelAllProductResume.**

**Table 2-37 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-RESUME-ROLLBACK**

Rollback action to clean up on failure of cancellation. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.cancelAllProductResumeRollback`.

**Table 2–38 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–39 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.cancelAllProductStop`.

**Table 2–40 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.cancelAllProductStopRollback`.

**Table 2–41 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-VIRTUAL-1**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–42 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-VIRTUAL-2**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–43 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-VIRTUAL-2**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC**

Cancel or Erase all records associated within a given smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.CancelICC`.

**Table 2-44 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to Cancel or Erase all records associated within a given smart card.

## MML Command Example:

```
0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x35
0x30
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 64- 0x0 0x40

Root Header:

-----

Transaction id- 00000000- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

```

Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

Command Body:

```

-----
Cancel card command id- 0051- 0x30 0x30 0x35 0x30

```

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–45 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-RESUME

`A_NAGRA-CAS_2-7-6_CANCEL_ICC-RESUME`. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelIccResume`.

**Table 2–46 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]  
 COMMAND\_ID[i]  
 STATUS[i]  
 ERROR\_CODE[i]  
 ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-RESUME-ROLLBACK

Rollback action to clean up on failure of Cancel ICC. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelIccResumeRollback`.

**Table 2–47 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]  
 RB\_COMMAND\_ID[i]  
 RB\_STATUS[i]  
 RB\_ERROR\_CODE[i]  
 RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–48 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-STOP**

A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-STOP. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelIccStop`.

**Table 2–49 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelIccStopRollback`.

**Table 2–50 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits

with ASDL exit type STOP.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-VIRTUAL

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–51 A\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-VIRTUAL**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

N/A

### Output Parameters

N/A

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS

To cancel a list of products (entitlements of services or/and PPV) for a given UA. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.cancelListOfProducts`.

**Table 2–52 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O

### MML commands

#### MML Syntax :

This method is used to cancel a list of products (entitlements of services or/and PPV) for a given UA.

MML Command Example:  
Command I:

```

0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x39 0x30
0x34 0x30 0x31 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x31 0x32

```

Command II:

```

0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x39 0x30
0x34 0x30 0x31 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x31 0x32

```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

Command I - For IMS\_PRODUCT\_ID[n]:

-----

Data Length:

-----

Length- 78- 0x0 0x4e

Root Header:

-----

Transaction id- 000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x32

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body: - Where only one IMS\_PRODUCT\_ID[1] is defined in the WO

-----

Cancel product command id- 0904- 0x30 0x39 0x30 0x34

No of Products- 01- 0x30 0x31 (This will be the number of IMS\_PRODUCT\_ID[n] defined in the wo.)

Ims product id- 00000000012- 0x30 0x31 0x32

Command II - For IMS\_PPV\_PRODUCT\_ID[n]:

```
-----
Data Length:
-----
Length- 78- 0x0 0x4e

Root Header:
-----
Transaction id- 000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x32
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
```

EMM Address Header:

```
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39
```

Command Body: - Where only one IMS\_PPV\_PRODUCT\_ID[1] is defined in the WO

```
-----
Cancel product command id- 0904- 0x30 0x39 0x30 0x34
No of Products- 01- 0x30 0x31 (This will be the number of IMS_PPV_PRODUCT_ID[n]
defined in the wo.)
Ims product id- 00000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32
```

Note:

If IMS\_PRODUCT\_ID and IMS\_PPV\_PRODUCT\_ID would be the same then only one MML would be sent. Need to confirm this behavior.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-53 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

**MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelListOfProductsResume`.

**Table 2-54 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-RESUME-ROLLBACK**

Rollback action to clean up on failure of canceling the list of products. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelListOfProductsResumeRollback`.

**Table 2-55 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-56 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelListOfProductsStop`.

**Table 2-57 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelListOfProductsStopRollback`.

**Table 2–58 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-VIRTUAL-1**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–59 A\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP

This command is to remove from a subscriber profile an entire MOP record and all its associated data. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6_prov.Provisioning.CancelMop`.

**Table 2-60 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
MOP_ID	Management operator Id to be deleted.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This command is to cancel a MOP - management operator.

MML Command Example:

```
0x0 0x45 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x34 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x33
0x33 0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 69- 0x0 0x45

Root Header:

-----

Transaction id- 00000004- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x34

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 070000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

```
-----
Cancel MOP command id- 0036- 0x30 0x30 0x33 0x36
MOP_Id value- 00000- 0x30 0x30 0x30 0x30 0x30
```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–61 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDLS that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelMopResume`.

**Table 2–62 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]  
 STATUS[i]  
 ERROR\_CODE[i]  
 ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-RESUME-ROLLBACK

Rollback action to clean up on failure of cancel MOP. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelMopResumeRollback`.

**Table 2–63 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]  
 RB\_COMMAND\_ID[i]  
 RB\_STATUS[i]  
 RB\_ERROR\_CODE[i]  
 RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–64 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelMopStop`.

**Table 2–65 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CancelMopStopRollback`.

**Table 2–66 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-VIRTUAL

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–67 A\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-VIRTUAL**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

N/A

#### Output Parameters

N/A

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT

Remove product subscription from the smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.cancelProduct`.

**Table 2–68 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R

### MML commands

#### MML Syntax :

This method is used to remove a product (subscription service) from the ICC.

#### MML Command Example:

```
0x0 0x4c 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x30
0x36 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x31 0x32
```

The above MML Command is constructed as per below values:  
 (The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 76- 0x0 0x4c

Root Header:

-----

Transaction id- 000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x32

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----

Cancel product command id- 0006- 0x30 0x30 0x30 0x36

Ims product id- 000000000012- 0x30 0x31 0x32

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-69 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.cancelProductResume`.

**Table 2-70 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-RESUME-ROLLBACK

Rollback action to clean up on failure of canceling a product. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.cancelProductResumeRollback`.

**Table 2-71 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-72 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.cancelProductStop`.

**Table 2-73 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.cancelProductStopRollback`.

**Table 2-74 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-VIRTUAL-1**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-75 A\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_CREATE\_CREDIT-FOR-IPPV**

Create the credit data structure in the smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.createCreditForIPPV`.

**Table 2-76 A\_NAGRA-CAS\_2-7-6\_CREATE\_CREDIT-FOR-IPPV**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
CREDIT	Credit amount set in smart card. Range is from 00000.00 to 65535.99	N/A	N/A	S	R
THRESHOLD_CREDIT	Lower limit under which the ICC must initiate a low credit call back.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to create a credit data structure in the given ICC and will allow the subscriber to perform impulse PPV purchase.

MML Command Example:

```
0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x38 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x31
0x33 0x30 0x30 0x30 0x30 0x31 0x30 0x30
0x36 0x35 0x35 0x35 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 78- 0x0 0x4e

Root Header:

-----

Transaction id- 000000008- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x38

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----

```
Create Credit For Impulse Purchase command id- 0013- 0x30 0x30 0x31 0x33
Credit- 0000100 = 1.00- 0x30 0x30 0x30 0x30 0x31 0x30 0x30
Threshold Credit- 6555000 = 65550.00- 0x36 0x35 0x35 0x35 0x30 0x30 0x30
```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP

To add a new MOP (management operator) for the given UA. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.CreateMop`.

**Table 2-77 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
MOP_ID	Management operator Id to be created.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to Create a MOP - management operator.

MML Command Example:

```
0x0 0x45 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x33 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x33
0x35 0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 69- 0x0 0x45

Root Header:

-----

```
Transaction id- 000000003- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x33
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
```

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

```

-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

Command Body:

```

-----
Create MOP command id- 0035- 0x30 0x30 0x33 0x35
MOP_Id value- 00000- 0x30 0x30 0x30 0x30 0x30

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-78 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDLs that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CreateMopResume`.

**Table 2-79 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-RESUME-ROLLBACK

Rollback action to clean up on failure of create MOP. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CreateMopResumeRollback`.

**Table 2–80 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–81 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CreateMopStop`.

**Table 2–82 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.CreateMopStopRollback`.

**Table 2–83 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-VIRTUAL**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–84 A\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-VIRTUAL**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_ENABLE\_AUTOMATIC-CALLBACK**

Turn on the automatic feedback feature of the set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.enableAutomaticCallback`.

**Table 2-85 A\_NAGRA-CAS\_2-7-6\_ENABLE\_AUTOMATIC-CALLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
CALL_FREQ	01 = annual 02 = semi-annual 03 = quarterly 04 = monthly 05 = semi-monthly 1m = every ?m' days. m range is 1..F. (F means 15days)	N/A	N/A	S	R
DATE_FIRST_CALL	First date on which ICC should call back. Format YYYYMMDD in UTC.	N/A	N/A	S	R
CBTIME	The CAS will ignore the time and will use random call back time. Format HHMMSS.	N/A	N/A	S	O

## MML commands

### MML Syntax :

This method is used to turn on the automatic feedback feature of the set top box.

#### MML Command Example:

```
0x0 0x50 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x37 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x36
0x31 0x30 0x34 0x32 0x30 0x30 0x35 0x30
0x37 0x30 0x31 0x30 0x30 0x30 0x30 0x30
0x30
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 80- 0x0 0x50

Root Header:

-----

Transaction id- 000000007- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x37

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

```
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39
```

Command Body:

-----

```
Enable automatic Callback command id- 0061- 0x30 0x30 0x36 0x31
Call Frequency- 04- 0x30 0x34
Callback Date- 20050701- 0x32 0x30 0x30 0x35 0x30 0x37 0x30 0x31
Callback Time- 000000- 0x30 0x30 0x30 0x30 0x30 0x30
```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.forceCallbackResetCreditLimitResume`.

**Table 2-86 A\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.forceCallbackResetCreditLimitStop`.

**Table 2–87 A\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD

Allows head-end to ask the set-top box to check if a download stream is available and performs the software upgrade if necessary. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.forceSoftwareDownload`.

**Table 2–88 A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
VERSION_NUMBER	Version number	N/A	N/A	S	O

### MML commands

#### MML Syntax :

This method Allows head-end to ask the set-top box to check if a download stream is available and performs the software upgrade if necessary.

MML Command Example:

```
0x0 0xffffffffa8 0x30 0x30 0x30 0x30 0x30 0x30 0x33
0x35 0x37 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31
0x34 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x34 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x34 0x55 0x32 0x30 0x31 0x38 0x33
0x32 0x37 0x37 0x39 0x34 0x30 0x30 0x36
0x39 0x32 0x31 0x30 0x30 0x30 0x30 0x30
```



**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.forceSoftwareDownloadResume`.

**Table 2–89 A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.forceSoftwareDownloadStop`.

**Table 2–90 A\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**





This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.forceStandByStop`.

**Table 2–93 A\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK

Formats one or more logical disks of a set-top box. No value for Disk ID indicates all disks. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.formatLogicalDisk`.

**Table 2–94 A\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
DISK_ID	Disk ID	N/A	N/A	S	O





## A\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.formatLogicalDiskStop`.

**Table 2–96 A\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION

Forces the set-top box to format the HDD partition(s) containing the push-VOD content. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.formatPushVodPartition`.

**Table 2–97 A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to force the set-top box to format the HDD partition(s) containing the push-VOD content.

MML Command Example:

```
0x0 0xffffffa8 0x30 0x30 0x30 0x30 0x30 0x30 0x33
0x36 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31
0x34 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x34 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x34 0x55 0x31 0x32 0x34 0x34 0x35
0x30 0x30 0x30 0x39 0x39 0x30 0x30 0x36
0x39 0x32 0x30 0x39 0x30 0x30 0x31 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
```

```

0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30

```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 168- 0x0 0xffffffffa8

Root Header:

-----

Transaction id- 000000362- 0x30 0x30 0x30 0x30 0x30 0x30 0x33 0x36 0x32

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 30993- 0x33 0x30 0x39 0x39 0x33

Creation date- 20100914- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20100914- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x34

Broadcast end date- 20100914- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x34

Address Type- U- 0x55

Unique Address- 1244500099- 0x31 0x32 0x34 0x34 0x35 0x30 0x30 0x30 0x39 0x39

Command Body:

-----

IRD command id- 0069- 0x30 0x30 0x36 0x39

Format logical disc command id- 209- 0x32 0x30 0x39

Cmd operation- 001- 0x30 0x30 0x31

Cmd data length(empty)- 00- 0x30 0x30

Cmd data (empty - 96 bytes)- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30

## Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.formatPushVodPartitionResume`.

**Table 2-98 A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.formatPushVodPartitionStop`.

**Table 2-99 A\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

## Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK

Request a smart card/set to box to call back the Conditional Access System immediately. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.immediateCallback`.

**Table 2-100 A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
CBDATE	The date provided by the SMS will be ignored by the CAS and it will manage the call back date to today. Format is YYYYMMDD.	N/A	N/A	S	O
CBTIME	The callback time provided by the SMS will be ignored by the CAS and it will manage the call back time as now+10 min. Format is HHMMSS.	N/A	N/A	S	O

## MML commands

### MML Syntax :

This method is used request the ICC/STB to callback the CAS immediately.

MML Command Example:

```
0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x39 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x36
0x30 0x32 0x30 0x30 0x35 0x30 0x32 0x32
0x38 0x30 0x39 0x31 0x30 0x32 0x32
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 78- 0x0 0x4e

Root Header:

-----

Transaction id- 000000009- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

```

Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

```

EMM Address Header:

```

-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

Command Body:

```

-----
Immediate Callback command id- 0060- 0x30 0x30 0x36 0x30
Callback Date- 20050228- 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x38
Callback Time- 091022- 0x30 0x39 0x31 0x30 0x32 0x32

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-OLD

Request the old smart card/set to box to call back the Conditional Access System immediately. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.immediateCallbackOld`.

**Table 2-101 A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-OLD**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
OLD_UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
OLD_CBDATE	The old callback date provided by the SMS will be ignored by the CAS and it will manage the call back date to today. Format is YYYYMMDD.	N/A	N/A	S	O
OLD_CBTIME	The old callback time provided by the SMS will be ignored by the CAS and it will manage the call back time as now+10 min. Format is HHMMSS.	N/A	N/A	S	O

### MML commands

#### MML Syntax :

This method is used request the old ICC/STB to callback the CAS immediately.

MML Command Example:

```

0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x39 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30

```

```

0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x36
0x30 0x32 0x30 0x30 0x35 0x30 0x32 0x32
0x38 0x30 0x39 0x31 0x30 0x32 0x32

```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 78- 0x0 0x4e

Root Header:

-----

```

Transaction id- 000000009- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

```

EMM Address Header:

-----

```

Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

Command Body:

-----

```

Immediate Callback command id- 0060- 0x30 0x30 0x36 0x30
Callback Date- 20050228- 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x38
Callback Time- 091022- 0x30 0x39 0x31 0x30 0x32 0x32

```

## Output Parameters

None.

## **A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.ImmediateCallbackResume`.

**Table 2-102 A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.ImmediateCallbackStop`.

**Table 2-103 A\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None

**A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS**

To Initialize UA and Add a list of new products (entitlements of services or/and PPV) for a given UA. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.InitAddListOfProducts`.

**Table 2-104 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
IMS_PPV_PRODUCT_ID	IMS product ID. This represents the PPV product. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O
EVENT_NAME	Event name to display on set top box.	N/A	N/A	C	O
PRICE	Price of the product	N/A	N/A	C	O
STU_NUMBER	STB number in decimal.A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	R
ZIP_CODE	End users zip code. Range is 00000 to 99999	N/A	N/A	S	O

## MML commands

### MML Syntax :

This method is used to Initialize UA and add a list of new products (entitlements of services or/and PPV) for a given UA.

MML Command Example:

```
0x0 0xfffffa6 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x30 0x31
0x30 0x30 0x30 0x31 0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35 0x37 0x32
0x30 0x30 0x35 0x30 0x33 0x30 0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34 0x55 0x30 0x37 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x39 0x30 0x39 0x30 0x32 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x36 0x35 0x35 0x33 0x39 0x30 0x30 0x30
0x30 0x30 0x30 0x31 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x34 0x32 0x30 0x30 0x39
0x30 0x36 0x31 0x34 0x30 0x31 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x31 0x32 0x31 0x30 0x54 0x45 0x53 0x54 0x5f 0x45 0x56 0x45
0x4e 0x54 0x0 0x0
0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x31 0x32 0x33 0x34 0x35
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 166- 0x0 0xfffffa6

Root Header:

-----

Transaction id- 00000001- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31

```

Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

```

EMM Address Header:

```

-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

Command Body: - Where only one IMS\_PRODUCT\_ID[1] is defined in the WO

```

-----
Add product command id- 0902- 0x30 0x39 0x30 0x32
Stu Number- 00000000065539- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x36 0x35
0x35 0x33 0x39
Zip Code- 00000- 0x30 0x30 0x30 0x30 0x30

```

No of Products- 01- 0x30 0x31 (This will be the number of IMS\_PRODUCT\_ID[n] defined in the wo.)

```

Ims product id- 000000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x32
Begin date- 20050224- 0x32 0x30 0x30 0x35 0x30 0x32 0x32 0x34
End date- 20090614- 0x32 0x30 0x30 0x39 0x30 0x36 0x31 0x34

```

No of PPV Products- 01- 0x30 0x31

(Check whether this could be the same as IMS\_PRODUCT\_ID[n] or this will the number of IMS\_PPV\_PRODUCT\_ID[n] defined in the wo.)

```

Ims PPV product id- 000000000012- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x31 0x32
IMS Event length of event name- 10 (TEST_EVENT)- 0x31 0x30
IMS Event name- TEST_EVENT- 0x54 0x45 0x53 0x54 0x5f 0x45 0x56 0x45 0x4e 0x54 0x0
0x0
    0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0 0x0
    0x0 0x0 0x0 0x0 0x0 0x0
Price- 12345- 0x31 0x32 0x33 0x34 0x35

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-105 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitAddListOfProductsResume`.

*Table 2–106 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-RESUME*

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-RESUME-ROLLBACK

Rollback action to clean up on failure on initializing UA and adding the list of products. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitAddListOfProductsResumeRollback`.

**Table 2–107 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–108 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

## A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitAddListOfProductsStop`.

**Table 2-109 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitAddListOfProductsStopRollback`.

**Table 2-110 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-VIRTUAL-1

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-111 A\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC**

Initialize the management operator zone of a new smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.initializeICC`.

**Table 2-112 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to initialize the Management Operator (MOP) zone of a new ICC.

**MML Command Example:**

```
0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x35
0x31
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

**Data Length:**

-----

Length- 64- 0x0 0x40

**Root Header:**

-----

Transaction id- 00000000- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37  
 Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----  
 Broadcast mode- N- 0x4e  
 Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34  
 Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34  
 Address Type- U- 0x55  
 Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----  
 Init card command id- 0051- 0x30 0x30 0x35 0x31

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–113 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitializeIccResume`.

**Table 2–114 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-RESUME-ROLLBACK**

Rollback action to clean up on failure of Initialize ICC. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitializeIccResumeRollback`.

**Table 2-115 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–116 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitializeIccStop`.

**Table 2–117 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.InitializeIccStopRollback`.

**Table 2–118 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-VIRTUAL**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–119 A\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-VIRTUAL**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_INSTALL\_INIT**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–120 A\_NAGRA-CAS\_2-7-6\_INSTALL\_INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INSTALL\_RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.installResume`.

**Table 2–121 A\_NAGRA-CAS\_2-7-6\_INSTALL\_RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_INSTALL\_RESUME-ROLLBACK

Rollback action to clean to interpret responses of rollback ASDL's and to clean up on failure of install. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.installResumeRollback`.

**Table 2–122 A\_NAGRA-CAS\_2-7-6\_INSTALL\_RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_INSTALL\_START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–123 A\_NAGRA-CAS\_2-7-6\_INSTALL\_START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_INSTALL\_STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.installStop`.

**Table 2–124 A\_NAGRA-CAS\_2-7-6\_INSTALL\_STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_INSTALL\_STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.installStopRollback`.

**Table 2–125 A\_NAGRA-CAS\_2-7-6\_INSTALL\_STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_INSTALL\_VIRTUAL-1**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–126 A\_NAGRA-CAS\_2-7-6\_INSTALL\_VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

## A\_NAGRA-CAS\_2-7-6\_INSTALL\_VIRTUAL-2

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–127 A\_NAGRA-CAS\_2-7-6\_INSTALL\_VIRTUAL-2**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

N/A

#### Output Parameters

N/A

## A\_NAGRA-CAS\_2-7-6\_NAGRA\_PING

This method is used to send ping command to Nagra NE within the configured interval time. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.nagraPing`.

**Table 2–128 A\_NAGRA-CAS\_2-7-6\_NAGRA\_PING**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to send ping command to Nagra NE.

In the table `tbl_nagra_msg` it will insert a row with `WO_ID="NAGRA_PING"`, and `TRANSACTION_NUMBER`.

Store procedure can return `SUCCEED` or `FAIL`.

#### MML Command Example:

```
0x0 0x24 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x35 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x31 0x30 0x30 0x32
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 36- 0x0 0x24

Root Header:

-----

Transaction id- 00000000- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30

Command type- 05- 0x30 0x35

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Command Body:

-----

No command id- 1002- 0x31 0x30 0x30 0x32

## Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB

Used to pair a smart card with set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.pairICCwithSTB`.

**Table 2-129 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
STU_NUMBER	STB number in decimal. A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to unpair an ICC from the STB. The command is same as pairing ICC with STB but the STB number is set to "0000000000".

MML Command Example:

```
0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x35
0x32 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

```

Data Length:
-----
Length- 78- 0x0 0x4e

Root Header:
-----
Transaction id- 000000002- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x32
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:
-----
Pair command id- 0052- 0x30 0x30 0x35 0x32
Stu Number- 00000000000000- 0x30 0x30
0x350 0x30 0x30
    
```

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-INIT**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method **com.metasolv.cartridge.oss.nagra\_cas\_2\_7\_6.prov.VTProvisioning.virtual**.

**Table 2-130 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

## A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-OLD

Used to pair the old smart card with set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.pairICCwithSTBOld`.

**Table 2-131 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-OLD**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
OLD_UA	Unique address of the old smart card	N/A	N/A	S	R
OLD_STU_NUMBER	Old STB number in decimal. A 14 digit string in the range 0000000000000-00004294967295.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to unpair an ICC from the STB in the rollback mode. The command is same as pairing ICC with STB but the STB number is set to "0000000000".

MML Command Example:

```
0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x35
0x32 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 78- 0x0 0x4e

Root Header:

-----

Transaction id- 00000002- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x32

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55  
 Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----

Pair command id- 0052- 0x30 0x30 0x35 0x32  
 Stu Number- 00000000000000- 0x30  
 0x350 0x30 0x30

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.PairICCWithStbResume`.

*Table 2-132 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-RESUME*

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

- TRANSACTION\_NUMBER[i]
- COMMAND\_ID[i]
- STATUS[i]
- ERROR\_CODE[i]
- ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-RESUME-ROLLBACK**

Rollback action to clean up on failure of swapping of smart card and set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.PairIccWithStbResumeRollback`.

**Table 2–133 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–134 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

## A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.PairIccWithStbStop`.

**Table 2–135 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.PairIccWithStbStopRollback`.

**Table 2–136 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-VITUAL

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–137 A\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-VITUAL**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_REACTIVATE\_IMPULSE-PURCHASE**

Reactivate the privilege of making impulse purchase. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.reactivateImpulsePurchase`.

**Table 2-138 A\_NAGRA-CAS\_2-7-6\_REACTIVATE\_IMPULSE-PURCHASE**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to Reactivate the privilege of making impulse purchase.

**MML Command Example:**

```
0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x33
0x30 0x38 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31
0x34 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x55 0x31 0x32 0x34 0x34 0x35
0x30 0x30 0x30 0x39 0x39 0x30 0x30 0x31
0x35
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

**Data Length:**

```
-----
Length- 64- 0x0 0x40
```

**Root Header:**

```
-----
Transaction id- 000000308- 0x30 0x30 0x30 0x30 0x30 0x30 0x33 0x30 0x38
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 30993- 0x33 0x30 0x39 0x39 0x33
Creation date- 20100914- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x34
```

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33

Broadcast end date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33

Address Type- U- 0x55

Unique Address- 1244500099- 0x31 0x32 0x34 0x34 0x35 0x30 0x30 0x30 0x39 0x39

Command Body:

-----

Re-Activate Impulse purchase command id- 0015- 0x30 0x30 0x31 0x35

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_REDEFINE\_CREDIT-LIMIT

Allows the Call collector to increment the credit in the smart card during any callback. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.redefineCreditLimit`.

**Table 2-139 A\_NAGRA-CAS\_2-7-6\_REDEFINE\_CREDIT-LIMIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
CREDIT_LIMIT	Credit limit. Range is from 00000.00 to 65535.99	N/A	65535.99	S	O

### MML commands

#### MML Syntax :

This method is used to store the new credit limit for an ICC in the call collector database.

MML Command Example:

```
0x0 0x47 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x31 0x30 0x30 0x32 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x31 0x30
0x30 0x35 0x30 0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

```

Data Length:
-----
Length- 71- 0x0 0x47

Root Header:
-----
Transaction id- 000000010- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x31 0x30
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:
-----
Redefine Credit Limit command id- 0100- 0x30 0x31 0x30 0x30
Credit Limit- 5000000 = 50000.00- 0x35 0x30 0x30 0x30 0x30 0x30 0x30

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN

Allows resetting the set top box pin via the IRD command. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.resetStbPin`.

**Table 2-140** A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
PIN	Set-top box pin number.	N/A	N/A	S	O

### MML commands

#### MML Syntax :

This method is used to reset the Smart card PIN number. This method sends the IRD command for resetting the smart card pin.

MML Command Example:

```

0x0 0xffffffa8 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x35 0x30 0x31 0x30 0x30 0x30 0x31

```



```

- 0x30 0x30
0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.resetStbPinResume`.

**Table 2-141** A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN-RESUME

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.resetStbPinStop`.

**Table 2-142 A\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS**

Allows head-end to restore factory settings of the set-top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.restoreFactorySettings`.

**Table 2-143 A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to Allow head-end to restore factory settings of the set-top box.

MML Command Example:

```
0x0 0xffffffffa8 0x30 0x30 0x30 0x30 0x30 0x30 0x33
0x36 0x39 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31
0x34 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x34 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x34 0x55 0x31 0x32 0x34 0x34 0x35
0x30 0x30 0x30 0x39 0x39 0x30 0x30 0x36
0x39 0x32 0x30 0x34 0x30 0x30 0x31 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
```



**Table 2–144 A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.restoreFactorySettingsStop`.

**Table 2–145 A\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.







```

EMM Address Header:
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Broadcast end date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Address Type- U- 0x55
Unique Address- 2018327794- 0x32 0x30 0x31 0x38 0x33 0x32 0x37 0x37 0x39 0x34

Command Body:
-----
Generic IRD command id- 0069- 0x30 0x30 0x36 0x39
IRD command id- 193- 0x31 0x39 0x33
IRD command operation- 001- 0x30 0x30 0x31
IRD data length- 04- 0x30 0x34
IRD data- TEST (96 byte)
- 0x35 0x34 0x34 0x35 0x35 0x33 0x35
0x34 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30
    
```

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-RESUME**

It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.irdGenericCommandIResume`.

**Table 2-148 A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]  
 ERROR\_CODE[i]  
 ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.irdGenericCommandIStop`.

**Table 2–149 A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II

Allows to send a Generic IRD command II. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.irdGenericCommandII`.

**Table 2–150 A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
IRD_COMMAND_ID	IRD command id in decimal. 3 digit number.	N/A	N/A	S	R
IRD_OPERATION	IRD operation id in decimal. 3 digit number.	N/A	N/A	S	R
IRD_DATA	IRD data in ASCII. up to 142 chars.	N/A	N/A	S	O

### MML commands

#### MML Syntax :

This method is used to send generic IRD commands

**MML Command Example:**

```
0x0 0xffffffffa8 0x30 0x30 0x30 0x30 0x30 0x30 0x33
0x32 0x31 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31
0x34 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x55 0x32 0x30 0x31 0x38 0x33
0x32 0x37 0x37 0x39 0x34 0x30 0x30 0x39
0x39 0x31 0x39 0x33 0x30 0x30 0x31 0x30
0x36 0x30 0x35 0x31 0x31 0x30 0x30 0x30
0x39 0x30 0x30 0x30 0x43
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

**Data Length:**

-----

Length- 84- 0x0 0xffffffffa8

**Root Header:**

-----

Transaction id- 000000321- 0x30 0x30 0x30 0x30 0x30 0x30 0x33 0x32 0x31

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 30993- 0x33 0x30 0x39 0x39 0x33

Creation date- 20100914- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x34

**EMM Address Header:**

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33

Broadcast end date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33

Address Type- U- 0x55

Unique Address- 2018327794- 0x32 0x30 0x31 0x38 0x33 0x32 0x37 0x37 0x39 0x34

**Command Body:**

-----

Generic IRD command id- 0099- 0x30 0x30 0x39 0x39

IRD command id- 193- 0x31 0x39 0x33

IRD command operation- 001- 0x30 0x30 0x31

IRD data length- 006- 0x30 0x36

IRD data- 05110009000C (96 byte)

- 0x30 0x35 0x31 0x31 0x30 0x30 0x39 0x30 0x30 0x30 0x43

**Output Parameters**

None.

## **A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL?s that were fired off from the CSDL. It is implemented by the Java method **com.metasolv.cartridge.oss.nagra\_cas\_2\_7\_6.prov.VTProvisioning.SendIrdGenericCommandIIResume**.

**Table 2–151 A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.SendIrdGenericCommandIIStop`.

**Table 2–152 A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is

implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.irdGenericCommandResume`.

**Table 2–153 A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

### A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.irdGenericCommandStop`.

**Table 2–154 A\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SET\_CALLBACK-IPADDRESS

Sets or update the IP address field in the smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.setCallbackIPAddress`.

**Table 2-155 A\_NAGRA-CAS\_2-7-6\_SET\_CALLBACK-IPADDRESS**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
CC_IP_ADDRESS	Call collector IP address. Range is from 000.000.000.000 to 255.255.255.255	N/A	N/A	S	R
CC_IP_PORT	Call collector TCP/IP port.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to set or update the ICC field containing the IP address of the Call Collector.

MML Command Example:

```
0x0 0x54 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x36 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x35
0x34 0x30 0x31 0x30 0x2e 0x30 0x30 0x39
0x2e 0x30 0x33 0x34 0x2e 0x30 0x33 0x34
0x30 0x38 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 84- 0x0 0x54

Root Header:

-----

Transaction id- 00000006- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x36

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

```

Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

Command Body:

```

-----
Set Callback IP address command id- 0054- 0x30 0x30 0x35 0x34
CC_IP_Address- 010.009.034.034- 0x30 0x31 0x30 0x2e 0x30 0x30 0x39 0x2e 0x30 0x33
0x34 0x2e 0x30 0x33 0x34
CC_IP_Port- 08000- 0x30 0x38 0x30 0x30 0x30

```

### Output Parameters

None

## A\_NAGRA-CAS\_2-7-6\_SET\_CALLBACK-PHONENUMBER

Sets or update the phone number field in the smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.setCallbackPhoneNumber`.

**Table 2–156 A\_NAGRA-CAS\_2-7-6\_SET\_CALLBACK-PHONENUMBER**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
CC_NUMBER_1	Call collector phone number. The field must be right padded with trailing ASCII space characters.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to set or update the phone number field in the smart card.

MML Command Example:

```

0x0 0x50 0x30 0x30 0x30 0x30 0x30 0x30 0x33
0x31 0x36 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31
0x34 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x55 0x31 0x32 0x34 0x34 0x35
0x30 0x30 0x30 0x39 0x39 0x30 0x30 0x34
0x39 0x32 0x33 0x34 0x20 0x20 0x20 0x20
0x20 0x20 0x20 0x20 0x20 0x20 0x20 0x20

```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

Data Length:

```

-----
Length- 80- 0x0 0x50

Root Header:
-----
Transaction id- 000000316- 0x30 0x30 0x30 0x30 0x30 0x30 0x33 0x31 0x36
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 30993- 0x33 0x30 0x39 0x39 0x33
Creation date- 20100914- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x34

EMM Address Header:
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Broadcast end date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Address Type- U- 0x55
Unique Address- 1244500099- 0x31 0x32 0x34 0x34 0x35 0x30 0x30 0x30 0x39 0x39

Command Body:
-----
Set Callback Phonenumber Id- 0049- 0x30 0x30 0x34 0x39
Phone Number- 234 (16 byte)- 0x32 0x33 0x34 0x20 0x20 0x20 0x20 0x20 0x20 0x20 0x20
0x20 0x20 0x20 0x20 0x20 0x20

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE

Allows head-end to change the set-top box community type. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.setCommunityType`.

**Table 2-157 A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
COMMUNITY_TYPE	Set-top box community type in decimal. 3 digit number.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is to allow head-end to change the set-top box community type.

MML Command Example:

```

0x0 0xffffffa8 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x33 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x33 0x30 0x39 0x39
0x33 0x32 0x30 0x31 0x30 0x30 0x39 0x31

```

```

0x33 0x4e 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x32 0x30 0x31 0x30 0x30 0x39
0x31 0x33 0x55 0x32 0x30 0x31 0x38 0x33
0x32 0x37 0x37 0x39 0x34 0x30 0x30 0x36
0x39 0x32 0x31 0x32 0x30 0x30 0x30 0x30
0x32 0x37 0x36 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30

```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

```

-----
Length- 168- 0x0 0xffffffffa8

```

Root Header:

```

-----
Transaction id- 000000003- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x33
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 30993- 0x33 0x30 0x39 0x39 0x33
Creation date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33

```

EMM Address Header:

```

-----
Broadcast mode- N- 0x4e
Broadcast start date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Broadcast end date- 20100913- 0x32 0x30 0x31 0x30 0x30 0x39 0x31 0x33
Address Type- U- 0x55
Unique Address- 2018327794- 0x32 0x30 0x31 0x38 0x33 0x32 0x37 0x37 0x39 0x34

```

Command Body:

```

-----
IRD command id- 0069- 0x30 0x30 0x36 0x39
Set community type command id- 212- 0x32 0x31 0x32
Set operation- 000- 0x30 0x30 0x30
Set data length- 02- 0x30 0x32
Set data- 118 (76)
- 0x37 0x36 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
  0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30

```

0x30 0x30 0x30 0x30 0x30 0x30

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.setCommunityTypeResume`.

**Table 2–158 A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.setCommunityTypeStop`.

**Table 2–159 A\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

**MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP**

Suspend all the entitlements of a given mangement operator. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.SuspendAllSubscriberMop`.

**Table 2-160 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This command is to reactivate all entitlements of services and PPV in a device as well as entitlements of the "free access" services.

**MML Command Example:**

```
0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x34 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x32
0x34
```

The above MML Command is constructed as per below values:

(The values are internally converted by the code into Message Bytes)

**Data Length:**

-----

Length- 64- 0x0 0x40

**Root Header:**

-----

Transaction id- 000000004- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x34

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

```

EMM Address Header:
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

```

Command Body:
-----
Reactivate All Subscriber MOP command id- 0024- 0x30 0x30 0x32 0x34

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–161 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDLS that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.SuspendAllSubscriberMopResume`.

**Table 2–162 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction

numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK

Rollback action to clean up on failure of suspend all subscriber MOP. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.SuspendAllSubscriberMopResumeRollback`.

**Table 2–163 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–164 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.SuspendAllSubscriberMopStop`.

**Table 2–165 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.SuspendAllSubscriberMopStopRollback`.

**Table 2–166 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-VIRTUAL**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–167 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-VIRTUAL**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-ICC**

Suspend all the subscriptions on the smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.suspendSubscriberICC`.

**Table 2–168 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-ICC**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to grant access to all subscriptions again. This method builds the reactivate subscriber ICC mml command.

MML Command Example:

```

0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x34 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x32
0x31

```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 64- 0x0 0x40

Root Header:

-----

Transaction id- 000000004- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x34

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 070000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----

Reactivate subscriber command id- 0021- 0x30 0x30 0x32 0x31

## Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-169** A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-INIT

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

## MML commands

**MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.suspendSubscriberResume`.

**Table 2–170 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-RESUME-ROLLBACK**

Rollback action to clean up on failure of suspension. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.suspendSubscriberResumeRollback`.

**Table 2–171 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]  
 RB\_ERROR\_CODE[i]  
 RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–172 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.suspendSubscriberStop`.

**Table 2–173 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.suspendSubscriberStopRollback`.

**Table 2–174 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-VIRTUAL-1

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–175 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

N/A

#### Output Parameters

N/A

## A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-VIRTUAL-2

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–176 A\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-VIRTUAL-2**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-INIT**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-177 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbResume`.

**Table 2-178 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]  
 COMMAND\_ID[i]  
 STATUS[i]  
 ERROR\_CODE[i]  
 ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-RESUME-ROLLBACK

Rollback action to clean up on failure of swapping set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbResumeRollback`.

**Table 2-179 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]  
 RB\_COMMAND\_ID[i]  
 RB\_STATUS[i]  
 RB\_ERROR\_CODE[i]  
 RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-INIT

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–180 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbScResume`.

**Table 2–181 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-RESUME-ROLLBACK

Rollback action to clean up on failure of swapping of smart card and set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbScResumeRollback`.

**Table 2–182 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–183 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to enable rollback. This method returns successful always.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbScStop`.

**Table 2–184 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbScStopRollback`.

**Table 2–185 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-1

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–186 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-2**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-187 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-2**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-3**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-188 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-3**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-4

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-189 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC-VIRTUAL-4**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

MML Syntax :

N/A

### Output Parameters

N/A

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-START

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-190 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

MML Syntax :

This method is used to enable rollback. This method returns successful always.

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbStop`.

**Table 2-191 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.swapStbStopRollback`.

**Table 2–192 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-VIRTUAL-1**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–193 A\_NAGRA-CAS\_2-7-6\_SWAP\_STB-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

## A\_NAGRA-CAS\_2-7-6\_UNPAIR\_ICC-WITH-STB

Used to unpair the smart card from the set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.unpairICCwithSTB`.

**Table 2-194 A\_NAGRA-CAS\_2-7-6\_UNPAIR\_ICC-WITH-STB**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to unpair an ICC from the STB. The command is same as pairing ICC with STB but the STB number is set to "0000000000".

MML Command Example:

```
0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x35
0x32 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

```
-----
Length- 78- 0x0 0x4e
```

Root Header:

```
-----
Transaction id- 00000002- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x32
Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
```

EMM Address Header:

```
-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
```

Address Type- U- 0x55  
 Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----  
 Pair command id- 0052- 0x30 0x30 0x35 0x32  
 Stu Number- 00000000000000- 0x30  
 0x350 0x30 0x30

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_UNPAIR\_ICC-WITH-STB-OLD

Used to unpair the old smart card from the set top box. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.unpairICCwithSTBOLD`.

**Table 2–195 A\_NAGRA-CAS\_2-7-6\_UNPAIR\_ICC-WITH-STB-OLD**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
OLD_UA	Unique address of the old smart card	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to unpair an ICC from the STB in the rollback mode. The command is same as pairing ICC with STB but the STB number is set to "0000000000".

MML Command Example:

```
0x0 0x4e 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x32 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x35
0x32 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x30 0x30 0x30
```

The above MML Command is constructed as per below values:  
 (The values are internally converted by the code into Message Bytes)

Data Length:

-----  
 Length- 78- 0x0 0x4e

Root Header:

-----  
 Transaction id- 000000002- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x32

```

Command type- 01- 0x30 0x31
Source id- 0001- 0x30 0x30 0x30 0x31
Destination id- 0002- 0x30 0x30 0x30 0x32
Mop id- 00257- 0x30 0x30 0x32 0x35 0x37
Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

```

EMM Address Header:

```

-----
Broadcast mode- N- 0x4e
Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34
Address Type- U- 0x55
Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

```

Command Body:

```

-----
Pair command id- 0052- 0x30 0x30 0x35 0x32
Stu Number- 00000000000000- 0x30 0x30
0x350 0x30 0x30

```

### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_UN SUSPEND\_ALL-SUBSCRIBER-MOP

Reactivate all the entitlements of a given mangement operator. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.UnsuspendAllSubscriberMop`.

**Table 2–196 A\_NAGRA-CAS\_2-7-6\_UN SUSPEND\_ALL-SUBSCRIBER-MOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This command is to reactivate all entitlements of services and PPV in a device as well as entitlements of the "free access" services.

MML Command Example:

```

0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x34 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x32
0x34

```

The above MML Command is constructed as per below values:  
 (The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 64- 0x0 0x40

Root Header:

-----

Transaction id- 000000004- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x34

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 0700000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----

Reactivate All Subscriber MOP command id- 0024- 0x30 0x30 0x32 0x34

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-INIT**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method **com.metasolv.cartridge.oss.nagra\_cas\_2\_7\_6.prov.VTProvisioning.virtual**.

**Table 2-197 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-INIT**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands**

**MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

## A\_NAGRA-CAS\_2-7-6\_UNUSPEND\_ALL-SUBSCRIBER-MOP-RESUME

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDLs that were fired off from the CSDL. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.UnsuspendAllSubscriberMopResume`.

**Table 2–198 A\_NAGRA-CAS\_2-7-6\_UNUSPEND\_ALL-SUBSCRIBER-MOP-RESUME**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

#### Output Parameters

Returns the parameters as CSDL and INFO parameters.

TRANSACTION\_NUMBER[i]

COMMAND\_ID[i]

STATUS[i]

ERROR\_CODE[i]

ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

## A\_NAGRA-CAS\_2-7-6\_UNUSPEND\_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK

Rollback action to clean up on failure of Unsuspend All Subscriber MOP. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.UnsuspendAllSubscriberMopResumeRollback`.

**Table 2–199 A\_NAGRA-CAS\_2-7-6\_UNUSPEND\_ALL-SUBSCRIBER-MOP-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-200 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-STOP**

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.UnsuspendAllSubscriberMopStop`.

**Table 2-201 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK**

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.UnsuspendAllSubscriberMopStopRollback`.

**Table 2-202 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-VIRTUAL**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-203 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-VIRTUAL**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-ICC**

Reactivate all the subscriptions on the smart card. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.Provisioning.unsuspendSubscriberICC`.

**Table 2-204 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-ICC**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

## MML commands

### MML Syntax :

This method is used to grant access to all subscriptions again. This method builds the reactivate subscriber ICC mml command.

MML Command Example:

```
0x0 0x40 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30
0x30 0x34 0x30 0x31 0x30 0x30 0x30 0x31
0x30 0x30 0x30 0x32 0x30 0x30 0x32 0x35
0x37 0x32 0x30 0x30 0x35 0x30 0x33 0x30
0x34 0x4e 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x32 0x30 0x30 0x35 0x30 0x33
0x30 0x34 0x55 0x30 0x37 0x30 0x30 0x30
0x30 0x30 0x30 0x30 0x39 0x30 0x30 0x32
0x31
```

The above MML Command is constructed as per below values:  
(The values are internally converted by the code into Message Bytes)

Data Length:

-----

Length- 64- 0x0 0x40

Root Header:

-----

Transaction id- 000000004- 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x34

Command type- 01- 0x30 0x31

Source id- 0001- 0x30 0x30 0x30 0x31

Destination id- 0002- 0x30 0x30 0x30 0x32

Mop id- 00257- 0x30 0x30 0x32 0x35 0x37

Creation date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

EMM Address Header:

-----

Broadcast mode- N- 0x4e

Broadcast start date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Broadcast end date- 20050304- 0x32 0x30 0x30 0x35 0x30 0x33 0x30 0x34

Address Type- U- 0x55

Unique Address- 070000009- 0x30 0x37 0x30 0x30 0x30 0x30 0x30 0x30 0x30 0x39

Command Body:

-----

Reactivate subscriber command id- 0021- 0x30 0x30 0x32 0x31

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-INIT**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

*Table 2–205 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-INIT*

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-RESUME**

The work order is resumed by the listener thread. This ASDL is used to check and interpret the responses of all the ASDL's that were fired off from the CSDL and to trigger rollback upon failure. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.unsuspendSubscriberResume`.

*Table 2–206 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-RESUME*

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses. It also cleans up the transaction numbers for the work order from the database table.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-RESUME-ROLLBACK**

Rollback action to clean up on failure of reactivation. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.unsuspendSubscriberResumeRollback`.

**Table 2–207 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-RESUME-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to check for NE responses on rollback. It also cleans up the transaction numbers for the work order from the database table.

**Output Parameters**

Returns the parameters as CSDL and INFO parameters.

RB\_TRANSACTION\_NUMBER[i]

RB\_COMMAND\_ID[i]

RB\_STATUS[i]

RB\_ERROR\_CODE[i]

RB\_ERROR\_CODE\_EXT[i]

Note:i is from 1 to any number.

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-START**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–208 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-START**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

This method is used to enable rollback. This method returns successful always.

**Output Parameters**

None.

## A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-STOP

Stop the work order and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.unsuspendSubscriberStop`.

**Table 2–209 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-STOP**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-STOP-ROLLBACK

Stop the work order in rollback mode and wait for listener thread to resume the work order. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.unsuspendSubscriberStopRollback`.

**Table 2–210 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-STOP-ROLLBACK**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

### MML commands

#### MML Syntax :

This method is used to stop the work order in rollback mode. This method exits with ASDL exit type STOP.

#### Output Parameters

None.

## A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-VIRTUAL-1

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2–211 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-VIRTUAL-1**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-VIRTUAL-2**

The sole purpose of this ASDL is to enable handling of rollback. It does not generate any mml commands to the remote NE. It is implemented by the Java method `com.metasolv.cartridge.oss.nagra_cas_2_7_6.prov.VTProvisioning.virtual`.

**Table 2-212 A\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER-VIRTUAL-2**

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	Logical NE Name.	N/A	N/A	S	R

**MML commands****MML Syntax :**

N/A

**Output Parameters**

N/A

**User Exit Types**

User exit types allow cartridge developers and systems administrators to map ASDL exit codes to one of the predefined base exit types. Base exit types determine the product behavior. Cartridges map return codes and status values from a network element to a user defined exit type.

Regular expressions (regex) are used to perform pattern searches on responses from network elements. The pattern is stored in "tbl\_user\_err" in the SARM database. The user exit type contains a regex pattern that is applied at runtime.

Regular expressions enable users to associate a series of responses to a specific base type. For example, a regular expression "6." can identify a pattern where any response with the character "6" followed by any number of characters will translate to base type of FAIL.

Regular expressions can also allow very specific searches within a response from a network element. Regular expressions are typically compiled before being executed. Compilation produces a binary version of the expression and ensures that the syntax of the regular expression is correct. This compilation occurs using SACT\SADT when user exit types are deployed into ASAP. If the syntax is deemed to be incorrect during compilation, SADT displays an error message and the deployment of the user exit type will fail.

For more information on pattern matching, refer to the *ASAP Developer's Guide* and the *ASAP System Administrator's Guide*.

## Understanding User Exit Type XML Files

```

...
<userDefinedExitType>
<neDescriptor>
<softwareLoad>DYNAMIC_SL</softwareLoad>
<technology>DYNAMIC_VENDOR-DYNAMIC_TECH</technology>
</neDescriptor>
<b><searchPattern>SUCCESS.</searchPattern>...1</b>
<b><userType>U_SUCCEED</userType>...2</b>
<b><baseType>SUCCEED</baseType>...3</b>
<description>The ASDL provisioning was successful</description>
</userDefinedExitType>
<userDefinedExitType>
<searchPattern>90.</searchPattern>
<userType>U_FAIL</userType>
<baseType>FAIL</baseType>
<description>The ASDL failed - fail the current order and stop
processing.</description>
</userDefinedExitType>
<userDefinedExitType>
<b><searchPattern>101-110[201-215]</searchPattern>...4</b>
<b><userType>U_SOFT_FAIL</userType></b>
<baseType>SOFT_FAIL</baseType>
<description>The ASDL has encountered a soft failure. Processing will
continue.</description>
</userDefinedExitType>
<userDefinedExitType>
<b><searchPattern>801-850</searchPattern>...5</b>
<b><userType>U_MINOR_ERROR</userType></b>
<baseType>SOFT_FAIL</baseType>
<description>The ASDL has encountered a soft failure. Processing will
continue.</description>
</userDefinedExitType>
<userDefinedExitType>
<b><searchPattern>251-275&&[^261-265]</searchPattern>...6</b>
<b><userType>U_DELAYED_FAIL</userType></b>
<baseType>DELAYED_FAIL</baseType>
<description>The ASDL has failed during provisioning.</description>
</userDefinedExitType>
<userDefinedExitType>
<neDescriptor>
<softwareLoad>BCS36</softwareLoad>
<technology>NORTEL_DMS</technology>
<neVendor>Nortel</neVendor>
</neDescriptor>
<searchPattern>*.</searchPattern>
<userType>U_MAINTAIN</userType>
<baseType>MAINTENANCE</baseType>
<description>The ASDL will Wait until the NE comes out of Maintenance
Mode</description>
</userDefinedExitType>

```

The numbered elements highlighted in bold in the previous code sample are explained as follows:

1. Pattern searches accommodate situations in which responses from the device contain small variants that represent the same meaning. The user type contains an

associated search pattern that is applied at runtime. Using regular expressions, you can default a series of responses. For example a regular expression "90." can specify a pattern where any response with the character "90" followed by any character will translate to base type of FAIL. If the regular expression is defined as "90\*", then any response with the character "90" followed by any number of characters will translate to base type of FAIL.

2. The user type that the search pattern maps to.
3. The base type that maps to the user type.
4. 101 to 110 and 201 to 215 will translate to a base type of SOFT\_FAIL
5. 801-850 will translate to a base type of SOFT\_FAIL. Note that the user type differs from the previous range.
6. 251 to 275 but not 261 to 265 will translate to a base type of DELAYED\_FAILURE.

The previous code sample shows some typical search pattern examples. Some additional examples follow:

- `^\.*\b(one|two|three)\b.*$` = matches a complete line of text that contains any of the words "one", "two" or "three"
- `^(?=.*?\bone\b)(?=.*?\btwo\b)(?=.*?\bthree\b).*$` matches a complete line of text that contains all of the words "one", "two" and "three"
- `"[^\r\n]*"` matches a single-line string that does not allow the quote character to appear inside the string.
- `\b\d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}\b` matches any IP address.

For more information on search patterns, refer to <http://java.sun.com/j2se/1.4.2/docs/api/java/util/regex/Pattern.html>.

For more information on user exit types, refer to the *ASAP Developer's Guide*.

## User Defined ASDL Exit Types

The following table lists the user defined ASDL exit types.

**Table 2-213 User Defined ASDL Exit Types**

Search Pattern	User Type	Base Type	Description
<code>((?s).)*SUCCEED((?s).)*</code>	NAGRA_SUCCEED	SUCCEED	Command provisioned successfully.
<code>((?s).)*Socket is not connected((?s).)*</code>	NAGRA_SOCKET_DISCONN	RETRY_DIS	Socket is not connected.
<code>((?s).)*Cannot send request((?s).)*</code>	NAGRA_CANT_SEND_REQ	RETRY_DIS	Cannot send request to NE.
<code>((?s).)*Ping failed((?s).)*</code>	NAGRA_PING_FAILED	RETRY_DIS	Nagra PING command failed.
NO_UDET_MATCH	NAGRA_NO_UDET_MATCH	FAIL	No User defined exit type matched.
<code>((?s).)*ProvCartridgeException((?s).)*</code>	NAGRA_PROV_CART_EX	FAIL	Provisioning Cartridge Exception.
<code>((?s).)*Exception((?s).)*</code>	NAGRA_GENR_CART_EX	FAIL	Generic Cartridge Exception.

## UserExitType.xml

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<serviceModel xmlns="http://www.metasolv.com/ServiceActivation/2003/ServiceModel">
  <userDefinedExitType>
    <neDescriptor>
      <softwareLoad>2-7-6</softwareLoad>
      <technology>CAS</technology>
      <neVendor>NAGRA</neVendor>
    </neDescriptor>
    <searchPattern>((?s).)*SUCCEED((?s).)*</searchPattern>
    <userType>NAGRA_SUCCEED</userType>
    <baseType>SUCCEED</baseType>
    <description>Command provisioned successfully.</description>
  </userDefinedExitType>
  .....
</serviceModel >
```



## Service Definition

The NagraVision CAS cartridge contains a set of CSDLs that map to one or more ASDL commands. You can also create additional CSDLs that map to existing and newly-created ASDLs. An upstream system can assemble any of these CSDL commands onto a work order for provisioning.

This chapter presents detailed information about the CSDL parameters in this cartridge. The following table lists and describes the type of parameter information that is included.

**Table 3–1 ASDL Parameter Information**

Item	Description
Parameter Name	Identifies the parameter that is configured for the stated service.
Description	Describes the parameter.
Range	Describes or lists the range of values that can be used to satisfy this parameter.
Default Value	Configures a default value for the parameter so that it is not mandatory for the upstream system to provide a value.
Type	<p>Indicates one of the following parameter types:</p> <ul style="list-style-type: none"> <li>■ S - Scalar, specifies the parameter label transmitted on the ASDL command. Scalar parameters are conventional name-value pair parameters.</li> <li>■ C - Compound, specifies the base name of the compound parameter transmitted on the ASDL command. A compound parameter contains structures or arrays of information that are represented by a particular structure name or compound parameter name. Each compound parameter can contain a large number of elements. If you use compound parameters, you only require a single entry in the ASAP translation tables to call the compound parameter and all its associated parameter elements.</li> <li>■ I - Indexed, identifies a parameter that contains a sequential numerical index value to tell the SARM that it should execute the same operation (for example, an ASDL command) for all occurrences of that index. Consequently, if there are several options on a particular CSDL command (OPT1, OPT2, OPT3, etc.), you can specify the OPT parameter as an indexed parameter. When you specify the OPT parameter as an indexed parameter, the SARM generates several occurrences of that same ASDL command and each command has a different value for the option being transmitted to the NEP.</li> </ul> <p>For more information on parameter types, refer to the <i>ASAP Developer's Guide</i>.</p>

**Table 3–1 (Cont.) ASDL Parameter Information**

Item	Description
Class	Indicates one of the following parameter classifications: <ul style="list-style-type: none"> <li>■ R - Required scalar parameter</li> <li>■ O - Optional scalar parameter</li> <li>■ C - Required compound parameter</li> <li>■ N - Optional compound parameter</li> <li>■ M - Mandatory indexed parameter</li> <li>■ I - Optional indexed parameter</li> <li>■ S - Parameter count</li> </ul>

For a detailed description of the Required and Optional parameter classifications, refer to the *ASAP System Administrator's Guide*.

## CSDL Commands

This cartridge provides the following CSDL commands:

- C\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-HZN-CLK
- C\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT
- C\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT
- C\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT
- C\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT
- C\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT
- C\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD
- C\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY
- C\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK
- C\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION
- C\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_INSTALL\_NEW
- C\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN

- C\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS
- C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND
- C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE
- C\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER
- C\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-MOP-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_SWAP\_STB
- C\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC
- C\_NAGRA-CAS\_2-7-6\_UNsuspend\_ALL-SUBSCRIBER-MOP-HZN-ELK
- C\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER
- C\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER-MOP-HZN-ELK

## C\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-HZN-CLK

This command is used to Activate smart card II.

**Table 3-2 C\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-HZN-CLK**

Parameter Name	Description	Range	Default Value	Type	Class
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	O
BEGIN_TIME	Subscription begin time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	O
CALL_FREQUENCY	The call back frequency. Valid values are 01 - annual, 02 - semin annual, 03 - quarterly, 04 - monthly, 05 - semi monthly or 1m days (m is 1 to F). This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
CAS_NETWORK_ID	CAS network identifier. The Range is from 000 to 999.	N/A	N/A	S	R
CATEGORY	Subscribers category. Range is from 000 to 255. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
CC_NUMBER_1	Call Collector phone number. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
CREATE_CREDIT	Flag specifying whether the credit must be created (Y) or not (N). If not defined, it will be defaulted to N.	N/A	N/A	S	O

**Table 3-2 (Cont.) C\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-HZN-CLK**

Parameter Name	Description	Range	Default Value	Type	Class
CREDIT	Credit amount representing the range: 00000.00 to 65535.99. This parameter is used only when the CREATE_CREDIT flag is set to Y.	N/A	N/A	S	O
CREDIT_LIMIT	Credit limit within the range 0.00 to 65535.99. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
DATE_FIRST_CALL	The first date (UTC) on which the smart card should call back. 8 byte of the format YYYYMMDD. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
ENABLE_AUTO_PAYMENT	Flag specifying whether online purchases should be debited automatically (Y) or not (N). This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
ENABLE_ONLINE_PURCHASE	Flag specifying whether online purchases must be accepted (Y) or not (N). This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
ENABLE_PPV_PURCHASE	Flag specifying whether PPV purchases must be accepted (Y) or not (N). This applies to both online and SMS purchase modes. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
ENABLE_PURCHASE_PROFILE	Flag specifying whether the purchase profile is enabled (Y) or not (N). If not defined, it will be defaulted to N.	N/A	N/A	S	O
ENABLE_RETURN_PATH	Flag specifying whether the return path is enabled (Y) or not (N). If not defined, it will be defaulted to N.	N/A	N/A	S	O
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	O
END_TIME	Subscription end time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	O
FREE_PRODUCT_MODE	To specify whether the number of free products are of absolute (A) or relative (R) values.. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	S	O
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 004294967295.	N/A	N/A	C	O
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 004294967295.	N/A	N/A	C	O
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R

Table 3–2 (Cont.) C\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-HZN-CLK

Parameter Name	Description	Range	Default Value	Type	Class
NO_OF_FREE_PRODUCTS	Number of free PPV or PPT product for the given product category. Range is from 00 to 99. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	C	O
PHONE_NUM_1	Primary phone number for the call collector. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
PHONE_NUM_2	Alternate phone number for the call collector. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
PHONE_NUM_3	Alternate phone number for the call collector. 16 byte. The filed will be padded with trailing ASCII SPACE characters. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
PPV_PRICE	Price of the PPV product. 5 Byte of range from 000.00 to 999.99.	N/A	N/A	C	O
PPV_PRODUCT_NAME	PPV products, product name as displayed in the PPV purchase library in the STB user interface.	N/A	N/A	C	O
PPV_PURCHASE_MODE	PPV products purchase mode value. Flag specifying whether it is a new purchase of the product (P) or a re-hit of the product (R).	N/A	N/A	C	O
PRICE	Price of the product. 5 Byte of range from 000.00 to 999.99.	N/A	N/A	C	O
PRODUCT_CATEGORY	Product category ID. Range is from 000 to 009. This parameter is used only when the ENABLE_PURCHASE_PROFILE flag is set to Y.	N/A	N/A	C	O
PRODUCT_NAME	Product name as displayed in the PPV purchase library in the STB user interface.	N/A	N/A	C	O
PURCHASE_MODE	Flag specifying whether it is a new purchase of the product (P) or a re-hit of the product (R).	N/A	N/A	C	O
SEGMENT_CATEGORY	Segment category. Range is 00 to 55.	N/A	N/A	C	O
SEGMENT_SUBCATEGORY	Segment subcategory. Range is 000 to 255.	N/A	N/A	C	O

**Table 3–2 (Cont.) C\_NAGRA-CAS\_2-7-6\_ACTIVATE\_SMART-CARD-II-HZN-CLK**

Parameter Name	Description	Range	Default Value	Type	Class
STB_CONTEXT	STB context. Combination of STB kind (e.g NagraVision native STB or MediaGuard) and CAK kind (e.g Nagra Media Access CLK or MediaGuard). The Range is from 00 to 99.	N/A	N/A	S	R
STU_NUMBER	CA STB serial number in decimal. A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	O
THRESHOLD_CREDIT	Lower limit under which the smart card must do a low credit call back representing the range 0.00 to 255.99. This parameter is used only when the ENABLE_RETURN_PATH flag is set to Y.	N/A	N/A	S	O
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
ZIP_CODE	Subscribers zip code. Range is restricted to either alphanumeric (Right padded with trailing space) or numeric (left padded with 0) values of length 9.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–3 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-HZN-CLK	A_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II
C_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-HZN-CLK	A_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-STOP
C_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-HZN-CLK	A_NAGRA-CAS_2-7-6_ACTIVATE_SMART-CARD-II-RESUME

### C\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-HZN-ELK

To Add enhanced list of new products (entitlements of services or/and PPV) for a given UA.

**Table 3–4 C\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
BEGIN_TIME	Subscription begin time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	R
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
END_TIME	Subscription end time. (UTC). 6 byte of the format HHMMSS.	N/A	N/A	C	R

**Table 3–4 (Cont.) C\_NAGRA-CAS\_2-7-6\_ADD\_ENH-LIST-OF-PRODUCTS-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
PPV_PURCHASE_MODE	PPV products purchase mode value. This value will be defaulted to P if not defined. Current release supports only P.	N/A	N/A	C	O
PURCHASE_MODE	Purchase mode value. This value will be defaulted to P if not defined. Current release supports only P.	N/A	N/A	C	O
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–5 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-STOP
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-RESUME
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-INIT
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-START
C_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_ENH-LIST-OF-PRODUCTS-VIRTUAL-1

## C\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT

Add an event product subscription.

**Table 3–6 C\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
EVENT_NAME[++]	Event name to display on set top box.	N/A	N/A	I	R
IMS_PRODUCT_ID[++]	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R

**Table 3–6 (Cont.) C\_NAGRA-CAS\_2-7-6\_ADD\_EVENT-PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
PRICE[++]	Price of the product	N/A	N/A	I	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–7 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT	A_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT
C_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT	A_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT-STOP
C_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT	A_NAGRA-CAS_2-7-6_ADD_EVENT-PRODUCT-RESUME

### C\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-HZN-ELK

To Add a list of new products (entitlements of services or/and PPV) for a given UA.

**Table 3–8 C\_NAGRA-CAS\_2-7-6\_ADD\_LIST-OF-PRODUCTS-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–9 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-STOP
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-RESUME
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-INIT
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-START
C_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_ADD_LIST-OF-PRODUCTS-VIRTUAL-1

## C\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT

Add a new product subscription.

**Table 3–10 C\_NAGRA-CAS\_2-7-6\_ADD\_PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
BEGIN_DATE[++]	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	I	R
END_DATE[++]	Subscription end date.	N/A	N/A	I	R
IMS_PRODUCT_ID[++]	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–11 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_ADD_PRODUCT	A_NAGRA-CAS_2-7-6_ADD_PRODUCT-INIT
C_NAGRA-CAS_2-7-6_ADD_PRODUCT	A_NAGRA-CAS_2-7-6_ADD_PRODUCT-START
C_NAGRA-CAS_2-7-6_ADD_PRODUCT	A_NAGRA-CAS_2-7-6_ADD_PRODUCT-VIRTUAL-1
C_NAGRA-CAS_2-7-6_ADD_PRODUCT	A_NAGRA-CAS_2-7-6_ADD_PRODUCT
C_NAGRA-CAS_2-7-6_ADD_PRODUCT	A_NAGRA-CAS_2-7-6_ADD_PRODUCT-STOP
C_NAGRA-CAS_2-7-6_ADD_PRODUCT	A_NAGRA-CAS_2-7-6_ADD_PRODUCT-RESUME

## C\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT

Cancel all products.

**Table 3–12 C\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
CBDATE	The date provided by the SMS will be ignored by the CAS and it will manage the call back date to today. Format is YYYYMMDD.	N/A	N/A	S	O
CBTIME	The callback time provided by the SMS will be ignored by the CAS and it will manage the call back time as now+10 min. Format is HHMMSS.	N/A	N/A	S	O
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–13 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-INIT
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-START
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-VIRTUAL-2
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-VIRTUAL-1
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_UNPAIR_ICC-WITH-STB
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-STOP
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-RESUME

### C\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-HZN-ELK

Cancel all products.

**Table 3–14 C\_NAGRA-CAS\_2-7-6\_CANCEL\_ALL-PRODUCT-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–15 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-STOP
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-RESUME
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-INIT
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-START
C_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-VIRTUAL-2

### C\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-HZN-ELK

Cancel or Erase all records associated within a given smart card.

**Table 3–16 C\_NAGRA-CAS\_2-7-6\_CANCEL\_ICC-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–17 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ICC
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ICC-STOP
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ICC-RESUME

**Table 3–17 (Cont.) CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ICC-INIT
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ICC-START
C_NAGRA-CAS_2-7-6_CANCEL_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_ICC-VIRTUAL

## C\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-HZN-ELK

To cancel a list of products (entitlements of services or/and PPV) for a given UA.

**Table 3–18 C\_NAGRA-CAS\_2-7-6\_CANCEL\_LIST-OF-PRODUCTS-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
IMS_PPV_PRODUCT_ID	IMS product ID. This will represents the PPV products. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–19 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-STOP
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-RESUME
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-INIT
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-START
C_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_LIST-OF-PRODUCTS-VIRTUAL-1

## C\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-HZN-ELK

This command is to remove from a subscriber profile an entire MOP record and all its associated data.

**Table 3–20 C\_NAGRA-CAS\_2-7-6\_CANCEL\_MOP-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
MOP_ID	Management operator Id to be deleted.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–21 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_MOP
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_MOP-STOP
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_MOP-RESUME
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_MOP-INIT
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_MOP-START
C_NAGRA-CAS_2-7-6_CANCEL_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CANCEL_MOP-VIRTUAL

## C\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT

Remove product subscription from the smart card.

**Table 3–22 C\_NAGRA-CAS\_2-7-6\_CANCEL\_PRODUCT**

Parameter Name	Description	Range	Default Value	Type	Class
IMS_PRODUCT_ID[++]	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–23 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-INIT
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-START
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-VIRTUAL-1

**Table 3–23 (Cont.) CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-STOP
C_NAGRA-CAS_2-7-6_CANCEL_PRODUCT	A_NAGRA-CAS_2-7-6_CANCEL_PRODUCT-RESUME

## C\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-HZN-ELK

To add a new MOP (management operator) for the given UA.

**Table 3–24 C\_NAGRA-CAS\_2-7-6\_CREATE\_MOP-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
MOP_ID	Management operator Id to be created.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–25 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CREATE_MOP
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CREATE_MOP-STOP
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CREATE_MOP-RESUME
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CREATE_MOP-INIT
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CREATE_MOP-START
C_NAGRA-CAS_2-7-6_CREATE_MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_CREATE_MOP-VIRTUAL

## C\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT

Force callback and reset the credit limit.

**Table 3–26 C\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT**

Parameter Name	Description	Range	Default Value	Type	Class
CBDATE	The date provided by the SMS will be ignored by the CAS and it will manage the call back date to today. Format is YYYYMMDD.	N/A	N/A	S	O
CBTIME	The callback time provided by the SMS will be ignored by the CAS and it will manage the call back time as now+10 min. Format is HHMMSS.	N/A	N/A	S	O

**Table 3–26 (Cont.) C\_NAGRA-CAS\_2-7-6\_FORCE\_CALLBACK-RESET-CREDIT-LIMIT**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–27 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT	A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK
C_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT	A_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT-STOP
C_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT	A_NAGRA-CAS_2-7-6_FORCE_CALLBACK-RESET-CREDIT-LIMIT-RESUME

## C\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD

Allows head-end to ask the set-top box to check if a download stream is available and performs the software upgrade if necessary.

**Table 3–28 C\_NAGRA-CAS\_2-7-6\_FORCE\_SOFTWARE-DOWNLOAD**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
VERSION_NUMBER	Version number	N/A	N/A	S	O

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–29 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD	A_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD
C_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD	A_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD-STOP
C_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD	A_NAGRA-CAS_2-7-6_FORCE_SOFTWARE-DOWNLOAD-RESUME

## C\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY

Reset and force the set top box to get a software download.

**Table 3–30 C\_NAGRA-CAS\_2-7-6\_FORCE\_STAND-BY**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–31 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_FORCE_STAND-BY	A_NAGRA-CAS_2-7-6_FORCE_STAND-BY
C_NAGRA-CAS_2-7-6_FORCE_STAND-BY	A_NAGRA-CAS_2-7-6_FORCE_STAND-BY-STOP
C_NAGRA-CAS_2-7-6_FORCE_STAND-BY	A_NAGRA-CAS_2-7-6_FORCE_STAND-BY-RESUME

## C\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK

Formats one or several logical disks of a set-top box.

**Table 3–32 C\_NAGRA-CAS\_2-7-6\_FORMAT\_LOGICAL-DISK**

Parameter Name	Description	Range	Default Value	Type	Class
DISK_ID	Disk ID	N/A	N/A	S	O
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–33 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK	A_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK
C_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK	A_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK-STOP
C_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK	A_NAGRA-CAS_2-7-6_FORMAT_LOGICAL-DISK-RESUME

## C\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION

Forces the set-top box to format the HDD partition(s) containing the push-VOD content.

**Table 3–34 C\_NAGRA-CAS\_2-7-6\_FORMAT\_PUSH-VOD-PARTITION**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–35 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION	A_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION
C_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION	A_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION-STOP
C_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION	A_NAGRA-CAS_2-7-6_FORMAT_PUSH-VOD-PARTITION-RESUME

### C\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-HZN-ELK

Request a smart card/set to box to call back the Conditional Access System immediately.

**Table 3–36 C\_NAGRA-CAS\_2-7-6\_IMMEDIATE\_CALLBACK-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
CBDATE	The date provided by the SMS will be ignored by the CAS and it will manage the call back date to today. Format is YYYYMMDD.	N/A	N/A	S	O
CBTIME	The callback time provided by the SMS will be ignored by the CAS and it will manage the call back time as now+10 min. Format is HHMMSS.	N/A	N/A	S	O
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–37 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-HZN-ELK	A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK
C_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-HZN-ELK	A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-STOP
C_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-HZN-ELK	A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-RESUME

### C\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-HZN-ELK

To Initialize UA and Add a list of new products (entitlements of services or/and PPV) for a given UA.

**Table 3–38 C\_NAGRA-CAS\_2-7-6\_INIT-ADD\_LIST-OF-PRODUCTS-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
BEGIN_DATE	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
END_DATE	Subscription end date.(UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	C	R
EVENT_NAME	Event name to display on set top box.	N/A	N/A	C	O
IMS_PPV_PRODUCT_ID	IMS product ID. This represents the PPV product. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	O
IMS_PRODUCT_ID	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	C	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
PRICE	Price of the product	N/A	N/A	C	O
STU_NUMBER	STB number in decimal.A 14 digit string in the range 0000000000000-00004294967295.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
ZIP_CODE	End users zip code. Range is 00000 to 99999	N/A	N/A	S	O

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–39 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-STOP
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-RESUME
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-INIT
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-START
C_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-HZN-ELK	A_NAGRA-CAS_2-7-6_INIT-ADD_LIST-OF-PRODUCTS-VIRTUAL-1

## C\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-HZN-ELK

Initialize the management operator zone of a new smart card.

**Table 3–40 C\_NAGRA-CAS\_2-7-6\_INITIALIZE\_ICC-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–41 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-STOP
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-RESUME
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-INIT
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-START
C_NAGRA-CAS_2-7-6_INITIALIZE_ICC-HZN-ELK	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC-VIRTUAL

## C\_NAGRA-CAS\_2-7-6\_INSTALL\_NEW

New installation.

**Table 3–42 C\_NAGRA-CAS\_2-7-6\_INSTALL\_NEW**

Parameter Name	Description	Range	Default Value	Type	Class
BEGIN_DATE[++]	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	I	R
CALL_FREQ	01 = annual 02 = semi-annual 03 = quarterly 04 = monthly 05 = semi-monthly 1m = every m' days. m range is 1..F. (F means 15days)	N/A	N/A	S	R
CBTIME	The CAS will ignore the time and will use random call back time. Format HHMMSS.	N/A	N/A	S	O
CC_IP_ADDRESS	Call collector IP address. Range is from 000.000.000.000 to 255.255.255.255	N/A	N/A	S	R
CC_IP_PORT	Call collector TCP/IP port.	N/A	N/A	S	R
CC_NUMBER_1	Call collector phone number. The field must be right padded with trailing ASCII space characters.	N/A	N/A	S	R
CREDIT	Credit amount set in smart card. Range is from 00000.00 to 65535.99	N/A	N/A	S	R
CREDIT_LIMIT	Credit limit. Range is from 00000.00 to 65535.99	N/A	65535.99	S	O
DATE_FIRST_CALL	First date on which ICC should call back. Format YYYYMMDD in UTC.	N/A	N/A	S	R
END_DATE[++]	Subscription end date.	N/A	N/A	I	R
IMS_PRODUCT_ID[++]	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
STU_NUMBER	STB number in decimal. A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	R
THRESHOLD_CREDIT	Lower limit under which the ICC must initiate a low credit call back.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–43 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_INSTALL_INIT
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_INSTALL_START
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_INSTALL_VIRTUAL-2
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_INSTALL_VIRTUAL-1
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC

**Table 3–43 (Cont.) CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_ADD_PRODUCT
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_CREATE_CREDIT-FOR-IPPV
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_REDEFINE_CREDIT-LIMIT
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_SET_CALLBACK-IPADDRESS
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_SET_CALLBACK-PHONENUMBER
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_ENABLE_AUTOMATIC-CALLBACK
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_REACTIVATE_IMPULSE-PURCHASE
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_INSTALL_STOP
C_NAGRA-CAS_2-7-6_INSTALL_NEW	A_NAGRA-CAS_2-7-6_INSTALL_RESUME

### C\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-HZN-ELK

Used to pair a smart card with set top box.

**Table 3–44 C\_NAGRA-CAS\_2-7-6\_PAIR\_ICC-WITH-STB-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
STU_NUMBER	STB number in decimal. A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–45 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-HZN-ELK	A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB
C_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-HZN-ELK	A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-STOP
C_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-HZN-ELK	A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB-RESUME

### C\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN

Reset the set top box pin.

**Table 3–46 C\_NAGRA-CAS\_2-7-6\_RESET\_STB-PIN**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
PIN	Set-top box pin number.	N/A	N/A	S	O
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–47 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_RESET_STB-PIN	A_NAGRA-CAS_2-7-6_RESET_STB-PIN
C_NAGRA-CAS_2-7-6_RESET_STB-PIN	A_NAGRA-CAS_2-7-6_RESET_STB-PIN-STOP
C_NAGRA-CAS_2-7-6_RESET_STB-PIN	A_NAGRA-CAS_2-7-6_RESET_STB-PIN-RESUME

## C\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS

Restore factory settings of the set top box.

**Table 3–48 C\_NAGRA-CAS\_2-7-6\_RESTORE\_FACTORY-SETTINGS**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–49 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS	A_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS
C_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS	A_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS-STOP
C_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS	A_NAGRA-CAS_2-7-6_RESTORE_FACTORY-SETTINGS-RESUME

## C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND

Allows to send a Generic IRD command.

**Table 3–50 C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND**

Parameter Name	Description	Range	Default Value	Type	Class
IRD_COMMAND_ID	IRD command id in decimal. 3 digit number.	N/A	N/A	S	R
IRD_DATA	IRD data in ASCII. up to 96 chars.	N/A	N/A	S	O
IRD_OPERATION	IRD operation id in decimal. 3 digit number.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–51 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-STOP
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-RESUME

### C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-HZN-ELK

Allows to send a Generic IRD command I.

**Table 3–52 C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-I-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
IRD_COMMAND_ID	IRD command id in decimal. 3 digit number.	N/A	N/A	S	R
IRD_DATA	IRD data in ASCII. up to 96 chars.	N/A	N/A	S	O
IRD_OPERATION	IRD operation id in decimal. 3 digit number.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–53 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-HZN-ELK	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-HZN-ELK	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-STOP
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-HZN-ELK	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-I-RESUME

### C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-HZN-ELK

Allows to send a Generic IRD command II.

**Table 3–54 C\_NAGRA-CAS\_2-7-6\_SEND\_IRD-GENERIC-COMMAND-II-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
IRD_COMMAND_ID	IRD command id in decimal. 3 digit number.	N/A	N/A	S	R
IRD_DATA	IRD data in ASCII. up to 142 chars.	N/A	N/A	S	O
IRD_OPERATION	IRD operation id in decimal. 3 digit number.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–55 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-HZN-ELK	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-HZN-ELK	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-STOP
C_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-HZN-ELK	A_NAGRA-CAS_2-7-6_SEND_IRD-GENERIC-COMMAND-II-RESUME

### C\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE

Allows head-end to change the set-top box community type.

**Table 3–56 C\_NAGRA-CAS\_2-7-6\_SET\_COMMUNITY-TYPE**

Parameter Name	Description	Range	Default Value	Type	Class
COMMUNITY_TYPE	Set-top box community type in decimal. 3 digit number.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–57 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE	A_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE
C_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE	A_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE-STOP
C_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE	A_NAGRA-CAS_2-7-6_SET_COMMUNITY-TYPE-RESUME

### C\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-HZN-ELK

Suspends all management operators (MOPs). This means that all entitlements of services and PPV will be denied.

**Table 3–58 C\_NAGRA-CAS\_2-7-6\_SUSPEND\_ALL-SUBSCRIBER-MOP-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–59 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP
C_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-STOP
C_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_ALL-SUBSCRIBER-MOP-RESUME

**Table 3–59 (Cont.) CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SUSPEND_ ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_ ALL-SUBSCRIBER-MOP-INIT
C_NAGRA-CAS_2-7-6_SUSPEND_ ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_ ALL-SUBSCRIBER-MOP-START
C_NAGRA-CAS_2-7-6_SUSPEND_ ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_ ALL-SUBSCRIBER-MOP-VIRTUAL

## C\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER

Suspend all the subscriptions on the smart card.

**Table 3–60 C\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–61 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-INIT
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_SUSPEND_ SUBSCRIBER-START
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_SUSPEND_ SUBSCRIBER-VIRTUAL-2
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_SUSPEND_ SUBSCRIBER-VIRTUAL-1
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNPAIR_ICC-WITH-STB
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-ICC
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-STOP
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER	A_NAGRA-CAS_2-7-6_SUSPEND_ SUBSCRIBER-RESUME

## C\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-MOP-HZN-ELK

Suspend all the entitlements of a given mangement operator.

**Table 3–62 C\_NAGRA-CAS\_2-7-6\_SUSPEND\_SUBSCRIBER-MOP-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–63 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-ICC
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-STOP
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-RESUME
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-INIT
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-START
C_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_SUSPEND_SUBSCRIBER-VIRTUAL-2

### C\_NAGRA-CAS\_2-7-6\_SWAP\_STB

Swap the set top box.

**Table 3–64 C\_NAGRA-CAS\_2-7-6\_SWAP\_STB**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
STU_NUMBER	STB number in decimal. A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3-65 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SWAP_STB	A_NAGRA-CAS_2-7-6_SWAP_STB-INIT
C_NAGRA-CAS_2-7-6_SWAP_STB	A_NAGRA-CAS_2-7-6_SWAP_STB-START
C_NAGRA-CAS_2-7-6_SWAP_STB	A_NAGRA-CAS_2-7-6_SWAP_STB-VIRTUAL-1
C_NAGRA-CAS_2-7-6_SWAP_STB	A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB
C_NAGRA-CAS_2-7-6_SWAP_STB	A_NAGRA-CAS_2-7-6_SWAP_STB-STOP
C_NAGRA-CAS_2-7-6_SWAP_STB	A_NAGRA-CAS_2-7-6_SWAP_STB-RESUME

## C\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC

Swap the set top box and smart card.

**Table 3-66 C\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC**

Parameter Name	Description	Range	Default Value	Type	Class
BEGIN_DATE[++]	Subscription begin date. (UTC). 8 byte of the format YYYYMMDD.	N/A	N/A	I	R
CALL_FREQ	01 = annual 02 = semi-annual 03 = quarterly 04 = monthly 05 = semi-monthly 1m = every m' days. m range is 1..F. (F means 15days)	N/A	N/A	S	R
CBTIME	The CAS will ignore the time and will use random call back time. Format HHMMSS.	N/A	N/A	S	O
CC_IP_ADDRESS	Call collector IP address. Range is from 000.000.000.000 to 255.255.255.255	N/A	N/A	S	R
CC_IP_PORT	Call collector TCP/IP port.	N/A	N/A	S	R
CREDIT	Credit amount set in smart card. Range is from 00000.00 to 65535.99	N/A	N/A	S	R
CREDIT_LIMIT	Credit limit. Range is from 00000.00 to 65535.99	N/A	65535.99	S	O
DATE_FIRST_CALL	First date on which ICC should call back. Format YYYYMMDD in UTC.	N/A	N/A	S	R
END_DATE[++]	Subscription end date.	N/A	N/A	I	R
IMS_PRODUCT_ID[++]	IMS product ID. 12 byte number. Range is from 000000000000 to 999999999999.	N/A	N/A	I	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
OLD_CBDATE	The old callback date provided by the SMS will be ignored by the CAS and it will manage the call back date to today. Format is YYYYMMDD.	N/A	N/A	S	O
OLD_CBTIME	The old callback time provided by the SMS will be ignored by the CAS and it will manage the call back time as now+10 min. Format is HHMMSS.	N/A	N/A	S	O

**Table 3–66 (Cont.) C\_NAGRA-CAS\_2-7-6\_SWAP\_STB-SC**

Parameter Name	Description	Range	Default Value	Type	Class
OLD_UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R
OLD_UA	Unique address of the old smart card	N/A	N/A	S	R
STU_NUMBER	STB number in decimal. A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	R
THRESHOLD_CREDIT	Lower limit under which the ICC must initiate a low credit call back.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–67 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-INIT
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-START
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-4
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-3
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-2
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-VIRTUAL-1
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_IMMEDIATE_CALLBACK-OLD
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_UNPAIR_ICC-WITH-STB-OLD
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_CANCEL_ALL-PRODUCT-OLD
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_INITIALIZE_ICC
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_ADD_PRODUCT
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_CREATE_CREDIT-FOR-IPPV
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_REDEFINE_CREDIT-LIMIT
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SET_CALLBACK-IPADDRESS
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_ENABLE_AUTOMATIC-CALLBACK
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_REACTIVATE_IMPULSE-PURCHASE
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-STOP
C_NAGRA-CAS_2-7-6_SWAP_STB-SC	A_NAGRA-CAS_2-7-6_SWAP_STB-SC-RESUME

## C\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-HZN-ELK

Reactivates all entitlements of services and PPV in a device as well as entitlements of the "free access" services.

**Table 3-68 C\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_ALL-SUBSCRIBER-MOP-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3-69 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP
C_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-STOP
C_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-RESUME
C_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-INIT
C_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-START
C_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNSUSPEND_ALL-SUBSCRIBER-MOP-VIRTUAL

## C\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER

Reactivate all the subscriptions on the smart card.

**Table 3-70 C\_NAGRA-CAS\_2-7-6\_UNSUSPEND\_SUBSCRIBER**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
STU_NUMBER	STB number in decimal. A 14 digit string in the range 00000000000000-00004294967295.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–71 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-INIT
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-START
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-VIRTUAL-2
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-VIRTUAL-1
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_PAIR_ICC-WITH-STB
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-ICC
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-STOP
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-RESUME

## C\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER-MOP-HZN-ELK

Reactivate all the entitlements of a given management operator.

**Table 3–72 C\_NAGRA-CAS\_2-7-6\_UNsuspend\_SUBSCRIBER-MOP-HZN-ELK**

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
NE_ID_NAGRA-CAS	Logical NE Name.	N/A	N/A	S	R
UA	Unique address of the smart card. A numeric string up to 10 digits long.	N/A	N/A	S	R

### Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

**Table 3–73 CSDL to ASDL Mapping**

CSDL	ASDL
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-ICC
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-STOP
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-RESUME
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-INIT
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-START
C_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-MOP-HZN-ELK	A_NAGRA-CAS_2-7-6_UNsuspend_SUBSCRIBER-VIRTUAL-2



---

---

## Configuring ASAP to Support Additional NE Instances

You can configure Oracle Communications ASAP (ASAP) to support the NAGRA-CAS\_2-7-6-HOST - NEP configuration using the Service Activation Configuration Tool (SACT). Refer to the *ASAP System Administrator's Guide* for more information.

### Extracting Source Files

Before you can access an XML file to modify it, you must extract it from the .sar file. Use the following procedure to extract source files from the sar file.

To extract source files:

1. If necessary, create a repository directory, copy the .sar file to the new directory and un-jar the sar file.
2. After you un-jar the sar file, you can access the XML files.

### Loading a New XML File

When you finish modifying an XML file, you must create a new sar file, then restart the cartridge using the new file.

### Configuration XML File

Below is an example of the Activation.Configuration.XML file for the Nagravision CAS cartridge.

```
<?xml version="1.0" encoding="UTF-8"?>
<activationConfig
xmlns="http://www.metasolv.com/ServiceActivation/2003/ActivationConfig"
xmlns:cfg="http://www.mslv.com/studio/activation/model/config"
xmlns:route="http://www.mslv.com/studio/activation/model/routing"
xmlns:sm="http://www.metasolv.com/ServiceActivation/2003/ServiceModel"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <connectionPool name="NC276LPL">
    <device name="nagra_cas_2_7_6_legacy_socket_dev1">
      <environment>DEVELOPMENT</environment>
      <lineType>SOCKET_CONNECTION</lineType>
    </device>
    <device name="nagra_cas_2_7_6_legacy_socket_dev2">
      <environment>DEVELOPMENT</environment>
      <lineType>SOCKET_CONNECTION</lineType>
    </device>
  </connectionPool>
</activationConfig>
```

```

    </device>
    <device name="nagra_cas_2_7_6_legacy_socket_dev3">
      <environment>DEVELOPMENT</environment>
      <lineType>SOCKET_CONNECTION</lineType>
    </device>
    <device name="nagra_cas_2_7_6_legacy_socket_dev4">
      <environment>DEVELOPMENT</environment>
      <lineType>SOCKET_CONNECTION</lineType>
    </device>
  </connectionPool>
  <element name="NAGRA-CAS_2-7-6-LEGACY-HOST">
    <vendor>NAGRA</vendor>
    <technology>CAS</technology>
    <softwareLoad>2-7-6</softwareLoad>
    <nepServerName>$NEP</nepServerName>
    <primaryPool>NC276LPL</primaryPool>
    <maximumConnections>4</maximumConnections>
    <dropTimeout>0</dropTimeout>
    <spawnThreshold>10</spawnThreshold>
    <killThreshold>8</killThreshold>
    <routingElement name="NAGRA-CAS_2-7-6-LEGACY-HOST" />
    <communicationParameter>
      <label>HOST_IPADDR</label>
      <value>
        <value>srvtodev08</value>
      </value>
      <description>The host name or IP Address of theremote
NE.</description>
      <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
      <label>PORT</label>
      <value>
        <value>60002</value>
      </value>
      <description>Port number to connect on remote NE
host.</description>
      <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
      <label>OPEN_TIMEOUT</label>
      <value>
        <value>20</value>
      </value>
      <description>Connection timeout in seconds.</description>
      <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
      <label>READ_TIMEOUT</label>
      <value>
        <value>30</value>
      </value>
      <description>Read timeout in seconds.</description>
      <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
      <label>SOURCE_ID</label>
      <value>
        <value>0002</value>
      </value>

```

```

        <description>Source identifier of the client provided by
Nagravision</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>DEST_ID</label>
        <value>
            <value>0002</value>
        </value>
        <description>Client destination identifier</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>MOP_PPID</label>
        <value>
            <value>30993</value>
        </value>
        <description>Technical management operator id</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>RESPONSELOG</label>
        <value>
            <value>TRUE</value>
        </value>
        <description>Flag to turn off or on Response log.</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>OBJECT_NAME</label>
        <value>
            <value>SMS_GWY</value>
        </value>
        <description>Name of the application service to which connection
should be established.</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>OPERATION_MODE</label>
        <value>
            <value>1</value>
        </value>
        <description>Data transfer operation mode.</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>BROADCAST_MODE</label>
        <value>
            <value>N</value>
        </value>
        <description>Broadcasting mode N Normal, B Batch</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>ADDRESS_TYPE</label>
        <value>
            <value>U</value>
        </value>
        <description>EMM addressing mode for EMM command. U Unique, G
Global</description>

```

```
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>IDLE_TIMER_ASDL</label>
        <value>
            <value>A_NAGRA-CAS_2-7-6_NAGRA_PING</value>
        </value>
        <description>Name of the ping ASDL</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>IDLE_TIMER_INT</label>
        <value>
            <value>240</value>
        </value>
        <description>Inactivity time interval specified in seconds within
which to trigger the ping ASDL.</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>URL</label>
        <value>
            <value>t3://10.147.251.17:4777</value>
        </value>
        <description>Url of weblogic</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>QUEUE_NAME</label>
        <value>
            <value>nagra_cas_2_7_6_request_queue</value>
        </value>
        <description>Queue name of the JMS</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>TIME_ZONE</label>
        <value>
            <value>UTC</value>
        </value>
        <description>Time zone used for creation date in request
messages.</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
    <communicationParameter>
        <label>THROTTLE</label>
        <value>
            <value>50</value>
        </value>
        <description>Time in milliseconds to throttle multiple
requests</description>
        <lineType>SOCKET_CONNECTION</lineType>
    </communicationParameter>
</element>
</activationConfig>
```

---



---

## Service Model for Asynchronous Interface

This chapter provides information on the CSDL and ASDL mapping for an asynchronous interface like Nagravision CAS (Conditional Access System).

### About Service Model Details for Asynchronous Interface

Oracle Communications ASAP supports synchronous protocols, but the Nagravision CAS is asynchronous. Asynchronous means several requests may be sent to the CAS before the corresponding responses are received. There is no guarantee on the order of the responses received.

To support this asynchronous behavior, the CSDL and ASDL mapping logic is defined, as shown in [Table 5-1](#), [Table 5-2](#), [Table 5-3](#), and [Table 5-4](#). This mapping logic is implemented in two ways for the following services:

- CAS 2.7.6 version services
- ELK/CLK 3.0.0 version services (CSDL with HZN-ELK/CLK suffix)

Following is the limitation for rollback:

- For rollback to work properly, it is recommended to have only one ACTION ASDL mapped to a CSDL.

---



---

**Note:** For a non-rollback scenario, any number of ACTION ASDLs can be mapped to a CSDL. The RESUME ASDL will interpret the results of all the ACTION ASDLs.

---



---

### About Service Model Mapping for the Services of CAS 2.7.6

[Table 5-1](#) defines the format of service model mapping of all the CSDLs when rollback support is required. The table shows a single forward atomic action and a single rollback action.

**Table 5-1** *Generic CSDL-ASDL Configuration with Rollback*

CSDL	Sequence Number	Forward ASDL	Rollback ASDL
CSDL_1	1	A_INIT	A_RESUME-ROLLBACK
CSDL_1	2	A_START	A_STOP-ROLLBACK
CSDL_1	3	A_VIRTUAL-1	A_ACTION-1-ROLLBACK
CSDL_1	4	A_ACTION-1	

**Table 5–1 (Cont.) Generic CSDL-ASDL Configuration with Rollback**

CSDL	Sequence Number	Forward ASDL	Rollback ASDL
CSDL_1	5	A_STOP	
CSDL_1	6	A_RESUME	

Table 5–2 defines the format of service model mapping of all the CSDLs when rollback support is not required.

**Table 5–2 Generic CSDL-ASDL Configuration without Rollback**

CSDL	Sequence Number	Forward ASDL
CSDL_1	1	A_ACTION-1
CSDL_1	2	A_STOP
CSDL_1	3	A_RESUME

## About Service Model Mapping for the Services of ELK/CLK 3.0.0 (CSDL with HZN-ELK/CLK Suffix)

Table 5–3 defines the format of service model mapping of all the CSDLs when rollback support is required. The table shows a single forward atomic action and a single rollback action.

**Table 5–3 Generic CSDL-ASDL Configuration with Rollback**

CSDL	Sequence Number	Forward ASDL	Rollback ASDL
CSDL_1	1	A_ACTION-1	
CSDL_1	2	A_STOP	
CSDL_1	3	A_RESUME	
CSDL_1	4	A_INIT	A_RESUME-ROLLBACK
CSDL_1	5	A_START	A_STOP-ROLLBACK
CSDL_1	6	A_VIRTUAL-1	A_ACTION-1-ROLLBACK

Table 5–4 defines the format of service model mapping of all the CSDLs when rollback support is not required.

**Table 5–4 Generic CSDL-ASDL Configuration without Rollback**

CSDL	Sequence Number	Forward ASDL
CSDL_1	1	A_ACTION-1
CSDL_1	2	A_STOP
CSDL_1	3	A_RESUME

## ASDL and Their Descriptions

Table 5–5 describes the ASDLS.

**Table 5–5 ASDLs of CAS 2.7.6 and ELK/CLK 3.0.0 Services**

ASDL	Description
A_INIT	This is a placeholder ASDL. The sole purpose of this ASDL is to enable rollback or resume rollback if required.
A_START	This is a placeholder ASDL. The sole purpose of this ASDL is to enable rollback or stop rollback if required.
A_VIRTUAL-1	This is a placeholder ASDL. The sole purpose of this ASDL is to enable rollback if required.
A_ACTION-1	This ASDL sends MML commands to the NE. The ASDL returns immediately without waiting for a response from the NE. Then the ASDL writes the work order ID and unique transaction number to the database table.
A_STOP	This ASDL stops the work order. The work order is resumed by the Listener thread when the response to A_ACTION-1 is received. See " <a href="#">About Listener Thread</a> " for more information.
A_RESUME	This ASDL interprets the response of A_ACTION-1. If the response is successful, the ASDL returns the ASDL exit type as SUCCESS. If the response is fail, the ASDL returns the ASDL exit type as FAIL. This automatically triggers rollback. This ASDL also cleans up all entries in the database table for its current work order ID.
A_ACTION-1-ROLLBACK	This ASDL sends the rollback MML command to the NE. The ASDL returns immediately without waiting for a response from the NE. Then the ASDL writes the work order ID and unique transaction number to the database table.
A_STOP-ROLLBACK	This ASDL stops the work order. The work order is resumed by the Listener thread when the response to A_ACTION-1-ROLLBACK is received. See " <a href="#">About Listener Thread</a> " for more information.
A_RESUME-ROLLBACK	This ASDL interprets the response of A_ACTION-1-ROLLBACK. If the response is successful, the ASDL returns the information parameters message to indicate that rollback is successful. If the response is fail, the ASDL returns the information parameters with the reason for failure. This ASDL also cleans up all entries in the table for its current work order ID.

**Notes:**

- Stopping an ASDL conserves resources in SARM and improves performance.
- Response handling is optimized because the response interpreter ASDL is resumed as soon as all responses to the sent MML commands are received.

## About Listener Thread

A separate thread listens on the feedback port for response messages. When a response message is received, the Listener thread inserts the response message into the row of the database table that matches the unique transaction number. If all responses of a work order ID are received, the Listener thread restarts the work order. This allows the next ASDL of that work order to resume. The resume ASDL interprets the responses to all MMLs.

