Alcatel-Lucent

INTERNET PROTOCOL MULTIMEDIA SUBSYSTEM (IMS) SOLUTION 07.04.01

EXTERNAL RELEASE NOTES

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Contents

About this document

Purpose

The purpose of this document is to provide a general overview of the IP Multimedia Subsystem (IMS) Release 07.04.01, including a list of the network element load versions, IMS network level test results, and known issues to assist service providers with field deployments of IMS Release 07.04.01.

Reason for revision

This is the first issue of the IMS Release 07.04.01 Release Notes.

Intended audience

The intended audience for this document includes all personnel who need information about the IMS 07.04.01 release, its functions, and network elements.

This document can be used by the following audiences:

- Planning and design personnel
- Maintenance personnel
- Management personnel
- System installation and integration personnel

Supported systems

See Chapter 7, System Requirements, for information on systems supported in Release 07.04.01.

Conventions used

There are no special typographical conventions used in this document.

Technical support

For technical support, contact your local Alcatel-Lucent customer support team. See the Alcatel-Lucent Support web site (http://alcatel-lucent.com/support/) for contact information.

How to order

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1   Release components

Overview

Purpose

This chapter describes the loads that comprise Release 07.04.01 and the documentation deliverables included in this release.

Software deliverables

Table 1-1 lists the loads that comprise IMS Release 07.04.01.

Table 1-1 Software release identification

Network Element/Application	Load Name in IMS 07.04.00	Load Name in IMS 07.04.01	Load Changed Since IMS 07.04.00?
1300 Cross Management Center (XMC)	1300 XMC R6.2.2.5 Plus 1300 XMC R6.2.2.5 IAP 01	1300 XMC R6.2.2.5 Plus 1300 XMC R6.2.2.5 IAP 01	No
1310 Operations and Maintenance Console – Provisioning (OMC-P)	OMC-P_13_01_00_00	**OMC-P13_02_00_01**	**Yes**
1357 Unified Lawful Interception Suite (ULIS) Lawful Interception Gateway (LIG)	R12.3.5 ed.2	R12.3.5 ed.2	No
1440 (Unified Subscriber Data Server (USDS) (includes MAS/AHE)	R7.3 SPA: hlr7.3.n04.upd72.01 MAS: ltmasr27-p0207	**R7.3 SPA: hlr7.3.n04.upd72.01 MAS: ltmasr27-p0207** **Then upgrade to: 1440 USDS R7.3 P01 MAS R27 SU2 Patch (ltmasr27-p0214)**	**Yes**
5020 Media Gateway Controller – 8 (MGC-8)	LGP-6-4-0-5-SP-1-2	LGP-6-4-0-5-SP-1-2	No
5020 Media Gateway Controller – 12 (MGC-12)	- 5020 MGC NRSX30 NGVI SP3 (SW Build w912) - A1300 CMC218 12R16 (for use with A7510 MGW B14E)	- 5020 MGC NRSX30 NGVI SP3 (SW Build w912) - A1300 CMC218 12R16 (for use with A7510 MGW B14E)	No
5100 Converged Messaging System (CMS) (AnyPath)	R10SU3	**R10SU3 (build SU3: 1000.30.4.2 and later)**	**Yes**
5420 Converged Telephony Server (CTS)	R17.18.00.01 then apply R17.18.00.02	**R17.21.01.00 Then patch to R17.21.01.01**	**Yes**
5420 Personal Communication Manager (PCM)	PCM_R6_1_0_34 Platform: - 5400 R1.2 Patch: - 5400 R1.2.2 - 5400 R1.2.2.1 TP: 6.1.0.3	**PCM 6.1.1.18** **Platform:** **- 5400 R1.2** **Patch:** **- 5400 R1.2.2** **- 5400 R1.2.2.1** **Plus -> 1.2.2.2 -> R1.3 -> R1.3.3** **TP: 6.1.0.4**	**Yes**

Network Element/Application	Load Name in IMS 07.04.00	Load Name in IMS 07.04.01	Load Changed Since IMS 07.04.00?
5440 IMS-PC Client	5440_PCC_r3.1.0.2269 (PCM)	5440_PCC_r3.1.0.2269 (PCM)	No
5450 Access Gateway Control Function (AGCF)	AGCF-5-1-1 R1S3 then patch to AGCF511R1S3P1	AGCF-5-1-1 R1S3 then patch to AGCF511R1S3P1	No
5450 IP Session Control (ISC)/ IP Resource Controller (IRC)	R17.18.00.01 then apply R17.18.00.02	**R17.21.01.00 Then patch to R17.21.01.01**	**Yes**
5750 Subscriber Services Controller (SSC)	SSC 3.1R5 and SAC/CLF 3.1R5	SSC 3.1R5 and SAC/CLF 3.1R5	No
5900 Media Resource Function (MRF)	MRF6.3.4.1	MRF6.3.4.1	No
7302 Intelligent Services Access Manager (ISAM) -V	ISAM-V-R3.7.00b	ISAM-V-R3.7.00b	No
7510 Media Gateway (MGW)	7510 R3.0 B14e	**A7510_R31N_07_05_2009_B06 (also called R3.1 SP2)**	**Yes**
7515 Media Gateway (MGW)	7515m2.4B0120	7515m2.4B0120	No
7520 Media Gateway (MGW)	LGP-6-4-0-5-SP-1-2	LGP-6-4-0-5-SP-1-2	No
7750 Service Router	7750_R6.0_R9	7750_R6.0_R9	No
8610 Instant Convergent Charging (ICC)	ICC462-MD02-DR4	ICC462-MD02-DR4	No
8615 Instant enhanced Charging Collection Function (IeCCF)	N440 Hardware: IeCCF R26SU8 and hotslide0104 MAS-R26SU8 and patch0810 ============ T2000 Hardware: IeCCF 27.3 and hotslide0104 MAS R27SU2-p0210	**N440 Hardware: IeCCF R26SU8 and hotslide0106** **MAS-R26SU8 and patch0814** **============** **T2000 Hardware: IeCCF 27.3 and hotslide0106** **MAS R27SU2-p0216**	**Yes**
8950 Services Activation Manager (SAM)	Will be updated by DR5	**15.5.4 (HP) 16.0.2 (Linux)**	**Yes**
Acme Packet Session Director (4250)	C5.1.1p23	C5.1.1p23	No
enhanced Service Manager (eSM)	eSM R26 SU9	eSM R26 SU9	No
Fortinet Fortigate Firewall	v3.0.MR5.8108	v3.0.MR5.8108	No
Lucent Control Platform (LCP) (ATCA platform only) **Includes:** **- 5420 CTS** **- 5450 ISC / IRC**	R17.18.00.01 then apply R17.18.00.02	**R17.21.01.00 Then patch to R17.21.01.01**	**Yes**

Network Element/Application	Load Name in IMS 07.04.00	Load Name in IMS 07.04.01	Load Changed Since IMS 07.04.00?
Lucent Gateway Platform (LGP) Includes: - 5020 MGC - 7520 MGW	LGP-6-4-0-5-SP-1-2	LGP-6-4-0-5-SP-1-2	No
OXE OmniPCX Enterprise	R9.0	R9.0	No
Plexus Billing and Traffic System (BTS)	BTS-6.4.1.0.15	BTS-6.4.1.0.15	No
VitalQIP	VitalQIP R7.1 DNS R4.0 Build 23 ENUM R1.2 VQIP eSM ISR: USDS-04.01.70.06 (only VQIP200 file)	VitalQIP R7.1 DNS R4.0 Build 23 ENUM R1.2 VQIP eSM ISR: USDS-04.01.70.06 (only VQIP200 file)	No
Westell TriLink™ IMS Gateway 6358	Trilink-B90/SW.02.00.04/sw2.0055.27	**Trilink-B90/SW.02.00.04/sw2.0055.27 (with Fortinet FW)** **Westell_RBGW-02.00.03.02, sw2.0055.17 (with ACME FW)**	**Yes**

How to obtain software

Please contact your Alcatel-Lucent representative to obtain software.

Document deliverables

Table 1-2 shows the solution documentation available for IMS Release 07.04.01.

Table 1-2 IMS 07.04.01 solution documentation

Title	Ordering number
IP Multimedia Subsystem Release 07.04.00 Solution Technical Description	275-100-000R07.04.00
IP Multimedia Subsystem Release 07.04.00 Solution Operations, Administration, Maintenance, & Provisioning	275-100-001R07.04.00
IMS Solution Release 07.04.01 Release Notes	275-100-004R07.04.01

Title	Ordering number
IMS Solution Release 07.04.00 Software Upgrade	275-100-035R07.04.00
IP Multimedia Subsystem Release 07.04.00 Interface Changes Specifications	275-100-050R07.04.00
IP Multimedia Subsystem Release 07.04.00 Solution System Parameters	275-100-057R07.04.00
IP Multimedia Subsystem Release 07.04.00 Solution Ports and Protocols	275-100-058R07.04.00
IP Multimedia Subsystem Release 07.04.00 Solution Growth	275-100-059R07.04.00

See the next section, "To obtain documentation", for detailed information on how to obtain IMS Solution documentation.

To obtain documentation

IMS Solution and product documentation is available to IMS Solution customers through OnLine Customer Support (OLCS).

To navigate OLCS, do the following:

1. Go to (https://support.alcatel-lucent.com/portal/productIndexByCat.do).
2. After a successful login, select **Services Collaboration** from the list on the left side of the page.
3. Select **IMS Solutions** from the list in the middle of the page.

From here, you can access the documentation through either the **IMS Solution Level Documentation** section or by selecting a network element from the **Links to network elements in the IMS Solution** section.

2   New features

Overview

Purpose

This chapter lists the features included in Release 07.04.01.

New features

The following features are included in this release:

Table 2-1 Features released in 07.04.01

Feature Number	Feature Title
33333.82	Hexadecimal Digits in Request URI(R-URI)
33333.92	Diameter Reliability for Alternate FQDN
33333.93	Call Gapping and Code Blocking
33333.102	End to end provisioning solution validation for IMS7.4
33333.123	End to End Provisioning Flow Through Performance Testing
33333.253	E2E support for Video sessions with 7510 in the bearer path

Table 2-2 Features released in 07.04.00

Feature Number	Feature Title
33333.48	R7 Rf Interface Alignment to 3GPP R7 for Offline Charging

Feature Number	Feature Title
33333.76	PSTN Emulation Services with External AGCF for Distributed IMS
33333.78	Open Numbering Plan
33333.80	Border Solution Enhancements (Distributed IMS Only)
33333.85	E2E Performance, Reliability, Stability Testing
33333.88	5420 CTS Supplementary Service Enhancements
33333.94	PSTN Emulation Services with External AGCF for Compact IMS C5 PES Services
33333.95	Distributed IMS CVoIP
33333.96	Compact IMS CVoIP
33333.97	Lawful Interception for Shared Public User Ids (ETSI)
33333.100	Field Measurable E2E Performance KPI Verification
33333.101	E2E Fault Management
33333.106	Software Upgrade IMS 07.00.00 – IMS 07.04.00

Functionality

See the specific NE documentation for configuration information.

Enhancements

There are no non-feature enhancements in this release.

3   Test results

Overview

Purpose

This chapter provides information on test execution and pass rates.

Test results/exit criteria

The following table shows the results of the IMS 07.04.01 test program. See Table 6-1 for exceptions.

Table 3-1 NLT test results

Solution	Progress Rate	Quality (Pass Rate)	Exit Criteria Status (Reached/Not Reached)
IMS7.4 core regression	100%	100%	Reached
total	100%	100%	

4 Changes to fault management, ports, protocols, and parameters

Overview

Purpose

This chapter describes fault management changes (interfaces, alarms, and messages), port and protocol, and system parameter changes in this release.

Interface changes

Changes to Northbound Interfaces

The following document describes the Northbound interface changes for the 1310 OMC-P:

- *Alcatel-Lucent 1310 OMC-P Software Release Notes, 255-400-402R13.2.0.0* (See chapter 5)

You can also refer to the following solution-level document additional information about interface changes for IMS 07.04.01 Network Elements:

- *IP Multimedia Subsystem Release 07.04.00 Solution Interface Changes Specifications*, 275-100-050R07.04.00

Changes to Southbound Interfaces

Please consult the NE-specific documentation for southbound interface changes in this release.

Alarm changes

Please consult the NE- specific documentation for alarm changes in this release.

Message changes

Please consult the NE-specific documentation for new messages or changes to messages in this release.

Port changes

No port changes have been reported for this release.

Protocol changes

No protocol changes have been reported for this release.

System parameter changes

No system parameter changes have been reported for this release.

5 Resolved issues

Overview

Purpose

This chapter describes customer-reported ARs and NLT-reported problems resolved in this release.

Resolved issues

This section will list any resolved issues that were previously reported as *Known Issues* in section 6.

Table 5-1 lists the severity 1 and 2 issues that were resolved in the loads that are part of this release.

Table 5-1 NLT-reported severity 1 and 2 open issues - resolved

NE to Lead	Resolve Rls	Fixed in Load	Current Status	Solution(s)	Exception Description
OXE	IMS7.4.1	Not Applicable	Closed no change	ip_pbx	OXE does not support P-Asserted Identify in Tel format.
Westell	IMS7.4.1	use vA90 with ACME FW, use vB90 with Fortinet FW	Resolved,	cvoip_xdsl	One way voice path after call hold/resume between two Westell SIP phones if Border Solution included in Scenario.
IeCCF	IMS7.4.1	IeCCF R26SU8/27.3 HS0106	Resolved	core	RfV7 is not fully supported from a capacity perspective.
5100 CMS	IMS7.4.1	R10SU3 (build SU3: 1000.30.4.2 and later)	Resolved	pstn	RTP fails between AnyPath and subscriber when Outcall feature used.

6   Known issues

Overview

Purpose

This chapter describes NLT-reported issues that remain open in Release 07.04.01.

Known issues and workarounds

As of July 2009, no NLT-verified customer-reported ARs have been opened against this release.

Tables 6-1and 6-2 list the severity 2 issues that were not resolved in the network element loads that are part of this release.

Table 6-1 NLT-reported severity 2 open issues from IMS 07.04.01

NE to Lead	Resolve Rls	Fixed in Load	Current Status	Solution(s)	Exception Description	Impact Statement / Workaround
5100 CMS	IMS8.3	R10SU4	fix targeted for CMS R10SU4	pstn	RTP fails between AnyPath and subscriber with Outcall feature to PSTN Endpoint.	The CMS outcall features will not work to a PSTN endpoint.

Table 6-2 NLT-reported severity 2 open issues from IMS 07.04.00

NE to Lead	Resolve Rls	Fixed in Load	Current Status	Solution(s)	Exception Description	Impact Statement / Workaround
USDS	IMS7.6	Under Investigation	SE is investigating	core	Alarm message sent to XMC does not have the correct date/time format.	The XMC will display the wrong date and time of a USDS alarm.
ISC	Under Investigation	Under Investigation	targeted to r18	cvoip_xdsl	Stby NGSS card init when Act NGSS card overloaded by high rate UE-UE call load.	The Standby Card inits and recovers.

7   System requirements

Overview

Purpose

This chapter describes IMS GUI Java dependencies and compatibility restrictions.

Software requirements

IMS GUIs JAVA Dependency

Table 7-1 shows IMS GUIs with Java installation dependencies (listed in order of installation sequence).

Table 7-1 IMS GUIs with Java installation dependencies

LCP MI GUI	Java installed per link provided during initial start of MI GUI (Java 1.5.0_06)
XMC GUI	Java installed per link provided during initial start of MI GUI (Java 1.5.0_15)

The following NE GUIs do not have Java dependencies: FS GUI (5420 CTS, 5450 ISC), 1310 OMC-P (Plexview), 5900 MRF, 5420 PCM Platform.

SUN Operating System Patch Level for Non-Integrated Components

Table 7-2 shows the SUN OS patch level for non-integrated components.

Table 7-2 SUN OS system patch level for non-integrated components

Network Element	OS Level
VitalQIP Enterprise	Solaris 10 Generic_127111-09
VitalQIP DNS	Solaris 10 Generic_127111-09
1310 OMC-P	Solaris 10 Generic_127111-09
BTS	Solaris 10 Generic_127111-09

Hardware requirements

Specific hardware requirements are addressed by the network element level release notes and documentation.

Compatibility restrictions

Backward compatibility is supported for the IMS solution software upgrade sequence from IMS 07.04.00 to IMS 07.04.01. See the *IMS Solution 07.04.00 Software Upgrade* document, 275-100-035R07.04.00, and specific NE documentation for more information. The specific upgrade path must be provided by each NE.

8 Installation and upgrade notes

Overview

Purpose

This chapter provides information on installation, upgrade procedures and security hardening.

Performing first-time installation

Contact your Alcatel-Lucent representative for first-time installation assistance.

Performing upgrades

The following solution-level document describes the recommended installation and upgrade sequence for the IMS network elements:

- *IMS Solution 07.04.00 Software Upgrade* 275-100-035R07.04.00

Upgrade paths

Upgrade to IMS 07.04.01 is supported from IMS 07.04.00. Network Elements may require multiple transitions to go from IMS 07.04.00 to IMS 07.04.01; refer to the specific NE documentation for further details.

Security hardening

Security hardening procedures and information for IMS Release 07.04.00 NEs are on OLCS. Go to: https://services.support.lucent.com/services/, click on IMS Solutions, then click on Security Hardening IMS Release 07.04.00/08.01.00. From this page, you can click on each NE for security hardening details.

Acronym List

A

AGCF
Access Gateway Control Function

ATCA
Advanced Telecommunications Computing Architecture

AR
Action Register

B

BTS
Billing and Traffic System

C

CMS
Change Management System

CTS
Converged Telephony Server

CVoIP
Consumer Voice over IP

D

DNS
Domain Name System

E

eSM
enhanced Service Manager

F

FS
Feature Server

G

GUI
Graphical User Interface

H

HSS
Home Subscriber Server

I

ICC
Internal Convergent Charging

IeCCF
Instant enhanced Charging Collection Function

IMS
IP Multimedia System

IRC
IP Resource Control

ISAM
Intelligent Services Access Manager

ISC
IP Session Control

K

KPI
Key Performance Indicators

L

LCP
Lucent Control Platform

LGP
Lawful Gateway Platform

M

MGC
Media Gateway Controller

MGW
Media Gateway

MRF
Media Resource Function

N

NE
Network Element

NLT
Network Level Test

O

OAM
Operations, Administration, Maintenance

OLCS
OnLine Customer Support

OMC-P
Operations and Maintenance Console – Provisioning

P

PCM
Personal Communication Manager

PES
PSDN Emulation Service

PSTN
Public Switched Telephony Network

S

SAM
Services Activation Manager

SDM
Subscriber Data Manager

SSC
Subscriber Services Controller

U

ULIS
Unified Lawful Intercept Suite

V

VoIP
Voice over Internet Protocol

X

XMC
Cross-domain Management Center