

# TIA DOCUMENT

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## Interoperability Specification (IOS) for cdma2000® Access Network Interfaces Release C – Addendum 1

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### TIA-2001-C-1

(Supplement to TIA-2001-C)

OCTOBER 2003

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**Interoperability Specification (IOS) for cdma2000<sup>®</sup>  
Access Network Interfaces – Addendum 1 to TIA-  
2001-C**

*TIA-2001-C-1  
Ballot Resolution Version, October 2003*

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# Foreword

(This foreword is not part of this standard.)

This document was produced by Working Groups TR45.4 of the Telecommunications Industry Association and TSG-A of the Third Generation Partnership Project 2. This document was developed in accordance with TIA/EIA and 3GPP2 procedural guidelines, and represents the consensus position of the Working Groups.

The following table indicates which parts of the base document are modified by this addendum:

Base Document	Title	Addendum 1 Document	Notes
TIA-2001.1-C	Interoperability Specification (IOS) for cdma2000® Access Network Interfaces — Part 1 Overview	TIA-2001.1-C-1	Changes relative to the base document.
TIA-2001.2-C	Interoperability Specification (IOS) for cdma2000® Access Network Interfaces — Part 2 Transport	TIA-2001.2-C-1	No changes relative to the base document.
TIA-2001.3-C	Interoperability Specification (IOS) for cdma2000® Access Network Interfaces — Part 3 Features	TIA-2001.3-C-1	Changes relative to the base document.
TIA-2001.4-C	Interoperability Specification (IOS) for cdma2000® Access Network Interfaces — Part 4 (A1, A2, and A5 Interfaces)	TIA-2001.4-C-1	Changes relative to the base document.
TIA-2001.5-C	Interoperability Specification (IOS) for cdma2000® Access Network Interfaces — Part 5 (A3 and A7 Interfaces)	TIA-2001.5-C-1	Changes relative to the base document.
TIA-2001.6-C	Interoperability Specification (IOS) for cdma2000® Access Network Interfaces — Part 6 (A8 and A9 Interfaces)	TIA-2001.6-C-1	No changes relative to the base document.
TIA-2001.7-C	Interoperability Specification (IOS) for cdma2000® Access Network Interfaces — Part 7 (A10 and A11 Interfaces)	TIA-2001.7-C-1	Changes relative to the base document.

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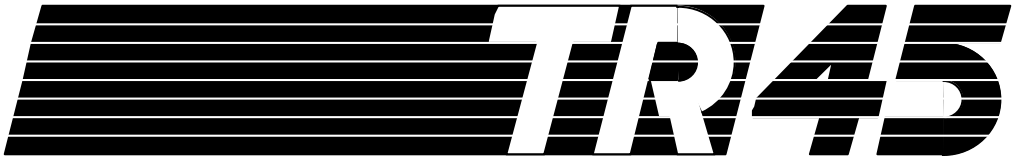
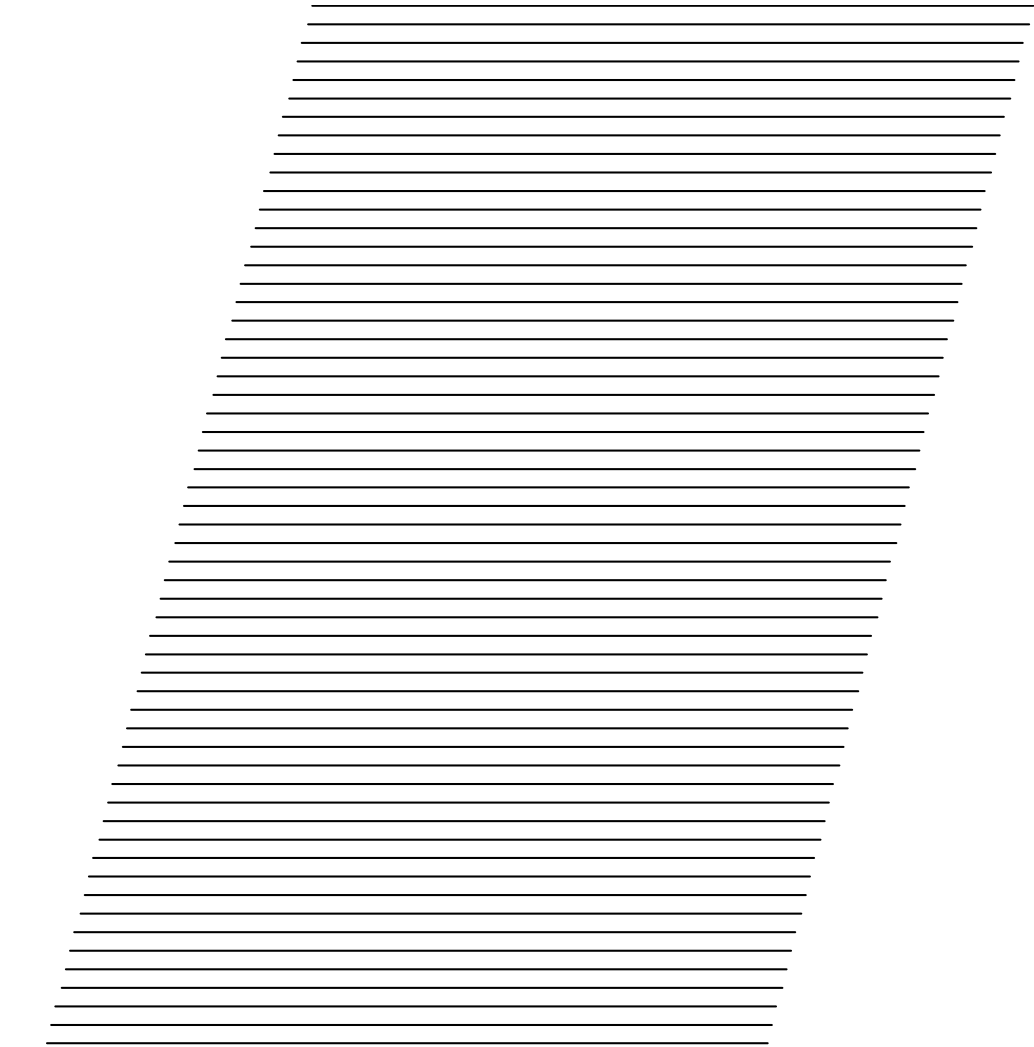
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**Interoperability Specification (IOS) for cdma2000<sup>®</sup>  
Access Network Interfaces — Part 1 Overview**

*TIA-2001.1-C-1  
October 2003*

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## 1.2.1 TIA / EIA

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- [1] TIA/EIA/IS-2000.1-**BC**, *Introduction to cdma2000<sup>®</sup> Standards for Spread Spectrum Systems*, May 2002.
- [2] TIA/EIA/IS-2000.2-**BC**, *Physical Layer Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [3] TIA/EIA/IS-2000.3-**BC**, *Medium Access Control (MAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [4] TIA/EIA/IS-2000.4-**BC**, *Signaling Link Access Control (LAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [5] TIA/EIA/IS-2000.5-**BC**, *Upper Layer (Layer 3) Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [6] TIA/EIA/IS-2000.6-**BC**, *Analog Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.

## 1.2.2 3GPP2

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- [1] 3GPP2 C.S0001-**BC**, *Introduction to cdma2000<sup>®</sup> Standards for Spread Spectrum Systems*, May 2002.
- [2] 3GPP2 C.S0002-**BC**, *Physical Layer Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [3] 3GPP2 C.S0003-**BC**, *Medium Access Control (MAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [4] 3GPP2 C.S0004-**BC**, *Signaling Link Access Control (LAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [5] 3GPP2 C.S0005-**BC**, *Upper Layer (Layer 3) Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [6] 3GPP2 C.S0006-**BC**, *Analog Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.

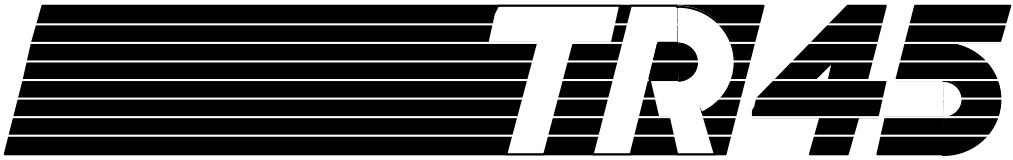
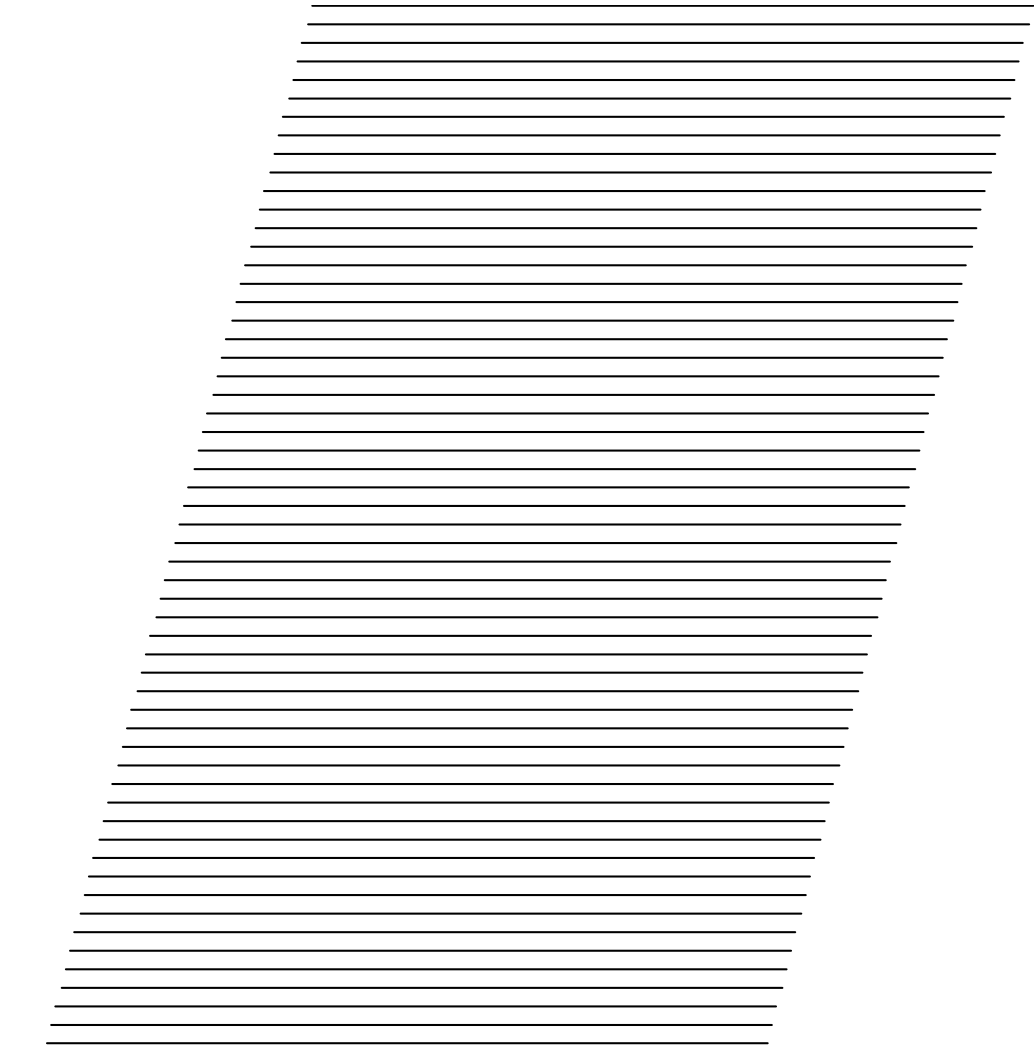
## 1.3.1 Acronyms

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<b>Acronym</b>	<b>Meaning</b>
3GPP	Third Generation Partnership Project
3GPP2	Third Generation Partnership Project 2
ANSI	American National Standards Institute
BS	Base Station
BSC	Base Station Controller
BTS	Base Transceiver System
CDMA	Code Division Multiple Access
DS-41	Direct Spread (ANSI)-41
EHDM	Extended Handoff Direction Message
EIA	Electronics Industry Association
FA	Foreign Agent
<b><u>F-PDCH</u></b>	<b><u>Forward Packet Data Channel</u></b>

<b>Acronym</b>	<b>Meaning</b>
GHDM	General Handoff Direction Message
HLR	Home Location Register
IETF	Internet Engineering Task Force
IOS	Interoperability Specification
IP	Internet Protocol
IS	Interim Standard
ISDN	Integrated Services Digital Network
IWF	Interworking Function
kbps	kilobits per second
MIP	Mobile Internet Protocol
MS	Mobile Station
MSC	Mobile Switching Center
MTSO	Mobile Telephone Switching Office
NRM	Network Reference Model
PCF	Packet Control Function
PCM	Pulse Code Modulation
PDSN	Packet Data Serving Node
<u>PLCM</u>	<u>Public Long Code Mask</u>
PSTN	Public Switched Telephone Network
RLP	Radio Link Protocol
SDU	Selection/Distribution Unit
TIA	Telecommunications Industry Association
TSB	Telecommunications Systems Bulletin
UDI	Unrestricted Digital Information
UMTS	Universal Mobile Telecommunication System
UHDM	Universal Handoff Direction Message

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**Interoperability Specification (IOS) for cdma2000<sup>®</sup>  
Access Network Interfaces — Part 2 Transport**

*TIA-2001.2-C-1  
October 2003*

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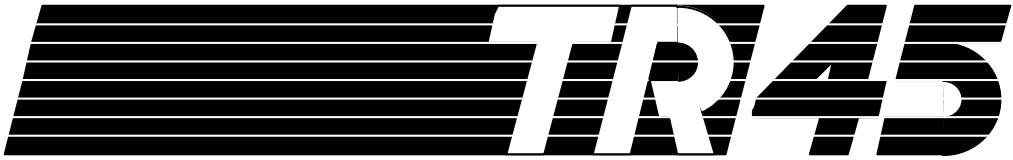
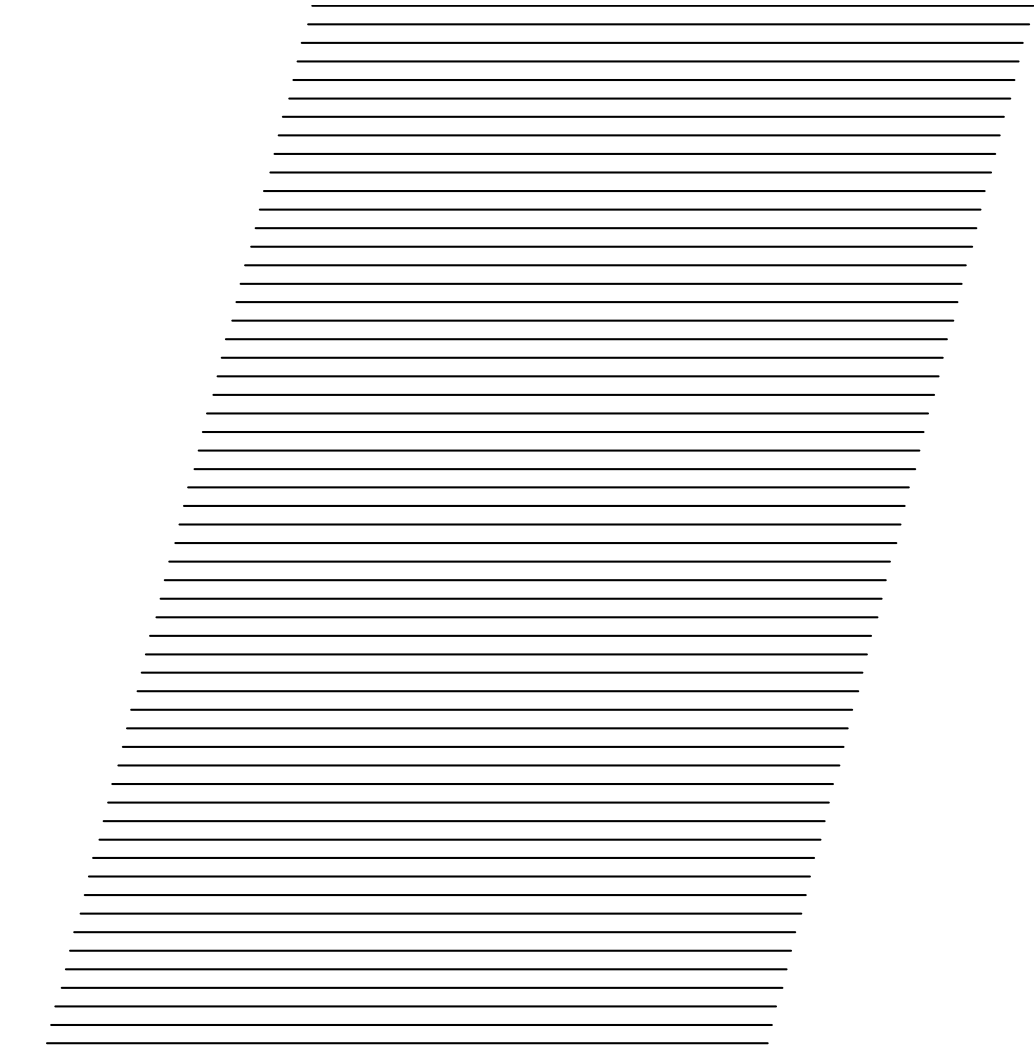
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**Interoperability Specification (IOS) for cdma2000<sup>®</sup>  
Access Network Interfaces — Part 3 Features**

*TIA-2001.3-C-1  
October 2003*

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## 1.1 Overview

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This document includes a description of the protocol and some generic procedures to support the following features and functions. Conformance to this standard may be claimed on a feature by feature and/or interface by interface basis. If conformance on a given interface is claimed for a feature, it shall be supported as defined in this standard.

The following features have been added in this revision of the standard:

- Access Control by Call Type (ACCT)
- Network Directed System Selection (NDSS)
- Reverse FCH Gating
- Vocoder Support
  - Selectable Mode Vocoder (SMV)
- Voice over IP (VoIP) Service
- Alternate Dormant Handoff Procedures
- Forward Packet Data Channel (F-PDCH) Support

In addition, the following enhancements were made to IOS functions:

- IP Transport
- Support for Origination Continuation Message
- Support for network initiated registration
- Support for AAA-Based Radio Network Packet Inactivity Timer (RN-PDIT)
- Support for Multiple Service Instances
- New types of Public Long Code Mask (PLCM)

### Features and Functions Explicitly Supported in this Standard:

- 3G Packet Data Calls
  - Call Setup (mobile originated)
  - Reactivation (mobile initiated and network initiated)
  - Handoffs (dormant, alternate dormant, hard, fast)
  - Call Clearing (mobile initiated and network initiated)
  - Transition to Dormancy
  - Accounting
  - Common Channel Packet Data (CCPD)
  - Short Data Bursts
  - F-PDCH support
- 3X Multi-Carrier
- 5 ms Messaging
- Access Control by Call Type (ACCT)
- Call Clearing of Voice and Circuit Data Calls (mobile initiated and network initiated)

- 1 • Call Setup for Voice and Circuit Data Calls (mobile originated and mobile
- 2 terminated)
- 3 • Circuit Data Calls (asynchronous data and group-3 fax)
- 4 • Circuit Voice and Packet Data Concurrent Services
- 5 • Code Combining Soft Handoff (CCSH)
- 6 • E911 Phase 1 and Phase 2
- 7 • Enhanced Rate Adaptation Mode (ERAM)
- 8 • Flex Rate
- 9 • Global Emergency Call Origination
- 10 • Handoff
  - 11 – Handoff via MSC
  - 12 – Handoff via direct BS-to-BS signaling
  - 13 – Fast Handoff
  - 14 – Hard Handoff into Soft Handoff
  - 15 – Intergenerational Packet Data Handoff
  - 16 – Alternate dormant handoff
- 17 • ISDN Interworking
- 18 • Mobile Position Determination
- 19 • Mobile Registration
- 20 • Network Directed System Selection (NDSS)
- 21 • Over the Air Service Provisioning (OTASP)
- 22 • Over the Air Parameter Administration (OTAPA)
- 23 • Priority Access and Channel Assignment (PACA)
- 24 • Rescue Channel
- 25 • Reverse FCH Gating
- 26 • Security Features
  - 27 – Terminal Authentication
  - 28 – Signaling Message Encryption
  - 29 – Voice/Data Privacy
- 30 • Short Message Service (mobile originated, mobile terminated, and broadcast) (SMS)
- 31 • Status Inquiry
- 32 • Support of DTMF
- 33 • Support for DS-41 base stations
- 34 • Support of Supplementary Services
  - 35 – Feature Activation/Deactivation: Idle and In-Call
  - 36 – Call Waiting
  - 37 – Three-Way Calling
  - 38 – Message Waiting Notification
  - 39 – Call Barring

- 1                   – Calling Number ID Presentation (CNIP) and Calling Number ID Restriction (CNIR)
- 2
- 3                   – Distinctive Ringing
- 4                   – Answer Holding
- 5                   – User Selective Call Forwarding
- 6                   • Terrestrial Circuit Management
- 7                   • Test Calls
- 8                   • TFO Support
- 9                   • User Zone
- 10                  • Vocoder Support
  - 11                  – 13K
  - 12                  – Enhanced Variable Rate Codec (EVRC)
  - 13                  – Selectable Mode Vocoder (SMV)
- 14                  • Voice over IP (VoIP) Service
- 15                  • New types of Public Long Code Mask (PLCM)

16                  ...  
17

Type of Handoff	Voice calls	Async Data and G3 Fax	Packet Data Calls <del>(up to 2-Mbps)</del>	ISDN Interworking Calls
Intra-BS, Intra-MSC Soft Handoff	Yes	Yes	Yes	Yes <sup>e</sup>
* Intra-BS, Intra-MSC Hard Handoff	Yes	Yes	Yes	Yes <sup>e</sup>
Inter-BS, Intra-MSC Soft Handoff	Yes	Yes	Yes <sup>f</sup>	Yes <sup>e</sup>
* Inter-BS, Intra-MSC Hard Handoff	Yes	Yes	Yes <sup>a</sup>	Yes <sup>e</sup>
Inter-BS, Inter-MSC Soft Handoff	Yes	Yes	Yes <sup>f</sup>	Yes <sup>e</sup>
* Inter-BS, Inter-MSC Hard Handoff	Yes	No	Yes <sup>b</sup>	Yes <sup>e</sup>
Intergenerational Handoff <sup>c</sup>	Yes	Yes	Yes <sup>d</sup>	No <sup>e</sup>

18                   Active Handoff (DS-41 hard handoff to/from MC-41): the following types of handoffs  
19                   are supported:

Type of Handoff	Voice calls	Async Data and G3 Fax	Packet Data Calls <del>(up to 2-Mbps)</del>
* Inter-BS, Intra-MSC Hard Handoff	Yes	Yes	Yes <sup>a</sup>
* Inter-BS, Inter-MSC Hard Handoff	Yes	No	Yes <sup>b</sup>

20                   \* Hard handoff is not supported for the ~~does not apply to~~ Supplemental Channels and  
21                   Forward Packet Data Channels in this revision of the standard.

22  
23                   f. Soft/softer handoff is not applicable to the Forward Packet Data Channels. Inter-BS  
24                   cell switching is not supported for the Forward Packet Data Channels in this revision  
25                   of the standard.

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## 1.2.1 TIA / EIA

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- [1] TIA/EIA/IS-2000.1-~~BC~~, *Introduction for cdma2000<sup>®</sup> Standards for Spread Spectrum Systems*, May 2002.
- [2] TIA/EIA/IS-2000.2-~~BC~~, *Physical Layer Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
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- [6] TIA/EIA/IS-2000.6-~~BC~~, *Analog Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.

## 1.2.2 3GPP2

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- [1] 3GPP2 C.S0001-~~BC~~, *Introduction to cdma2000<sup>®</sup> Standards for Spread Spectrum Systems*, May 2002.
- [2] 3GPP2 C.S0002-~~B-1C~~, *Physical Layer Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [3] 3GPP2 C.S0003-~~B-1C~~, *Medium Access Control (MAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [4] 3GPP2 C.S0004-~~B-1C~~, *Signaling Link Access Control (LAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [5] 3GPP2 C.S0005-~~B-1C~~, *Upper Layer (Layer 3) Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [6] 3GPP2 C.S0006-~~B-1C~~, *Analog Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.

## 1.3.1 Acronyms

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Acronym	Meaning
2G	Second Generation
3G	Third Generation
3GPP2	Third Generation Partnership Project 2
AAA	Authentication, Authorization and Accounting entity
AC	Authentication Center
ACCOLC	Access Overload Class
ACCT	Access Control by Call Type
ADDS	Application Data Delivery Service
AH	Answer Holding
AMPS	Advanced Mobile Phone System
APM	Access Parameters Message
AUTHBS	Authentication
AUTHR	Authentication Response
AUTHU	Unique Challenge Authentication Response
BCD	Binary Code Decimal

<b>Acronym</b>	<b>Meaning</b>
BS	Base Station
BSC	Base Station Controller
BTS	Base Transceiver System
CANID	Current Access Network Identifiers
CCPD	Common Channel Packet Data
CCSH	Code Combining Soft Handoff
CDMA	Code Division Multiple Access
CM	Connection Management
CNIP	Calling Number Identification Presentation
CNIR	Calling Number Identification Restriction
COUNT	Call History Count
CW	Call Waiting
DCCH	Dedicated Control Channel
DRS	Data Ready to Send
DS0	Digital Signal Level 0
DS-41	Direct Spread (ANSI)-41
DTMF	Dual Tone Multi-Frequency
EAPM	Enhanced Access Parameters Message
EIA	Electronics Industry Association
EPSMM	Extended Pilot Strength Measurement Message
ERAM	Enhanced Rate Adaption Mode
ESCAM	Extended Supplemental Channel Assignment Message
EVRC	Enhanced Variable Rate Codec
FCH	Fundamental Channel
<u>F-PDCH</u>	<u>Forward Packet Data Channel</u>
GRE	Generic Routing Encapsulation
HLR	Home Location Register
IE	Information Element
IMSI	International Mobile Subscriber Identity
IOS	Interoperability Specification
IP	Internet Protocol
IS	Interim Standard
ISDN	Integrated Services Digital Network
ISLP	Intersystem Link Protocol
IWF	Interworking Function
LAC	Link Access Control
LLA-ROHC	Link Layer Assisted – Robust Header Compression
MAC	Medium Access Control
MC	Message Center (alternatively: Mobile Client)
MC-41	Multi-Carrier (ANSI)-41

<b>Acronym</b>	<b>Meaning</b>
MIP	Mobile IP
MS	Mobile Station
MSC	Mobile Switching Center
MSIN	Mobile Station Identifier Number
MWI	Message Waiting Indication
NID	Network Identification
NDSS	Network Directed System Selection
NVSE	Normal Vendor Specific Extension
OAM&P	Operations, Administration, Maintenance, and Provisioning
OTAF	Over The Air Function
OTAPA	Over The Air Parameter Administration
OTASP	Over The Air Service Provisioning
PACA	Priority Access and Channel Assignment
PANID	Previous Access Network Identifiers
PCF	Packet Control Function
PCM	Pulse Coded Modulation
PDE	Position Determination Entity
PDSI	Packet Data Service Instance
PDSN	Packet Data Serving Node
PIN	Personal Identification Number
<u>PLCM</u>	<u>Public Long Code Mask</u>

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2 **2.17.12 1x-Evolved High-Speed Integrated Data and Voice Support**

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3 This feature is commonly referred to as 1x-EV-DV and is currently supported by the  
4 Forward Packet Data Channel (F-PDCH).

5 **2.17.12.1 F-PDCH Support**

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6 The F-PDCH supports high-speed packet data services on the same RF carrier that  
7 supports other cdma2000 3G 1x services such as voice. Support of packet-switched high-  
8 speed data is provided by means of a shared channel in a time division multiplexed  
9 manner in conjunction with code division multiplexing (refer to [1]-[6] for details). The  
10 F-PDCH supports higher data rates than the F-SCH. Signaling and user traffic may be  
11 multiplexed over an F-PDCH.

12 The IOS supports this feature by specifying the signaling of F-PDCH related MS  
13 capabilities. This feature is supported by the call flows for the 3G packet data calls; refer  
14 to section 3.17.

1   **3.19.1.2       Inter-BS Hard Handoff**

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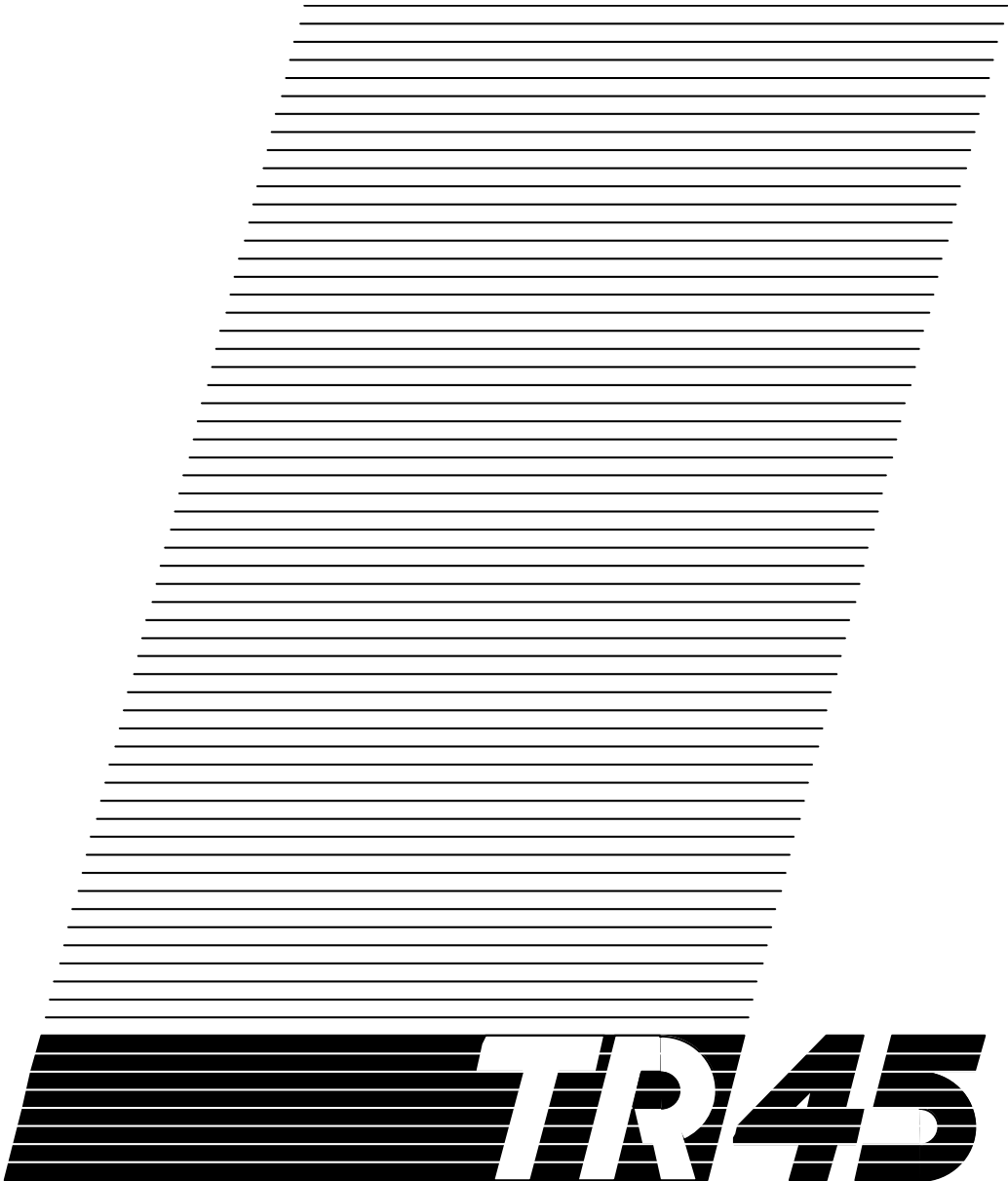
2       This section discusses the protocol to support hard handoff transitions where the source  
3       and target cells are under the domain of different BSs. For this version of the standard, it  
4       is assumed that the only CDMA traffic channels that may be transferred via inter-BS hard  
5       handoff are the Fundamental and Dedicated Control Channels (FCH and DCCH, resp.).  
6       Hard handoff of the Supplemental Channels and the Forward Packet Data Channels is not  
7       supported in this version of the standard.

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**Interoperability Specification (IOS) for cdma2000<sup>®</sup>  
Access Network Interfaces — Part 4 (A1, A2, and  
A5 Interfaces)**

*TIA-2001.4-C-1  
October 2003*

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# Foreword

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(This foreword is not part of this standard.)

This document was produced by Working Groups TR45.4 of the Telecommunications Industry Association and TSG-A of the Third Generation Partnership Project 2. This document was developed in accordance with TIA/EIA and 3GPP2 procedural guidelines, and represents the consensus position of the Working Groups.

This addendum shows text changes relative to the base document, TIA-2001.4-C.

Revisions are indicated by change bars located in the left or right hand margins, and also by specific markings applied to the text.

New text is underlined, as shown below.

This is how new text is identified.

Deleted text is crossed out, as shown below.

~~This is how deleted text is identified.~~

Omitted text is not changed. Omitted rows in a table are indicated by an ellipsis (“...”).

A modified figure is marked similarly to modified text. A new figure is underlined; a deleted figure is crossed out through the middle of the figure.

The table of contents does not identify revisions to any section heading, table, or figure.

cdma2000<sup>®</sup> is a registered trademark of the Telecommunications Industry Association (TIA – USA).

Suggestions for improvement of this standard are welcome. They should be sent to:  
Telecommunications Industry Association  
Engineering Department  
Suite 300  
250 Wilson Boulevard  
Arlington, VA 22201 USA

## 1.2.1 TIA / EIA

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For ease of cross referencing, the Telecommunications Industry Association (TIA) / Electronics Industry Association (EIA) references provided in this section are aligned with the 3GPP2 references, provided in section 1.2.2. For consistency within IOS parts, the most commonly referenced documents [1]~[17] shall be the same as they appear here in this part, or left as “Reserved” if not used in a particular IOS part.

- [1] TIA/EIA/IS-2000.1-~~BC~~, Introduction to cdma2000<sup>®</sup> Standards for Spread Spectrum Systems, May 2002.
- [2] TIA/EIA/IS-2000.2-~~B-1C~~, *Physical Layer Standard for CDMA 2000 Spread Spectrum Systems*, May 2002.
- [3] TIA/EIA/IS-2000.3-~~B-1C~~, *Medium Access Control (MAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [4] TIA/EIA/IS-2000.4-~~B-1C~~, *Signaling Link Access Control (LAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [5] TIA/EIA/IS-2000.5-~~B-1C~~, *Upper Layer (Layer 3) Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [6] TIA/EIA/IS-2000.6-~~BC~~, *Analog Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.

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## 1.2.2 3GPP2

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The 3GPP2 references are aligned with the TIA/EIA references of section 1.2.1 and are provided here for information and cross reference purposes.

- [1] 3GPP2 C.S0001-~~BC~~, Introduction to cdma2000<sup>®</sup> Standards for Spread Spectrum Systems, May 2002.
- [2] 3GPP2 C.S0002-~~B-1C~~, *Physical Layer Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [3] 3GPP2 C.S0003-~~B-1C~~, *Medium Access Control (MAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [4] 3GPP2 C.S0004-~~B-1C~~, *Signaling Link Access Control (LAC) Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [5] 3GPP2 C.S0005-~~B-1C~~, *Upper Layer (Layer 3) Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.
- [6] 3GPP2 C.S0006-~~B-1C~~, *Analog Signaling Standard for cdma2000<sup>®</sup> Spread Spectrum Systems*, May 2002.

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## 1.3.1 Acronyms

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Acronym	Meaning
2G	Second Generation
3GPP2	Third Generation Partnership Project 2
AC	Authentication Center
ADDS	Application Data Delivery Service
AMPS	Advanced Mobile Phone System

<b>Acronym</b>	<b>Meaning</b>
...	
PDSN	Packet Data Serving Node
<u>PLCM</u>	<u>Public Long Code Mask</u>
...	

**3.1.2 CM Service Request**

⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR PDC H Supported = [0,1]</u>	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4
Reserved = [0]	Geo Location Type = [000, 001, 010, 011]			Geo Location Included = [0,1]	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]			5
(MSB)								6
FCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
Reserved = [0000 0]					DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]			k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m

<u>FOR_PDCH Information: Bit-Exact Length – Octet Count</u> = [00H-FFH]								<u>m+1</u>
<u>Reserved</u> = [0000 0]				<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits</u> = [000 to 111]				<u>m+2</u>
<u>(MSB)</u>								<u>m+3</u>
<u>FOR_PDCH Information Content</u> = <any value>								<u>...</u>
	<u>Seventh Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Sixth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fifth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fourth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Third Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Second Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>First Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>n</u>

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### 3.1.4 Paging Request

<b>⇒ IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00-]	<u>FOR_PDCH Supported = [0,1]</u>	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
<u>FCH Information: Bit-Exact Length – Octet Count</u> = [00H to FFH]								4
Reserved = [0]	Geo Location Type = <any value> (Ignored)			Geo Location Included = <any value> (Ignored)	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]			5
<u>(MSB)</u>								6
<u>FCH Information Content</u> = <any value>								<u>...</u>
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
<u>DCCH Information: Bit-Exact Length – Octet Count</u> = [00H to FFH]								k+1

Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m
<u>FOR PDCH Information: Bit-Exact Length – Octet Count</u> = [00H-FFH]								<u>m+1</u>
<u>Reserved</u> = [0000 0]				<u>FOR PDCH Information:</u> <u>Bit-Exact Length – Fill Bits</u> = [000 to 111]				<u>m+2</u>
(MSB)								<u>m+3</u>
<u>FOR PDCH Information Content</u> = <any value>								<u>...</u>
	<u>Seventh Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Sixth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fifth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fourth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Third Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Second Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>First Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>n</u>

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### 3.1.5 Paging Response

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⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR PDCH Supported</u> = [0,1]	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4

Reserved = [0]	Geo Location Type = [000] (Ignored)			Geo Location Included = [0] (Ignored )	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]			5
(MSB)								6
FCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m
<u>FOR PDCH Information: Bit-Exact Length – Octet Count</u> <u>= [00H-FFH]</u>								<u>m+1</u>
<u>Reserved</u> <u>= [0000 0]</u>				<u>FOR PDCH Information:</u> <u>Bit-Exact Length – Fill Bits</u> <u>= [000 to 111]</u>				<u>m+2</u>
(MSB)								<u>m+3</u>
<u>FOR PDCH Information Content</u> <u>= &lt;any value&gt;</u>								<u>...</u>
	<u>Seventh</u> <u>Fill Bit –</u> <u>if needed</u> <u>= [0 (if</u> <u>used as a</u> <u>fill bit)]</u>	<u>Sixth Fill</u> <u>Bit – if</u> <u>needed</u> <u>= [0 (if</u> <u>used as a</u> <u>fill bit)]</u>	<u>Fifth Fill</u> <u>Bit – if</u> <u>needed</u> <u>= [0 (if</u> <u>used as a</u> <u>fill bit)]</u>	<u>Fourth</u> <u>Fill Bit –</u> <u>if needed</u> <u>= [0 (if</u> <u>used as a</u> <u>fill bit)]</u>	<u>Third</u> <u>Fill Bit –</u> <u>if needed</u> <u>= [0 (if</u> <u>used as a</u> <u>fill bit)]</u>	<u>Second</u> <u>Fill Bit –</u> <u>if needed</u> <u>= [0 (if</u> <u>used as a</u> <u>fill bit)]</u>	<u>First Fill</u> <u>Bit – if</u> <u>needed</u> <u>= [0 (if</u> <u>used as a</u> <u>fill bit)]</u>	<u>n</u>

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3.2.3 Feature Notification

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⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR PD CH Supported</u> d = [0,1]	ERAM Supported d = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported d = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4
Reserved = [0]	Geo Location Type = <any value> (Ignored)		Geo Location Included = <any value> (Ignored)	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				5
(MSB)								6
FCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m
<u>FOR PDCH Information: Bit-Exact Length – Octet Count = [00H-FFH]</u>								<u>m+1</u>
<u>Reserved = [0000 0]</u>				<u>FOR PDCH Information: Bit-Exact Length – Fill Bits = [000 to 111]</u>				<u>m+2</u>
(MSB)								<u>m+3</u>

<b>FOR_PDCH Information Content</b> = <any value>								...
	<u>Seventh Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Sixth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fifth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fourth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Third Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Second Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>First Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>n</u>

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### 3.3.1 Authentication Request

⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [000]	<u>FOR_PDCH Supported</u> = [0,1]	ERAM Supported = [0,1] (Ignored)	DCCH Supported = [0,1] (Ignored)	FCH Supported = [0,1] (Ignored)	OTD Supported = [0,1] (Ignored)	Enhanced RC CFG Supported = [0,1] (Ignored)	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H]								4
Reserved = [0]	Geo Location Type = [000, 001, 010, 011] (Ignored)			Geo Location Included = [0,1] (Ignored)	FCH Information: Bit-Exact Length – Fill Bits = [000]			5
DCCH Information: Bit-Exact Length – Octet Count = [00H]								6
Reserved = [0000 0]					DCCH Information: Bit-Exact Length – Fill Bits = [000]			7
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count</u> = [00H]								<u>8</u>
<u>Reserved</u> = [0000 0]					<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits</u> = [000]			<u>9</u>

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### 3.3.7 Location Updating Request

⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR_PD CH Supported d = [0,1]</u>	ERAM Supported d = [0,1] (Ignored)	DCCH Supported = [0,1] (Ignored)	FCH Supported = [0,1] (Ignored)	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H]								4
Reserved = [0]	Geo Location Type = [000, 001, 010, 011]			Geo Location Included = [0,1]	FCH Information: Bit-Exact Length – Fill Bits = [000]			5
DCCH Information: Bit-Exact Length – Octet Count = [00H]								6
Reserved = [0000 0]					DCCH Information: Bit-Exact Length – Fill Bits = [000]			7
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count = [00H]</u>								<u>8</u>
<u>Reserved = [0000 0]</u>					<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits = [000]</u>			<u>9</u>

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**3.3.14 Status Request**

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⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR_PD CH Supported d = [0,1]</u>	ERAM Supported d = [0,1]	DCCH Supported = [0,1] (Ignored)	FCH Supported = [0,1] (Ignored)	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H]								4
Reserved = [0]	Geo Location Type = [000, 001, 010, 011]			Geo Location Included = [0,1]	FCH Information: Bit-Exact Length – Fill Bits = [000]			5
DCCH Information: Bit-Exact Length – Octet Count = [00H]								6

Reserved = [0000 0]	DCCH Information: Bit-Exact Length – Fill Bits = [000]	7
<u>FOR PDCH Information: Bit-Exact Length – Octet Count</u> = [00H]		<u>8</u>
<u>Reserved</u> = [0000 0]	<u>FOR PDCH Information:</u> <u>Bit-Exact Length – Fill Bits</u> = [000]	<u>9</u>

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### 3.3.18 User Zone Reject

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⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR PD CH Supported</u> = [0,1]	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4
Reserved = [0]	Geo Location Type = [000, 001, 010, 011]		Geo Location Included = [0,1]	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				5
(MSB)								6
FCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
<u>Reserved</u> = [0000 0]				<u>DCCH Information:</u> <u>Bit-Exact Length – Fill Bits</u> = [000 to 111]				<u>k+2</u>
(MSB )								<u>6k+3</u>
DCCH Information Content = <any value>								...

	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	M
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count</u> = [00H-FFH]								<u>m+1</u>
<u>Reserved</u> = [0000 0]					<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits</u> = [000 to 111]			<u>m+2</u>
<u>(MSB)</u>								<u>m+3</u>
<u>FOR_PDCH Information Content</u> = <any value>								<u>...</u>
	<u>Seventh Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Sixth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fifth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fourth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Third Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Second Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>First Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>n</u>

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### 3.3.19 Registration Request

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⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR_PDC H Supported</u> = [0,1]	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4
Reserved = [0]	Geo Location Type = [000, 001, 010, 011]			Geo Location Included = [0,1]	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]		5	
<u>(MSB)</u>								6
FCH Information Content = <any value>								...

	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count = [00H-FFH]</u>								<u>m+1</u>
<u>Reserved = [0000 0]</u>				<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits = [000 to 111]</u>				<u>m+2</u>
(MSB)								<u>m+3</u>
<u>FOR_PDCH Information Content = &lt;any value&gt;</u>								<u>...</u>
	<u>Seventh Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Sixth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fifth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fourth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Third Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Second Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>First Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>n</u>

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### 3.4.1 Handoff Required

...	Encryption Information	4.2.10	BS -> MSC	O <sup>c</sup>	R
...	[Editor's note: after the Packet Session Parameters IE add the new IE titled Public Long Code Mask Identifier].				
	<u>Public Long Code Mask Identifier</u>	<u>4.2.91</u>	<u>BS-&gt;MSC</u>	<u>O<sup>bb</sup></u>	<u>C</u>

1 c. This element conveys current Voice/Data Privacy and Signaling Message Encryption  
 2 modes, as well as the Voice/Data Privacy and Signaling Message Encryption Keys,  
 3 if applicable.

4 ...

5 bb. Omission of this element without use of a Private Long Code Mask implies that the  
 6 ESN is used in generating the Public Long Code Mask.

7 This element shall be omitted if the Encryption Information element includes an  
 8 Encryption Parameter Identifier field with value set to '00100' (Private Longcode),  
 9 and if the corresponding Status bit has a value of '1' (active).

10 ...

11

⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR PD CH Supported = [0,1]</u>	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4
Reserved = [0]	Geo Location Type = <any value> (Ignored)		Geo Location Included = <any value> (Ignored)	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				5
(MSB)								6
FCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m

<u>FOR_PDCH Information: Bit-Exact Length – Octet Count</u> = [00H-FFH]							<u>m+1</u>	
<u>Reserved</u> = [0000 0]				<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits</u> = [000 to 111]			<u>m+2</u>	
<u>(MSB)</u>							<u>m+3</u>	
<u>FOR_PDCH Information Content</u> = <any value>							<u>...</u>	
	<u>Seventh Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Sixth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fifth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Fourth Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Third Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>Second Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>First Fill Bit – if needed</u> = [0 (if used as a fill bit)]	<u>n</u>

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4 [Editor’s note: after the Packet Session Parameters IE add the new IE titled Public Long Code Mask Identifier].  
5

<u>⇒ Public Long Code Mask Identifier: A1 Element Identifier = [72H]</u>			<u>1</u>
<u>Length = [06H]</u>			<u>2</u>
<u>PLCM_TYPE = [0000 (ESN-based), 0001 (BS assigned)]</u>	<u>Reserved = [00]</u>	<u>(MSB)</u>	<u>3</u>
.....			<u>4</u>
<u>PLCM_42 = &lt;any value&gt;</u>			<u>5</u>
.....			<u>6</u>
.....			<u>7</u>
.....			<u>8</u>
			<u>(LSB)</u>

6 ...

### 3.4.2 Handoff Request

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8 ...

Encryption Information	4.2.10	MSC -> BS	M <sup>b</sup>
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9 ...  
10 [Editor’s note: after the Packet Session Parameters IE add the new IE titled Public Long Code Mask Identifier].  
11

<u>Public Long Code Mask Identifier</u>	<u>4.2.91</u>	<u>MSC-&gt;BS</u>	<u>O<sup>bb</sup></u>	<u>C</u>
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b. This element conveys the current Voice/Data Privacy Signaling Message Encryption mode, as well as the Voice/Data Privacy and/or Signaling Message Encryption Keys, if applicable.

bb. This element shall be present if it was received by the MSC from the source BS.

⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR_PD CH Supported</u> = [0,1]	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4
Reserved = [0]	Geo Location Type = <any value> (Ignored)			Geo Location Included = <any value> (Ignored)	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]			5
(MSB)								6
FCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count = [00H-FFH]</u>								<u>m+1</u>
<u>Reserved = [0000 0]</u>				<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits = [000 to 111]</u>				<u>m+2</u>
(MSB)								<u>m+3</u>
<u>FOR_PDCH Information Content = &lt;any value&gt;</u>								<u>...</u>

<u>Seventh Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Sixth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fifth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fourth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Third Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Second Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>First Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>n</u>
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4 [Editor’s note: after the Packet Session Parameters IE add the new IE titled Public Long Code Mask Identifier].

5

<u>⇒ Public Long Code Mask Identifier: A1 Element Identifier = [72H]</u>			<u>1</u>
<u>Length = [06H]</u>			<u>2</u>
<u>PLCM_TYPE = [0000 (ESN-based), 0001 (BS assigned)]</u>	<u>Reserved = [00]</u>	<u>(MSB)</u>	<u>3</u>
.....			<u>4</u>
<u>PLCM_42 = &lt;any value&gt;</u>			<u>5</u>
.....			<u>6</u>
.....			<u>7</u>
<u>(LSB)</u>			<u>8</u>

6 ...

### 7 3.4.3 Handoff Request Acknowledge

8 ...

9 [Editor’s note: after the IS-2000 Channel Identity 3X IE add the new IE titled Public Long Code Mask Identifier].

10

11

<u>Public Long Code Mask Identifier</u>	<u>4.2.91</u>	<u>BS-&gt;MSC</u>	<u>O<sup>1</sup></u>	<u>C</u>
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1. This element shall be omitted if the Hard Handoff Parameters element is present with Private LCM field set to ‘1’ (Use Private Long Code Mask). Omission of this element without use of a Private Long Code Mask implies that the ESN is to be used in generating the Public Long Code Mask.

[Editor’s note: after the IS-2000 Channel Identity 3X IE add the new IE titled Public Long Code Mask Identifier].

<u>⇒ Public Long Code Mask Identifier: A1 Element Identifier = [72H]</u>			<u>1</u>
<u>Length = [06H]</u>			<u>2</u>
<u>PLCM_TYPE = [0000 (ESN-based), 0001 (BS assigned)]</u>	<u>Reserved = [00]</u>	<u>(MSB)</u>	<u>3</u>
.....			<u>4</u>
<u>PLCM_42 = &lt;any value&gt;</u>			<u>5</u>

	<u>6</u>
	<u>7</u>
(LSB)	<u>8</u>

1 ...

### 3.4.4 Handoff Command

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3 [Editor's note: after the *IS-2000* Channel Identity 3X IE add the new IE titled Public Long Code Mask Identifier].

4

<u>Public Long Code Mask Identifier</u>	<u>4.2.91</u>	<u>MSC-&gt;BS</u>	<u>O°</u>	<u>C</u>
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5 ...

6

o. This element shall be present if it was received by the MSC from the target BS.

7 ...

8 [Editor's note: after the *IS-2000* Channel Identity 3X IE add the new IE titled Public Long Code Mask Identifier].

9

<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>Octet</u>
⇒ <u>Public Long Code Mask Identifier:</u> A1 Element Identifier = [72H]								<u>1</u>
Length = [06H]								<u>2</u>
<u>PLCM_TYPE =</u> [0000 (ESN-based), 0001 (BS assigned)]				<u>Reserved = [00]</u>		<u>(MSB)</u>		<u>3</u>
								<u>4</u>
<u>PLCM_42 = &lt;any value&gt;</u>								<u>5</u>
								<u>6</u>
								<u>7</u>
(LSB)								<u>8</u>

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### 3.5.7 Reset

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⇒ <b>Software Version:</b>	A1 Element Identifier = [31H]	1
Length = <variable>		2
IOS Major Revision Level (X) = [04H]		3
IOS Minor Revision Level (Y) = [03H]		4
IOS Point Release Level (Z) = [01H]		5

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### 3.5.8 Reset Acknowledge

⇒ <b>Software Version:</b>	A1 Element Identifier = [31H]	1
Length = <variable>		2
IOS Major Revision Level (X) = [04H]		3
IOS Minor Revision Level (Y) = [03H]		4
IOS Point Release Level (Z) = <u>[01H]</u>		5

### 3.6.1 ADDS Page

⇒ <b>IS-2000 Mobile Capabilities:</b>								A1 Element Identifier = [11H]	1
Length = <variable>								2	
Reserved = [00]	<u>FOR_PD CH Supported = [0,1]</u>	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3	
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4	
Reserved = [0]	Geo Location Type = <any value> (Ignored)			Geo Location Included = <any value> (Ignored)	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]			5	
(MSB)								6	
FCH Information Content = <any value>								...	
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k	
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1	
Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2	
(MSB)								k+3	

DCCH Information Content = <any value>								...
Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m	
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count</u> = [00H-FFH]								<u>m+1</u>
<u>Reserved</u> = [0000 0]				<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits</u> = [000 to 111]				<u>m+2</u>
(MSB)								<u>m+3</u>
<u>FOR_PDCH Information Content</u> = <any value>								<u>...</u>
<u>Seventh Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Sixth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fifth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fourth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Third Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Second Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>First Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>n</u>	

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### 3.6.3 ADDS Transfer

⇒ <b>IS-2000 Mobile Capabilities:</b> A1 Element Identifier = [11H]								1
Length = <variable>								2
Reserved = [00]	<u>FOR_PDC H Supported</u> = [0,1]	ERAM Supported = [0,1]	DCCH Supported = [0,1]	FCH Supported = [0,1]	OTD Supported = [0,1]	Enhanced RC CFG Supported = [0,1]	QPCH Supported = [0,1]	3
FCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								4
Reserved = [0]	Geo Location Type = [000, 001, 010, 011]			Geo Location Included = [0,1]	FCH Information: Bit-Exact Length – Fill Bits = [000 to 111]			5
(MSB)								6
FCH Information Content = <any value>								...

	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	k
DCCH Information: Bit-Exact Length – Octet Count = [00H to FFH]								k+1
Reserved = [0000 0]				DCCH Information: Bit-Exact Length – Fill Bits = [000 to 111]				k+2
(MSB)								k+3
DCCH Information Content = <any value>								...
	Seventh Fill Bit – if needed = [0 (if used as a fill bit)]	Sixth Fill Bit – if needed = [0 (if used as a fill bit)]	Fifth Fill Bit – if needed = [0 (if used as a fill bit)]	Fourth Fill Bit – if needed = [0 (if used as a fill bit)]	Third Fill Bit – if needed = [0 (if used as a fill bit)]	Second Fill Bit – if needed = [0 (if used as a fill bit)]	First Fill Bit – if needed = [0 (if used as a fill bit)]	m
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count = [00H-FFH]</u>								<u>m+1</u>
<u>Reserved = [0000 0]</u>				<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits = [000 to 111]</u>				<u>m+2</u>
(MSB)								<u>m+3</u>
<u>FOR_PDCH Information Content = &lt;any value&gt;</u>								<u>...</u>
	<u>Seventh Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Sixth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fifth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Fourth Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Third Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>Second Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>First Fill Bit – if needed = [0 (if used as a fill bit)]</u>	<u>n</u>

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#### 4.1.2 Information Element Identifiers

Table 4.1.2-1 A1 Information Element Identifiers Sorted by Identifier Value

Element Name	Identifier (Hex)	Reference
Session Reference Identifier (SR_ID)	71H	4.2.90
<u>Public Long Code Mask Identifier</u>	<u>72H</u>	<u>4.2.91</u>
(unused – available element identifier values)	<u>73H</u> – 7BH	

1 **4.1.5 Cross Reference of Information Elements With Messages**

---

Table 4.1.5-1 (Cont.) Cross Reference of Information Elements with Messages

Information Element	Used in These Messages
---------------------	------------------------

[Editor's note: after the PSMM Count IE add the new IE titled Public Long Code Mask Identifier].

<u>Public Long Code Mask Identifier</u> <u>4.2.91</u>	<u>Handoff Required</u> <u>3.4.1</u>
	<u>Handoff Request</u> <u>3.4.2</u>
	<u>Handoff Request Acknowledge</u> <u>3.4.3</u>
	<u>Handoff Command</u> <u>3.4.4</u>

#### 4.2.57 IS-2000 Mobile Capabilities

7	6	5	4	3	2	1	0	Octet
A1 Element Identifier								1
Length								2
Reserved	<u>FOR_PD CH Supported</u>	ERAM Supported	DCCH Supported	FCH Supported	OTD Supported	Enhanced RC CFG Supported	QPCH Supported	3
FCH Information: Bit-Exact Length – Octet Count								4
Reserved	Geo Location Type		Geo Location Included		FCH Information: Bit-Exact Length – Fill Bits			5
(MSB)								6
FCH Information Content								...
	Seventh Fill Bit – if needed	Sixth Fill Bit – if needed	Fifth Fill Bit – if needed	Fourth Fill Bit – if needed	Third Fill Bit – if needed	Second Fill Bit – if needed	First Fill Bit – if needed	k
DCCH Information: Bit-Exact Length – Octet Count								k+1
Reserved					DCCH Information: Bit-Exact Length – Fill Bits			k+2
(MSB)								k+3
DCCH Information Content								...
	Seventh Fill Bit – if needed	Sixth Fill Bit – if needed	Fifth Fill Bit – if needed	Fourth Fill Bit – if needed	Third Fill Bit – if needed	Second Fill Bit – if needed	First Fill Bit – if needed	m
<u>FOR_PDCH Information: Bit-Exact Length – Octet Count</u>								<u>m+1</u>
<u>Reserved</u>					<u>FOR_PDCH Information: Bit-Exact Length – Fill Bits</u>			<u>m+2</u>
(MSB)								<u>m+3</u>
<u>FOR_PDCH Information Content</u>								<u>...</u>

	<u>Seventh Fill Bit – if needed</u>	<u>Sixth Fill Bit – if needed</u>	<u>Fifth Fill Bit – if needed</u>	<u>Fourth Fill Bit – if needed</u>	<u>Third Fill Bit – if needed</u>	<u>Second Fill Bit – if needed</u>	<u>First Fill Bit – if needed</u>	<u>n</u>
--	-------------------------------------	-----------------------------------	-----------------------------------	------------------------------------	-----------------------------------	------------------------------------	-----------------------------------	----------

[Editor’s note: after the Length definition add the following:]

FOR\_PDCH Supported:

This field is set to ‘1’ if the MS indicated that it supports the IS-2000 F-PDCH, otherwise it is set to ‘0’.

[Editor’s note: after DCCH Information Content definition add the following:]

FOR\_PDCH Information: Bit-Exact Length – Octet Count:

This field contains the total number of octets in the FOR\_PDCH Information Content field represented as a binary value.

FOR\_PDCH Information: Bit-Exact Length – Fill Bits

This field contains a binary value indicating the number of fill bits contained in the last octet of the FOR\_PDCH Information Content field. If this field contains a non-zero value, the indicated number of fill bits are set to ‘0’ and occupy the low order bit positions of the last octet of the FOR\_PDCH Information Content field.

FOR\_PDCH Information Content:

The FOR\_PDCH Capabilities Information field is coded per [5] section 2.7.4.27.5.

**4.2.91 Public Long Code Mask Identifier**

When sent from source BS to target BS, this element conveys the Public Long Code Mask type and value in use at the source BS. When sent from target BS to source BS, this element conveys the Public Long Code Mask type and value that will be used by the target BS after handoff. It is coded as follows:

<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>Octet</u>
<u>A1 Element Identifier</u>								<u>1</u>
<u>Length</u>								<u>2</u>
<u>PLCM_TYPE</u>				<u>Reserved</u>		<u>(MSB)</u>		<u>3</u>
.....								<u>4</u>
<u>PLCM_42</u>								<u>5</u>
.....								<u>6</u>
.....								<u>7</u>
.....								<u>8</u>
								<u>(LSB)</u>

Length:

The length field is defined as the number of octets following the Length field.

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PLCM\_TYPE:

The Public Long Code Mask Type indicator.

The base station shall set this field to the corresponding Public Long Code Mask type as specified in [5].

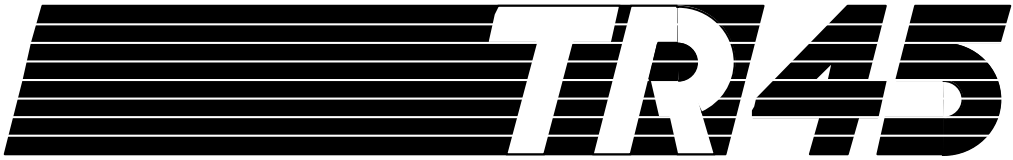
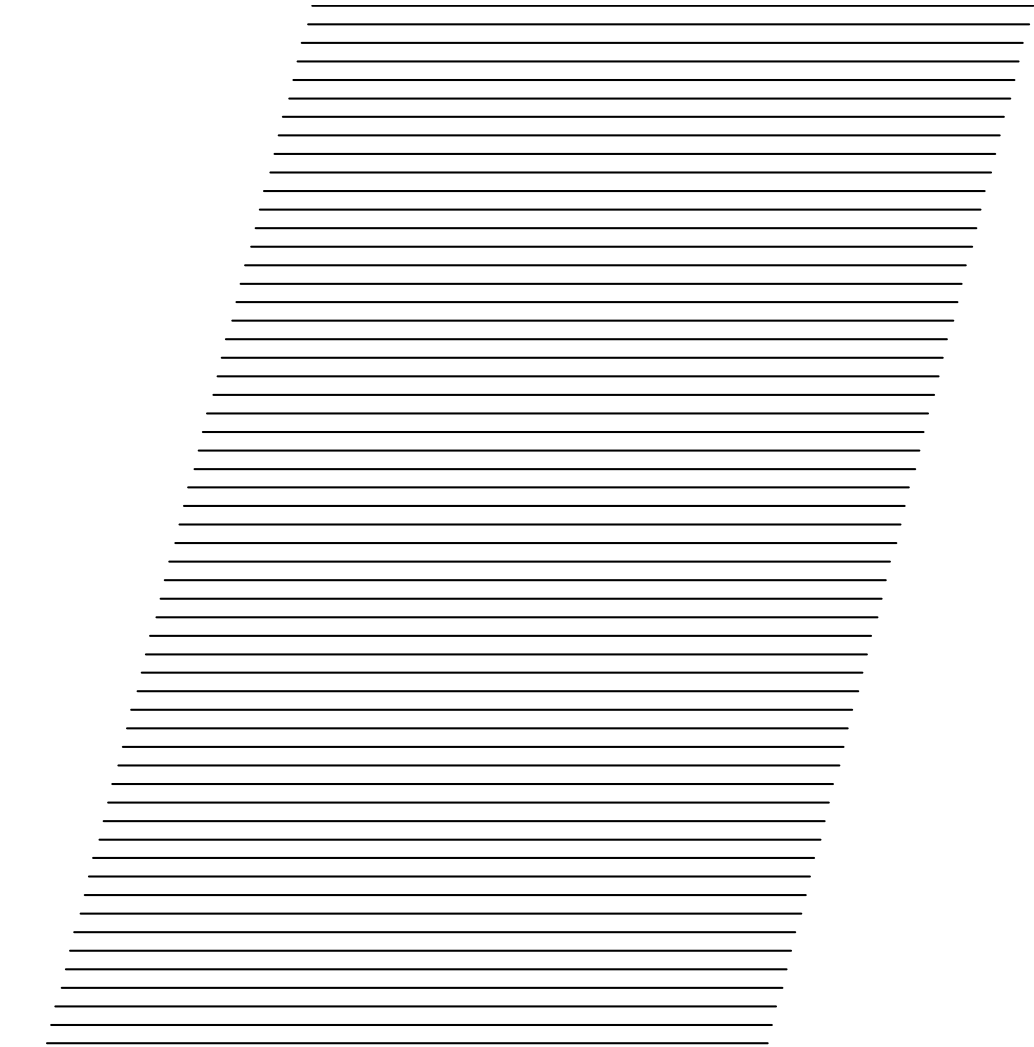
PLCM\_42:

The 42 bits of the Public Long Code Mask (refer to [5]).

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**Interoperability Specification (IOS) for cdma2000<sup>®</sup>  
 Access Network Interfaces — Part 5 (A3 and A7  
 Interfaces)**

*TIA-2001.5-C-1  
 October 2003*

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### 1.3.1 Acronyms

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<b>Acronym</b>	<b>Meaning</b>
2G	Second Generation
3GPP2	Third Generation Partnership Project 2
AAL2	ATM Adaptation Layer type 2
ANSI	American National Standards Institute
ARFCN	Absolute Radio Frequency Channel Number
ASCII	American Standard Code for Information Interchange
ATM	Asynchronous Transfer Mode
BCD	Binary Coded Decimal
BS	Base Station
BTS	Base Transceiver System
CCSH	Code Combining Soft Handoff
CDG	CDMA Development Group
CDMA	Code Division Multiple Access
CE	Channel Element
CI	Cell Identity
CID	Connection Identifier (used with reference to AAL2)
CRC	Cyclic Redundancy Code (or check)
DCCH	Dedicated Control Channel
DS-41	Direct Spread (ANSI)-41
DTX	Discontinuous Transmission
EIA	Electronics Industry Association
EIB	Erasure Indicator Bit
ESCAM	Extended Supplemental Channel Assignment Message
ESN	Electronic Serial Number
FCH	Fundamental Channel
FER	Frame Error Rate
FPC	Forward Power Control
FQI	Frame Quality Indicator
FSN	Frame Sequence Number
GR	Gain Ratio
IE	Information Element
IMSI	International Mobile Subscriber Identity
IMT	International Mobile Telecommunications
IOS	Interoperability Specification
IP	Internet Protocol
IS	Interim Standard
ITU	International Telecommunications Union

<b>Acronym</b>	<b>Meaning</b>
JTACS	Japanese Total Access Communications
LAC	Location Area Code
LCM	Long Code Mask
LSB	Least Significant Bit
MCC	Mobile Country Code
MNC	Mobile Network Code
MS	Mobile Station
MSB	Most Significant Bit
MSC	Mobile Switching Center
MSCID	Mobile Station Connection Identifier
MUX	Multiplexer
NMT	Nordic Mobile Telephone
OAM&P	Operations, Administration, Maintenance, and Provisioning
OLT	Outer Loop Threshold
OTD	Orthogonal Transmit Diversity
PATE	Packet Arrival Time Error
PCS	Personal Communications System
<u>PLCM</u>	<u>Public Long Code Mask</u>

...

### 3.1.7 A3-Physical Transition Directive

...				
CDMA Long Code Transition Info	4.2.31	SDU -> BTS	O <sup>c</sup>	C
...				
Privacy Info	4.2.36	SDU -> BTS	O <sup>g</sup>	C

c. This element shall be included when the purpose of this message is to cause a change to the long code ~~key mask in use for encrypting the physical channel~~. If the Privacy Info element is not present, then the ~~Private~~-Long Code Mask value that corresponds to the LCM\_TYPE (public or private) and that was most recently received in A7-Handoff Request shall apply.

g. This element shall be included when the source BS informs the target BS of a new ~~Private~~-Long Code Mask value.

⇒ <b>Privacy Info:</b> A3/A7 Element Identifier = [1DH]				1
Length = [08H]				2
Reserved = [0]	Privacy Mask Type = [00001, 00010] ( <u>public</u> , private)	Status = [0,1]	Available = [0,1]	3
Privacy Mask Length = [06H]				4

(MSB)	Privacy Mask = <any value>	5
	...	...
	(LSB)	10

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### 3.1.8 A3-Physical Transition Directive Ack

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PMC Cause	4.2.24	BTS -> SDU	O <sup>b</sup>	C
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- b. Allowable PMC Cause values are: ~~Private long code not available or not supported~~, Requested reverse pilot gating rate not supported, Requested FPC mode change failed, ~~Private long code not available or not supported~~, ~~Request privacy configuration unavailable~~, ~~Long code value not available~~.

5 ...

⇒ <b>PMC Cause:</b>	A3/A7 Element Identifier = [05H]	1
	Length = [01H]	2
	PMC Cause Value = [05H (Requested reverse pilot gating rate not supported), 08H (Requested FPC mode change failed), 0DH (Private long code not available or not supported), 0FH (Requested privacy configuration unavailable), <del>10H (Long code value not available)]</del>	3

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### 3.2.1 A7-Handoff Request

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Privacy Info	4.2.36	Source BS -> Target BS	O <sup>n</sup>	C
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- n. This element is included if the ~~Privacy-Long Code~~ Mask is available. ~~Omission of this element implies that the ESN is used in generating the Public Long Code Mask.~~

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### 3.2.2 A7-Handoff Request Ack

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⇒ <b>Cause List:</b>	A3/A7 Element Identifier = [19H]	1
	Length = <variable>	2
<i>Cause Value {1+:</i>		

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Reserved = [0]	Cause Value = = [07H (OAM&P intervention), 11H (service option not available), 20H ( equipment failure), 21H (no radio resource available), 27H (2G Sector Only), 28H (2G Carrier Only), 35H (Requested FPC Mode Change Failed), 40H (ciphering algorithm not supported), 41H (Private Long Code not available or not supported), 42H (Requested MUX option or rates not available), 43H (Requested Privacy Configuration unavailable), 44H (SCH not supported), <u>46H (Long code value not available)</u> ]	k
} Cause Value		

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#### 4.2.4 Cause

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Service or Option Not Implemented Class (100 xxxx)								
1	0	0	0	0	0	0	40	Ciphering algorithm not supported
1	0	0	0	0	0	1	41	Private long code not available or not supported.
1	0	0	0	0	1	0	42	Requested MUX option or rates not available.
1	0	0	0	0	1	1	43	Requested privacy configuration unavailable
1	0	0	0	1	0	0	44	SCH not supported
<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>46</u>	<u>Long code value not available</u>

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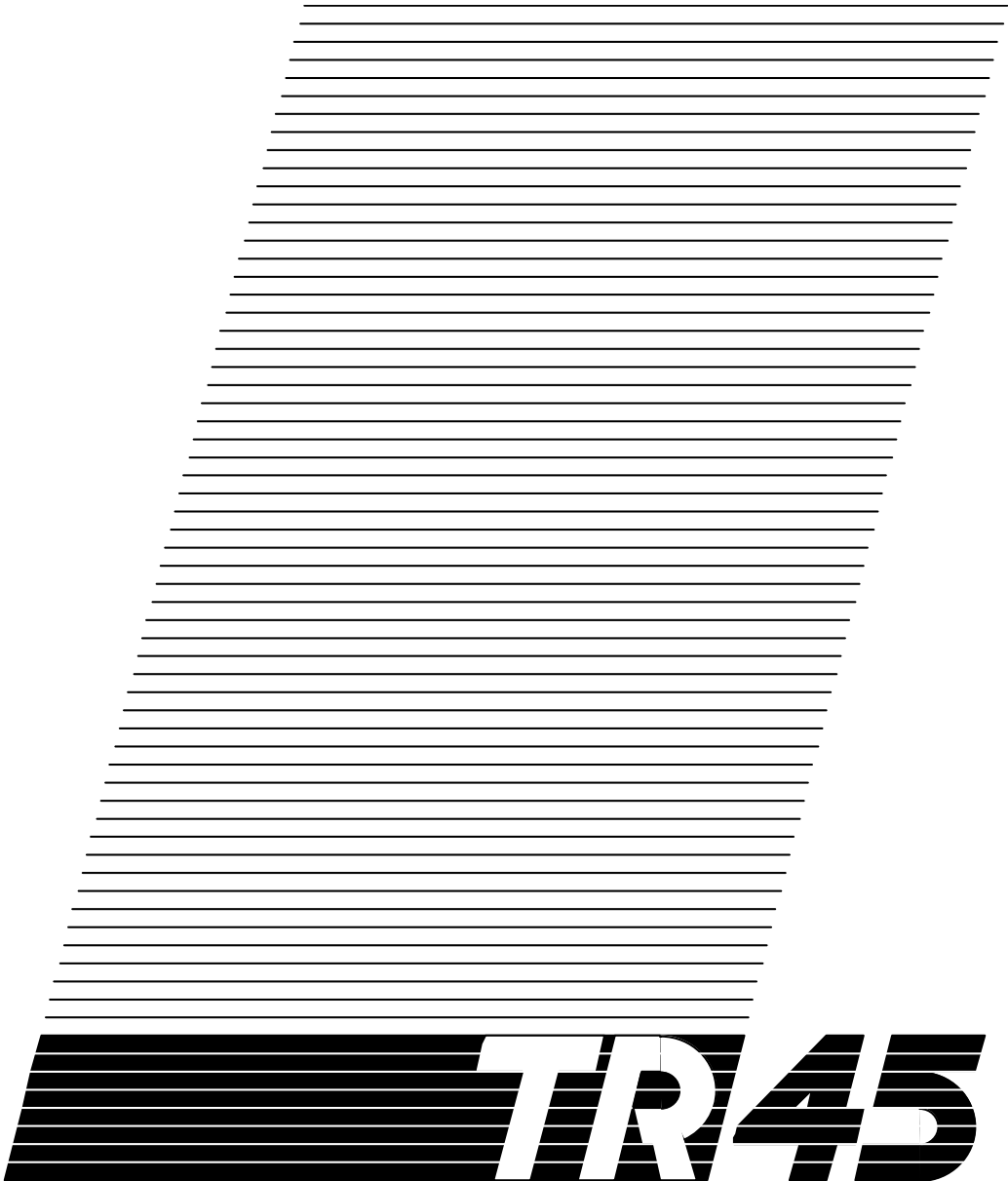
#### 4.2.24 PMC Cause

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0DH	Private long code not available or not supported
0EH	Requested MUX option or rates not available
0FH	Requested privacy configuration unavailable
<u>10H</u>	<u>Long code value not available</u>
All other values reserved	

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Access Network Interfaces — Part 3 A8 and A9  
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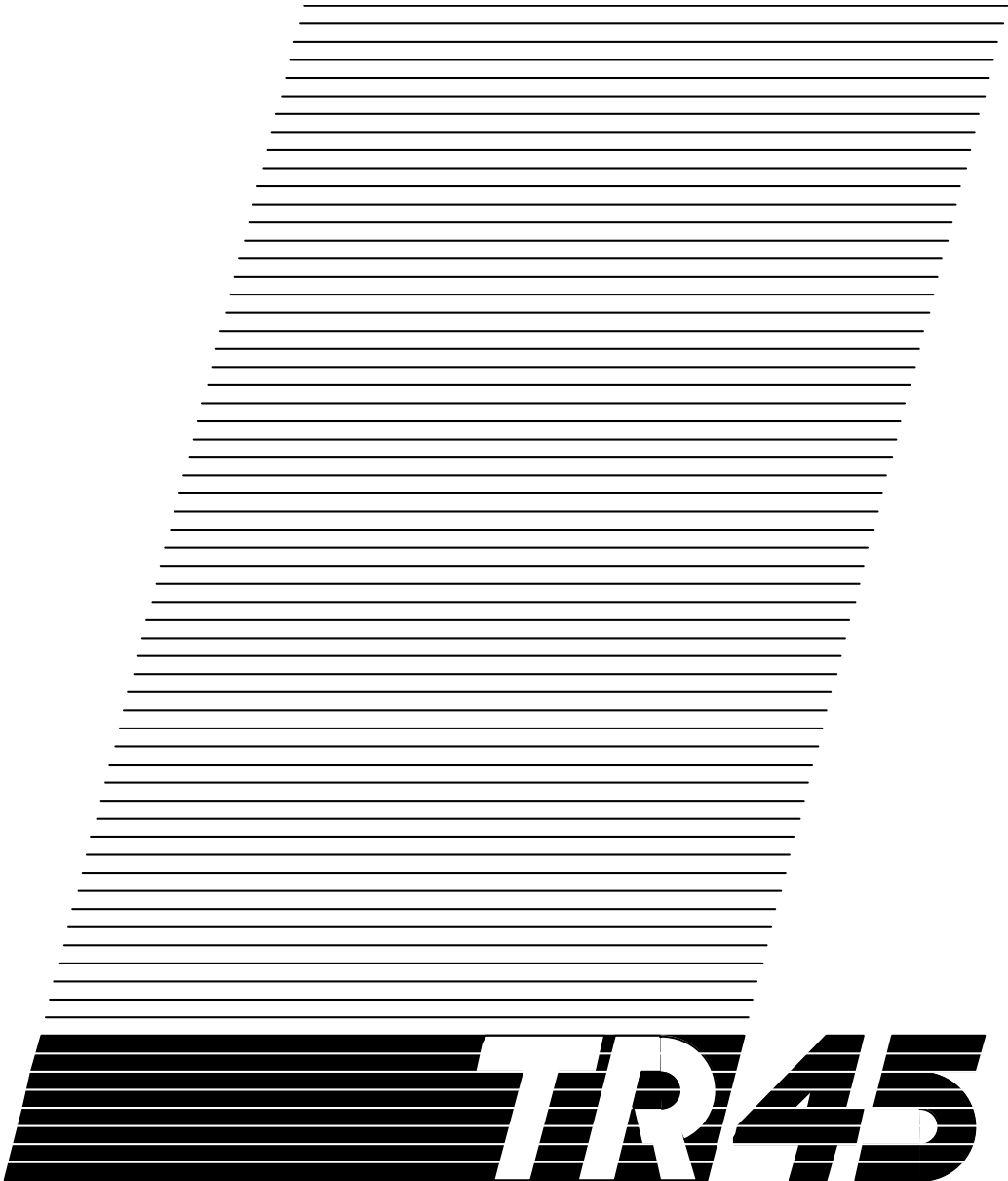
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4.2.13 Critical Vendor/Organization Specific Extension (CVSE)

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## 4.2.13 Critical Vendor/Organization Specific Extension (CVSE)

Table 4.2.13-3 Active Start Airlink Record

Parameter	Type	Sub-Type	Max. Payload Length (octet)	Format
Airlink record type = 2 (START)	26	40	4	Integer
R-P Connection ID	26	41	4	Integer
Airlink Sequence number	26	42	4	Integer
User Zone	26	11	4	Integer
Forward FCH Mux Option	26	12	4	Integer
Reverse FCH Mux Option	26	13	4	Integer
Service Option	26	16	4	Integer
Forward Traffic Type	26	17	4	Integer
Reverse Traffic Type	26	18	4	Integer
FCH Frame Size	26	19	4	Integer
Forward FCH RC	26	20	4	Integer
Reverse FCH RC	26	21	4	Integer
DCCH Frame Size (0/5/20 ms)	26	50	4	Integer
Forward DCCH Mux Option	26	84	4	Integer
Reverse DCCH Mux Option	26	85	4	Integer
Forward DCCH RC	26	86	4	Integer
Reverse DCCH RC	26	87	4	Integer
Airlink Priority	26	39	4	Integer
<u>Forward PDCH RC</u>	<u>26</u>	<u>83</u>	<u>4</u>	<u>Integer</u>

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