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**3RD GENERATION
PARTNERSHIP
PROJECT 2
"3GPP2"**

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GLOBAL WIRELESS EQUIPMENT NUMBERING ADMINISTRATION PROCEDURES

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2 **1 PURPOSE AND SCOPE**

3 This document defines administrative guidelines and procedures (“Administration
4 Procedures” in further text) governing coordination of two bodies responsible for high
5 level management and allocation of Equipment Numbering Identifiers (IMEI and MEID),
6 the Global Decimal Administrator (GDA), and Global Hexadecimal Administrator (GHA).

7 Administration Procedures were developed by the consensus of representatives of
8 entities within the wireless sector of telecommunications industry. Administration
9 Procedures become effective upon recognition and or endorsement by GSMA, EICTA,
10 ARIB, TTC, TIA, CMSA (CWTS), CMCA, TTA, etc.

11 The detailed management of identifiers within a block allocated to either GDA or GHA,
12 is not within the scope of these Administration Procedures.

13 **2 ASSUMPTIONS**

14 2.1 There shall be a Global Decimal Administrator (GDA) and a Global
15 Hexadecimal Administrator (GHA), or collectively, Global Administrators
16 (GA). GDA and GHA are impartial administrators with clearly defined
17 scope and charter. GDA and GHA shall coordinate the overall allocation
18 of the equipment identifiers. The GA allocate numbers to regional
19 administrators or directly to manufacturers, or both.

20 2.2 The allocation of identifiers that are administered by the GDA and GHA
21 (division of identifier space between GDA and GHA) is by mutual
22 recognition and/or endorsement by GSMA, EICTA, ARIB, TIA, CWTS,
23 CMCA, etc, as stipulated in this document.

24 2.3 GDA is the global administrator with the primary responsibility for
25 management and allocation of identifiers for wireless equipment designed
26 to comply with specifications developed by 3GPP. The GSMA currently
27 performs this role and the JEM Group recommends that this should
28 continue.

29 2.4 GHA is the global administrator with the primary responsibility for
30 management and allocation of identifiers for wireless equipment designed
31 to comply with specifications developed by 3GPP2. Based on the
32 experience of TIA in ESN allocation, the TIA is to act as GHA with
33 recognition and/or endorsement by 3GPP2. The JEM Group also
34 endorses this proposal.

35 2.5 GDA and/or regional administrators delegated by GDA shall allocate
36 equipment identifiers to manufacturers for equipment designed to
37 comply to 3GPP specifications, and not compliant with 3GPP2
38 specifications

39 2.6 GHA and/or regional administrators delegated by GHA shall allocate
40 equipment identifiers to manufacturers for equipment designed to

1 comply with 3GPP2 specifications, and not compliant with 3GPP
2 specifications.

3 2.7 Regional administrators shall adopt and abide by these Administration
4 Procedures and the document [3] as a condition of their appointment by
5 GDA or GHA.

6 2.8 A terminal designed to comply with both 3GPP and 3GPP2 specifications
7 shall contain a single and unique equipment identifier accepted in all
8 modes of operation. This equipment identifier may be allocated by either
9 GDA or GHA.

10

1 **3 GDA AND GHA PROCEDURES**

2 3.1 The working procedures and/or terms of reference of both the GDA and
3 GHA shall be consistent with these Administration Procedures, and shall
4 contain specific references to it.

5 3.2 The working procedures and/or terms of reference of both the GDA and
6 GHA shall be consistent with, and not conflict with, each other.

7 3.3 Except as provided for in Sections 6.3, 6.4, and 6.5 herein, the working
8 procedures and/or terms of reference of both the GDA and GHA take
9 precedence over these Administration Procedures.

10 **4 GENERAL CLAUSES**

11 4.1 The Administration Procedures apply globally, however, they do not
12 override the regulations, procedures, or requirements of any appropriate
13 legal authority or regulatory authority.

14 4.2 The Administration Procedures become effective immediately upon their
15 approval by industry consensus. They remain in effect until changed by
16 either industry consensus or regulatory policy direction, which may
17 invalidate them.

18 4.3 Equipment identifiers must be allocated for use as defined in appropriate
19 sections of relevant documents including [1], [2].

20 4.4 In the event that an issue cannot be resolved within a global
21 administrator, then, as required, the GDA, GHA, and/or industry
22 organisations may facilitate meetings (electronically or face to face) to
23 discuss common problems or objectives with the intention and authority
24 to resolve these issues.

25 **5 NOTATION**

26 The following notational conventions are used in this document:

27 Unless otherwise noted, hexadecimal notation is used to designate values of
28 equipment identifier digits, e.g., 'A' signifies decimal 10, or binary 1010.

29 The ordered sequence of IMEI/MEID digits will be designated as [D0 ... D13].

30 A range of values will be designated as {V_{MIN} ... V_{MAX}}.

31 **6 ALLOCATION GUIDELINES**

32

33 The following constitutes common administrative guidelines for the allocation of
34 Equipment Identifiers:

- 1 6.1 3GPP, 3GPP2, and their constituent SDOs and Market Representation
2 Partners should reference these guidelines where appropriate.
- 3 6.2 Coordination should exist between industry groups through the GDA and
4 GHA to ensure that there is no conflict or overlap between the numbering
5 ranges allocated to any group. The vehicle for such coordination on a
6 global scale between GHA and GDA shall be these Administration
7 Procedures. The vehicle for such coordination within the realms of GDA
8 and GHA are within their domain, and is not subject of these
9 Administration Procedures.
- 10 6.3 GHA shall be responsible for allocation of numbering space in the range:
11 $D0 = \{ 'A' .. 'F' \}$; $D1, \dots, D13 = \{ '0' .. 'F' \}$. Requests for number allocation
12 for terminals designed to comply with 3GPP2 specifications shall be
13 fulfilled from this range by GHA or a regional body reporting to GHA.
14 The total size of numbering space for this block exceeds 27.0×10^{15} .
- 15 6.4 GDA shall be responsible for allocation of numbering space in the range:
16 $D0, \dots, D13 = \{ '0' .. '9' \}$, excluding the numbering space reserved for
17 multimode terminals allocated to GHA, as described in clause 6.5.
18 Requests for number allocation for terminals designed to comply with
19 3GPP specifications shall be fulfilled from this range by GDA or a
20 regional body reporting to GDA. The total size of numbering space for
21 this block (assumes initial allocation to GHA per item 6.5 below) is $99.0 \times$
22 10^{12} . Part of this space has been allocated (see Appendix A of [1].) The
23 GDA must make an initial inventory of the currently available numbering
24 space.
- 25 6.5 For the sole use with terminals designed to comply with both 3GPP and
26 3GPP2 specifications, a numbering space within the decimal range shall
27 be delegated to GHA. GHA shall use the same IMEI TAC format as GDA
28 for these allocations. There shall be an initial allocation described as
29 follows: $[D0, D1] = '99'$, $D2, \dots, D13 = \{ '0', \dots, '9' \}$. This initial numbering
30 space shall be expandable in decremting values of $[D0, D1]$ to '98', '97',
31 etc. Expansion of this initial space shall be the subject of written
32 agreement between GDA and GHA. The expansion agreements shall be
33 recorded in the allocation history attached to this document (Appendix
34 A.) The total size of numbering space of this initial block allocation to
35 GHA is 1.0×10^{12} .
- 36 6.6 At the time of each new allocation of numbering space to GHA for
37 terminals designed to comply with both 3GPP2 and 3GPP specifications,
38 the status of GDA allocations shall be recorded in Appendix A in addition
39 to the status of GHA allocations.
- 40 6.7 GDA has already allocated equipment numbers in the decimal
41 numbering space, as indicated in the Annex of [1]. All existing GDA
42 allocations are in the numbering space described as follows: $[D0, D1] \leq$
43 $'54'$, $D2, \dots, D13 = \{ '0', \dots, '9' \}$, but don't fully utilise this space. Going
44 forward, GDA shall allocate identifiers for terminals designed to comply
45 with 3GPP specifications or terminals designed to comply with both 3GPP
46 and 3GPP2 specifications, generally starting with unused numbering

1 space [D0, D1] <= '54', D2, ..., D13 = {'0', ..., '9'}, before allocations within
 2 [D0, D1] > '54'.

3 6.8 GHA can transfer the authority of allocation of some or all of the
 4 allocated numbering space to the GDA. Conversely, GDA can transfer
 5 the authority of some or all of the allocated numbering space to the GHA.
 6 The agreement to transfer authority shall be recorded in the allocation
 7 history attached to this document. It is anticipated that such transfers
 8 would be free of charge.

9 6.9 The administrator(s) shall allocate mobile identifiers in a fair, timely, and
 10 impartial manner to any applicant that meets the administrator's criteria
 11 for allocation per [1] and [2].

12 **7 NUMBER MANAGEMENT COORDINATION BETWEEN GDA AND GHA**

13 7.1 The GA shall periodically jointly review their processes to ensure they are
 14 in line with these guidelines.

15 7.2 Regional administrators shall allocate numbers to manufacturers,
 16 working in conjunction with the global administrators. Administrators
 17 shall recognize allocations made by other administrators.

18 7.3 The GDA and GHA shall provide information to each other on all
 19 allocations made.

20 7.4 The administration process shall not make available detailed information
 21 on the numbers of specific types of terminals of one manufacturer to
 22 other manufacturers. This information is confidential to operators and
 23 administrators. The manufacturer may request an embargo on the
 24 release date of new allocations to other parties.

25 **8 MAINTENANCE OF GUIDELINES AND PROCEDURES**

26 8.1 Upon approval, this document will be maintained under change control
 27 by the GA. Amendments to this document must be approved by the GA
 28 and industry partners.

29 **9 MANAGEMENT OF UNALLOCATED NUMBERING SPACE**

30 9.1 The numbering space described as follows is reserved.
 31 $D_0 = \{ '0', \dots, '9' \}; D_i = ['A', \dots, 'F'], i = \{ 1, \dots, 13 \}$

1 Authority for allocation of this reserved space is not assigned. The
2 reserved numbering space shall not be allocated by either GDA or GHA
3 until these Administration Procedures are modified to allow such
4 allocation.

5 **10 REFERENCES**

6 The documents that are referenced herein are for the sole purpose of identifying related
7 normative reference sources and were used in the formulation of this document. There
8 are no direct or indirect claims regarding the property rights, legal, or regulatory status
9 of those documents listed. Unrelated references in these documents are not considered
10 binding on any party.
11

- 12 [1] TW.06 IMEI Allocation and Approval Guidelines, version 3.2.0,
13 September 2002
- 14 [2] SC.R4002-0 v1.0 Mobile Equipment Identifier (MEID) Assignment Guidelines and
15 Procedures, 2003
- 16 [3] Mobile Equipment Numbering JEM Report and Conclusions, April
17 2002
18

1 **ANNEX A – ALLOCATION HISTORY**

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3 Current Allocation is summarized in Table 1 (please refer to section 6 for details):

4

DIGITS		ALLOCATION
D0 D1	D2 – D13	
00	ddddddddddd	GDA
...	ddddddddddd	GDA
54	ddddddddddd	GDA
55		GDA
...		GDA
98		GDA
99	ddddddddddd	GHA (for 3GPP/3GPP2 mutli-mode terminals)
A0	hhhhhhhhhhh	GHA
...	hhhhhhhhhhh	GHA
FF	hhhhhhhhhhh	GHA

5

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Table 1: Equipment Numbering Allocation Summary

7 Legend:

8 d – a digit that can assume a value of 0 through 9

9 h – a digit that can assume a value of 0 though F

10 Note: All other assignment space is not allocated.

1 **ANNEX B - GLOSSARY AND LIST OF ACRONYMS AND ABBREVIATIONS**

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3GPP	Third Generation Partnership Project
3GPP2	Third Generation Partnership Project Two
ARIB	Association of Radio Industries and Businesses
CMCA	China Mobile Communications Association
CWTS	China Wireless Telecommunications Society
EICTA	European Information, Communications, and Consumer Electronics Technology Association
ESN	Electronic Serial Number
GA	Global Administrators (Union of GDA and GHA)
GDA	Global Decimal Administrator
GHA	Global Hexadecimal Administrator
GSM	Global System for Mobile Communication
GSMA	GSM Association
IMEI	International Mobile Equipment Identity
JEM	Joint Expert Meeting
MEID	Mobile Equipment Identity
SDO	Standards Development Organization
TIA	Telecommunication Industries Association
TAC	Type Allocation Code
TTA	Telecommunications Technology Association
TTC	Telecommunications Technology Committee

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4 **REVISION HISTORY**

Version	Date	Description
Ver. 1	Feb. 12, 2003	Initial draft output of London meeting
Ver. 2	Feb. 25, 2003	Text edits on teleconference; Addition of full references, glossary, and revision history
Ver. 3	Mar. 25, 2003	Update Section 6.7; Accept Rev. 2 changes
Ver. 4	Apr. 8, 2003	Include Section 2.7, 3.3, wording changes in Section 3.
Ver. 0.5	May 12, 2003	Add front page, Table of Contents, Initial Allocation Table

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