

Third Generation Partnership Project Agreement

Officially recognized Standardization Organizations have agreed to work collaboratively for the production of Third Generation Mobile System specifications. The means for this collaborative activity has been provided in the form of a Partnership Project. The Partners in the Partnership Project are signatories to this Third Generation Partnership Project Agreement, hereinafter referred to as the Agreement.

CONSIDERING THAT:

- The Partners have agreed to co-operate in the production of globally applicable Technical Specifications and Technical Reports for a 3rd Generation Mobile System based on evolved GSM core networks and the radio access technologies that they support (i.e., Universal Terrestrial Radio Access (UTRA) both Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes).
- 3GPP is established for the preparation, approval, and maintenance of the above mentioned Technical Specifications and Technical Reports.
- 3GPP is not to be construed as a legal entity.

FURTHER CONSIDERING THAT:

The 3GPP partnership is characterized by the following attributes:

- uses minimum production time for Technical Specifications and Technical Reports from conception to approval;
- uses fast, electronic based approval processes;
- makes maximum use of modern (electronic) working methods; and
- ensures that decision making takes place at the lowest appropriate levels.

THE PARTNERS THEREFORE AGREE TO THE FOLLOWING:

1 DEFINITIONS

1.1 3GPP

The acronym "3GPP" shall mean the Third Generation Partnership Project.

1.2 Organizational Partner

An Organizational Partner is any open Standardization Organization, irrespective of geographical location, which has:

- a national, regional or other officially recognized status and the capability and authority to define, publish and set standards within the 3GPP scope, in that nation or region;
- committed itself to all or part of the 3GPP scope; and
- signed this Agreement.



1.3 Market Representation Partner

A Market Representation Partner is any organization which has been invited by the Organizational Partners to take part in 3GPP, irrespective of geographical location, which:

- has the ability to offer advice to 3GPP and to bring into 3GPP a consensus view of market requirements (e.g., services, features and functionality) falling within the 3GPP scope;
- does not have the capability and authority to define, publish and set standards within the 3GPP scope, nationally or regionally;
- has committed itself to all or part of the 3GPP scope; and
- has signed this Agreement.

1.4 Partners

The term "Partners" shall be used in this Agreement to describe Organizational Partners and Market Representation Partners when referred to collectively.

2 GENERAL

2.1 Purpose of 3GPP

The purpose of 3GPP is to prepare, approve and maintain globally applicable Technical Specifications and Technical Reports for a 3rd Generation Mobile System based on the evolved GSM core networks, and the radio access technologies supported by the Partners (i.e., UTRA both FDD and TDD modes), to be transposed by the Organizational Partners into appropriate deliverables (e.g., standards).

2.2 Structure of 3GPP

3GPP shall consist of:

- A Project Co-ordination Group (PCG); and
- Technical Specification Groups (TSGs).

The Technical Specification Groups may establish Working Groups if required.

The Organizational Partners of 3GPP shall hold regular meetings.

The Organizational Partners may decide to call a meeting of the full 3GPP membership if required.

2.3 Scope and objectives of 3GPP

Initially, 3GPP shall prepare, approve and maintain the necessary set of Technical Specifications and Technical Reports for the first phase of a 3rd Generation Mobile System including:

- UTRAN (including UTRA, W-CDMA in Frequency Division Duplex (FDD) mode and TD-CDMA in Time Division Duplex (TDD) mode);
- 3GPP Core Network (Third Generation networking capabilities evolved from GSM. These capabilities include mobility management and global roaming);
- Terminals for access to the above (including specifications for a UIM); and
- System and service aspects.



The Technical Specifications and Technical Reports shall be developed in view of global roaming and circulation of terminals.

The set of 3GPP Technical Specifications and Technical Reports for the first phase of the 3GPP core network and the specifications for the GSM core network should be common to the greatest extent possible and should not be unnecessarily different.

The results of the 3GPP work shall form the basis of member contributions to the ITU in accordance with existing procedures.

3GPP shall take account of emerging ITU recommendations on interworking between IMT-2000 family members.

In the framework of agreed relationships, the 3GPP Technical Specifications and Technical Reports will form the basis of standards, or parts of standards, of the Organizational Partners.

2.4 Additional documentation applicable to 3GPP

The following additional documentation form part of 3GPP:

- the Third Generation Partnership Project Description; and
- the Third Generation Partnership Project Working Procedures.

3 ORGANIZATIONAL PARTNERS

3.1 Undertakings of Organizational Partners.

The Organizational Partners shall undertake to:

- encourage their members to contribute to the common set of Technical Specifications and Technical Reports and to avoid duplication of work;
- convert / transpose / adopt all relevant Technical Specifications and Technical Reports resulting from 3GPP into their own relevant deliverables through their normal processes;
- identify as early as possible, any national / regional regulatory requirements that may lead to options within the Technical Specifications and Technical Reports;
- make their IPR Policy available for consideration by the other Organizational Partners;
- encourage that their IPR Policies are respected by their members (i.e., encourage their members to declare at the earliest opportunity any Intellectual Property Rights which they may have and believe to be essential, or potentially essential, to any ongoing work within 3GPP);
- encourage their respective members to declare their willingness to grant licences on fair, reasonable terms and conditions on a non discriminatory basis, and consistent with their IPR Policy; and
- contribute to the resources necessary for the operation of 3GPP.

3.2 Rights of the Organizational Partners

3.2.1 Participation in the 3GPP work

Organizational Partners have the right to participate in the work of the Project Co-ordination Group.

Organizational Partners have the right to participate in the work of the Technical Specification Groups.

Members of Organizational Partners (Individual Members) have the right to participate in the work of the Technical Specification Groups. They shall act in their own right and shall carry the full responsibility for their contributions.

3.2.2 Joint Copyright

The Organizational Partners shall jointly own copyright on the Technical Specifications and Technical Reports approved by 3GPP. For candidate Organizational Partners, their copyright on work already ongoing or completed within 3GPP shall be decided by the Organizational Partners on a case-by-case basis.

4 MARKET REPRESENTATION PARTNERS

4.1 Undertakings of the Market Representation Partners

The Market Representation Partners shall undertake to:

- commit themselves to the promotion of 3GPP;
- encourage their members to contribute to the common objectives of the 3GPP and to avoid duplication of work;
- offer advice to 3GPP and to bring into 3GPP a consensus view of market requirements (e.g., services, features and functionality) falling within the 3GPP scope; and
- define the 3GPP system and service scenarios;

4.2 Rights of the Market Representation Partners

4.2.1 Participation in the 3GPP work

Market Representation Partners have the right to participate in the work of the Project Co-ordination Group.

Market Representation Partners have the right to participate in the work of the Technical Specification Groups.

5 MODIFICATIONS

The present Agreement may only be modified by consensus agreement amongst the signatories. The signatories shall be given at least 30 days written notice of the proposed modifications. Any assignment of rights (e.g., participation, copyright ownership) under this Agreement shall be considered as a modification to this Agreement.



6 TERMINATION

If a Partner desires to withdraw from 3GPP it shall give 6 months written notice.

7 DURATION

This Agreement shall remain valid until the Organizational Partners decide otherwise.

8 DISSOLUTION

In the event of a voluntary dissolution of 3GPP, the Organizational Partners shall determine the terms of dissolution by consensus. All issues shall be documented and distributed at least 30 days in advance of the agreement.

9 DISPUTE SETTLEMENT

In the event of a dispute arising between Partners, related to this Partnership Project, the Partners concerned shall use all means at their disposal to endeavour to resolve the dispute by internal arbitration and conciliation.

10 ADDITIONAL PARTNERSHIPS

Partnership in 3GPP, as defined in the definition section and in clauses 3 and 4 of the present Agreement, is open to organizations irrespective of their geographical location.

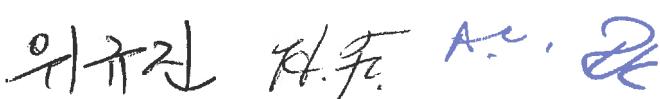
Any additional Partnership in 3GPP shall be approved, on a consensus basis, by the existing Organizational Partners.

The consensus decision from the Organizational Partners with the Name, Title, Organization, Address, Signature of the new Partner and the Date of signature shall be annexed to this Agreement.

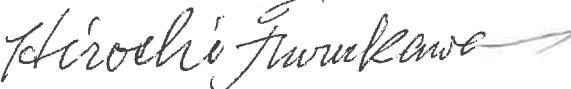
Annexes shall be considered as an integral part of this Agreement.

11 PARTICIPATION IN OTHER STANDARDIZATION ACTIVITIES

Signatories to this Agreement shall not be excluded from participation in other partnership projects or other standardization activities.



This Agreement is entered into by and between the following Organizational Partners:

| ARIB | ETSI |
|---|--|
| <p>Mr Hiroshi Furukawa Senior Managing Director ARIB Association of Radio Industries and Businesses Nittochi Building 14F, 1-4-1 Kasumigaseki Chiyoda-ku, Tokyo 100-0013 JAPAN</p> <p>Signature </p> <p>Date 4 December 1998</p> | <p>Mr Karl Heinz Rosenbrock Director General ETSI European Telecommunication Standards Institute 650, route des lucioles F-06921 Sophia Antipolis Cedex FRANCE</p> <p>Signature </p> <p>Date 4 December 1998</p> |
| <p style="text-align: center;">T1</p> <p>Dr Asok Chatterjee Head of T1 3GPP delegation as authorized by Mr Gerald Peterson, Committee T1 Chairman T1 Secretariat 1200 G Street NW, Suite 500 Washington, DC USA</p> <p>Signature </p> <p>Date 4 December 1998</p> | <p style="text-align: center;">TTA</p> <p>Dr Kyu-Jin Wee Chairman SC-7 TTA Telecommunications Technology Association 13th Floor Sejongro Daewoo Building 167 Naesoo-dong chongro Seoul KOREA</p> <p>Signature </p> <p>Date 4 December 1998</p> |
| <p style="text-align: center;">TTC</p> <p>Mr Nobuhiro Horisaki Executive Managing Director TTC Telecommunications Technology Committee 1-2-11, Hamamatsu-cho, Minato-ku, Tokyo, 105-0013 JAPAN</p> <p>Signature </p> <p>Date 4 December 1998</p> | |

Executed in 5 originals



Annex 1 This Agreement is entered into by the following Market Representation Partner:

UMTS Forum

Name:

Title:

Address:

Signature

Date

Thomas Beijer
Chairman
UMTS Forum
Russel Square House
10-12 Russel Square
London, WC1B 3RE
UK

THIS
PARTNERSHIP
ON
4 DECEMBER 1998
IS
EXTINCTION
CANCELED

Authorised by the existing Partners

| ARIB | ETSI |
|---|--|
| Mr Hiroshi Furukawa Signature <i>Hiroshi Furukawa</i> Date 4 December 1998 | Mr Karl Heinz Rosenbrock Signature <i>Karl Heinz Rosenbrock</i> Date 4 December 1998 |
| T1 Dr Asok Chatterjee Signature <i>Asok Chatterjee</i> Date 4 December 1998 | TTA Dr Kyu-Jin Wee Signature <i>Kyu-Jin Wee</i> Date 4 December 1998 |
| TTC Mr Nobuhiro Horisaki Signature <i>Nobuhiro Horisaki</i> Date 4 December 1998 | |

Annex 2 This Agreement is entered into by the following Market Representation Partner:

Global Mobile Suppliers Association (GSA)

Name: Mr Alan Hadden

Title: President

Address: GSA Secretariat
 Europa House
 Church Street
 Old Isleworth
 TW7 6BW Middlesex
 United Kingdom

Signature 

Date 24th February 1999

Authorised by the existing Partners

| ARIB | ETSI |
|---|---|
| Mr Hiroshi Furukawa Signature  Date 9 March 1999 | Mr Karl Heinz Rosenbrock Signature  Date 24 February 1999 |
| T1 Dr Asok Chatterjee Signature  Date 1 March, 1999 | TTA Dr Kyu-Jin Wee Signature  Date 1. March 1999 |
| TTC Mr Nobuhiro Horisaki Signature  Date 9 March 1999 | UMTS Forum Dr Bernd Eylet Signature  Date 24 Feb 1999 |

Executed in 7 originals

Annex 3 This Agreement is entered into by the following Market Representation Partner:

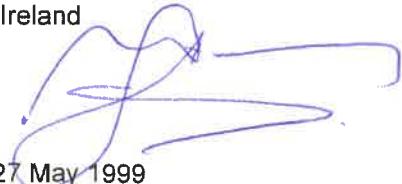
GSM Association

Name: Mr Michael Stocks

Title: Chairman

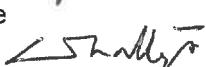
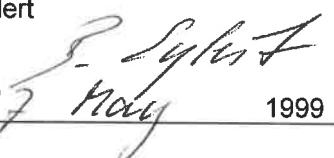
Address: GSM Association
Avoca Court
Temple Road
Blackrock
Co Dublin
Ireland

Signature



Date 27 May 1999

Authorised by the existing Partners

| ARIB | ETSI |
|--|--|
| Mr Hiroshi Furukawa Signature  Date 27 May 1999 | Mr Karl Heinz Rosenbrock Signature  Date 27 May 1999 |
| Dr Asok Chatterjee Signature  Date 27 May, 1999 | Dr Kyu-Jin Wee Signature  Date 27 May 1999 |
| TTC Mr Nobuhiro Horisaki Signature  Date 27 May 1999 | UMTS Forum Dr Bernd Eylet Signature  Date 27 May 1999 |
| GSA Mr Alan Hadden Signature  Date 27th May 1999 | |

Executed in 8 originals

Annex 4 This Agreement is entered into by the following Organizational Partner:

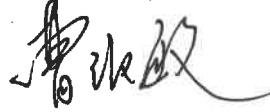
China Wireless Telecommunication Standard Group (CWTS)

Name: Ms Shumin Cao

Title: Chairperson

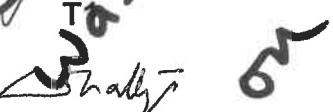
Address: China Wireless Telecommunication Standard Group (CWTS)
 Research Institute of Telecommunication Transmission, MII
 No. 11 Yue Tan Nan Jie
 Beijing, 100-045
 People's Republic of China

Signature



Date 27 May 1999

Authorised by the existing Partners

| | |
|--|--|
| ARIB | ETSI |
| Mr Hiroshi Furukawa Signature  Date 27 May 1999 | Mr Karl Heinz Rosenbrock Signature  Date 27 May 1999 |
| TTA | UMTS Forum |
| Dr Asok Chatterjee Signature  Date 27 May 1999 | Dr Kyu-Jin Wee Signature  Date 27 May 1999 |
| TTC | GSM Association |
| Mr Nobuhiro Hosaki Signature  Date 27 May 1999 | Dr Bernd Eylet Signature  Date 27 May 1999 |
| GSA | |
| Mr Alan Hadden Signature  Date 27 May 1999 | Mr Michael Stocks Signature  Date |

Executed in 9 originals

Annex 5 This Agreement is entered into by the following Market Representation Partner:

Universal Wireless Communications Consortium (UWCC)

Name: Mr Leo Nikkari

Title: Vice President, Strategy and Industry Relations

Address: 1800 112th Avenue NE, Suite 260E
Bellvue
Washington
USA 98004-2937

Signature

Leo Nikkari

Date 20 September 1999

Authorised by the existing Partners

| | |
|--|---|
| ARIB | ETSI |
| Mr Hiroshi Furukawa Signature <i>Hiroshi Furukawa</i> Date 20. Sept. 1999 | Mr Karl Heinz Rosenbrock Signature <i>Karl Heinz Rosenbrock</i> Date 20. Sept. 1999 |
| T1 | TTA |
| Dr Asok Chatterjee Signature <i>Asok Chatterjee</i> Date 20 September 1999 | Dr Kyu-Jin Wee Signature <i>Kyu-Jin Wee</i> Date 20. Sep. 1999 |
| TTC | UMTS Forum |
| Mr Nobuhiro Honzaki Signature <i>Nobuhiro Honzaki</i> Date 20 Sep 1999 | Dr Bernd Eylert Signature <i>B. Eylert</i> Date 31 October 1999 |
| GSA | GSM Association |
| Mr Alan Hadden Signature <i>Alan Hadden</i> Date 20 October 1999 | Mr Michael Stocks Signature <i>Michael Stocks</i> Date 20 Oct 1999 |
| CWTS | |
| Ms Shumin Cao Signature <i>Shumin Cao</i> Date 11/13/99 | |

Executed in 10 originals

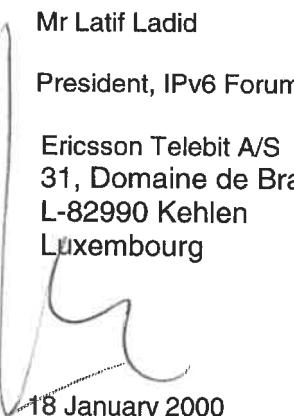
Annex 6 This Agreement is entered into by the following Market Representation Partner:

IPv6 Forum

Name: Mr Latif Ladid
 Title: President, IPv6 Forum
 Address: Ericsson Telebit A/S
 31, Domaine de Brameschhof
 L-82990 Kehlen
 Luxembourg

Signature

Date



18 January 2000

Authorised by the existing Partners

| ARIB | ETSI |
|---|--|
| Mr Hiroshi Furukawa Signature <i>Ats. Furukawa for Mr. Furukawa</i> Date Jan. 18, 2000 | Mr Karl Heinz Rosenbrock Signature <i>Karl Heinz Rosenbrock</i> Date 18 Jan. 2000 |
| T1 Dr Asok Chatterjee Signature <i>Asok Chatterjee</i> Date 1/18/2000 | TTA Dr Kyu-Jin Wee Signature <i>Kyu-Jin Wee</i> Date 1/18/2000 |
| TTC Mr Nobuhiro Horisaki Signature <i>Nobuhiro Horisaki for Nobu. Horisaki</i> Date 18 Jan. 2000 | UMTS Forum Dr Bernd Eylet Signature <i>B. Eylet</i> Date 18 January 2000 |
| GSA Mr Alan Hadden Signature <i>Alan Hadden</i> Date 18/1/00 | GSM Association Mr Michael Stocks Signature <i>Michael Stocks</i> Date 3/2/2000 |
| CWTS Ms Shumin Cao Signature <i>Shumin Cao</i> Date 2000.1.18 | UWCC Mr Leo Nikkari Signature <i>Leo Nikkari</i> Date 1/18/2000 |

Executed in 11 originals

Annex 7 Modification to the Scope and Purpose of 3GPP:

This Annex modifies the Scope and Purpose of 3GPP. Modified clauses have been reproduced in full with the additional text provided in italic, underlined font.

Page 1

CONSIDERING THAT:

- The Partners have agreed to co-operate in the production of globally applicable Technical Specifications and Technical Reports for a 3rd Generation Mobile System based on evolved GSM core networks and the radio access technologies that they support (i.e., Universal Terrestrial Radio Access (UTRA) both Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes).
- The Partners have further agreed to co-operate in the maintenance and development of the Global System for Mobile communication (GSM) Technical Specifications and Technical Reports including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).
- 3GPP is established for the preparation, approval, and maintenance of the above mentioned Technical Specifications and Technical Reports.
- 3GPP is not to be construed as a legal entity.

Page 2

2.1 Purpose of 3GPP

The purpose of 3GPP is to prepare, approve and maintain globally applicable Technical Specifications and Technical Reports for:

- a 3rd Generation Mobile System based on the evolved GSM core networks, and the radio access technologies supported by the Partners (i.e., UTRA both FDD and TDD modes), to be transposed by the Organizational Partners into appropriate deliverables (e.g., standards).
- the Global System for Mobile communication (GSM) including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).

2.3 Scope and objectives of 3GPP.

Initially, 3GPP shall prepare, approve and maintain the necessary set of Technical Specifications and Technical Reports for the first phase of a 3rd Generation Mobile System including:

- UTRAN (including UTRA; W-CDMA in Frequency Division Duplex (FDD) mode and TD-CDMA in Time Division Duplex (TDD) modes);
- 3GPP Core Network (Third Generation networking capabilities evolved from GSM. These capabilities include mobility management, and global roaming, and utilisation of relevant Internet Protocols);
- Terminals for access to the above (including specifications for a UIM); and
- System and service aspects.

3GPP shall prepare, approve and maintain the necessary set of Technical Specifications and Technical Reports for:

- the Global System for Mobile communication (GSM) including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).

3GPP shall consider the long term evolution.

The Technical Specifications and Technical Reports shall be developed in view of global roaming and circulation of terminals.

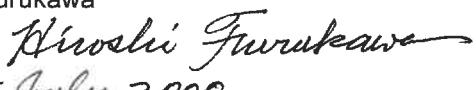
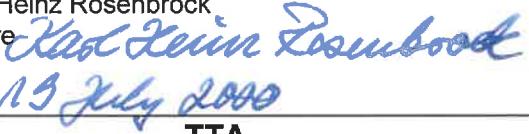
The set of 3GPP Technical Specifications and Technical Reports for the first phase of the 3GPP core network and the specifications for the GSM core network should be common to the greatest extent possible and should not be unnecessarily different.

The results of the 3GPP work shall form the basis of member contributions to the ITU in accordance with existing procedures.

3GPP shall take account of emerging ITU recommendations on interworking between IMT-2000 family members.

In the framework of agreed relationships, the 3GPP Technical Specifications and Technical Reports will form the basis of standards, or parts of standards, of the Organizational Partners.

Authorised by the Partners

| | |
|---|--|
| ARIB Mr Hiroshi Furukawa Signature  Date 28 July 2000 | ETSI Mr Karl Heinz Rosenbrock Signature  Date 13 July 2000 |
| T1 Dr Asok Chatterjee Signature  Date 7/19/2000 | TTA Mr Dong Sun Lee Signature  Date |
| TTC Mr Nobuhiro Horisaki Signature  Date 19 Jul 2000 | UMTS Forum Dr Bernd Eylert Signature  Date 15 Aug 2000 |
| GSA Mr Alan Hadden Signature  Date 14 Aug 2000 | GSM Association Mr James Healy Signature  Date 14 Jul 2000 |
| CWTS Ms Shumin Cao Signature  Date 2000.7.1 | UWCC Mr Leo Nikkari Signature  Date July 19, 2000 |
| IPv6 Forum Mr Latif Ladid Signature  Date 4/8/2000 | |

Executed in 11 originals

Annex 8 This Agreement is entered into by the following Market Representation Partner:

Mobile Wireless Internet Forum (MWIF)

Name: Mr Dean Sirovica

Title: President and Chairman

Address: 39355 California Street, Suite 305
Fremont, CA 94541
USA

Signature

Date 15/11/00

Authorised by the existing Partners

| ARIB | ETSI |
|--|--|
| Mr Hiroshi Furukawa Signature Date | Mr Karl Heinz Rosenbrock Signature Date 15 Nov. 2000 |
| Dr Asok Chatterjee Signature Date 15/11/2000 | Dr Kyu-Jin Wee Signature Date 11/15/2000 |
| Mr Nobuhiro Horisaki Signature Date 15 Nov. 2000 | Dr Bernd Eylet Signature Date 15th November 2000 |
| Mr Alan Hadden Signature Date 15 Nov 2000 | Mr Michael Steele Signature Date 2/10/03 |
| Ms Shumin Cao Signature Date 15 Nov. 2000 | Mr Leo Nikkari Signature Date 15 Nov 2000 |
| Mr Latif Ladid Signature Date 15 Nov '00 | |

Executed in 12 originals

Annex 9 This Agreement is entered into by the following Market Representation Partner:

3G.IP Focus Group (3G.IP)

Name: Mr Brian K Daly
 Title: Chair, Management Steering Committee
 Address: AT&T Wireless Services
 PO Box 97061
 Redmond, WA 98-73-9761
 USA
 Signature *Brian K Daly*
 Date 15 Nov 2000

Authorised by the existing Partners

| | |
|--|---|
| ARIB Mr Hiroshi Furukawa Signature <i>For Hiroshi Furukawa</i> Date Nov. 15/2000 | ETSI Mr Karl Heinz Rosenbrock Signature <i>Karl Heinz Rosenbrock</i> Date 15 Nov. 2000 |
| T1 Dr Asok Chatterjee Signature <i>Asok Chatterjee</i> Date 15 Nov. 2000 | TTA Dr Kyu-Jin Wee Signature <i>Kyu-Jin Wee</i> Date 15 Nov. 2000 |
| TTC Mr Nobuyuki Horisaki Signature <i>Nobuyuki Horisaki</i> Date 15 Nov. 2000 | UMTS Forum Dr Bernd Eylet Signature <i>B. Eylet</i> Date 5th November 2000 |
| GSA Mr Alan Hadden Signature <i>Alan Hadden</i> Date 15 Nov. 2000 | GSM Association BEST Mr Michael Stocks Signature <i>Michael Stocks</i> Date 2/10/03 |
| CWTS Ms Shumin Cao Signature <i>Shumin Cao</i> Date 15 Nov. 2000 | UWCC Mr Leo Nikkari Signature <i>Leo Nikkari</i> Date 15 Nov. 2000 |
| IPv6 Forum Mr Latif Ladid Signature <i>Latif Ladid</i> Date 15 Nov. 2000 | MWIF Mr Dean Sirovica Signature <i>D. Sirovica</i> Date 15 Nov. 2000 |

Executed in 13 originals

Annex 10 This Agreement is entered into by the following Market Representation Partner:

3G Americas, LLC

Name: Mr Chris Pearson

Title: Executive Vice President

Address: 1756 114th Ave SE, Suite 100
Bellevue, WA 98004
USA

Signature



Date 26 April 2002

Authorised by the existing Partners

| ARIB | ETSI |
|---|---|
| Mr Masayoshi Wakao Signature p.o. <i>Grille Ichih</i> Date 26/04/02 | Mr Karl Heinz Rosenbrock Signature <i>Karl Heinz Rosenbrock</i> Date 26 April 2002 |
| T1 Dr Asok Chatterjee Signature <i>Asok Chatterjee</i> Date 4/26/2002 | TTA Dr Ju Hwan Yim Signature <i>Park Jeong Sik</i> Date 26 April 2002 |
| TTC Mr Nobuhiro Horisaki Signature <i>Nobuhiro Horisaki</i> Date 26 Apr 2002 | UMTS Forum Dr Bernd Eylet Signature <i>B. Eylet</i> Date 26/4/02 |
| GSA Mr Alan Hadden Signature <i>Alan Hadden</i> Date April 26, 2002 | GSM Association Mr Scott Fox <i>BEST</i> Signature <i>Scott Fox</i> Date 2/10/03 |
| CWTS Ms Shumin Cao Signature <i>Shumin Cao</i> Date 26/4/02 | IPv6 Forum Mr Latif Ladid Signature <i>P.O. Latif Ladid</i> Date Oct. 2, 2003 |
| MWIF Mr Dean Sirovica Signature | 3G.IP Mr Brian Daly Signature |

Executed in 13 originals

Annex 11 This Agreement is entered into by the following Organizational Partner:

China Communications Standards Association, CCSA

Name: Mr Zhou Baoxin

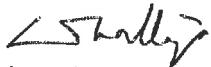
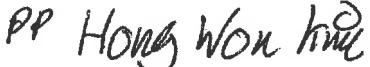
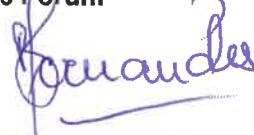
Title: General Secretary of China Communications Standards Association (CCSA)

Address: 52# Hua Yuan Bei Road
Haidian District
Beijing
P.R.China 100083

Signature 

Date 15 April 2004

Authorised by the existing Partners

| | |
|--|---|
| <p>ARIB</p> <p>Mr Masayoshi Wakao Signature </p> <p>Date 15 April 2004</p> | <p>ETSI</p> <p>Mr Karl Heinz Rosenbrock Signature </p> <p>Date 15 April 2004</p> |
| <p>T1</p> <p>Dr Asok Chatterjee Signature </p> <p>Date 4/15/2004</p> | <p>TTA</p> <p>Dr Ju Hwan Yim Signature </p> <p>Date 15 APR 2004</p> |
| <p>TTC</p> <p>Mr Nobuhiro Horisaki Signature </p> <p>Date 15/APR/2004</p> | <p>UMTS Forum</p> <p>Mr Jean-Pierre Bienaimé Signature </p> <p>Date 15/04/2004</p> |
| <p>GSA</p> <p>Mr Alan Hadden Signature </p> <p>Date 15 April 2004</p> | <p>GSM Association</p> <p>Mr Bill Best Signature </p> <p>Date 15/04/04</p> |
| <p>IPv6 Forum</p> <p>Mr Latif Ladid Signature </p> <p>Date</p> | |

Executed in 10 originals

Annex 12 This Agreement is entered into by the following Organizational Partner:

**Alliance for Telecommunications Industry Solutions, ATIS
(Replacing Committee T1)**

Name: Mrs Susan Miller

Title: President and CEO of the Alliance for Telecommunications Industry Solutions

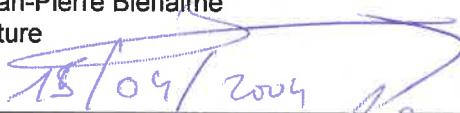
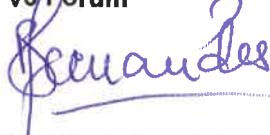
Address: 1200 G Street NW
Suite 500
Washington, DC, 20005
USA

Signature



Date 15 April 2004

Authorised by the existing Partners

| | |
|--|---|
| ARIB Mr Masayoshi Wakao Signature  Date 15 April 2004 | CCSA Mr Zhou Baoxin Signature  Date 15/04/2004 |
| ETSI Mr Karl Heinz Rosenbrock Signature  Date 15 April 2004 | TTA Dr Ju Hwan Yim Signature  Date 15 APR 2004 |
| TTC Mr Nobuhiro Horisaki Signature  Date 15 APR 2004 | UMTS Forum Mr Jean-Pierre Bienaimé Signature  Date 15/04/2004 |
| GSA Mr Alan Hadden Signature  Date 15 April 2004 | GSM Association Mr Bill Best Signature  Date 15/04/2004 |
| IPv6 Forum Mr Latif Ladid Signature  Date | |

Executed in 10 originals

Annex 13 This Agreement is entered into by the following Market Representation Partner:

TD SCDMA FORUM

Name: Dr. Jing Wang

Title: Secretary General

Address: TD SCDMA Forum
Add, Room 1021, Office Tower,
Beijing Capital Times Square,
No.88 West Chang'an Avenue,
Beijing, PRC. 100031

Signature



Date 7 October 2005

Authorised by the existing Partners

| | |
|--|---|
| <p>ARIB</p> <p>Mr Masayoshi Wakao Signature <i>Kohoi Satoh (for Mr. M. Wakao)</i> Date 07/10/2005</p> | <p>ATIS</p> <p>Mrs Susan Miller Signature <i>Susan Miller (for Susan Miller)</i> Date 10/07/2005</p> |
| <p>CCSA</p> <p>Mr Zhou Baoxin Signature <i>Wang zhigjin</i> Date 07/10/2005</p> | <p>ETSI</p> <p>Mr Karl Heinz Rosenbrock Signature <i>Karl Heinz Rosenbrock</i> Date 07 Oct. 2005</p> |
| <p>TTA</p> <p>Dr Hong Koo Kim Signature <i>Jeong Sik Park</i> Date 07/10/2005</p> | <p>TTC</p> <p>Mr Nobuhiro Horisaki Signature <i>Nobuhiro Horisaki</i> Date 7/10/2005</p> |
| <p>GSA</p> <p>Mr Alan Hadden Signature <i>Ad Hadden</i> Date 7th October 2005</p> | <p>GSM Association</p> <p>Mr David McDonald Signature <i>David McDonald</i> Date 7/10/2005</p> |
| <p>IPv6 Forum</p> <p>Mr Latif Ladid Signature <i>Latif Ladid</i> Date</p> | <p>3G Americas</p> <p>Mr Chris Pearson Signature <i>Chris Pearson</i> Date 7/10/2005</p> |
| <p>UMTS Forum</p> <p>Mr Jean-Pierre Bienaimé Signature <i>Jean-Pierre Bienaimé</i> Date 7/10/2005</p> | |

Executed in 12 originals

Annex 14 This Agreement is entered into by the following Market Representation Partner:

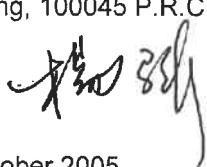
TD SCDMA Industry Alliance

Name: Mr. Yang Hua

Title: Secretary General

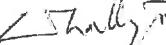
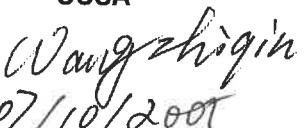
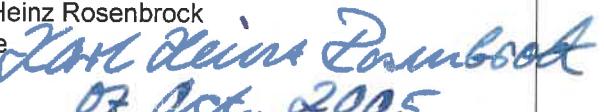
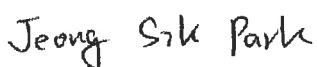
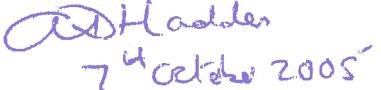
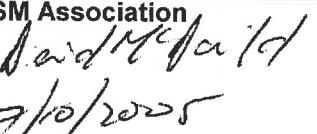
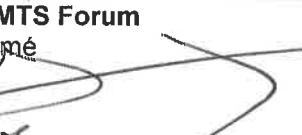
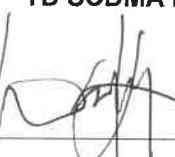
Address: TDIA
611. Canway Building,
66 Nan Li Shi Road,
Beijing, 100045 P.R.China

Signature



Date 7 October 2005

Authorised by the existing Partners

| | |
|---|--|
| <p>ARIB Mr Masayoshi Wakao Signature  Date 07/10/2005</p> | <p>ATIS Mrs Susan Miller Signature  (for Susan Miller) Date 10/07/2005</p> |
| <p>CCSA Mr Zhou Baoxin Signature  Date 07/10/2005</p> | <p>ETSI Mr Karl Heinz Rosenbrock Signature  Date 07 Oct. 2005</p> |
| <p>TTA Dr Hong Koo Kim Signature  Date 07/10.1/2005</p> | <p>TTC Mr Nobuhiro Horiaki Signature  Date 7/10/2005</p> |
| <p>GSA Mr Alan Hadden Signature  Date 7th October 2005</p> | <p>GSM Association Mr David McDonald Signature  Date 7/10/2005</p> |
| <p>IPv6 Forum Mr Latif Ladid Signature  Date</p> | <p>3G Americas Mr Chris Pearson Signature  Date 10-7-05</p> |
| <p>UMTS Forum Mr Jean-Pierre Bienaimé Signature  Date 7/10/2005</p> | <p>TD SCDMA Forum Dr Jing Wang Signature  Date 10/7/05</p> |

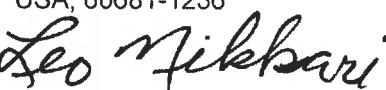
Executed in 13 originals

Annex 15 This Agreement is entered into by the following Market Representation Partner:

MobileIGNITE MoU

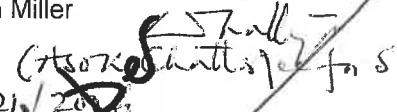
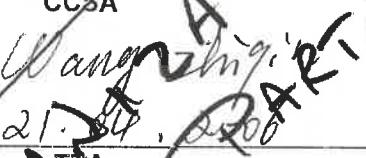
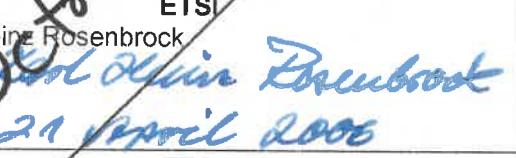
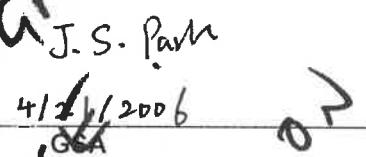
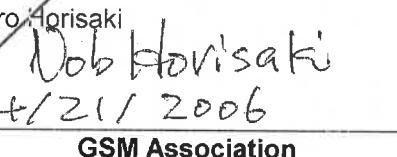
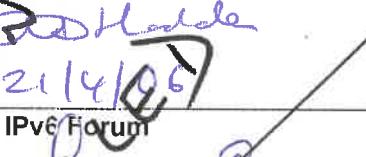
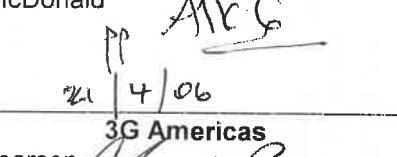
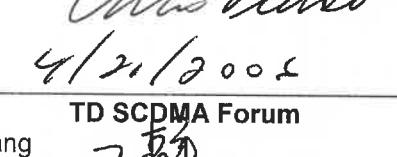
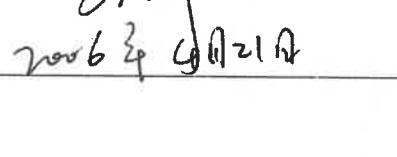
Name: Mr. Leo Nikkari
Title: Executive Director

Address: PO Box 81236
Chicago,
Illinois,
USA, 60681-1236

Signature 

Date 21 April 2006

Authorised by the existing Partners

| | |
|--|--|
| ARIB | ATIS |
| Mr Masayoshi Wakao Signature  | Mrs Susan Miller Signature  |
| Date 21.04.2006 | Date 4/21/2006 (TSK initials for S. Miller) |
| CCSA | ETSI |
| Mr Zhou Baoxin Signature  | Mr Karl Heinz Rosenbrock Signature  |
| Date 21.04.2006 | Date 21 April 2006 |
| TTA | TTC |
| Dr Hong Koo Kim Signature  | Mr Nobuhiro Horisaki Signature  |
| Date 4/21/2006 | Date 4/21/2006 |
| GSA | GSM Association |
| Mr Alan Hadden Signature  | Mr David McDonald Signature  |
| Date 21.04.06 | Date 21.04.06 |
| IPv6 Forum | 3G Americas |
| Mr Latif Ladid Signature  | Mr Chris Pearson Signature  |
| Date | Date 4/21/2006 |
| UMTS Forum | TD SCDMA Forum |
| Mr Jean-Pierre Bienaimé Signature  | Dr Jing Wang Signature  |
| Date 21.04.2006 | Date 2006 4 21 A |
| TD-SCDMA Industry Alliance | |
| Mr Yang Hua Signature  | |
| Date 2006 4 21 A | |

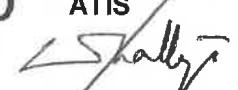
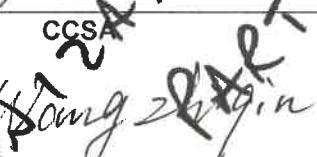
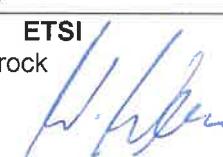
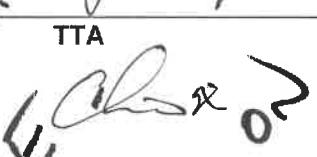
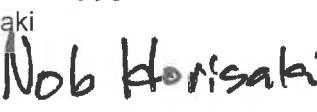
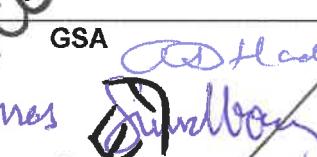
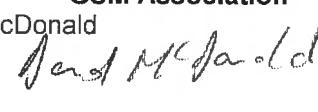
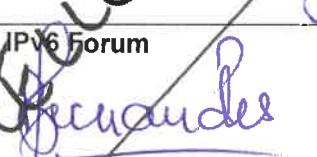
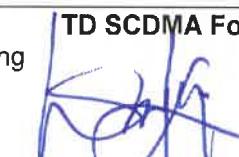
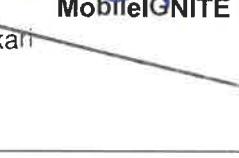
Executed in 14 originals

Annex 16 This Agreement is entered into by the following Market Representation Partner:

Global UMTS TDD Alliance

Name: Mrs. Liz Kerton
 Title: Executive Director
 Address: c/o The Kerton Group
 8032 Canyon Creek Circle
 Pleasanton, CA 94588
 USA
 Signature 
 Date 12 October 2006

Authorised by the existing Partners

| | |
|---|---|
| ARIB Mr Masayoshi Wakao Signature  Date | ATIS Mrs Susan Miller Signature  Date |
| CCSA Mr Zhou Baoxin Signature  Date | ETSI Mr Karl Heinz Rosenbrock Signature  Date |
| TTA Dr Hong Koo Kim Signature  Date | TTC Mr Nobuhiro Horisaki Signature  Date |
| GSA Mr Alan Hadden Signature  Date | GSM Association Mr David McDonald Signature  Date |
| IPv6 Forum Mr Latif Ladid Signature  Date | 3G Americas Mr Chris Pearson Signature  Date |
| UMTS Forum Mr Jean-Pierre Bienaime Signature  Date | TD SCDMA Forum Dr Jing Wang Signature  Date |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature  Date | MobileIGNITE MoU Mr Leo Nikkari Signature  Date |

Executed in 15 originals

Annex 17 This Agreement is entered into by the following Market Representation Partner:

IMS Forum

Name: Mrs. Marian Stasney
 Title: Executive Director
 Address: 39355 California Street, Suite 307
 Fremont, CA 94538
 USA

Signature

Marian Stasney

Date 12 October 2006

Authorised by the existing Partners

| | |
|--|--|
| ARIB Mr Masayoshi Wakao Signature Date | ATIS Mrs Susan Miller Signature Date |
| CCSA Mr Zhou Baoxin Signature Date | ETSI Mr Karl Heinz Rosenbrock Signature Date |
| TTA Dr Hong Koo Kim Signature Date | TTC Mr Nobuhiro Horisaki Signature Date |
| GSA Mr Alan Hadden Signature Date | GSM Association Mr David McDonald Signature Date |
| IPv6 Forum Mr Latif Ladid Signature Date | 3G Americas Mr Chris Pearson Signature Date |
| UMTS Forum Mr Jean-Pierre Biehaimé Signature Date | TD SCDMA Forum Dr Jing Wang Signature Date |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature Date | MobileIGNITE MoU Mr Leo Nikkari Signature Date |
| Global UMTS TDD Alliance Mrs Liz Kerton Signature Date | |

Executed in 16 originals

Annex 18 Modification to the Scope and Purpose of 3GPP:

This Annex modifies the Scope and Purpose of 3GPP. Modified clauses have been reproduced in full with the additional text provided in italic, underlined font.

Page 1

CONSIDERING THAT:

- The Partners have agreed to co-operate in the production of globally applicable Technical Specifications and Technical Reports for a 3rd Generation Mobile System based on evolved GSM core networks and the radio access technologies that they support (i.e., Universal Terrestrial Radio Access (UTRA) both Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes).
- The Partners have further agreed to co-operate in the maintenance and development of the Global System for Mobile communication (GSM) Technical Specifications and Technical Reports including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).
- *The Partners have agreed that the further evolution of IMS should be done in an access independent manner.*
- 3GPP is established for the preparation, approval, and maintenance of the above mentioned Technical Specifications and Technical Reports.
- 3GPP is not to be construed as a legal entity.

Page 2

2.1 Purpose of 3GPP

The purpose of 3GPP is to prepare, approve and maintain globally applicable Technical Specifications and Technical Reports for:

- a 3rd Generation Mobile System based on the evolved GSM core networks, and the radio access technologies supported by the Partners (i.e., UTRA both FDD and TDD modes), to be transposed by the Organizational Partners into appropriate deliverables (e.g., standards).
- the Global System for Mobile communication (GSM) including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).
- *an evolved IMS developed in an access independent manner*

Page 3

2.3 Scope and objectives of 3GPP.

3GPP shall prepare, approve and maintain the necessary set of Technical Specifications and Technical Reports for a 3rd Generation Mobile System including:

- UTRAN (including UTRA; in Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes);
- 3GPP Core Network (Third Generation networking capabilities evolved from GSM. These capabilities include mobility management, global roaming, and utilisation of relevant Internet Protocols);
- Terminals for access to the above (including specifications for a UIM); and
- *An evolved IMS developed in an access independent manner; and*
- System and service aspects.

3GPP shall prepare, approve and maintain the necessary set of Technical Specifications and Technical Reports for:

- the Global System for Mobile communication (GSM) including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).

3GPP shall consider the long term evolution.

The Technical Specifications and Technical Reports shall be developed in view of global roaming and circulation of terminals.

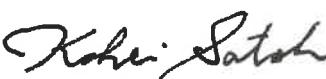
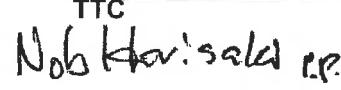
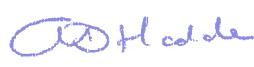
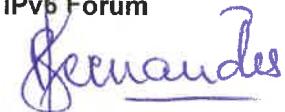
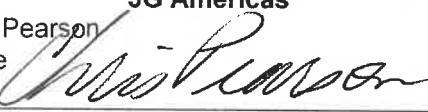
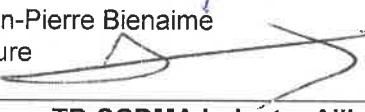
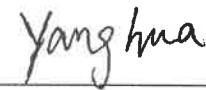
The set of 3GPP Technical Specifications and Technical Reports for the 3GPP core network and the specifications for the GSM core network should be common to the greatest extent possible and should not be unnecessarily different.

The results of the 3GPP work shall form the basis of member contributions to the ITU in accordance with existing procedures.

3GPP shall take account of emerging ITU recommendations on interworking between IMT-2000 family members.

In the framework of agreed relationships, the 3GPP Technical Specifications and Technical Reports will form the basis of standards, or parts of standards, of the Organizational Partners.

Authorised by the existing Partners

| | |
|---|---|
| ARIB Mr Masayoshi Wakao Signature Date  | Mrs Susan Miller Signature Date  |
| CCSA Mr Zhou Baoxin Signature Date  | Dr Walter Weigel Signature Date  |
| TTA Mr Won-Sik Kim Signature Date  | Dr Yuji Inoue Signature Date  |
| GSA Mr Alan Hadden Signature Date  | GSM Association Mr David McDonald Signature Date  |
| IPv6 Forum Mr Latif Ladid Signature Date  | 3G Americas Mr Chris Pearson Signature Date  |
| UMTS Forum Mr Jean-Pierre Bienaime Signature Date  | TD SCDMA Forum Dr Jing Wang Signature Date  |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  | MobileIGNITE MoU Mr Leo Nikkari Signature Date  |
| Global UMTS TDD Alliance Mrs Liz Kerton Signature Date  | IMS Forum Mrs Marian Stasney Signature Date |

Executed in 16 originals

Annex 19 Modification to the Scope and Purpose of 3GPP:

This Annex modifies the Scope and Purpose of 3GPP. Modified clauses have been reproduced with the additional text provided in italic, underlined font.

Page 1

Officially recognized Standardization Organizations have agreed to work collaboratively for the production of evolved Third Generation and beyond Mobile System specifications¹. The means for this collaborative activity has been provided in the form of a Partnership Project. The Partners in the Partnership Project are signatories to this Third Generation Partnership Project Agreement, hereinafter referred to as the Agreement.

CONSIDERING THAT:

- The Partners have agreed to co-operate in the production of globally applicable Technical Specifications and Technical Reports for an evolved 3rd Generation and beyond Mobile System based on evolved GSM3GPP core networks and the radio access technologies that they support (i.e., Universal Terrestrial Radio Access (UTRA) both Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes).
- The Partners have further agreed to co-operate in the maintenance and development of the Global System for Mobile communication (GSM) Technical Specifications and Technical Reports including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).
- The Partners have agreed that the further evolution of IMS should be done in an access independent manner.
- 3GPP is established for the preparation, approval, and maintenance of the above mentioned Technical Specifications and Technical Reports.
- 3GPP is not to be construed as a legal entity.

¹ *This includes all existing 3GPP system specifications*

Page 2

2.1 Purpose of 3GPP

The purpose of 3GPP is to prepare, approve and maintain globally applicable Technical Specifications and Technical Reports for:

- an evolved 3rd Generation and beyond Mobile System based on the evolved GSM3GPP core networks, and the radio access technologies supported by the Partners (i.e., UTRA both FDD and TDD modes), to be transposed by the Organizational Partners into appropriate deliverables (e.g., standards).
- the Global System for Mobile communication (GSM) including GSM evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).
- an evolved IMS developed in an access independent manner.

2.3 Scope and objectives of 3GPP.

3GPP shall prepare, approve and maintain the necessary set of Technical Specifications and Technical Reports for an evolved 3rd Generation and beyond Mobile System including:

- Evolved UTRAN and beyond (including UTRA; in Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes);
- 3GPP Core Network and evolutions (Third Generation networking capabilities originally evolved from GSM. These capabilities include mobility management, global roaming, and utilisation of relevant Internet Protocols);
- Terminals for access to the above (including specifications for a UIM);
- An evolved IMS developed in an access independent manner; and
- System and service aspects.

Authorised by the existing Partners

| | | | |
|--|--|--|---------------------------------|
| ARIB Mr Masayoshi Wakao Signature Date | <i>Kohki Sato</i> 18.12.2007 | ATIS Mrs Susan Miller Signature Date | <i>Shelly for</i> 18/12/2007 |
| CCSA Mr Zhou Baoxin Signature Date | <i>Wangzhiguo</i> | ETSI Dr Walter Weigel Signature Date | <i>Walter</i> 18/12/07 |
| TTA Mr Won-Sik Kim Signature Date | <i>J.S. Park</i> 18/12/2007 | TTC Dr Yuji Inoue Signature Date | <i>Yuji</i> 18/12/2007 |
| GSA Mr Alan Hadden Signature Date | <i>PP Jones Sunilbag</i> 18/12/2007 | GSM Association Mr David McDonald Signature Date | <i>David</i> 18/12/2007 |
| IPv6 Forum Mr Latif Ladid Signature Date | | 3G Americas Mr Chris Pearson Signature Date | <i>Chris Pearson</i> 18/12/07 |
| UMTS Forum Mr Jean-Pierre Bienaimé Signature Date | <i>Jean-Pierre</i> 18.12.2007 | TD SCDMA Forum Dr Jing Wang Signature Date | <i>Jing Wang</i> |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature Date | <i>Yang Hua</i> | MobileGNITE MoU Mr Leo Nikkari Signature Date | |
| Global UMTS TDD Alliance Mrs Liz Kerton Signature Date | | IMS Forum Mrs Marian Stasney Signature Date | |

Executed in 16 originals

Annex 20 This Agreement is entered into by the following Market Representation Partner:

Infocommunication Union

Name: Mr. Andrey Skorodumov
Title: CEO

Address: 2-nd Spasonicalivkovski per., 6,
Moscow 119991,
Russia

Signature

Date 18 December 2007

Authorised by the existing Partners

| | | | |
|--|--------------------------------------|--|---------------------------------|
| ARIB Mr Masayoshi Wakao Signature Date | <i>Koshi Satoh</i> 18.12.2007 | ATIS Mrs Susan Miller Signature Date | <i>Sally for 18/12/2007</i> |
| CCSA Mr Zhou Baoxin Signature Date | <i>Wang Zhiguo</i> 18/12/2007 | ETSI Dr Walter Weigel Signature Date | <i>W. Weigel 18/12/07</i> |
| ITA Mr Won-Sik Kim Signature Date | <i>W.S. Park</i> 18/12/2007 | TTC Dr Yuji Inoue Signature Date | <i>Y. Inoue 18/12/2007</i> |
| GSA Mr Alan Hadden Signature Date | <i>P. Jones Sundby</i> 18/12/2007 | GSM Association Mr David McDonald Signature Date | <i>D. McDonald 18/12/2007</i> |
| IPv6 Forum Mr Latif Ladid Signature Date | <i>L. Ladid</i> 18/12/2007 | 3G Americas Mr Chris Pearson Signature Date | <i>C. Pearson 12-12-07</i> |
| UMTS Forum Mr Jean-Pierre Bienaimé Signature Date | <i>J.-P. Bienaimé</i> 18/12/2007 | TD SCDMA Forum Dr Jing Wang Signature Date | <i>Jing Wang</i> |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature Date | <i>Yang Hua</i> | MobileIGNITE MoU Mr Leo Nikkari Signature Date | |
| Global UMTS TDD Alliance Mrs Liz Kerton Signature Date | | IMS Forum Mrs Marian Stasney Signature Date | |

Executed in 17 originals

Annex 21 This Agreement is entered into by the following Market Representation Partner:

FemtoForum

Name: Prof. Simon Saunders
Title: Chairman

Address: PO Box 23
GL11 5WA
United Kingdom

Signature



Date 23 April 2008

Authorised by the existing Partners

| | |
|---|---|
| <p>ARIB Mr Masayoshi Wakao Signature Date</p> <p><i>Yohhei Satoh</i> 23.04.2008</p> | <p>ATIS Mrs Susan Miller Signature Date</p> <p><i>Susan Miller (Tos)</i> 4/23/2008</p> |
| <p>CCSA Mr Zhou Baoxin Signature Date</p> <p><i>Wang Zhiping</i> 23/04/08</p> | <p>ETSI Dr Walter Weigel Signature Date</p> <p><i>Walter Weigel</i> 23/4/08</p> |
| <p>TTA Mr Won-Sik Kim Signature Date</p> <p><i>Chang Sik</i> 23/04/08</p> | <p>TTC Dr Yuji Inoue Signature Date</p> <p><i>Yuji Inoue</i> 23/04/08</p> |
| <p>GSA Mr Alan Hadden Signature Date</p> <p><i>pp Jones Sundbom</i> 23/4/08</p> | <p>GSM Association Mr Alex Sinclair Signature Date</p> <p><i>Alex Sinclair</i> 23-4-08</p> |
| <p>IPv6 Forum Mr Latif Ladid Signature Date</p> | <p>3G Americas Mr Chris Pearson Signature Date</p> <p><i>Chris Pearson</i> 4-23-08</p> |
| <p>UMTS Forum Mr Jean-Pierre Bienaimé Signature Date</p> <p><i>Jean-Pierre</i> 4-23-08</p> | <p>TD SCDMA Forum Dr Jing Wang Signature Date</p> <p><i>Jing Wang</i> 4-23-08</p> |
| <p>TD-SCDMA Industry Alliance Mr Yang Hua Signature Date</p> <p><i>Yang Hua</i> 23/04/08</p> | <p>MobileIGNITE MoU Mr Leo Nikkari Signature Date</p> |
| <p>Global UMTS TDD Alliance Mrs Liz Kerton Signature Date</p> | <p>IMS Forum Mrs Marian Stasney Signature Date</p> |
| <p>Infocommunication Union Mr Andrey Skorodumov Signature Date</p> <p><i>Andrey Skorodumov</i> 23 April 2008</p> | |

Executed in 18 originals

Annex 22 This Agreement is entered into by the following Market Representation Partner:

Fixed-Mobile Convergence Alliance

Name: Mr Andrew Haworth
Title: Managing Director

Address: 3B CTE, Newcastle Central TEL EXCH
Carliol Square
Newcastle Upon Tyne
Tyne And Wear NE1 1BB, United Kingdom

Signature 

Date 23 April 2008

Authorised by the existing Partners

| | | |
|---|--|--|
| ARIB Mr Masayoshi Wakao Signature Date | CCSA Mr Zhou Baoxin Signature Date | ETSI Dr Walter Weigel Signature Date |
| Mr Won-Sik Kim Signature Date | TTA Mr Alan Hadden Signature Date | TTC Dr Yuji Inoue Signature Date |
| IPv6 Forum Mr Latif Ladid Signature Date | GSA Mr Jean-Pierre Bienaimé Signature Date | GSM Association Mr Alex Sinclair Signature Date |
| UMTS Forum Mr Yang Hua Signature Date | 3G Americas Mr Chris Pearson Signature Date | TD SCDMA Forum Dr Jing Wang Signature Date |
| TD-SCDMA Industry Alliance Mrs Liz Kerton Signature Date | MobileIGNITE MoU Mr Leo Nikkari Signature Date | IMS Forum Mrs Marian Stasney Signature Date |
| Global UMTS TDD Alliance Mr Andrey Skorodumov Signature Date | Infocommunication Union Prof. Simon Saunders Signature Date | FemtoForum S. SCS 23/4/08 |

Executed in 19 originals

Annex 23 This Agreement is entered into by the following Market Representation Partner:

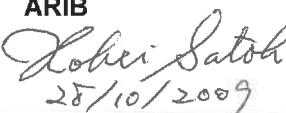
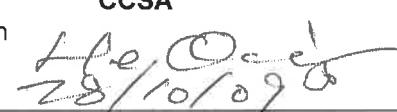
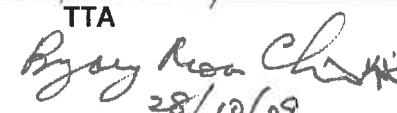
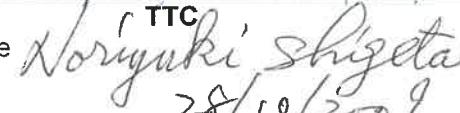
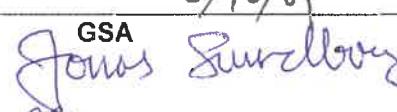
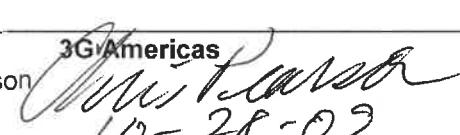
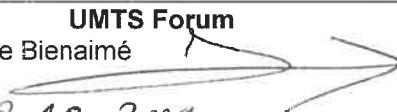
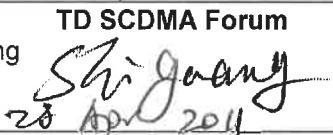
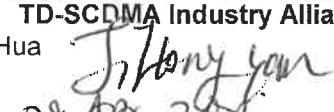
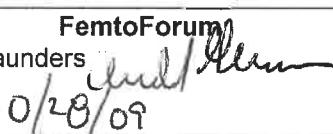
CDMA Development Group

Name: Mr Perry LaForge
 Title: Executive Director
 Address: 575 Anton Blvd., Ste. 560
 Costa Mesa, CA 92626
 USA

Signature 

Date 28 October 2009

Authorised by the existing Partners

| | |
|--|---|
| ARIB Mr Masayoshi Wakao Signature  Date 28/10/2009 | ATIS Mrs Susan Miller Signature  Date 10/28/2009 |
| CCSA Mr Zhou Baoxin Signature  Date 28/10/09 | ETSI Dr Walter Weigel Signature  Date 28/10/09 |
| TTA Mr Won-Sik Kim Signature  Date 28/10/09 | TTC Dr Yuji Inoue Signature  Date 28/10/2009 |
| GSA Mr Alan Hadden Signature  Date 28.10.09 | GSM Association Mr Alex Sinclair Signature Date |
| IPv6 Forum Mr Latif Ladid Signature Date | 3G Americas Mr Chris Pearson Signature  Date 10-28-09 |
| UMTS Forum Mr Jean-Pierre Bienaimé Signature  Date 28.10.2009 | TD SCDMA Forum Dr Jing Wang Signature  Date 28.10.2011 |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature  Date 28.10.2011 | MobileIGNITE MoU Mr Leo Nikkari Signature Date |
| Global UMTS TDD Alliance Mrs Liz Kerton Signature Date | IMS Forum Mrs Marian Stasney Signature Date |
| Infocomunication Union Mr Andrey Skorodumov Signature Date | FemtoForum Prof. Simon Saunders Signature  Date 10/28/09 |
| Fixed-Mobile Convergence Alliance Mr Andrew Howarth Signature Date | |

Executed in 20 originals

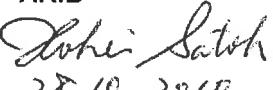
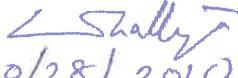
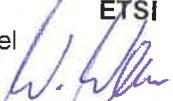
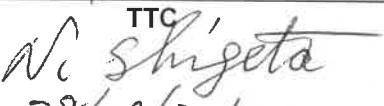
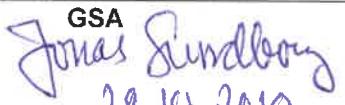
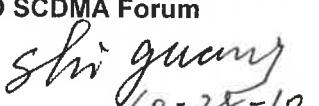
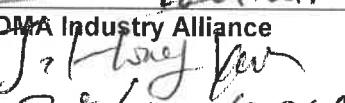
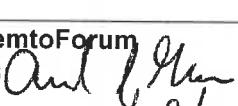
Annex 24 This Agreement is entered into by the following Market Representation Partner:

Cellular Operators Association of India (COAI)

Name: Mr T.R. Dua
Title: Officiating Director General
Address: 14 Bhai Veer Singh Marg
New Delhi 110 001
India

Signature Date 28 October 2010

Authorised by the existing Partners

| | | | |
|--|--|---|--|
| Authorised by the Existing Partners | | | |
| Mr Masayoshi Wakao Signature Date | ARIB  28.10.2010 | Mrs Susan Miller Signature Date | ATIS  for 10/28/2010 |
| Mr Zhou Baoxin Signature Date | CCSA  28.10.2010 | Dr Walter Weigel Signature Date | ETSI  W. Weigel 28/10/10 |
| Mr Keun Hyeonb Lee Signature Date | TTA  28/10/10 | Dr Yuji Inoue Signature Date | TTC  N. Shigeta 28/10/2010 |
| Mr Alan Hadden Signature Date | GSA  28.10.2010 | Mr Alex Sinclair Signature Date | GSM Association Mr Alex Sinclair Signature Date |
| Mr Latif Ladid Signature Date | IPv6 Forum Mr Latif Ladid Signature Date | Mr Chris Pearson Signature Date | 4G Americas  Chris Pearson 10-28-10 |
| Mr Jean-Pierre Bienaimé Signature Date | UMTS Forum  28.04.2011 | Dr Jing Wang Signature Date | TD SCDMA Forum  Jing Wang 10-28-10 |
| Mr Yang Hua Signature Date | TD-SCDMA Industry Alliance  28/10/2010 | Mr Michael Khalilian Signature Date | IMS Forum Mr Michael Khalilian Signature Date |
| Mr Andrey Skorodumov Signature Date | Infocommunication Union Mr Andrey Skorodumov Signature Date | Prof. Simon Saunders Signature Date | FemtoForum  Andrea 10/28/10 |

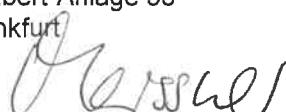
Executed in 17 originals

CDG
B. S. Kumar

Annex 25 This Agreement is entered into by the following Market Representation Partner:

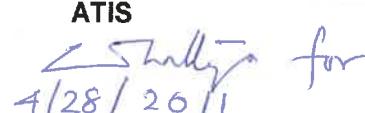
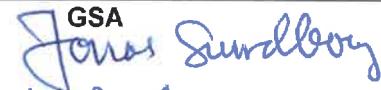
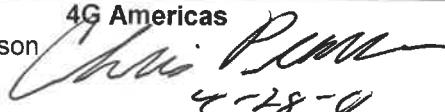
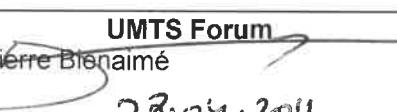
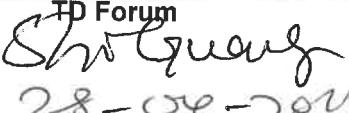
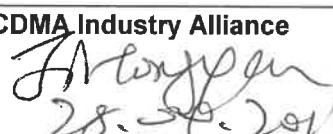
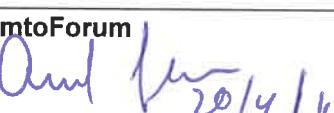
Next Generation Mobile Network Alliance (NGMN)

Name: Dr. Peter Meissner
 Title: Operating Officer, NGMN Ltd
 Address: Friedrich-Ebert-Anlage 58
 60325 Frankfurt
 Germany

Signature 

Date 28 April 2011

Authorised by the existing Partners

| | |
|--|--|
| ARIB Mr Masayoshi Wakao Signature Date 28.04.2011  | ATIS Mrs Susan Miller Signature Date 4/28/2011  |
| CCSA Mr Yang Zemin Signature Date 28.04.2011  | ETSI Dr Walter Weigel Signature Date |
| TTA Mr Keun Hyeonb Lee Signature Date 28.04.2011  | TTC Dr Yuji Inoue Signature Date 28.04.2011  |
| GSA Mr Alan Hadden Signature Date 28.04.2011  | GSM Association Mr Alex Sinclair Signature Date |
| IPv6 Forum Mr Latif Ladid Signature Date | 4G Americas Mr Chris Pearson Signature Date 4-28-11  |
| UMTS Forum Mr Jean-Pierre Bienaimé Signature Date 28.04.2011  | TD Forum Mr Shi Guang Signature Date 28-04-2011  |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature Date 28.04.2011  | IMS Forum Mr Michael Khalilian Signature Date |
| Infocommunication Union Mr Andrey Skorodumov Signature Date | FemtoForum Prof Simon Saunders Signature Date  |
| CDMA Development Group Mr Perry LaForge Signature Date 4/28/2011  | Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date |

Executed in 19 originals

Annex 26 This Agreement is entered into by the following Market Representation Partner:

TETRA & Critical Communications Association (TCCA)

Name: Mr. Philip Kidner
 Title: CEO
 Address: 14 Blandford Square
 Newcastle Upon Tyne, NE1 4HZ
 United Kingdom

Signature

Date 31 October 2013

Authorised by the existing Partners

| ARIB | ATIS |
|--|--|
| Dr Kohei Satoh Signature Date | Mrs Susan Miller Signature Date |
| CCSA | ETSI |
| Mr Yang Zemin Signature Date | Mr Luis Jorge Romero Saro Signature Date |
| TTA | TTC |
| Mr Chasik Leem Signature Date | Mr Yoichi Maeda Signature Date |
| GSA | GSM Association |
| IPv6 Forum | 4G Americas |
| UMTS Forum | TD Forum |
| TD-SCDMA Industry Alliance | IMS Forum |
| Infocommunication Union | Small Cell Forum |
| CDMA Development Group | Cellular Operators Association of India (COAI) |
| Next Generation Mobile Network Alliance (NGMN) | |

Mr. Philip Kidner
Signature
Date

Mr. Susan Miller
Signature
Date

Mr. Luis Jorge Romero Saro
Signature
Date

Mr. Yoichi Maeda
Signature
Date

Mr. Alex Sinclair
Signature
Date

Mr. Chris Pearson
Signature
Date

Mr. Shi Guang
Signature
Date

Mr. Michael Khalilian
Signature
Date

Mr. Graham Wright
Signature
Date

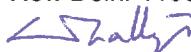
Mr. Rajan Mathews
Signature
Date

Executed in 20 originals

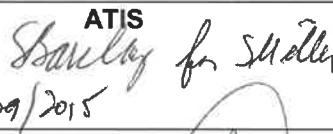
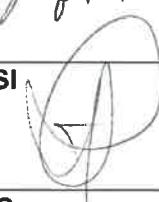
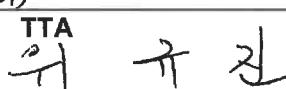
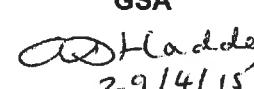
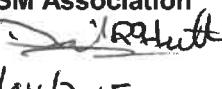
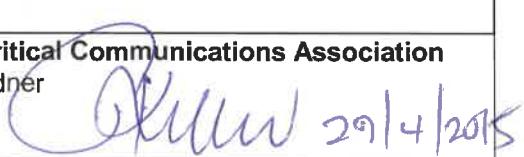
Annex 27 This Agreement is entered into by the following Organizational Partner:

Telecommunications Standards Development Society, India (TSDSI)

Name: Dr. Asok Chatterjee
 Title: Director General
 Address: C-DoT Campus, Mandi Road, Mehrauli
 New Delhi-110030, India

Signature  Date 29 April 2015

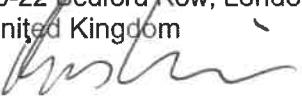
Authorised by the existing Partners

| | |
|--|---|
| ARIB Dr Kohei Satoh Signature Date 29.04.2015  | ATIS Mrs Susan Miller Signature Date 4/29/2015  |
| CCSA Mr Yang Zemin Signature Date 29.4.2015  | ETSI Mr Luis Jorge Romero Saro Signature Date 29.04.2015  |
| TTA Dr Kyu-Jin Wee Signature Date 29.04.2015  | TTC Mr Yoichi Maeda Signature Date 29.04.2015  |
| GSA Mr Joe Barrett Signature Date 29/4/15  | GSM Association Mr Alex Sinclair Signature Date 29/04/2015  |
| IPv6 Forum Mr Latif Ladid Signature Date | 4G Americas Mr Chris Pearson Signature Date |
| UMTS Forum Mr Jean-Pierre Bienaimé Signature Date | TD Forum Mr Shi Guang Signature Date |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature Date | IMS Forum Mr Michael Khalilian Signature Date |
| Infocommunication Union Mr Andrey Skorodumov Signature Date | Small Cell Forum Mrs Sue Monahan Signature Date |
| Mobility Development Group Mr Douglas Martel Signature Date 29/04/2015  | Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date |
| Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature Date | TETRA & Critical Communications Association Mr. Philip Kidner Signature Date  |

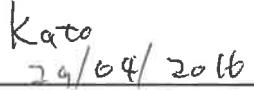
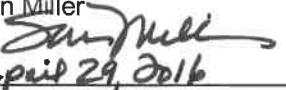
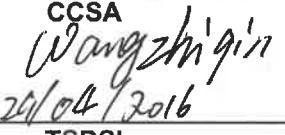
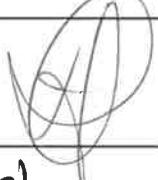
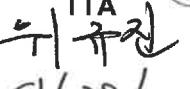
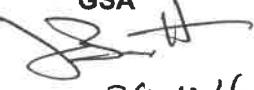
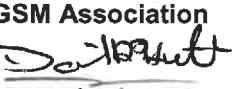
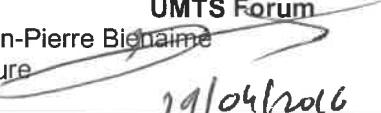
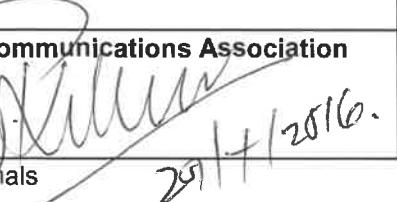
Executed in 21 originals

Annex 28 This Agreement is entered into by the following Market Representation Partner:

Global Certification Forum (GCF) Ltd

Name: Mr Lars S Nielsen
 Title: General Manager
 Address: 20-22 Bedford Row, London WC1J 4JS
 United Kingdom
 Signature  Date 29 April 2016

Authorised by the existing Partners

| ARIB | ATIS |
|--|---|
| Dr Kohei Satoh Signature Date  29/04/2016 | Mrs Susan Miller Signature  Date 29 April 2016 |
| Mr Yang Zemin Signature Date  29/04/2016 | Mr Luis Jorge Romero Saro Signature Date 29.04.2016  |
| Prof Abhay Karandikar Signature Date  29/04/2016 | Dr Kyu-Jin Wee Signature  Date 29/04/2016 |
| Mr Yoichi Maeda Signature Date  29/04/2016 | Mr Joe Barrett Signature  Date 29-4-16 |
| Mr Alex Sinclair Signature Date  29/04/2016 | Mr Latif Ladid Signature Date |
| Mr Chris Pearson Signature Date | Mr Jean-Pierre Bignalme Signature  Date 29/04/2016 |
| Mr Shi Guang Signature Date | Mr Yang Hua Signature Date |
| Mrs Sue Monahan Signature Date | Mr Douglas Martel Signature Date |
| Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date | Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature Date |
| TETRA & Critical Communications Association Mr. Philip Kidner Signature Date | |
| Executed in 20 originals  29/04/2016 | |

Annex 29 This Agreement is entered into by the following Market Representation Partner:

CTIA

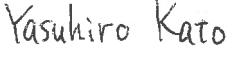
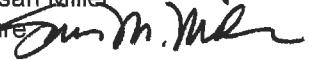
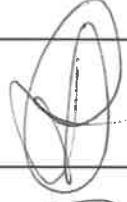
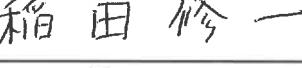
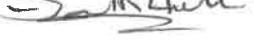
Name: Mr Thomas Sawanobori
 Title: Senior Vice President and Chief Technology Officer
 Address: 1400 16th Street, N.W. Suite 600,
 Washington, DC 20036, USA

Signature



Date 29 April 2016

Authorised by the existing Partners

| | |
|--|--|
| ARIB Dr Kohei Satoh Signature Date  | ATIS Mrs Susan Miller Signature Date  |
| CCSA Mr Yang Zemin Signature Date  | ETSI Mr Luis Jorge Romero Saro Signature Date  |
| TSDSI Prof Abhay Karandikar Signature Date  | TTA Dr Kyu Jin Wee Signature Date  |
| TTC Shuichi Imada Mr Yoichi Maeda Signature Date  | GSA Mr Joe Barrett Signature Date  |
| GSM Association Mr Alex Sinclair Signature Date  | IPv6 Forum Mr Latif Ladid Signature Date |
| 5G Americas Mr Chris Pearson Signature Date | UMTS Forum Mr Jean-Pierre Bienaimé Signature Date  |
| TD Forum Mr Shi Guang Signature Date | TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  |
| Small Cell Forum Mrs Sue Monahan Signature Date | Mobility Development Group Mr Douglas Martel Signature Date |
| Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date | Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature Date |
| TETRA & Critical Communications Association Mr. Philip Kidner Signature Date | GCF Mr Lars S Nielsen Signature Date |

Executed in 21 originals

Annex 30 This Agreement is entered into by the following Market Representation Partner:

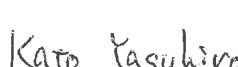
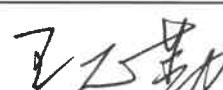
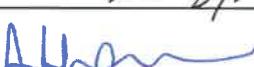
Wireless Broadband Alliance (WBA)

Name: Mr Shrikant Shenwai
 Title: CEO
 Address: 8 Eu Tong Sen Street #14-94, The Central,
 Singapore 059818

Signature 

Date 21 October 2016

Authorised by the existing Partners

| | |
|--|---|
| ARIB Dr Kohei Satoh Signature  | ATIS Ms Susan Miller Signature  |
| CCSA Mr Yang Zemin Signature  | ETSI Mr Luis Jorge Romero Saro Signature  |
| TSDSI Prof Abhay Karandikar Signature  | TTA Dr Keunku Lee Signature  |
| TTC Mr Shuichi Inada Signature  | GSA Mr Joe Barrett Signature  |
| GSM Association Mr Alex Sinclair Signature | IPv6 Forum Mr Latif Ladid Signature |
| 5G Americas Mr Chris Pearson Signature | UMTS Forum Mr Jean-Pierre Bienaimé Signature  |
| TD Forum Mr Shi Guang Signature | TD-SCDMA Industry Alliance Mr Yang Hua Signature |
| Small Cell Forum Mrs Sue Monahan Signature | Mobility Development Group Mr Douglas Martel Signature |
| Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature | Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature |
| TETRA & Critical Communications Association Mr. Philip Kidner Signature | GCF Mr Lars S Nielsen Signature |
| CTIA Mr Thomas Sawanobori Signature | |

Executed in 22 originals

Annex 31 This Agreement is entered into by the following Market Representation Partner:

Public Safety Communication Europe (PSCE)

Name: Mrs Marie-Christine Bonnamour
 Title: Secretary General
 Address: Rue des 2 églises, 39,
 BE 1000 Brussels

Signature

Date 21 October 2016

Authorised by the existing Partners

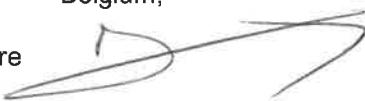
| ARIB | ATIS |
|---|---|
| Dr Kohei Satoh Signature | Ms Susan Miller Signature |
| CCSA Mr Yang Zemin Signature | ETSI Mr Luis Jorge Romero Saro Signature |
| TSDSI Prof Abhay Karandikar Signature | TTA Dr Keunku Lee Signature |
| TTC Mr Shuichi Inada Signature | GSA Mr Joe Barrett Signature |
| GSM Association Mr Alex Sinclair Signature | IPv6 Forum Mr Latif Ladid Signature |
| 5G Americas Mr Chris Pearson Signature | UMTS Forum Mr Jean-Pierre Bienaimé Signature |
| TD Forum Mr Shi Guang Signature | TD-SCDMA Industry Alliance Mr Yang Hua Signature |
| Small Cell Forum Mrs Sue Monahan Signature | Mobility Development Group Mr Douglas Martel Signature |
| Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature | Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature |
| TETRA & Critical Communications Association Mr. Philip Kidner Signature | GCF Mr Lars S Nielsen Signature |
| CTIA Mr Thomas Sawanobori Signature | WBA Mr Shrikant Shenwai Signature |

Executed in 23 originals

Annex 32 This Agreement is entered into by the following Market Representation Partner:

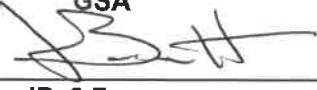
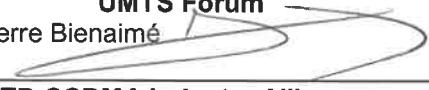
5G Infrastructure Association (5G-IA)

Name: Mr Jean-Pierre Bienaimé
 Title: Secretary General
 Address: AA-TOWER, Technologiepark 19, 9052 Zwijnaarde, Belgium,

Signature 

Date 21 October 2016

Authorised by the existing Partners

| ARIB | ATIS |
|---|---|
| Dr Kohei Satoh Signature  | Ms Susan Miller Signature  |
| CCSA Mr Yang Zemin Signature  | ETSI Mr Luis Jorge Romero Saro Signature  |
| TSDSI Prof Abhay Karandikar Signature  | TTA Dr Keunku Lee Signature  |
| TTC Mr Shuichi Inada Signature  | GSA Mr Joe Barrett Signature  |
| GSM Association Mr Alex Sinclair Signature | IPv6 Forum Mr Latif Ladid Signature |
| 5G Americas Mr Chris Pearson Signature | UMTS Forum Mr Jean-Pierre Bienaimé Signature  |
| TD Forum Mr Shi Guang Signature | TD-SCDMA Industry Alliance Mr Yang Hua Signature |
| Small Cell Forum Mrs Sue Monahan Signature | Mobility Development Group Mr Douglas Martel Signature |
| Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature | Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature |
| TETRA & Critical Communications Association Mr. Philip Kidner Signature | GCF Mr Lars S Nielsen Signature |
| CTIA Mr Thomas Sawanobori Signature | WBA  |

Executed in 24 originals

Annex 33 This Agreement is entered into by the following Market Representation Partner:

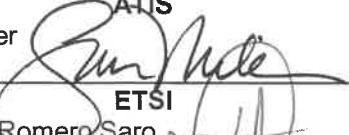
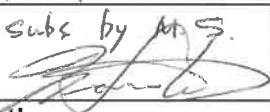
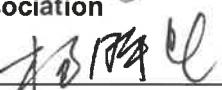
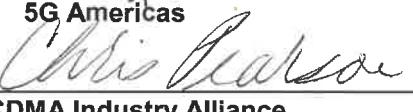
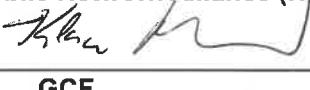
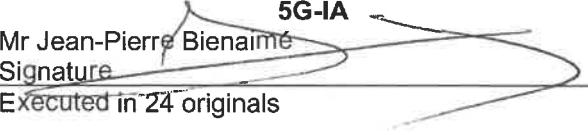
5G Automotive Association e.V. (5GAA)

Name: Mr Dino Flore
 Title: Secretary General
 Address: Neumarkter Str. 2, 81673 Munich
 Germany

Signature 

Date 26 April 2017

Authorised by the existing Partners

| | |
|--|--|
| ARIB Mr Seiji Nishioka Signature  | ATIS Ms Susan Miller Signature  |
| CCSA Mr Yang Zemin Signature  | ETSI Mr Luis Jorge Romero Saro Signature  |
| TSDSI Prof Abhay Karandikar Signature  | TTA Dr Keunku Lee Signature  |
| TTC sub by Mr S. Mr Shuichi Inada Signature  | GSA Mr Joe Barrett Signature  |
| GSM Association Mr Alex Sinclair Signature  | IPv6 Forum Mr Latif Ladid Signature |
| 5G Americas Mr Chris Pearson Signature  | TD Forum Mr Shi Guang Signature |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature | Small Cell Forum Mrs Sue Monahan Signature |
| Mobility Development Group Mr Douglas Martel Signature | Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature |
| Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature  | TETRA & Critical Communications Association Mr. Philip Kidner Signature  |
| GCF Mr Lars S Nielsen Signature | CTIA Mr Thomas Sawanobori Signature |
| WBA Mr Shrikant Shenwai Signature | PSCE Mrs Marie-Christine Bonnamour Signature |
| 5G-IA Mr Jean-Pierre Bienaimé Signature  | |

Executed in 24 originals

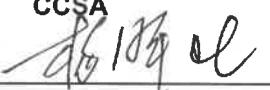
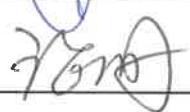
Annex 34 This Agreement is entered into by the following Market Representation Partner:

Broadband India Forum (BIF)

Name: Mr TV Ramachandran
 Title: President
 Address: Suite 312A, Deepshikha Building, New Delhi 110008,
 India

Signature  Date 12 April 2018

Authorised by the existing Partners

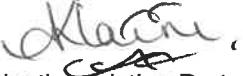
| | |
|--|--|
| ARIB Mr Seiji Nishioka Signature  | ATIS Ms Susan Miller Signature  |
| CCSA Mr Yang Zemin Signature  | ETSI Mr Luis Jorge Romero Saro Signature  |
| TSDSI Ms Pamela Kumar Signature  | TTA Dr Keunku Lee Signature  |
| TTC Mr Shuichi Inada Signature  | GSA Mr Joe Barrett Signature  |
| GSM Association Mr Alex Sinclair Signature | IPv6 Forum Mr Latif Ladid Signature |
| 5G Americas Mr Chris Pearson Signature | TD Forum Mr Shi Guang Signature |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature | Small Cell Forum Mrs Sue Monahan Signature |
| Mobility Development Group Mr Douglas Martel Signature | Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature |
| Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature | The Critical Communications Association Mr. Tony Gray  Signature |
| GCF Mr Lars S Nielsen Signature | CTIA Mr Thomas Sawanobori Signature |
| WBA Mr Shrikant Shenwai Signature | PSCE Mrs Marie-Christine Bonnamour Signature |
| 5G-IA Mr Jean-Pierre Bienaimé Signature  | 5G-AA Mr Dino Flore Signature |

Executed in 25 originals

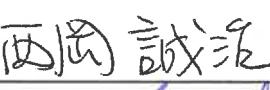
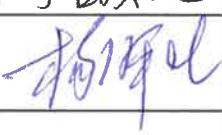
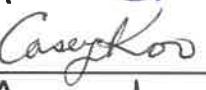
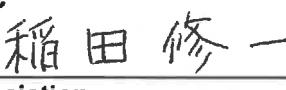
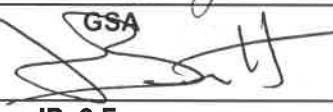
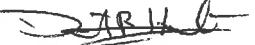
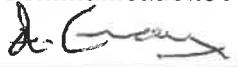
Annex 35 This Agreement is entered into by the following Market Representation Partner:

EMEA Satellite Operators Association (ESOA)

Name: Aarti Holla-Maini
 Title: Secretary General
 Address: Avenue Marnix 17, 1000 Brussels,
 Belgium

Signature  Date 19 October 2018

Authorised by the existing Partners

| | |
|---|--|
| ARIB Mr Seiji Nishioka Signature  | ATIS Ms Susan Miller Signature  |
| CCSA Mr Yang Zemin Signature  | ETSI Mr Luis Jorge Romero Saro Signature  |
| TSDSI Ms Pamela Kumar Signature  | TTA Mr. Koo Kyoung Cheol Signature  |
| TTC Mr Shuichi Inada Signature  | GSA Mr Joe Barrett Signature  |
| GSM Association Mr Alex Sinclair Signature  | IPv6 Forum Mr Latif Ladid Signature |
| 5G Americas Mr Chris Pearson Signature | TD Forum Mr Shi Guang Signature |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature | Small Cell Forum Mrs Sue Monahan Signature |
| Mobility Development Group Mr Douglas Martel Signature | Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature |
| Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature | The Critical Communications Association Mr. Tony Gray Signature  |
| GCF Mr Lars S Nielsen Signature | CTIA Mr Thomas Sawanobori Signature |
| WBA Mr Shrikant Shenwai Signature | PSCE Mrs Marie-Christine Bonnamour Signature |
| 5G-IA Mr Jean-Pierre Bienaimé Signature | 5G-AA Mr Dino Flore Signature |
| Broadband India Forum Mr TV Ramachandran Signature | |

Executed in 26 originals

Annex 36 This Agreement is entered into by the following Market Representation Partner:

ZVEI – Zentralverband Elektrotechnik- und Elektronikindustrie e.V.

Name: Gunter Koschnick
 Title: Managing Director
 Address: ZVEI e.V., Lyoner Strasse 9, 60528 Frankfurt
 Germany

Signature



Date 2 November 2018

Authorised by the existing Partners

| | | |
|---|--------------------------------------|---|
| ARIB Mr Seiji Nishioka Signature | CCSA Mr Yang Zemin Signature | ATIS Ms Susan Miller Signature |
| TSDSI Ms Pamela Kumar Signature | TTC Mr Shuichi Inada Signature | ETSI Mr Luis Jorge Romero Saro Signature |
| GSM Association Mr Alex Sinclair Signature | | TTA Mr. Koo Kyoung Cheol Signature |
| 5G Americas Mr Chris Pearson Signature | | GSA Mr Joe Barrett Signature |
| TD-SCDMA Industry Alliance Mr Yang Hua Signature | | IPv6 Forum Mr Latif Ladid Signature |
| Mobility Development Group Mr Douglas Martel Signature | | TD Forum Mr Shi Guang Signature |
| Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature | | Small Cell Forum Mrs Sue Monahan Signature |
| GCF Mr Lars S Nielsen Signature | | Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature |
| WBA Mr Shrikant Shenwai Signature | | The Critical Communications Association Mr. Tony Gray Signature |
| 5G-IA Mr Jean-Pierre Bienaimé Signature | | CTIA Mr Thomas Sawanobori Signature |
| Broadband India Forum Mr TV Ramachandran Signature | | PSCE Mrs Marie-Christine Bonnamour Signature |
| | | 5G-AA Mr Dino Flore Signature |
| | | EMEA Satellite Operators Association Mrs Aarti Holla-Maini Signature |

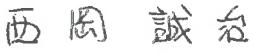
Executed in 27 originals

Annex 37 This Agreement is entered into by the following Market Representation Partner:

Automotive Edge Computing Consortium (AECC)

Name: Geng Wu
 Title: AECC Treasurer and Liaison Relationship Strategy Committee Chair
 Address: Intel Corporation
 2111 NE 25th Avenue
 Hillsboro, OR 97124
 USA

Accepted as MRP by the existing Partners on 07 April 2020

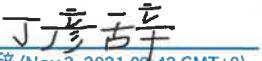
| | |
|---|---|
| Automotive Edge Computing Consortium (AECC) Geng Wu  <small>Geng Wu (Oct 5, 2021 08:57 PDT)</small> Geng.wu@intel.com | ARIB Seiji Nishioka  <small>Seiji Nishioka (Oct 5, 2021 08:57 PDT)</small> s-nishioka@arib.or.jp |
| ATIS Susan Miller  <small>Susan Miller (Oct 5, 2021 09:34 EDT)</small> smiller@atis.org | CCSA Wen Ku  <small>Wen Ku (Oct 19, 2021 15:19 GMT+8)</small> wenku@ccsa.org.cn |
| ETSI Luis Jorge Romero  luis.romero@etsi.org | TSDSI N.G. Subramaniam  <small>N.G. Subramaniam (Oct 12, 2021 13:34 GMT+5.5)</small> ng.subramaniam@tsdsi.in |
| TTA Koo Kyoung Cheol  <small>Koo Kyoung Cheol (Oct 6, 2021 08:50 GMT+9)</small> kckoo@tta.or.kr | TTC Taku Kiyasu  <small>Taku Kiyasu (Oct 6, 2021 09:32 GMT+9)</small> kiyasu@s.ttc.or.jp |

Annex 38 This Agreement is entered into by the following Market Representation Partner:

China Society of Automotive Engineers (CSAE)

Name: Ding Yinci
 Title: Deputy Minister of Standards Management Department
 Address: 7F, Building 7, Courtyard 13 (AVIC H5), Ronghua South Rd
 Yizhuang Economic Development Zone
 Beijing
 China

Accepted as MRP by the existing Partners on 10 July 2020

| | |
|--|---|
| <p>China Society of Automotive Engineers (CSAE)</p> <p>Ding Yinci</p> <p> 丁彦辞 (Nov 3, 2021 09:42 GMT+8) dyc@sae-china.org</p> | <p>ARIB</p> <p>Seiji Nishioka</p> <p> s-nishioka@arib.or.jp</p> |
| <p>ATIS</p> <p>Susan Miller</p> <p> Susan M. Miller (Oct 22, 2021 11:31 EDT) smiller@atis.org</p> | <p>CCSA</p> <p>Wen Ku</p> <p> Wen, Ku (Nov 1, 2021 10:43 GMT+8) wenku@ccsa.org.cn</p> |
| <p>ETSI</p> <p>Luis Jorge Romero</p> <p> luis.romero@etsi.org</p> | <p>TSDSI</p> <p>N.G. Subramaniam</p> <p> n_ganapathy_subramaniam (Oct 25, 2021 17:37 GMT+5.5) ng.subramaniam@tsdsi.in</p> |
| <p>TTA</p> <p>Koo Kyoung Cheol</p> <p> Kyoung Cheol Koo (Oct 25, 2021 08:57 GMT+9) kckoo@tta.or.kr</p> | <p>TTC</p> <p>Taku Kiyasu</p> <p> Taku KIYASU (Oct 25, 2021 13:45 GMT+9) kiyasu@s.ttc.or.jp</p> |

Annex 39 This Agreement is entered into by the following Market Representation Partner:

Deterministic Networking Alliance (5GDNA)

Name: Jason Dai
 Title: President of 5GDNA
 Address: 8F, Post and Telecommunication Building,
 No.11, Chengshousi Road,
 Fengtai District,
 Beijing
 China

Accepted as MRP by the existing Partners on 16 October 2020

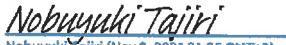
| | |
|---|---|
| Deterministic Networking Alliance (5GDNA) Jason Dai  Jisheng Dai (Nov 9, 2021 10:10 GMT+8) daijisheng@huawei.com | ARIB Seiji Nishioka  s-nishioka@arib.or.jp |
| ATIS Susan Miller  Susan Miller (Nov 8, 2021 08:19 EST) smiller@atis.org | CCSA Wen Ku  Wen Ku (Nov 8, 2021 19:58 GMT+8) wenku@ccsa.org.cn |
| ETSI Luis Jorge Romero  luis.romero@etsi.org | TSDSI N.G. Subramaniam  n.ganapathy.subramaniam (Nov 8, 2021 17:46 GMT+5.5) ng.subramaniam@tsdsi.in |
| TTA Koo Kyung Cheol  Kyung Cheol Koo (Nov 8, 2021 20:29 GMT+9) kckoo@tta.or.kr | TTC Nobuyuki Tajiri  Nobuyuki Tajiri (Nov 9, 2021 21:33 GMT+9) tajiri@s.ttc.or.jp |

Annex 40 This Agreement is entered into by the following Market Representation Partner:

5G Media Action Group (5G-MAG)

Name: Antonio Arcidiacono
 Title: 5G-MAG Chair
 Address: 5G-MAG Association
 c/o EBU – L'Ancienne-Route 17A
 CH-1218 Le Grand-Saconnex
 Geneva
 Switzerland

Accepted as MRP by the existing Partners on 29 January 2021

| | |
|--|---|
| 5G Media Action Group (5G-MAG) Antonio Arcidiacono  <small>Antonio Arcidiacono (Nov 9, 2021 12:20 GMT+1)</small> arcidiacono@ebu.ch | ARIB Seiji Nishioka  <small>西 田 誠 奈</small> s-nishioka@arib.or.jp |
| ATIS Susan Miller  <small>Susan Miller (Nov 8, 2021 08:23 EST)</small> smiller@atis.org | CCSA Wen Ku  <small>闻 奎</small> <small>Wen, Ku (Nov 8, 2021 19:52 GMT+8)</small> wenku@ccsa.org.cn |
| ETSI Luis Jorge Romero  luis.romero@etsi.org | TSDSI N.G. Subramaniam  <small>n_ganapathy_subramaniam (Nov 8, 2021 19:10 GMT+5.5)</small> ng.subramaniam@tsdsi.in |
| TTA Koo Kyoung Cheol  <small>Kyoung Cheol Koo (Nov 8, 2021 20:31 GMT+9)</small> kckoo@tta.or.kr | TTC Nobuyuki Tajiri  <small>Nobuyuki Tajiri (Nov 9, 2021 21:25 GMT+9)</small> tajiri@s.ttc.or.jp |

Annex 41 This Agreement is entered into by the following Market Representation Partner:

5G Slicing Association (5GSA)

Name: Luigi Licciardi
 Title: President and Chair
 Address: c/o Walder Wyss AG
 Seefeldstrasse 123
 8008 Zürich
 Switzerland

Accepted as MRP by the existing Partners on 20 October 2021

| | |
|---|--|
| 5G Slicing Association (5GSA) Luigi Licciardi  <small>Luigi Licciardi (Nov 9, 2021 10:38 GMT+1)</small> Luigi.licciardi@huawei.com | ARIB Seiji Nishioka  <small>西 因 誠 和</small> s-nishioka@arib.or.jp |
| ATIS Susan Miller  <small>Susan Miller (Nov 9, 2021 07:40 EST)</small> smiller@atis.org | CCSA Wen Ku  <small>Wen Ku (Nov 19, 2021 20:03 GMT+8)</small> wenku@ccsa.org.cn |
| ETSI Luis Jorge Romero  luis.romero@etsi.org | TSDSI N.G. Subramaniam  <small>n.ganapathy.subramaniam (Nov 9, 2021 15:57 GMT+5.5)</small> ng.subramaniam@tsdsi.in |
| TTA Koo Kyoung Cheol  <small>Kyoung Cheol Koo (Nov 9, 2021 19:03 GMT+9)</small> kckoo@tta.or.kr | TTC Nobuyuki Tajiri  <small>Nobuyuki Tajiri (Nov 10, 2021 09:11 GMT+9)</small> tajiri@s.ttc.or.jp |

Annex 42 This Agreement is entered into by the following Market Representation Partner:

MulteFire Alliance (MFA)

Name: Mazen Chmaytelli
 Title: President
 Address: 5177 Brandin Court
 Fremont, CA 94538
 USA

Accepted as MRP by the existing Partners on 20 October 2021

| | |
|---|--|
| MulteFire Alliance (MFA) | ARIB |
| Mazen Chmaytelli <i>Mazen Chmaytelli</i> mchmayte@qti.qualcomm.com | Seiji Nishioka <i>西 因 誠 和</i> s-nishioka@arib.or.jp |
| ATIS | CCSA |
| Susan Miller <i>Susan Miller</i> <small>Susan Miller (Nov 9, 2021 07:41 EST)</small> smiller@atis.org | Wen Ku <i>闻库</i> <small>闻库, Wen, Ku (Nov 19, 2021 20:01 GMT+8)</small> wenku@ccsa.org.cn |
| ETSI | TSDSI |
| Luis Jorge Romero  luis.romero@etsi.org | N.G. Subramaniam <i>n.ganapathy subramaniam</i> <small>n.ganapathy subramaniam (Nov 9, 2021 15:58 GMT+5.5)</small> ng.subramaniam@tsdsi.in |
| TTA | TTC |
| Koo Kyoung Cheol <i>Kyoung Cheol Koo</i> <small>Kyoung Cheol Koo (Nov 9, 2021 19:03 GMT+9)</small> kckoo@tta.or.kr | Nobuyuki Tajiri <i>Nobuyuki Tajiri</i> <small>Nobuyuki Tajiri (Nov 10, 2021 09:12 GMT+9)</small> tajiri@s.ttc.or.jp |

Annex 43 This Agreement is entered into by the following Market Representation Partner:

MITRE Engenuity on behalf of Open Generation Consortium (OGC)

Name: Laurie Giandomenico
 Title: Chief Acceleration Officer
 Address: 7525 Colshire Drive
 McLean, VA 22102
 USA

Accepted as MRP by the existing Partners on 10 December 2021

| | |
|---|---|
| <p>MITRE Engenuity (Open Generation Consortium)</p> <p>Laurie Giandomenico</p> <p><u>Laurie Giandomenico</u> Laurie Giandomenico (Jan 6, 2022 12:49 EST) lg@mitre-engenuity.org</p> | <p>ARIB</p> <p>Seiji Nishioka 西岡 俊司 s.nishioka@arib.or.jp</p> |
| <p>ATIS</p> <p>Susan Miller</p> <p><u>Susan Miller</u> Susan Miller (Jan 6, 2022 12:24 EST) smiller@atis.org</p> | <p>CCSA</p> <p>Wen Ku 闻谷 Wen, Ku (Jan 25, 2022 19:26 GMT+8) wenku@ccsa.org.cn</p> |
| <p>ETSI</p> <p>Luis Jorge Romero</p> <p> Luis.Jorge.Romero@etsi.org</p> | <p>TSDSI</p> <p>N.G. Subramaniam</p> <p><u>n.g.subramaniam</u> n.g.subramaniam (Jan 7, 2022 15:37 GMT+5.5) ng.subramaniam@tsdsi.in</p> |
| <p>TTA</p> <p>Koo Kyung Cheol</p> <p><u>Kyoung Cheol Koo</u> Kyoung Cheol Koo (Jan 7, 2022 08:01 GMT+9) kckoo@tta.or.kr</p> | <p>TTC</p> <p>Nobuyuki Tajiri</p> <p><u>Nobuyuki Tajiri</u> Nobuyuki Tajiri (Jan 12, 2022 13:41 GMT+9) tajiri@s.ttc.or.jp</p> |

Annex 44 This Agreement is entered into by the following Market Representation Partner:

SatCom Industry Association India (SIA-India)

Name: Anil Prakash
 Title: Director General
 Address: Suite B-306, 3rd Floor,
 Somdatt Chambers-I
 5, Bhikaji Cama Place,
 New Delhi
 India

Accepted as MRP by the existing Partners on 27 April 2022

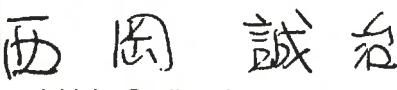
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| <p>SatCom Industry Association India (SIA-India)</p> <p>Anil Prakash</p> <p> <small>AnilPrakash (May 3, 2022 10:20 GMT+5.5)</small></p> <p>anil.prakash@sia-india.com</p> | <p>ARIB</p> <p>Seiji Nishioka</p> <p> <small>s-nishioka@arib.or.jp</small></p> |
| <p>ATIS</p> <p>Susan Miller</p> <p> <small>Susan M. Miller (May 2, 2022 10:35 EDT)</small></p> <p>smiller@atis.org</p> | <p>CCSA</p> <p>Wen Ku</p> <p> <small>Wen, Ku (May 16, 2022 14:51 GMT+8)</small></p> <p>wenku@ccsa.org.cn</p> |
| <p>ETSI</p> <p>Luis Jorge Romero</p> <p> <small>luis.romero@etsi.org</small></p> | <p>TSDSI</p> <p>N.G. Subramaniam</p> <p> <small>n.ganapathy_subramaniam (May 3, 2022 17:19 GMT+5.5)</small></p> <p>ng.subramaniam@tsdsi.in</p> |
| <p>TTA</p> <p>Koo Kyoung Cheol</p> <p> <small>Kyoung Cheol Koo (May 3, 2022 07:44 GMT+9)</small></p> <p>kckoo@tta.or.kr</p> | <p>TTC</p> <p>Nobuyuki Tajiri</p> <p> <small>Nobuyuki Tajiri (May 8, 2022 09:35 GMT+9)</small></p> <p>tajiri@s.ttc.or.jp</p> |

Annex 45 This Agreement is entered into by the following Market Representation Partner:

Seamless Air Alliance (SAA)

Name: Jack Mandala
 Title: CEO
 Address: 95 W Main Street
 Suite 5-235
 Chester, NJ 07930
 USA

Accepted as MRP by the existing Partners on 24 April 2024

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| Seamless Air Alliance (SAA) Jack Mandala  jmandala@seamlessalliance.com | ARIB Seiji Nishioka  s-nishioka@arib.or.jp |
| ATIS Susan Miller  smiller@atis.org | CCSA Wen Ku  WEN, Ku (May 16, 2024 11:32 GMT+8) wenku@ccsa.org.cn |
| ETSI Luis Jorge Romero  luis.romero@etsi.org | TSDSI N.G. Subramaniam  ngsubramaniam (May 14, 2024 23:36 GMT+5.5) ng.subramaniam@tsdsi.in |
| TTA Daejung Kim  DAE JUNG KIM (May 16, 2024 10:21 GMT+9) djkim@TTA.OR.KR | TTC Nobuyuki Tajiri  Nobuyuki Tajiri (May 17, 2024 16:41 GMT+9) tajiri@s.ttc.or.jp |

Annex 46 This Agreement is entered into by the following Market Representation Partner:

one6G Association (one6G)

Name: Mohammad Shikh-Bahaei
 Title: one6G President
 Address: 111 Überlandstrasse
 8600 Dübendorf
 Switzerland

Accepted as MRP by the existing Partners on 14 November 2024

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| one6G Association (one6G) Mohammad Shikh-Bahaei <u>M. R. Shikh-Bahaei</u> <small>M. R. Shikh-Bahaei (Dec 13, 2024 12:42 GMT)</small> m.sbahaei@kcl.ac.uk | ARIB Seiji Nishioka  s-nishioka@arib.or.jp |
| ATIS Susan Miller <u>Susan Miller, President & CEO</u> <small>Susan Miller, President & CEO (Dec 23, 2024 12:19 GMT+8)</small> smiller@atis.org | CCSA Wen Ku  <small>WEN, Ku (Dec 23, 2024 12:19 GMT+8)</small> wenku@ccsa.org.cn |
| ETSI Jan Ellsberger  jan.ellsberger@etsi.org | TSDSI Satish Jamadagni <u>satishns</u> <small>satishns (Jan 16, 2025 14:17 GMT+5.5)</small> chairman@tsdsi.in |
| TTA Daejung Kim <u>김대중</u> <small>김대중 (Dec 13, 2024 09:43 GMT+9)</small> djkim@tta.or.kr | TTC Nobuyuki Tajiri <u>Nobuyuki Tajiri</u> <small>Nobuyuki Tajiri (Dec 13, 2024 09:55 GMT+9)</small> tajiri@s.ttc.or.jp |

Annex 47 This Agreement is entered into by the following Market Representation Partner:

International Organization for Marine Aids to Navigation (IALA)

Name: Francis Zacharie
Title: Secretary-General
Address: 10 rue des Gaudines
78100 Saint Germain en Laye
France

Accepted as MRP by the existing Partners on 14 November 2025

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| IALA Francis Zacharie <u>Francis Zachariae</u> Francis Zachariae (Nov 20, 2025 09:54:47 GMT+1) | ARIB Seiji Nishioka  |
| ATIS Susan Miller <u>Susan M. Miller</u> | CCSA Wen Ku  wen ku (Dec 14, 2025 11:42:42 GMT+8) |
| ETSI Jan Ellsberger  | TSDSI Satish Jamadagni  Satish Jamadagni (Dec 22, 2025 11:23:46 GMT+5.5) |
| TTA Daejung Kim <u>DAEJUNG KIM</u> DAEJUNG KIM (Dec 1, 2025 10:07:44 GMT+9) | TTC Nobuyuki Tajiri <u>Nobuyuki Tajiri</u> Nobuyuki Tajiri (Nov 20, 2025 13:59:14 GMT+9) |