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.

升于21 16. A.C. Q

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.

升十处

14. T. A.

The

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.

引于2 相东 A.E. 2

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.

升于2 16.5 A. Q

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.

引和 A.F. A. 2

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

ARIB ETSI Mr Hiroshi Furukawa Mr Karl Heinz Rosenbrock Senior Managing Director Director General **ARIB ETSI** Association of Radio Industries and Businesses European Telecommunication Standards Institute Nittochi Building 14F, 1-4-1 Kasumigaseki 650, route des lucioles Chiyoda-ku, Tokyo 100-0013 F-06921 Sophia Antipolis Cedex **JAPAN FRANCE** Signature Signature Hirochi Turukawe Had Kim Losenbook Date 4 December 1998 Date 4 December 1998 **T1 TTA** Dr Asok Chatteriee Dr Kvu-Jin Wee Head of T1 3GPP delegation as authorized by Mr Chairman SC-7 Gerald Peterson, Committee T1 Chairman TTA T1 Secretariat Telecommunications Technology Association 13th Floor Sejongro Daewoo Building 1200 G Street 167 Naesoo-dong chongro NW, Suite 500 Washington, DC Seoul **KOREA** USA Signature Signature

Date 4 December 1998

Date 4 December 1998

TTC

Mr Nobuhiro Horisaki

Executive Managing Director

TTC

Telecommunications Technology Committee

1-2-11, Hamamatsu-cho, Minato-ku,

Tokyo, 105-0013

JAPAN

Signature

Nob Horisalei

Date 4 December 1998

Executed in 5 originals

3GPP Partnership Project Agreement, 4 December 1998

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

UMTS Forum

Name: | No mas Berger

Title: | Chairman

Address: | UMTS Forum

Chassel Square

Lo IZ Russel Square

Square

Date | December 1998

Authorised by the existing Partners

ARIB	ETSI
Mr Hiroshi Furukawa	Mr Karl Heinz Rosenbrock
Signature Hiroshi Furubawa Date 4 December 1998	Signature Karl Heine Lown book
Date 4 December 1998	Date 4 December 1998
T1	TTA
Dr Asok Chatterjee	Dr Kyu-Jin Wee
Signature	Signature of 7 2
Date 4 December 1998	Date 4 December 1998
TTC	
Mr Nobuhiro Horisaki	
Signature Nob Hovisalei	
Date 4 December 1998	

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

COD+ladden

Date 24 February 1999

Authorised by the existing Partners

ARIB	ETSI
Mr Hiroshi Furukawa	Mr Karl Heinz Rosenbrock
Signature phiroshi Frusukowa s Date 9 March 1999	Signature Rosel Rins Rosenbook
Date 9 March 1999	Date 24 February 1999
T1	TTA
Dr Asok Chatterjee	Dr Kyu-Jin Wee
Signature	Dr Kyu-Jin Wee
Date 1 March, 1999	Date / . March 1999
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Dr Bernd Eylert
Signature Ndo Hovisaki	Signature 5. Egiler
Date 9 March 1999	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	FTGI
LAALES LIE .	ETSI Mr Karl Heinz Rosenbrock
Signature Hiroshi Furukawa Date 27 May 1999	Signature Wash Heinz Zosun Good
Date 27 May 1999	Date 27 May 1999
//T1	TTA
Dr Asok Chatterjee	Dr Kyu-Jin Wee
Signature	Signature
Date 27 May, 1999	Date 7. May 1999
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Dr Bernd Eylert
Signature Nob Hovišaki	Signature Support
Date 27 May 1999	Date 27 Mour 1999
GS'A	
Mr Alan Hadden	80
Signature	
Date 27th May 1999	

Executed in 8 originals

This Agreement is entered into by the following Ow Annex 4 China Wireless Telecommunication Standard Group (CWTS) Name: Ms Shumin Cao Title: Chairperson Address: China Wireless Telecommunication Standard Group (CWTS) Research Institute of Telecommunication Transmission, MI No. 11 Yue Tan Nan Jie Beijing, 100-045 People's Republic of China Signature Date 27 May 1999 Authorised by the existing Parmers **ETSI** Mr Hiroshi F Mr Karl Heinz osenbrock Signature Signature 1999 Date Date 1999 TTA Dr Asok Chatterjee Dr Wu-Jin Wee gnature Signature 21. 1999 Date 1999 Mr Nobuhiro Mosaki Dr Bernd Eylert Signature Signature Date 1999 1999 **GSM** Association Mr Alan Hadden Mr Michael Stocks Signature Signature Date 1999 Date 1999

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 112 th Avenue NE, Suite 260E Bellvue Washington USA 98004-2937
Signature Leo Milharia
Date 20 September 1999
Authorised by the existing Partners
Mr Hiroshi Furukawa Signature Girandi Furukawa Signature Control Furukawa Signature Control Furukawa
Date 20. 52 t. 999 T1 • Date 1999 TTA
Dr Asok Chatterjee Signature TTA Dr Kyu-Jin Wee Signature
Date 20 September, 1999 Date so. Sept 1999
Mr Nobuhiro Johnsaki Signature UMTS Forum Dr Bernd Eylert Signature
Date 20 Sep 1999 Date 31 Devolut 1999
Mr Alan Hadden Signature GSA Mr Michael Stocks Signature Signature
Date 20 October 1999 Date 20 Oct 1999
Ms Shumin Cao Signature Date 1999

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	†8 January 2000

ARIB Mr Hiroshi Furukawa Mr Karl Heinz Rosenbrock Signature Ak. o Sarahi for Mr. Farntam Signature Date Jan. 18, 2000 Dr Asok Chatterjee Dr Kyu-Jin Wee Signature Signature Date Date Mr Nobuhiro Horisaki Dr Bernd Eylert Signature Signature Date Date **GSA** Mr Alan Hadden Mr Michael Stocks Signature Signature Date Date **UWCC** Ms Shumin Cao Mr Leo Nikkari Signature Signature Date Date

Executed in 11 originals

Authorised by the existing Partners

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)). H.Fin hi add F. J.

3GPP shall consider the long term evolution.

3GPP Partnership Project Agreement, 4 December 1998

13

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	ETSI
Mr Hiroshi Furukawa Signature Wanda' Farankawa	Mr Karl Heinz Rosenbrock Signature Local Rosenbook
Anoun Juvanean	
Date 28 July 2000	Date 19 July 2000
ν T1	TTA
Dr Asok Chatterjee	Mr Dong Sun Lee
Olgitatare	Signature o J
Date 7/19/2000	Data /
Date	Date
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Dr Bernd Eylert
Signature hab Hovisale	Signature /- /g/lif
Date 19 Jul 2000	Date 15 Aug 2000
GSA	CCMAnanalatian
GSA	GSM Association
Mr Alan Hadden	Mr James Healy
Mr Alan Hadden	Mr James Healy
Mr Alan Hadden Signature	Mr James Healy Signature
Mr Alan Hadden Signature Date 14 Avg 2000	Mr James Healy Signature Date Date
Mr Alan Hadden Signature Date 14 My 2000 CWTS	Mr James Healy Signature Date UWCC
Mr Alan Hadden Signature Date CWTS Ms Shumin Cao Signature	Mr James Healy Signature Date UWCC Mr Leo Nikkari Signature Mr Leo Nikkari Signature
Mr Alan Hadden Signature Date CWTS Ms Shumin Cao Signature Date Dat	Mr James Healy Signature Date UWCC Mr Leo Nikkari
Mr Alan Hadden Signature Date CWTS Ms Shumin Cao Signature Date Dat	Mr James Healy Signature Date UWCC Mr Leo Nikkari Signature Mr Leo Nikkari Signature
Mr Alan Hadden Signature Date CWTS Ms Shumin Cao Signature Date Date Date IPv6 Forum Mr Latif Ladid	Mr James Healy Signature Date UWCC Mr Leo Nikkari Signature Mr Leo Nikkari Signature
Mr Alan Hadden Signature Date CWTS Ms Shumin Cao Signature Date Dat	Mr James Healy Signature Date UWCC Mr Leo Nikkari Signature Mr Leo Nikkari Signature

Executed in 11 originals

Annex 8 This Agreement is entered in Partner:	to by the following Market Representation
Mobile Wireless Internet Forum (MWIF)	Liskon
Name: Mr Dean Sirovica	et et
Title: President and Chairman	/ is
Address: 39355 California Street, Suite 305 Fremont, CA 94541	las sur
Signature D. Los	Cares 1100
Date [5/11/00	
Authorised by the existing Partners	Cane
Mr Hiroshi Furukawa Fasta Signature Date ARIB Mr Hiroshi Furukawa Fasta Signature	Mr Karl Heinz Rosenbrock Signature Local Control Bate 15 Nov. 200
Dr Asok Chatterjee Signature	Dr Kyu-Jin Wee Signature
Date TTC	UMTS Forum
Mr Nobuhiro Horisaki, Signature	Dr Bernd Eylert Signature
rose US Noviezodo	Date 15 th November 2000
Mr Alan Hadden Signature	GSM Association Mr Michael Stocks Signature
Date 2 5 Ny 2000	Date 10003
Ms Shumin Cao Signature Shun Car	Mr Leo Nikkari Leo Mikkari Signature
Date 15 Nov. 2/ov	Date 15 NOV 2000
IPy6 Forum Mr Latif Ladid Signature Date IJ Nov on	

Executed in 12 originals

	to by the following Market Representation
Partner:	is by the following warket kepresentation
3G.IP Focus Group (3G.IP)	1 2 2 2
Name: Mr Brian K Daly	/ et
Title: Chair, Management Steering Committee	:0
Address: AT&T Wireless Services PO Box 97061	
Redmond, WA 98-73-9761	/ sel sur
Simple Shim & Shi	1000
Signature South 15 Nov 2000	20 Men
Date 1.5	A.C.D
Authorised by the existing Partners	
Mr Hiroshi Furukawa	ETSI Mr Kar Lanz Rosenbrock
Signature For Him. Funkau	Signature Land Review Tosenbook
Date Nov. /15/	Date 15 0100. 2000
Dr Asok Chatterjee	Dr Kyu-Jin Wee
Signature	Signature 15 Nov 2 vor
Date TTC	Date UMT8 Forum
Mr Nobuniro Horisaki Signature	Pr Bernd Eylert . 3. Sylar F
Date 13 12 2000	Date Sta November 2000
Mr Alan Haldes GSA	GSM Association Mr Michael Stocks BES 1
Signature Control of the Signature	Signature / Harry See
Date SWT2	Date 10 10 10 2 10 0
Ms Shumin Cao	Mr Leo Nikkari
Signature Sham Cas	Signature 100 1 Markette
Date 15 Nov. Vov	Date 19 100 2000
IPv6 Forum Mr Latif Ladid Signature	Mr Dean Sirovica Signature
Date IT NoJ 00	Date IJ NOV OU

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

Pearson

USA

Signature

Date 26 April 2002

Authorised by the existing Partners ARIB Mr Masayoshi Wakao Mr Karl Heinz Rosenbrock Signature p.o. Signature Date Date Dr Asok Chatterjee Dr Ju Hwan Yim Signature Signature Date Date **UMTS Forum** Mr Nobuhiro Horisaki Dr Bernd Eylert Signature Signature 6 14 102 Date **GSM Association** Mr Alan Hadden Mr Scott Fox BEST Signature Signature Date Date IP√6 Forum Mr Latif Ladid Ms Shumin Cao Signature Date 3G.IP Mr Dean Sirovica Mr Brian Daly Signature Signature

Date

Executed in 13 originals

Date-

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)

52# Hua Yuan Bei Road Address:

Haidian District

Beijng

P.R.China 100083

Signature

Date

15 April 2004

Authorised by the existing Partners

ARIB ETSI Mr Masayoshi Wakao Mr Karl Heinz Rosenbrock Signature Signature / Schule Date Dr Asok Chatterjee Dr Ju Hwan Yim Signature Signature Date Mr Nobuhiro Horisaki Mr Jean-Pierre Bienaime Signature Signature

Date Date GSM Association

Mr Alan Hadden Mr Bill Best appledde Signature Signature

Date Date

IPv6 Forum Mr Latif Ladid

Signature Date

Executed in 10 originals

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

President and CEO of the Alliance for Telecommunications Industry Solutions

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

Mrs Susan Miller

Name:

Title:

Address: 1200 G Street NW Suite 500 Washington, DC, 20005 USA	
Signature SumM. Mills	
Date 15 April 2004	
Authorised by the existing Partners	
ARIB	CCSA
Mr Masayoshi Wakao Signature Xohi Satch p.p.	Mr Zhou Baoxin Signature Wangshigih Date 15/04/2004
Date 15 Apr X 2004 ETSI	Date 15/04/2004
Mr Karl Heinz, Rosenbrock Signature Cast Home Zostu book	Dr Ju Hwan Yim Signature PP Hong Won kill
Date 15 Novil 2004	Date 15 APA 2004
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Mr Jean-Pierre Bienaimé
Signature Nob dovisala	Signature
Date 15 (APR/2004	Date 15/04/ 2004
GSA	GSM Association
Mr Alan Hadden Signature	Mr Bill Best Signature
Date 15 April 2004	Date 15/04/04
Mr Latif Ladid Signature	

Executed in 10 originals

Date

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

TD SCDMA FORUM

Name: Dr. Jing Wan

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 ARIB **ATIS** Mr Masayoshi Wakao Mrs Susan Miller Signature Signature Date 10/07 Date CCSA **ETSI** Mr Zhou Baoxin Mr Karl Heinz Rosenbrock Signature Signature Date Date Dr Hong Koo Kim Mr Nobuhiro Horisaki Jeong Sik Park Signature Signature Date Date Mr Alan Hadden Mr David McDonald Signature Signature Date Date **3G Americas** Mr Latif Ladid Mr Chris Pearson Signature Signature Date Date UMTS Forum Mr Jean-Pierre Bienaimé Signature

Executed in 12 originals

Date

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

TD SCDMA Industry Alliance

TDIA

Mr. Yang Hua

Secretary General

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

Name:

Title:

Address:

Signature Signature	
Date 7 October 2005	
Authorised by the existing Partners	
Mr Masayoshi Wakao Signature Kohen Satoh (Mr. M. Wakao)	Mrs Susan Miller Signature (fine Susan Miller Signature)
Date 07/10/2005	Date 10/67/2005 / (Club)
Mr Zhou Baoxin Signature CCSA Way Thigh	Mr Karl Heinz Rosenbrock Signature Land Record Counts of
Date 0//0/2001	Date 07 0.06. 2005
Dr Hong Koo Kim Signature Jeong Sik Park	Mr Nobuhiro Horisaki Signature Nob Hovisals
Date 07/0.t./2005	Date 7/Oct / 2005
Mr Alan Hadden Signature GSA Mr Alan Hadden Color 2005	GSM Association Mr David McDonald And Mcdald Signature
Date 7 Color 2005	Date 7/0/2025
Mr Latif Ladid Signature IPv6 Forum CLUAUGE	Mr Chris Pearson Signature 3G Americas 10 - 2 - 05
Date UMTS Forum	Date TD CODMA 5
Mr Jean-Pierre Bienaimé Signature Date #110/200	Dr Jing Wang Signature Date

Executed in 13 originals

Annex 1	This Agreement is entered Partner:	into by the following Market Representation
MobileIGN	IITE MoU	14
Name:	Mr. Leo Nikkari	
Title:	Executive Director	
Address:	PO Box 81236	/ (&
Addiess.	Chicago,	/ >
	Illinois,	, 05
	USA, 60681-1236	
Signature	Leo Milebari	o Longe Lus
-		6 4. V
Date	21 April 2006	> 00)
Authorised	by the existing Partners	500/
	ARIB	ATIS
Mr Masayos Signature	shi Wakao	Mrs Susan Miller
Oignature	John Dans	Correctantis) of s, will
Date	21.04/2006	1 Date 4 21 200
Mr Zhou Ba	CCSA	Ma Karl Haire Reach was less
Signature	Cannaling of	Mr Karl Heinz Rosenbrock Signatue
_		1 Comments
Date	21.34,0206	DA 21 Papol 2006
Dr Hong Ko	Kim ()	Mr.Nobuhiro Agrisaki
Signatur	O J.S. Park	Signature Dob Govisaki
Dota	0 4/2/1/2006	
Date	11211200	Date 4/2(/2006 GSM Association
Mr Adan Had	dden	Mr David McDonald
Signature	1 Ralladde	Signature
Dete	21/4/06/	Date % 4/06
	IPv6/Horum	3G Americas
Mr Latif Lad	ma R.	Mr Chris Pearson
Signature	(Decuayadu	Signature Charles Charles
Dete	CO	Date 4/21/2001
V	UMT'S Forum	TD SCPMA Forum
Mr Jean-Pie Signature	erra Bienaimé	Dr Jing Wang
Jighature		Signature
Date	404.2006	Date yorb & Glizin
	TD-SCDMA Industry Alliance	
Mr Yang Hu Signature	1220	
	11500	
Date	1000 x 96121 H	

Executed in 14 originals

Annex 16 This Agreement is entered in Partner:	to by the following Market Representation
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	20 STRINGS
Signature	5, 70,
Date 12 October 2006	8 (6)
Authorised by the existing Partners	ATIO ATIO
Mr Masayoshi Wakao Signature	Mrs Susan Miner Signature
Date	Dati
Mr Zhou Baoxin Signature Date	Mr Karl Heinz Rosenbrock Signature Date
Dr Hong Kookim Signature Date	Mr Nobuhiro Horisaki Signature Date
Mi Alan Hadden Signature Date GSA GSA Junibas Date	GSM Association Mr David McDonald Signature for A M Jack
Mr. Latif Ladid Signature	3G Americas Mr Chris Pearson Signature
Date	Date Date
Mr Jean-Pierre Bienaime Signature	Dr Jing Wang Signature Date
TD-SCDMA Industry Alliance	Mobile GNITE MoU
Mr Yang Hua Signature	Mr Leo Nikkari Signature
Date Yang Hua -	Date

Executed in 15 originals

	to by the following Market Representation
Partner:	107
IMS Forum	
Name: Mrs. Marian Stasney	
Title: Executive Director	
Address: 39355 California Street, Suite 307	
Fremont, CA 94538	S L DP
USA	
Signature // puear Seup plane	1
Date 12 October 2006	2
Date 12 October 2006	08,
Authorised by the existing Partners	1.
Mr Masayoshi Wakao	Mrs Susan Miller
Signature	Signature Hun
Date	Date U /
Mr Zhou Baoxin	Mr Karl Heinz Rosenbrock
Signature Towny 249in	Signature
Date TTA//	Date
Dr Hong Koo Kim	Mr Nobuhiro Horisaki
Signature Signature	Signature Dol do VI Salc
Date GSA THE database	Date GSM Association
Mr Alan Hadden	Mr David McDonald
Signature Date	Signature Date
IPv6 Forum	3G Americas
Mr Latif Ladid	Mr Chris Pearson
Signature Cyclicandul Date	Signature Date
DM/S Forum	, TD SCDMA Forum
Mr Jean-Pierre Bienaimé Signature	Dr Jing Wang
Date / P	Signature Date
TD-SCDMA Industry Alliance	MobileIGNITE MoU
Mr Yang Hua Signature	Mr Leo Nikkari
Date Sara Fue	Signature Date
Global UMTS TDD Alliance	
Mrs Liz Kerton Signature	
Date // CCC	

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 Mrs Susan Miller Signature Signature Date Date Mr Zhou Baoxin Dr Walter Weigel Signature Signature Date Date TTA Mr Won-Sik Kim Dr Yuji Inoue Signature Signature Date Date **GSA GSM** Association Mr Alan Hadden Mr David McDonald DH colde Signature Signature Date Date IPv6 Forum 3G Americas Mr Latif Ladid Mr Chris Pearso Signature Signature Date Date **UMTS Forum** TD SCDMA Forum Mr Jean-Pierre Bienaime Dr Jing Wang Signature Signature Date Date **TD-SCDMA Industry Alliance** MobileIGNITE MoU Mr Yang Hua Mr Leo Nikkari Signature Signature Date Date-Global UMTS TDD Alliance **IMS Forum** Mrs Liz Kerton Mrs Marian Stasnev Signature Signature Date: 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 <u>evolved</u> Third Generation <u>and beyond</u> 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.
- 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.

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 an evolved 3rd Generation and beyond Mobile System including:

- <u>Evolved</u> UTRAN <u>and beyond</u> (including UTRA; in Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes);
- 3GPP Core Network <u>and evolutions</u> (Third Generation networking capabilities <u>originally</u> 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	
Mr Masayoshi Wakao Signature Date ARIB ARIB Satah	Mrs Susan Miller
Signature Date 17.12.2007	Signature Date 18/12/2007
CCSA .	/ ETSI
Mr Zhou Baoxin Signature Date Wang Zhigin	Dr Walter Weigel Signature Date 18/12/07
Mr Won-Sik Kim Signature Date TTA J. S. Payk 18/12/2007	Dr Yuji Inoue Signature Date /F//2/2007
Mr Alan Hadden pp Jones Surlbay Signature Date 18/12 2003	GSM Association Mr David McDonald Signature Date 18/12/07
IPv6 Forum	3G Americas
Mr Latif Ladid	Mr Chris Pearson
Signature Date	Signature Date Mulland 2-19-0
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierre Bienaimé Signature Date 18-12 w.j	Dr Jing Wang Signature Date Wang
TD-SCDMA Industry Alliance	MobileIGNITE MoU
Mr Yang Hua Signature Date Mr Yang Hua	Mr Leo Nikkari Signature Date
Global UMTS TDD Alliance	IMS Forum
Mrs Liz Kerton	Mrs Marian Stasney
Signature	Signature
Date	Date

Executed in 16 originals

		M 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Annex 2	_	to by the following Market Representation
	Partner:	
Infocomm	unication Union	
Name:	Mr. Andrey Skorodumov	
Title:	CEO	1
Address:	2-nd Spasonalivkovski per., 6,	/ aP C
, taa. 000.	Moscow 119991,	
	Russia	
	(nix —	10 (1)
Signature	Mhagogo	5 C1 h
Date	18 December 2007	
Date	To December 2007	7 () () ()
Authorised	by the existing Partners	
	ARIB / 1 + 0	ATIS //
	shi Wakao	Mrs Susan Miller
Signature Date	18.12. 400X	Signature Pate 12/2507
Date	QCSA /	EVSI
Mr Zhou B		Dr Walter Weigel
Signature	Court Inging	Signature \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Date	0 10 1/2	Date
	ACTA	TTC
Mr Won-%i	k Kim (AJ.S. Parl	Dr Yuji Inoue Signature
Signature Date	0 18/12/2000 OT	Date 18/12/2007 12 (11)
200	GSA 1	GSM Association
Mr Alan Ha	adden Milonas kundlen	Mr David McDonald
Signature	1840	Signature Allegare
Dale	The stoot	Date /8-12-07
Mr Latif La	Pv6 Forum	Mr Chris Pearson
Signature/	ylu.	Signature
Date	4/	Date 12-18-07
	UMTS\Forum	TD SCDMA Forum
	ierre Bienaim	Dr Jing Wang Signature Drug Wang
Signature		
Date 1	TD-SCDMA Industry Alliance	Date MobileIGNITE MoU
Mr Yang (H		Mr Leo Nikkari
Signature	XIV	Signature
Date	larg thex	Date
	Global UMTS TDD Alliance	IMS Forum
Mrs Liz Ke	rton	Mrs Marian Stasney
Signature		Signature
Date Executed i	n 17 originals	Date
Executed I	II I / Uligiliais	

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

Signature		
Date 23 April 2008		
Authorised by the existing Partners		
Mr Masayoshi Wakao Signature Date ARIB Softin Satch 23.04.2008	Mrs Susan Miller Signature Date ATIS (106) 4/23/2008	
Mr Zhou Baoxin Signature Date CCSA Mr Zhou Baoxin Signature 23/4/08	Dr Walter Weigel Signature Date 23/4/08	
Mr Won-Sik Kim Signature Date TTA 12 23/04/08	Dr Yuji Inoue Signature Date	
Mr Alan Hadden of Signature Date 23/4 08 GSA Sumultary	GSM Association Mr Alex Sinclair Signature Date 33-4-08	
IPv6 Forum Mr Latif Ladid Signature Date	3G Americas Mr Chris Pearson Anis Searson Signature Date 4-23-08	
UMTS Forum Mr Jean-Pierre Bienaimé Signature 1.0.766 Date A PC 2.3.08	TD SCDMA Forum Dr Jing Wang Signature Date Date TD SCDMA Forum Wang Wang Date	
TD-SCOMA Industry Alliance Mr Yang Hua Signature Date 23/64/68	MobileIGŃITE 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 ### Andrey Skorodumov ### And		

FemtoForum

Name: Title:

Address:

Prof. Simon Saunders

Chairman

PO Box 23 GL11 5WA United Kingdom

	Annex 22		to by the following Market Representation
		Partner:	۲. ک
		ile Convergence Alliance	
	Name: Title:	Mr Andrew Haworth Managing Director	
	riue.	Managing Director	
	Address:	pp 3B CTE, Newcastle Central TEL EXCH	Scel
		Carliol Square	_ ω
		Newcastle Upon Tyne Tyne And Wear NE1 1BB, United Kingdo	om / AP
		O O N	
	Signature	Cross Hammy V	om John Long
	Date	23 April 2008	5
	Authorised I	by the existing Partners	5 0/
		ARIB	ATIS (1)
	Mr Masayos Signature	shi Wakao Wahii Satuh	Mrs Susan Miller Signature
	Date	23.04.08	Date 4/23/2508
Ì		CCSA	() / E//SI /
	Mr Zhou Ba	oxin Maner 3 41h	D/Weiter Weigel
	Signature Date	13/08/02	Pate 0 27/4/08
ł	Date	TXA O	TTC
	Mr Won-Şik	Kim & Q V	Dr Yuji Inou
	Signature	061/04/08	Signature 12 1
ŀ	Date	GSA (GSM Association
ł	Mr Alan Had		Mr Alex Sinclair
	Signature	Course Someral	Signature T. T. C.
-	Date WJ	19 08	Date 23-4-08
X	Mr tatif Lad	IPv6 Forum	Mr Chris Pearson Thris Planson
	Signature		Signature
	Date	.5' .0/	Date 4-23-08
	M. I. Car.	UMTS Forum	TD SCDMA Forum
	Signature	erra Bienaimé	Dr Jing Wang Signature Drag Wang
	Date	A P 2 3 08	Date 4-13-08
		TD-SCDMA industry Alliance	MobileIGNITE MoU
	Mr Yang Hu	la Para Lea	Mr Leo Nikkari
	Signature Date	23/57/08	Signature Date
Ì	Date	Global UMTS TDD Alliance	IMS Forum
	Mrs Liz Kert	ton	Mrs Marian Stasney
	Signature		Signature
	Date	Infocomunication Union	Date FemtoForum /
	Mr Andrey S	Skorodumov Mewef	Prof. Simon Saunders
	Signature	Skorodumov Mencel 23 April 2008	Signature
1	Date	of the	Date 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	
	Mr Masayoshi Wakao Loher Satoh Signature Date	Mrs Susan Miller Signature Date ATIS 10/28/2009
	Mr Zhou Baoxin Signature Date	Dr Walter Weigel Signature Date ETS Language 28/10/09
	Mr Won-Sik Kim Signature Date TTA Rysy Rea Chark 28/10/09	Dr Yuji Inoue Noryuki Shigeta Signature Date 28/10/2009
The same of the sa	Mr Alan Hadden Signature My Date 28,10 05	GSM Association Mr Alex Sinclair Signature Date
	IPv6 Forum Mr Latif Ladid Signature Date	Mr Chris Pearson Signature Date 3G Americas 0-25-09
	UMTS Forum Mr Jean-Pierre Bienaimé Signature Date 28,10,200	Dr Jing Wang Signature Date 28 1201
	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
	Infocomunication Union Mr Andrey Skorodumov Signature Date	FemtoForum Prof. Simon Saunders Signature Date Date D
	Fixed-Mobile Convergence Alliance Mr Andrew Howarth Signature	t ,

Executed in 20 originals

Date

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 Sing Marg New Delhi 110 001

India

Signature Date 28 October 2010

Authorised by the existing Partners **ARIB** ATIS Mr Masayoshi Wakao Mrs Susan Miller Signature Signature Date 2010 10. 2010 Date EXSI Mr Zhou Baoxin Dr Walter Weigel Signature Signature Date Date TTA Mr Keun Hyeonb Lee Dr Yuji Inoue Signature Signature Date Date 20/07 **GSA GSM** Association Mr Alan Hadden Mr Alex Sinclair mas Signature Signature Date Date **IPv6 Forum** 4G/Americas Mr Latif Ladid Mr Chris Pearson Signature Signature Date Date **UMTS Forum** TD SCDMA Forum Mr Jean-Pierre Bienaimé Dr Jing Wang Signature Signature Date Date TD-SCDWA Industry Alliance **IMS Forum** Mr Yang Hua Mr Michael Khalilian Signature Signature Date Date Infocomunication Union FemtoForun Mr Andrey Skorodumov Prof. Simon Saunders Signature Signature Date Date Executed in 17 originals

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

Next Generation Mobile Network Alliance (NGMN)

Operating Officer, NGMN Ltd

Dr. Peter Meissner

Name:

Title:

	Address: Friedrich-Ebert-Anlage 58 60325 Frankfurt	
	Signature Germany	Date 28 April 2011
-	Authorised by the existing Partners	
	Mr Masayoshi Wakao Signature Date 28.04.2011	Mrs Susan Miller Signature Date ATIS ATIS
	Mr Yang Zemin Signature Date 28. 4. 201	ETSI Dr Walter Weigel Signature Date
	Mr Keun Hyeonb Lee Signature Date 28,54.261)	Dr Yuji Inoue Signature Date 28.04.20 //
N	Mr Alan Hadden Signature Date Alan Hadden GSA Sundboy Au 11	GSM Association Mr Alex Sinclair Signature Date
	IPv6 Forum Mr Latif Ladid Signature Date	Mr Chris Pearson Signature Date
	UMTS Forum	TD Forum
	Mr Jean-Pierre Blenaimé	Mr Shi Guang
	Signature Date 28.04.201	Signature Date 28-04-201
	TD-SCDMA Industry Alliance	IMS Forum
	Mr Yang Hua Signature Date A Control Signature	Mr Michael Khalilian Signature Date
	Infocomunication Union	FemtoForum
	Mr Andrey Skorodumov	Prof Simon Saunders
	Signature Date	Signature Date
	CDMA Development Group	Cellular Operators Association of India (COAI)
	Mr Perry LaForge	Mr Rajan Mathews
	Signature Date US8 2011	Signature
L		Date
	Executed in 19 originals	

This Agreement is entered into by the following Market Representation Annex 26 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 ex ARIB **ATIS** Dr Kohei Satoh Mrs Susan Miller Signature Signature Date Date ETSI CCSA Mr Yang Zemin Mr Luis Jorge Romero Saro Signature Signature 31.10.613 Date Date Mr Chasik Leem Mr Yoichi Maeda Signature Signature 2013,10,31 Date Date GSA **GSM Association** Mr Alan Hadden Mr Alex Sinclair Signature Signature Date Date **IPv6 Forum** 4G Americas Mr Latif Ladid Mr Chris Pearson Signature Signature Date Date **UMTS Forum** TD Forum Mr Jean-Pierre Bienaimé Mr Shi Guang Signature Signature Date Date **TD-SCDMA Industry Alliance IMS Forum** Mr Yang Hua Mr Michael Khalilian Signature Signature Date Date Infocomunication Union Small Cell Forum Mr Andrey Skorodumov Mr Graham Wright Signature Signature Date Date **CDMA Development Group** Cellular Operators Association of India (COAI) Mr Perry LaForge Mr Rajan Mathews Signature Signature Date Date

Next Generation Mobile Network Alliance (NGMN)

Dr. Peter Meissner Signature

31,10.2013 Date

Executed in 20 originals

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

Telecommunications Standards Development Society, India (TSDSI)

Name: Title: Dr. Asok Chatterjee Director General

Address:

C-DoT Campus, Mandi Road, Mehrauli

New Delhi-110030, India

Signature

L71/2

Date 29 April 2015

Authorised by the existing Partners ARIB Dr Kohei Satoh Mrs Susan Miller Signature Signature Date 29.04 20/ Date **ETSI** Mr Yang Zemin Mr Luis Jorge Romero Saro Signature Signature Date Date 19.24. 2015 Dr Kvu-Jin Wee Mr Yoichi Maeda Signature Signature Date 2 Date > 3 04 6615 **GSM Association** Mr Joe Barrett Mr Alex Sinclair JR9L+ 1-(adder Signature Signature 29/4/15 2105/40/66 Date Date IPv6 Forum 4G Americas Mr Latif Ladid Mr Chris Pearson Signature Signature Date Date **UMTS Forum** TD Forum Mr Jean-Pierre Bienaimé Mr Shi Guang Signature Signature Date Date **TD-SCDMA Industry Alliance IMS Forum** Mr Yang Hua Mr Michael Khalilian Signature Signature Date Date Infocomunication Union **Small Cell Forum** Mr Andrey Skorodumov Mrs Sue Monahan Signature Signature Date Date **Mobility Development Group** Cellular Operators Association of India (COAI) Mr Douglas Martel Mr Rajan Mathews Signature \\(\(\lambda\)\(\lambda\) Signature Date 29 Date TETRA & Critical Communications Association **Next Generation Mobile Network Alliance (NGMN)**

Mr. Philip Kidner

Signature

Date

Executed in 21 originals

Dr. Peter Meissner

Signature Date

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

Global Certification Forum (GCF) Ltd

Name:	
Title:	

Mr Lars S Nielsen

Title:

General Manager

Address:

20-22 Sedford Row, London WC1J 4JS United Kingdom

Signature

Date 29 April 2016

Authorised by the existing Partners	
ARIB	ATIS
Dr Kohei Satoh	Mrs Susan Miller
Signature Kato	Signature While
Date 29/64/2016	Date Lapuil 29, 2016
CCSA / ,	ETSI / /
Mr Yang Zemin (1) (mg/zh/gi/)	Mr Luis Jorge Romero Saro
Signature	Signature
Date 20/04/2016	Date 29 01, 206
TSDSI	, TTA _1
Prof Abhay Karandikar	Dr Kyu-Jin Wee
Signature	Signature
Date 29/04/2016	Date 4/28/2016
TTC	GSA \
Mr Yoichi Maeda On Langue	Mr Joe Barrett
Signature	Signature
Date 23/07/2296	Date 29-4.14
GSM Association	IPv6 Forum
Mr Alex Sinclair	Mr Latif Ladid
Signature	Signature
Date 29/4/2016	Date
5G Americas	UMTS Forum
Mr Chris Pearson	Mr Jean-Pierre Bienaime
Signature	Signature
Date	Date 19/04/2016
TD Forum	TD-SCDMA Industry Alliance
Mr Shi Guang	Mr Yang Hua
Signature	Signature
Date	Date
Small Cell Forum	Mobility Development Group
Mrs Sue Monahan	Mr Douglas Martel
Signature	Signature
Date	Date
Cellular Operators Association of India (COAI)	Next Generation Mobile Network Alliance (NGMN)
Mr Rajan Mathews	Dr. Peter Meissner
Signature	Signature
Date	l Date
	Date
TETRA & Critical Communications Association	Date
TETRA & Critical Communications Association	Date
TETRA & Critical Communications Association	Date
TETRA & Critical Communications Association Mr. Philip kidner	Date

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

e 29 April 2016

Authorised by the existing Partners

Authorised by the existing Partners	
ARIB	ATIS
Dr Kohei Satoh	Mrs Susan Miller
Signature Yasukiro Kato	Signature m. M.
Date	Date
CCSA	ETSI /
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature 4/5 W//	Signature
Date	Date
TSDSL	Kennku Lee TTA
Prof Abhay Karandikar	Dr Kyu-Jin Wee AL
Signature	Signature
Date	Date
Shuichi Imade TTC	GSA
Mr Yoichi Maeda	Mr Joe Barrett
Signature 新田 4多一	Signature
Date	Date
GSM Association	IPv6 Forum
Mr Alex Sinclair	Mr Latif Ladid
Signature	Signature
Date	Date
5G Americas	UMTS Forum
Mr Chris Pearson	Mr Jean-Pierre Bienaimé
Signature	Signature
Date	Date
TD Forum	TD-SCDMA Industry Alliance
Mr Shi Guang	Mr Yang Hua
Signature	Signature 大阪 年
Date	Date
Small Cell Forum	Mobility Development Group
Mrs Sue Monahan	Mr Douglas Martel
Signature	Signature
Date	Date
Cellular Operators Association of India (COAI)	Next Generation Mobile Network Alliance (NGMN)
Mr Rajan Mathews	Dr. Peter Meissner
Signature	Signature
Date	Date
TETRA & Critical Communications Association	GCF
Mr. Philip Kidner	Mr Lars S Nielsen
	The state of the s
Signature Date	Signature

Executed in 21 originals

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

Authorised by the existing Partners	
ARIB	ATIS
Dr Kohei Satoh	Ms Susan Miller
Signature	Signature XXXVIII
CCSA 7	ETSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature V > 3//V	Signature
TSDSI /	Da Kanalan Las ST TTA
Prof Abhay Karandikar	Dr Keunku Lee
Signature	Signature
	Mr Joe Barrett
Mr Shuichi Inada Signature	Signature
GSM Association	IPv6 Forum
Mr Alex Sinclair	Mr Latif Ladid
Signature	Signature
5G Americas	UMTS Forum
Mr Chris Pearson	Mr Jean-Pierre Bienaimé
Signature	Signature
TD Forum	TD-SCDMA Industry Alliance
Mr Shi Guang	Mr Yang Hua
Signature	Signature
Small Cell Forum	Mobility Development Group
Mrs Sue Monahan	Mr Douglas Martel
Signature	Signature
Cellular Operators Association of India (COAI)	Next Generation Mobile Network Alliance (NGMN)
Mr Rajan Mathews	Dr. Peter Meissner
Signature	Signature
TETRA & Critical Communications Association	GCF
Mr. Philip Kidner	Mr Lars S Nielsen
Signature	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 Rue des 2 églises, 39,

Address: Rue des 2 églises, 3 BE 1000 Brussels

Signature

D my

Date 21 October 2016

Authorised by the existing Partners

ARIB ,	ATIS
Dr Kohei Satoh	Ms Susan Miller
9	Signature // // // // // Signature
CCSA 1 1 1	ETSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature V V/V	Signature
TSDSI	Dr Kounku Loo
Prof Abhay Karandikar	Di Redika Lee
Signature	Signature
TTC	GSA
Mr Shuichi Inada	Mr Joe Barrett
Signature MH LI T'3	Signature
GSM Association	iPv6 Forum
Mr Alex Sinclair	Mr Latif Ladid
Signature	Signature
5G Americas	UMTS Forum
Mr Chris Pearson	Mr Jean-Pierre Bienaimé
Signature	Signature
TD Forum	TD-SCDMA Industry Alliance
Mr Shi Guang	Mr Yang Hua
Signature	Signature
Small Cell Forum	Mobility Development Group
Mrs Sue Monahan	Mr Douglas Martel
Signature	Signature
Cellular Operators Association of India (COAI)	Next Generation Mobile Network Alliance (NGMN)
Mr Rajan Mathews	Dr. Peter Meissner
Signature	Signature
TETRA & Critical Communications Association	GCF
Mr. Philip Kidner	Mr Lars S Nielsen
Signature	Signature
CTIA	WBA
Mr Thomas Sawanobori	Mr Shrikant Shenwai
Signature	Signature

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	Ms Susan Miller
Signature	Signature //saultax
CCSA	ÉTSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature 3/ 43 AM	Signature
TSDSI	TTA TTA
Prof Abhay Karandikar	Dr Keunku Lee
Signature	Signature
TTC	GSA
Mr Shuichi Inada	Mr Joe Barrett
Signature 和 日 你 一	Signature
GSM Association	IPv6 Forum
Mr Alex Sinclair	Mr Latif Ladid
Signature	Signature
5G Americas	UMTS Forum —
Mr Chris Pearson	Mr Jean-Pierre Bienaimé
Signature	Signature
TD Forum	TD-SCDMA Industry Alliance
Mr Shi Guang	Mr Yang Hua
Signature	Signature
Small Cell Forum	Mobility Development Group
Mrs Sue Monahan	Mr Douglas Martel
Signature	Signature
Cellular Operators Association of India (COAI)	Next Generation Mobile Network Alliance (NGMN)
Mr Rajan Mathews	Dr. Peter Meissner
Signature	Signature
TETRA & Critical Communications Association	GCF
Mr. Philip Kidner	Mr Lars S Nielsen
Signature	Signature
CTIA	WBA
Mr Thomas Sawanobori	Mr Shrikant Shenwai

Signature

Executed in 24 originals

Signature

PSCE Dans

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

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

Name:	
Title:	

Mr Dino Flore

Secretary General

Address:

Neumarkter Str. 2, 81673 Munich

Signature

Date 26 April 2017

Authorised by the existing Partners	
ARIB	ATIS
Mr Seiji Nishioka	Ms Susan Miller
Signature (V) 2000	Signature Mule
CCSA	ETŠI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature	Signature
TSDSI	TTA
Prof Abhay Karandikar	Dr Keunku Lee
Signature	Signature (Ol Com/Com
TTC subs by MS.	Ma las Barrett
Mr Shuichi Inada	Mr Joe Barrett
Signature Soft-Co	Signature
GSM Association Mr Alex Sinclair	IPv6 Forum Mr Latif Ladid
2 (1800 61/	· ·
Signature 5G Americas	Signature TD Forum
Mr Chris Pearson	Mr Shi Guang
Signature Mus Mallson	Signature
TD-SCDMA Industry Alliance	Small Cell Forum
Mr Yang Hua	Mrs Sue Monahan
Signature	Signature
Mobility Development Group	Cellular Operators Association of India (COAI)
Mr Douglas Martel	Mr Rajan Mathews
Signature	Signature
Next Generation Mobile Network Alliance (NGMN)	TETRA & Critical Communications Association
Dr. Peter Meissner	Mr. Philip Kidner
Signature Rusa	Signature W/////
GCF	CTIA
Mr Lars S Nielsen	Mr Thomas Sawanobori
Signature	Signature
WBA	PSCE
Mr Shrikant Shenwai	Mrs Marie-Christine Bonnamour
Signature	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 ATIS Mr Seiji Nishioka Ms Susan Miller Signature Signature ETSI Mr Yang Zemin Mr Luis Jorge Romero Saro Signature Signature TSDSI TTA Ms Pamela Kumar Dr Keunku Lee Signature Signature TTC **GSA** Mr Shuichi Inadá Mr Joe Barrett Signature Signature **GSM** Association **IPv6 Forum** Mr Alex Sinclair Mr Latif Ladid Signature Signature **5G Americas TD Forum** Mr Chris Pearson Mr Shi Guang Signature Signature TD-SCDMA Industry Alliance Small Cell Forum Mr Yang Hua Mrs Sue Monahan Signature Signature **Mobility Development Group** Cellular Operators Association of India (COAI) Mr Douglas Martel Mr Rajan Mathews Signature Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association Dr. Peter Meissner Mr. Tony Grav Signature Signature GCF CTIA Mr Lars S Nielsen Mr Thomas Sawanobori Signature Signature **WBA PSCE** Mr Shrikant Shenwai Mrs Marie-Christine Bonnamour Signature Signature 5G-IA 5G-AA Mr Jean-Pierre Bienaimé Mr Dino Flore Signature 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

Maane.

Date

19 October 2018

Authorised by the existing Partners

Additionsed by the existing Faithers	
Mr Seiji Nishioka Signature ARIB した 意大手	Ms Susan Miller
Signature Sign	Signature Sandy
Mr Yang Zemin Signature	ETSI Mr Luis Jorge Romero Saro Signature
Ms Pamela Kumar Signature Famela Lum	Mr. Koo Kyoung Cheol Signature TTA Casey Casey
Mr Shuichi Inada Signature 和 田 修 一	Mr Joe Barrett Signature
MRDAVD HATTON GSM Association	IPv6 Forum
Mr Alex Sinclair	Mr Latif Ladid
Signature	Signature
5G Americas	TD Forum
Mr Chris Pearson	Mr Shi Guang
Signature	Signature
TD-SCDMA Industry Alliance	Small Cell Forum
Mr Yang Hua	Mrs Sue Monahan
Signature	Signature
Mobility Development Group	
Mr Douglas Martel	Cellular Operators Association of India (COAI)
	Mr Rajan Mathews
Signature	Signature
Next Generation Mobile Network Alliance (NGMN)	The Critical Communications Association
Dr. Peter Meissner	Mr. Tony Gray
Signature	Signature
GCF	CTIA
Mr Lars S Nielsen	Mr Thomas Sawanobori
Signature	Signature
WBA	PSCE
Mr Shrikant Shenwai	Mrs Marie-Christine Bonnamour
Signature	Signature
5G-IA	5G-AA
Mr Jean-Pierre Bienaimé	Mr Dino Flore
Signature	Signature
Broadband India Forum	
Mr TV Ramachandran	
Signature	
Francis die 00 minimale	a .

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: Title:

Gunter Koschnick 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 TSDST Mr Luis Jorge Romero Saro Signature TTC Mr Shuichi Inada Signature TTC Mr Joe Barrett Signature IPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature TD Forum Mr Shi Guang Signature TD Forum Mr Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Mr Seiji Nishioka Signature CCSA Mr Yang Zemin Signature TSDSI Ms Pamela Kumar Signature TTC Mr Shuichi Inada Signature TTC Mr Shuichi Inada Signature TTC Mr Alex Sinctair Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Sussan Miller Signature TTA Mr. Koo Kyoung Cheol Signature TPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Mr Seiji Nishioka Signature CCSA Mr Yang Zemin Signature TSDSI Mr Luis Jorge Romero Saro Signature TTC Mr Shuichi Inada Signature TTC Mr Shuichi Inada Signature Mr Shuichi Inada Signature GSM Association Mr Alex Sirictair Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Sussan Miller Signature ETSI Mr Luis Jorge Romero Saro Signature TTA Mr. Koo Kyoung Cheol Signature TD-SCA Mr Joe Barrett Signature Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Signature CCSA Mr Yang Zemin Signature TSPSI Ms Pamela Kumar Signature TTC Mr Shuichi Inada Signature TTC Mr Joe Barrett Signature IPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Mr Yang Zemin Signature TSDST Ms Pamela Kumar Signature TTC Mr Shuichi Inada Signature TTC TTC TTC TTC TTC TTC TTC T
Mr Yang Zemin Signature TSDST Ms Pamela Kumar Signature TTC Mr Shuichi Inada Signature TTC Mr Joe Barrett Signature IPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature TD-SCDMA Industry Alliance Mr Sue Monahan Signature TO Forum Mrs Sue Monahan Signature Tolular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Signature Ms Pamela Kumar Signature TTC Mr Shuichi Inada Signature Mr Alex Sinclair Signature Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Ms Sugnature Ms Sugnature Signature Signature Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) TD Forum Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Ms Pamela Kumar Signature TTC Mr Shuichi Inada Signature Mr Shuichi Inada Signature Mr Shuichi Inada Signature Mr Joe Barrett Signature Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Shi Guang Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Mr. Koo Kyoung Cheol Signature TTC Mr Shuichi Inada Signature Mr Joe Barrett Signature Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr. Koo Kyoung Cheol Signature Mr Joe Barrett Signature IPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Signature TTC Mr Shuichi Inada Signature MR SADER TO GSM Association Mr Alex Sinclair Signature SGM Association Mr Chris Pearson Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Signature Signature Signature Signature Mr Joe Barrett Signature IPv6 Forum Mr Latif Ladid Signature Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Mr Shuichi Inada Signature Mr Shuichi Inada Signature Mr Joe Barrett Signature Mr Joe Barrett Signature IPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Joe Barrett Signature IPv6 Forum Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Mr Shuichi Inada Signature Mr Joe Barrett Signature Mr Joe Barrett Signature Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Joe Barrett Signature IPv6 Forum Mr Latif Ladid Signature Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Signature MR AND HOTO GSM Association Mr Alex Sinclair Signature 5G Americas Mr Chris Pearson Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Signature Signature IPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Mr Alex Sinclair Signature 5G Americas Mr Chris Pearson Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) IPv6 Forum Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Mr Alex Sinclair Signature 5G Americas Mr Chris Pearson Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Latif Ladid Signature TD Forum Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Signature Signature Signature Signature TD Forum Mr Shi Guang Signature Signature Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
TD Forum Mr Chris Pearson Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Mr Chris Pearson Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Shi Guang Signature Small Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Mr Chris Pearson Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Shi Guang Signature Signature Signature Mr Shi Guang Signature Cell Forum Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Signature TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Signature The Critical Communications Association
TD-SCDMA Industry Alliance Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Yang Hua Signature Mrs Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Mr Yang Hua Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Mr Sue Monahan Signature Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Signature Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) Signature Signature Signature Signature Signature Signature The Critical Communications Association
Mobility Development Group Mr Douglas Martel Signature Next Generation Mobile Network Alliance (NGMN) McCellular Operators Association of India (COAI) Mr Rajan Mathews Signature The Critical Communications Association
Mr Douglas Martel Signature Mr Rajan Mathews Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Signature Signature Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Next Generation Mobile Network Alliance (NGMN) The Critical Communications Association
Dr. Peter Meissner Mr. Tony Gray
Signature Signature
GCF CTIA
Mr Lars S Nielsen Mr Thomas Sawanobori
Signature Signature
WBA PSCE
Mr Shrikant Shenwai Mrs Marie-Christine Bonnamour
Signature Signature
5G-IA 5G-AA
Mr Jean-Pierre Bienaimé Mr Dino Flore
Signature Signature
The Florida Fl
Signature Signature

Annex 37 <u>This Agreement</u> 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)	ARIB
Geng Wu	Seiji Nishioka
GENG WU Geng WI (Tact 3, 2021 04:57 PDT)	西 岛 誠 台
Geng.wu@intel.com	s-nishioka@arib.or.jp
	· G
ATIS	CCSA
Susan Miller	Wen Ku
Susan Miller Susan Miller (Oct 5, 2021, 09:34 EDT)	現成 は 780年Wen Ku (10-01.9, 2021.13:19 GMT+8)
smiller@atis.org	wenku@ccsa.org.cn
ETSI	TSDSI
Luis Jorge Romero	N.G. Subramaniam
P	ganapathusubramaniam Ganapathy-Goramanian/Jos 12, 2021 13:34 GWT-15.5)
luis.romero@etsi.org	ng.subramaniam@tsdsi.in
TTA	TTC
Koo Kyoung Cheol	Taku Kiyasu
KYOUMA Cheol KOO Kyoung Cheol Koo (Oct 6, 2021 08:50 GMT+9)	Taku KIYASU Taku KIYASU (Oct 6, 2021 09:32 GMT+9)
kckoo@tta.or.kr	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 Yanci

Title:

Deputy Minister of Standards Management Department Address: 7F, Building 7, Courtyard 13 (AVIC H5), Ronghua South Rd

Yizhuang Economic Development Zone

China

Accepted as MRP by the existing Partners on 10 July 2020

China Society of Automotive Engineers (CSAE)	ARIB
Ding Yanci	Seiji Nishioka
ファラナー 丁彦辞 (Nov 3, 2021 09:42 GMT+8) dyc@sae-china.org	步 民 散 岩 s-nishioka@arib.or.jp
ATIS	CCSA
Susan Miller	Wen Ku
Susan M. Miller Susan M. Miller (Oct 22, 2021 11:31 EDT) smiller@atis.org	Wen, Ku (Nov 1, 2021 10:43 GMT+8) Wenku@ccsa.org.cn
ETSI	TSDSI
Luis Jorge Romero Use Proposition of the Company o	N.G. Subramaniam M. G. Subraman
TTA	TTC
Koo Kyoung Cheol KYOUNG CHEOL KOO Kyoung Cheol Koo (Oct 25, 2021 08:57 GMT+9) kckoo@tta.or.kr	Taku KIYASU Taku KIYASU (Oct 25, 2021 13:45 GMT+9) kiyasu@s.ttc.or.jp

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)	ARIB
Jason Dai	Seiji Nishioka
Jisheng Dai Jisheng Dai (Nov 9, 2021 10:10 GMT+8)	西 图 誠 治
daijisheng@huawei.com	s-nishioka@arib.or.jp
ATIS	CCSA
Susan Miller	Wen Ku
Susan Miller Susan Miller (Nov 8, 2021 08:19 EST)	1潮神
smiller@atis.org	阿库, Wen, Ku (Nov 8, 2021 19:58 GMT+8) wenku@ccsa.org.cn
ETSI	TSDSI
Luis Jorge Romero	N.G. Subramaniam
Φ	n ganapathy subramaniam n ganapathy subramaniam (Nov 8, 2021 17:46 GMT+5.5)
luis.romero@etsi.org	ng.subramaniam@tsdsi.in
\	
TTA	TTC
Koo Kyoung Cheol	Nobuyuki Tajiri
Kuoung Cheol Koo Kyoung Cheol Koo (Nov 8, 2021 20:29 GMT+9)	Nobusuki Tajiri Nobuyuki Tajiri (Nov 9, 2021 21:33 GMT+9)
kckoo@tta.or.kr	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: Title:

Antonio Arcidiacono 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

Seiji Nishioka 西
s-nishioka@arib.or.jp
CCSA
Wen Ku
wenku@ccsa.org.cn
TSDSI
N.G. Subramaniam
n ganapathy subramaniam (Ng)a, 2021 19:10 GMT+5.5)
ng.subramaniam@tsdsi.in
TTC
Nobuyuki Tajiri
Nobuyuki Tajiri Nobuyuki Tajiri (Nov 9, 2021 21:25 GMT+9)
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)	ARIB
Luigi Licciardi	Seiji Nishioka
Luiai Licciardi	西 园 誠 治
Luigi L'cciardi (Nov 9, 2021 10:38 GMT+1)	(L) (C) BUX 12
Luigi.licciardi@huawei.com	s-nishioka@arib.or.jp
ATIS'	CCSA
Susan Miller	Wen Ku
	1212
Susan Miller (Nov 9, 2021 07:40 EST)	阅读 Wen, ku (Nov 19, 2021 20:03 GMT+8)
smiller@atis.org	wenku@ccsa.org.cn
ETSI	TSDSI
Luis Jorge Romero	N.G. Subramaniam
	m as mat atten submaniani
7	m ganapathy subramaniam n ganapathy subramaniam (Nov 9, 2021 15:57 GMT+5.5)
luis.romero@etsi.org	ng.subramaniam@tsdsi.in
TTA	
IIA	TTC
Koo Kyoung Cheol	Nobuyuki Tajiri
Kyoung Cheol Koo Kyoung Cheol Koo (Nov 9, 2021 19:03 GMT+9)	Nobuyuki Tajiri
	Nobuyuki Tajiri Nobuyuki Tajiri (Nov 10, 2021 09:11 GMT+9)
kckoo@tta.or.kr	tajiri@s.ttc.or.jp

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

MulteFire Alliance (MFA)

Name: Title:

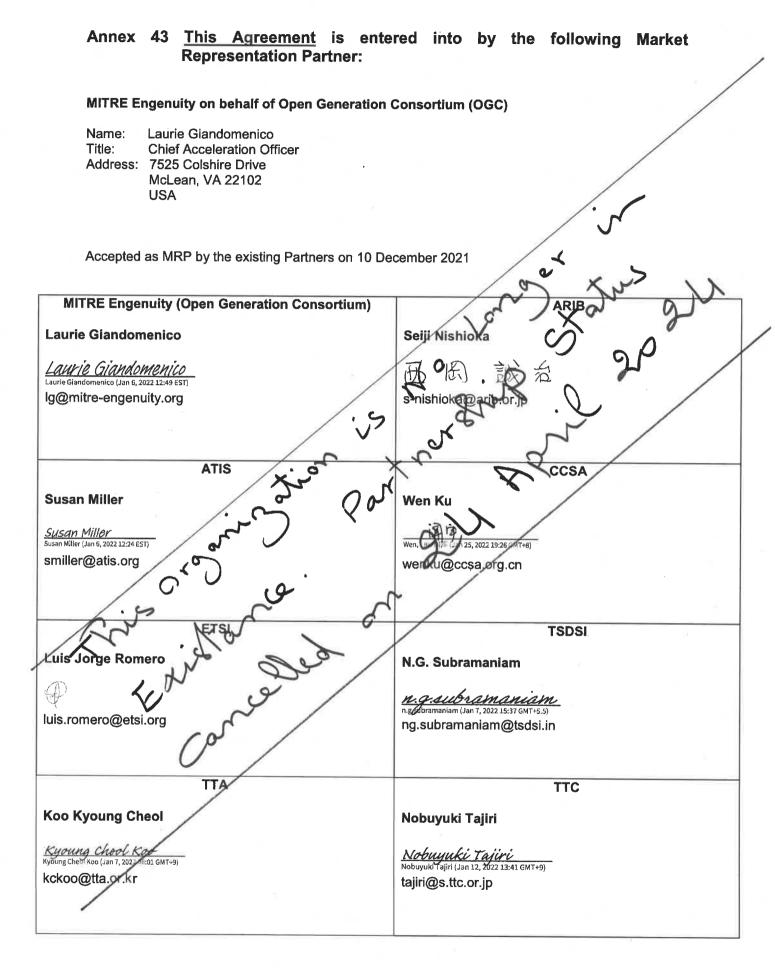
Mazen Chmaytelli

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	Seiji Nishioka
Mazen Chmaytelli	西 图 誠 名
mchmayte@qti.qualcomm.com	s-nishioka@arib.or.jp
ATIS	CCSA
Susan Miller	Wen Ku
Susan Miller	in tap
Susan Miller (Nov 9, 2021 07:41 EST)	闻库, Wen, Ku (Nov 19, 2021 20:01 GMT+8)
smiller@atis.org	wenku@ccsa.org.cn
ETSI	TSDSI
Luis Jorge Romero	N.G. Subramaniam
\bigcirc	n sanarathu cuhramaniam
7	n ganapathy subramaniam n ganapathy subramaniam (Nov 9, 2021 15:58 GMT+5.5)
luis.romero@etsi.org	ng.subramaniam@tsdsi.in
TTA	TTC
Koo Kyoung Cheol	Nobuyuki Tajiri
Kyoung Cheol Koo Kyoung Cheol Koo (Nov 9, 2021 19:03 GMT+9)	Nobuyuki Tajiri Nobuyuki 1ajiri (Nov 10, 2021 09:12 GMT+9)
kckoo@tta.or.kr	tajiri@s.ttc.or.jp



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

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

Annex 45 <u>This Agreement</u> 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

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

one6G Association (one6G)	ARIB
Mohammad Shikh-Bahaei	Seiji Nishioka
M. R. Shikh-Bahaei	西岡 誠治
m.sbahaei@kcl.ac.uk	s-nishioka@arib.or.jp
ATIS	CCSA
Susan Miller	Wen Ku
Susan Millar, Prasident & CCO	WEN, Ki/(Dec 23, 2024 12:19 GMT+8)
smiller@atis.org	wenku@ccsa.org.cn
ETSI	TSDSI
Jan Ellsberger	Satish Jamadagni
25_	<u>satishns</u> satishns (Jan 16, 2025 14:17 GMT+5.5)
jan.ellsberger@etsi.org	chairman@tsdsi.in
TTA	ттс
Daejung Kim	Nobuyuki Tajiri
김대중 김대중 (Dec 13, 2024 09:43 GMT+9)	Nobuyuki Tajiri Nobuyuki Tajiri (Dec 13, 2024 09:55 GMT+9)
djkim@tta.or.kr	tajiri@s.ttc.or.jp