## **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.

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### 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.

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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.

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### 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.

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### 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.

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

ARIB

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

Signature

Hirochie Thumkawa

Date 4 December 1998

T1

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

Signature

- halls

Date 4 December 1998

**ETSI** 

Mr Karl Heinz Rosenbrock

Director General

**ETSI** 

European Telecommunication Standards Institute

650, route des lucioles

F-06921 Sophia Antipolis Cedex

**FRANCE** 

Signature

Lad Him Losenbook

Date 4 December 1998

TTA

Dr Kyu-Jin Wee Chairman SC-7

TTA

Telecommunications Technology Association

13<sup>th</sup> Floor Sejongro Daewoo Building

167 Naesoo-dong chongro

Seoul KOREA

NONLA

Signature

위치신

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 Hovisalei

Date 4 December 1998

Executed in 5 originals

3GPP Partnership Project Agreement, 4 December 1998

6

	Annex 1	This Agreement is entered into by the following Market Representation Partner:
	UMTS Forum	K. 10 LENCE LET
	Name:	Thomas Berger us
	Title:	Chairman & 20
	Address:	yours Forum
/		okussel Square House ay
	5	10-12 Russel Square
/\	Signature	Sandon per of the
$\wedge$	Date Date	December 1998
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	1	eas pay
(	DAK	
	/ .	OT /

Authorised by the existing Partners

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

ature attre

Date 24 February 1999

## Authorised by the existing Partners

ARIB	ETSI
Mr Hiroshi Furukawa	Mr Karl Heinz Rosenbrock
Signature Hiroshi Furuhawa 1 Date 9 March 1999	Signature Roof Heins Kosmbook
Date 9 March 1999	Date 24 February 1999
T1	TTA
Dr Asok Chatterjee	Dr Kyu-Jin Wee
V	Dr Kyu-Jin Wee
Date 1 March, 1999	Date / - March 1999
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Dr Bernd Eylert
Signature Ndo Hovisalci	Signature 5. Sylvit
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

Amin	
ARIB	ETSI
Mr Hiroshi Furukawa	Mr Karl Heinz Rosenbrock
Signature Phiroshi Feurulzawas	Signature Red Heine Zoun book
Date 27 May 1999	Date 27 May 1999
/ //T1	TTA
Dr Asok Chatterjee	Dr Kyu-Jin Wee
Signature Zhally	Signature
Date 27 May, 1999	Date 7. May 1999
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Dr Bernd Eylert
Signature Nob Hovisaki	Signature Julia F
Date 27 May 1999	Date 27 May 1999
GS <sup>®</sup> A	, /
Mr Alan Hadden	
Signature	
Date 27th May 1999	

Executed in 8 originals

		/ R
Annex 4	This Agreement is entered in	nto by the following Organizational Partner:
China Wire	less Telecommunication Standard Gro	up (CWTS)
Name:	Ms Shumin Cao	X in
Title:	Chairperson	/ × -(0)
Address:	China Wireless Telecommunication Star Research Institute of Telecommunic No. 11 Yue Tan Nan Jie Beijing, 100-045 People's Republic of China	
Signature	The way	20
Date	27 May 1999	- 3
Authorised b	by the existing Partners	May /
Mr Hiroshi F Signature	rukawa Hiroshi Furukawa	Mr Karl Heinz Rosenbrock Signature
Date 2	1999	Date 27 May 1999
Dr Asok Cha Signature	tterjee hally 6	Dr Kyu-Jin Wee Signature
Date 27	May, 1999	Date 57 - May 1999
Mr Nobuhiro Signature	Nob Hovibalei	Dr Bernd Eylert Signature
Date	Z7 May 1999	Date 27 May 1999  GSM Association
Mr Alan Hado Signature	den	Mr Michael Stocks Signature
Date	27th May /1999	Date 1999
Executed in 9	originals	

		Lance	
Annex 5	This Agreement is entered in Partner:	nto by the following Market Representation	1
Universal \	Wireless Communications Consortium	(UWCC)	
Name:	Mr Leo Nikkari	No.	
Title:	Vice President, Strategy and Industry Re	elations	
Address:	1800 112 <sup>th</sup> Avenue NE, Suite 260E Bellvue Washington USA 98004-2937	hors led	
Signature	Leo Milhar	KD COLLEGE	
Date	20 September 1999		
Authorised b	by the existing Partners	D ETGI	7
Mr Hiroshi F Signature		Mr. Wil Heinz Rosenbrock Schature Cost Science Resultsoot  Date Rosenbrock  1999	A .
Dr Asok Cha Signature	T1 htterjee	Dr Kyu-Jin Wee Signature	
Mr Nobuhiro Signature	Nob Hovisald	Dr Bernd Eylert Signature	_
Mr Alan Had Signature	Ciellatalen	Date 1999  GSM Association  Mr Michael Stocks Signature	
Ms Shumin C Signature	20 October 1999 CWTS Cao 1999	Date 20 001 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	18 January 2000

Authorised by the existing Partners

ARIB	ETSI
Mr Hiroshi Furukawa	Mr Karl Heinz Rosenbrock
Signature Ak. o Saraki for Mr. Farutam	Signature Harldein Kambood
Date Jan. 18, 2000	Date 18 Jan 2000
T1	TTA
Dr Asok Chatterjee Signature	Dr Kyu-Jin Wee Signature  Myybuk Ty
Date 1/18/2000	Date 1//8/2000
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Dr Bernd Eylert
Signature 69 Med Horisak	Signature J. Zylus F
Date 18 Jan. 2000	Date 18 January 2000
GSA	CSM Association
Mr Alan Hadden	Mr Michael Stocks
Signature	Signature
Date 18/1/00	Date 3/2/2000
CWTS 120	UWCC 10
Ms Shumin Cao	Mr Leo Nikkari
Signature	Signature XCO fusion
Date 2000,1.18	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

#### Purpose of 3GPP 2.1

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 H.Fr. h ODN 4. R.M. Evolution (EDGE)).

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

ETSI
Mr Karl Heinz Rosenbrock
Signature Karl Kein Losenbook
Date 13 Kily 2000
│ ▼ TTA
Mr Dong Sun Lee
Signature 0 3 4 3
Date /
UMTS Forum
Dr Bernd Eylert
Signature /- /g/les f
Date 15 Aug 2000
GSM Association
Mr James Healy
Signature
Date / Va Vul 00
UWCC
Mr Leo Nikkari
Signature de Yushari
Date July 17, 2000
J

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Annex 8	This Agreement is entered in Partner:	nto by the following Market Representation
Mobile Wire	eless Internet Forum (MWIF)	L'S
Name:	Mr Dean Sirovica	
Title:	President and Chairman	is
	39355 California Street, Suite 305 Fremont, CA 94541 USA	Larger Sur
Signature	V. Dran	100
Date [5	111/00	so ce'
Authorised b	by the existing Partners	Car
Mr Hiroshi F Signature Date	urukawa Figer  Hirosh: Torukowa  11/15 / 2000	ETSI  Mr Karl Heinz Rosenbrock Signature La College College Bate 15 Nov. 2000
Dr Asok Cha Signature	itterjee Shally	Dr Kyu-Jin Wee Signature  11/15/2000
Mr Nobuhiro Signature	Horisaki Volo Hovisalci	Dr Bernd Eylert Signature  15 th November 2000
Mr Alan Hade Signature Date	den SSA SN. 2000	Date  GSM Association  Mr Michael Stocks Signature  Date  UWCC  UWCC
Ms Shumin C Signature	Gao Shun Car	Mr Leo Nikkari Leo Nikhari Signature
Date 15	Nov. you	Date 15 NOV 2000
Mr Latif Ladio Signature Date	IPy6 Forum  Nov on	
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Partner:	ito by the following Market Representation
raitilei.	1.00
2C ID Feetin Group (2C ID)	to by the following Market Representation
3G.IP Focus Group (3G.IP)	
Name: Mr Brian K Daly	
Title: Chair, Management Steering Committee	2;
Address: AT&T Wireless Services PO Box 97061 Redmond, WA 98-73-9761 USA	I made our
Signature Souim X Down	10. 2
Date 15 2000	Lo Copy
Authorised by the existing Partners	con
ARIB	ETSI
Mr Hiroshi Furukawa Signature For Hiroshi Furukawa	Mr Karl Heinz Rosenbrock Signature Land Reun Kosenbook
Date Nov. /15/2	Date 15 Mars. 2000
T1	TTA
Dr Asok Chatterjee Signature	Dr Kyu-Jin Wee Signature
Date 0/1872000	Date 15 Not 2000
TTC Mr Nobuniro Horisaki Signature	Dr Bernd Eylert 3. Sylar 4
Date 13 Nov 2000	Date Sta November 2000
Mr Alan Halden Signature	GSM Association  Mr Michael Stocks (5851)  Signature 21005
Date	Date UWCC
Ms Shumin Cao Shum Cao	Mr Leo Nikkari Leo Nikkari Signature
Date 15 Nov. Vog	Date 15 2000
IPv6 Forum	MWIF
Mr Latif Ladid Signature	Mr Dean Sirovica Signature
Date   1 No   00	Date IJNOV OU
Executed in 13 originals	

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

### 3G Americas, LLC

Address:

Name: Mr Chris Pearson

Title: Executive Vice President

Bellevue, WA 98004

1756 114th Ave SE, Suite 100

USA

Signature

Date 26 April 2002

Authorised by the existing Partners **ETSI** Mr Masayoshi Wakao Mr Karl Heinz Rosenbrock Signature p.o. Signature Date Dr Asok Chatterjee Dr Ju Hwan Yim Signature Signature Ipril 2002 Date Date **UMTS** Forum Mr Nobuhiro Horisaki Dr Bernd Eylert Signature Signature 14/02 Date Date **GSM Association** Mr Alan Hadden Mr Scott Fox BEST Signature Signature Anil 26, 2002 Date Date IP√6 Forum Ms Shumin Cao Mr Latif Ladid Signature Signature Date Och Date MWIF 3G.IP Mr Dean Sirovica Mr Brian Daly Signature Signature Date Date

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

### China Communications Standards Association, CCSA

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

Address: 52# Hua Yuan Bei Road

Haidian District

Beijng

P.R.China 100083

Signature

Wangzhigin

Date

15 April 2004

Authorised by the existing Partners	
ARIB	ETSI
Mr Masayoshi Wakao	Mr Karl Heinz Rosenbrock
Signature Kohi Satuh P.P	Signature Collin Zombeach
Date 15 April 2004	Date 15 18 poil 2004
T1	TTA
Dr Asok Chatterjee Signature	Dr Ju Hwan Yim Signature  PP Hong Won how
Date 4/15/2004	Date 15 APR 2004
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Mr Jean-Pierre Bienaime
Signature Nob dowisak	Signature
Date 15/APR/2004	Date 15/04/2004
GSA	GSM Association
Mr Alan Hadden	Mr Bill Best
Signature To Hadden	Signature WWW that the state of
Date 15 April 2004	Date 15704 /04
IPv6 fforum	
Mr Latif Ladid	
Signature	
Date	

Executed in 10 originals

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

President and CEO of the Alliance for Telecommunications Industry Solutions

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

Mrs Susan Miller

1200 G Street NW

Washington, DC, 20005

Suite 500

USA

Name:

Title:

Date

Executed in 10 originals

Address:

Signature Sum M. Mills	
Date 15 April 2004	
Authorised by the existing Partners	
ARIB	CCSA
Mr Masayoshi Wakao Signature Sohi Satoh P.P.	Mr Zhou Baoxin Signature  Wangshigih  Date  15/04/2004
Date 16 April 2004	Date 15/04/2004
Mr Karl Heinz Rosenbrock Signature	Dr Ju Hwan Yim Signature  PP Hong Won kiew
Date 15 Mpril 2004	Date 15 APA 2004
TTC	UMTS Forum
Mr Nobuhiro Horisaki	Mr Jean-Pierre Bienaimé
Signature Nob Govisala	Signature
Date 15/APR/2004	Date 15/04/ 2004
Mr Alan Hadden Signature	Mr Bill Best Signature  GSM Association  Mr Signature
Date 15 April 2004	Date 13/04/04
Mr Latif Ladid Signature	

## 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	Tolh.
Date	7 October 2005

Authorised by the existing Partners **ARIB** Mr Masayoshi Wakao Mrs Susan Miller Signature Signature Date Mr Zhou Baoxin Mr Karl Heinz Rosenbrock Signature Date Dr Hong Koo Kim Mr Nobuhiro Horisaki Signature Signature Date Date **GSA GSM** Association 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,

Name:

Title:

Address:

66 Nan Li Shi Road,	
Beijing, 100045 P.R.China	
Signature Signature	
Date 7 October 2005	
Authorised by the existing Partners	
ARIB	ATIS
Mr Masayoshi Wakao Signature Koher Satoh (Tor Mr. M. Wakao)	Mrs Susan Miller Signature Susan Miller
Date 07/10/2005	Date 10/67/2605
CCSA	ETSI
Mr Zhou Baoxin Signature  Wayzhigin	Mr Karl Heinz Rosenbrock Signature Land Reuns Connected
Date 07/10/2001	Date 07 Oct. 2005
TTA	TTC
Dr Hong Koo Kim Signature Jeong Sik Park	Mr Nobuhiro Horisaki, Signature Nob Hovisaki
Date 07/0+./2005	Date 7/Oct / 2005
GSA	GSM Association
Mr Alan Hadden Signature	Mr David McDonald And McJa (d)
Date 7 Hostole 2005	Date 7/0/2025
IPv6/Forum	3G Americas
Mr Latif Ladid Signature	Mr Chris Pearson Signature
Date	Date 10-7-05
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierre Bienaimé	Dr Jing Wang /
Signature	Signature

Date

Executed in 13 originals

Annex 15 This Agreement is entered in Partner:	nto by the following Market Representation
MobileIGNITE MoU	/ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Name: Mr. Leo Nikkari	
Title: Executive Director	
Address: PO Box 81236	Looker
Chicago,	
Illinois,	\ \o^* \\ \S
USA, 60681-1236	
Signature Seo Vilebari	~ · · · · · /
Date 21 April 2006	2 51.
	5 00/
Authorised by the existing Partners  ARIB	ATIS
Mr Masayoshi Wakao	Mrs Susan Miller
Signature Loke Satish	Signature (Asoxoshatts) of s. Kills)
Date 21.04,2006	Date 4/21/200
CC8A	ETSI/
Mr Zhou Baoxin Signature  Many 2 10 10 10 10 10 10 10 10 10 10 10 10 10	Mr Karl Heinz Rosenbrock Signature
orginature go torri	Signatur Spendown
Date 21.34, 0.506	Day 21 paril 2006
Dr Hong Koo Kim	Mr Nobuhiro Agrisaki
Signature 0 J. S. Park	Signature Dob DVISAK
Date 0 4/1/2006	Date 4/21/2006
,GEA	GSM Association
Mr Alan Hadden	Mr David McDonald
Signature	Signature
Date 21 4 96	Date 121 4 06
IPve Forum	3G Americas
Mr Latif Ladid Signature	Mr Chris Pearson / Signature
signature	10/2/2
Date	Date 4/21/200£
Mr Jean-Pierre Bienaimé	TD SCDMA Forum  Dr Jing Wang
Signature	Signature
Date 4564. 2006	Date 2006 & Gallala
TD-SCDMA Industry Alliance	Date port of spirit
Mr Yang Hua 2	
Signature 15 89	
Date 2006 7 4 10 71 H	

Executed in 14 originals

Annex 16 This Agreement is entered in	nto by the following Market Representation
Partner:	12
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	LONGELINS
Signature	5, 2,00,
Date 12 October 2006	8 16
Authorised by the existing Partners	X
Mr Masayoshi Wakao Signature  Date	Mrs Susan Miller Signature
ccsA	ETSI /
Mr Zhou Baoxin Signature Soung Zhoin Date	Mr Karl Heinz Rosenbrock Signature
Dr. Hong Kookim	TTC
Signature Date	Mr Nobuhiro Horisaki Signature
GSA	GSM Association
M Alan Hadden Signature The Signature	Mr David McDonald Signature Jan McJanla
Date	Date
Mr Latif Ladid Signature	3G Americas Mr Chris Pearson Signature
Date	Date // // // // // // // // // // // // //
Mr Jean-Pierre Bienaime Signature	Dr Jing Wang Signature
Date M	Date
TD-SCDMA Industry Alliance Mr Yang Hua	MobilelGNITE MoU Mr Leo Nikkari
Signature	Signature
Date Yang Lun -	Date
Executed in 15 originals	Leen

Annex 17 This Agreement is entered in Partner:	nto by the following Market Representation
IMS Forum	
, , , , , , , , , , , , , , , , , , , ,	
Title: Executive Director	> 1, b
Address: 39355 California Street, Suite 307	, CX.
Fremont, CA 94538	S
USA	
Signature Marin Seula Tabare	
Signature // puear fee for the	
Date 12 October 2006	art'et
	N. M.
Authorised by the existing Partners	
ARIB ARIB	A'TIS
Mr Masayoshi Wakao Signature	Mrs Susan Miller
Date	Signature Date
O CCSA	ETSI /
Mr Zhou Baoxin	Mr Karl Heinz Rosenbrock
Signature ( Word Style)	Signature
Date /	Date
Dr Hong Koo Kim	Mr Nobuhiro Horisaki
Signature Signature	
Date	Signature Date Dol do VI Salc
for GSA and adde	GSM Association
Mr Alan Hadden	Mr David McDonald
Signature Signature Signature	Signature / AM Ja /
Date IPv6 Forum	Date
Mr Latif Ladid	3G Americas Mr Chris Pearson
Signature (Actuaudu)	Signature ////////////////////////////////////
Date	Date //////
OM/TS Forum	, TD SCDMA Forum
Mr Jean-Pierre Bienaimé	Dr Jing Wang
Signature Applications of the state of the s	Signature
Date / TD-SCDMA Industry Alliance	Date MobileIGNITE MoU
Mr Yang Hua	Mr Leo Nikkari
Signature (/2 /4)	Signature
Date Yung Luci	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 Mrs Susan Miller Signature Signature Date Date CCSA ET'SI Mr Zhou Baoxin Dr Walter Weigel Signature Signature Date Date TTA Mr Won-Sik Kim Dr Yuji Inoue Nob Hovisald R. Signature Signature Date Date **GSA GSM** Association Mr Alan Hadden Mr David McDonald 120 Hodo Signature Signature Date Date IPv6 Forum 3G 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-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 Stasney 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 specifications<sup>1</sup>. 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:

- a<u>n evolved</u> 3rd Generation <u>and beyond</u> Mobile System based on the evolved <u>GSM3GPP</u> 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	
ARIB	ATIS ,,
Mr Masayoshi Wakao Signature Date  CCSA	Mrs Susan Miller
Signature	Signature
Date 17.12.2004	Date 18/12/2007
CCSA	/ ETSI
Mr Zhou Baoxin	Dr Walter Weigel / / / / / / / / / / / / / / / / / / /
Signature Wang 2 mg in	Signature ////////////////////////////////////
Date /	Date PU 109
TTA	TTC + L
Mr Won-Sik Kim J. S. Park	Dr Yuji Inoue
Signature	Signature / / / / / / / / / / / / / / / / / / /
Date 18/12/2007	Date / f / /2 / 200')
GSA O II	GSM Association
Mr Alan Hadden p Sources Survives	Mr David McDonald
Signature	Signature / Celler
Date (8/12 2007	Date 18/12/07
IPv6 Forum	3G Americas
Mr Latif Ladid	Mr Chris Pearson
Signature	Signature / //////////////////////////////////
Date	Date /2-18-0
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierre Bienaimé	Dr Jing Wang 7 tu 9 (12 or 9)
Signature	Signature Signature
Date 18:12 W7	Date
TD-ŞCDMA İndustry Alliance	MobileIGNITE MoU
Mr Yang Hua	Mr Leo Nikkari
Signature Y A A A A	Signature
Date / Wy Cull	Date
Global UMTS TDD Alliance	IMS Forum
Mrs Liz Kerton	Mrs Marian Stasney
Signature	Signature
Date	Date

Executed in 16 originals

Annex 20 This Agreement is entered in	nto by the following Market Representation
Partner:	and any time remaining in the state of the s
raitilei.	/ \'
Infocommunication Union	
Name: Mr. Andrey Skorodumov	
Title: CEO	
110.	
Address: 2-nd Spasonalivkovski per., 6,	TO T
Moscow 119991,	
Russia	
	/ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Signature / ///	
Ministry.	P S' , b
Date 18 December 2007	c o o
Authorised by the existing Partners	
ARIB	ATIS
Mr Masayoshi Wakao	Mrs Susan Miller
Signature	Signature
Date Date	Date \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
ØCSA /	ET/\$I
Mr Zhou Baoxin	Dr Walter Weigel // / // // // // // // // // // // //
Signature / Cang 2mg/m	Signature / // // // // // // // // // // // //
Date	Date
OTTA	TTC
Mr Won-8ik Kim ( ) J. S. Park	Dr Yuji Inoue
Signature ()	Signature
Date 18/12/2001 07	Date 18/12/2007 12 V 01R
GSA '	GSM Association
Mr Alan Hadden Milliam Kuma Cery	Mr David McDonald
Signature 0	Signature Allegee
Dates Manager	Date 18-12-07
IPv6 Forum	3G Americas
Mr Latif Ladid//	Mr Chris Pearson
Signature	Signature
Date	Date 12-18-01
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierre Bienaime	Do line Marie
Signature	Signature Jug Woung
Date 18 12 ( 2017	Date
TD-SCDMA Industry Alliance	MobilelGNITE MoU
Mr Yang (Hua	Mr Leo Nikkari
Signatura	Signature
Date Way his	Date
Global UMTS TDD Alliance	IMS Forum
Mrs Liz Kerton	Mrs Marian Stasney
Signature	Signature
Date	Date
Executed in 17 originals	
Excounted in 17 originals	

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

Address: PO Box 23 GL11 5WA	
United Kingdom	2
Signature S	
Date 23 April 2008	
Authorised by the existing Partners	
Mr Masayoshi Wakao Signature Date  ARIB  Akib  Satah  23.04.2008	Mrs Susan Miller Signature Date  ATIS  (+56)  4/23/2508
CCSA	/ , ET/SV.
Mr Zhou Baoxin Signature Date  Ang 2/19  Ang 2	Dr Walter Weigel W. Wha. Signature Date 23/4/08
Mr Won-Sik Kim Signature Date  TTA   TTA  23/04/08	Dr Yuji Inoue Signature Date 23/08/08
GSA	GSM Association
Mr Alan Hadden of Signature Date 23/4 08	Mr Alex Sinclair Signature  Date  33-4-08
IPv6 Forum	3G Americas
Mr Latif Ladid	Mr Chris Pearson Phase Learson
Signature	Signature
Date	Date 4-23-06
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierre Bienaimé	Dr Jing Wang July Wang
Signature ( . ) - 1 (	Signature
Date A pr 2 2 3, 0 8.	Date 4-21-08
TD-SCDMA Industry Alliance	MobileIGNITE MoU Mr Leo Nikkari
Mr Yang Hua Yang Jac	Signature
Signature / Cost	Date
Global UMTS TDD Alliance	IMS Forum
Mrs Liz Kerton	Mrs Marian Stasney
Signature	Signature
Date	Date
Infocomunication Union	,
Mr Andrey Skorodumov (Leese)	
Mr Andrey Skorodumov Signature Date  33 April 2208	
Executed in 18 originals	

**FemtoForum** 

Name: Title: Prof. Simon Saunders

Chairman

Annex 22 This Agreement is entered in Partner:	nto by the following Market Representation
Fixed-Mobile Convergence Alliance Name: Mr Andrew Haworth Title: Managing Director	10
Address: pp 3B CTE, Newcastle Central TEL EXC Carliol Square Newcastle Upon Tyne Tyne And Wear NE1 1BB, United Kingd	lom
Signature Continue Co	
Date 23 April 2008	5. (k)
Authorised by the existing Partners	5 5
Mr Masayoshi Wakao Signature Date  ARIB  ARIB  Stoh	Mrs Susan Miller Signature Date  ATIS  4/23/2008
Mr Zhou Baoxin Signature Date  CESA  // Ang Shift 23/04/05	Dr. Walter Weigel July Sanature 22/4/08
Mr Won-Sik Kim Signature Date	Dr Yuji Inoue TTC Signature Date  TTC  A 104/08
Mr Alan Hadden of GSA Signature Date	GSM Association  Mr Alex Sinclair  Signature  Date  GSM Association  From Signature  Signature  From Signature
IPv6.Forum	3G Americas ₽
Mr <del>Latif</del> Ladid Signature Date	Mr Chris Pearson Chris Tearson Signature Date 4-23-08
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierra Bienaimé Signature Date	Dr Jing Wang Signature Date  4-13-08
TD-SCDMA Industry Alliance	MobileIGNITE MoU
Mr Yang Hua	Mr Leo Nikkari
Signature was	Signature
Date 23/57/08	Date
Global UMTS TDD Alliance	IMS Forum
Mrs Liz Kerton	Mrs Marian Stasney
Signature . Date	Signature Date
Infocomunication Union	FemtoForum /
Mr Andrey Skorodumov Aseace	Prof. Simon Saunders
Mr Andrey Skorodumov Signature Date  Mr Andrey Skorodumov  Aleace  Ale	Signature 23/4/08
Executed in 19 originals	/ /

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

28 October 2009

## **CDMA Development Group**

Name:	Mr Perry LaForge
Title:	Executive Director
Address:	575 Anton Blvd., Ste. 560

Costa Mesa, CA 92626

USA

Signature Date

Authorised by the existing Partners	
ARIB	ATIS
Mr Masayoshi Wakao Johen Satoh	Mrs Susan Miller Signature Date  ATIS  10/28/2009
1 Signature	Signature C Signature
Date 28/10/2009	Date for sum   tem
CCSA	/ETSI/ /
Mr Zhou Baoxin	Dr Walter Weigel
Signature (e)	Signature 4/ V//h 30/ 100
Date 78/10/09	Date
TTA	TTC, A
Mr Won-Sik Kim	Dr Yuji Inoue / runki Shirta
Signature	Signature
Date 28/10/09	Date 28/10/2009
GSA CALLERY	GSM Association
Mr Alan Hadden Town Survey	Mr Alex Sinclair
Signature (Y	Signature
Date 28,10,05	Date
IPv6 Forum	3G/mericas
Mr Latif Ladid	Mr Chris Pearson
Signature	Signature 10-28-09
Date	Date / C
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierre Bienaimé	Dr Jing Wang Can Can M
Signature	Signature Survey
Date 23,10,2wg	Date 28 Apr 2011
TD-SCDMA Industry Alliance	MobileIGNITE MoU
Mr Yang Hua	Mr Leo Nikkari
Signature	Signature
Date 28 May 2501	Date
Global UMTS TDD Alliance	IMS Forum
Mrs Liz Kerton	Mrs Marian Stasney
Signature	Signature
Date	Date
Infocomunication Union	FemtoForum
Mr Andrey Skorodumov	Prof. Simon Saunders
Signature	Signature 10/29/29
Date	Date 10/20/09
Fixed-Mobile Convergence Alliance	
Mr Andrew Howarth	

Executed in 20 originals

Signature

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

## Cellular Operators Association of India (COAI)

Mr T.R. Dua

Name:

Title: Officiating Director General	
Address: 14 Bhai Veer Sing Marg	
New Delhi 110 001	
India	
Signature IIA Le	Date 28 October 2010
Authorised by the existing Partners	
ARIB	ATIS
Mr Masayoshi Wakao	Mrs Susan Miller
Signature Suh Salvi	Signature C
Date 28.10, 2010	Date Tov 10/28/2010
CCSA	/ E/SI
Mr Zhou Baoxin Wang zhigin	Dr Walter Weigel / / //
Signature	Signature / Signature
Date 28. /o. 20/0	Date Polyton
TTA	/ TTC/
Mr Keun Hyeonb Lee 28/10/10	Dr Yuji Inoue 1/ Shreeta
Signature	Signature
Date	Date 28/10/20/0
GSA ()	GSM Association
Mr Alan Hadden Timel Timellary	Mr Alex Sinclair
Signature Date 28. W. 2010	Signature
25.5	Date
IPv6 Forum	4G/Americas
Mr Latif Ladid	Mr Chris Pearson
Signature	Signature 10-28-10
Date	Date
UMTS Forum	TD SCDMA Forum
Mr Jean-Pierre Bienaimé	Dr Jing Wang
Signature	Signature SW 4000
Date 28.6(-161)	Date /0-28-/0
TD-SCDMA Industry Alliance	IMS Forum
Mr Yang Hua	Mr Michael Khalilian

Signature

Signature

Prof. Simon Saunders

Date

Date

Date Executed in 17 originals

Mr Andrey Skorodumov

Signature

Signature

Date

Infocomunication Union

#### 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:

	ddress: Friedrich-Ebert-Anlage 58	
	60325 Frankfyrt	
Sig	gnature Germany	Date 28 April 2011
Au	uthorised by the existing Partners	
	Masayoshi Wakao John Satoh gnature ate 28.04.2011	Mrs Susan Miller Signature Date  ATIS  ATIS
	CCSA	ETSI
Sig	ryang Zemin gnature Ite 28.54.201/	Dr Walter Weigel Signature Date
		Dr Yuji Inoue Signature Date 25.04.20 //
	·	GSM Association Mr Alex Sinclair Signature Date
	IPv6 Forum	4G Americas
5.5.5.6.1	Latif Ladid nature	Mr Chris Pearson
Dat		Signature Date 7-23-4
	UMTS Forum	ATD Forum
Mr .	Jean-Pierre Bienaimé	Mr Shi Guang
	nature 22 / 2 //	3000
		Signature
Date	e 28,09,200	Date 28-04-2011
	TD-SCDMA Industry Alliance	Date 28 - 04 - 701 IMS Forum
Mr \	TD-SCDMA Industry Alliance Yang Hua	Date 28 - 04 - 700 IMS Forum Mr Michael Khalilian
Mr \	TD-SCDMA Industry Alliance Yang Hua nature	Date  IMS Forum  Mr Michael Khalilian Signature
Mr \	TD-SCDMA Industry Alliance Yang Hua nature	Date  IMS Forum  Mr Michael Khalilian Signature Date
Mr Sigr Date	TD-SCDMA Industry Alliance Yang Hua nature e Infocomunication Union Andrey Skorodumov	IMS Forum  Mr Michael Khalilian Signature Date  FemtoForum  Prof Simon Saunders
Mr Sigr Date	TD-SCDMA Industry Alliance Yang Hua nature e Infocomunication Union Andrey Skorodumov nature	IMS Forum  Mr Michael Khalilian Signature Date  FemtoForum  Prof Simon Saunders Signature
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Mr A Sign Date	TD-SCDMA Industry Alliance Yang Hua nature e Infocomunication Union Andrey Skorodumov nature e CDMA Pevelopment Group	IMS Forum  Mr Michael Khalilian Signature Date  FemtoForum Prof Simon Saunders Signature Date  Cellular Operators Association of India (COAI)
Mr N Sigr Date Mr A Sign Date	TD-SCDMA Industry Alliance Yang Hua nature e Infocomunication Union Andrey Skorodumov nature e CDMA Development Group Perry LaForge	IMS Forum  Mr Michael Khalilian Signature Date  FemtoForum Prof Simon Saunders Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews
Mr N Sigr Date	TD-SCDMA Industry Alliance Yang Hua nature e Infocomunication Union Andrey Skorodumov nature e CDMA Development Group Perry LaForge nature	IMS Forum  Mr Michael Khalilian Signature Date  FemtoForum Prof Simon Saunders Signature Date  Cellular Operators Association of India (COAI)

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

## **TETRA & Critical Communications Association (TCCA)**

Mr. Philip Kidner

CEO

Name: Title:

Address: 14 Blandford Square	
Newcastle Upon Tyne, NE1 4HZ	
United Kingdom	E 1111
Signature	Date 31 October 2013
Authorized by the distinct Partiers	
Authorised by the existing Partners  ARIB	ATIS
Dr Kohei Satoh	Mrs Susan Miller
Signature Kohi Schol	Signature Signature
Date 3/. (0.2013	Date 60/3/13
CCSA	ETSI / A
Mr Yang Zemin	Mr Luis Jorge Romero Saro (
Signature Way My M	Signature
Date 31 10 2013	Date 31.10.213
TTA	TTO TO
Mr Chasik Leem	Mr Yoichi Maeda Yuchi Maeda
Signature Date  2 (3, 10, 3)	Signature // 0/31/13
Date	Date 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 TR SCRMA In Justine Allian	Date
TD-SCDMA Industry Alliance	IMS Forum
Mr Yang Hua Signature	Mr Michael Khalilian
Date	Signature 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	

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

LJallin

Date

29 April 2015

Authorised by the existing Partners

ARIB	ATIS 0
Dr Kohei Satoh	Mrs Susan Miller Smylly by Steller
Signature John Salok	Mrs Susan Miller Saulty for Stieller Signature
Date 29.04 20/5	Date 4/29/2015
CCSA	ETSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature ( )	Signature
Date 27, 4, VII)	Date 25.24. 2015
TTA	TTC
Dr Kyu-Jin Wee	Mr Yoichi Maeda
Signature	Signature
Date 2P. of 2015	Date > ) 04 7015
GSA	GSM Association
Mr Joe Barrett	Mr Alex Sinclair
Signature	Signature
Bato	Date 29/04/2615
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	Mr Shi Guang Signature Date
Signature Date TD-SCDMA Industry Alliance	Mr Shi Guang Signature Date  IMS Forum
Date  TD-SCDMA Industry Alliance Mr Yang Hua	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian
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Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Infocomunication Union Mr Andrey Skorodumov	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan
Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Infocomunication Union Mr Andrey Skorodumov Signature	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum
Signature Date  TD-SCDMA Industry Alliance  Mr Yang Hua Signature Date  Infocomunication Union  Mr Andrey Skorodumov Signature Date  Date	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Date
Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Infocomunication Union Mr Andrey Skorodumov Signature Date  Mobility Development Group	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI)
Signature Date  TD-SCDMA Industry Alliance  Mr Yang Hua Signature Date  Infocomunication Union  Mr Andrey Skorodumov Signature Date  Mobility Development Group  Mr Douglas Martel	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews
Signature Date  TD-SCDMA Industry Alliance  Mr Yang Hua Signature Date  Infocomunication Union  Mr Andrey Skorodumov Signature Date  Mobility Development Group  Mr Douglas Martel Signature	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature
Signature Date  TD-SCDMA Industry Alliance  Mr Yang Hua Signature Date  Infocomunication Union  Mr Andrey Skorodumov Signature Date  Mobility Development Group  Mr Douglas Martel Signature Date  Date	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date
Signature Date  TD-SCDMA Industry Alliance  Mr Yang Hua Signature Date  Infocomunication Union  Mr Andrey Skorodumov Signature Date  Mobility Development Group  Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN)	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date  TETRA & Critical Communications Association
Signature Date  TD-SCDMA Industry Alliance  Mr Yang Hua Signature Date  Infocomunication Union  Mr Andrey Skorodumov Signature Date  Mobility Development Group  Mr Douglas Martel Signature Date Alliance (NGMN)  Dr. Peter Meissner	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date  TETRA & Critical Communications Association Mr. Philip Kidner
Signature Date  TD-SCDMA Industry Alliance  Mr Yang Hua Signature Date  Infocomunication Union  Mr Andrey Skorodumov Signature Date  Mobility Development Group  Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN)	Mr Shi Guang Signature Date  IMS Forum  Mr Michael Khalilian Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date  TETRA & Critical Communications Association

Executed in 21 originals

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

## Global Certification Forum (GCF) Ltd

Name:	
Titlo	

Mr Lars S Nielsen

Address:

General Manager 20-22 Bedford 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 Will
Date 29/64/2016	Date World 29 2016
CCSA / /	ETSI / /
Mr Yang Zemin (1) (mg/z/h /gi/1	Mr Luis Jorge Romero Saro
Signature	Signature
Date 24/04/2016	Date 29, 20, 206
TSDSI	, TTA _1
Prof Abhay Karandikar	Dr Kyu-Jin Wee
Signature	Signature
Date 29/04/2016	Date 429/2016
TTC	'GSA' \
Mr Yoichi Maeda Oz Kroze	Mr Joe Barrett
Signature	Signature
Date 23/07/12/16	Date 29- 4.15
GSM Association	IPv6 Forum
Mr Alex Sinclair	Mr Latif Ladid
Signature	Signature
Date 22/4/2016	Date
5G Americas	UMTS Forum
PORTO A STATE OF THE STATE OF T	
Mr Chris Pearson	Mr Jean-Pierre Bienaime
Mr Chris Pearson Signature	Mr Jean-Pierre Bienaime Signature
Mr Chris Pearson Signature Date	Mr Jean-Pierre Bienaime Signature Date 14/04/2016
Mr Chris Pearson Signature Date  TD Forum	Mr Jean-Pierre Bienaime Signature Date  14/04/vol6  TD-SCDMA Industry Alliance
Mr Chris Pearson Signature Date  TD Forum Mr Shi Guang	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI)	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature Date
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI)	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN)
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date  TETRA & Critical Communications Association	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date  TETRA & Critical Communications Association	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date  TETRA & Critical Communications Association	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature Date
Mr Chris Pearson Signature Date  TD Forum  Mr Shi Guang Signature Date  Small Cell Forum  Mrs Sue Monahan Signature Date  Cellular Operators Association of India (COAI) Mr Rajan Mathews Signature Date  TETRA & Critical Communications Association Mr. Philip Kidner	Mr Jean-Pierre Bienaime Signature Date  TD-SCDMA Industry Alliance Mr Yang Hua Signature Date  Mobility Development Group Mr Douglas Martel Signature Date  Next Generation Mobile Network Alliance (NGMN) Dr. Peter Meissner Signature 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 16<sup>th</sup> Street, N.W. Suite 600, Washington, DC 20036, USA

Signature

Date 29 April 2016

Authorised by the existing Partners

Authorised by the existing Partners	
ARIB	ATIS
Dr Kohei Satoh	Mrs Susan Miller
Signature Yasuhiro Kato	Signature m M Ma
Date	Date
CCSA	ETSI / / \
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature	Signature
Date	Date
TSDSI	Kenyku Lee TTA
Prof Abhay Karandikar	Dr Kyu-Jin Wee
Signature	Signature
Date	Date
Shuichi Imada TTC	GSA
Mr Yoichi Maeda	Mr Joe Barrett
Signature 稍田 你 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 S 13
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
<b>TETRA &amp; Critical Communications Association</b>	GCF
Mr. Philip Kidner	Mr Lars S Nielsen
Signature	Signature
Date	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:

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 XIXIII
CCSA	ETSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature V D 3//V	Signature
Prof Abbay Karandikar	De Koupky Loo 55 TTA
Prof Abhay Karandikar Signature	Dr Keunku Lee Signature
TTC	GSA
	Mr Joe Barrett
Mr Shuichi Inada Signature 和 知 知 不 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	
Mr Thomas Sawanobori	
Signature	

Executed in 22 originals

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

## Public Safety Communication Europe (PSCE)

Name:

Mrs Marie-Christine Bonnamour

Title: Address:

Secretary General Rue des 2 églises, 39, BE 1000 Brussels

Signature

Date 21 October 2016

Authorised by the existing Partners

ARIB	ATIS
Dr Kohei Satoh	Ms Susan Miller
Signature	Signature MMMM
CCSA	ETSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature V W/V	Signature
TSDSI	TTA
Prof Abhay Karandikar	Dr Keunku Lee
Signature	Signature
TTC	GSA \
Mr Shuichi Inada 新用格一	Mr Joe Barrett
Signature MH LI (17)	Signature
GSM Association Mr Alex Sinclair	IPv6 Forum Mr Latif Ladid
Signature	
5G Americas	Signature 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 //Sarvisox
CCSA	ÉTSI 🕢 🗎
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature 7 2 27	Signature
TSDSI	TTA TTA
Prof Abhay Karandikar	Dr Keunku Lee
Signature	Signature //
TTC	GSA
Mr Shuichi Inada	Mr Joe Barrett
Signature AII II I'')	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

Executed in 24 originals

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

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

Secretary General

Neumarkter Str. 2, 81673 Munich

Mr Dino Flore

Germany

Name:

Address:

Title:

100	
Signature Date	26 April 2017
Authorised by the existing Partners	
ARIB	ATIS
Mr Seiji Nishioka	Ms Susan Miller
Signature (DIM) ppr 12	Signature While
CCSA	ETŚI /
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature	Signature
TSDSI A	TTA
Prof Abhay Karandikar	Dr Keunku Lee
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TTC	GSA
Mr Shuichi Inada	Mr Joe Barrett
Signature Sef-Co	Signature
GSM Association	IPv6 Forum
Mr Alex Sinclair	2527 B 3022-00996 H2 1900 1900 1900 1900 1900 1900 1900 190
V / ( 1000 V )/	Mr Latif Ladid
Signature	Signature
5G Americas	TD Forum
Mr Chris Pearson	Mr Shi Guang
Signature WWW VICTOR	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	Signature W//////
GCF	CTIA
Mr Lars S Nielsen	Mr Thomas Sawanobori
Signature	Signature
WBA	PSCE
Mr Shrikant Shenwai	Mrs Marie-Christine Bonnamour
Signature	
∑ 5G-IA -	Signature
Mr Jean-Pierre Bienaime	
Signature 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 (L) (D) (D) (T)	Signature ************************************
CCSA	ETSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature TSDSI	Signature
Ms Pamela Kumar	Dr Keunku Lee
Signature Signature	Signature
	GSA
Mr Shuichi Inada M. Sunta	Mr Joe Barrett
Signature M.Sawita	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 Gray Come
Signature	Signature
GCF	CTIA
Mr Lars S Nielsen	Mr Thomas Sawanobori
Signature	Signature
WBA	PSCE
Mr Shrikant Shenwai	Mrs Marie-Christine Bonnamour
Signature 5G-IA	Signature
Mr Jean-Pierre Bienaimé	5G-AA Mr Dino Flore
Signature	Signature
Signature Signature	olynature

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

## **EMEA Satellite Operators Association (ESOA)**

Name:

Aarti Holla-Maini

Title:

Secretary General

Address:

Avenue Marnix 17, 1000 Brussels,

Belgium

Signature Macri

Date 19 October 2018

Calle	
Authorised by the existing Partners	
ARIB	ATIS
Mr Seiji Nishioka	Ms Susan Miller
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CCSA DAY	ETSI
Mr Yang Zemin	Mr Luis Jorge Romero Saro
Signature	Signature
TSDSI	TTA
Ms Pamela Kumar	Mr. Koo Kyoung Cheol
Signature Pamela Lum	Signature
TTC	GSA
Mr Shuichi Inada 托田 依 —	Mr Joe Barrett
Signature ALL Try	Signature
MRDNO 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
<b>Mobility Development Group</b>	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 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	

Executed in 26 originals

Mr TV Ramachandran

Signature

## 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 **ATIS** Ms Susan Miller Mr Seiji Nishioka 11 Signature Signature CCSA **ETSI** Mr Yang Zemin Mr Luis Jorge Romero Saro Signature Signature TSDSt TTA Ms Pamela Kumar Mr. Koo Kyoung Cheol Signature Signature Mr Shuichi Inada Mr Joe Barrett Signature Signature MR DAVE HUTON 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 Mr. Tony Gray Dr. Peter Meissner 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 **EMEA Satellite Operators Association** Mr TV Ramachandran Mrs Aarti Holla-Maini Signature Signature

Executed in 27 originals