

GSM/3G MARKET/TECHNOLOGY UPDATE

Introduction

In the 50+ page “Evolution to LTE” report, GSA presents the current situation based on GSA’s current research, to provide the industry with facts and analysis about the global status and growth of mobile broadband enabled by LTE. The “Evolution to LTE” report is regularly updated and may be downloaded by any registered user of the GSA website. Information is provided about the LTE system – both for FDD and TDD modes, technical standards, operator investments and commitments including listings of all network deployments, studies and trials, commercial service launches (see GSA’s definition of commercial launch – below), and regulatory developments including spectrum supporting LTE-enabled mobile broadband service network deployments.

Details are also provided about LTE user devices that have been announced by manufacturers.

Information for the production of this report is obtained in several ways, including from regular information exchanges and direct contacts by GSA with senior management in network operator organizations, regulatory authorities, suppliers and other stakeholders. This is in addition to consideration and analysis of public statements where appropriate e.g. company press releases and briefings, in order to establish the facts as accurately as possible and ensure that this report reflects the true LTE mobile broadband market situation.

Comments about the report including news/updates should be sent to email info@gsacom.com

GSA provides additional LTE-related resources to complement this report, including various maps and charts, which can be downloaded by registered site users at www.gsacom.com/news/statistics.php4

Selected charts and maps are also available as PDF files – see the relevant links on our home page www.gsacom.com

Readers may also download these related reports:

- Status of the LTE Ecosystem report
- Status of the Global LTE TDD Market report
- Status of the Global LTE1800 Market report

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In view of the rapid pace of market developments, GSA presents this brief Interim Report. The next issue of the full Evolution to LTE report will be published later this month.

LTE Market Summary – August 25, 2013

202 commercial networks in 77 countries

GSA forecasts 260 commercial LTE networks in 93 countries by end 2013

MVNOs are excluded

**1,064 LTE user devices announced
(111 manufacturers)**

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GSA re-affirms LTE as the fastest developing mobile system technology ever

LTE is a mainstream technology and rapid expansion globally is continuing in 2013

GSA’s definition of commercial launch:

The phase in which a public telecommunications operator is carrying commercial traffic on its LTE network, or offers to provide public service. Only licensed operators with spectrum assigned for use in public LTE communications networks are considered. MVNOs are not included. The LTE operator’s business model may be retail or wholesale. Devices compatible for use on the LTE network may be sold direct by the operator to the customer, or via distributors, resellers or other third parties, or already be owned by persons wishing to use the service.

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202 commercial LTE networks in 77 countries

Country	Operator	Launch
Norway	TeliaSonera (NetCom)	14.12.09
Sweden	TeliaSonera	14.12.09
Uzbekistan	UCell	09.08.10
Poland	Aero2 (LTE FDD and TDD)	07.09.10
USA	MetroPCS	21.09.10
Austria	A1 Telekom	05.11.10
Sweden	Telenor Sweden	15.11.10
Sweden	Tele2 Sweden	15.11.10
Hong Kong	CSL Limited	25.11.10
Finland	TeliaSonera	30.11.10
Germany	Vodafone	01.12.10
USA	Verizon Wireless	05.12.10
Finland	Elisa	08.12.10
Denmark	TeliaSonera	09.12.10
Estonia	EMT	17.12.10
Japan	NTT DoCoMo	24.12.10
Germany	Deutsche Telekom	05.04.11
Philippines	Smart Communications	16.04.11
Lithuania	Omnitel	28.04.11
Latvia	LMT	31.05.11
Singapore	M1	21.06.11
South Korea	SK Telecom	01.07.11
South Korea	LG U+	01.07.11
Germany	O2	01.07.11
Canada	Rogers Wireless	07.07.11
Austria	T-Mobile	28.07.11
USA	Mosaic Telecom	07. 2011
Canada	Bell Mobility	14.09.11
Saudi Arabia	Mobily (LTE TDD)	14.09.11
Saudi Arabia	STC (LTE TDD) later FDD	14.09.11
Saudi Arabia	Zain	14.09.11
USA	AT&T Mobility	18.09.11
UAE	Etisalat	25.09.11
Australia	Telstra	27.09.11
Denmark	TDC	10.10.11
Austria	3	18.11.11
Puerto Rico	AT&T Mobility	20.11.11
Puerto Rico	Claro	24.11.11
Kyrgyzstan	Saima Telecom	09.12.11
Brazil	Sky Brazil (LTE TDD)	13.12.11
Finland	DNA	13.12.11
Uruguay	Antel	13.12.11
USA	Cricket	21.12.11
Singapore	SingTel	22.12.11
Kuwait	Viva	27.12.11
Armenia	Vivacell-MTS	28.12.11
Bahrain	Viva	01.01.12
Hungary	T-Mobile (MT)	01.01.12
South Korea	KT	03.01.12
Russia	Yota	15.01.12
Canada	TELUS	10.02.12

USA	Peoples Telephone Co-op	14.02.12
Japan	Softbank Mobile XGP/LTE TDD	24.02.12
Portugal	TMN (Portugal Telecom)	12.03.12
Portugal	Vodafone Portugal	12.03.12
Portugal	Optimus	15.03.12
Japan	eAccess	15.03.12
USA	US Cellular	22.03.12
Croatia	T Mobile/T-Hrvatski Telekom	23.03.12
Croatia	VIPNet	23.03.12
USA	Panhandle (PTCI)	03. 2012
Australia	NBN Co (LTE TDD)	02.04.12
India	Bharti Airtel (LTE TDD)	10.04.12
Angola	Movicel	14.04.12
Puerto Rico	Open Mobile	19.04.12
Moldova	IDC	21.04.12
Sweden	3 (LTE FDD and TDD)	23.04.12
Hong Kong	CM HK (LTE FDD later TDD)	25.04.12
Hong Kong	PCCW	25.04.12
USA	Cellcom	30.04.12
USA	Pioneer Cellular	30.04.12
Netherlands	Vodafone	01.05.12
Hong Kong	3 HK	02.05.12
Netherlands	Ziggo	03.05.12
Netherlands	Tele2	08.05.12
Netherlands	KPN	11.05.12
Netherlands	T-Mobile	11.05.12
Namibia	MTC	16.05.12
USA	BendBroadband	17.05.12
Tanzania	Smile	30.05.12
UAE	Du	12.06.12
Colombia	Une-UPM	14.06.12
Azerbaijan	Azercell	19.06.12
Czech Rep	Telefonica O2	19.06.12
Mauritius	Orange	21.06.12
UK	UK Broadband (LTE TDD)	28.06.12
Guam	IT&E	28.06.12
Hungary	Telenor Hungary	05.07.12
Dominican R.	Orange Dominicana	09.07.12
Slovenia	Si.mobil	12.07.12
USA	Sprint LTE FDD later TDD	15.07.12
Oman	Omantel LTE TDD later FDD	16.07.12
Australia	Optus FDD – later TDD	31.07.12
Mauritius	Emtel	July 2012
Slovak Rep	Telefonica O2	02.08.12
Hong Kong	Smartone	28.08.12
Poland	Polkomtel Plus	Sept 2012
USA	Chariton Valley	Sept 2012
Russia	MegaFon LTE TDD later FDD	01.09.12
Russia	MTS LTE TDD later FDD	01.09.12
USA	C Spire Wireless	10.09.12
Singapore	StarHub	19.09.12
Japan	KDDI	21.09.12
Japan	Softbank Mobile	21.09.12
Canada	MTS	25.09.12

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Denmark	3 Denmark	28.09.12
Philippines	Globe	28.09.12
Luxembourg	Tango	01.10.12
Guam	DoCoMo Pacific	04.10.12
Tajikistan	Babilon-Mobile	06.10.12
Norway	Telenor	10.10.12
South Africa	Vodacom	10.10.12
USA	Alaska Communications	12.10.12
Mexico	Telefonica Movistar	15.10.12
Luxembourg	Orange	29.10.12
UK	EE	30.10.12
Uganda	Smile	Oct 2012
Belgium	Belgacom / Proximus	05.11.12
USA	Bluegrass Cellular	05.11.12
Antigua-Barb	Digicel	06.11.12
Mexico	Telcel	06.11.12
Italy	Vodafone	06.11.12
Italy	TIM	07.11.12
Montenegro	Telenor	08.11.12
USA	Sprocket Wireless	09.11.12
Greece	Cosmote	16.11.12
Moldova	Moldcell	16.11.12
USA	Strata Networks	19.11.12
Moldova	Orange Moldova	20.11.12
Romania	Vodafone	20.11.12
Kuwait	Zain	21.11.12
France	Orange	22.11.12
USA	Shentel	23.11.12
Estonia	Tele2	27.11.12
France	SFR	28.11.12
Switzerland	Swisscom	29.11.12
South Africa	MTN	01.12.12
Romania	Orange	12.12.12
Brazil	Claro	13.12.12
Angola	Unitel	16.12.12
Bolivia	Entel Movil	16.12.12
Greece	Vodafone	17.12.12
Puerto Rico	Sprint Nextel	18.12.12
Kazakhstan	Altel	25.12.12
Sri Lanka	Dialog LTE TDD later FDD	30.12.12
Sri Lanka	Mobitel	31.12.12
USA	Thumb Cellular	Jan 2013
Malaysia	Maxis	01.01.13
Canada	Sasktel	31.01.13
Italy	3 Italia	01.02.13
Paraguay	Personal	08.02.13
Estonia	Elisa	14.02.13
Canada	Eastlink	15.02.13
Oman	Nawras	17.02.13
Paraguay	Vox	18.02.13
Bahrain	Batelco	27.02.13
New Zealand	Vodafone	28.02.13
Brazil	On (LTE TDD)	Mar 2013
Lithuania	Tele2	Mar 2013

Spain	COTA (Murcia4G) (LTE TDD)	01.03.13
USA	MiSpot	14.03.13
Dominican R.	Tricom	18.03.13
Denmark	Telenor	20.03.13
Guam	iConnect	20.03.13
Slovenia	Mobitel	20.03.13
USA	T Mobile USA	26.03.13
Iceland	Nova	04.04.13
US Virgin Isl	Sprint	17.04.13
Qatar	Ooredoo	16.04.13
Bahrain	Zain	18.04.13
South Africa	Telkom Mobile / 8ta LTE TDD	21.04.13
Malaysia	Celcom Axiata	22.04.13
Uganda	MTN Uganda	25.04.13
Brazil	Oi	25.04.13
Romania	Cosmote	29.04.13
Brazil	TIM Brasil	30.04.13
Brazil	Vivo	30.04.13
France	Bouygues Telecom	06.05.13
Thailand	True Move	08.05.13
USA	NorthwestCell	13.05.13
Lebanon	Alfa	20.05.13
Lebanon	MTC Touch	22.05.13
USA	Chat Mobility	23.05.13
Switzerland	Orange	26.05.13
Russia	Vimpelcom	27.05.13
Spain	Vodafone	29.05.13
Russia	Rostelecom	03.06.13
Iraq	Fastlink (Regional Telecom)	10.06.13
USA	Appalachian Wireless	10.06.13
Australia	Vodafone	12.06.13
Switzerland	Sunrise Communications	19.06.13
Chile	Claro	27.06.13
US Virgin Isl	AT&T Mobility	02.07.13
Malaysia	DiGi	05.07.13
Spain	Orange	08.07.13
Kuwait	Wataniya	09.07.13
Puerto Rico	T Mobile	11.07.13
Spain	Yoigo	18.07.13
Venezuela	Digitel	31.07.13
Uganda	Orange	31.07.13
Zimbabwe	Econet Wireless	21.08.13
South Africa	Neotel	22.08.13

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Look for the next full Evolution to LTE report to be published later THIS MONTH. Check www.gsacom.com regularly for latest news and statistics from GSA.

August 25, 2013

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1,064 LTE User Devices – August 25, 2013 (GSA report)

GSA regularly updates the contents of its GAMBoD database of LTE FDD and TDD user devices announced by manufacturers. Our key findings are published in the Status of the LTE Ecosystem report. The latest report (August 25, 2013) identified 1,064 announced products (including operator and frequency variants) by 111 manufacturers. The 'Status of the LTE Ecosystem' report is free for registered site users via the link at www.gsacom.com. Join the **LTE User Devices** LinkedIn Group <http://www.linkedin.com/groups?gid=4146472>

Worldwide LTE subscriptions: 90.5 million Q1 2013

(subscriptions data source: Informa WCIS)

100 million LTE subscriptions milestone passed in May 2013. Download LTE subscriptions growth charts from the GSA website as JPEG files at www.gsacom.com/news/statistics.php4

OR as a PDF file on www.gsacom.com via the link to "Global LTE subscriptions growth to Q1 2013"

Final ratified subscriptions data for Q2 2013 will be available in early September.

Upcoming leading conferences where LTE will be discussed with GSA engagement

Middle East Com	23-24 September	Dubai	http://me.comworldseries.com/?utm_source=GSA
Spectrum Management Forum	8-11 October	London	http://spectrumevent.com/
ITU Telecom World	19-22 November	Bangkok	http://world2013.itu.int/

GSA supported events here: www.gsacom.com/events/index.php4 Member discounts apply for most events

MORE RESOURCES from WWW.GSACOM.COM

- *Map: Worldwide LTE network commitments, launches and trials (GSA)*
- *CHART: Spectrum used in commercially launched LTE FDD networks (GSA)*
- *Status of the Global LTE TDD Market and Status of the Global LTE1800 Market reports (GSA)*
- *5G: papers/presentations from Orange, NTT DoCoMo, Ericsson, University of Surrey*
- *Papers from GSA members including, Ericsson, Hauwei, Qualcomm and Renesas Mobile*

GSA (Global mobile Suppliers Association) represents GSM/EDGE/WCDMA-HSPA/LTE suppliers, providing reports, facts, analysis and information explaining market developments and trends. GSA brings together a global industry community of stakeholders including over 58,500 registered website users for dialog, knowledge gathering, sharing of key facts, trends, and analysis. Over 15,000 people use GSA's social network platforms. Register for updates, reports, information papers, maps, charts, etc. at www.gsacom.com/php/register_form.php4

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