

GSM/3G MARKET/TECHNOLOGY UPDATE

The path to mobile broadband began with WCDMA, a 3GPP global standard. Its first evolution - High Speed Packet Access (HSPA), reduces latency, boosts capacity and user data speeds. HSPA is the leading mobile broadband technology globally with 451 networks commercially launched. **All WCDMA operators have launched HSPA.**

339 HSPA networks support a peak downlink data speed of 7.2 Mbps or more. User download data speeds typically approach or may exceed 5.0 Mbps, subject to network and user device capabilities, and in some cases user data speeds are much higher. Capacity and performance improve with HSPA Evolution (HSPA+). 241 operators have committed to HSPA+ deployments in 106 countries, including 187 HSPA+ networks in commercial service in 96 countries. Over 41% of HSPA operators have launched HSPA+. Many operators successfully position HSPA or HSPA+ as an alternative to fixed broadband, with the added value of mobility, reporting strong traffic and revenue growth for mobile broadband services. 196 operators (over 43%) have launched HSUPA in 93 countries, including 129 networks (66%) supporting 5.8 Mbps peak uplink data speed, of which 12 networks extend to 11.5 Mbps peak.

117 HSPA+ commercial networks use 64QAM for delivering 21 Mbps peak on the downlink, 8 networks support 28 Mbps (16 QAM with MIMO) and 62 networks support 42 Mbps (64QAM and 2 x 5 MHz carriers). This capability was enabled in 3GPP Release 8, which also allows 42 Mbps to be achieved by combining 2 x 2 MHz MIMO and 64QAM in a single 5 MHz carrier. Using 16QAM instead of QPSK on the uplink doubles the peak rate to 11.5 Mbps.

HSPA+ has a strong evolution path. Release 9 combines multicarrier and MIMO technologies in 10 MHz bandwidth to reach 84 Mbps peak downlink. Using multicarrier on the uplink doubles the peak rate to 23 Mbps. Standardization beyond Release 9 leads to the realization of downlink data speeds exceeding well over 100 Mbps.

Related resources for GSA registered site users to download from www.gsacom.com include:

- For the global market status of HSPA+ see report "Global HSPA+ Network Commitments and deployments"
- For UMTS900 (HSPA) network deployments, launches, developments – see "UMTS900 Global Status"
- GSA's own-researched database of 3,362 launched HSPA devices includes 245 HSPA+ products (compared to 92 a year ago).
- 93 devices support 42 Mbps DC-HSPA+, and 160 HSPA/HSPA+ products support LTE. See "HSPA Devices survey - Key Findings"

483 HSPA network commitments in 181 countries/territories

Americas: 115 networks

APAC: 92 networks

Europe: 178 networks

Middle East/Africa: 98 networks

451 commercial HSPA operators in 174 countries/territories

Americas: Argentina, Aruba, Bahamas, Barbados, Bermuda, Bolivia, Bonaire, Brazil, Canada, Cayman Islands, Chile, Colombia, Costa Rica, Curaçao, Dominican Republic, Ecuador, El Salvador, Fr. Guiana, Guadeloupe, Guatemala, Guyana, Honduras, Jamaica, Martinique, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saba, St-Barthelemy, St-Eustatius, St-Martin, Turks and Caicos Islands, Uruguay, USA, Venezuela

APAC: Australia, Bhutan, Brunei, Cambodia, China, East Timor, Fiji, French Polynesia, Guam, Hong Kong SAR, India, Indonesia, Japan, Laos, Macau SAR, Malaysia, Maldives, Mongolia, Nepal, New Zealand, N. Korea, Philippines, Singapore, Solomon Islands, S. Korea, Sri Lanka, Taiwan, Thailand, Vanuatu, Vietnam

Europe: Abkhaz, Aland, Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia - Herzegovina, Bulgaria, Croatia, Cyprus, Cyprus (N), Czech Rep., Denmark, Estonia, Faroes, Finland, France, Georgia, Germany, Gibraltar, Greece, Greenland, Guernsey, Hungary, Iceland, Ireland, I of Man, Italy, Jersey, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Madeira, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovak Rep, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, UK, Ukraine, Uzbekistan

MEA: Angola, Bahrain, Botswana, Cape Verde, Congo Rep., Djibouti, Egypt, Ethiopia, Ghana, Iran, Israel, Jordan, Kenya, Kuwait, Lebanon, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Nigeria, Oman, Qatar, Reunion, Rwanda, Saudi Arabia, Senegal, Seychelles, Somalia, South Africa, Sudan, Swaziland, Syria, Tanzania, Tunisia, UAE, Uganda, Zambia, Zimbabwe

- Several MVNOs use these HSPA networks for commercial services, and are excluded from this survey
 - Multi-band networks e.g. 900/2100 MHz, 850/2100 MHz etc. are counted as single networks

- **339 commercial HSPA networks (75%) support 7.2 Mbps or higher peak downlink speed**
 - **Sixty-two commercial 42 Mbps DC-HSPA+ networks launched**
- **241 HSPA+ network commitments in 106 countries; 187 HSPA+ networks launched in 96 countries**
 - **205 operators have committed to HSUPA; 196 HSUPA systems launched in 93 countries**
 - **Over 43% of commercial HSPA networks have launched HSUPA**
- **40 commercial UMTS900 networks (HSPA or HSPA+ commercial services launched in 900 MHz spectrum)**

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HSPA commercial networks: peak downlink performance

1.8 - 3.6 Mbps peak = 112 networks

7.2 Mbps peak = 112 networks

10.2 Mbps peak = 1 network

14.4 Mbps = 39 networks

HSPA Evolution (HSPA+) = 187 networks

TOTAL = 451 commercial networks

#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
1	Abkhaz	Aquaфон	Launched November 20, 2008	7.2 Mbps			Launched
2	Aland	AMT	Launched HSPA July 1, 2010	14.4 Mbps			Launched
3	Albania	AMC	Launched January 13, 2012 42 Mbps DC-HSPA+	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 13.01.12	Launched
4	Albania	Vodafone	Launched January 10, 2011	14.4 Mbps	Launched 2 Mbps		Launched
5	Andorra	Andorra Telecom	Launched December 20, 2007	1.8 Mbps			
6	Angola	Unitel	Launched July 2007	1.8 Mbps			Launched
7	Argentina	Telecom Personal	Launched May 2007	1.8 Mbps			Launched
8	Argentina	Movistar	Launched July 17, 2007	1.8 Mbps			Launched
9	Argentina	Claro	Launched November 13, 2007 21 Mbps HSPA+ launched Nov 2011	21 Mbps		21 Mbps launched Nov 2011	Launched
10	Armenia	ArmenTel	Launched September 26, 2008 later 7.2 Mbps, upgrading to 14.4 Mbps. 5.8 Mbps HSUPA in deployment	7.2 Mbps	In deployment		Launched
11	Armenia	Orange Armenia 900/2100	Launched November 5, 2009 900/2100 MHz bands. 14.4 Mbps from Aug 2010. Commercial launch 42 Mbps DC-HSPA+ on 24.01.12 in Yervan, Gyumri, Vanadzor	42 Mbps	Launched 2 Mbps	42 Mbps launched 24.01.12	Launched
12	Armenia	Vivacell-MTS	Launched April 17, 2009 Initially 3.6 Mbps; upgraded to 7.2 Mbps. 21 Mbps HSPA+ launched 02.11.10 in Yerevan	21 Mbps		21 Mbps launched 02.11.10	Launched
13	Aruba	Setar	Launched December 10, 2007 since May 2009, 7.2 Mbps available on whole network	7.2 Mbps			Launched
14	Aruba	Digicel	Launched 2011E	7.2 Mbps	Launched 3.4 Mbps		Launched
15	Australia	3 Australia	Launched November 20, 2006; 3.6 Mbps peak over all 3G net; 7.2 Mbps later	7.2 Mbps	Launched 2 Mbps		
16	Australia	Telstra 850/2100	Launched October 10, 2006; 7.2 Mbps Oct. 2007; 21 Mbps HSPA+ launched 23.03.09. 42 Mbps DC-HSPA+ launched June 2010. Evolution to 84 Mbps planned	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched June 2010	Launched
17	Australia	Vodafone	Launched October 20, 2006 3.6 Mbps; 7.2/14.4 in 2008. UMTS900 launched 31.08.09. UMTS850 launched 2011	14.4 Mbps	Launched 2 Mbps		Launched
18	Australia	Optus 900/2100	2100 Launched May 2007 1.8Mbps, then 3.6 Mbps and 7.2 Mbps. 21 Mbps HSPA+ in deployment. UMTS900 launch May 2008	7.2 Mbps	Launched 2 Mbps	In deployment	Launched
19	Austria	T-Mobile	Launched March 2006 21 Mbps HSPA+ from January 19, 2011 42 Mbps DC-HSPA+ planned	21 Mbps	Launched	21 Mbps launched 19.01.11	Launched
20	Austria	A1	Launched January 06 HSUPA now on all 3G net. 21 Mbps HSPA+ launched March 23, 2009 5.8 Mbps HSUPA in some areas 42 Mbps DC-HSPA+ launched Dec 15, 2010	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 15.12.10	Launched
21	Austria	3 Austria	Launched July 24, 2006 42 Mbps DC-HSPA+ launched March 2010	42 Mbps	Launched	42 Mbps launched March 2010	

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
22	Austria	Orange	Launched June 2006. 1.8 Mbps, 3.6 then 7.2 Mbps. 42 Mbps HSPA+ launched in Wiener Neustadt	42 Mbps	Launched	42 Mbps launched March 2010	Launched
23	Azerbaijan	Azerfon-Vodafone	Launched December 2009, later 7.2 Mbps, HSUPA introduced	7.2 Mbps	Launched 2 Mbps		Launched
24	Azerbaijan	Azercell	Launched November 18, 2011 21 Mbps HSPA+ in Baku. 7.2 Mbps elsewhere	21 Mbps		21 Mbps launched 18.11.11	Launched
25	Azerbaijan	BakCell	Launched November 23, 2011 28 Mbps HSPA+ in Baku. 14.4 Mbps elsewhere Planning to introduce 42 Mbps DC-HSPA+	28 Mbps		28 Mbps launched 23.11.11	
26	Bahamas	BTC	Launched December 5, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps launched 05.12.11	
27	Bahrain	Zain	Launched May 21, 2006	7.2 Mbps		In deployment	Launched
28	Bahrain	Viva	Launched March 3, 2010 42 Mbps DC-HSPA+ launched May 22, 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 22.05.11	
29	Bahrain	Batelco	Launched December 16, 2007 14.4 Mbps from May 2009. 21 Mbps HSPA+ launched April 2010	21 Mbps		21 Mbps launched April 2010	Launched
30	Bangladesh	Teletalk	HSPA in deployment for 2012 service launch				Launched
31	Barbados	Lime	Launched November 16, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps Launched 16.11.11	Launched
32	Barbados	Digicel	Launched December 7, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps Launched 07.12.11	
33	Belarus	Life (BeST)	Launched November 2, 2009 21 Mbps HSPA+ launched February 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps Launched Feb 2010	Launched
34	Belarus	MTS	Launched May 26, 2010 21 Mbps HSPA+	21 Mbps	Launched 11.5 Mbps	21 Mbps Launched 26.05.10	Launched
35	Belarus	Velcom	Launched March 18, 2010 21 Mbps HSPA+ 42 Mbps DC-HSPA+ launched 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 2011	Launched
36	Belgium	Proximus 900/2100	Launched June 15, 2006 since upgraded to 7.2 Mbps and HSUPA UMTS900 launched July 2008 HSPA+ in deployment	7.2 Mbps	Launched 2 Mbps	In deployment	Launched
37	Belgium	Mobistar 900/2100	Launched August 06 7.2 Mbps and HSUPA April 2008. Evolving to 14.4 Mbps by summer 2010 then 28 Mbps HSPA+ Dec 2010 UMTS900 launched in May 2008	28 Mbps	Launched 5.8 Mbps	28 Mbps launched Dec 2010	Launched
38	Belgium	KPN Base	Launched January 14, 2010 21 Mbps HSPA+ in deployment	1.8 Mbps		In deployment	Launched
39	Bermuda	Digicel	Launched July 22, 2010 21 Mbps HSPA+	21 Mbps		21 Mbps launched 22.07.10	Launched
40	Bermuda	M3 Wireless	Launched March 2009	3.6 Mbps			Launched
41	Bermuda	Cellular One	Launched October 2009 21 Mbps HSPA+ launched January 25, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 25.01.11	
42	Bhutan	Bhutan Telecom	Launched May 5, 2008	1.8 Mbps			Launched
43	Bolivia	Entel	Launched 2010E 21 Mbps HSPA+ launched April 2011	21 Mbps		21 Mbps launched Apr 2011	Launched
44	Bolivia	Tigo	Launched August 2008	3.6 Mbps			Launched
45	Bolivia	Viva	Launched 2010 * speed subject to confirmation with operator	3.6 Mbps			Launched
46	Bonaire	UTS	Launched 2010E	7.2 Mbps			
47	Bonaire	Digicel	Launched 2011E	7.2 Mbps	Launched 3.4 Mbps		
48	Bosnia and Herzegovina	BH Telecom	Launched July 15, 2009	14.4 Mbps	Launched 1.5 Mbps		Launched

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49	Bosnia and Herzegovina	Telekom Srpske m:tel	Launched 2009E	7.2 Mbps	Launched 2 Mbps		Launched
50	Botswana	Mascom	Launched August 2008 later 7.2 Mbps	7.2 Mbps			Launched
51	Botswana	Orange	Launched 2009E	3.6 Mbps			Launched
52	Botswana	BTC Mobile	In deployment				Launched
53	Brazil	Claro	Launched November 2007 21 Mbps HSPA+ launched December 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched Dec 2011	Launched
54	Brazil	TIM	Launched April 16, 2008 21 Mbps HSPA+ in deployment	7.2 Mbps		In deployment	Launched
55	Brazil	Brasil Telecom BrT	Launched April 30, 2008	3.6 Mbps			Launched
56	Brazil	Algar Telecom	Launched April 2008 21 Mbps HSPA+ launched 28.11.11 Minas Gerais State	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 28.11.11	Launched
57	Brazil	Nextel	In deployment for mid-2012 launch				
58	Brazil	Oi	Launched May 2008	1.8 Mbps			Launched
59	Brazil	Vivo	Launched September 2008 21 Mbps HSPA+ launched 22.11.11 Sao Paulo	21 Mbps	Launched	21 Mbps launched 22.11.11	Launched
60	Brazil	Sercomtel	Launched December 14, 2008	14.4 Mbps	Launched 5.8 Mbps		
61	Brunei	DST com Gol/broadband	Launched May 2008: 7.2 Mbps	7.2 Mbps			Launched
62	Brunei	B-mobile	Launched March 2008 3.6 Mbps later 7.2	7.2 Mbps			Launched
63	Br. Virgin Islands	Lime	21 Mbps HSPA+ in deployment target launch date end March 2012			In deployment	Launched
64	Bulgaria	Mobilitel (M-TEL)	Launched March 6, 2006 3.6 Mbps evolving to 7.2 Mbps & HSUPA. 21 Mbps HSPA+ launched 17.09.09. 42 Mbps DC-HSPA+ launched 22.03.11	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 22.03.11	Launched
65	Bulgaria	GloBul	Launched WCDMA-HSDPA September 25, 2006 14.4 Mbps introduced on 15.07.09	14.4 Mbps	Launched 5.8 Mbps	In deployment	Launched
66	Bulgaria	Vivacom 2100/900	Launched April 17, 2007. Initially 3.6 Mbps; 7.2 Mbps and HSUPA from June 2010, then 14.4 Mbps. Trialling 21 and 28 Mbps. UMTS900 launched June 2010. Trialling 42 Mbps HSPA+ in 900 MHz band	14.4 Mbps	Launched 2 Mbps	Trialling	Launched
67	Cambodia	CamGSM/Mobitel/Cellcard	Launched October 3, 2006 later upgraded to 3.6 Mbps peak	3.6 Mbps			Launched
68	Cambodia	QB (Cadcomm)	Launched March 15, 2008 14.4 Mbps from January 2011	14.4 Mbps			
69	Cambodia	Mfone 3G	Launched August 2007	1.8 Mbps			
70	Cambodia	Hello Axiata	Launched May 2009 1.8 Mbps later 3.6 Mbps	3.6 Mbps			Launched
71	Cambodia	Smart Mobile	Launched August 1, 2011 21 Mbps HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 01.08.11	
72	Cambodia	Viettel Metfone	Launched September 2010E * speed subject to confirmation with operator	7.2 Mbps			
73	Canada	Rogers Wireless	Launched November 2, 2006 later 7.2 Mbps nationwide 21 Mbps HSPA+ launched 14.09.09	21 Mbps		21 Mbps launched 14.09.09	Launched
74	Canada	Bell Canada	Launched November 5, 2009 21 Mbps HSPA+ joint network with Telus. 42 Mbps DC-HSPA+ service launched 23.11.10	42 Mbps	Launched 11.5 Mbps	42 Mbps upgrade launched 23.11.10	
75	Canada	Telus	Launched November 5, 2009 HSPA+ 21 Mbps Joint network with Bell Canada 42 Mbps DC-HSPA+ from March 2011	42 Mbps	Launched 11.5 Mbps	42 Mbps upgrade launched March 2011	
76	Canada	Eastlink	HSPA+ in deployment			In deployment	
77	Canada	Mobilicity	Launched May 15, 2010 AWS band, initially in Toronto	3.6 Mbps	Launched 1.4 Mbps	In deployment	
78	Canada	Wind (Globalive)	Launched December 16, 2009	7.2 Mbps			
79	Canada	MTS Allstream	Launched March 31, 2011 21 Mbps HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 31.03.11	

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
80	Canada	Sasktel	Launched August 16, 2010 21 Mbps HSPA+ Upgrading to 42 Mbps DC-HSPA+	21 Mbps		21 Mbps launched 16.08.10	
81	Canada	Shaw Comms	HSPA in deployment, target launch early 2012				
82	Canada	Videotron	Launched September 9, 2010 21 Mbps HSPA+ in AWS spectrum 42 Mbps DC-HSPA+ launched 25.08.11	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 25.08.11	Launched
83	Canada	TBayTel	Launched November 17, 2010 21 Mbps HSPA+ Upgrading to 42 Mbps DC-HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 17.11.10	
84	Cape Verde	CVMóvel	Launched December 2011	14.4 Mbps	Launched 5.8 Mbps		Launched
85	Cape Verde	T+	Launched December 2011	14.4 Mbps	Launched 5.8 Mbps		
86	Cayman Islands	LIME	Launched August 17, 2011 21 Mbps DL and 11.5 Mbps UL	21 Mbps	Launched 11.5 Mbps	21 Mbps launched 17.08.11	Launched
87	Chile	Entel PCS	Launched December 13, 2006 21 Mbps HSPA+ launched December 4, 2009 42 Mbps HSPA+ launched April 18, 2011	42 Mbps		42 Mbps upgrade launched 18.04.11	Launched
88	Chile	Claro	Launched November 30, 2007	1.8 Mbps			Launched
89	Chile	Movistar	Launched December 2007 14.4 Mbps later. 21 Mbps HSPA+ launched 2010 42 Mbps DC-HSPA+ launched Q4 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched Q4 2011	Launched
90	Chile	Nextel	In deployment				
91	China	China Unicom	Launched September 2009 21 Mbps HSPA+ launched May 17, 2011	21 Mbps		21 Mbps launched 17.05.11	Launched
92	Colombia	Comcel	Launched January 2008 21 Mbps HSPA+ launched 23.11.11	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 23.11.11	Launched
93	Colombia	Movistar	Launched December 1 2008	1.8 Mbps			Launched
94	Colombia	Tigo	Launched October 28, 2008 7.2 Mbps 21 Mbps HSPA+ launched 13.10.11	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 13.10.11	Launched
95	Congo (Republic of)	Bharti Airtel	Launched October 27, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps launched 27.10.11	Launched
96	Costa Rica	ICE	Launched 2009 * speed subject to confirmation with operator Planning 21 Mbps+ deployment	3.6 Mbps		In deployment	Launched
97	Costa Rica	Telefonica	Launched November 8, 2011 * speed subject to confirmation with operator	7.2 Mbps			
98	Costa Rica	Claro	Launched November 5, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps launched 05.11.11	
99	Croatia	VIPNet	Launched April 26, 2006: 3.6 Mbps evolved to 7.2 Mbps. Deploying 5.8 Mbps HSUPA 17 cities covered by 21 Mbps HSPA+ (end Nov 2010). 42 Mbps DC-HSPA+ launched in Osijek December 2010; further deployments planned	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched Dec 2010	Launched
100	Croatia	T-Mobile	Launched November 2006	1.8 Mbps			Launched
101	Croatia	Tele2	Launched 2008 UMTS900 launched 2009 21 Mbps HSPA+ launched December 4, 2010	21 Mbps	Launched 2 Mbps	21 Mbps launched 04.12.10	Launched
102	Curaçao	UTS	Launched June 2008 7.2 Mbps from Aug 08	7.2 Mbps			
103	Curaçao	Digicel	Launched 2011E	7.2 Mbps	Launched 3.4 Mbps		
104	Cyprus	MTN	Launched March 12, 2008	1.8 Mbps			Launched
105	Cyprus	CYTA	Launched July 11, 2008	1.8 Mbps			
106	Cyprus (Northern)	KKTCCell	Launched July 14, 2008	7.2 Mbps			Launched
107	Cyprus (Northern)	North Cyprus Telsim	Launched October 2008	7.2 Mbps			Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
108	Czech Rep	Telefonica O2	Launched April 10, 2006; 3.6 Mbps rollout from early 2009, then 7.2 Mbps	7.2 Mbps			Launched
109	Czech Rep	Vodafone	Launched March 2009 3.6 Mbps then 7.2 Mbps. 21 Mbps HSPA+ launched 05.10.11. 42 Mbps DC-HSPA+ friendly testing from Dec 2011	21 Mbps	Launched 2 Mbps	21 Mbps launched 05.10.11	Launched
110	Czech Rep	T Mobile	Launched January 28, 2010 21 Mbps HSPA+ launched 09.11.10. 42 Mbps DC-HSPA+ tested in Prague, target launch Q2 2012	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 09.11.10	Launched
111	Denmark	3 Denmark	Launched November 21, 2006 later upgraded to 7.2 Mbps then 21 Mbps HSPA+ and now evolving to 42 Mbps; later 84 Mbps	21 Mbps		21 Mbps launched June 2009	
112	Denmark	Telenor	Launched September 27, 2006 Upgraded to 7.2 Mbps in 2008. 21 Mbps HSPA+ launched October 11, 2010	21 Mbps	Launched 2 Mbps	21 Mbps launched 11.10.10	Launched
113	Denmark	TDC Mobil	Launched May 7, 2007 1.8 Mbps; 7.2 Mbps from 1.12.08. 21 Mbps HSPA+ launched 25.05.10. 42 Mbps DC-HSPA+ launched 23.03.11	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 23.03.11	Launched
114	Denmark	Telia	Launched December 1, 2007	7.2 Mbps			Launched
115	Djibouti	Djibouti Telecom	Launched Q4 2011 E * speed subject to confirmation with operator	1.8 Mbps			Launched
116	Dominica	Lime	21 Mbps HSPA+ including 11 Mbps HSUPA in deployment		Deploying	In deployment	
117	Dominican Republic	Claro	Launched September 2008	3.6 Mbps			Launched
118	Dominican Republic	Orange Dominicana	Launched Feb 2010	7.2 Mbps			Launched
119	East Timor	Timor Telecom	Launched 2009	1.8 Mbps			
120	Ecuador	Claro (ex-Porta)	Launched August 2008 21 Mbps HSPA+ launched April 2011, covering Guayaquil, Quito, Sangolquí, Duran, Santo Domingo, Portmore, Cuenca, Coca (by Sep 11)	21 Mbps	Launched 2 Mbps	21 Mbps launched Apr 2011	Launched
121	Ecuador	Movistar	Launched July 2009 21 Mbps HSPA+ launched July 14, 2011	21 Mbps	Launched 2 Mbps	21 Mbps launched 14.07.11	Launched
122	Ecuador	Alegro PCS	HSPA+ in deployment			In deployment	
123	Egypt	Etisalat Misr	Launched May 1, 2007 3.6 Mbps; then 7.2 Mbps. 21 Mbps HSPA+ launched June 2009. 42 Mbps DC-HSPA+ launched May 2010.	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched May 2010	Launched
124	Egypt	Vodafone	Launched May 11, 2007 later 7.2 Mbps	7.2 Mbps	Launched		Launched
125	Egypt	Mobinil	Launched September 1, 2008 and HSUPA	7.2 Mbps	Launched		Launched
126	El Salvador	Claro	Launched January 2008	1.8 Mbps			Launched
127	El Salvador	Movistar	Launched 2010 * speed subject to confirmation with operator	3.6 Mbps			Launched
128	El Salvador	Tigo	Launched September 3, 2008	1.8 Mbps			Launched
129	Estonia	Elisa 900/2100	2100 Launched June 14, 2006 3.6 Mbps; upgraded to 14.4 Mbps then 21 Mbps HSPA+ UMTS900 launched January 28, 2008	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 9.04.10	Launched
130	Estonia	EMT	Launched April 26, 2006 7.2 Mbps Dec 2007; 21 Mbps HSPA+ from Nov 2009 UMTS900 launched June 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps Launched Nov 2009	Launched
131	Estonia	Tele2 Eesti	Launched November 2006 later 7.2 Mbps	7.2 Mbps			Launched
132	Estonia	Tallinn 3G Mobile	Launched 2009	1.8 Mbps			Launched
133	Ethiopia	ETC	Launched January 2009	3.6 Mbps			Launched
134	Faroe Islands	Faroese Telecom 900/2100	Launched November 3, 2009 21 Mbps HSPA+ launched in 2100 MHz and 900 MHz (UMTS900)	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 03.11.09	Launched
135	Fiji	Vodafone	Launched November 18, 2008	7.2 Mbps	Launched 5.8 Mbps		
136	Finland	Elisa 900/2100	Launched 2100 MHz network 6 April 2006 7.2 Mbps from 25 April 08. HSPA+ launched. 42 Mbps DC-HSPA+ launched 18.08.11 UMTS900 launched 8 November 2007	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 18.08.11	Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
137	Finland	DNA Finnet 900/2100	2100 Launched February 1, 2007 3.6 Mbps; HSUPA 16.6.08. 21 Mbps HSPA+ 5.8 Mbps Oct 09. UMTS900 launched 1.10.08 42 Mbps DC-HSPA+ launched May 24, 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 24.05.11	Launched
138	Finland	TeliaSonera	Launched May 30, 2007 3.6 Mbps then 14.4. UMTS900 launched June 2009	14.4 Mbps			Launched
139	France	Bouygues Telecom	Launched November 19, 2007 3.6 Mbps; 7.2 Mbps from March 08 Deploying 42 Mbps DC-HSPA+	7.2 Mbps	Launched	In deployment	Launched
140	France	Orange	Launched Sept 14, 2006 upgraded to 3.6 then 7.2 Mbps. Launched 14.4 Mbps in 2010. HSUPA January 2008. UMTS900 launched Q2 2009	14.4 Mbps	Launched	In deployment	Launched
141	France	SFR	Launched May 11, 2006 Evolved to 14.4 Mbps in many cities, 7.2 Mbps elsewhere. HSUPA from Apr 08. UMTS900 launched September 2009 21Mbps HSPA+ launched Sept 2010. 42 Mbps DC-HSPA+ in deployment from 2011 in 900 MHz (shared network) and 2100 MHz	21 Mbps	Launched	21 Mbps launched Sept 2010	Launched
142	France	Free	Launched January 10, 2012 42 Mbps DC-HSPA+	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 10.01.12	
143	Fr. Guiana	Outremer Telecom	In deployment				
144	Fr. Guiana	Orange Caraibe	Launched 2009E	3.6 Mbps			Launched
145	Fr. Polynesia	Mara Telecom	In deployment				
146	Fr. Polynesia	Tikiphone/Vini	Launched December 15, 2009	1.8 Mbps			Launched
147	Georgia	MagtiCom	Launched January 28, 2009 HSPA+ in deployment	14.4 Mbps		In deployment	Launched
148	Georgia	Geocell	Launched June 20, 2008	3.6 Mbps			Launched
149	Germany	E Plus	Launched Q4 2009 in selected areas. 3.6 Mbps later 7.2 Mbps introduced. Deploying 21 Mbps HSPA+ in 2.1 GHz and 900 MHz band. Deploying 5.8 Mbps HSUPA	7.2 Mbps	Deploying	In deployment	Launched
150	Germany	Telekom (T- Mobile)	Launched March 2006 later 7.2 Mbps all 3G net then 21 Mbps HSPA+ launched 21.04.10. 42 Mbps DC-HSPA+ in deployment	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 21.04.10	Launched
151	Germany	O2	Launched December 1, 2006 enhanced later to 7.2 Mbps; HSUPA launched March 2009. 28 Mbps HSPA+ launched November 3, 2009	28 Mbps	Launched 5.8 Mbps	28 Mbps launched 3.11.09	Launched
152	Germany	Vodafone	Launched March 2006 7.2 Mbps July 9 2007	7.2 Mbps	Launched		Launched
153	Ghana	Airtel (ex-Zain)	Launched December 15, 2008 21 Mbps HSPA+ launched Jan 2012	21 Mbps		21 Mbps launched Jan 2012	Launched
154	Ghana	MTN	Launched January 28, 2009 3.6 Mbps, evolving to 7.2 Mbps. UMTS900 launched December 2009	3.6 Mbps			Launched
155	Ghana	Tigo	Launched July 2011	3.6 Mbps			Launched
156	Ghana	Vodafone Ghana	Launched 2010 * speed subject to confirmation with operator	3.6 Mbps			Launched
157	Gibraltar	Gibtelecom	Launched 2008	1.8 Mbps			Launched
158	Greece	Cosmote	Launched June 2006 3.6 Mbps then 7.2 Mbps. 21 Mbps HSPA+ launched May 20, 2009, then 28 Mbps in March 2010. 42 Mbps DC-HSPA+ launched 14.02.11	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 14.02.11	Launched
159	Greece	WIND Hellas	Launched November 21, 2006 42 Mbps DC-HSPA+ target launch mid-2012	3.6 Mbps	Deploying	In deployment	Launched
160	Greece	Vodafone	Launched November 1, 2006 later 3.6 Mbps, 14.4 Mbps. 21 Mbps HSPA+ launched July 13, 2009. 28 Mbps launched March 3, 2010. 42 Mbps DC-HSPA+ launched January 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched Jan 2011	Launched
161	Greenland	TELE Greenland	Launched August 2, 2010 UMTS900 system	14.4 Mbps	Launched 2 Mbps		
162	Guadeloupe	Outremer Telecom	Launched 2010	7.2 Mbps			
163	Guadeloupe	Orange Caraibe	Launched 2008	3.6 Mbps			Launched
164	Guadeloupe	Digicel	Launched 2010	7.2 Mbps	Launched 1.4 Mbps		Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
165	Guam	Docomo Pacific	Launched October 9, 2008	3.6 Mbps			
166	Guam	GTA Teleguam	Launched August 16, 2009 21 Mbps HSPA+ launched July 21, 2011	21 Mbps		21 Mbps launched 21.07.11	
167	Guatemala	Tigo	Launched August 29, 2008 3.6 Mbps; later evolving to 7.2 Mbps 21 Mbps HSPA+ launched 05.01.12	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 05.01.12	Launched
168	Guatemala	Claro	Launched April 16, 2008	1.8 Mbps			Launched
169	Guatemala	Movistar	Launched August 11, 2009	1.8 Mbps			Launched
170	Guernsey	Wave Telecom	Launched September 2008E 1.8 Mbps, 3.6 Mbps in Nov 2009, 7.2 Mbps from May 19, 2010	7.2 Mbps			
171	Guernsey	Airtel-Vodafone	Launched March 2008	1.8 Mbps			Launched
172	Guernsey	Sure Mobile	Launched November 16, 2009	3.6 Mbps			Launched
173	Guyana	Digicel	Launched 2010	7.2 Mbps			Launched
174	Honduras	Claro	Launched February 20, 2008	3.6 Mbps			Launched
175	Honduras	Tigo	Launched September 2008	3.6 Mbps			Launched
176	Hong Kong	SmarTone-Vodafone	Launched June 6, 2006; 3.6 Mbps, then 14.4 Mbps HSDPA, 5.8 Mbps HSUPA. 21 Mbps HSPA+ from 5.11.09, and 28 Mbps from April 19, 2010. Evolution to 42 Mbps planned	28 Mbps	Launched 5.8 Mbps	28 Mbps upgrade launched 19.04.10	
177	Hong Kong	PCCW Mobile	Launched August 22, 2007; 7.2 Mbps 21 Mbps HSPA+ launched June 2009. 42 Mbps DC-HSPA+ launched August 11, 2010	42 Mbps		42 Mbps upgrade launched 11.08.10	
178	Hong Kong	CSL Limited 900/2100	Launched Sept. 19, 2006 21 Mbps HSPA+ launched 30.03.09. HSUPA launched end 2009. UMTS900 launched January 2010. 42 Mbps DC-HSPA+ network launched 25.11.10	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 25.11.10	Launched
179	Hong Kong	3 HK	Launched December 4, 2006 Later 7.2 Mbps, then 21 Mbps HSPA+ launch July 2009. HSUPA launched. 42 Mbps DC-HSPA+ in deployment	21 Mbps	Launched 5.8 Mbps	21 Mbps launched July 2009	
180	Hungary	Telenor	Launched April 2007 7.2 Mbps HSDPA then 14.4 Mbps 42 Mbps DC-HSPA+ launched 16.08.11	42 Mbps	Launched 2 Mbps	42 Mbps launched 16.08.11	Launched
181	Hungary	T-Mobile/Magyar Telekom	Launched May 17, 2006 3.6 Mbps 7.2 Mbps from 17 Sep 07. 21 Mbps HSPA+ launched 31.05.11	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 31.05.11	Launched
182	Hungary	Vodafone	Launched June 2007 upgraded to 7.2 Mbps Dec 2007. 21 Mbps HSPA+ launched Feb 4, 2010	21 Mbps	Launched 1.4 Mbps	21 Mbps launched 04.02.10	
183	Iceland	Siminn 900/2100	2100 MHz Launched September 2007 UMTS 900 launched October 2, 2008	7.2 Mbps	Launched		Launched
184	Iceland	Nova	Launched December 1, 2007	7.2 Mbps			
185	Iceland	Vodafone	Launched December 2007	7.2 Mbps			Launched
186	India	MTNL	Launched December 11, 2008	1.8 Mbps			Launched
187	India	BSNL	Launched February 27, 2009	3.6 Mbps			Launched
188	India	Vodafone	Launched March 1, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 01.03.11	Launched
189	India	Bharti Airtel	Launched January 24, 2011 21 Mbps HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 24.01.11	Launched
190	India	Idea	Launched March 28, 2011 21 Mbps HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 28.03.11	Launched
191	India	Aircel	Launched February 22, 2011 21 Mbps HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 22.02.11	Launched
192	India	STel	HSPA in deployment				Launched
193	India	Tata DoCoMo	Launched November 5, 2010 21 Mbps HSPA+ at launch in 20 cities	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 05.11.10	Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
194	India	Reliance	Launched December 13, 2010 21 Mbps HSPA+ service from launch in Delhi, Mumbai, Kolkata and Chandigarh	21 Mbps		21 Mbps launched 13.12.10	Launched
195	Indonesia	PT Telkomsel	Launched April 2007 3.6 Mbps evolved in phases to 7.2, 14.4, 21 Mbps	21 Mbps	Launched 1.4 Mbps	21 Mbps launched Nov 2009	Launched
196	Indonesia	XL Axiata (formerly Excelomindo)	Launched September 21, 2006	3.6 Mbps			Launched
197	Indonesia	Indosat-Satelindo	Launched November 27, 2006 21 Mbps / 5.8 Mbps HSPA+ 2009 42 Mbps / 11.5 Mbps DC-HSPA+ from 26.04.10	42 Mbps	Launched 11.5 Mbps	42 Mbps launched 26.04.10	Launched
198	Indonesia	Hutchison 3	Launched February 2010	1.8 Mbps			
199	Indonesia	Axis	Launched June 10, 2011 * speed subject to confirmation with operator 42 Mbps DC-HSPA+ in deployment	14.4 Mbps		In deployment	Launched
200	Iran	Tamin Telecom RighTel	Launched January 2012 * speed subject to confirmation with operator	1.8 Mbps			
201	Ireland	3 Ireland	Launched December 18, 2006 7.2 Mbps June 2009, 14.4 Mbps 2010. Deploying 21 Mbps	14.4 Mbps		In deployment	
202	Ireland	O2	Launched July 9, 2007 later 7.2 Mbps (July 7, 2008). 21 Mbps HSPA+ launched 2H 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 2H 2010	Launched
203	Ireland	Vodafone	Launched November 15, 2006 3.6 Mbps August 07; upgraded to 7.2 Mbps then 21 Mbps. 42 Mbps DC-HSPA+ launched 20.09.11	42 Mbps		42 Mbps upgrade launched 20.09.11	
204	Ireland	Meteor	Launched March 4, 2009 21 Mbps HSPA+ trial from end 2010	14.4 Mbps		Trial phase	Launched
205	Isle of Man	Manx Telecom	Launched November 1, 2005 upgraded to 3.6 Mbps, then 7.2 Mbps (April 2010). Trialled 14.4 Mbps May-June 2010	7.2 Mbps	Launched 1.4 Mbps		
206	Isle of Man	Sure	Launched 2010	7.2 Mbps			Launched
207	Israel	Cellcom	Launched WCDMA-HSDPA June 2006	3.6 Mbps	Launched		Launched
208	Israel	Partner/Orange	Launched March 2006 1.8 Mbps; later 3.6 Mbps Deploying 21 Mbps then 42 Mbps HSPA+	3.6 Mbps		In deployment	
209	Israel	Pelephone 850/2100	Launched February 2009 21 Mbps HSPA+ Launched May 25, 2010 42 Mbps DC-HSPA+ launched Dec 2011 in Tel Aviv and Jerusalem business districts	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched Dec 2011	
210	Italy	Vodafone	Launched June 12, 2006 14.4 Mbps on most of the network. 42 Mbps DC-HSPA+ launched March 2011	42 Mbps	Launched 2 Mbps	42 Mbps upgrade launched March 2011	
211	Italy	3 Italia	Launched February 2006 3.6 Mbps upgrade then 7.2 Mbps from 2007, later 14.4 Mbps. 42 Mbps HSPA+ in deployment	14.4 Mbps	Launched 5.8 Mbps	In deployment	
212	Italy	TIM	Launched May 2006: 28 Mbps HSPA launched in Milan July 17, 2009; extending to Rome by October 2009 then nationwide	28 Mbps	Launched 5.8 Mbps	28 Mbps launched 17.07.09	Launched
213	Italy	Wind	Launched October 2007 3.6 Mbps, later 14.4 Mbps. 42 Mbps DC-HSPA+ HSPA+ trialled, deploying	14.4 Mbps	Launched 5.8 Mbps	In deployment	Launched
214	Jamaica	Claro	Launched December 2008	3.6 Mbps			
215	Jamaica	Lime	Launched June 24, 2009	3.6 Mbps			Launched
216	Japan	eMobile	Launched 31 March 2007 initially 3.6 Mbps. 21 Mbps HSPA+ launched 24.07.09 42 Mbps DC-HSPA+ soft launched in July 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 24.07.09	
217	Japan	NTT DoCoMo	Launched August 31, 2006 3.6 Mbps; 7.2 Mbps from April 08. Later 14.4 Mbps launched. 5.8 Mbps HSUPA launched June 2009	14.4 Mbps	Launched 5.8 Mbps		
218	Japan	Softbank Mobile	Launched October 1, 2006 42 Mbps DC-HSPA+ from February 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps launched Feb 2011	
219	Jersey	Sure Mobile (C&W)	Launched December 2007: 3.6 Mbps peak initially, now 7.2 Mbps	7.2 Mbps			Launched

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	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
220	Jersey	JT Global	Launched September 2007 7.2 Mbps from April 2010 42 Mbps DC-HSPA+ deploying from April 2012 including 5.8 Mbps HSUPA	7.2 Mbps	Deploying	In deployment	Launched
221	Jersey	Airtel-Vodafone	Launched June 28, 2007 Airtel-Vodafone now 90% coverage	3.6 Mbps			Launched
222	Jordan	Orange Jordan	Launched March 2010 21 Mbps HSPA+ upgrade launched Q1 2011	21 Mbps		21 Mbps launched Q1 2011	Launched
223	Jordan	Zain	Launched March 5, 2011 21 Mbps HSPA+ launched March 5, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 05.03.11	Launched
224	Jordan	Umniah	HSPA+ in deployment				
225	Kazakhstan	Kcell	Launched December 1, 2010 21 Mbps HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 01.12.10	Launched
226	Kazakhstan	Beeline (Kar-Tel)	Launched December 2010	14.4 Mbps			Launched
227	Kazakhstan	Tele2	Launched April 24, 2011 UMTS900. 21 Mbps HSPA+ or 14.4 Mbps depending on sites. 11.5 Mbps or 5.8 Mbps HSUPA (depending on sites) launched at same time	21 Mbps	Launched 11.5 Mbps	21 Mbps launched 24.04.11	Launched
228	Kenya	Safaricom	Launched May 27, 2008	7.2 Mbps			Launched
229	Kenya	Airtel (ex Zain)	In deployment for launch by March 2012				Launched
230	Kenya	Orange	Launched September 7, 2011 21 Mbps HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 07.09.11	Launched
231	Kuwait	Wataniya Telecom	Launched February 2006 3.6 then 7.2 Mbps	7.2 Mbps			Launched
232	Kuwait	Zain (ex MTC Kuwait)	Launched January 9, 2007 7.2 Mbps from November 12, 2007. Zain e-GO HSPA+ launched 19.08.09	21 Mbps	Launched	21 Mbps launched 19.08.09	Launched
233	Kuwait	Viva	Launched January 14, 2009 14.4 Mbps. 21 Mbps HSPA+ launched Feb 2010 42 Mbps DC-HSPA+ launched July 3, 2011	42 Mbps		42 Mbps upgrade launched 03.07.11	
234	Kyrgyz Rep	Beeline/Sky Mobile	Launched December 1, 2010 initially 7.2 Mbps, later 14.4 Mbps	14.4 Mbps			Launched
235	Kyrgyz Republic	Aktel (Fonex)	In deployment				
236	Kyrgyz Republic	Megacom	Launched January 16, 2012	14.4 Mbps			Launched
237	Kyrgyz Republic	Kyrgyz Mobile Company	Planned				
238	Laos	LaoTel	Launched October 16, 2009 3.6, then 7.2	7.2 Mbps			Launched
239	Laos	Beeline Laos	Launched January 2012 21 Mbps HSPA+	21 Mbps		21 Mbps launched Jan 2012	Launched
240	Laos	ETL	Launched August 31, 2011	3.6 Mbps			
241	Latvia	Bite	Launched July 19, 2006 21 Mbps HSPA+ launched September 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched Sep 2010	Launched
242	Latvia	LMT	Launched August 30, 2006 3.6 Mbps. 7.2 Mbps some areas. UMTS900 launched Nov 09	7.2 Mbps			Launched
243	Latvia	Tele2	Launched Q4 2006E	10.2 Mbps	Launched 2 Mbps		Launched
244	Lebanon	Alfa	Launched October 25, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps launched 25.10.11	Launched
245	Lebanon	MTC Touch	Launched November 1, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps launched 01.11.11	
246	Lesotho	Vodacom	Launched May 2008	3.6 Mbps			
247	Lesotho	Econet Telecom	Launched February 2011	7.2 Mbps			Launched
248	Libya	Libyana Mobile	Launched September 2009E	3.6 Mbps			Launched
249	Liechtenstein	Mobilkom FL1	Launched June 2007	1.8 Mbps	Deploying		Launched
250	Liechtenstein	Orange FL	Launched June 2007	3.6 Mbps			
251	Liechtenstein	Swisscom FL	In deployment				Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
252	Lithuania	Bite	Launched June 7, 2006 21 Mbps HSPA+ launched September 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched Sep 2010	Launched
253	Lithuania	Omnitel	Launched June 9, 2006	7.2 Mbps	Launched		Launched
254	Lithuania	Tele2	Launched 2010	7.2 Mbps			Launched
255	Luxembourg	LuxGSM	Launched May 5, 2007 now 7.2 Mbps	7.2 Mbps			Launched
256	Luxembourg	Orange (ex-Vox)	Launched June 1, 2007: 3.6 Mbps, then 7.2 Mbps. 14.4 Mbps from 6 Sept 2010. 28 Mbps HSPA+ in deployment	14.4 Mbps	Launched 1.8 Mbps	In deployment	Launched
257	Luxembourg	Tango	Launched December 13, 2007	7.2 Mbps	Launched		
258	Macau	CTM	Launched June 2007 3.6 Mbps later 7.2 Mbps 21 Mbps HSPA+ in deployment	7.2 Mbps		In deployment	
259	Macau	3 Macau	Launched October 16 2007 21 Mbps HSPA+ in deployment 42 Mbps DC-HSPA+ planned	7.2 Mbps		In deployment	
260	Macau	Smartone Macau	Launched July 2010 21 Mbps HSPA+ and 5.8 Mbps HSUPA	21 Mbps	Launched 5.8 Mbps	21 Mbps launched July 2010	
261	Macedonia	Cosmofon	Launched August 2008	3.6 Mbps			Launched
262	Macedonia	T-Mobile	Launched June 11, 2009	7.2 Mbps			Launched
263	Madagascar	Telma Mobile	Launched November 16, 2009	3.6 Mbps			Launched
264	Madeira	Optimus	Launched February 2006	1.8 Mbps			
265	Malawi	TNM	Launched December 2009	3.6 Mbps			Launched
266	Malawi	Airtel (ex-Zain)	Launched September 23, 2010 21 Mbps HSPA+ in deployment	7.2 Mbps		In deployment	Launched
267	Malaysia	Celcom	Launched June 15, 2006 All sites upgrading to 14.4 Mbps. 42 Mbps DC-HSPA+ in deployment	3.6 Mbps		In deployment	Launched
268	Malaysia	Maxis	Launched September 26, 2006 21 Mbps HSPA+ launched July 2010	21 Mbps		21 Mbps launched July 2010	Launched
269	Malaysia	DiGi 850 MHz	Launched 850 MHz HSPA network March 19, 2009	14.4 Mbps			Launched
270	Malaysia	U Mobile	Launched March 11, 2008 in Klang Valley 42 Mbps DC-HSPA+ launched Sept 27, 2010	42 Mbps		42 Mbps launched 27.09.10	
271	Maldives	Wataniya	Launched April 17, 2008	7.2 Mbps			Launched
272	Maldives	Dhiraagu	Launched May 17, 2010	7.2 Mbps			Launched
273	Mali	Orange	Launched July 2010	1.8 Mbps			Launched
274	Malta	Vodafone	Launched December 6, 2006: HSDPA now on all 3G network; 3.6 then 7.2, 14.4 Mbps from June 2010. 2 Mbps HSUPA from June 2010	14.4 Mbps	Launched 2 Mbps		
275	Malta	Go Mobile	Launched April 2007 upgraded Oct 2007 to 3.6 Mbps, upgraded to 7.2 Mbps in 2009 Replacing whole 3G network	7.2 Mbps			Launched
276	Malta	Melita Mobile	Launched February 1, 2009 3.6 Mbps	3.6 Mbps			
277	Martinique	Outremer Telecom	Launched December 16, 2008	7.2 Mbps			
278	Martinique	Digicel	Launched 2010	7.2 Mbps			Launched
279	Mauritania	Mauritel Mobiles	Launched 2009	1.8 Mbps			
280	Mauritius	Emtel	Launched 2007	3.6 Mbps			
281	Mauritius	Orange	Launched August 12, 2009	7.2 Mbps	Launched 1.8 Mbps		Launched
282	Mayotte	Outremer Telecom	3G/HSPA in deployment				
283	Mexico	Telcel	Launched February 7, 2008 Later evolved to 7.2 Mbps. 21 Mbps HSPA+ in deployment	7.2 Mbps	Deploying	In deployment	Launched
284	Mexico	Movistar	Launched Q2 2007 21 Mbps HSPA+ in deployment	1.8 Mbps		In deployment	Launched
285	Mexico	Nextel	In deployment				
286	Mexico	Iusacell	Launched November 15, 2010 21 Mbps HSPA+	21 Mbps		21 Mbps launched 15.11.10	
287	Moldova	Moldcell	Launched October 1, 2008 (Chişinău)	7.2 Mbps			Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
288	Moldova	Orange	Launched November 1, 2008 7.2 Mbps, then 14.4 Mbps. 21 Mbps HSPA+ launched 21.12.09	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 21.12.09	Launched
289	Moldova	Moldtelecom (Unite)	Launched April 1, 2010 Initially 14.4 Mbps, evolving to 21 Mbps HSPA+	14.4 Mbps		In deployment	
290	Monaco	Monaco Telecom	Launched March 2009	7.2 Mbps			
291	Mongolia	MobiCom	Launched April 2009	14.4 Mbps	Launched 5.8 Mbps		Launched
292	Mongolia	Skytel	Launched January 2010 21 Mbps HSPA+	21 Mbps		21 Mbps launched January 2010	
293	Mongolia	Unitel	Launched 2009 * speed subject to confirmation with operator	7.2 Mbps			Launched
294	Montenegro	Telenor/Promonte	Launched June 22, 2007 Evolved to 3.6 then 7.2 Mbps. 21 Mbps HSPA+ launched September 8, 2010 with 5.8 Mbps UL	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 08.09.10	Launched
295	Montenegro	T-Mobile	Launched June 21, 2007 42 Mbps DC-HSPA+ launched Nov 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps launched Nov 2011	Launched
296	Montenegro	m:tel	Launched July 9, 2007	1.8 Mbps			Launched
297	Morocco	Méditel	Launched April 18, 2007 Upgraded to 7.2 Mbps 21.11.08	7.2 Mbps			Launched
298	Morocco	Maroc Telecom	Launched January 16, 2008	3.6 Mbps			Launched
299	Mozambique	Mcel	Launched December 2008	3.6 Mbps			Launched
300	Mozambique	Vodacom	Launched February 26, 2010	7.2 Mbps			Launched
301	Namibia	MTC	Launched Dec 13, 2006 upgraded to 7.2 Mbps and HSUPA launched in December 2009. 21 Mbps HSPA+ in deployment	7.2 Mbps	Launched 1.4 Mbps	In deployment	Launched
302	Namibia	Leo	Launched April 9, 2008	7.2 Mbps			Launched
303	Nepal	Ncell	Launched September 15, 2010	3.6 Mbps			Launched
304	Nepal	Nepal Telecom	Launched May 17, 2007	1.8 Mbps			
305	Netherlands	T-Mobile	Launched April 18, 2006 7.2 Mbps HSDPA/2 Mbps HSUPA from Feb 16, 2009, later 14.4 Mbps launched. 21 Mbps HSPA+ in deployment	14.4 Mbps	Launched 2 Mbps	In deployment	Trial
306	Netherlands	KPN Mobile (inc. Telfort)	Launched October 9, 2006 1.8 Mbps; upgraded to 7.2 Mbps nationwide. 21 Mbps HSPA+ in deployment	7.2 Mbps	Launched	In deployment	Launched
307	Netherlands	Vodafone	Launched July 2006 7.2 Mbps HSDPA and 1.4 Mbps HSUPA from January 25, 2009. 28 Mbps HSPA+ launched July 10, 2010	28 Mbps	Launched 5.8 Mbps	28 Mbps launched 10.07.10	
308	New Zealand	2degrees	Launched August 3, 2010 Evolving to 14.4 Mbps; 21 Mbps HSPA+ in 2012	7.2 Mbps		In deployment	Launched
309	New Zealand	Vodafone 900/2100	2100 Launched Oct 1, 2006 UMTS900 also launched July 2008. 21 Mbps HSPA+ launched July 2010. 42 Mbps DC-HSPA+ in deployment	21 Mbps	Launched 2 Mbps	21 Mbps launched July 2010	
310	New Zealand	Telecom NZ	Launched May 29, 2009 UMTS850 "XT" 14.4 Mbps. 21 Mbps HSPA+ launched August 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched Aug 2010	
311	Nicaragua	Claro	Launched April 18, 2008	1.8 Mbps			Launched
312	Nicaragua	Movistar	Launched 2009E	7.2 Mbps			Launched
313	Nigeria	Airtel (ex-Zain)	Launched February 2009	3.6 Mbps			Launched
314	Nigeria	MTN Nigeria	Launched December 2007	3.6 Mbps			Launched
315	Nigeria	Globacom	Launched December 2007	3.6 Mbps			Launched
316	Nigeria	Etisalat (EMTS)	Launched September 26, 2011 42 Mbps DC-HSPA+	42 Mbps	Launched 11.5 Mbps	42 Mbps launched 26.09.11	Launched
317	North Korea	Koryolink	Launched December 15, 2008 * speed subject to confirmation with operator	3.6 Mbps			
318	Norway	TeleNor	Launched November 2007 Upgrading to 14.4 Mbps and 21 Mbps HSPA+	7.2 Mbps		In deployment	Launched
319	Norway	Netcom AS	Launched April 18, 2007 Later 14.4 Mbps 21 Mbps DC-HSPA+ and 5.8 Mbps HSUPA launched December 16, 2010	21 Mbps	Launched 5.8Mbps	21 Mbps launched 16.12.10	Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
320	Oman	Nawras	Launched December 9, 2007 7.2 Mbps from July 2008	7.2 Mbps			Launched
321	Oman	Omantel	Launched March 1, 2009 14.4 Mbps from June 2009	14.4 Mbps			Launched
322	Palau	Palau Mobile	HSPA+ in deployment			In deployment	
323	Panama	Móvil (C and W)	Launched September 2011	21 Mbps		21 Mbps launched Sept 11	Launched
324	Panama	Claro	Launched March 13, 2009 21 Mbps HSPA+ launched July 2011	21 Mbps		21 Mbps launched July 11	
325	Panama	Digicel	Launched November 22, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps launched 22.11.11	Launched
326	Panama	Movistar	Launched December 3, 2008	1.8 Mbps			Launched
327	Paraguay	Claro	Launched November 13, 2007 21 Mbps HSPA+ launched Nov 2011	21 Mbps		21 Mbps launched Nov 11	Launched
328	Paraguay	Nucleo (Personal)	Launched 2008 3.6 Mbps upgrade to 7.2 Mbps planned	3.6 Mbps			Launched
329	Paraguay	Tigo	Launched September 2008	3.6 Mbps			Launched
330	Peru	Claro	Launched July 2007 21 Mbps HSPA+ launched 15.11.11	21 Mbps		21 Mbps launched 15.11.11	Launched
331	Peru	Movistar	Launched May 22, 2009 21 Mbps HSPA+ launched 18.11.11	21 Mbps		21 Mbps launched 18.11.11	Launched
332	Peru	Nextel del Peru	Launched December 2009	1.8 Mbps			
333	Philippines	Globe Telecom	Launched April 2006 21 Mbps HSPA+ launched April 16, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 16.04.11	Launched
334	Philippines	Smart Comms	Launched April 2006 1.8 Mbps, later 7.2 Mbps. 21 Mbps HSPA+ in deployment (2100 MHz and 850 MHz bands)	7.2 Mbps		In deployment	Launched
335	Philippines	Sun Cellular	Launched September 2008	3.6 Mbps			Launched
336	Philippines	U Mobile (CURE)	Launched May 19, 2008 3.6 Mbps 42 Mbps DC-HSPA+ launched Q1 2011 in Berjaya Times Square and Johor Bahru	42 Mbps		42 Mbps upgrade launched Q1 2011	
337	Poland	Aero2 (900 MHz)	Launched November 16, 2009 UMTS900 28 Mbps HSPA+ upgrade launched 22.10.10	28 Mbps	Launched 5.8 Mbps	28 Mbps launched 22.10.10	
338	Poland	Polkomtel Plus	Launched October, 2006 3.6 Mbps from June 07; then 7.2 Mbps (60% territory covered). 21 Mbps HSPA+ launched June 2009 UMTS900 launched January 2012	21 Mbps	Launched	21 Mbps launched June 2009	Launched
339	Poland	PTC (Era)	Launched October 2006 21 Mbps HSPA+ and 5.8 HSUPA launched in high demand areas beginning September 15, 2009	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 15.09.09	Launched
340	Poland	Orange	Launched December 4, 2006 now 3.6 Mbps. 7.2 Mbps from Oct 07 in major cities. HSUPA launched Dec 07. 42 Mbps DC-HSPA+ launched October 10, 2010	42 Mbps	Launched	42 Mbps launched 10.10.10	Launched
341	Poland	P4 (Play Mobile)	Launched March 16, 2007 later 7.2 Mbps 21 Mbps+ UMTS900 launched January 24, 2011 (80% pop covered by April 2011)	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 24.01.11	
342	Portugal	Optimus	Launched April 5, 2006. 3.6 Mbps Oct 06 HSPA+ 64QAM launched in Lisbon and Porto on August 3, 2009. 42 Mbps DC-HSPA+ trial completed March 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 03.08.09	
343	Portugal	TMN	Launched April 2006 3.6 Mbps Oct 06 HSPA+ 64QAM launched on June 29, 2009 42 Mbps DC-HSPA+ deployed (not launched)	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 29.06.09	Launched
344	Portugal	Vodafone	Launched March 2006 3.6 Mbps initially; HSPA+ launched in Lisbon on June 26, 2009. 42 Mbps HSPA+ launched October 11, 2010	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 11.10.10	Launched



483 HSPA Operator Commitments in 181 countries/territories
451 commercial operators launched in 174 countries
including 187 commercial HSPA+ networks in 96 countries

Global mobile Suppliers Association

HSPA Operator Commitments
January 29, 2012

GSM/3G MARKET/TECHNOLOGY UPDATE

#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
345	Puerto Rico	AT&T	Launched November 2006 21 Mbps HSPA+ launched February 15, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 15.02.11	Launched
346	Puerto Rico	Claro	Launched April 2008 21 Mbps HSPA+ launched February 16, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 16.02.11	Launched
347	Puerto Rico	T Mobile	Launched 2009 21 Mbps HSPA+ launched October 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched Oct 2010	Launched
348	Qatar	Q-Tel	Launched July 2007 7.2 Mbps Nov 08, 14.4 Mbps Feb 2010. 21 Mbps HSPA+ 5.8 Mbps UL launched 08.08.10. 42 Mbps DC-HSPA+ in deployment	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 08.08.10	Launched
349	Qatar	Vodafone Qatar	Launched August 31, 2009 UMTS900 introduced March 2011.	7.2 Mbps			Launched
350	Réunion	Outremer Telecom	Launched December 16, 2008	7.2 Mbps			Launched
351	Réunion	SRR	Launched August 2008	7.2 Mbps			Launched
352	Réunion	Orange	Launched June 18, 2008	7.2 Mbps			Launched
353	Romania	Vodafone 2100/900	Launched May 2006 7.2 Mbps. 21 Mbps HSPA+ from September 3, 2009. UMTS900 launched nationwide April 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 3.09.09	
354	Romania	Orange Romania	Launched June 25, 2007 3.6 Mbps; 7.2 Mbps launched Bucharest Oct 1, 2007. 14.4 Mbps from May 3, 2010. 42 Mbps DC-HSPA+ launched October 6, 2011 UMTS900 planned	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 06.10.11	Launched
355	Romania	Cosmote (ex Zapp)	Launched May 19, 2008 7.2 Mbps. 21 Mbps HSPA+ and 5.8 Mbps HSUPA launched 2.09.09. UMTS900 deployment planned	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 2.09.09	Launched
356	Romania	RCS & RDS Digi	Launched September 2009	7.2 Mbps			
357	Russia	Vimpelcom	Launched September 3, 2008 Up to 14.4 Mbps. UMTS900 introduced from Dec 2011	14.4 Mbps			Launched
358	Russia	MTS	Launched 28 May 2008 ; initially 3.6 Mbps. 21 Mbps HSPA+ launched Dec 2010 UMTS900 commercially launched 17.01.12	21 Mbps		21 Mbps launched Dec 2010	Launched
359	Russia	MegaFon	Launched October 2, 2007 3.6.Mbps evolved later to 7.2 Mbps peak. 21 Mbps HSPA+ launched in Tatarstan and Siberia regions UMTS900 introduced from Dec 2011	21 Mbps		21 Mbps launched 27.08.10	Launched
360	Rwanda	Rwandatel	Launched December 2008 1.8 Mbps later 7.2 Mbps	7.2 Mbps			
361	Rwanda	Bharti Airtel	In deployment				
362	Rwanda	MTN	In deployment				Launched
363	Rwanda	Tigo	Launched November 20, 2009	3.6 Mbps			Launched
364	Saba	UTS	Launched 2010E	3.6 Mbps			
365	Saudi Arabia	STC/AI Jawal	Launched June 26, 2006 evolved to 7.2 Mbps. 21 Mbps HSPA+ launched 14 September, 2009. 42 Mbps DC-HSPA+ from December 2010	42 Mbps	Launched 11.5 Mbps	42 Mbps upgrade launched Dec 2010	Launched
366	Saudi Arabia	Mobily	Launched June 27, 2006 3.6 Mbps; 7.2 Mbps from Sept 22, 2007. HSUPA March 2009. 21 Mbps HSPA+ launched January 10, 2010. 42 Mbps DC-HSPA+ trials complete; rollout planned	21 Mbps	Launched	21 Mbps launched 10.01.10	Launched
367	Saudi Arabia	Zain	Launched August 26, 2008	1.8 Mbps	Deploying	In deployment	Launched
368	Senegal	Orange Senegal	Launched 2010E	7.2 Mbps	Testing		Launched
369	Serbia	Telenor	Launched March 1, 2007 1.8 Mbps later 3.6 Mbps 21 Mbps HSPA+ launched 29.07.11	21 Mbps		21 Mbps launched 29.07.11	Launched
370	Serbia	Telekom Srbija	Launched December 21, 2006	1.8 Mbps			Launched
371	Serbia	VIP Mobile	HSPA launched February 16, 2011 42 Mbps DC-HSPA+ launched in 6 cities	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 16.02.11	Launched
372	Seychelles	Airtel	Launched March 2009	3.6 Mbps			Launched
373	Singapore	M1	Launched December 6, 2006 10.8 Mbps peak June 2007, later evolved to 21 Mbps HSPA+ then 28 Mbps in selected areas	28 Mbps	Launched 5.8 Mbps	28 Mbps launched 3.10.09	

GSM/3G MARKET/TECHNOLOGY UPDATE

#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
374	Singapore	SingTel	Launched May 24, 2007 Several upgrades downlink and uplink completed	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 2009	
375	Singapore	StarHub	Launched August 4, 2007: evolved to 14.4/1.9; and 5.8 Mbps HSUPA by end Dec 08. 21 Mbps HSPA+ launched 27.03.09. 42 Mbps DC-HSPA+ in deployment	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 27.03.09	Launched
376	Slovak Rep	Orange Slovensko	Launched August 23, 2006 Upgrading to 42 Mbps DC-HSPA+	14.4 Mbps	Launched	In deployment	Launched
377	Slovak Rep	T-Mobile Slovakia	Launched August 22, 2006 21 Mbps HSPA+ launched March 23, 2011 HSUPA 5.8 Mbps and HSPA+ 42 Mbps launched 19.10.11. Planning 84 Mbps trials	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 19.10.11	Launched
378	Slovak Rep	Telefonica o2	Launched July 18, 2011 * speed subject to confirmation with operator	14.4 Mbps			Launched
379	Slovenia	Mobitel	Launched December 14, 2006 3.6 Mbps, then 7.2 Mbps. 21 Mbps HSPA+ from April 2010 42 Mbps DC-HSPA+ launched May 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched May 2011	Launched
380	Slovenia	Si.mobil-Vodafone	Launched September 2007 3.6 Mbps 21 Mbps HSPA+ launched Dec 2, 2010 42 Mbps DC-HSPA+ launched 2H 2011 21 Mbps UMTS900 launched Oct 2011	42 Mbps	Launched 2 Mbps	42 Mbps upgrade launched 2H 2011	Launched
381	Slovenia	T-2	Launched June 1, 2008 42 Mbps/11 Mbps DC-HSPA+ in deployment	7.2 Mbps	Launched 2 Mbps	In deployment	
382	Slovenia	Tušmobil 2100/900	Launched June 2008 Upgraded to 7.2 Mbps. UMTS900 launched July 2010. HSPA+ 21/5.8 Mbps in 900 MHz launched November 2010	21 Mbps	Launched 5.8 Mbps	21 Mbps launched Nov 2010	Launched
383	Solomon Islands	Our Telekom (Breeze GSM)	Launched 2010 in Honiara & Auki	3.6 Mbps			
384	Somalia	Somtel	Launched July 2011 * speed subject to confirmation with operator	1.8 Mbps			
385	Somalia	Telesom	Launched July 2011 * speed subject to confirmation with operator	1.8 Mbps			
386	South Africa	MTN	Launched March 23, 2006 14.4 Mbps from Q2 2009. 21 Mbps HSPA+ launched early May 2010. UMTS900 launched March 2010. 42 Mbps DC-HSPA+ launched January 10, 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 10.01.11	Launched
387	South Africa	Vodacom	Launched March 2006 14.4 Mbps from April 2010, then 21Mbps HSPA+. 42 Mbps DC-HSPA+ (1000 sites) launched April 16, 2011 900 MHz currently being trialled.	42 Mbps	Launched 2 Mbps	42 Mbps upgrade launched 16.04.11	Launched
388	South Africa	8ta	Launched October 18, 2010 7.2 Mbps HSDPA 2 Mbps HSUPA 21/5.8 Mbps HSPA+ launched June 26, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 26.06.11	
389	South Africa	Cell C	Launched September 5, 2010 21 Mbps HSPA+ in 900 MHz band (UMTS900). 42 Mbps DC-HSPA+ launched in Port Elisabeth April 19, 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 19.04.11	Launched
390	South Korea	SK Telecom	Launched May 16, 2006 HSUPA evolved to 5.8 Mbps. Then 14.4 Mbps HSDPA. 21 Mbps HSPA+ launched in Seoul, July 2010, extended to 42 cities by June 30, 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched July 2010	
391	South Korea	KT	Launched June 30, 2006 later 7.2 Mbps, HSUPA, 14.4 Mbps. HSPA+ in deployment	14.4 Mbps	Launched 2 Mbps	In deployment	
392	Spain	Movistar	Launched July 26, 2006 speeds evolved. 21 Mbps HSPA+ launched with EDGE 10.11.09. 42 Mbps DC-HSPA+ launched October 2010 Uplink evolved to 11.5 Mbps in 2011	42 Mbps	Launched 11.5 Mbps	42 Mbps Upgrade launched Oct 2010	Launched
393	Spain	Orange	Launched June 19, 2006 HSUPA March 08. 7.2 Mbps HSDPA later. Deploying UMTS900 and 42 Mbps DC-HSPA+	7.2 Mbps	Launched	In deployment	Launched
394	Spain	Vodafone	Launched June 21, 2006 21 Mbps HSPA+ and 5.8 Mbps HSUPA launched Nov 2009. 42 Mbps DC-HSPA+ launched February 2011 Planning to deploy UMTS900 & LTE in 900MHz	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched Feb 2011	
395	Spain	Yoigo	Launched October 1, 2008 21 Mbps HSPA+ in deployment	3.6 Mbps		In deployment	

GSM/3G MARKET/TECHNOLOGY UPDATE

#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
396	Sri Lanka	Dialog Axiata	Launched August 15, 2006 Commercial launch 42 Mbps DC-HSPA+ Apr 11	42 Mbps	Launched 5.8 Mbps	42 Mbps launched Apr 2011	Launched
397	Sri Lanka	Mobitel M3	Launched December 2007 7.2 Mbps then 14.4 Mbps. 28 Mbps HSPA+ in deployment	14.4 Mbps	Launched 2 Mbps	In deployment	Launched
398	Sri Lanka	Etisalat	Launched January 21, 2011 28 Mbps HSPA+ 42 Mbps DC-HSPA+ launched May 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched May 2011	Launched
399	Sri Lanka	Airtel	Launched January 12, 2009	7.2 Mbps	Launched 2 Mbps		
400	St. Eustatius	UTS	Launched 2010E	3.6 Mbps			
401	St-Barthelemy	Orange Caraibe	Launched 2009E	3.6 Mbps			Launched
402	St-Martin	Orange Caraibe	Launched 2009E	3.6 Mbps			Launched
403	St-Martin	UTS	Launched 2010E	7.2 Mbps			
404	Sudan	Sudatel Sudani One	Launched November 10, 2009	7.2 Mbps			
405	Sudan	Zain	Launched 2010E	7.2 Mbps			Launched
406	Sudan	MTN Sudan	Launched 2010E	7.2 Mbps			Launched
407	Suriname	UNIQA	In deployment; target launch mid 2011 initially in Paramaribo area				Launched
408	Swaziland	MTN	Launched October 2011 * speed subject to confirmation with operator	3.6 Mbps			Launched
409	Sweden	3 Sweden	Launched November 7, 2006 3.6 Mbps 21 Mbps HSPA+ some areas. 42 Mbps DC-HSPA+ launched May 2011 UMTS900-HSPA (21 Mbps) launched 25.05.11	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched May 2011	
410	Sweden	TeliaSonera	Launched June 2007 on Svenska UMTS Nät AB network 3.6 Mbps. 7.2 Mbps then 14.4 Mbps. 21 Mbps HSPA+ with 5.8 Mbps uplink launched	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 2010	Launched
411	Sweden	Tele2	Launched April 2007 on Svenska UMTS Nät AB network 3.6 Mbps. 7.2 Mbps in major cities. 21 Mbps HSPA+ with 5.8 Mbps uplink launched	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 2010	Launched
412	Sweden	Telenor Sverige	Launched June 1, 2007 3.6 Mbps then 7.2 Mbps. 21 Mbps HSPA+ launched May 2010 42 Mbps DC-HSPA+ launched May 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched May 2011	
413	Switzerland	Orange	Launched April 1, 2007 Later 7.2 Mbps. Evolving to 14.4 Mbps and 42 Mbps HSPA+. Deploying UMTS900 from 2011 in rural areas	7.2 Mbps	Launched 2 Mbps	In deployment	Deploying
414	Switzerland	Sunrise	Launched December 2006: Initially 3.6 Mbps and now 7.2 Mbps launched	7.2 Mbps			Launched
415	Switzerland	Swisscom	Launched March 6, 2006 7.2 Mbps, then 14.4 Mbps. 28 Mbps HSPA+ October 5, 2009. 42 Mbps DC-HSPA+ and 5.8 Mbps HSUPA launched June 21, 2011 in Berne and Zurich.	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 21.06.11	Launched
416	Syria	Syriatel	Launched August 2008	7.2 Mbps			Launched
417	Syria	MTN Syria	Launched 2008	3.6 Mbps			Launched
418	Taiwan	VIBO Telecom	Launched December 2006 up to 7.2 Mbps. HSPA+ in deployment	7.2 Mbps		In deployment	
419	Taiwan	Chunghwa Telecom	Launched September 11, 2006 3.6 Mbps Launched 21 Mbps HSPA+ Q4 2011E 2000 HSPA+ base stations reported on 28.10.11	21 Mbps	Launched 5.8 Mbps	21 Mbps launched Q4 2011	
420	Taiwan	FarEasTone	Launched September 30, 2006 21 Mbps HSPA+ in deployment. Trial service launched Nov 8, 2010 in Taipei and Kaohsiung	3.6 Mbps		In deployment	
421	Taiwan	Taiwan Mobile	Launched January 2007 3.6 Mbps service; now 7.2 Mbps in selected areas 21 Mbps HSPA+ launched 1H 2011	21 Mbps		21 Mbps launched 1H 2011	
422	Tajikistan	Tacom Beeline	Launched March 30, 2007	3.6 Mbps			
423	Tajikistan	Indigo	Launched March 2010	14.4 Mbps			Launched
424	Tajikistan	TT Mobile/MLT	Launched 2009	14.4 Mbps			
425	Tajikistan	Babilon-Mobile	Launched 2008	7.2 Mbps			
426	Tanzania	Tigo	Launched January 2011 * speed subject to confirmation with operator	7.2 Mbps			Launched
427	Tanzania	Vodacom	Launched February 23, 2007	7.2 Mbps			Launched
428	Tanzania	Airtel (ex-Zain)	Launched December 23, 2008 HSPA+ in deployment	7.2 Mbps		In deployment	Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
429	Thailand	DTAC	Launched August 16, 2011 42 Mbps DC-HSPA+ in 850 MHz band	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 16.08.11	Launched
430	Thailand	AIS	UMTS900 launched May 6, 2008	7.2 Mbps			Launched
431	Thailand	True Move	Launched March 2011 Initially 7.2 Mbps, deployed in 850 MHz band 42 Mbps DC-HSPA+ launched 30.08.11	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 30.08.11	Launched
432	Thailand	TOT/Thai Mobile	Launched December 3, 2009	7.2 Mbps			
433	Togo	Togo Cellulaire	HSPA+ in deployment			In deployment	Launched
434	Tunisia	Orange Tunisie	Launched May 5, 2010 Launched 21 Mbps HSPA+ August 2010. Testing 42 Mbps DC-HSPA+ from Nov 2010	21 Mbps	Launched 11.5 Mbps	21 Mbps launched Aug 2010	Launched
435	Tunisia	Tunisie Telecom	Launched August 2011 * date subject to confirmation with operator 42 Mbps DC-HSPA+	42 Mbps	Launched 5.8 Mbps	42 Mbps launched Aug 2011	Launched
436	Turkey	Avea	Launched July 30, 2009 21 Mbps HSPA+ 42 Mbps DC-HSPA+ upgrade launched 15.12.10	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 15.12.10	Launched
437	Turkey	Vodafone	Launched July 30, 2009 Trials completed in connection with planned evolution to 42 Mbps DC-HSPA+	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 30.07.09	Launched
438	Turkey	Turkcell	Launched July 29, 2009 21 Mbps HSPA+ 60% pop coverage on first day. 42 Mbps DC-HSPA+ upgrade launched 1.12.10	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched 1.12.10	Launched
439	Turkmenistan	MTS	Launched November 2, 2010 Initially in Ashgabat and the airport; 21 Mbps HSPA+; 11.5 Mbps HSUPA	21 Mbps	Launched 11.5 Mbps	21 Mbps launched 2.11.10	Launched
440	Turks and Caicos Islands	Islandcom Wireless	Launched June 2010 in 850 MHz band	1.8 Mbps			
441	UAE	Etisalat	Launched April 12, 2006 21 Mbps HSPA+ launched January 4, 2010 42 Mbps DC-HSPA+ launched 21.09.11	42 Mbps	Launched 11.5 Mbps	42 Mbps upgrade launched 21.09.11	Launched
442	UAE	Du	Launched February 11, 2007 7.2 Mbps then 21 Mbps HSPA+ 42 Mbps DC-HSPA+ launched 23.09.10	42 Mbps	Launched 5.8 Mbps	42 Mbps launched 23.09.10	Launched
443	Uganda	Orange	Launched October 8, 2009	3.6 Mbps			Launched
444	Uganda	UTL	Launched November 2007	1.8 Mbps			Launched
445	Uganda	MTN	Launched August 2010	7.2 Mbps	Launched 5.8 Mbps		Launched
446	UK	3	Launched December 1, 2006 3.6 Mbps later 7.2 Mbps, 14.4 Mbps, 5.8 Mbps HSUPA launched in 2010. 21 Mbps HSPA+ launched April 2011	21 Mbps	Launched 5.8 Mbps	21 Mbps launched April 2011	
447	UK	O2	Launched Q3 07 3.6 Mbps, then 7.2 Mbps, 14.4 Mbps. UMTS900 launched March 17, 2011. Upgrading to HSPA+ and 42 Mbps DC-HSPA+	14.4 Mbps	Deploying	In deployment	Launched
448	UK	Orange	Launched February 13, 2007 3.6 Mbps generally, to 7.2 Mbps in some areas	7.2 Mbps	Launched 2 Mbps		Launched
449	UK	T-Mobile	Launched August 1, 2006 evolving to 7.2Mbps. HSUPA launched July 1, 2008	7.2 Mbps	Launched 2 Mbps		Launched
450	UK	Vodafone	Launched June 22, 2006: later 14.4 Mbps	14.4 Mbps	Launched		Launched
451	Ukraine	Beeline	Waiting for 3G license. Planning UMTS900				Launched
452	Ukraine	Utel	Launched November 1, 2007	3.6 Mbps			
453	Ukraine	UMC-MTS UKR	Planning deployment in 900 MHz band				Launched
454	Ukraine	Life (Astelit)	Planning deployment				Launched
455	Uruguay	Ancel	Launched July 27, 2007; now 7.2 Mbps	7.2 Mbps			Launched
456	Uruguay	Movistar	Launched July 2007	3.6 Mbps			Launched
457	Uruguay	Claro	Launched November 13, 2007 21 Mbps HSPA+ launched Nov 2011	21 Mbps		21 Mbps launched Nov 2011	Launched
458	USA	AT&T	Launched December 6, 2005 7.2 Mbps on all 3G sites by end 2009. 21 Mbps HSPA+ launched Nov 2010	21 Mbps	Launched 2 Mbps	21 Mbps launched Nov 2010	Launched

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#	Country	Operator	HSDPA network deployment status	HSDPA	HSUPA	HSPA+	EDGE
459	USA	Cincinnati Bell	Launched July 5, 2011 21 Mbps HSDPA+ 5.8 Mbps HSUPA	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 05.07.11	
460	USA	GCI	Launched 2010 (E) Initially 7.2 Mbps HSPA 21 Mbps HSPA+ launched Sept 12, 2011	21 Mbps	Launched 2 Mbps	21 Mbps launched 12.09.11	Launched
461	USA	i wireless	Launched October 1, 2010 * speed subject to confirmation with operator	7.2 Mbps			
462	USA	T-Mobile	Launched May 5, 2008 21 Mbps HSPA+ launched Sept 2009. 42 Mbps DC-HSPA+ launched April 2011	42 Mbps	Launched 5.8 Mbps	42 Mbps upgrade launched April 2011	Launched
463	USA	Stelera Wireless	Launched Feb 8, 2008	7.2 Mbps	Launched 2 Mbps		
464	USA	TerreStar	Ancillary terrestrial component HSPA in deployment				
465	USA	BendBroadband	Launched December 15, 2009 21 Mbps HSPA+	21 Mbps	5.8 Mbps	21 Mbps launched 15.12.09	
466	USA	US Army	In deployment at Idaho National Laboratory				Launched
467	USA	Mosaic Telecom	(Wisconsin) in deployment				
468	Uzbekistan	Unitel/Beeline	Launched 2009 21 Mbps HSPA+ in deployment	3.6 Mbps		In deployment	Launched
469	Uzbekistan	MTS	Launched December 4, 2008 in Tashkent, then Samarkand, Bukhara, Urgench, Khiva	3.6 Mbps			Launched
470	Uzbekistan	Ucell	Launched February 28, 2009 42 Mbps DC-HSPA+ launched Feb 2011	42 Mbps		42 Mbps launched Feb 2011	Launched
471	Vanuatu	Digicel	Launched December 7, 2011	7.2 Mbps	Launched 5.8 Mbps		Launched
472	Venezuela	Digitel 900 MHz	Launched UMTS900 on March 2, 2009	3.6 Mbps			Launched
473	Venezuela	Movilnet	Launched March 24, 2010	3.6 Mbps			Launched
474	Venezuela	Movistar	Launched December 9 2008 HSUPA launched November 25, 2009	7.2 Mbps	Launched 2 Mbps		Launched
475	Vietnam	EVNTelecom	Launched June 2010 14.4 Mbps planned	7.2 Mbps			Launched
476	Vietnam	Vinaphone	Launched October 13, 2009 in 13 provincial cities – target of nationwide 14.4 Mbps in 2010	7.2 Mbps			Launched
477	Vietnam	Mobifone	Launched December 15, 2009	7.2 Mbps			Launched
478	Vietnam	Viettel/Metfone	Launched March 25 2010 14.4 Mbps across 3G network, 21 Mbps HSPA+ some areas.	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 25.03.10	Launched
479	Vietnam	Vietnamobile	Launched December 1, 2011 21 Mbps HSPA+	21 Mbps		21 Mbps launched 01.12.11	
480	Zambia	Bharti Airtel	Launched January 17, 2012 280 sites, 21 Mbps HSPA+ (400 sites planned by end 2012)	21 Mbps	Launched 5.8 Mbps	21 Mbps launched 17.01.12	Launched
481	Zambia	Zamtel/Cell Z	In deployment; technology demonstration given to journalists on August 25, 2011				Launched
482	Zimbabwe	Econet Wireless	Launched August 28, 2009	1.8 Mbps			Launched
483	Zimbabwe	Telecel	In deployment. Final pilot phase from May 2011				

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The global status of HSPA+ operator commitments, network deployments, commercial launches and evolution plans is summarized for convenience in a separate related report: "Global HSPA+ Network Commitments and Deployments" which is available to download via the link on www.gsacom.com

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