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The Handoff: A Wireless Weekly

Highlights for CTIA IT Wireless Show

Marc A. Cabi
1 415 836 7701
marc.cabi@csfb.com

Tim Long
1 415 836 8626
tim.long@csfb.com

Ray Sharma
1 416 352 4592
ray.sharma@csfb.com

Randy Abrams
1 415 836 6336
randy.abrams@csfb.com

Irving Ho, CFA
1 416 352 4591
irving.ho@csfb.com

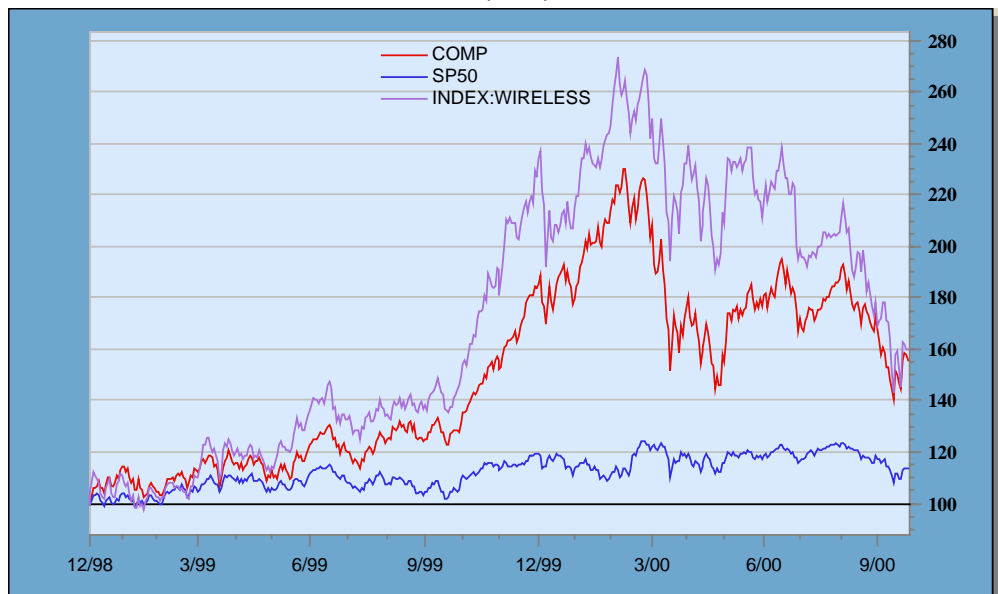
News Highlights for the Week

- CTIA Wireless I.T. 2000 was held last week in Santa Clara with over 7,000 attendees and a 4-fold increase (vs. 1999) in the number of exhibitors, demonstrating the explosive growth in the wireless industry. The show floor was buzzing with companies focusing on themes such as: mobile enterprise applications, mobile commerce, and location-based services.

News Highlights for the Week

- A new report by eMarketer predicts that interest in fixed wireless broadband access to the Internet will climb rapidly over the few years, reaching 3.86 million U.S. users in 2003.
- Nokia and BT Cellnet, the UK's second largest digital mobile operator, have signed a deal valued at more than \$430 million for the supply of Nokia GSM base stations and related equipment and services.
- Italy raised 12.2 billion euros (\$10.3 billion) from the sale of five 3G licenses, including subsidiaries of Vodafone, Telefonica, Wind and France Telecom.

Exhibit 1: Performance Summary - Wireless Communications Technology Universe versus S&P 500 versus Nasdaq Composite



Source: CSFB Technology Group * Telecom unweighted composite includes: AIRN, AETH, ALA, ERICY, FLRE, INSP, LU, MOT, NOK, NT, NTRO, PHCM, QCOM, SW, TLXS, TNSI, VVYO, WFII and WVCM.

Commentary: Review of CTIA Wireless I.T. 2000

CTIA Wireless I.T. 2000 was held last week in Santa Clara with over 7,000 attendees and a 4-fold increase (vs. 1999) in the number of exhibitors, demonstrating the explosive growth in the wireless industry. The show floor was buzzing with companies focusing on themes such as: mobile enterprise applications, mobile commerce, and location-based services.

The show kicked off with a keynote session featuring Dennis Patrick, President of AOL Wireless. Patrick focused on the company's AOL Anywhere strategy, providing access to AOL services such as email or instant messaging on any device (wireline or wireless). AOL's wireless strategy is similar to its wireline strategy. The company hopes to drive rapid adoption by providing its services to the mass market in an easy to use format.

To execute on its wireless strategy, AOL also relies on partnerships with companies like NTT DoCoMo. The company recently announced a partnership with DoCoMo to provide AOL email and AIM on i-Mode in Japan. DoCoMo, like AOL, has enjoyed tremendous success (currently over 13 million i-Mode subscribers) by providing a user experience, which is convenient and easy to use. Patrick added that the partnership with DoCoMo does not mean that they will be bringing the i-Mode service to the U.S. Finally, Patrick noted that AOL will not export all of its desktop applications to the wireless world, just ones that it believes will be successful in the wireless environment.

Wireless Survivors

CTIA held a "Wireless Survivor" contest with 89 companies in 6 categories vying to present their product or solution to the keynote attendees. Winners in each category were chosen via online voting with two of the winners making presentations.

One of the survivors was AdaptiveInfo, which provides personalized content and prioritizes the delivery of the content to wireless devices for both the business and consumer market. Using its Adaptive Information Server (AIS) software, the company learns user preferences then prioritizes information sent to the wireless device. Personalization technology will be useful for the mobile professional who demands information in a timely manner anywhere, anytime. Information such as news reports, stock quotes, and enterprise info (ie. sales force automation, ERP) can be sent to a wireless device with the most relevant content appearing first. AdaptiveInfo believes that its solution increases usage on wireless devices by over 40%.

The other survivor to present was Invertix, which provides IM-Anywhere, a platform offering wireless instant messaging (WIM) and location-presence information. IM-Anywhere provides carriers with a WIM service and also allows users to send and receive buddy list information. Invertix believes that IM-Anywhere can become a clearinghouse for location/presence information of subscribers (with the approval of the subscriber). Information such as whether the device is on or off, and location (intersection, zip code) could be provided to merchants who wish to send targeted messages to subscribers and potentially initiate a transaction. Invertix expects to become a one-stop shopping center to merchants and retailers for presence information and offer a revenue sharing model with carriers.

Mobile Enterprise Applications

One of the most popular themes we noticed on the show floor were companies offering mobile enterprise applications. Many solutions offered today allow access

to corporate email, calendar, address book and intranet applications. Below we highlight a few of the more interesting solutions from the show.

- NotWired - allows co-workers to share and update calendar, address book and task info online and via wireless devices. Information is stored securely in a central online site.
- IDini - Mobile Desktop Service offers wireless access to corporate files (Word, Excel, PowerPoint, HTML, PDF). Files are stored in a secure online site and can be edited, viewed, emailed or faxed via a PDA or cell phone.
- Sitraka Mobility - ActionableAlerts solution uses rules to determine which alerts are sent to a user's wireless device based on business events and any other data. The user can then respond immediately via their wireless device with an appropriate action. For example, an investment advisor is sent an alert when XYZ stock falls 10% or more. Once the alert is sent to the advisor, using his wireless device he can find out which clients own the stock and ask them if they wish to sell by sending them a short prompt.

Mobile Commerce

Mobile commerce continues to be a key focus of the mobile Internet. Companies are beginning to expand beyond just mobile financial services to other areas of m-commerce and even enterprise applications to create customer stickiness. w-Technologies (formerly w-Trade) is extending its platform from financial services and m-commerce apps to enterprise apps such as CRM, ERP, and Sales Force Automation. SmartServ Online is also expanding beyond financial services to wireless wallet applications and location-based commerce. During the past year, 724 Solutions has also been extending its Financial Services Platform to other areas of m-commerce such as wireless wallet applications, content/account aggregation and alerts services.

Location-based Services

We believe that location-based services will be an exciting area of the mobile Internet. Our tour of the show floor demonstrated that both the infrastructure providers (Cell-Loc, SnapTrack - division of Qualcomm and SignalSoft) and location-services providers (TimesThree, @Road, Kivera, and XYPoint) will be areas to watch. The possibilities, beyond e911 implementation, are limitless for location-based services. Invertix's WIM/location solution (discussed above) is an example of what we can expect to see in the future. We also expect to see additional applications for Enhanced 411 (request information on a merchant and receive directions), and Location-sensitive billing (variable rate billing based on location).

Summary

If the increase in attendance and number of exhibitors are an indicator of things to come, we can expect a continuation in the explosive growth of the mobile Internet. We expect to see continued innovation location-based services, mobile commerce, and mobile enterprise applications, with companies seeking to offer the best solutions optimized for wireless devices.

Communications Equipment Earnings Release Dates

DATE	TICKER	COMPANY	TIME (EST)	DIAL-IN #	Replay	SECTOR	FY END	EPS Est vs. Yr Ago Actual * Denotes First Call Est
Oct 25	Q	Qwest Communications	9:00am	800 448 6419 or 847 413 3236	Replay through 11/1: 800 227 7114 or 402 222 9741	Wireline Services	DEC	*\$0.10E vs. \$0.03A
Oct 25	WVCM	Wavecom	11:00am	913-981-5542	Replay 719-457-0820 code 772775	Wireless Equipment	DEC	\$(0.17E) vs. \$(0.20A)
Oct 25	WFII	Wireless Facilities	4:30pm	212-676-5180	Replay 858-812-6440 code 16425105	Wireless Equipment	DEC	\$0.19E vs. \$0.07A
Oct 25	SVNX	724 Solutions	5:00pm	416-641-6685	Replay 416-626-4100 code 16559841	Wireless Equipment	DEC	\$(0.52E) vs. \$(0.22A)
Oct 25	FLRE	Floware	9:00am	719-457-2625	Replay 719-457-0820 code 780598	Wireless Equipment	DEC	\$(0.11E) vs. N/A
Oct 25	T	AT&T	8:00am	800-230-1093 int'l 612-332-0107	800-475-6701 int'l 320-365-3844 code 539338	Wireline Services	DEC	*\$(0.36E) vs. \$(0.54A)
Oct 25	AWE	AT&T Wireless	10:00am	800-230-1092 int'l 612-288-0337	800-475-6701 int'l 320-365-3844 code 539339	Wireless Equipment		
Oct 25	WCG	Williams Communications				Wireline Services	DEC	
Oct 25	NUFO	New Focus	5:00pm	800-289-0436 int'l 913-981-5507 passcode 465427	Replay 888-203-1112 int'l 719-457-0820 code 465427	Wireline Equipment	DEC	\$0.11E vs. \$0.04A
Oct 26	PILT	Pilot Network Services	5:00pm	719-457-2649			MAR	
Oct 26	CLRN	Clarent				Data Networking	DEC	*\$(0.03E) vs. \$(0.09A)
Oct 26	CLRN	Clarent Corp.	5:30pm	(800) 231-9012 or (719) 457-2617 (International) pc: 774519	Replay: 888-203-1112 or 719-457-0820 pc: 774519	Storage and Data Networking	DEC	
Oct 26	WMB	Williams	10:00am	800-491-3423 or 303-267-1000	Replay 800-625-5288 or 303-804-1855 code 800891	Wireline Services	DEC	*\$0.11E vs. \$0.05A
Oct 26	VOCL	Vocaltec Communications, Ltd	8:30am	888-273-9887	800-475-6701 code 542704		DEC	
Oct 26	JDSU	JDS Uniphase	4:30pm	800-230-1096 int'l 612-332-0228 or 612-288-0318	Replay 800-475-6701 code 538121 int'l 320-365-3844 code 538121	Wireline Equipment	JUN	\$0.16E vs. \$0.08A
Oct 26	ACCL	Accelerated Networks	4:45pm	888-434-1242 int'l 212-346-6409 rsvp will@blueshirtgroup, or 415-217-5867	800-633-8284 passcode 16639521 int'l 858-812-6440	Wireline Equipment	DEC	\$0.17E vs. \$0.13A
Oct 26	TLXS	Telaxis	8:30am	800-553-2197	Replay 800-696-1588 code 829496	Wireless Equipment	DEC	\$(0.32E) vs. \$(0.27A)
Oct 27	CCUR	Concurrent Computer Corp.	9:00am	877-601-4484 passcode 'concurrent'			JUN	
					Week of Oct 30			
Oct 30	VZ	Verizon	9:00am	888-209-4006 int'l 212-896-6099	800-633-8625 int'l 858-812-6450 res. 16241181	Wireline Services	DEC	\$0.73E vs. \$0.73A
Oct 30	ALN	Allen Telecom				Wireless Equipment	DEC	
Oct 31	ALA	Alcatel				Wireline Equipment	DEC	
Oct 31	ONIS	ONI Systems Corp	4:30pm	800-248-9412	Replay 800-633-8284 int'l 858-812-6440 res 16660148	Wireline Equipment	DEC	

DATE	TICKER	COMPANY	TIME (EST)	DIAL-IN #	Replay	SECTOR	FY END	EPS Est vs. Yr Ago Actual * Denotes First Call Est
Oct 31	STK	Storage Tek				Enterprise Hardware	DEC	*\$0.14E vs. \$0.05A
Nov 1	CHTR	Charter Communications				Cable Services	DEC	*\$(0.90E) vs. \$(0.57A)
Nov 1	COX	Cox Communications	11:00am	RSVP w/ Brainerd Communications @ stonge@braincomm.com		Cable Services	DEC	*\$(0.09E) vs. \$(0.02A)
Nov 2	QCOM	Qualcomm				Wireless Equipment	SEP	\$0.24E vs. \$0.23A
	STOR	Storage Networks				Storage and Data Networking	DEC	
Week of Nov 6								
Nov 6	CSCO	Cisco Systems				Data Networking	JUL	\$0.17E vs. \$0.11A
Nov 8	CVC	Cablevision	10:00am	212-896-6020	800-633-8284 res. 16487220	Cable Services	DEC	*\$(0.92E) vs. \$(1.17A)
Nov 8	BKHM	Bookham Technology	8:30am	303-224-6997, UK dial in 020-8240 8247 int'l 44 020 8240 8247	303-804-1855 code 827205 int'l 440 020 8288 4459 code 650062	Wireline Equipment	DEC	
	PRCM	Procom Technology				Storage and Data Networking	JUL	*\$(0.09E) vs. \$(0.14A)
Week of Nov 13								
Nov 14	SCMR	Sycamore Networks	4:30pm	212-896-6004	800-633-8284 int'l 858-812-6440 code 16615053	Wireline Equipment	JUN	\$0.01E vs. \$(0.02A)
Nov 15	CFLO	CacheFlow				Data Networking	APR	*\$(0.11E) vs. \$(0.22A)
Nov 16	LNIX	VA Linux Systems	5:00pm	800-230-1074 pc: 543537	(800) 475-6701 int'l. (320) 365-3844 pc: 543537	Enterprise Hardware	OCT	*\$(0.09E) vs. \$(0.27A)
Week of Nov 20								
	NTAP	Network Appliance				Enterprise Hardware	APR	*\$0.09E vs. \$0.05A
	ADCT	ADC Telecom				Wireline Equipment	OCT	\$0.19E vs. \$0.11A
Week of Dec 4								
Dec 7	CIEN	Ciena				Wireline Equipment	OCT	*\$0.12E vs. \$0.02A

Wireless Telecom News

10/18/00–10/24/00

WEDNESDAY, OCTOBER 18

- AT&T Wireless will be the first national U.S. phone company to offer two-way text messaging on mobile phones. The new service lets subscribers send and receive text messages up to 150 characters long using one of four Nokia phone models.
- A recent report by eMarketer predicts that interest in fixed wireless broadband access to the Internet will climb rapidly over the few years, reaching 3.86 million U.S. users in 2003.

THURSDAY, OCTOBER 19

- Airspan Networks has signed agreements to provide its AS4000 wireless DSL platform to six telecoms in various countries.
- Nokia and BT Cellnet, the UK's second largest digital mobile operator, have signed a deal valued at more than \$430 million for the supply of Nokia GSM base stations and related equipment and services. The agreement allows Nokia to remain the main base station supplier for BT Cellnet's GSM mobile network.
- The next wave of wireless Internet services was on display at Ceatac Japan 2000 in suburban Tokyo. Within the next few months, Japan's leading phone and electronics firms will unveil mobile services including video images, interactive games and CD-quality music.

FRIDAY, OCTOBER 20

- Alcatel raised \$1.2 billion by offering 16.5 million new shares that will track the performance of Optronics, its optical networking division.
- MobilCom of Germany announced a 3G contract with Ericsson valued at \$1.35 billion. Ericsson will build up the complete network infrastructure as a turn-key supplier. MobilCom recently acquired one of six German UMTS licenses.
- RF Micro Devices has announced the completion of the RF2469, a component of W-CDMA and PCS handsets. The first W-CDMA-capable phones are expected to launch commercially in 2001.
- General Motors plans to spend \$10 million to study how phones and other devices distract drivers. The study is part of an effort to maximize safety in its in-vehicle communication systems.

MONDAY, OCTOBER 23

- Floware has appointed Tzvika Friedman to the newly created position of Chief Operating Officer. Friedman comes to Floware from ECI Telecom and will oversee research and development, sales, marketing and customer service.
- International travel publisher Lonely Planet has released a Springboard module for the Handspring Visor module. The product is named CitySync and comes preloaded with guides to New York City, Chicago, San Francisco, Los Angeles and a city of the user's choice.
- Italy raised 12.2 billion euros (\$10.3 billion) from the sale of five mobile phone licenses. Major bidders included subsidiaries of Vodafone, Telefonica, Wind and France Telecom.

- Motorola, Lucent and Texas Instruments have each won licenses to supply GPRS mobile phones for China, gaining a foothold in Asia's biggest cell phone market.

TUESDAY, OCTOBER 24

- Alcatel has won a \$250 million contract to build a DWDM (Dense Wavelength Division Multiplexing) network linking Singapore with Chennai in India. The network is being undertaken by Singapore Telecommunications (SingTel) and Bharti Enterprises.
- Qualcomm announced the completion of the first successful voice and data field trial using 3G CDMA technology. The tests were conducted with Sprint, Samsung and 3Com and illustrated the potential for integrating voice and data in one cell at the same radio frequency.
- Spanish GSM operator Telefonica Moviles has announced the participation of Motorola in the launch deployment of its 3G network in Spain. Commercial service is expected to debut in August 2001.
- Nuance has made its latest speech recognition software, Nuance 7.0, fully compatible with Intel Dialogic's Voice Portal Platform and Continuous Speech Processing boards. The combination of software and hardware is aimed at developers of voice-activated Web content.

Exhibit 3

Group Price Performance for the Past Week

	Ticker	Rating	Price 10/24/00	Price 10/18/00	% Change
SYSTEMS COMPANIES					
ERICSSON	ERICY	SB	12.69	13.38	-5.1%
LUCENT TECHNOLOGIES	LU	SB	21.63	21.00	3.0%
NORTEL NETWORKS	NT	SB	63.31	59.81	5.9%
ALCATEL	ALA	B	65.88	58.50	12.6%
WIRELESS SYSTEMS AND NETWORK EQUIPMENT SUPPLIERS					
MOTOROLA	MOT	B	22.81	20.75	9.9%
NOKIA	NOK	SB	40.00	30.00	33.3%
QUALCOMM	QCOM	H	71.00	74.81	-5.1%
RESEARCH IN MOTION	RIMM	B	118.75	116.94	1.5%
WIRELESS FACILITIES	WFII	SB	62.66	50.50	24.1%
MOBILE INTERNET TECHNOLOGY SUPPLIERS					
PHONE.COM	PHCM	SB	107.75	83.69	28.8%
HANDSPRING	HAND	B	88.13	91.56	-3.8%
724 SOLUTIONS	SVNX	SB	37.38	31.31	19.4%
INFOSPACE	INSP	B	21.94	16.50	33.0%
AETHER SYSTEMS	AETH	SB	101.13	77.94	29.8%
COMPONENTS, ANTENNAS AND PERIPHERALS					
RF MICRO DEVICES	RFMD	SB	15.38	14.25	7.9%
CONEXANT	CNXT	SB	25.44	26.31	-3.3%
WAVECOM	WVCM	SB	65.13	71.13	-8.4%
BROADBAND WIRELESS SUPPLIERS					
TELAXIS	TLXS	H	5.44	3.50	55.4%
NETRO	NTRO	NR	23.94	46.25	-48.2%
FLOWARE	FLRE	B	21.00	23.38	-10.2%
AIRSPAN	AIRN	B	5.50	6.81	-19.3%
TRITON	TNSI	B	8.69	9.94	-12.6%
VYVO	VYVO	NR	23.81	21.88	8.9%
ADAPTIVE BROADBAND	ADAP	NR	15.69	15.50	1.2%
Average:					6.6%

Source: FactSet.

Exhibit 4
Communications Technology Events Calendar

Oct 2000

Oct 16-18	CTIA Wireless I.T. 2000 (Santa Clara, CA)
Oct 16-18	The MeT Workshop (Amsterdam, Netherlands)
Oct 17-19	Int'l Strategic Telecommunications Summit (New Delhi, India)
Oct 23-24	Broadband Networking Retreat (San Diego, CA)
Oct 25-27	2000 CDMA Americas Congress (San Diego, CA)
Oct 30-3	Next Generation Networks (Washington, DC)
Oct 30 –2	Mobile Location Services 2000 (London, UK)

Nov 2000

Nov 6-7	Global Mobile Roaming 2000 (Brussels, Belgium)
Nov 27-30	WAP Congress 2000 (Seville, Spain)
Nov 27-Dec 1	CSFB Annual Technology Conference (Scottsdale, AZ)

Dec 2000

Dec 4-9	ITU Telecom Asia 2000 (Hong Kong)
Dec 5-6	Smartphones (Vienna, Austria)
Dec 6-7	GSM Americas (Rio de Janeiro, Brazil)

Source: CSFB Technology Group.

Exhibit 5
Valuation Summary—Telecom Equipment System Suppliers / Wireless Suppliers

SYSTEMS COMPANIES	Ticker	Rating	Analyst Coverage	Price 10/24/00	Price Change			SHS (MIL)	Mcap (MIL)	Revenue			EPS			P/E			Firm Value / Sales			Secular Growth	C00(E) P/E/G		
					6-Mo.	1-Yr.	YTD			C99(A)	C00(E)	C01(E)	C99(A)	C00(E)	C01(E)	C99(A)	C00(E)	C01(E)	C99(A)	C00(E)	C01(E)				
Cisco	CSCO	SB	JP/AC	54.88	(13.5%)	64.9%	2.5%	7,296	400,368	14,991	22,694	30,529	0.43	0.60	0.83	127.6x	91.5x	66.1x	26.3x	17.4x	12.9x	35.0%	2.6		
Nortel Networks	NT	SB	JP/MC	63.31	28.6%	129.2%	25.4%	3,086	195,382	21,099	30,543	39,750	0.50	0.73	1.00	126.6x	86.7x	63.3x	9.2x	6.4x	4.9x	27.0%	3.2		
Ericsson	ERICY	SB	MC/AB	12.69	(32.3%)	29.9%	(22.7%)	8,024	101,805	26,237	30,273	38,101	0.17	0.22	0.36	74.6x	57.7x	35.2x	3.9x	3.4x	2.7x	23.0%	2.5		
Lucent Technologies	LU	SB	JP/MC	21.63	(62.1%)	(59.3%)	(69.4%)	3,331	72,033	30,011	35,862	42,290	1.05	1.06	1.35	20.6x	20.4x	16.0x	2.5x	2.1x	1.8x	20.0%	1.0		
Alcatel	ALA	B	IB/MC	65.88	56.6%	123.8%	46.4%	1,171	77,140	20,721	27,005	33,323	1.10	1.40	1.73	59.9x	47.1x	38.1x	3.8x	2.9x	2.4x	15.0%	3.1		
WIRELESS SYSTEMS & NETWORK EQUIPMENT SUPPLIERS																									
Sierra Wireless	*SW	B	RS	113.50	79.4%	537.6%	74.6%	15	1,754	24	44	95	0.23	(0.27)	0.38	493.5x	-	298.7x	72.5x	39.4x	18.3x	100.0%	-		
Qualcomm	QCOM	H	MC	71.00	(28.7%)	31.6%	(59.7%)	801	56,899	2,682	2,778	3,563	0.89	1.06	1.30	79.8x	67.0x	54.6x	20.6x	19.9x	15.5x	25.0%	2.7		
Wireless Facilities	WFII	SB	MC	62.66	4.6%	-	43.6%	49	3,083	93	239	335	0.31	0.72	0.92	202.1x	87.0x	68.1x	32.9x	12.8x	9.1x	23.0%	3.8		
Nokia	NOK	SB	MC/AB	40.00	(15.8%)	52.2%	(16.3%)	4,795	191,809	20,365	27,940	38,707	0.56	0.71	0.86	71.4x	56.3x	46.5x	9.3x	6.8x	4.9x	25.0%	2.3		
Proxim	PROX	NA	NA	54.95	59.3%	202.1%	(0.1%)	13	692	70	107	145	0.72	0.99	1.46	76.3x	55.5x	37.6x	9.3x	6.1x	4.5x	36.0%	1.5		
Motorola	MOT	B	MC	22.81	(34.8%)	(27.0%)	(53.5%)	2,250	51,321	32,148	37,918	44,071	0.62	0.96	1.15	36.5x	23.8x	19.8x	1.8x	1.5x	1.3x	12.5%	1.9		
MOBILE INTERNET TECHNOLOGY SUPPLIERS																									
@Road	ARDI	SB	MC	6.63	-	-	-	38	254	1	8	42	(0.37)	(1.05)	(0.43)	-	-	-	249.6x	19.6x	3.6x	100.0%	-		
Aether Systems	AETH	SB	CM	101.13	(5.3%)	129.8%	41.2%	38	3,873	5	42	98	(1.08)	(1.39)	(1.96)	-	-	-	70.5x	30.2x	-	100.0%	-		
AvantGo	AVGO	B	TR	14.25	-	-	-	33	475	3	14	26	(0.46)	(1.42)	(1.37)	-	-	-	137.8x	28.0x	15.3x	100.0%	-		
Infospace	INSP	B	TR	21.94	(59.4%)	81.2%	(59.0%)	249	5,462	37	108	210	0.03	(0.08)	0.07	731.3x	-	313.4x	144.1x	49.4x	25.3x	68.0%	-		
Nuance	NUAN	SB	MC	106.25	272.8%	-	-	29	3,058	20	45	72	(0.97)	(0.85)	(0.60)	-	-	-	151.2x	65.4x	41.3x	75.0%	-		
Speechworks	SPWX	NA	NA	84.25	-	-	-	22	1,887	14	26	52	(0.85)	(1.02)	(0.64)	-	-	-	126.3x	69.1x	33.9x	75.0%	-		
Phone.com	PHCM	R	MC	107.75	72.7%	(6.0%)	(7.1%)	81	8,674	32	125	259	(0.85)	(0.56)	(0.38)	-	-	-	261.5x	66.2x	32.0x	100.0%	-		
7-24 Solutions	SVNX	SB	MC	37.38	(16.9%)	-	-	37	1,372	1	21	51	(0.78)	(1.66)	(2.33)	-	-	-	-	56.7x	23.2x	62.5%	-		
OmniSky	OMNY	B	TN/MC	15.69	-	-	-	65	1,022	1	11	65	(0.03)	(1.88)	(2.50)	-	-	-	-	75.7x	13.0x	100.0%	-		
SignalSoft Corp	SGSF	B	MC/SP	37.50	-	-	-	23	855	2	12	29	(1.19)	(1.05)	(0.60)	-	-	-	339.6x	55.2x	23.2x	100.0%	-		
HANDHELD/WIRELESS DEVICE COMPANIES																									
Research in Motion	RIMM	B	RS/MC	118.75	229.9%	262.6%	157.1%	79	9,386	85	181	303	0.09	0.15	0.01	1319.4x	791.7x	-	107.9x	50.7x	30.3x	100.0%	NM		
Handspring	HAND	B	MC	88.13	-	-	-	151	13,298	-	262	553	0.00	0.48	0.31	-	183.6x	284.3x	-	50.1x	23.7x	40.0%	4.6		
Palm, Inc.	PALM	MC	MC	60.13	104.2%	-	-	565	33,941	735	1,549	2,601	0.00	0.14	0.22	-	429.5x	273.3x	44.9x	21.3x	12.7x	40.0%	NM		
COMPONENTS, ANTENNAS & PERIPHERALS																									
Sawtek	SAWS	NA	NA	37.06	(16.2%)	(16.1%)	(44.3%)	43	1,575	110	143	179	0.80	1.02	1.28	46.3x	36.3x	29.0x	13.1x	10.1x	8.1x	25.0%	1.5		
Wavecom	WVCM	SB	IB/MC	65.13	(16.5%)	283.1%	(31.3%)	14	886	35	64	170	(1.25)	(0.71)	0.75	-	-	86.8x	24.7x	13.5x	5.1x	30.0%	-		
RF Micro Devices	RFMD	SB	CG/MC	15.38	(61.4%)	(33.2%)	(55.1%)	82	1,253	261	408	610	0.54	0.79	1.12	28.5x	19.5x	13.7x	4.7x	3.0x	2.0x	50.0%	0.4		
Conexant	CNXT	SB	CG	25.44	(56.2%)	(42.2%)	(61.7%)	249	6,322	1,659	2,215	2,892	0.60	0.84	1.22	42.4x	30.3x	20.9x	3.9x	2.9x	2.2x	40.0%	0.8		
Spectrian	SPCT	NA	NA	12.25	(31.5%)	(59.0%)	(56.6%)	11	140	145	-	-	(1.83)	0.79	1.18	-	15.5x	10.4x	0.7x	-	-	15.0%	1.0		
BROADBAND WIRELESS SUPPLIERS																									
Vyyo	VYYO	NA	NA	23.81	7.6%	-	-	36	848	13	53	53	(0.55)	(0.70)	-	-	-	-	54.6x	13.3x	-	50.0%	-		
Netro Corporation	NTR0	B	TL/MC	23.94	(41.1%)	(2.3%)	(53.1%)	56	1,340	18	73	190	(0.67)	(0.13)	0.30	-	-	79.8x	53.6x	13.2x	5.1x	50.0%	-		
Triton	TNSI	B	MC/TL	8.69	-	-	-	36	312	-	30	75	(1.56)	(1.52)	(0.87)	-	-	-	-	6.7x	2.7x	50.0%	-		
Airspan	AIRN	B	MC/TL	5.50	-	-	-	38	211	12	31	58	(1.37)	(0.91)	(0.67)	-	-	-	11.0x	4.5x	2.4x	50.0%	-		
Breezecom	BRZE	NA	NA	20.81	4.1%	-	-	34	703	45	70	100	(0.26)	0.04	0.10	-	520.3x	208.1x	13.3x	8.5x	6.0x	50.0%	NM		
Adaptive Broadband	ADAP	NA	NA	15.69	(49.4%)	(15.3%)	(57.5%)	34	530	124	149	179	(0.89)	(0.06)	0.58	-	-	27.0x	4.1x	3.4x	2.9x	20.0%	-		
Flower	FLRE	B	MC/TL	21.00	-	-	-	34	710	3	30	68	(0.05)	(0.53)	(0.43)	-	-	-	192.6x	21.2x	9.4x	50.0%	-		
Telaxis	TLXS	H	MC/TL	5.44	(75.1%)	-	-	19	102	10	28	38	(0.95)	(1.05)	(0.70)	-	-	-	5.7x	2.0x	1.5x	50.0%	-		
Digital Microwave	DMIC	H	TL/MC	24.38	(20.6%)	84.0%	4.0%	70	1,697	272	385	501	0.03	0.41	0.83	812.5x	59.5x	29.4x	5.9x	4.2x	3.2x	35.0%	2.0		
UTStarcom	UTSI	SB	TL/MC	19.00	(49.3%)	-	-	105	1,986	188	331	440	0.28	0.40	0.55	67.9x	47.5x	34.5x	9.3x	5.3x	4.0x	30.0%	-		
Western Multiplex	WMUX	NA	NA	13.88	-	-	-	52	717	45	89	135	0.09	0.05	0.12	154.2x	277.5x	115.6x	10.5x	5.3x	3.5x	50.0%	NM		
Ceragon (Gigaset)	CRNT	NA	NA	14.50	-	-	-	20	296	5	21	44	(0.79)	(0.26)	0.05	-	-	290.0x	48.4x	10.7x	5.0x	50.0%	-		
P-Com	PCMS	NA	NA	5.06	(43.4%)	(7.4%)	(42.8%)	77	389	152	232	302	(0.86)	0.10	0.36	-	-	50.6x	14.1x	2.7x	1.8x	1.4x	30.0%	1.7	
WIRELESS TECHNOLOGY GROUP MEDIANS				23.88	(16.0%)	31.6%	(31.3%)	65	1,636	89	125	210	0.00	0.10	0.36	76.3x	56.3x	36.7x	11.0x	10.4x	5.0x	50.0%	1.9		
WIRELESS TECHNOLOGY GROUP AVERAGE				43.08	14.0%	79.4%	(12.3%)	849	32,147	4,927	5,694	7,209	(0.13)	(0.00)	0.27	226.1x	160.5x	88.1x	43.4x	23.8x	12.1x	52.0%	2.0		
S&P Industrials				1,676	(5.5%)	5.1%	(9.0%)	NM	NM	NM	NM	NM	#N/A	59.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
S&P 500				1,398	(2.2%)	7.4%	(4.8%)	NM	NM	NM	NM	NM	NM	#N/A	54.00	NA	NA	NA	NA	25.9x	NA	NM	NM	NM	NM

All estimates for stocks not covered by CSFB are courtesy of First Call

ANALYSTS	
MC - Marc A. Cabi	RS - Ray Sharma
IB - Ian Burgess	CG - Charlie Glavin
JP - James P. Parmelee	CM - Cynthia Motz
AC - Amit Chopra	TR - Todd Raker
TN - Tim Newington	TL - Tim Long

RATINGS	
SB - Strong Buy	H - Hold
B - Buy	R - Restricted
S - Sell	NA - No Analyst

Source: Credit Suisse First Boston Technology Group, First Call.

Exhibit 6
Telecom Equipment Scoreboard September 2000

Company	Date	Technology	Customer	Country	(in millions)
September					
Ericsson	9/6/00	GSM expansion and GPRS Upgrade	Islandssimi	Denmark	ND
	9/6/00	Fixed and Mobile GSM Expansion	Guangdong	China	550
	9/18/00	3G WCDMA	J-Phone	Japan	ND
	9/19/00	3G WCDMA - Pending License Award	Telecom Italia Mobile	Italy	ND
	9/20/00	3G WCDMA - Pending License Award	WIND	Italy	ND
	9/20/00	3G WCDMA - Pending License Award	Andala Hutchison	Italy	ND
	9/20/00	GSM Expansion - Engine	Italian EdisonTel	Italy	9
	9/25/00	GSM Expansion - Engine	BT	UK	ND
Ericsson September Total					559
Ericsson YTD					4,664
Lucent	9/5/00	LMDS Network	Crowley Data	Poland	ND
	9/11/00	7R/E Packet Switching	Integra Telecom	USA	ND
	9/12/00	Optical Network Expansion	Nextlink	USA	25
	9/12/00	Enterprise Network Upgrade	Cook County	USA	17.5
	9/18/00	Broadband Wireless Access	Sprint	USA / Arizona	ND
	9/27/00	Broadband Optical	JCI	USA	35
	9/27/00	Broadband Optical	Fujian Mobile	China	8.8
	9/27/00	Broadband Optical	China Unicom	China	14
Lucent September Total					100
Lucent YTD					7,437
Motorola	9/20/00	GSM Expansion	Eastcom/Beijing MCC	China	30
	9/20/00	GPRS Core	UAB Omnitel	Lithuania	ND
	9/27/00	Broadband	Cablevision	Mexico	128
	9/27/00	GSM	MTC	Kuwait	28
Motorola September Total					186
Motorola YTD					5,457
Nokia	9/5/00	GSM Upgrade	Eircell	Ireland	30
	9/6/00	GSM Upgrade	M1	Singapore	40
	9/7/00	GPRS Core	C&W Optus	Australia	ND
	9/20/00	GSM Expansion	China Unicom	China	100
	9/27/00	GPRS Core	Telefonica Moviles	Spain	ND
Nokia September Total					170
Nokia YTD					4,115
Nortel	9/4/00	Internet Data Center	C&W Optus	Australia	ND
	9/6/00	Internet Dial Switch	Telewest	UK	ND
	9/7/00	3G Contract	Airtel	Spain	100
	9/18/00	Wireless Network	Leap	USA	350
Nortel September Total					450
Nortel YTD					11,142
Cummulative September Total					1,466
Cummulative YTD Total					32,814

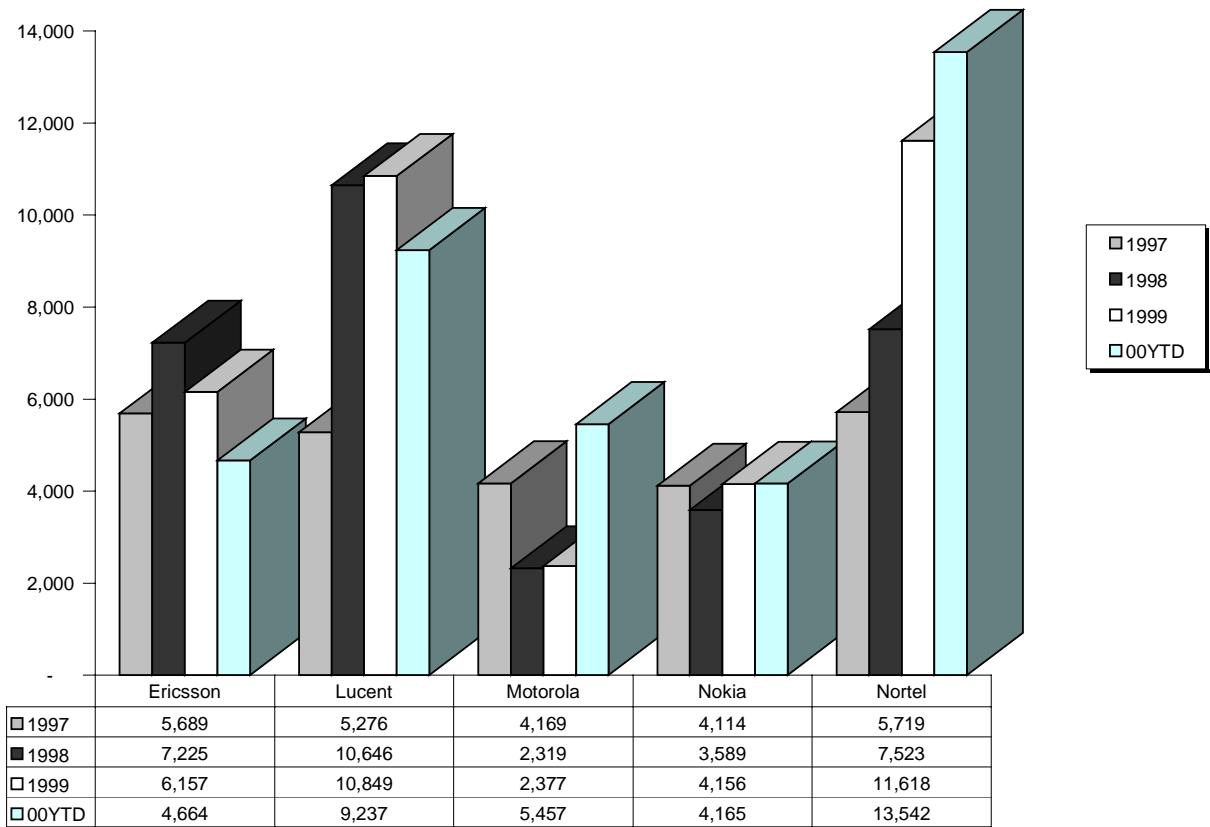
Source: CSFB Technology Group.

**Exhibit 6
Telecom Equipment Scoreboard October 2000**

Company	Date	Technology	Customer	Country	(in millions)
October					
Ericsson	10/9/00	3G	Mobitel	Slovenia	ND
	10/9/00	IP Backbone	Sonera	Finland	ND
	10/16/00	ENGINE Switching	Telia	Sweden	ND
Ericsson October Total					0
Ericsson YTD					4,664
Lucent	10/2/00	DWDM Optical	Dreamline	Korea	ND
	10/5/00	Network Expansion	SBC (Cingular)	US	1,000
	10/17/00	Fiber to the Home	WinFirst	US	800
	10/17/00	HFC equipment	Everest	US	ND
Lucent October Total					1,800
Lucent YTD					9,237
Motorola	10/16/00	Set-top Boxes	UPC	Europe	ND
	10/17/00	CDMA 2000 1X	K-DDI	Japan	ND
Motorola October Total					0
Motorola YTD					5,457
Nokia	10/6/00	GSM 1800	TAC	Thailand	50
	10/10/00	Broadband DSL Solution	DualStar	US	ND
	10/12/00	3G Network	WIND	US	ND
Nokia October Total					50
Nokia YTD					4,165
Nortel	10/2/00	Services / IP Network	Cable & Wireless	UK	1,400
	10/12/00	DSL Access Equipment	Broadview Networks	US	ND
	10/17/00	Optical Network	Aerie Networks	US	1,000
Nortel October Total					2,400
Nortel YTD					13,542
Cummulative October Total					4,250
Cummulative YTD Total					37,064

Source: CSFB Technology Group.

Exhibit 7 cont.
Telecom Equipment Scoreboard—1997-2000



Source: CSFB Technology Group. Nondisclosed contracts are not included in these figures and often vary by company.

AMSTERDAM	31 20 5754 890	MADRID	34 91 423 16 00	SEOUL	82 2 3707 3700
ATLANTA.....	1 404 656 9500	MELBOURNE	61 3 9280 1666	SHANGHAI.....	86 21 6881 8418
AUCKLAND	64 9 302 5500	MEXICO	52 5 283 89 00	SINGAPORE	65 212 2000
BALTIMORE	1 410 223 3000	MILAN.....	39 02 7702 1	SYDNEY	61 2 8205 4400
BEIJING	86 10 6410 6611	MOSCOW	7 501 967 8200	TAIPEI	886 2 2715 6388
BOSTON	1 617 556 5500	MUMBAI.....	91 22 230 6333	TOKYO	81 3 5404 9000
BUDAPEST	36 1 202 2188	NEW YORK.....	1 212 325 2000	TORONTO	1 416 352 4500
BUENOS AIRES	54 11 4394 3100	PALO ALTO.....	1 650 614 5000	VIENNA	43 1 512 3023
CHICAGO.....	1 312 750 3000	PARIS	33 1 40 76 8888	WARSAW.....	48 22 695 0050
FRANKFURT.....	49 69 75 38 0	PASADENA	1 626 395 5100	WASHINGTON.....	1 202 354 2600
GENEVA.....	41 22 394 70 00	PHILADELPHIA.....	1 215 851 1000	WELLINGTON.....	64 4 474 4400
HOUSTON.....	1 713 220 6700	PRAGUE.....	420 2 210 83111	ZUG	41 41 727 97 00
HONG KONG	852 2101 6000	SAN FRANCISCO ...	1 415 836 7600	ZURICH	41 1 333 55 55
LONDON	44 20 7888 8888	SÃO PAULO	55 11 3841 6000		

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