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Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<p>Fiber U-Verse Fiber-to-the-Node (FTTN) and Fiber-to-the-Premises (FTTP)</p> <p>fiber-optic 40 Gigabit backbone technology; research into 100 Gigabit<sup>1</sup></p>	<p>2011: pass 30 million living units<sup>1</sup></p>	<p>More than 19 million living units passed by our advanced fiber network, with ongoing expansion."<sup>2</sup></p> <p>Wireline total broadband connections: 2008: 15,077; 2009E: 15,948<sup>3</sup></p> <p>1.577million U-verse connections in 2Q09. Total BB connection 16,945,000. 15,548,000 wired bb connections.</p>	<p>Pass 30 million living units in 2011. (see footnote 1) 100 percent broadband by 2014<sup>4</sup></p> <p>Wireline total broadband connections: 2010E: 16,798, 2011E: 17,598, 2012E: 17,505, 2013E: 17,680, 2014E: 17,857, 2015E: 18,035, 2016E: 18,216<sup>3</sup></p>	<p>CA, NV, TX, OK, KS, MO, AR, LA, MS, IL, WI, MI, IN, OH, KY, TN, AL, GA, FL, SC, NC, CT<sup>5</sup></p>	<p>\$17 billion to \$18 billion capital expenditures in 2009; two-thirds to extend and enhance broadband and wireless<sup>1</sup></p> <p>"Capital expenditures in the wireline segment, which represented 69.4% of our capital expenditures, increased 2.5% in 2008, primarily due to the continued deployment of our U-verse services.<sup>6</sup></p> <p>Wireline capital spending (US\$m): 2008:14,466 2008 13,398, 2009E: 11,332, 2010E: 10,146, 2011E: 10,006, 2012E: 10,035, 2013E: 10,058, 2014E: 10,061, 2015E: 10,041, 2016E: 10,023<sup>7</sup></p> <p>Wireline Capex (\$bn): 2Q09 (actual): 2.7, 2009E: 11.6, 2010E: 11.5, 2011E: 11.5<sup>8</sup></p> <p>This is wireline capex, which includes U-verse, DSL, PSTN</p>	<p>Up to: 18 Mbps downstream<sup>9</sup> 1.5 Mbps upstream<sup>10</sup></p>	<p>Not available for U-Verse only.</p>
<p>DSL</p>	<p>Households: 2008: 15077K 2009: 15868K 2010: 16614K 2015: 19147K not verified by ATT<sup>11</sup></p>	<p>11,924K consumer subscribers in 2008<sup>12</sup> number includes DSL &amp; a small number of Wildblue satellite customers. Doesn't include U-verse or business DSL. 2,108K</p>	<p>12,074K subscribers in 2009, 12,154K in 2010. "combined with continued expansion of the company's DSL footprint"<sup>1</sup></p> <p>Uverse + DSL + Wildblue combined was 112K net adds for 2Q09<sup>13</sup></p> <p>2009E DSL Net Adds: -111K<sup>3</sup></p> <p>DSL net adds: 2009E: -246K; 2010E: -600K; 2011E: -650K<sup>8</sup></p>	<p>CT, MI, OH, IN, IL, WI, MO, AR, KS, OK, TX, CA, NV</p>		<p>Advertised: Downstream Speed: Up to 6.0 Mbps Upstream Speed: Up to 768 Kbps<sup>14</sup></p>	<p>Consumer Broadband ARPU is expected to be 2009: \$39.61<sup>15</sup> Business Broadband ARPU is expected to be 2010: \$49.08<sup>16</sup></p>

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		business DSL at end of 2008.					
Wireless -- 3G UMTS, High Speed Packet Access (HSPA) 7.2850 MHz spectrum testing: 4G LTE <sup>17</sup> *	2009: begin network upgrades 2010: begin LTE trials 2011: expected completion of upgrades; begin deploying LTE <sup>18</sup>	79.6 million wireless subscribers <sup>19</sup>  20,000 hotspot footprint <sup>27</sup>  "With approximately 25.6 million connections so far in 2009, AT&T Wi-Fi connections this year have already surpassed the 20 million connections seen in all of 2008." <sup>20</sup>  Wireless subscribers: 2008: 77,009K; 2009E: 82,250K <sup>21</sup>	"AT&T's 3G mobile broadband network is now available in nearly 350 U.S. major metropolitan areas, with about 20 additional metro areas planned for deployment in 2009." <sup>22</sup>  To support its HSPA+ deployment, AT&T is going 'hard and heavy' bringing fiber to cell sites. The company has approximately 40% of its cell sites nationally wired with fiber but these are concentrated in metro areas that generate closer to 60%+ of the company's traffic. The company is targeting 100% of cell sites with HSPA+ by 2H2011 <sup>23</sup>  "deployment of about 2,100 new cell sites across the country." <sup>22</sup>  Wireless subscribers: 2010E: 86,050 2011E: 89,650 2012E: 93,150 2013E: 96,650 2014E: 100,150 2015E: 103,650 2016E: 107,150 <sup>24</sup>	AL, AK, AZ, AR, CA, CO, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, MD, MA, MI, MN, MS, MO, NE, NV, NH, NJ, NY, NC, OH, OK, OR, PA, PR, RI, SC, TN, TX, UT, VA, WA, WV, WI <sup>25</sup>  "Additionally, AT&T will expand 3G service to 20 new markets this year." <sup>26</sup>	\$17 billion to \$18 billion capital expenditures in 2009; two-thirds to extend and enhance broadband and wireless <sup>27</sup> "We are stepping up CapEx in a number of areas and probably the number one area is in wireless" <sup>28</sup> "Capital spending (excluding interest during construction) in our wireless segment increased 42.1% in 2008, primarily for network capacity expansion, integration and upgrades to our Universal Mobile Telecommunications System/High-Speed Packet Access network, as well as for IT and other support systems for our wireless service." <sup>29</sup> Wireless capital spending (US\$m): 2008: 5,689; 2009E: 6,538; 2010E: 5,625; 2011E: 5,875; 2012E: 6,114; 2013E: 6,347; 2014E: 6,581; 2015E: 6,815; 2016E: 7,049 <sup>3</sup> Wireless Capex (\$bn): 2Q09 (actual): 1.3; 2009E: 5.7; 2010E: 5.8; 2011E: 5.7 <sup>8</sup>	"...theoretical peak speeds of 7.2Mbps. Typical real-world downlink and uplink speeds experienced by customers with upgraded 3G will be less than the theoretical peak and will vary based on a number of factors, including location, device, and overall traffic on the local network at a given time." <sup>30</sup>  "In 2009, we'll continue to expand and enhance our 3G wireless network; we plan to begin testing peak speeds up to 20 megabits per second..." <sup>31</sup>	Data ARPU Postpaid: \$17.72, <sup>32</sup> 2010: \$18.94  Data ARPU Prepaid: 2010: \$11Error! Bookmark not defined. 2Q09A:\$11.59 <sup>33</sup>  Total Wireless ARPU (including voice and data): 1Q09: \$50.70 2Q09: \$50.11 <sup>34</sup>  Total Wireless ARPU (including voice and data): 2009E: \$50.57; 2010E: \$50.66; 2011E: \$50.66; 2012E: \$50.66; 2013E: \$50.66; 2014E: \$50.66; 2015E: \$50.66; 2016E: \$50.66 <sup>35</sup>  Total Wireless ARPU (including voice and data): 2Q09A: \$50.60 <sup>33</sup>

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
LTE (Long Term Evolution)	Regarding 4G, AT&T is developing and will begin testing LTE in its labs and in market trials next year and it will begin deployment in 2011. <sup>36</sup>	So far no deployment.	AT&T will be using its 700-megahertz and AWS spectrum exclusively for LTE. This spectrum will cover 100% of the top 200 markets and 87% of the U.S. population. <sup>37</sup>				

<sup>1</sup> AT&T to Invest More Than \$17 Billion in 2009 to Drive Economic Growth, March 10 2009, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26597>

<sup>2</sup> Cities Supporting AT&T 3G/Mobile Broadband, [http://www.wireless.att.com/coverageviewer/popUp\\_3g.jsp](http://www.wireless.att.com/coverageviewer/popUp_3g.jsp)

<sup>3</sup> AT&T Q2 2009 Earnings Call Transcript, <http://seekingalpha.com/article/150935-at-amp-t-q2-2009-earnings-call-transcript?page=4>

<sup>4</sup> Morgan Stanley, AT&T Well-Positioned for 2010, June 18 2009, "http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT\_CODE=Banker&a1=Research"

<sup>5</sup> [http://www.att.com/Investor/Financial/Earning\\_Info/docs/2Q\\_09\\_slide\\_c.pdf](http://www.att.com/Investor/Financial/Earning_Info/docs/2Q_09_slide_c.pdf)

<sup>6</sup> AT&T, Investor Briefing 2nd Quarter 2009, July 23, 2009, [http://www.att.com/Investor/Financial/Earning\\_Info/docs/2Q\\_09\\_IB\\_FINAL.pdf](http://www.att.com/Investor/Financial/Earning_Info/docs/2Q_09_IB_FINAL.pdf)

<sup>7</sup> AT&T Q2 2009 Earnings Call Transcript, <http://seekingalpha.com/article/150935-at-amp-t-q2-2009-earnings-call-transcript?page=4>

<sup>8</sup> Argus Analyst Report, ARGUS INSTITUTIONAL PARTNERS - BONNER, JOSEPH, June 10 2009, Rpt.#14953617

<sup>9</sup> <https://uma.att.com/components/HSIA/2000466-5-AMSS-X-DMA1-IFRAME.html>

<sup>10</sup> <http://www.att-services.net/att-u-verse/uverse-bundles.html>

<sup>11</sup> UBS Estimates

<sup>12</sup> Morgan Stanley

<sup>13</sup> AT&T, Investor Briefing 2nd Quarter 2009, July 23, 2009, [http://www.att.com/Investor/Financial/Earning\\_Info/docs/2Q\\_09\\_IB\\_FINAL.pdf](http://www.att.com/Investor/Financial/Earning_Info/docs/2Q_09_IB_FINAL.pdf)

<sup>14</sup> <http://helpme.att.net/cgi-bin/speedtest/speedresult.cgi?1293854;321827;1;2.0;speedtest-sntcca.sntcca.sbcglobal.net>

<sup>15</sup> [http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT\\_CODE=Banker&a1=Research](http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT_CODE=Banker&a1=Research); Report Number 14979697, p.8,11,19

<sup>16</sup> [http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT\\_CODE=Banker&a1=Research](http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT_CODE=Banker&a1=Research); Report Number 14979697, p.8,11,19

<sup>17</sup> AT&T BACKS 100 PERCENT BROADBAND BY 2014, June 8, 2009, [http://www.att.com/Common/about\\_us/public\\_policy/100\\_Pct\\_Broadband.pdf](http://www.att.com/Common/about_us/public_policy/100_Pct_Broadband.pdf)

<sup>18</sup> AT&T Sees Significant Rise in Wi-Fi Hotspot Connections during Second Quarter, July 28, 2009, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26975>

<sup>19</sup> Complete 2008 AT&T Annual Report, [http://www.att.com/Common/about\\_us/annual\\_report/pdfs/2008ATT\\_FullReport.pdf](http://www.att.com/Common/about_us/annual_report/pdfs/2008ATT_FullReport.pdf)

<sup>20</sup> "AT&T to Deliver 3G Mobile Broadband Speed Boost," AT&T Press Release, May 27, 2009, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26835>

<sup>21</sup> AT&T Q2 2009 Earnings Call Transcript, <http://seekingalpha.com/article/150935-at-amp-t-q2-2009-earnings-call-transcript?page=4>

<sup>22</sup> AT&T Sees Significant Rise in Wi-Fi Hotspot Connections during Second Quarter, July 28, 2009, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26975>

<sup>23</sup> Bank of America Merrill Lynch, AT&T: "Bandwidth Anywhere" coming together with 4G, U-verse," Aug. 18, 2009 at 6.

<sup>24</sup> AT&T Q2 2009 Earnings Call Transcript, <http://seekingalpha.com/article/150935-at-amp-t-q2-2009-earnings-call-transcript?page=4>

<sup>25</sup> [http://www.att.com/Common/merger/files/pdf/U-verse\\_Update.pdf](http://www.att.com/Common/merger/files/pdf/U-verse_Update.pdf)

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- <sup>26</sup> AT&T to Invest More Than \$17 Billion in 2009 to Drive Economic Growth, March 10 2009, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26597>
- <sup>27</sup> AT&T to Invest More Than \$17 Billion in 2009 to Drive Economic Growth, March 10 2009, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26597>
- <sup>28</sup> AT&T INC: Solid 2Q09 Results, iPhone Trends Strong, RBC CAPITAL MARKETS (CANADA) - ATKIN, JONATHAN, ET AL, 24 Jul 2009, Rpt. 15094439
- <sup>29</sup> <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26961>
- <sup>30</sup> AT&T Sees Significant Rise in Wi-Fi Hotspot Connections during Second Quarter, July 28, 2009, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26975>
- <sup>31</sup> <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26961>
- <sup>32</sup> [http://www.att.com/Common/merger/files/pdf/22\\_state\\_map.pdf](http://www.att.com/Common/merger/files/pdf/22_state_map.pdf)
- <sup>33</sup> Morgan Stanley Research, Telecom Services, August 31, 2009.
- <sup>34</sup> Statement of AT&T Inc. Before the FCC, June 8, 2009, [http://www.att.com/Common/about\\_us/public\\_policy/Broadband\\_NOI\\_Comments.pdf](http://www.att.com/Common/about_us/public_policy/Broadband_NOI_Comments.pdf)
- <sup>35</sup> AT&T Q2 2009 Earnings Call Transcript, <http://seekingalpha.com/article/150935-at-amp-t-q2-2009-earnings-call-transcript?page=4>
- <sup>36</sup> <http://seekingalpha.com/article/168288-at-amp-t-q3-2009-earnings-call-transcript?page=-1>
- <sup>37</sup> <http://seekingalpha.com/article/168288-at-amp-t-q3-2009-earnings-call-transcript?page=-1>

# CableOne

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Cable		End of 2008: Homes passed: 1,391,000 Basic video subscribers: 699,500 Internet subscribers: 372,900 Internet available in 100% of homes passed VoIP subscribers: 93,500 VoIP available in 95% of homes passed <sup>1</sup>		WA, OR, ID, AZ, NM, TX, ND, SD, NE, KS, OK, MN, IA, MI, AR, LA, MS, AL, TN <sup>2</sup>	2009E: \$100 million <sup>3</sup>	Up to 10Mbps download and 1 Mbps upload <sup>4</sup>	

<sup>1</sup> [http://library.corporate-ir.net/library/62/624/62487/items/329272/23E21135-962D-48A8-BA31-DF180BBB9A87\\_WPO2008AR.pdf](http://library.corporate-ir.net/library/62/624/62487/items/329272/23E21135-962D-48A8-BA31-DF180BBB9A87_WPO2008AR.pdf)

<sup>2</sup> CableOne: Set Your Location, <http://www.cableone.net/AAU/Pages/default.aspx>

<sup>3</sup> CapEX Report 2008 Appendix Carrier Data Sheets

<sup>4</sup> <http://www.cableone.net/FYH/Pages/highspeedinternet.aspx>

# Cablevision

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<b>Cable (DOCSIS 3.0)</b>		100% deployment; launched in New York Metropolitan Area on May 11; 2.5 million data customers <sup>1</sup>	100%	NY, NJ, CT	<p>Cable Capital Expenditures: 2Q 2009: \$ 155m<sup>2</sup></p> <p>Total Capital Expenditures: 2008: \$909m<sup>3</sup> 2009E: \$ 874m 2010E: \$ 900m 2011E: \$ 940m 2012E: \$ 970m<sup>4</sup></p>	Up to: 101 Mbps downstream / 15 Mbps upstream <sup>2</sup>	<p>ARPU per line: approximately \$30<sup>2</sup></p> <p>High Speed Data ARPU (Customers: 2.5m and data revenue of 288m in the second quarter) in 2Q09: \$38<sup>5</sup></p> <p>Data ARPU: 2008: \$38.67 2009E: \$38.06 2010E: \$37.64 2011E: \$37.34 2012E: \$37.14<sup>7</sup></p>
<b>Fiber (Ethernet-based)*</b>		network extends more than 3,700 route miles and is connected to over 3,300 buildings <sup>6</sup>		New York Metropolitan Area <sup>6</sup>	1H 2009: \$36.6 million <sup>7</sup>	Up to: 40 Gbps symmetrically <sup>1</sup>	
<b>Wireless (Optimum WiFi)*</b>		as of Feb 26: around 1/3 of their service areas	very small, as just the grater NYC area is covered	as of April 2009: Long Island, Connecticut, Westchester service areas, areas in New Jersey (Bergen and Passaic Counties), Dutchess Counties <sup>1</sup> as of July 30: New York's Rockland and Orange Counties <sup>2</sup>	<p>expects to spend aprox \$300 million on Wi-Fi rollout; expects to cost around \$70 per customer</p> <p>in 2008 first phase of Wi-Fi investment of \$68 million<sup>3</sup></p>	Up to: 3 Mbps downstream / 1.5 Mbps upstream <sup>1</sup>	

<sup>1</sup> "Cablevision Systems Corporation Q1 2009 Earnings Call." 07 May 2009. <http://seekingalpha.com/article/136207-cablevision-systems-corporation-q1-2009-earnings-call-transcript>

<sup>2</sup> "Cablevision Systems Corporation Q2 2009 Earnings Call." 30 July 2009. <http://seekingalpha.com/article/152623-cablevision-systems-corporation-q2-2009-earnings-call-transcript>

<sup>3</sup> "Cablevision Systems Corporation Q4 2008 Earnings Call." 26 February 2009. <http://seekingalpha.com/article/122970-cablevision-systems-corp-q4-2008-earnings-call-transcript>

<sup>4</sup> "Cablevision Systems Corp. Reports Q209 Results, Announces MSG Spinoff," Kaufman Bros.,L.P., Todd Mitchell. 31 July 2009.

<sup>5</sup> "Cablevision Systems Corp. Reports Q209 Results, Announces MSG Spinoff," Kaufman Bros.,L.P., Todd Mitchell. 31 July 2009.

<sup>6</sup> "Dave Pistacchio Named President, Optimum Lightpath." Optimum Lightpath Press Release. 28 May 2009. [http://www.optimumlightpath.com/pressRelease\\_2009\\_05\\_28.shtml](http://www.optimumlightpath.com/pressRelease_2009_05_28.shtml)

<sup>7</sup> Goldman Sachs, Americas: Communication Services, September 8, 2009

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
DSL / Fiber	<p>Broadband to 100% of access lines within three years of July 2009</p> <p>90% of access lines 768 Kbps downstream within three years of July 2009</p> <p>87% of access lines 1.5 Mbps within two years of July 2009</p> <p>80% of access lines 3 Mbps within three years of July 2009<sup>1 2</sup></p>	<p>CenturyLink, July 2009: 2.1m broadband customers 440,000 video subscribers 7.5m access lines in 33 states<sup>2</sup></p> <p>Embarq 18 states 5.9m access lines 1.4m broadband subscribers End 2008: 88% of access lines were broadband enabled<sup>3</sup></p> <p>CenturyTel 25 states 2m access lines 630,000 broadband subscribers<sup>4</sup></p>		<p>Embarq: FL, IN, KS, MN, MO, NE, NV, NJ, NC, OH, OR, PA, SC, TN, TX, VA, WA, WY</p> <p>CenturyTel: AL, AR, CO, GA, ID, IA, KS, LA, MI, MN, MS, MO, MT, NM, NC, OH, OK, OR, TN, TX, WA, WI, WY<sup>4</sup></p>	<p>Capital expenditures: 2Q 2009: 85.3m 2H 2009E: \$525 - \$575m<sup>5</sup></p> <p>Total operating expenses: 2009E: \$5.5m 2010E: \$ 5.2m 2011E: \$ 4.9m 2012E: \$ 4.8m</p> <p>Operating expenses, cost of services and products: 2009E: \$ 2.3m 2010E: \$ 2.2m 2011E: \$ 2.1m 2012E: \$ 1.9m<sup>6</sup></p> <p>Free cash flow, cap-ex: 2009E: \$ 921m 2010E: \$ 807m 2011E: \$ 778m<sup>7</sup></p>	<p>"At year-end 2008... 57 percent of our broadband-enabled lines were capable of speeds up to 10 Mbps."<sup>3</sup></p> <p>High-speed data transmission capabilities from 3 Mbps up to 1 Gbps<sup>8</sup></p>	<p>THIS IS TOTAL ARPU, calculated 2Q09A: \$108.46 3Q09E: \$88.06 4Q09E: \$87.75 YEAR: \$92.69 1Q10E: \$88.27 2Q10E: \$88.80 3Q10E: \$89.35 4Q10E: \$89.92 YEAR: \$89.01<sup>9</sup></p>
Wireless*	<p>We're looking at the rollout of the classically commercial equipment which we expect to really to be about 2012, before it's really at a level we can roll out in a big way.<sup>10</sup></p>		<p>wireless broadband overlay network covering approximately 53% of its local exchange areas in the West, Midwest and South<sup>11</sup></p>				

<sup>1</sup> FCC: Memorandum Opinion and Order, In the Matter of Applications Filed for the Transfer of Control of Embarq Corporation to CenturyTel, Inc., WC Docket No. 08-238, June 2009, [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-54A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-54A1.doc), pp. 31f.

<sup>2</sup> EMBARQ CORP - TERMINATING COVERAGE, OPPENHEIMER AND CO - HORAN, TIMOTHY, ET AL, 07-Jul-2009 Rpt. 15030528

<sup>3</sup> CenturyLink, Inc. - SWOT Analysis," DATAMONITOR - Company Research - Datamonitor Independent Research, 12 Aug 2009, Rpt. 15210907

<sup>4</sup> [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-54A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-54A1.doc)

<sup>5</sup> Tony Davis, Century Link Press Release: CenturyLink Reports Second Quarter 2009 Earnings, 6 August 2009, [http://ir.centurytel.com/phoenix.zhtml?c=112635&p=irol-newsArticle\\_Print&ID=1317840&highlight=%22](http://ir.centurytel.com/phoenix.zhtml?c=112635&p=irol-newsArticle_Print&ID=1317840&highlight=%22).

<sup>6</sup> CenturyTel: Higher Synergies but Footprint Still Relatively Riskier, MORGAN STANLEY - FLANNERY, SIMON, ET AL

<sup>7</sup> CenturyLink: Reiterate Outperform; Focus on DSL/Bundling and Integration, August 7, 2009, Oppenheimer

<sup>8</sup> CenturyTel Expands Metro Ethernet Offering to Meet High-Bandwidth, High-Speed Business Demands, August 21 2008, [http://ir.centurytel.com/phoenix.zhtml?c=112635&p=irol-newsArticle\\_Print&ID=897801&highlight=](http://ir.centurytel.com/phoenix.zhtml?c=112635&p=irol-newsArticle_Print&ID=897801&highlight=)

<sup>9</sup> CenturyTel Inc: Raising PT to \$34 Following Solid 2Q Results, RBC CAPITAL MARKETS (CANADA): COLEMAN, DAVID, ET AL, Rpt. 15161058

<sup>10</sup> <http://seekingalpha.com/article/154546-centurytel-inc-q2-2009-earnings-call-transcript?page=6>

<sup>11</sup> [http://www.telegeography.com/cu/article.php?article\\_id=22584](http://www.telegeography.com/cu/article.php?article_id=22584)



# Charter Communication

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
DOCSIS 3.0*	Lauch in February, 2009 <sup>1</sup>	St. Louis Metropolitan area <sup>1</sup>		St. Louis Metropolitan area <sup>1</sup>	Capital Expenditure (not including cost of new modems and provisioning): \$ 8-10 per customer <sup>2</sup>	Up to 60 Mbps Download <sup>1</sup>	total ARPU: Q3 2008: \$108.27 <sup>3</sup> Q1 2009: \$110.32 <sup>4</sup> Q2 2009: \$113.29 <sup>5</sup>  HSI ARPU (includes DOCSIS 3.0 and older tech.): Q3 2008: \$40.25 Q1 2009: \$41.26 Q2 2009: \$41.41 <sup>6</sup>

<sup>1</sup> <http://www.dslreports.com/shownews/Charter-Announces-60Mbps-Internet-Service-100532>

<sup>2</sup> <http://www.dslreports.com/shownews/Charter-DOCSIS-30-Within-Months-98946>

<sup>3</sup> [http://www.fiercetelecom.com/story/charter-reports-1-5b-q4-loss-april-1-bankruptcy/2009-03-16?utm\\_medium=rss&utm\\_source=rss&cmp-id=OTC-RSS-FT0](http://www.fiercetelecom.com/story/charter-reports-1-5b-q4-loss-april-1-bankruptcy/2009-03-16?utm_medium=rss&utm_source=rss&cmp-id=OTC-RSS-FT0)

<sup>4</sup> [http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle\\_Print&ID=1285681&highlight=](http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle_Print&ID=1285681&highlight=)

<sup>5</sup> <http://news.moneycentral.msn.com/ticker/article.aspx?Feed=BW&Date=20090806&ID=10236577&Symbol=US:CHTRQ>

<sup>6</sup> [http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle\\_Print&ID=1285681&highlight=](http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle_Print&ID=1285681&highlight=)

# Cincinnati Bell

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<b>ZoomTown High-Speed DSL</b>		235,000 DSL subscribers as of 2Q 09 <sup>1</sup>	Cincinnati and Dayton area <sup>2</sup>	Cincinnati and Dayton area <sup>1</sup>	For entire company: 2008: \$230.9 million / 2009e: \$230 million <sup>3</sup> Q209: Capex came in at \$48.5M, representing 16.0% of sales, and slightly higher than the estimate of 15.0%. We note that the company did not give any color on how capex would trend for the balance of 2009. <sup>4</sup>	Up to 5Mbps download speed and up to 768Kbps upload speed. <sup>5</sup>	Household ARPU for customers in special acquisition and retention program (70,000 subscribers) as of Q209: \$112.00 <sup>1</sup>
<b>Wireless - 3G - Mobile Zoomtown</b>		Cincinnati Bell Wireless ended the year 2007 with 571,000 wireless subscribers. <sup>5</sup>	Cincinnati and Dayton area <sup>2</sup>	Cincinnati and Dayton area <sup>1</sup>	for entire company: 2008: \$230.9 million / 2009e: \$230 million <sup>3</sup> Q209: Capex came in at \$48.5M, representing 16.0% of sales, and slightly higher than our estimate of 15.0%. We note that the company did not give any color on how capex would trend for the balance of 2009. <sup>4</sup>	3G approx. 1 to 2 megabits <sup>2</sup>	Postpaid data ARPU (incl. Voice) was 1Q09: \$9.55 2Q08: \$9.87 <sup>1</sup> reflecting higher smart phone subscribers (8,000 activations in 2Q09 with penetration of the postpaid base at 15%). <sup>4</sup>
<b>Fiber To The Home (FTTH) – Fioptics*</b>	Launched in 2009			Cincinnati and Dayton area <sup>1</sup>	for entire company: 2008: \$230.9 million / 2009e: \$230 million <sup>3</sup> The Company spent \$14.7 million in 2008 for fiber network capital expenditures to provide all these services. <sup>3</sup>	10Mb, 20Mb and 30Mb service levels. <sup>7</sup>	

<sup>1</sup> <http://yahoo.brand.edgar-online.com/displayfilinginfo.aspx?FilingID=6726478-93850-107396&type=sect&dcn=0001157523-09-005517>

<sup>2</sup> <http://www.cincinnatiBell.com/consumer/wireless/coverage/>

<sup>3</sup> [http://library.corporate-ir.net/library/11/111/111332/items/329432/AF3CDD98-6630-42A9-B8F1-5C2A86665E2\\_2008AR.pdf](http://library.corporate-ir.net/library/11/111/111332/items/329432/AF3CDD98-6630-42A9-B8F1-5C2A86665E2_2008AR.pdf)

<sup>4</sup> [http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT\\_CODE=Banker&a1=Research](http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT_CODE=Banker&a1=Research)

<sup>5</sup> [http://www.cincinnatiBell.com/consumer/internet/zoomtown\\_high\\_speed/](http://www.cincinnatiBell.com/consumer/internet/zoomtown_high_speed/)

<sup>6</sup> <http://www.cellular-news.com/story/29840.php?source=newsletter>

<sup>7</sup> [http://www.cincinnatiBell.com/customer\\_support/product\\_support/fioptics/high\\_speed\\_internet/](http://www.cincinnatiBell.com/customer_support/product_support/fioptics/high_speed_internet/)

# Clearwire

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<p><b>Wireless -- CLEAR™ 4G service: WiMAX*</b></p>	<p>2009: launch CLEAR 4G service in 10 additional markets; 30m POPs across 25 markets by YE2009<sup>1</sup></p> <p>2010: 80 markets, 120 million covered POPs<sup>1 2</sup></p> <p>"(30 million WiMAX) build target by year end"<sup>3</sup></p>	<p>511,000 total subscribers<sup>4</sup></p> <p>Covered POPs: 2008: 16,800; 2009E: 42,000<sup>7</sup></p> <p>"...we have launched two additional markets, expanding the nation's first 4G service to 8 million POPs. By year-end, our service area is expected to cover more than 40 million people, of which 30 million will be served by 4G.</p> <p>4G services in Baltimore, Portland, Atlanta and Las Vegas.</p> <p>"Chicago, Dallas and Philadelphia are expected to launch 4Q. Charlotte, Seattle and Honolulu are expected to be converted to WiMAX in 4Q."<sup>3</sup></p> <p>Announced plans for our 4G network to cover over 30 million people in more than 25 markets by the end of this year.</p> <p>This will bring Clearwire's total network coverage in both legacy and 4G markets to over 40 million people. "<sup>4</sup></p> <p>6m POPs with its 4G WiMax service as of 2Q09<sup>1</sup></p>	<p>Over 40 million subscribers by the end of 2009<b>Error! Bookmark not defined.</b></p> <p>up to 120 million subscribers by the end of 2010<sup>2</sup></p> <p>"We have increased our network build schedule and now expect the company to cover 80 million POPs by the end of 2010 versus the company's target of up to 120 million POPs. We note that to reach our estimate of 120 million POPs by the end of 2012, we estimate an approximate \$3.4 billion funding gap."<sup>3</sup></p> <p>Covered POPs: 2010E: 75,000, 2011E: 120,000, 2012E: 135,000, 2013E: 150,000, 2014E: 165,000, 2015E: 180,000, 2016E: 185,000<sup>7</sup></p> <p>"As you may know, we tend to group our 4G market expansion into two categories -- conversion markets, where we operate pre-WiMAX services, and the new markets. ...we will complete our first 10 conversion markets on September 1st. These include Boise, Idaho, [Bellingham], Washington, and eight Texas communities. In the fourth quarter, we plan to convert Charlotte, Seattle, Honolulu, and Maui.</p> <p>In addition to the conversions on track to launch new markets this year, including Chicago, Dallas Fort Worth, and Philadelphia. And as I hope you've read, we have announced plans to add San Antonio and Austin, Texas, [Milledgeville], Georgia, Raleigh and Greensborough, North Carolina, and Salem, Oregon. All of these new markets are progressing towards a fourth quarter launch.</p> <p>Some of the markets slated for 2010 include New York, Boston, Washington, D.C., Houston, and the San Francisco Bay area, among many others.</p>	<p>CA, NV, GA, MD, OR, IL, NC, TX, HI, PA, WA, NY, MA, DC, CA, ID, WA, TX<sup>5</sup></p>	<p>\$1.5 to \$1.9 billion for the full year 2009; "The ultimate scope and timing of Clearwire's network build-out will largely be driven by the Company's market by market success and the availability of additional capital."<sup>6</sup></p> <p>CapEx Estimates: \$974 mil, 2009E, \$1,120 mil, 2010E, \$610 mil, 2011E, \$610 mil, 2012E, \$355 mil, 2013E, \$355 mil, 2014E, \$355 mil, 2015E, \$355 mil, 2016E<sup>3</sup></p> <p>CapEx Estimates: \$925 mil, 2009E, \$851 mil, 2010E, \$1,190 mil, 2011E, \$648 mil, 2012E, \$728 mil, 2013E, \$763 mil, 2014E, \$818 mil, 2015E, \$668 mil, 2016E<sup>7</sup></p>	<p>Download: 3 to 6 mbps, with bursts over 10 mbps<sup>8</sup></p> <p>Current: "Up to 2.0 Mb download/256k upload speeds"<sup>9</sup></p>	<p>expecting ARPU to be generally sustained at current levels over 2009-2010<sup>6</sup></p> <p>\$39.47 as of Q2 2009</p> <p>\$39.50: 3Q 2009 Estimate</p> <p>\$39.54: 4Q 2009 Estimate</p> <p>\$39.57: 2010E;</p> <p>\$39.88: 2011E;</p> <p>\$40.12: 2012E;</p> <p>\$40.32: 2013E;</p> <p>\$40.52: 2014E;</p> <p>\$40.73: 2015E;</p> <p>\$40.93: 2016E<sup>3</sup></p> <p>\$38.95: 2009E;</p> <p>\$39.62: 2010E;</p> <p>\$37.55: 2011E;</p> <p>\$37.58: 2012E;</p> <p>\$37.04: 2013E;</p> <p>\$36.76: 2014E;</p> <p>\$36.64: 2015E;</p> <p>\$36.61: 2016E;<sup>7</sup></p>

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<sup>1</sup> Merrill Lynch Report Sept. 2009

<sup>2</sup> <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-newsArticle&ID=1271811&highlight>

<sup>3</sup> <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-newsArticle&ID=1315679&highlight=>

<sup>4</sup> <http://seekingalpha.com/article/155526-clearwire-q2-2009-earnings-call-transcript?page=2>

<sup>5</sup> [http://www.clearwire.com/store/service\\_areas.php](http://www.clearwire.com/store/service_areas.php)

<sup>6</sup> Clearwire Corporation: Mobile WiMAX Uptake Ramping; More Disclosure on 2009 Build Projections, Morgan Stanley

<sup>7</sup> Clearwire Introduces CLEAR(TM) 4G Mobile Internet Service to Las Vegas, Clearwire Press Release, <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-newsArticle&ID=1309444&highlight=>

<sup>8</sup> Clearwire Reports Second Quarter 2009 Results, <http://investors.clearwire.com/phoenix.zhtml?c=198722&p=irol-newsArticle&ID=1>

<sup>9</sup> Clearwire - Wi-MAX foundation growing, MACQUARIE RESEARCH 1-10 PGS: CUSICK, PHIL, ET AL, 12 August 2009, Rpt. 15181225

# Comcast

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<b>Wideband (DOCSIS 3.0)*</b>	intend to roll it out to rest of country by 2010, have set goals for rest of year <sup>1</sup>	Wideband installed in 50% of footprint <sup>1</sup>  In early2009 availability of DOCSIS 3.0 was expanded to 15m homes. According to current plans Comcast wants to reach 30m homes by year end 2009. <sup>2</sup>  For figures on homes passed by year, see sheet "Est. CMCSA Cable Operations" <sup>3</sup>	Hoping to reach 80% by end of 2009 (=40 mill homes and businesses passed), 100% by 2010 <sup>1</sup> Footprint as of end 2008: 50.6m homes <sup>4</sup>  For Morgan Stanley Estimates, see sheet "Est. CMCSA Cable Operations" <sup>3</sup>	<u>Currently Deployed</u> California: San Francisco Bay, San Jose-Silicon Valley area, San Francisco, on the Peninsula, and in Monterey-Salinas area Philadelphia <sup>5</sup>	Compared to Q2/08, direct costs for high speed internet declined 14% in Q2/09, total capital expenditures decreased 14% to 1.1 billion. Expect Cape to "modestly increase" during second half of year as they expand deployment of Wi-Band. <sup>1</sup>  In Q4/08 projections, estimated to invest approx \$400 to \$500 million of capital in DOCSIS 3.0 and All-Digital projects. <sup>6</sup>  Capex Forecast: 2008: \$5,750 2009E: \$5,133 2010E: \$5,089 2011E: \$4,956 2012E: \$4,977 <sup>7</sup>	<u>New Deployments:</u> Residential Tiers: Extreme 50 (up to 50Mbps downstream speed/ up to 10Mbps upstream speed) at \$99.95/month Ultra (up to 22Mbps downstream speed/ up to 5 Mbps upstream speed) at \$62.95/month <u>Business Class Tiers:</u> Deluxe (50 Mbps/ 10 Mbps plus full suite of features) at \$189.95/month Premium (22 Mbps/5 Mbps) at \$99.95/month <u>Upgrades:</u> For Residential Users -- PowerBoost® Technology (faster speeds), speeds for Performance tier customers now doubled (up to 12 Mbps downstream and 2 Mbps upstream), Performance Plus tier upgraded to Comcast Blast! tier (16 Mbps/2 Mbps) For Business Class Users -- speeds on starter tier will be doubled up to 12 Mbps/ 2 Mbps <sup>8</sup>	Data ARPU: 2008: \$41.92 2009E: \$42.04 2010E: \$42.18 2011E: \$42.41 2012E: \$42.71 <sup>8</sup>
<b>Wireless -- 4G high speed wireless data services *</b> (Comcast High-Speed 2go Metro (powered by ClearWire network), Comcast High-Speed 2go Nationwide (switches between available 4G and Sprint's 3G networks) <sup>1</sup>	YE 2009: 18m POPs <sup>9</sup>  YE 2010: 84m POPs <sup>9</sup>	Launched July 1st in Portland, Oregon and July 28th in Atlanta, Georgia <sup>1</sup>	Planning extension to Chicago, Philadelphia, Washington state area and others in the fall. <sup>1</sup>	Oregon and Georgia <sup>1</sup>		Download: 3 to 6 mbps, with bursts over 10 mbps 10  Current: "Up to 2.0 Mb download/256k upload speeds" 11	Average ARPU are supposed to stay fairly at \$40.

<sup>1</sup> "Comcast Corporation Q2 2009 Earnings Call Transcript." 06 August 2009. <http://seekingalpha.com/article/154406-comcast-corporation-q2-2009-earnings-call-transcript>

<sup>2</sup> UBS Investment Research Telecommunications, Cable making gains in Broadband, May 14, 2009

<sup>3</sup> "Comcast Corporation Raising Estimates & Target, But Slowing Growth & Payout Keeps us Equal-weight," Morgan Stanley, Benjamin Swinburne. 09 August 2009, Exhibit 18.

<sup>4</sup> Annual Report 2008, <http://files.shareholder.com/downloads/CMCSA/737264357x0xS1193125-09-33975/1166691/filing.pdf>

<sup>5</sup> "Comcast to Launch Extreme 50 Mbps High-Speed Internet Service in Easy Bay and North Bay, Completing San Francisco Rollout." Comcast Press Release. 28 July 2009. <http://comcastcalifornia.mediaroom.com>

<sup>6</sup> "Comcast Corporation Q4 2008 Earnings Call Transcript." 18 February 2009. <http://seekingalpha.com/article/121299-comcast-corporation-q4-2008-earnings-call-transcript>

<sup>7</sup> Goldman Sachs, Americas: Communication Services, September 8, 2009

<sup>8</sup> Goldman Sachs, Americas: Communication Services, September 8, 2009

<sup>9</sup> Merrill Lynch Report Sept. 2009

<sup>10</sup> Clearwire Reports Second Quarter 2009 Results, <http://investors.clearwire.com/phoenix.zhtml?c=198722&p=irol-newsArticle&ID=1>

<sup>11</sup> Clearwire - Wi-MAX foundation growing, MACQUARIE RESEARCH 1-10 PGS: CUSICK, PHIL, ET AL, 12 August 2009, Rpt. 15181225

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<b>DOCSIS 3.0*</b>	Expected coverage of DOCSIS 3.0 of two thirds of actual footprint by 2010. <sup>1</sup>	4 million internet customers, majority still with DOCSIS 2.0 <sup>2</sup>	67% of data customers, 2.68m, ca. 2.3% <sup>3</sup>	AZ, NV, CA, NE, KS, OK, NY, OH, VA, AR, FL, LA, GA <sup>4</sup>		Up to : 30 Mbps downstream, 3 Mbps upstream <sup>5</sup>	
<b>Wireless* 3G and 4G</b>	<p>2009 expected first deployment using Sprint's network and building own 3G infrastructure<sup>6</sup></p> <p>Cox will utilize the Nationwide Sprint Network to quickly enter the market in 2009. At the same time, Cox is concurrently building its own 3G wireless network for additional market launches in 2009. Cox will also test 4G technology utilizing LTE (long term evolution).<sup>7</sup></p> <p>US cable operator Cox has indicated plans to deploy LTE in 700 MHz spectrum from 2011.<sup>8</sup></p>	no coverage yet	Major metropolitan areas in the states they offer service. <sup>9</sup>	San Diego, Phoenix, Las Vegas, Pensacola, Florida, and Norfolk/Virginia Beach, Virginia. <sup>9</sup>	<p>Cox has spent more than \$300 million to acquire portions of the 700-MHz spectrum<sup>10</sup></p> <p>"We've already invested more than \$500 million to acquire wireless spectrum and to develop the infrastructure and human resources needed to architect our own advanced wireless service,"<sup>11</sup></p>	<p>Revision A of EV-DO: up to 3.1 Mbps<sup>12</sup></p> <p>LTE: 100 Mbps downstream, 50 Mbps upstream<sup>13</sup></p>	

<sup>1</sup> <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MzI1fENoaWxkSUQ9LTF8VHlwZT0z&t=1>

<sup>2</sup> [http://media.corporate-ir.net/media\\_files/irol/76/76341/release012709a.pdf](http://media.corporate-ir.net/media_files/irol/76/76341/release012709a.pdf)

<sup>3</sup> <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MzI1fENoaWxkSUQ9LTF8VHlwZT0z&t=1>

<sup>4</sup> <http://locations.coxinc.com/#Filter%3ACox%20Communications>

<sup>5</sup> <http://www.telecompetitor.com/cox-expands-docsis-3-0-footprint/>

<sup>6</sup> [http://media.corporate-ir.net/media\\_files/irol/76/76341/release102708.pdf](http://media.corporate-ir.net/media_files/irol/76/76341/release102708.pdf)

<sup>7</sup> Cox press release: COX TO LAUNCH NEXT GENERATION BUNDLE WITH WIRELESS IN 2009, October 2008, <http://cox.mediaroom.com/index.php?s=43&item=19>

<sup>8</sup> Global mobile Suppliers Association: GSM/3G Market/Technology update: Evolution to LTE, August 2009, [http://www.gsacom.com/gsm\\_3g/info\\_papers.php4](http://www.gsacom.com/gsm_3g/info_papers.php4)

<sup>9</sup> <http://www.dslreports.com/shownews/Cox-Discusses-Their-Wireless-Plans-99703>

<sup>10</sup> <http://www.broadbandinfo.com/news/cox-will-provide-wireless-data-service-on-qualcomm-platform-19328202.html>

<sup>11</sup> <http://news.ecoustics.com/bbs/messages/10381/523480.html>

<sup>12</sup> [http://en.wikipedia.org/w/index.php?title=Evolution-Data\\_Optimized&oldid=315312403](http://en.wikipedia.org/w/index.php?title=Evolution-Data_Optimized&oldid=315312403)

<sup>13</sup> [http://en.wikipedia.org/w/index.php?title=3GPP\\_Long\\_Term\\_Evolution&oldid=319491115](http://en.wikipedia.org/w/index.php?title=3GPP_Long_Term_Evolution&oldid=319491115)

**EchoStar Corp.** (Dish Network) - Dish Network and Echostar split into two companies, but they are intertwined.

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Dish Network uses WildBlue for their Broadband Internet					They do not give forward looking CAPEX figures, but 2008 CAPEX was \$230 million and some of that was for a new SATS satellite. The give a rough figure in their 10-k on future commitments for satellites and that figure is \$185 million. <sup>1</sup>		

<sup>1</sup> EchoStar Corporation, SATS - Q2 2009 EchoStar Corporation Earnings Conference Call, August 10, 2009

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
DSL / cable / wireless		<p>High speed data subscribers (DSL, cable, wireless):                      2008: 295,360                      2007: 222,874                      2006: 196,731                      2005: 137,072                      2004: 83.234<sup>1</sup></p> <p>1.7 million access line equivalents (voice + high speed data)<sup>2</sup></p> <p>as of June 2005: DSL subscribers: 37,621 / wireless and cable: 3,289 / total 40,910<sup>3</sup></p>		<p>Owns and operates 32 local exchange carriers in 18 states:</p> <p>AL, CO, FL, GA, ID, IL, KS, ME, MA, MO, NH, NY, OH, OK, PA, VT, VA, WA</p>	<p>Capital expenditure (total company):                      2008: \$297.0m                      2007: \$149.5m                      2006: \$213.8m                      2009E: \$190-210m<sup>4</sup></p>		<p>Data ARPU:                      2008: \$ 32.42                      2007: \$ 31.11                      2006: \$ 27.56</p> <p>CAGR(2006-08): 5.6%<sup>5</sup></p>

<sup>1</sup> Annual Report 2008, [http://library.corporate-ir.net/library/12/122/122010/items/243732/CCA18C19-C3DA-4B67-9204-5C88FA4792A7\\_FRP10K3509.pdf](http://library.corporate-ir.net/library/12/122/122010/items/243732/CCA18C19-C3DA-4B67-9204-5C88FA4792A7_FRP10K3509.pdf), p. 59.

<sup>2</sup> [http://fairpoint.com/about\\_us/fast\\_facts.jsp](http://fairpoint.com/about_us/fast_facts.jsp)

<sup>3</sup> [http://freerealttime.brand.edgar-online.com/EFX\\_dll/EDGARpro.dll?FetchFilingHTML1?ID=3835599&SessionID=CyTCWvAzULOQuP7](http://freerealttime.brand.edgar-online.com/EFX_dll/EDGARpro.dll?FetchFilingHTML1?ID=3835599&SessionID=CyTCWvAzULOQuP7)

<sup>4</sup> Annual Report 2008, [http://library.corporate-ir.net/library/12/122/122010/items/243732/CCA18C19-C3DA-4B67-9204-5C88FA4792A7\\_FRP10K3509.pdf](http://library.corporate-ir.net/library/12/122/122010/items/243732/CCA18C19-C3DA-4B67-9204-5C88FA4792A7_FRP10K3509.pdf), p. 56.

<sup>5</sup> Annual Report 2008, [http://library.corporate-ir.net/library/12/122/122010/items/243732/CCA18C19-C3DA-4B67-9204-5C88FA4792A7\\_FRP10K3509.pdf](http://library.corporate-ir.net/library/12/122/122010/items/243732/CCA18C19-C3DA-4B67-9204-5C88FA4792A7_FRP10K3509.pdf), p. 55.



# Frontier Communication

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
High-speed or dial up Internet access, Wireless <sup>1</sup>	Homes passed: 2008: 1.36m 2009: 1.36m 2010: 1.37m 2015: 1.44m <sup>2</sup>	Internet subscribers 2008: 579,900 <sup>3</sup> Q1 2009: 600,000 <sup>4</sup> Q2 2009: 614,000 <sup>5</sup>		14 States: AZ, ID, IL, IN, MI, NV, NC, OH, OR, SC, WA, WV, WI, (few CA lines, including those bordering AZ, NV and OR) <sup>6</sup>	Capital Expenditures Q2 2009: \$ 55.8m Q1 2009: \$ 64.6m  2008: \$ 288.26m 2007: \$ 315.79m 2006: \$ 268.81m 2005: \$ 268.46m 2004: \$ 276.35m <sup>7</sup>	Currently: up to: 6 Mbps  after upgrade: up to 100 Mbps <sup>8</sup>	ARPU per access line: Q1 2009: \$ 80.21 <sup>9</sup> Q2 2009: \$ 80.52 <sup>10</sup>  Data ARPU: Q1 2009: \$ 21.72 <sup>9</sup> Q2 2009: \$ 21.80 <sup>10</sup>

<sup>1</sup> ValuEngineTM Detailed Research Report Frontier Communications Corp(FTR). Aug. 17, 2009

<sup>2</sup> UBS Data

<sup>3</sup> Phone company shelves unpopular Internet cap plan The Associated Press State & Local Wire , April 15, 2009. BYLINE: By PETER SVENSSON, AP Technology Writer SECTION: STATE AND REGIONAL

<sup>4</sup> Frontier Communications Corporation Q1 2009 Earnings Call Transcript 07 May 2009. <http://seekingalpha.com/article/136216-frontier-communications-corporation-q1-2009-earnings-call-transcript?page=-1>

<sup>5</sup> Frontier Communications Corporation Q2 2009 Earnings Call Transcript. 04 August 2009. <http://seekingalpha.com/article/153702-frontier-communications-corporation-q2-2009-earnings-call-transcript?page=-1>

<sup>6</sup> Verizon to Divest Wireline Businesses in 14 States; Significant Benefits to Verizon Shareholders May 13, 2009 <http://newscenter.verizon.com/press-releases/verizon/2009/verizon-to-divest-wireline.html>

<sup>7</sup> Thomson Financial Full Company Report: Frontier Communications Corp. Thomson Financial. 2009.

<sup>8</sup> <http://www.reuters.com/article/pressRelease/idUS187276+08-Sep-2009+BW20090908>

<sup>9</sup> Frontier Communications Corporation Q1 2009 Earnings Call Transcript 07 May 2009. <http://seekingalpha.com/article/136216-frontier-communications-corporation-q1-2009-earnings-call-transcript?page=-1>

<sup>10</sup> Frontier Communications Corporation Q2 2009 Earnings Call Transcript. 04 August 2009. <http://seekingalpha.com/article/153702-frontier-communications-corporation-q2-2009-earnings-call-transcript?page=-1>

# Gilat Satellite Networks Ltd. (StarBand Communications Inc.)

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Two way Ku-Band satellite based broadband internet service, VSAT, some mobile broadband and backhaul		Currently 100% of the US  The Group operates in over 85 countries including the United States, Europe, Asia, South/Latin America and Israel. <sup>1</sup>		Continental U.S., Hawaii, Alaska, Puerto Rico and the U.S. Virgin Islands). <sup>2</sup>	Capital expenditures: 2008: 5.2% of sales <sup>3</sup>	Up to: 1.5 Mbps downstream, 256 Kbps upstream <sup>4</sup>	

<sup>1</sup> Gilat Satellite Networks Ltd., Global Markets Direct, Financial Analysis Review July 2009

<sup>2</sup> Gilat Satellite Networks Ltd., Global Markets Direct, Financial Analysis Review July 2009

<sup>3</sup> Gilat Satellite Networks Ltd., Global Markets Direct, Financial Analysis Review July 2009

<sup>4</sup> StarBand Nova Series, Satellite Internet Services Website, <http://www.starband.com/services/>

# Hughes Communications Inc.

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Satellite Broadband - Ka-Band, Ku-band satellites have a capacity of 1Gbps, SPACEWAY originally had the capacity for 10 Gbps and their newest high throughput satellite (SS Loral) Jupiter to be launched in 2012 will offer 100Gbps throughput, Hughes also offers very small aperture terminal (VSAT) technology	Currently filling up beams on SPACEWAY 3 satellite (called Jupiter), expect to saturate by 2011/2012 <sup>1</sup> On June 17, 2009 They announced that they will be launching a 100 Gbps throughput satellite Jupiter in Q1 of 2012. This new satellite will offer the base service of 5 megabits up to 25 megabit premium service. They are going to need this bandwidth as consumption per subscriber grows. <sup>2</sup>	est. 500,000 Aug 2009 (455,000 March, 469,000 May 2009) subscribers/100% of the US and coverage worldwide <sup>3</sup>	Currently 100% of the US (60 beams aimed at the continental US and North America) <sup>4</sup>	Hughes offers service worldwide coverage - North America (all 50 states + PR) Asia Pacific, Europe, Latin America, Caribbean, Middle East, Africa, Russia & CIS Countries <sup>5</sup>	New 2012 100Gbps (Ka-Band) high throughput satellite's (called Jupiter) total cost is \$400 million (\$250mil+\$150mil in launch costs + insurance) <sup>6</sup>	<p><b>Current Download Speed:</b> Currently they offer at home plans of 1-5 Mbps by 2012 they hope to offer 5-25 Mbps with launch of new satellite Their commercial plans currently offer higher Mbps rates, but cost more and require special gear.<sup>7</sup></p> <p><b>Current Upload Speeds:</b> 128Kbps - 300Kbps</p> <p><b>Threshold:</b> Simply put, if you upload/download an amount of data greater than the limit of your subscribed service package, your speeds will drop greatly for the next 24 hrs. 200-1,250MB</p>	\$70 per month Q2 2009 up from \$68 a year ago. 2008 ARPU was \$65. ARPU is expected to increase as customers are moved from older costlier satellites to SPACEWAY 3 and Jupiter <sup>8</sup>

<sup>1</sup> Lawrence, Harris M., CL King & Associates, Initiation Report for Hughes Communications, Inc., September 3, 2009

<sup>2</sup> Hughes Communications Inc., Conference Call to Discuss Launch of 100 Gbps High Throughput Satellite in 2012, June 17, 2009

<sup>3</sup> Hughes Communications Inc., Q2 2009 Hughes Communications Inc. Earnings Conference Call, August, 6, 2009

<sup>4</sup> Hughes Communications Inc., Conference Call to Discuss Launch of 100 Gbps High Throughput Satellite in 2012, June 17, 2009

<sup>5</sup> Hughes Communications Inc., <http://www.hughes.com>

<sup>6</sup> Hughes Communications Inc., Conference Call to Discuss Launch of 100 Gbps High Throughput Satellite in 2012, June 17, 2009

<sup>7</sup> HughesNet vs. WildBlue, [http://www.greatamericansatellite.com/HughesNet\\_WildBlue.html](http://www.greatamericansatellite.com/HughesNet_WildBlue.html)

<sup>8</sup> Hughes Communications Inc., Q2 2009 Hughes Communications Inc. Earnings Conference Call, August, 6, 2009

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Cable		Homes passed: 1,320,900 High-speed internet RGUs: 481,500 <sup>1</sup>	Not reported	KY, Southern IN, and areas in Columbus, OH <sup>2</sup>	Not reported	20 Mbps <sup>3</sup> Coming soon: 30 Mbps down/3Mbps up <sup>4</sup>	ARPU: Q2 2009: \$38.41 <sup>1</sup>

<sup>1</sup> [http://www.insight-com.com/documents/Insight\\_08132009.pdf](http://www.insight-com.com/documents/Insight_08132009.pdf)

<sup>2</sup> <http://www.myinsight.com/OurStory.asp>

<sup>3</sup> <http://www.insightcom.com/offers/bb20/default.asp>

<sup>4</sup> <http://www.myinsight.com/Product-Broadband-Overview.asp>

# Knology

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<b>DOCSIS 3.0*</b>		20% of current footprint <sup>1</sup>	2009E: 50% of footprint 2010E: 100% <sup>1</sup>		Capital Expenditures: 2008: \$ 47.5m 2009E: \$ 55.5 <sup>2</sup>		Internet ARPU: Q4 2008: \$ 40.70  Customer ARPU: Q4 2008: \$ 121.89 <sup>2</sup>
<b>Fiber*</b>		Marketable homes passed: Q2 2009: 927,576 <sup>3</sup>	Marketable homes passed: 2009E: 2.2m <sup>4</sup>	AL, GA, FL, IO, MN, SC, SD, TN <sup>5</sup>			

<sup>1</sup> "Knology, Inc. Earnings Conference Call (Q1 2009)." Audio Clip. 07 May 2009. <http://biz.yahoo.com/cc/9/103609.html>

<sup>2</sup> "Knology Inc. Q4 2008 Earnings Call Transcript." 19 February 2009. <http://seekingalpha.com/article/121605-knology-inc-q4-2008-earnings-call-transcript>

<sup>3</sup> "Knology Reports Continued Growth in the Second Quarter and Posts GAAP Net Income." Knology Press Release. 04 August 2009. <http://phx.corporate-ir.net/phoenix.zhtml?c=130221&p=irol-newsArticle&ID=1316369&highlight=>

<sup>4</sup> Morgan Stanley

<sup>5</sup> <http://www.knology.com> ("Select your state")

# Leap Wireless

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
3G Wireless CDMA/EV-DO		Covered POPs: 2007: 53m 2Q 2009E: 92m 2010E: 105m <sup>1</sup>		WA, OR, ID, NV, CA, AZ, UT, CO, NM, NE, KS, OK, IA, MO, AR, IL, IN, TN, KY, NC, SC, OH, PA, NY, MA, TX, GA <sup>2</sup>	Capital Expenditures: 2008: \$ 801.6 m 2009E: \$ 650-700m <sup>3</sup> 2Q 2009: \$ 224.1m <sup>4</sup>	Up to: 3.1 Mbps downstream / 1.8 Mbps upstream <sup>5</sup>	Total ARPU: 2008: \$ 40.73 Q3 2009: \$ 39.95 2009E: \$ 40.50 2010E: \$ 39.28 <sup>6</sup>

<sup>1</sup> [http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT\\_CODE=Banker&a1=Research](http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT_CODE=Banker&a1=Research)

<sup>2</sup> [http://www.leapwireless.com/l1\\_about\\_leap.htm](http://www.leapwireless.com/l1_about_leap.htm)

<sup>3</sup> [http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT\\_CODE=Banker&a1=Research](http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT_CODE=Banker&a1=Research)

<sup>4</sup> <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MTI1MjV8Q2hpbGRJR0tMXxUeXBIPtM=&t=1>

<sup>5</sup> <http://www.mycricket.com/cricketplans/>

<sup>6</sup> Mike McCormack: Leap Wireless and MetroPCS, October 2009. Thomson ID: 15344210

# Mediacom

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<p><b>Cable DOCSIS 3.0*</b></p>	<p>We are now testing wideband service with download speeds of up to 100Mbps, and plan to selectively deploy this service in certain markets in 2009.<sup>1</sup></p> <p>We will be in a position to offer services [DOCSIS 3.0] is approximately 50% of our footprint by year [2009] end from a network standpoint but will be actively marketing this service in about half of the available homes.<sup>2</sup></p>	<p>Internet Subscribers: 2008: 737,000</p> <p>Estimated homes passed: 2008: 2,854,000 2007: 2,836,000 2006: 2,829,000 2005: 2,807,000 2004: 2,785,000 CAGR (2004-2008): 0.5%<sup>3</sup></p>		<p>Concentration in the Midwest and Southern regions</p> <p>Chicago, IL; Minneapolis — St. Paul, MN; Greenville — Spartanburg — Anderson, SC; Mobile, AL — Pensacola, FL (Ft. Walton, FL); Des Moines — Ames, IA; Springfield, MO; Paducah, KY — Cape Girardeau, MO — Harrisburg, IL; Champaign &amp; Springfield — Decatur, IL; Cedar Rapids — Waterloo — Iowa City &amp; Dubuque, IA; Davenport, IA — Rock Island — Moline, IL<sup>3</sup></p>	<p>Capital expenditures (total company): 2007: \$ 227.4m 2008: \$ 289.8m 2009E: \$ 220-235m<sup>1</sup></p>	<p>up to: 20 Mbps downstream<sup>1</sup></p>	<p>Data ARPU: 2008: 36.72\$ 2007: 35.32\$ 2006: 34.25\$</p> <p>CAGR(2006-2008): 2.35%<sup>1</sup></p>

<sup>1</sup> Annual Report 2008, <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NTI1NHx0aGlsZElEPS0xfrFR5cGU9Mw==&t=1>

<sup>2</sup> Mediacom Communications Corporation Q2 2009 Earnings Call Transcript; <http://seekingalpha.com/article/154751-mediacom-communications-corporation-q2-2009-earnings-call-transcript?page=-1>

<sup>3</sup> Annual Report 2008, <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NTI1NHx0aGlsZElEPS0xfrFR5cGU9Mw==&t=1>, pp. 46-48.

# MetroPCS

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<p><b>Wireless (4G Verizon LTE)*</b></p> <p>Now 3G - 4G will be late 2010 to 2011</p>	<p>Q2 2009: "The company currently plans to focus on building out networks to cover approximately 40 million of total population during 2009 through 2010, which includes the Boston and New York Metropolitan areas."<sup>1</sup></p> <p>For 3G end of June this year 87 million POPs, over time by end of 2010 expect to reach 100 million POPs.</p>	<p>Covered population: 2Q 2009: 87m</p> <p>Subscribers: 2008: 5.4m 2009E: 6.8 - 7.1m<sup>1</sup> Q1 2009: 6.1 m<sup>3</sup> Q2 2009: 6.3 m</p>	<p>Q2 2009: expects to continue to build out and expand network and increase distribution in parts of New York, New Jersey, Pennsylvania, Massachusetts and Connecticut, significantly enhancing footprint beyond the initial launch footprint<sup>1</sup></p> <p>Specifically, key initiatives in the NE include: 1) connecting the area from the eastern boundary of Queens to Long Island; 2) extending coverage in New Jersey, Westchester, and Staten Island; and 3) expanding the New Bedford boundary and greater Boston metropolitan area<sup>2</sup></p>	<p>Core Markets include the Atlanta, Dallas/Ft. Worth, Detroit, Las Vegas, Los Angeles, Miami, Orlando/ Jacksonville, Sacramento, San Francisco, and Tampa/Sarasota metropolitan areas and the Northeast Markets include the Boston, New York (launched Feb 2004) and Philadelphia metropolitan areas.<sup>3</sup></p> <p>Talks about opportunities in Northern Florida and Western Michigan.<sup>3</sup></p>	<p>Capital Expenditures: Q1 2009: \$ 313 m<sup>3</sup> Q2 2009: \$ 142 m<sup>4</sup> 2008: \$ 358m 2009E: \$ 700 - 900m<sup>1</sup></p>		<p>Total ARPU (including voice service): Q2 2009: \$ 40.52<sup>2</sup> Q3 2009E: \$ 38.89 Q4 2009E: \$ 38.69 2010E: \$38.28<sup>2</sup></p> <p>Company expects to stay in low \$40 range in the long term<sup>3</sup></p>

<sup>1</sup> "MetroPCS Communications Inc. Q4 2008 Earnings Call Transcript." 26 February 2009. <http://seekingalpha.com/article/122956-metropcs-communications-inc-q4-2008-earnings-call-transcript>

<sup>2</sup> "PCS: 2Q09 Review; Lower Expectations, But Growth Still Remains," Suntrust Robinson Humphrey Capital Markets, Dezego, Robert, et al. 10 August 2009.

<sup>3</sup> "MetroPCS Communications Inc. Q1 2009 Earnings Call Transcript." 07 May 2009. <http://seekingalpha.com/article/136205-metropcs-communications-inc-q1-2009-earnings-call-transcript?page=-1&find=northern+florida>

<sup>4</sup> Morgan Stanley Report, August 2009



# OpenRange

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
4G –WiMAX <sup>2</sup>	Project expected to take five years. (until the beginning of 2014) <sup>2</sup>	Communities: Firestone, Frederick, Dacono, Ft. Lupton, Platteville (all in Colorado) <sup>1</sup>	Extension to 546 rural communities in several states.6 Million people should be covered when the project is finished. <sup>2</sup>	CA, NV, CO, NE, AR, AL, GA, SC, AR, FL, PA, WI, IL, IN, OH, NJ, NY. <sup>3</sup>	Capital expenditures will be \$ 374 m. <sup>2</sup>	A minimum of 1.5 Mbps downlink and 512Kbps is advertized. <sup>4</sup>	Prices for packages (data and voice) range from \$30 to \$60. <sup>4</sup> ARPUs will be in a similar range.

<sup>1</sup> Company information

<sup>2</sup> Open Range, "Open Range Communications Secures \$374 Million to Deploy Wireless Broadband Services to 546 Rural Communities", Open Range, 2009, <http://www.openrangecomm.com/markets.html>

<sup>3</sup> Open Range, "Over 500 Communities in These 17 States", Open Range, 2009, <http://www.openrangecomm.com/markets.html>

<sup>4</sup> Open Range, "Open Range Communications To Bring Affordable, Portable, Wireless High-Speed Broadband To Over 500 Rural Communities And Six Million Citizens Across The United States", Open Range, 2009, [http://www.openrangecomm.com/pr/pr\\_1.html](http://www.openrangecomm.com/pr/pr_1.html)

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
DSL		<p>Qwest provides communication services, including high-speed Internet access in 14 western states including some of the most rural, rugged and least Populated areas in the continental United States.<sup>1</sup></p> <p>At the end of the first quarter, Qwest was serving 2.9 million broadband subscribers, which is an increase of 7 percent from the year-ago period.<sup>2</sup></p>		Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming <sup>3</sup>	<p>Capex 2007: \$1.669 b. Capex 2008: \$1.777 b. Capex 2009E: \$1.7 b.<sup>45</sup></p> <p>Capital spending in the quarter was \$334 million, a decrease of 20 percent from the year-ago quarter and 7 percent sequentially. The decline in capital expenditures was mostly due to project timing. A significant portion of capital investment continues to be focused on broadband expansion, including fiber to the node.<sup>6</sup></p>	7 MB. <sup>7</sup>	Total Consumer ARPU Q109 (including triple play): \$58. <sup>8</sup>
FTTN (VDSL)	No specific timeline announced. The Company made and continues to make significant investments to deploy fiber deeper into its networks to enable it to offer high-speed Internet access at speeds up to 20Mbps. <sup>9</sup>	<p>At the end of 2008 Qwest had 1.8 million homes passed with FTTN<sup>10</sup></p> <p>According to Qwest, the company expanded deployment of the fiber to the node service, making it available to 375,000 additional homes in first half 09. Qwest says the FTTN service is available to about 2.6 million homes, and Qwest hopes to reach 3 million by the end of 2009. Qwest currently serves just 265,000 customers with FTTN.<sup>11</sup></p>	Expected homes passed by 2010: 5 million <sup>12</sup>	Qwest will initially roll the new service on a limited basis within its FTTN footprint to qualifying customers in its Denver, Tucson, Salt Lake City and Minneapolis/St. Paul markets. During the next few months, Qwest will expand the reach of this latest FTTN service to select areas within 23 of its local markets, including New Mexico, Oregon, Utah and Washington. <sup>13</sup>	Mueller (CEO of Qwest) says Qwest could shift spending efforts to help feed FTTN/ADSL2+ deployment, but they won't raise the company's overall capex budget to do so. <sup>14</sup>	Qwest has announced that it will begin to deploy downstream connection speeds of up to 40 Mbps and upstream speeds of up to 20 Mbps within its FTTN footprint. <sup>15</sup>	

<sup>1</sup> [http://otrans.3cdn.net/2f2923d2dd7852a039\\_kjm6iybi0.pdf](http://otrans.3cdn.net/2f2923d2dd7852a039_kjm6iybi0.pdf)

<sup>2</sup> <http://telephonyonline.com/external.html?q=http://blog.telephonyonline.com/briefingroom/2009/04/29/qwest-reports-first-quarter-2009-results/>

<sup>3</sup> <http://news.qwest.com/company>

<sup>4</sup> <http://phx.corporate-ir.net/phoenix.zhtml?c=119535&p=IROL-secToc&TOC=aHR0cDovL2NjYm4uMTBrd2l6YXJkLmNvbS94bWwvY29udGVudHMueG1sP2lwYWdIPTYxMzE5MTgmcmVwbz10ZW5r&ListAll=1>

<sup>5</sup> <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MTE0MTV8Q2hpbGRJRjRD0tMXxUeXBIPtM=&t=1>

<sup>6</sup> <http://telephonyonline.com/external.html?q=http://blog.telephonyonline.com/briefingroom/2009/04/29/qwest-reports-first-quarter-2009-results/>

<sup>7</sup> [http://otrans.3cdn.net/2f2923d2dd7852a039\\_kjm6iybi0.pdf](http://otrans.3cdn.net/2f2923d2dd7852a039_kjm6iybi0.pdf)

<sup>8</sup> <http://telephonyonline.com/external.html?q=http://blog.telephonyonline.com/briefingroom/2009/04/29/qwest-reports-first-quarter-2009-results/>

<sup>9</sup> [http://otrans.3cdn.net/2f2923d2dd7852a039\\_kjm6iybi0.pdf](http://otrans.3cdn.net/2f2923d2dd7852a039_kjm6iybi0.pdf)

<sup>10</sup> <http://telephonyonline.com/fttp/news/qwest-slows-fttn-deployment-1014/>

<sup>11</sup> <http://www.dslreports.com/shownews/Qwest-265000-ADSL2-VDSL-Customers-103688>

<sup>12</sup> <http://www.dslreports.com/shownews/Qwest-FTTN-Available-To-5-Million-By-2010-98787>

<sup>13</sup> <http://www.fiercetelecom.com/story/qwest-ups-its-fttn-upload-download-capabilities/2009-07-20>

<sup>14</sup> <http://www.dslreports.com/shownews/Qwest-FTTN-Available-To-5-Million-By-2010-98787>

<sup>15</sup> <http://news.qwest.com/2Q09earnings>

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<b>DOCSIS 3.0*</b>	looking to rollout in 2009	428,000 customers end of 2008; 302,000 Data RGUs <sup>1</sup>	100% -- "Once we have completed our initial testing and trials, we intend to move quickly, similar to our industry leading efforts to deploy an all-digital video platform, to roll this product upgrade out to our data customers," said RCN President & CEO Peter Aquino. "We're taking the time now to test the platform to ensure that when we fully deploy this upgrade, it is done in the most efficient and effective manner for our customers." <sup>2</sup>	Boston and New York <sup>2</sup>	Consolidated Capital Expenditures: Q1 2009: \$26m; Q2 2009 \$25m;  RCN Metro Optical Networks Segment: Q1 2009 \$8m, Q2 2009 \$9m. <sup>3</sup>	50 Mbps downstream <sup>2</sup>	<b>Total ARPU</b> (including triple play) Q3/08: \$111 ARPU <sup>4</sup>
<b>Fiber*</b>	upgrade completed in key areas, new deployment in MA dependent on grants of government stimulus plan <sup>5</sup>	300,000 homes <sup>4</sup> 1,200 "points of presence" <sup>4</sup>	300 miles more fiber in southern region of MA (\$40m) <sup>5</sup>	Boston, New York, Eastern Pennsylvania, Washington D.C., Chicago <sup>4</sup>	Q3/08: resi/SMB cap ex of \$27 million; year-over-year decline was due mainly to last year's renewal of two long-term IRU agreements which totaled \$9 million. Excluding those items, cap ex was up \$6 million year-over-year driven by higher CPE and installation spending due to the acceleration of Analog Crush <sup>4</sup> RCNI increased its capex guidance to \$120-\$125mm from \$120mm implying an increase in 2H09 capex to \$75mm from the \$51mm in 1H09. The increase in the capex trend in 2H09 is primarily driven by the increase capex spend related to the launch of Analog Crush in the Lehigh Valley market of between \$5-\$10mm <sup>7</sup>	3 Mbps downstream/ 768 Kbps upstream -- \$19.95/mo. 10 Mbps downstream/ 800 Kbps upstream -- \$29.95/mo. 20Mbps downstream /2 Mbps upstream -- \$80.00/mo. <sup>8</sup>	

<sup>1</sup> "RCN CORP /DE/ Form 10K" 24 February 2009, [http://files.shareholder.com/downloads/RCNC/721739459x0x294853/589E2C34-91DC-40CF-92A2-E7115BE6EF6B/RCN\\_AR08.pdf](http://files.shareholder.com/downloads/RCNC/721739459x0x294853/589E2C34-91DC-40CF-92A2-E7115BE6EF6B/RCN_AR08.pdf)

<sup>2</sup> "RCN Announces Deployment of DOCSIS 3.0." RCN Press Release. 10 February 2009. <http://investor.rcn.com/releasedetail.cfm?releaseid=364431>

<sup>3</sup> "RCN Reports Second Quarter 2009 Results" 4 August 2009, <http://www.marketwire.com/press-release/Rcn-NASDAQ-RCNI-1025305.html>

<sup>4</sup> "RCN Corporation Q3 2008 Earnings Call Transcript." 04 November 2008. <http://seekingalpha.com/article/103960-rcn-corporation-q3-2008-earnings-call-transcript>

<sup>5</sup> Organization requests stimulus funds for middle-mile fiber and a data center, 10 August 2009,

<http://www.datacenterdynamics.com/ME2/dirmod.asp?sid=&nm=&type=news&mod=News&mid=9A02E3B96F2A415ABC72CB5F516B4C10&tier=3&nid=ECEFEC96F4684A8D8E57DF4D57B3BCC4>

<sup>6</sup> Anil Sharma, OpenCape Corporation Selects RCN Metro Optical Networks, 24 July 2009, <http://fixed-mobile-convergence.tmcnet.com/topics/mobile-communications/articles/60627-opencape-corporation-selects-rcn-metro-optical-networks.htm>

<sup>7</sup> "EBITDA Margin Approaching 30%; FCF of \$18mm in 1H09 - Reit Buy," Jefferies and Company, Inc., Reyes, Romeo, Antonio et al. 04 August 2009.

<sup>8</sup> <http://www.rcn.com/>

# Sprint Nextel

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Wireless EV-DO Rev. A	Should have fully rolled out the EV-DO Network by the end of 2007 <sup>1</sup>	"The company served 48.8 million customers at the end of the second quarter of 2009, compared to 49.1 million at the end of the first quarter of 2009. This includes 34.4 million post-paid subscribers (25.1 million on CDMA, 8.3 million on iDEN, and 1.0 million Power Source users who utilize both networks), 5.0 million prepaid subscribers (4.4 million on iDEN and 600,000 on CDMA) and 9.3 million wholesale and affiliate subscribers, all of whom utilize our CDMA network." <sup>3</sup>	"Sprint covers more than 170 million people with EVDO services, and over 20 million people with EVDO Rev A coverage, as of November 2006." <sup>2</sup>  260 million people to be reached by 2007 <sup>1</sup>	Offered in 41 states <sup>1</sup>	"Wireless capital expenditures were \$227 million in the second quarter of 2009, compared to almost \$200 million in the first quarter of 2009 and almost \$400 million spent in the second quarter of 2008. The year-over-year decrease in wireless capital spending reflects reduced capacity needs due to fewer subscribers. The company continues to invest capital in the quality and performance of its networks. At the end of the second quarter of 2009, Sprint's networks continue to operate at best-ever levels and, according to third-party data, Sprint has the most dependable+ 3G network in the country." <sup>3</sup>  "Sprint Nextel continues to expect that both post-paid and total subscriber full-year losses should improve in 2009 as compared to 2008. In addition, the company expects that full-year capital expenditures in 2009 will be less than 2008 levels, excluding WiMAX. The company expects to continue to generate positive Free Cash Flow* during the remainder of 2009." <sup>3</sup>	"Aug. 12, 2009-- Sprint now has the opportunity to also provide CDMA-based services over the Sprint 3G Mobile Broadband Network. Sprint will provide 23,087 wireless lines for Republic's national operations, with the potential for thousands of additional activations." <sup>4</sup>  3.1 Mbps/s downlink and 1.8 Mbps/s uplink <sup>5</sup>	"Wireless post-paid ARPU : \$56; Data revenues contributed greater than \$15.50 to overall post-paid ARPU in the second quarter CDMA data ARPU increased more than 3% from the first quarter of 2009, to greater than \$18.50, an industry-best that now represents greater than 32% of total CDMA ARPU. Prepaid ARPU in the quarter was approximately \$34 compared to \$31 in the first quarter of 2009, and \$30 in the year-ago period  Sprint Total (including voice and data) ARPU: Q2 2008: \$53.55 Q1 2009: \$53.52 Q2 2009: \$53.60 <sup>6</sup>
Wireless -- Dual-Mode 3G/4G* (USB Modem U300)	Sprint plans to deploy Sprint 4G service in many markets in 2009.	The company currently covers approximately 260m POPs with its 3G network. <sup>7</sup>	Sprint plans to deploy Sprint 4G service in many markets in 2009, including: Atlanta, Honolulu, Charlotte, Las Vegas, Chicago, Philadelphia, Dallas, Portland, Fort Worth, and Seattle. Sprint also expects to launch service in multiple markets in 2010 including Boston, Houston, New York, San Francisco and Washington, D.C.	"Sprint made history by launching 4G in Baltimore in September 2008, then by launching the first dual-mode 3G/4G USB Modem device in December." <sup>8</sup>	"Total operating expenses, after normalizing for special items, were \$7.3 billion in the second quarter, compared to \$7.3 billion in the first quarter of 2009 and \$7.9 billion in the year-ago period." <sup>3</sup>	"The modem known as the Sprint 3G/4G USB Modem U300 will use the new 4G Clearwire network with download speeds between 2 Mbps and 4Mbps where that network is available. And when users are out of range of the 4G wireless network, they will automatically be able to access Sprint's 3G network, which offers average downloads of between 600 Kbps and 1.4 Mbps, according to Sprint." <sup>9</sup>	

# Sprint Nextel

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<p><b>Wireless -- WiMAX/4G (Previously Xolm, and later CLEAR)*</b></p>	<p>YE 2009: 30m POPs<sup>7</sup></p> <p>YE 2010: 122m POPs<sup>7</sup></p>	<p>Baltimore, Atlanta, Portland, Las Vegas<sup>10,11</sup></p>	<p>More cities will soon follow, including Philadelphia, Chicago, Washington, D.C., Providence, R.I., Boston, and Dallas.<sup>10</sup></p> <p>"In addition to Las Vegas, Atlanta and Portland in August, Sprint also plans to deploy Sprint 4G in these markets in 2009: Charlotte, Chicago, Dallas, Ft. Worth, Honolulu, Philadelphia and Seattle."<sup>12</sup></p> <p>17 additional markets to its initial national Sprint 4G roll-out plans for 2009: Abilene, Texas; Amarillo, Texas; Austin, Texas; Boise, Idaho; Bellingham, Wash.; Charlotte, N.C.; Corpus Christi, Texas; Greensboro, N.C.; Killeen-Temple, Texas; Lubbock, Texas; Maui, Hawaii; Midland-Odessa, Texas; Raleigh, N.C.; Salem, Ore.; San Antonio, Texas; Waco, Texas; and Wichita Falls, Texas."<sup>13</sup></p> <p>"Sprint also expects to launch service in multiple markets in 2010, including Boston, Houston, New York, San Francisco and Washington, D.C."<sup>13</sup></p>	<p>Atlanta, Portland, and Las Vegas beginning in August (2009)<sup>11</sup>, Baltimore<sup>10</sup>, Select cities in Texas, Idaho, Washington, North Carolina, Hawaii,<sup>13</sup> Oregon<sup>13</sup></p>		<p>"Sprint 4G offers peak download speeds of more than 10 Mbps and average downlink speeds of 3-6 Mbps. Sprint 4G speeds and capabilities are three to five times faster than the 3G service offered by any national wireless carrier today, based on average download speeds."<sup>13</sup></p>	

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<sup>1</sup> [http://en.wikipedia.org/wiki/Sprint\\_Nextel#Sprint.27s\\_3G\\_Network\\_.28Vision.2FPower\\_Vision\\_network.29](http://en.wikipedia.org/wiki/Sprint_Nextel#Sprint.27s_3G_Network_.28Vision.2FPower_Vision_network.29)

<sup>2</sup> CNET, Oct. 2008 <[http://news.cnet.com/8301-1035\\_3-10056030-94.html?tag=mncol;txt](http://news.cnet.com/8301-1035_3-10056030-94.html?tag=mncol;txt)>

<sup>3</sup> Press Release, <[http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1313470&highlight=>](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1313470&highlight=>)

<sup>4</sup> Press Release, <[http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1309522&highlight=>](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1309522&highlight=>)

<sup>5</sup> <http://en.wikipedia.org/wiki/EV-DO>

<sup>6</sup> Morgan Stanley Report, August 2009

<sup>7</sup> Merrill Lynch Report Sept. 2009

<sup>8</sup> Press Release, <[http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1319959&highlight=>](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1319959&highlight=>)

<sup>9</sup> Press Release, <[http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1319758&highlight=>](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1319758&highlight=>)

<sup>10</sup> Q2 2009 Earnings Call, <http://seekingalpha.com/article/152202-sprint-nextel-q2-2009-earnings-call-transcript>

<sup>11</sup> Press Release, <[http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1309515&highlight=>](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1309515&highlight=>)

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<sup>12</sup> Press Release, <[http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1317040&highlight=</a>](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1317040&highlight=)

<sup>13</sup> Coverage Map, <<http://www.sprint.com/business/products/products/evdoEnterZip.jsp>>

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Wireless (3G)	Plan for 2009 is to double the 3G coverage of 107 mill POPS in 2008 <sup>1</sup>  covered pops to be increased to 160 m (Q3) and ca. 200mn (Q4) <sup>2</sup>	By end of 2008, 3G network covered population of 107 million inhabitants in approx 130 major cities (say they are late with 3G because they needed more spectrum first; will be catching up with competition in this area) <sup>1</sup>  As of 2Q09, the company had 150m covered 3G POPS <sup>3</sup>	0.7m net adds in H2 09E <sup>5</sup>  In 2009, the company plans to double the population currently covered by its high-speed network to reach more than 200 million people in the U.S., which includes expansion to an additional 100 cities by the end of the year. <sup>4</sup>  TE 09, the company expects to have 200m covered 3G POPS <sup>3</sup>	New Markets launched include: Cleveland, Columbus, Des Moines, Milwaukee, Reno, Tucson <sup>2</sup>	2009 Q2 CapEx of \$1.1 billion <sup>2</sup> ; close to \$2.5bn spent in H2 08 when the company added 1.3m subscribers <sup>5</sup>	3G -- around 1 to 2 megabits	Estimated Total ARPU (including voice and data) of T-Mobile US to be \$47.80 in H2 09E. ARPU was \$50.90 in H2 08A, \$48 in H1 09A, and \$47.70 in Q209A. <sup>5</sup>  Data ARPU: Q2 2008: \$8.60 Q1 2009: \$9.40 Q2 2009: \$9.90 <sup>6</sup>
T-Mobile USA is following a common technology path across all of its markets in the United States, from GSM/GPRS/EDGE to UMTS/HSDPA.*	T-Mobile plans to launch HSPA 7.2 technology in conjunction with its initiative to push coverage to 200m POPs by YE2009 and 220m POPs by YE 2010. T-Mobile USA estimates that it can transition from HSPA 7.2 to HSPA 21 for an incremental \$300m. <sup>7</sup>			Sept. 18, 2008: T-Mobile's UMTS/HSDPA high-speed data network is currently available across 13 major metropolitan markets: Austin, Baltimore, Boston, Dallas, Houston, Las Vegas, Miami, Minneapolis, New York (including northern New Jersey and Long Island), Phoenix, Portland, San Antonio and San Diego. The company plans to expand its service by mid-October to additional markets, including Atlanta, Chicago, Los Angeles, Orlando, Philadelphia, Sacramento, San Francisco and Seattle. An additional six markets — Birmingham, Denver, Detroit, Kansas City, Memphis and Tampa — are expected to have the network available before the end of the year, increasing the number of markets with T-Mobile's 3G network to 27 markets.	T-Mobile US plans to spend approx. \$3.6 billion cash capex in 2009, almost the same level as in 2008 (\$3.7 billion IFRS, \$3.6 billion US GAAP).		<b>Total ARPU</b> (including voice and data): Q2/08: 51\$; Q3/08: 50\$; Q4/08: 49\$; FY/08: 50\$; Q1/09: 47\$; Q2/09: 47\$.

<sup>1</sup> "Deutsche Telekom, Inc Wall Street Analyst Forum's 20th Annual Institutional Investor Conference Transcript." 26 March 2009. <http://seekingalpha.com/article/128104-deutsche-telekom-inc-wall-street-analyst-forum-s-20th-annual-institutional-investor-conference-transcript>

<sup>2</sup> "Conference Call - 2009 half year results with René Obermann, CEO Deutsche Telekom AG, and Timotheus Höttges, CFO Deutsche Telekom AG." T-Mobile Presentation. 06 August 2009. <http://www.deutschetelekom.de/dtag/cms/content/dt/en/607830>

<sup>3</sup> Merrill Lynch Report Sept. 2009

<sup>4</sup> "T-Mobile USA Launches 3G webConnect USB Laptop Stick", 25 March 2009, <http://www.fiercewireless.com/press-releases/t-mobile-usa-launches-3g-webconnect-usb-laptop-stick>

<sup>5</sup> "Deutsche Telekom -- Corporate News -- All Eyes on the US," Societe Generale, Ulrich Rathe et al. 10 August 2009.

<sup>6</sup> Morgan Stanley Report, August 2009

<sup>7</sup> Morgan Stanley Report, September 2009

# Time Warner Cable

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<b>DOCSIS 3.0*</b>	<p>Expected to launch DOCSIS 3.0 services in New York City soon. Roll-out started summer 09 with the plan to be completed by year-end. In advance of the launch of DOCSIS 3.0 new CMTS equipment was installed in Manhattan.<sup>1</sup></p> <p>A spokesman for Time Warner Cable said additional DOCSIS 3.0 markets will be launched next year, but there was no additional information on which markets would be next.<sup>2</sup></p>	New York City	Data Subscriptions forecast (includes DOCSIS 2.0 and 3.0): 2008: 8.4 million 2009E: 9.0 million 2010E: 9.5 million 2011E: 10.0 million 2012E: 10.4 million 2013E: 10.6 million 2014E: 10.8 million 2015E: 10.9 million <sup>3</sup>	NY		50 Mbps downstream and 5 Mbps upstream wideband service, which is called Time Warner Cable Wideband Internet, for \$99.95 per month.	
HSD, DOCSIS 2.0		<p>As of December 31, 2008, it served approximately 14.6 million customers primarily in New York state, the Carolinas, Ohio, southern California, and Texas.<sup>4</sup></p> <p>Residential high-speed data subs increased to 8.76 million in Q2/09, up from 8.67 million at the end of the first quarter.<sup>5</sup></p>			<p>TWC lowered its capex guidance on today's call, and indicated that FY09 capex should land below \$3.3b, ~\$200mm below its previous capex benchmark of \$3.5b.<sup>6</sup></p> <p>Capital spending in the quarter was \$760 million, which brings CapEx for the first half of the year to just over \$1.5 billion. That's a \$179 million decrease from the first six months of 2008. Total capital expenditures as a percentage of revenues for the first half was 17.3% versus 20.2% for the same period last year. Looking forward, we now expect our full-year 2009 capital spending will be less than \$3.3 billion.<sup>7</sup></p>	20 mbps downstream and 2 mbps upstream <sup>4</sup>	Subscription ARPU (including triple play) per customer relationship improved 7% to approximately \$96. <sup>5</sup>

<sup>1</sup> Time Warner Cable, Inc. Q1 2009 Earnings Call Transcript <http://seekingalpha.com/article/133948-time-warner-cable-inc-q1-2009-earnings-call-transcript?page=3>

<sup>2</sup> <http://www.cedmagazine.com/News-TWC-DOCSIS-bandwagon-092409.aspx>

<sup>3</sup> UBS Research, Consumer Model

<sup>4</sup> <http://investing.businessweek.com/research/stocks/snapshot/snapshot.asp?ric=TWC>

<sup>5</sup> Time Warner Cable Inc TWC Strong Q2; Full-Year Targets Unchanged BARRINGTON RESEARCH ASSOCIATES INC - GOSS, JAMES CHARLES, ET AL

<sup>6</sup> TIME WARNER CABLE INC, TWC: A Mixed Quarter; 2Q09 Review, CREDIT SUISSE - NORTH AMERICA - WANG, SPENCER, ET AL

<sup>7</sup> TWC - Q2 2009 Time Warner Cable, Inc. Earnings Conference Call



Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<p><b>Fiber -- FiOS Internet (fiber-optic, FTTP) *</b></p>	<p>"We plan to have FiOS coverage in about 70% of our telecom footprint subsequent to the Frontier transaction."<sup>1</sup></p>	<p>"300,000 net new FiOS TV customers and a record 303,000 net new FiOS Internet customers, for a total of 2.5 million FiOS TV customers and 3.1 million FiOS Internet customers."<sup>2</sup>                      "One we are taking market share from cable and two we are successfully up selling FiOS to our existing broadband customers. FiOS deployment perspective we passed an additional 650,000 homes in the quarter which puts us at 13.8 million in total (approx. 43 percent of households in Verizon's wireline network footprint). We are on track to be substantially with the deployment by the end of 2010 which has positive implications for both capital spending and free cash flow."<sup>32</sup>                      "The penetration rate for FiOS Internet just in the last 12 months (June 30, 2008-2009) has gone from {{18.7%}} 23.5% to {{22.9%}} 28.1% in the markets where we are currently deployed"<sup>4</sup></p>	<p>"FiOS continues to expand into new areas and we plan to have about 70% coverage of our telecom footprint subsequent to the Frontier transaction."<sup>3</sup>                      "[After the Frontier transaction,] Our remaining telecom footprint post-divestiture will include approximately 27 million households. We expect to pass just over 17 million homes with FiOS by the end of 2010 after accounting for the divestiture and ultimately a total of 18 million or nearly 70% FiOS coverage. There are no changes to our penetration targets for FiOS TV or Internet."<sup>5</sup></p>	<p>California, Connecticut, Delaware, Florida, Indiana, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Texas, Virginia and Washington.<sup>6</sup></p>	<p>Gross CapEx: Cost to pass: \$817 per home, \$ 14.7bn total; video/network &amp; support: \$ 172 per home, \$ 3.1bn total; cost to connect: \$ 718 per home, \$ 5.1bn total; total costs: \$ 1,707 per home; \$ 22.9bn total.                      Net CapEx: cost to pass: \$ 572 per home, \$ 10.3bn total;                      Video/network &amp; support \$144 per home, \$ 2.6bn total; cost to connect \$ 718 per home, \$ 5.1bn total; total costs: \$1,434 per home, \$ 18bn in total.                      Net CapEx per home connected: Cost to pass: \$ 1,451; video/network &amp; support: \$ 366; cost to connect: \$ 718; total costs: \$2,535<sup>7</sup></p>	<p>50Mbps downstream, 20Mbps upstream<sup>8</sup></p>	<p>Total ARPU Q209 (including TV): \$135."<sup>2</sup></p>

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
DSL	<p>"...we are divesting predominately rural lines that are part of our local wireline operating territories in 14 states. We will establish the operations in the 13 Western states as a standalone, independent business and cut over the West Virginia operations to Frontier at closing. This will ensure that we have a seamless operational transition." (May 2009)<sup>5</sup></p> <p>At the time of the Frontier announcement (5/13/09), we stated that we expected the transaction to close in approximately 12 months (mid-2010)<sup>9</sup></p> <p>To satisfy the growing broadband needs of consumers in the District of Columbia, Verizon continues to expand the availability of its fastest High Speed Internet (HSI) service, delivered over digital subscriber line (DSL) technology.<sup>10</sup></p>	<p>At the end of 2008 Verizon had 6.2 million DSL Subscribers.<sup>11</sup></p> <p>"Broadband connections totaled 9.1 million in the second quarter, a 9.4 percent increase year over year and a net increase of 186,000 from the first quarter 2009. This includes a decrease of 117,000 DSL-based Verizon High Speed Internet connections from the first quarter, which was more than offset by the 303,000 increase in FiOS Internet customers."<sup>12</sup></p> <p>Verizon High Speed Internet service is the company's most popular and most widely available broadband data service, available to more than 25 million households in parts of 24 states and the District of Columbia. [HSI] is available to nearly 13,000 additional households in the downtown and midtown [D.C.] areas, bringing the number of homes in the city that now can order the service to more than 216,000.<sup>10</sup></p>	<p>9.7 million households shall be reached by upgraded DSL with 7.1Mbit/s downlink and 768Kbit/s uplink by July 2009 - this should be about 9% coverage of the whole country<sup>7</sup></p> <p>Total number of DSL Subscribers is expected to decline with a CAGR of 9.3%<sup>12</sup></p> <p>2009E: 5.9 million 2010E: 5.4 million 2011E: 4.9 million 2012E: 4.5 million 2013E: 4.0 million 2014E: 3.6 million 2015E: 3.2 million<sup>13</sup></p>	<p>"As of the end of the first quarter, Verizon had approximately 35.2 million wireline access lines in 25 states and the District of Columbia. This includes Verizon's wireline operations in jurisdictions that will not be part of the [Frontier] transaction: Connecticut, Delaware, District of Columbia, Florida, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island, Texas and Virginia, plus most of California."<sup>14</sup></p>	<p>Total wireline capex is predicted to be \$8,380K in 2008 and \$8,310K in 2009<sup>15</sup></p> <p>Wireline capital expenditure in 2008 was \$9797M. Estimates of 2009 total capex is \$17.4B to \$17.8B<sup>16</sup></p>	<p>Uplink: 7.1 Mbit/s, downlink 768Kbit/s<sup>7</sup></p>	<p>Retail Service ARPU (Verizon group) 2008: \$51.40</p> <p>Retail Data ARPU (Verizon Group) 2008: \$11.94<sup>8</sup></p>
Wireless -- CDMA based EV-DO (Evolution-Data Optimized), Revision A (Rev. A)	<p>"Our mobile broadband journey started with EV-DO. And we began deploying that late in 2003 and built out the nation's first coast-to-coast EV-DO network in '04 and '05."<sup>17</sup></p>	<p>"From a capital perspective our network reliability and 3G service coverage are excellent. About, as I said, 97% of our 290 million POPs are covered by 3G EV-DO. And we conduct drive test to ensure that our network reliability remains a key competitive advantage for us in the marketplace."<sup>17</sup></p>		<p>We have spectrum and offer EV-DO in 49 states plus DC (no spectrum in Alaska).<sup>18</sup></p>	<p>"Verizon Wireless has invested more than \$50 billion since it was formed -- \$5.5 billion on average every year - to increase the coverage and capacity of its national network and to add new services."<sup>19</sup></p>	<p>"Mobile Broadband customers in enhanced broadband wireless coverage areas can expect average download speeds of 600 kilobits per second (kbps) to 1.4 megabits and average upload speeds of 500-800 kbps."<sup>19</sup></p>	<p>The drivers of ARPU have been consistent, wireless data, particularly from non-messaging services."<sup>17</sup></p> <p>Verizon Wireless (including data and voice) ARPU: Q2 2009: \$51.10<sup>25</sup></p>

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
<p><b>Wireless -- "LTE"* (Long-Term Evolution)</b></p>	<p>"Verizon's chief technology officer, Dick Lynch, unexpectedly told a crowd at the Cisco C-Scape conference on Tuesday (Dec. 9, 2008) that his firm expected to have two LTE test markets in service by "this time next year." ...the company is now publicly committed to a schedule far faster than anyone predicted."<sup>20</sup></p> <p>The company projects to offer commercial LTE service in 25 to 30 markets by 2010, equivalent to 100 million POPs. The ultimate goal is to cover "virtually all of its POPs" by the end of 2013<sup>21</sup></p> <p>So in 2010, we'll roll out our fourth-generation (4G) wireless network using Long Term Evolution (LTE) technology.<sup>22</sup></p>	<p>Not yet deployed</p>	<p>"Verizon Wireless' new, nationwide LTE (Long Term Evolution) network will be the largest in the land, covering more area than the U.S. carrier's existing EVDO network ... We procured in auction 700 MHz spectrum that covers the whole continental U.S. ... and we're going to be able to cover much more deeply into some rural markets. Verizon Wireless will turn on its first 20 to 30 LTE markets in 2010, and the company is aiming to cover the entire continental U.S. and Hawaii with LTE by 2013, Lynch said."<sup>23</sup></p> <p>" We plan to offer commercial LTE service in 25 to 30 markets next year [2010]. In 2011 and '12 we will continue to expand with goal of covering virtually all of our POPs with this high-performance network by the end of 2013."<sup>17</sup></p>	<p>"...we plan to conduct LTE trials in Seattle and in Boston later this year. We're working on a launch of commercial LTE services in up to 30 markets next year [2010]."<sup>3</sup></p>	<p>As has been previously reported, Verizon's total capital expenditures totaled roughly \$17 billion USD in 2008. Lynch noted that LTE network costs would be within the company's overall program as spending shifts from older technologies to new strategic initiatives, such as LTE. The company expects to maintain commercial service on its 3G service well into the next decade."<sup>24</sup></p> <p>Verizon Wireless Capex: 2Q 2008: 1.754 m 1Q 2009: 1.551 m 2Q 2009: 1.783 m<sup>25</sup></p>	<p>Field trials have demonstrated download rates of 50 to 60 Mbps peak speeds, though actual average download results will not be determined until the commercial launch of the new Verizon Wireless LTE network.<sup>14</sup></p> <p>"LTE... provides us significantly more speed, somewhere between 5 and 12 Mb on average to a given customer... we are planning to deploy LTE at 700 MHz. 700 MHz provides us with propagation capabilities that we don't have in other frequencies in the spectrum. But in addition to that we intend to deploy it on a nationwide basis over a few years."<sup>4</sup></p>	<p>No decision on pricing is made yet, which makes predictions of an ARPU impossible."<sup>3</sup></p>

<sup>1</sup> Verizon at Oppenheimer Conference, <[http://investor.verizon.com/news/20090811/20090811\\_transcript.pdf](http://investor.verizon.com/news/20090811/20090811_transcript.pdf)>

<sup>2</sup> Investor Quarterly 2009, <<http://investor.verizon.com/financial/quarterly/vz/2Q2009/2Q09Bulletin.pdf>>

<sup>3</sup> Q2 2009 Earnings Call, <<http://seekingalpha.com/article/151577-verizon-communications-inc-q2-2009-earnings-call-transcript?page=-1&find=fios>>

<sup>4</sup> Conference, <[http://investor.verizon.com/news/20090609/20090609\\_transcript.pdf](http://investor.verizon.com/news/20090609/20090609_transcript.pdf)>

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- <sup>5</sup> Investor Conference, <[http://investor.verizon.com/news/20090513/20090513\\_transcript.pdf](http://investor.verizon.com/news/20090513/20090513_transcript.pdf)>
- <sup>6</sup> <http://www.fiberexperts.com/fios-availability.html>
- <sup>7</sup> "Fiber Economics and Delivering Value", Doreen Toben, EVP & Chief Financial Officer, 27. September 2006, <http://investor.verizon.com/news/20060927/20060927.pdf>
- <sup>8</sup> [http://www.telecomengine.com/NewsGlobe/article.asp?HH\\_ID=AR\\_4144](http://www.telecomengine.com/NewsGlobe/article.asp?HH_ID=AR_4144)
- <sup>9</sup> see page 2 of 20090513 transcript
- <sup>10</sup> <http://newscenter.verizon.com/press-releases/verizon/2009/verizon-widens-availability-5.html>
- <sup>11</sup> Credit Suisse, Verizon Company Analysis, October 22, 2009
- <sup>12</sup> Credit Suisse, Verizon Company Analysis, October 22, 2009
- <sup>13</sup> Credit Suisse, Verizon Company Analysis, October 22, 2009
- <sup>14</sup> Press Release, <<http://investor.verizon.com/news/view.aspx?NewsID=987>>
- <sup>15</sup> UNITED STATES SECURITIES AND EXCHANGE COMMISSION FORM 8-K
- <sup>16</sup> UNITED STATES SECURITIES AND EXCHANGE COMMISSION FORM 8-K
- <sup>17</sup> Speech, <[http://investor.verizon.com/news/20090528/20090528\\_transcript.pdf](http://investor.verizon.com/news/20090528/20090528_transcript.pdf)>
- <sup>18</sup> Lawrence Plumb's email and <http://www.verizonwireless.com/b2c/CoverageLocatorController?requesttype=NEWREQUEST&coveragetype=broadband>
- <sup>19</sup> About us, <[http://aboutus.vzw.com/bestnetwork/network\\_facts.html](http://aboutus.vzw.com/bestnetwork/network_facts.html)>
- <sup>20</sup> Ars Technica, <<http://arstechnica.com/old/content/2008/12/verizon-says-early-lte-deployment-in-2009.ars>>
- <sup>21</sup> [http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT\\_CODE=Banker&a1=Research](http://research.thomsonib.com/gaportal/droppoints/dispatch.asp?cCode=TRSearch&PRODUCT_CODE=Banker&a1=Research)
- <sup>22</sup> [http://investor.verizon.com/financial/annual/2008/downloads/08\\_vz\\_ar.pdf](http://investor.verizon.com/financial/annual/2008/downloads/08_vz_ar.pdf)
- <sup>23</sup> PC Magazine, <<http://www.pcmag.com/article2/0,2817,2341260,00.asp>>
- <sup>24</sup> Press Release, <<http://investor.verizon.com/news/view.aspx?NewsID=969>>
- <sup>25</sup> Morgan Stanley Report, August 2009

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Ka-band/Ku-band Satellite VSAT technology, Mobile VSAT <sup>1</sup>	They are launching ViaSat-1 (100 Gbps satellite) in the first quarter of 2011 (estimated). At a cost of \$400+ million dollars <sup>2</sup>	100% of the US, Worldwide Service: ViaSat supplies the broadband infrastructure for: WildBlue Communications, Ka-band Internet access in the United States, Eutelsat ToowayTM Ku- and Ka-band services in Europe, Telesat Ka-band consumer services in Canada, Intelsat/Orbit Communications Ku band service, Middle East <sup>3</sup>	ViaSat-1 (2011) has more capacity than all current North American satellites combined, capable of handling up to two million subscribers, 10 times the throughput of any other Ka-band satellite, in-orbit costs only a fraction of even the newest satellites in orbit, more/cheaper bits in space and enable service on a par with DSL and cable. In 2010 they will be launching KA-SAT broadband satellite (Eutelsat) in Europe. They expect to have a market of up to 4 million subscribers in the U.S. Canada and Europe that can fit on these satellites. <sup>4</sup>	All 50 States Europe, Canada <sup>5</sup>	The last quarter (Qtr end: 01-02-09) they spent around \$35 million on satellite and another \$5 million for property and equipment. <sup>6</sup> Through the third quarter (Qtr end: 01-02-09) they spent over \$85 million (on ViaSat-1) and expect to spend another \$30 million in Quarter 4 and a bit less than \$100 in the next year As of August 5, 2009 they are still on course to spend \$100 million this year on ViaSat-1. Capex for FY09 was \$117.194 million <sup>7</sup>	They bought WildBlue so Basic service now is about 512Kbps and premium services run about 1.5 with upload speeds of 128Kbps (basic) to 256Kbps (premium). <sup>8</sup> In the future they want to offer 2-10 or more Mbps with ViaSat-1 <sup>9</sup>	No ARPU data publicly available

<sup>1</sup> ViaSat Conference Call & Slides to Discuss Announcement "ViaSat to Transform North American Satellite Broadband Market with ViaSat", <http://files.shareholder.com/downloads/VSAT/736538473x0x155804/5005221e-0652-42d5-b671-ce18ca1c8d11/ViaSat%20to%20Transform%20North%20American%20Satellite%20Broadband%20Market%20.pdf>

<sup>2</sup> ViaSat, Inc. Conference Call to discuss ViaSat-1 Contract on January 08, 2009

<sup>3</sup> ViaSat Conference Call & Slides to Discuss Announcement "ViaSat to Transform North American Satellite Broadband Market with ViaSat", <http://files.shareholder.com/downloads/VSAT/736538473x0x155804/5005221e-0652-42d5-b671-ce18ca1c8d11/ViaSat%20to%20Transform%20North%20American%20Satellite%20Broadband%20Market%20.pdf>

<sup>4</sup> ViaSat, Inc. Conference Call to discuss ViaSat-1 Contract on January 08, 2009

<sup>5</sup> ViaSat Conference Call & Slides to Discuss Announcement "ViaSat to Transform North American Satellite Broadband Market with ViaSat", <http://files.shareholder.com/downloads/VSAT/736538473x0x155804/5005221e-0652-42d5-b671-ce18ca1c8d11/ViaSat%20to%20Transform%20North%20American%20Satellite%20Broadband%20Market%20.pdf>

<sup>6</sup> ViaSat, Inc. Q2 2009 Earnings Conference Call

<sup>7</sup> ViaSat, Inc. Q3 2009 Earnings Conference Call

<sup>8</sup> WildBlue Website, <http://www.wildblue.com/getWildblue/doServiceAvailabilitySearchAction.do>, October 8, 2009

<sup>9</sup> ViaSat, Demo of Next Generation Satellite Broadband Service with Highest Speeds Ever at Satellite 2009, <http://www.viasat.com/news/demo-next-generation-satellite-broadband-service-highest-speeds-ever-satellite-2009>, March 24, 2009

**WildBlue** - As of 10/01/09 ViaSat announced they are buying WildBlue for \$568 million. \*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
2 way Ka-Band Satellite, DOCSIS spotbeams <sup>10</sup>	They have more capacity coming online (Southern United States) in this current quarter by leasing space on AMC-15 satellite <sup>11</sup>	48 continuous states <sup>12</sup>	No Plans to expand to Alaska, Hawaii and Puerto Rico <sup>13</sup>	48 continuous states <sup>14</sup>		Download Speed: 512Kbps-1.5Mbps Upload Speed:128Kbps-256Kbps 30 day Threshold (Fair Access Policy) of Download: 7,500-17,00MB Upload Threshold: 2,300-5,000MB <sup>15</sup>	No ARPU data publicly available, subscriber level at around 400,000 <sup>16</sup> as of August 20, 2009

<sup>10</sup> ViaSat, WildBlue - Broadband Internet Access for Residential and Small Office/Home Office, <http://www.viasat.com/news/wildblue-broadband-internet-access-residential-and-small-officehome-office-docsis>, March 2, 2007

<sup>11</sup>WildBlue Press Room Website, WildBlue Activates Third Satellite For New Sales, Adding Broadband Capacity in Areas of Highest Demand, <http://www.wildblue.com/company/doPressReleaseDetailsAction.do?pressReleaseID=62>, August 10, 2009

<sup>12</sup> WildBlue Website, <http://www.wildblue.com/>

<sup>13</sup> WildBlue Website, <http://www.wildblue.com/>

<sup>14</sup> WildBlue Website, <http://www.wildblue.com/>

<sup>15</sup> WildBlue Website, <http://www.wildblue.com/>

<sup>16</sup> Harris, Lawrence M., Initiation Report: Hughes Communications, Inc., CL King & Associates, September 3, 2009

# Windstream Communications

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
ADSL2+ / Ethernet Internet Access		<p>3.2 million access lines</p> <p>1,025,000 million high-speed Internet customers</p> <p>Broadband penetration about 35% of total access lines</p> <p>Residential broadband penetration about 51% of primary residential lines.<sup>1</sup></p>	<p>On September 8, Windstream announced it was acquiring Lexcom</p> <p>for \$141 million in cash. Lexcom is a Lexington, NC based rural carrier</p> <p>with 23k access lines, 9k high speed internet and 12k cable TV subscribers. The transaction is expected to close in 4Q09<sup>2</sup></p>	<p>16 states – AL, AR, FL, GA, KY, MS, MO, NE, NM, NY, NC, OH, OK, PA, SC, TX<sup>3</sup></p>	<p>Capital Expenditures: Q2 2009: \$77 million<sup>4</sup> Q1 2009: 63 million<sup>5</sup></p> <p>12/31/08: 317.50 million; 12/31/07: 365.70 million; 12/31/06: 373.80 million; 12/31/05: N/A; 12/31/04: N/A<sup>6</sup></p>	<p>Windstream Ethernet Internet Access speeds range from 3 to 10 Megabytes (MB) per second in most markets.</p> <p>Expanding the availability of 3 Mbps and 6 Mbps service.</p> <p>25 Mbps Internet service in Lexington, KY</p> <p>Fastest connection available in Fayette County; Testing 50 Mbps service</p> <p>Generally offers 12 Mbps service across most of its 16-state network<sup>7</sup></p>	<p>Q1 2009: <b>Total</b> (including triple play) average service revenue per customer was \$79.68<sup>8</sup></p>

<sup>1</sup> <http://www.windstream.com/about/NewsDetail.aspx?NewsID=130>

<sup>2</sup> Morgan Stanley Research, Telecom Services 3Q09, October 20, 2009.

<sup>3</sup> <http://www.windstream.com/about/overview.aspx>

<sup>4</sup> <http://www.windstream.com/about/NewsDetail.aspx?NewsID=130>

<sup>5</sup> <http://www.windstream.com/about/NewsDetail.aspx?NewsID=117>

<sup>6</sup> Thomson Financial Annual Financial Statement: Windstream Corp. Thomson Financial. 2009.

<sup>7</sup> <http://www.windstream.com/about/NewsDetail.aspx?NewsID=122>

<sup>8</sup> <http://www.windstream.com/about/NewsDetail.aspx?NewsID=117>

# WISP Industry

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Wireless		1million accounts nationwide served by industry	Don't want to publish where they are/ where they have planned deployments.	WISPs in every state.		~36 Mbps raw data rate. \$100 -500per meg per second per month cost of bandwidth. Special access lines leased from telco. Wispdirectory.com	Lowest ARPU in the industry. CITI estimate \$30



# OPATSCO

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
DSL (94%); FTTH (56%); Cable modem (34%); Unlicensed Wireless (27%); Satellite (23%); Licensed Wireless (15%).	Seventy-four percent of respondents indicated that their company, or an affiliate or subsidiary, currently offer subscription video services, while 24 percent said they do not. The interesting part is that of the subset of respondents that are not currently offering subscription video services, 47 percent indicated that they definitely or probably would do so by the end of 2011. Some might do so by retailing satellite services or buying an existing small cable company, but more seem inclined towards video over DSL and fiber these days. <sup>1</sup>	Broadband of at least 756 K in one direction is available, on average, to 95% of households served by respondents to a recent survey of OPATSCO members. 52.7% of respondents offer broadband bundled with video, while 47.3% do not. Those bundling video with broadband have a take rate that is 11% higher than those who do not (59% v. 38%). This				The most popular speed tier purchased by consumers is 3 Mbps down, according to respondents, followed closely by 1 Mbps. Third place was a three way tie between 6 Mbps, 1.5 Mbps, and the basic speed of 512 Kbps. The fastest speed offered was 50 Mbps down. Upload speeds varied widely, with the fastest at 8 Mbps up.	

<sup>1</sup> OPATSCO Comments, MB Docket No. 07-269 (fil. July 29, 2009)

# American Cable Association

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
Cable, FTTH, DSL	No Information reported	803 Operators out of 900 member companies have deployed some form of high-speed internet service	4 companies planning to deploy high speed internet service within a year. It is unknown how many companies that already deploy high speed internet are planning to extend their services				

# National Telecommunications Cooperative Association

\*) Project not completed

Technology Details	Announced Timeline	Current Deployment / Coverage Footprint	Expected Deployment/ Coverage Footprint	States	Expected Capital Outlays / Operating Expenditures	Expected Broadband Performance / Quality	Expected ARPU
DSL, FTTN, Cable	No Information reported	Members: more than 580 small and rural telephone cooperatives and commercial companies.  Applying 83% service of broadband to our estimate of 3.5 million access lines give 2.9 million broadband lines served by NTCA member companies. (There are additional broadband lines in our members' service areas serviced by other providers and in rural areas not served by our member companies.) This estimate relies, however, on a number of different assumptions.		Members in 46 States (excludes CT, NJ, RI, DE)		Survey respondents were Offering broadband service in excess of 768 kbps to 83% of their customers. <sup>1</sup>	

<sup>1</sup> Data provided from NTCA to CITI, 2009. NTCA also noted that “the margin of error could potentially be fairly large.”