MAGNA
On-Demand Quarterly

Second Quarter 2008 Review
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MAGNA On-Demand Quarterly: September 2008

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Overview

- We have updated our On-Demand models to account for the most recently completed quarter and modified our historical data to incorporate new information about the past
- Our year-end 2012 forecast for **DVR subscriber households** is 42.7 million (36% of TV households), up from our estimate of 27.2 million (24% of TV households) as of the end of the second quarter of 2008
- By 2012, we expect that true **Video-on-Demand** (distinct from the simulated VOD offered by DBS providers DirecTV and EchoStar) will reach 63.6 million households (approximately 54% of television households). This compares with 39.0 million VOD households (35% of total TV households) at the end of the second quarter of 2008
- As of the end of June 2008, we estimate that 66.8 million households had **broadband access** out of 117.1 million total households. We estimate that internet access was enjoyed by approximately 73.5 million households by the end of the second quarter of 2008. We expect that total broadband access will rise to cover 80.2 million households by the end of 2012. This reflects more modest expectations of broadband growth in the near term due to generally reduced expectations for annual net subscriber additions

Battle of the Network Stars (Part 2)

- Last month a US court overturned a ruling that barred a technology known as Network Digital Video Recorders. Despite press suggestions that this judgment will lead to the destruction of today's television advertising business, the ruling is but one step in a multi-year process towards confirming the legality of an alternative, more cost-effective (to the cable operator!) means of offering digital video recording. Some background can help put the ruling in context:
  - Earlier this decade, Time Warner Cable demonstrated proof-of-concept for storage and playback of video content delivered over a cable system in a centrally-managed environment through a project known as "Maestro". TWC shelved Maestro due to legal concerns, but Cablevision subsequently developed a similar product for its footprint given the product's clear benefits
  - Although inexpensive individually, conventional set-top DVRs are a costly way to deploy recording services en masse, requiring replacement hard drives and corresponding truck rolls after a period of time (as hard drives are prone to breaking). Conversely, a Network-based DVR services all digital cable customers in a given territory and avoids delays in service provision due to set-top box shortages. Network DVRs would be more costly in some respects, as a cable operator would need to invest in storage at the head-end as well as in bandwidth throughout the network
  - In late 2005, Cablevision scheduled a trial for a service it called RS (Remote Storage) DVR. Content packagers such as Cartoon Network and 20th Century Fox were concerned that their advertisements would be skipped, and sued. These programmers argued that Cablevision violated copyrights by storing their content without authorization. Cablevision argued that it offered consumers a hard drive that happened to be located centrally (similar to renting a locker in a public storage facility), and was no more illegal than existing DVR or VCR technologies, which were affirmed as legal through the Supreme Court's "Betamax" ruling in 1984
  - In mid-2006 the Southern District of New York ruled in favor of the content packagers. It was this ruling that was overturned last month by the 2nd US Circuit Court of Appeals, in a case that may subsequently be heard – in several years – by the US Supreme Court. But even if last month's case represented the last word, what will be the actual impact? Cablevision must still prove the service's technology and business model

Battle of the Network Stars (Part 2) (Cont'd)

- It is unknown if Network DVRs will offer service as good as a set-top DVR in a cost-effective manner. Cablevision originally pursued this technology in order to avoid deploying set-top based DVRs, but now has approximately 30% DVR penetration by our estimates. Set-tops may offer superior latency (time lag between the remote's command and the impact on the screen), and the subscribers who are by now used to their existing DVR service may be happy to continue with it, especially as DVR services will continue as paid services, not free ones

- This latter point is key to the business model of DVR services. No model – least of all ours – should assume that continuously falling hardware costs present a deterrent to market penetration. Services are another story, however. Although a Network DVR service can likely be built for less cost than a set-top solution at a certain minimum scale, we have consistently (and correctly) argued that there is no competitive rationale for a cable operator to offer free or low-cost DVR services on an ongoing basis . This is perhaps best proven out by the fact that Cablevision has experienced more competition from satellite and telco services than any other cable operator, yet continues to see industry-leading basic subscriber and advanced services growth rates (with DVR services still priced at $9.95 per month!). That DVRs remain fee-based services is what ultimately limits adoption to a sub-set of all multichannel subscribers

- Given how far other MSOs are down the path with their conventional DVR set-tops, they will likely wait for Cablevision to prove out the technology and the business model, and then begin the gradual process of deploying the service by offering new subscribers access to this form of DVR (for a fee, of course) rather than through the set-top they might otherwise have been offered. Legacy DVR subscribers would not likely be impacted until they called the cable operator to replace a broken hard drive or moved to a new residence (a time when older equipment is typically changed out)

- Network DVRs could contribute to marginally higher DVR penetration rates – for example, because of promotional periods where DVR services could be offered for free, much as HBO or Showtime are provided to new cable subscribers for a few months

Battle of the Network Stars (Part 2) (Cont'd)

- But the fundamentals of DVR usage won't change.
  - **While younger audiences with DVRs certainly time-shift popular programs in meaningful numbers, the vast majority of these individuals still watch the vast majority of their television content through conventional means.** Among the ~20% of households with DVRs in late 2007, 30% accounted for 71% of total DVR usage. Put another way, there is a subset of DVR users who are "power" users, but the vast majority of people use DVRs for a limited amount of programming. So although the frequency with which heavy DVR users can be reached is challenged, DVR proliferation does little to impact prime time network TV's status as the single most wide-reaching environment for advertisers

  - **DVR households consume only a third of prime time content in a time-shifted manner.** We forecast that 36% of the population will have DVR services by 2012, and presuming all ads were skipped (and that there was no value to a skipped ad) this would equate to a reduction of 11% of prime time ratings points 10 years after the advent of the DVR. This is equivalent to about 2 years worth of erosion due to viewing patterns shifting from broadcast to cable. But even the notion of erosion is a false one, as both cable and DVRs contribute to higher total viewership of television AND disregards that with annual population growth of 1% per year, total television impressions rise by about 20% over a 10 year period

- So although the impact of DVRs and ad avoidance is real, the technology – and future iterations of it – primarily impacts the industry by focusing attention on the appropriateness of television as a marketing vehicle. But for brands whose goals are defined by reach and frequency, we paraphrase Winston Churchill's comments on democracy and government: "Television is the worst form of advertising, except for all the others which have been tried"

- New national-scale brands seeking awareness will continue to use and grow television budgets – and network prime in particular – because it remains the single most efficient means for reaching large audiences. But older, more established brands rightly will continue to migrate budgets away from television. Instead, and regardless of any future court rulings, these advertisers will continue to look towards forms of marketing which better target narrowly defined groups, much as they have since well before DVRs arrived

DVR and VOD News

DBS providers DirecTV and EchoStar remain the leading suppliers of DVRs

- We estimate that **DirecTV** added 350,000 DVR subscribers during the second quarter, as approximately 55% of new subscribers ordered advanced set-top boxes (HD and/or DVR). By our estimates, the company now has 5.9 million households with DVRs (34% of total subscribers)
- Despite a smaller overall subscriber base, similar dynamics are driving **EchoStar's** DVR subscriber levels, which we estimate now total 6.2 million households (45% of total subs)
- **Comcast** remains the leading provider of DVRs and VOD among cable operators. We estimate that more than 4.1 million Comcast subscribers now have DVR services, equal to nearly 17% of the company's customer base. Concurrently, approximately 16 million of its 25 million subscribers, or 67% of total, have access to the company's VOD service
- **Time Warner Cable** added 160,000 DVR subscribers, and now counts 3.8 million in total, accounting for 28% of its basic cable homes
- **TiVo's** stand-alone DVR subscriber total declined below 1.7 million for the first time since 2006, as the company continues to see erosion due to substitution of MSO-based DVRs

Appendix 1: DVR and VOD Forecast Data

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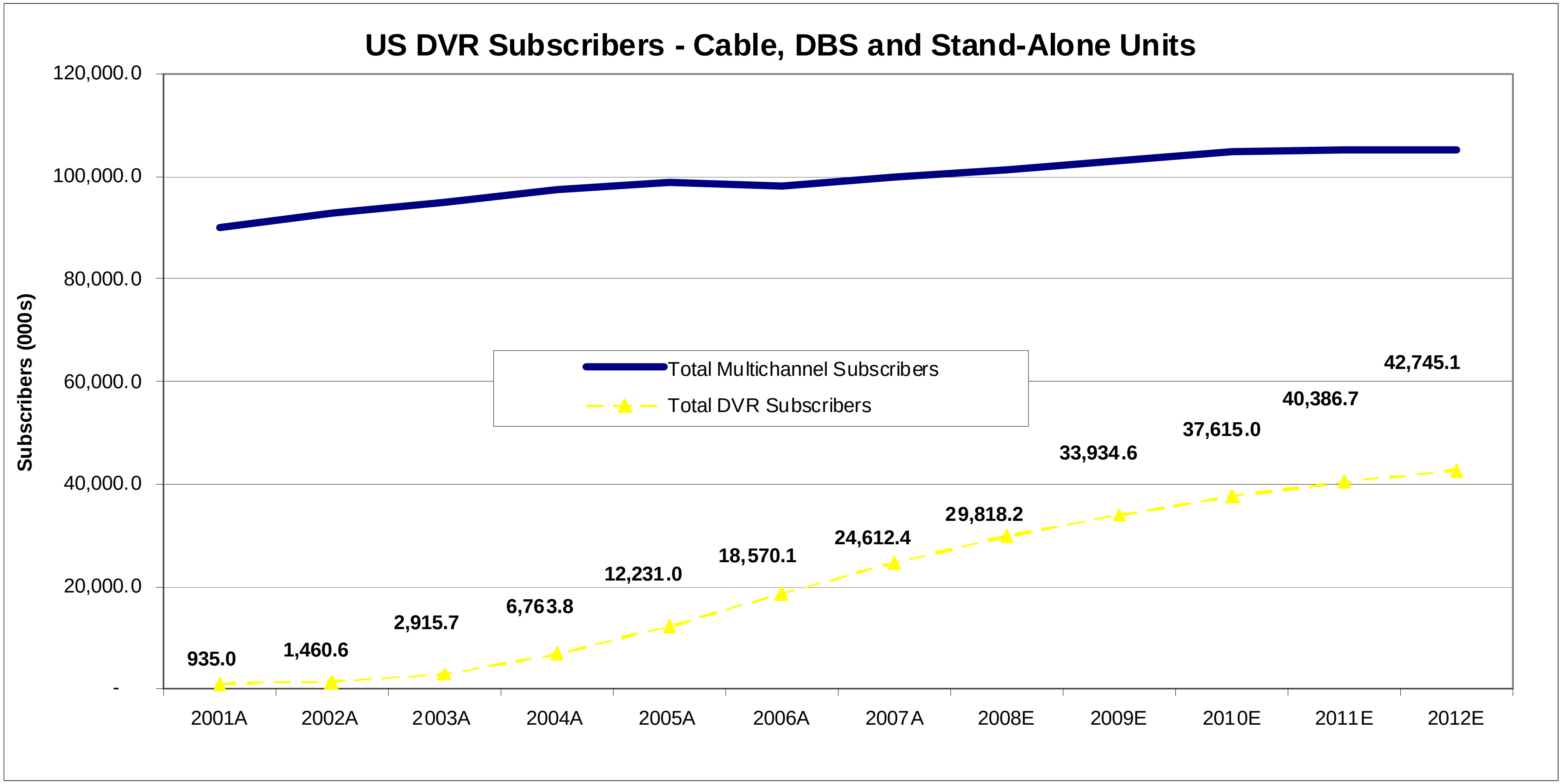
MAGNA On-Demand Deployment and Subscriber Estimates

	2001A	2002A	2003A	2004A	2005A	2006A	2007A	1Q08A	2Q08A	3Q08E	4Q08E	2008E	2009E	2010E	2011E	2012E
Total US TV Households	102,200	105,500	106,700	108,400	109,600	110,200	111,400	112,024	112,198	111,952	112,800	112,800	113,928	115,067	116,218	117,380
• YOY Growth	------	3.2%	1.1%	1.6%	1.1%	0.5%	1.1%	1.5%	1.1%	0.8%	1.3%	1.3%	1.0%	1.0%	1.0%	1.0%
Total Multichannel Subscribers	**89,980**	**92,881**	**95,003**	**97,562**	**98,698**	**98,114**	**99,769**	**100,374**	**100,089**	**100,945**	**101,495**	**101,495**	**103,165**	**104,874**	**105,285**	**105,388**
• YOY Growth	------	3.2%	2.3%	2.7%	1.2%	-0.6%	1.7%	2.4%	2.1%	1.5%	1.7%	1.7%	1.6%	1.7%	0.4%	0.1%
• % of TV Households With DBS, Cable or TelcoTV	88.0%	88.0%	89.0%	90.0%	90.1%	89.0%	89.6%	89.6%	89.2%	90.2%	90.0%	90.0%	90.6%	91.1%	90.6%	89.8%
Digital Multichannel Subscribers	**33,747**	**41,025**	**46,462**	**52,485**	**58,178**	**63,972**	**71,205**	**72,999**	**74,247**	**76,541**	**78,757**	**78,757**	**86,559**	**93,333**	**98,441**	**101,773**
• Digital Penetration	37.5%	44.2%	48.9%	53.8%	58.9%	65.2%	71.4%	72.7%	74.2%	75.8%	77.6%	77.6%	83.9%	89.0%	93.5%	96.6%
VOD-Enabled Subscribers	**3,243**	**7,660**	**12,910**	**19,278**	**24,160**	**29,902**	**36,030**	**37,750**	**38,955**	**40,844**	**42,767**	**42,767**	**50,068**	**55,884**	**60,280**	**63,595**
• YOY Growth	------	------	68.6%	49.3%	25.3%	23.8%	20.5%	19.5%	17.3%	18.1%	18.7%	18.7%	17.1%	11.6%	7.9%	5.5%
• % of Cable Footprint Enabled With VOD	19.4%	35.3%	52.0%	69.7%	76.6%	85.6%	88.8%	89.6%	90.0%	90.0%	90.3%	90.3%	91.8%	91.6%	91.6%	92.1%
MSO DVR Subscribers	620	1,018	2,212	5,495	10,610	16,719	22,791	24,252	25,469	26,761	28,142	28,142	32,379	36,129	38,901	41,259
• YOY Growth	------	------	117.3%	148.4%	93.1%	57.6%	36.3%	32.8%	30.1%	26.6%	23.5%	23.5%	15.1%	11.6%	7.7%	6.1%
• % of Basic Subscribers with DVRs	0.7%	1.1%	2.3%	5.6%	10.7%	17.0%	22.8%	24.2%	25.4%	26.5%	27.7%	27.7%	31.4%	34.5%	36.9%	39.1%
Stand-Alone DVR Subscribers	**315**	443	704	1,269	1,621	1,851	1,821	1,796	1,746	1,696	1,676	1,676	1,556	1,486	1,486	1,486
• YOY Growth	------	------	58.9%	80.3%	27.7%	14.2%	-1.6%	-2.4%	-4.1%	-5.8%	-8.0%	-8.0%	-7.2%	-4.5%	0.0%	0.0%
• Net Additions	------	128	261	565	352	230	(30)	(25)	(50)	(50)	(20)	(145)	(120)	(70)	0	0
Total DVR Subscribers	**935**	**1,461**	**2,916**	**6,764**	**12,231**	**18,570**	**24,612**	**26,048**	**27,215**	**28,457**	**29,818**	**29,818**	**33,935**	**37,615**	**40,387**	**42,745**
• YOY Growth	------	------	99.6%	132.0%	80.8%	51.8%	32.5%	29.6%	27.2%	24.0%	21.2%	21.2%	13.8%	10.8%	7.4%	5.8%
• DVR Subscribers as % of TV Households	0.9%	1.4%	2.7%	6.2%	11.2%	16.9%	22.1%	23.3%	24.3%	25.4%	26.4%	26.4%	29.8%	32.7%	34.8%	36.4%
• DVR Subscribers as % of Multichannel Households	1.0%	1.6%	3.1%	6.9%	12.4%	18.9%	24.7%	26.0%	27.2%	28.2%	29.4%	29.4%	32.9%	35.9%	38.4%	40.6%

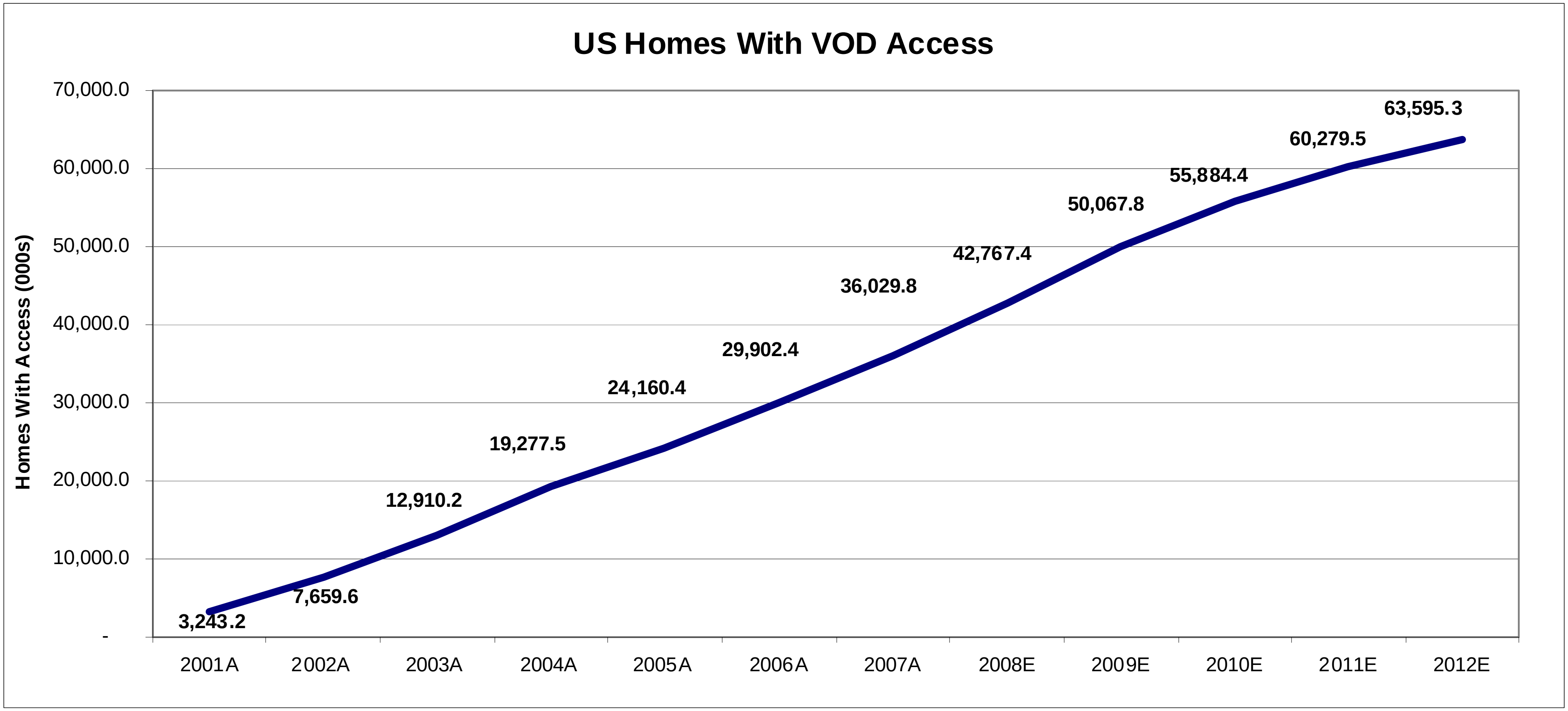
 Source: MAGNA, Company Reports

Appendix 2: DVR Forecast



 Source: MAGNA, Company Reports

Appendix 3: VOD Forecast



 Source: MAGNA, Company Reports

Appendix 4: Internet Access Forecast Data

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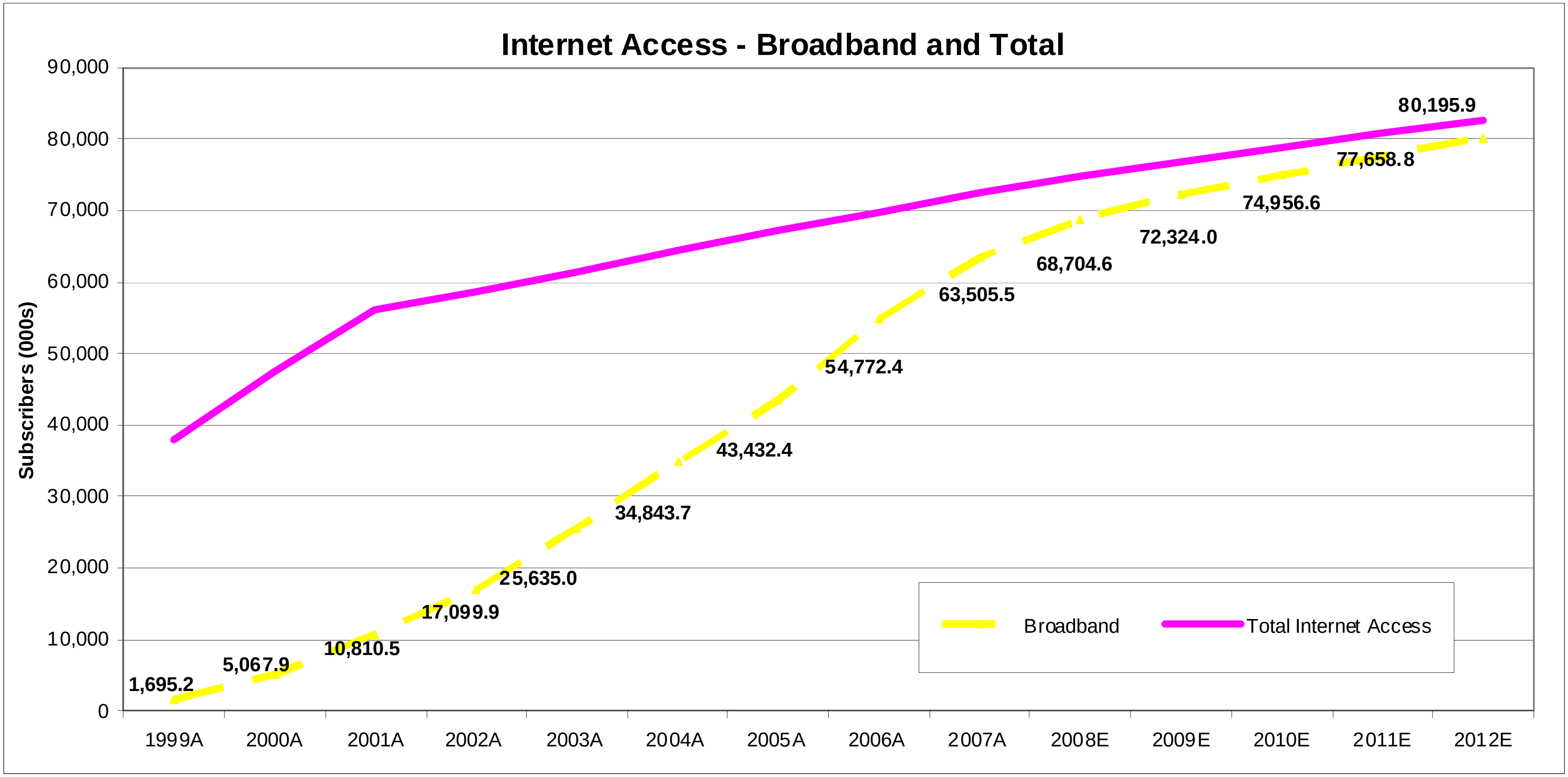
MAGNA Internet Access Forecast

	2000A	2001A	2002A	2003A	2004A	2005A	2006A	2007A	2008E	2009E	2010E	2011E	2012E
Total Households (Census)	112,215.0	109,608.9	111,000.0	111,545.8	113,324.5	114,738.6	115,838.7	116,835.6	117,419.7	118,006.8	119,186.9	120,378.8	121,582.6
• YOY Growth	3.3%	-2.3%	1.3%	0.5%	1.6%	1.2%	1.0%	0.9%	0.5%	0.5%	1.0%	1.0%	1.0%
Total Residential Broadband Access	5,067.9	10,810.5	17,099.9	25,635.0	34,843.7	43,432.4	54,772.4	63,505.5	68,704.6	72,324.0	74,956.6	77,658.8	80,195.9
• % of Internet Access	10.6%	19.3%	29.1%	41.7%	54.1%	64.7%	78.5%	87.7%	92.0%	94.0%	95.0%	96.0%	97.0%
Total Narrowband Only[(a)]	42,623.4	45,189.5	41,619.1	35,854.7	29,553.0	23,718.3	14,991.5	8,932.5	5,974.3	4,616.4	3,945.1	3,235.8	2,480.3
• % of Internet Access	89.4%	80.7%	70.9%	58.3%	45.9%	35.3%	21.5%	12.3%	8.0%	6.0%	5.0%	4.0%	3.0%
Total Residential Internet Access	47,691.4	56,000.0	58,719.0	61,489.6	64,396.7	67,150.8	69,763.9	72,438.0	74,679.0	76,940.5	78,901.7	80,894.5	82,676.1
• Internet Household Penetration	42.5%	51.0%	52.9%	55.1%	56.8%	58.5%	60.2%	62.0%	63.6%	65.2%	66.2%	67.2%	68.0%
• Net Adds	9,687.9	8,308.6	2,719.0	2,770.6	2,907.0	2,754.1	2,613.1	2,674.2	2,240.9	2,261.5	1,961.3	1,992.8	1,781.6

(a) Represents implied number of subscribers to dial-up services who do not also have broadband services

 Source: MAGNA, US Census, FCC, Company Reports

Appendix 5: Internet Access Forecast



 Source: MAGNA, US Census, FCC, Company Reports

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