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October 17, 2002

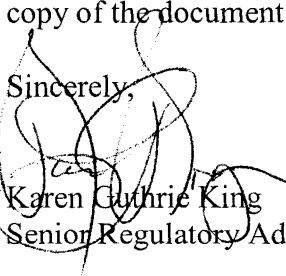
Zoning Commission Office
Alberto P. Bastida, Secretary
441 4th St. NW
Suite 210
Washington, DC 20001

Re: Presentation Material – Case 01-02 Text Amendment- Regulation of
Antennas, Antenna Towers, and Monopoles.

Dear Secretary Bastida:

Verizon Wireless respectfully requests that the attached presentation to the Zoning Commission be provided to the Zoning Commissioners prior to today's hearing and that a copy of the document be entered into the record.

Sincerely,


Karen Guthrie King
Senior Regulatory Advisor

ZONING COMMISSION
District of Columbia
Case 01-02
Exhibit 79
ZONING COMMISSION
District of Columbia
CASE NO.01-02
EXHIBIT NO.79

A Wireless Futures Presentation for D.C. Zoning

Presented by:
Verizon Wireless
Joe Bush
10 – 17 - 02



Agenda



- The Evolution of Wireless
 - Timeline
- Wireless Data Capabilities/Directions
 - Today's advanced capabilities
 - What's on the horizon?
- Devices
 - Handsets, PDAs, Laptops, Convergence
- Applications
 - What can I DO with wireless?
- Open Discussion / Questions

The Evolution of Wireless

CDMA2000 1xEV-DO (TBD)

CDMA2000 1X (2002)

Digital Voice(1999)

CDPD (1993)

Year	M-Commerce	Business Applications	Location Services	Financial Services	Information based services	Entertainment services	Total
2000	~500	~500	~100	~100	~100	~100	~1,300
2001	~1,000	~1,000	~200	~200	~200	~200	~2,800
2002	~2,000	~1,500	~300	~300	~300	~300	~5,700
2003	~4,000	~2,000	~400	~400	~400	~400	~9,600
2004	~7,000	~2,500	~500	~500	~500	~500	~13,000
2005	~12,000	~3,000	~600	~600	~600	~600	~18,000



Current Wireless Data Products

Mobile Messenger Service



•Send 2-way short messages via:

- ✓E-mail
 - ✓<http://www.vtext.com/>
 - ✓Handset to handset
 - ✓Paging Software
- Replaces the pager
- Distribution Lists
- Message Confirmation & Tracking
- Set up alerts for weather, stocks, news, sports, etc.



Mobile MessengerSM: Send A Message

Send A Message >>

Message Status >>

Dashboard ▾

Personalization >>

Information Alerts >>

Help >>

Sign-Out >>

Send To: "Leadership Staff"  

Enter up to 10 numbers or names,
separating each entry by a comma.
Ex: 9991234567, sam@vtext.com

From: 4102358892

Your Message: FYI, Todays Meeting
has been changed to
2PM.

Callback Number: 4102358892

Priority: Normal ☐ Urgent ☒

75 Characters Remaining

My Contacts

People:

Adams
Bush
Damon
Eby
Fry

Groups:

Field Sales
Leadership Staff
Technical Team
Web Development



Contact
List



Message
Blocking

Send

Clear

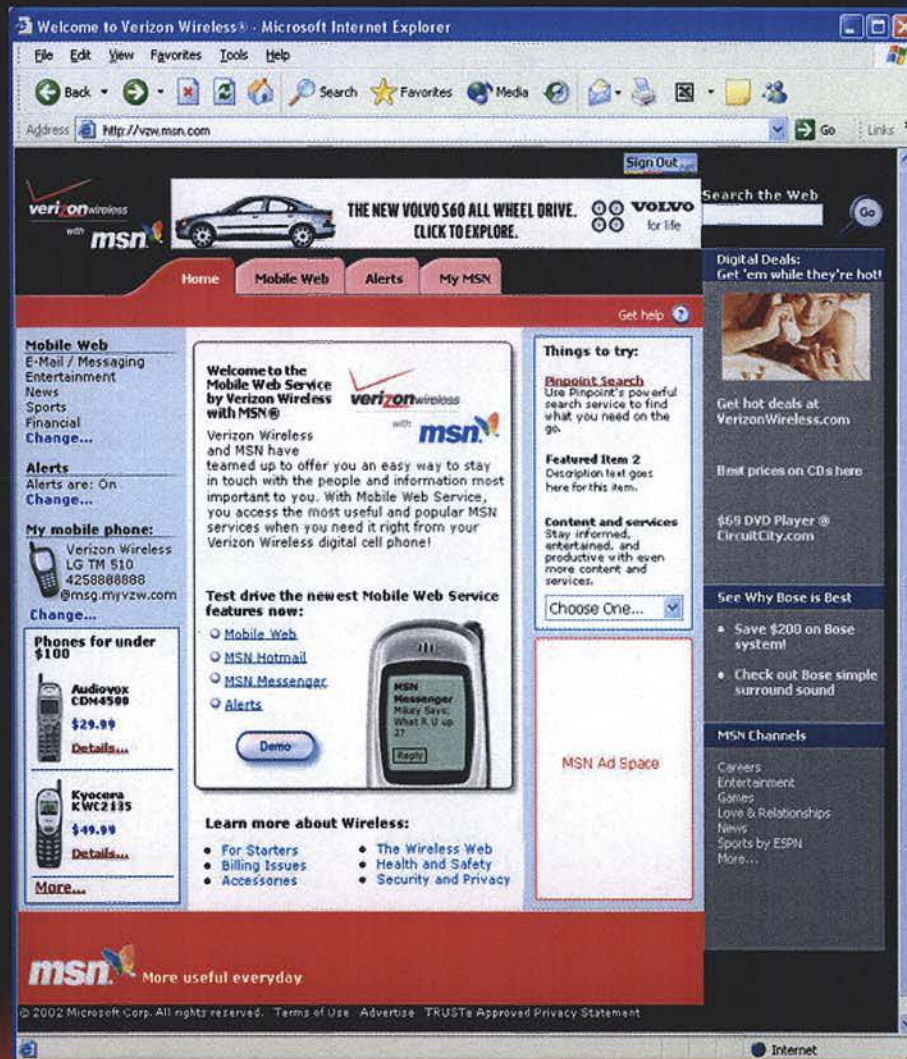
SMS

- Product Road Map



Mobile Web

Desktop



VZW MSN Portal Roadmap



Q4 2002

Q1 2003

Q2 2003

Q3 2003

Microsoft 6.0

Hotmail and
IM via SMS

G-Phone 1.0

Microsoft 7.0

Voice
Integration to
Text Mail

MSN Game
Zone offering

Microsoft 8.0

Attachments

Audio/Video
Streaming
Capabilities

BREW

Get It Now is the first true downloadable application offering!

Auto provisioned

- ❖ Download applications directly to a Brew enabled handset
- ❖ Productivity Tools
- ❖ Navigation
- ❖ Entertainment
- ❖ Pricing specific to selected application, subscription based, Number of uses, unlimited use



BREW

- 3rd Q02 Phones



LG VX-10

- 1XRTT
- Grayscale
- 7 lines of text



Motorola V-720

- 1XRTT
- GPS
- Color STN
- 4K color

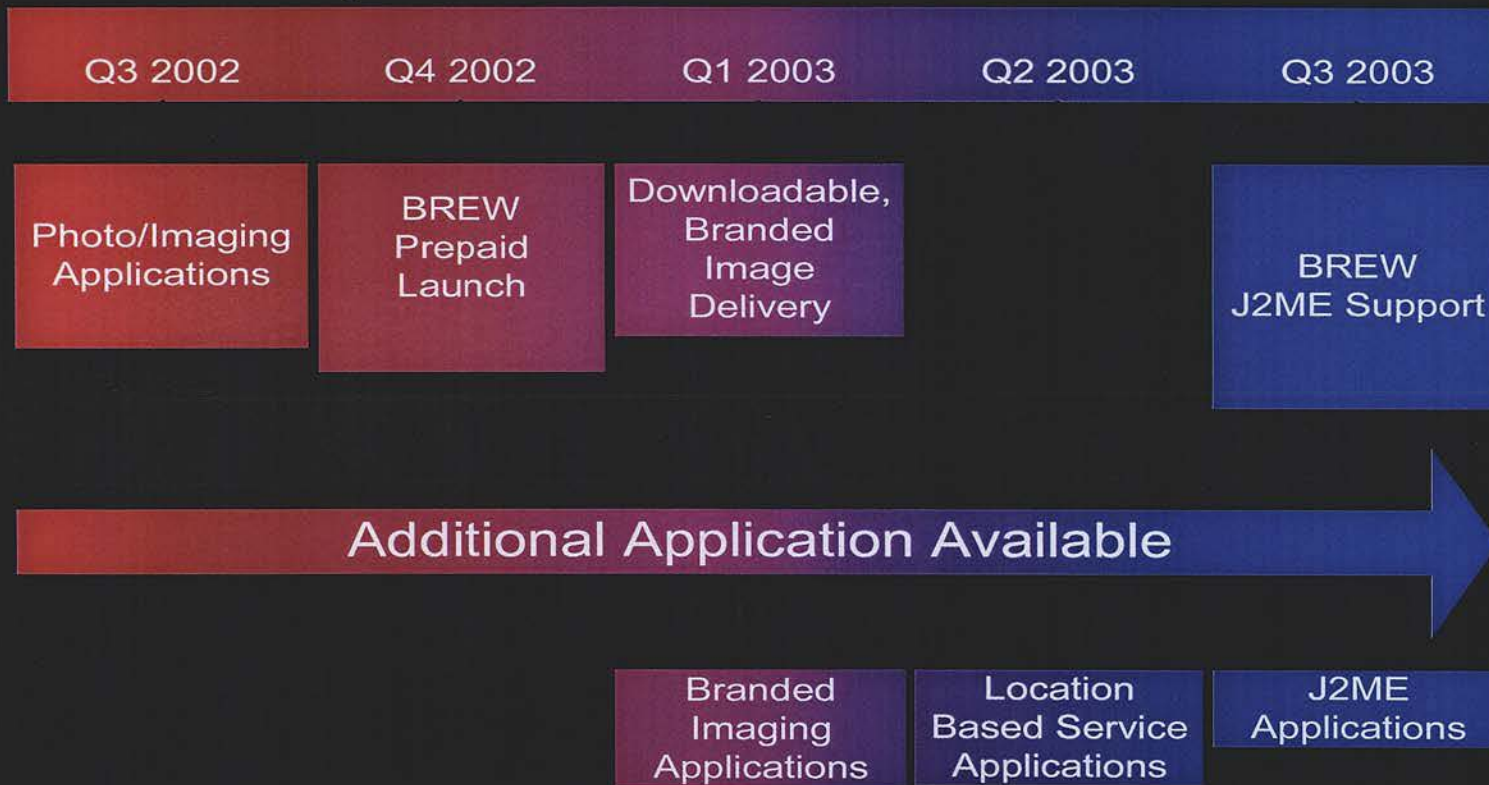


Toshiba 9500

- 1XRTT
- GPS
- Color TFT
- 4K color

BREW

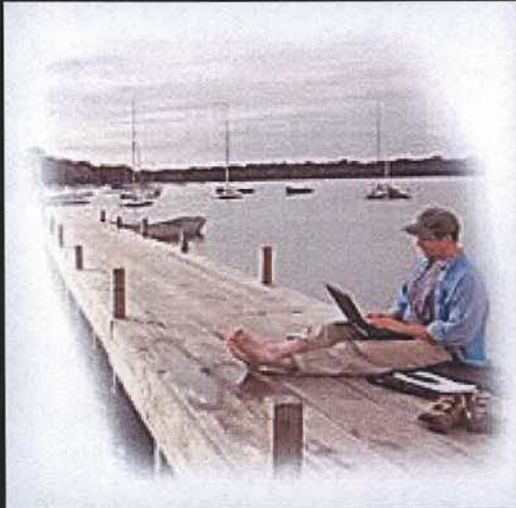
- Roadmap



Cellular Digit Packet Data

- Digital overlay to the analog cellular network
- Designed specifically for data transmission
- Dedicated channel capacity
- Industry standard, TCP/IP based technology
- Reliable and connectionless
- Cost effective-billed only for data passed, not length of connection
- Secure-private connection solutions available
- Most commonly used in public safety

Express Network (1XRTT)



- AKA 1X, 1XRTT
 - Major milestone in the evolution of wireless
 - New, faster, more efficient digital standard
-

- Data Speeds are 10 times the Data speed than previous technologies
- Average speed of 40 – 60 kbps Bursting up to 144kbps

Wireless Devices – 1XRTT



AirCard 555

- Type II card fits completely within data device
- “Watcher” user interface allows user to monitor network connectivity
- Backwards compatible with IS-95A
- Voice capable – use it as a mobile phone with headset!
- 2-Way SMS Capable
- Detachable antenna for improved reception and convenience



Wireless Devices –1XRTT



Kyocera 2235

- Supports 1XRTT Technology i.e., *Express Network*
- Backwards compatible with IS-95A
- Optional Mobile Office data cable kit
- Voice-activated dialing
- WAP browser makes it easy to view your favorite Web sites with Mobile Web Service
- Headset Jack – use it with optional headset
- 2-Way SMS Capable – works with our Mobile Messenger Service



Wireless Devices -1XRTT



Thera by Audiovox

- Compatible with Express Network
- Watcher Graphical User Interface with dialing software
- Internet and e-mail capable
- Microsoft® for Pocket PC 2002 OS
- Includes pocket Word, Excel, Outlook, Media Player and Active Sync.
- Send and receive text messages
- 32 SDRAM and 32MB SD Memory Card, 32 MB Flash Rom
- Only 7.0 oz.!



Kyocera Wireless 7135

- Smaller - clamshell form factor is over 20% smaller
- Faster
 - Data: 1x speeds up to 144 kbps through QC 5100 chipset
 - PDA: 60% faster processor
 - Connection to PC: USB 4x faster than serial
- Brighter – 16 bit, 65,000 color display
- Upgraded – Palm 4.1 OS
- Expandable – SD/MMC slot for 8 to 128 mb of storage
- Multimedia – music, pictures, video
- **Standard with all palm M505/M500/M100 devices**



Express Network (1XRTT)

- Product Road Map



Voice Gear

Voice Portal

- Overview
 - Current Features:
 - Voice Activated Dialing (VAD), Voice Navigation of Voice Mail
 - Voice Enabled Unified Messaging, Combined Voice Mail, POP3 Email
 - Corporate Email, Contacts, Tasks and Calendar
 - Voice browsing of Content (Either HA or WAP Integration)

Future Products



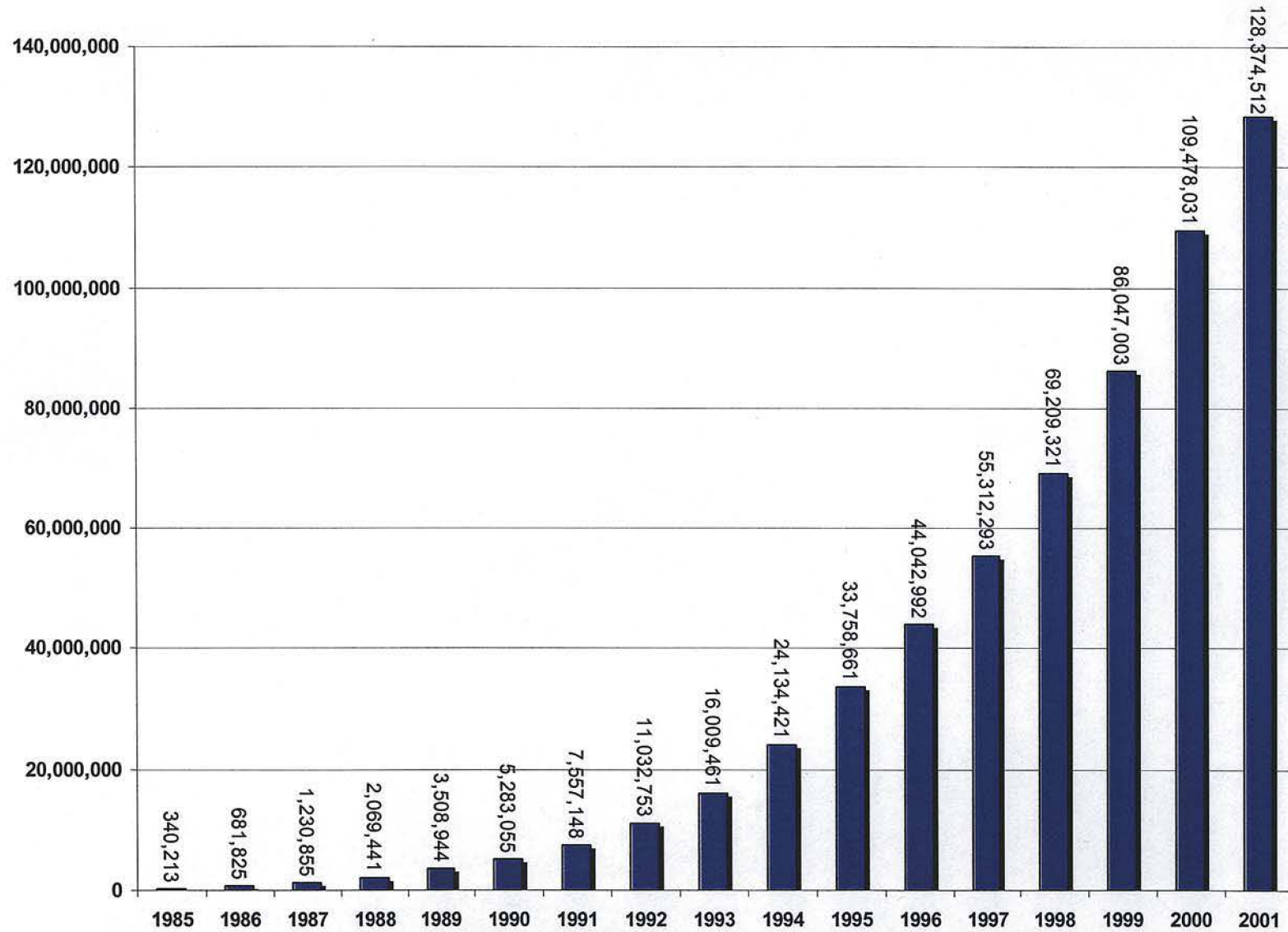
Future of Wireless Data



- 1X EVDO and/or 1xEV-DV – enhanced speed, dedicated channels, efficient spectrum use
- Traffic monitoring – For safety and flow control
- Wireless E911 – GPS, Location based services
- Multimedia: voice, data, video, remote control. Wider bandwidth; speeds up to 2Mbps. This phase is expected to reach maturity between 2003-2005.

(These terms are used for general description purposes and thus may have slight variations in definition)

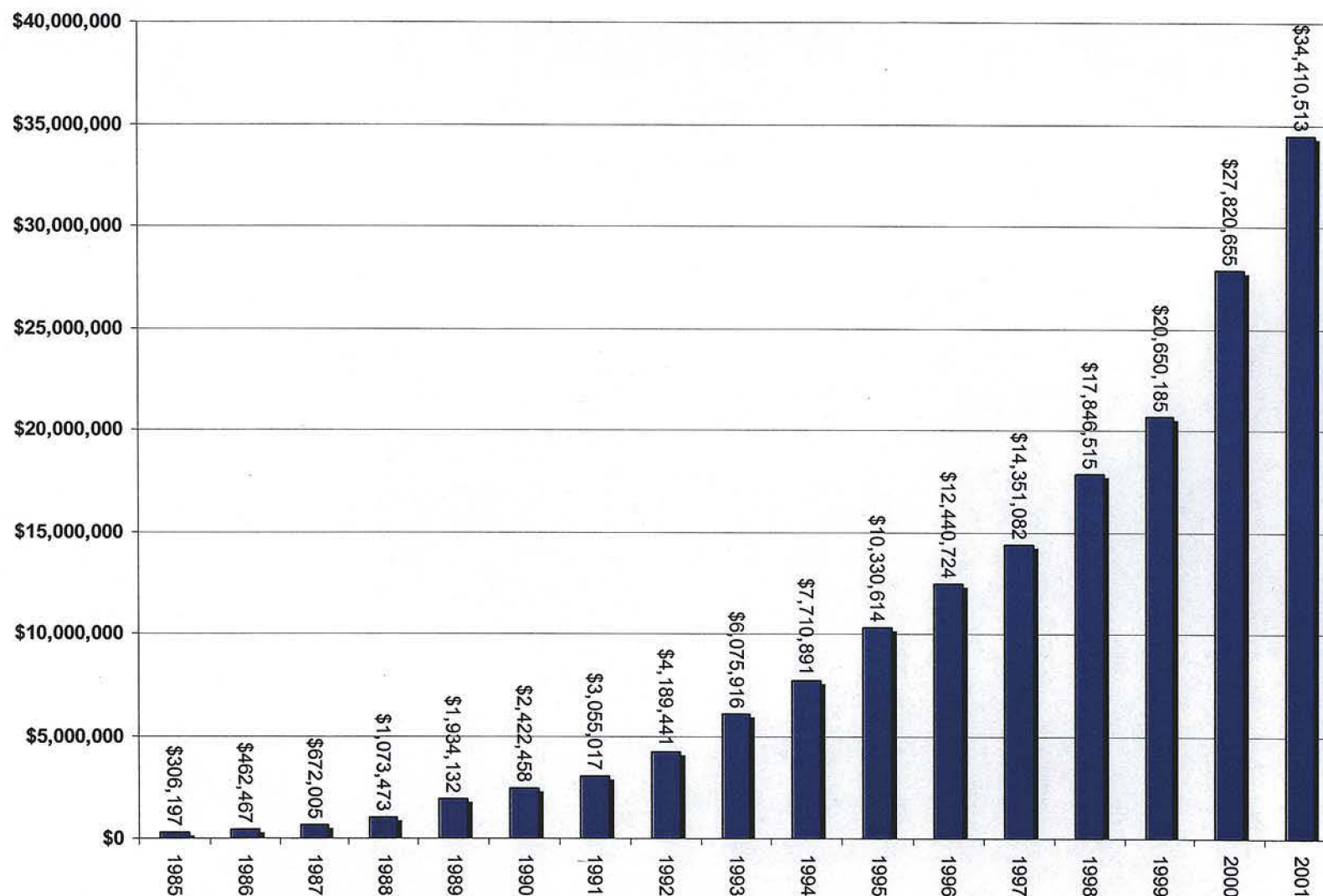
Estimated Subscribers



Subscribers Grew 17.3 Percent Year Over Year

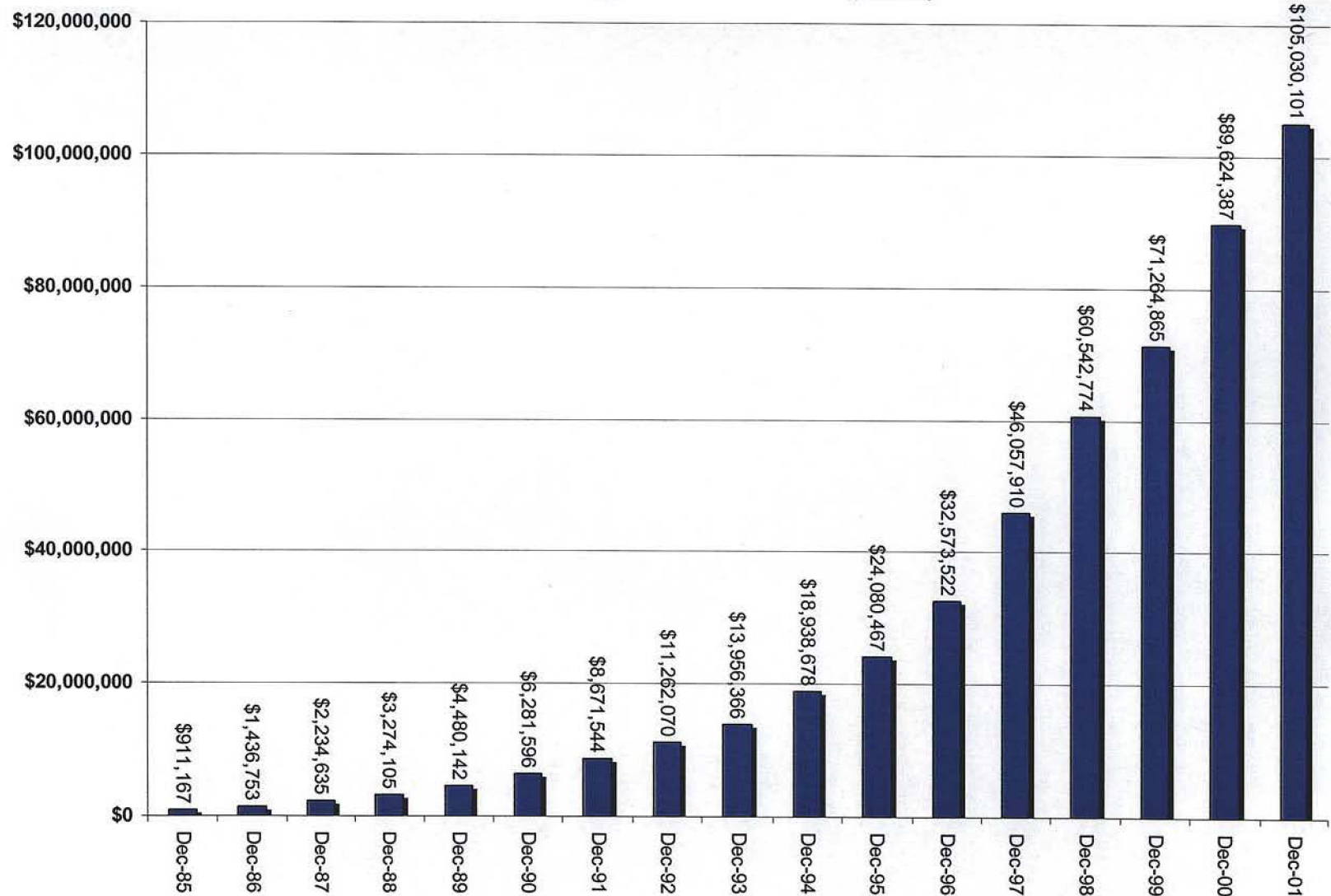
Source: CTIA

Total Six-Month Service Revenues (000s)



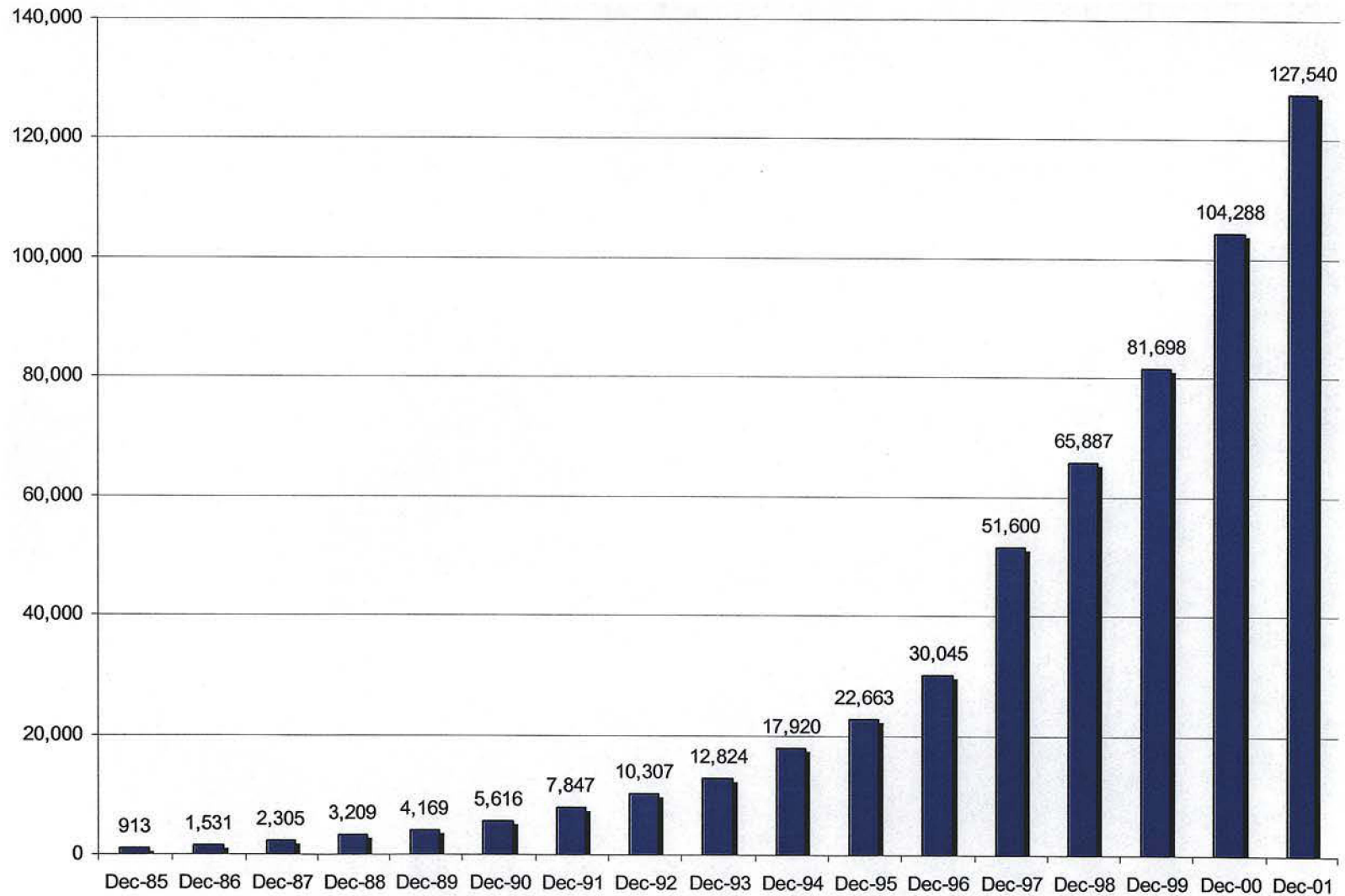
Total Six-Month Revenues are Up 22.6% Year over Year – Total \$65 Billion for 2001

Cumulative Capital Investment (000s)



Cumulative Investment is Up 17.2 percent Year Over Year

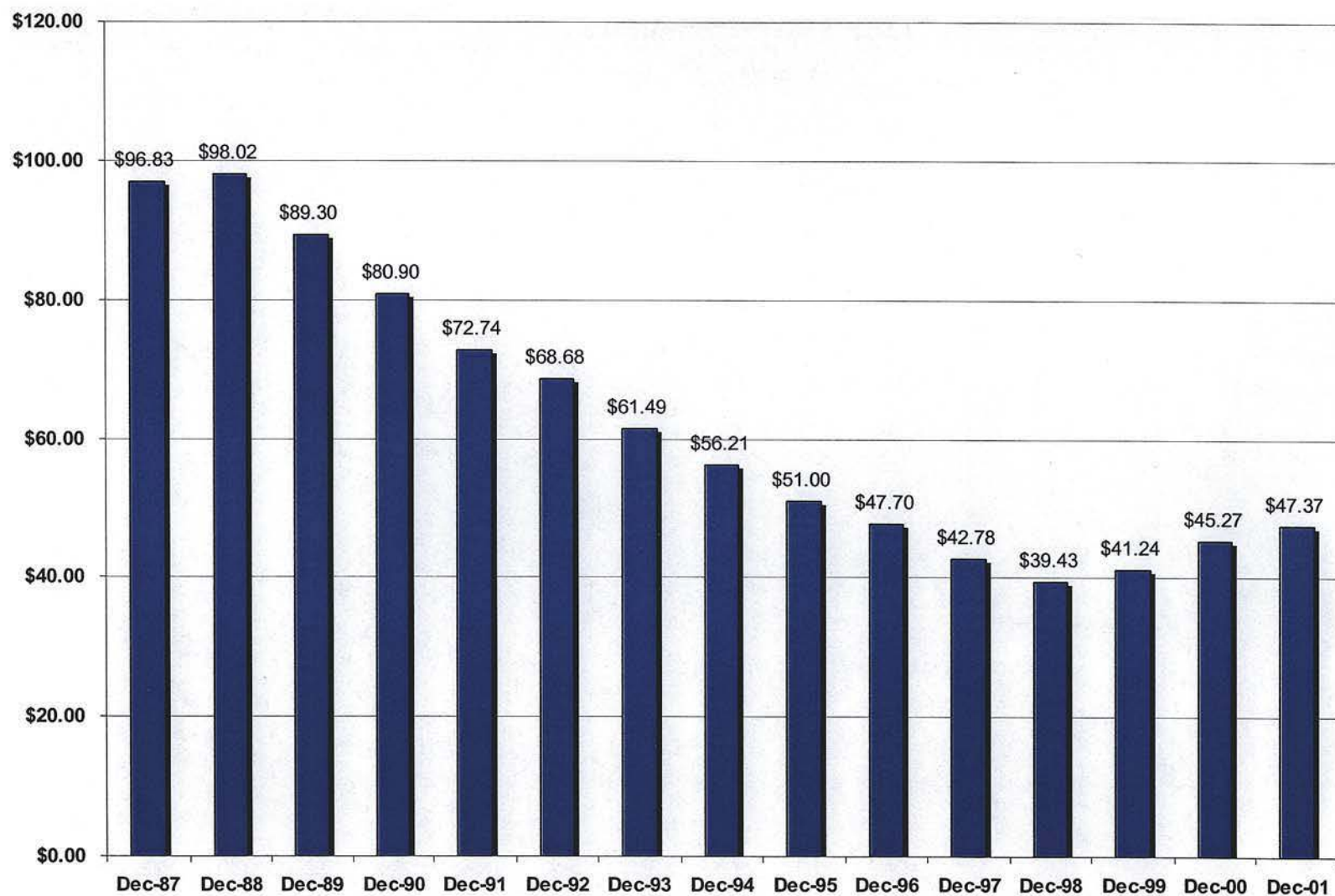
Cell Sites



Cell Sites are Up 22.3 percent Year Over Year

Source: CTIA

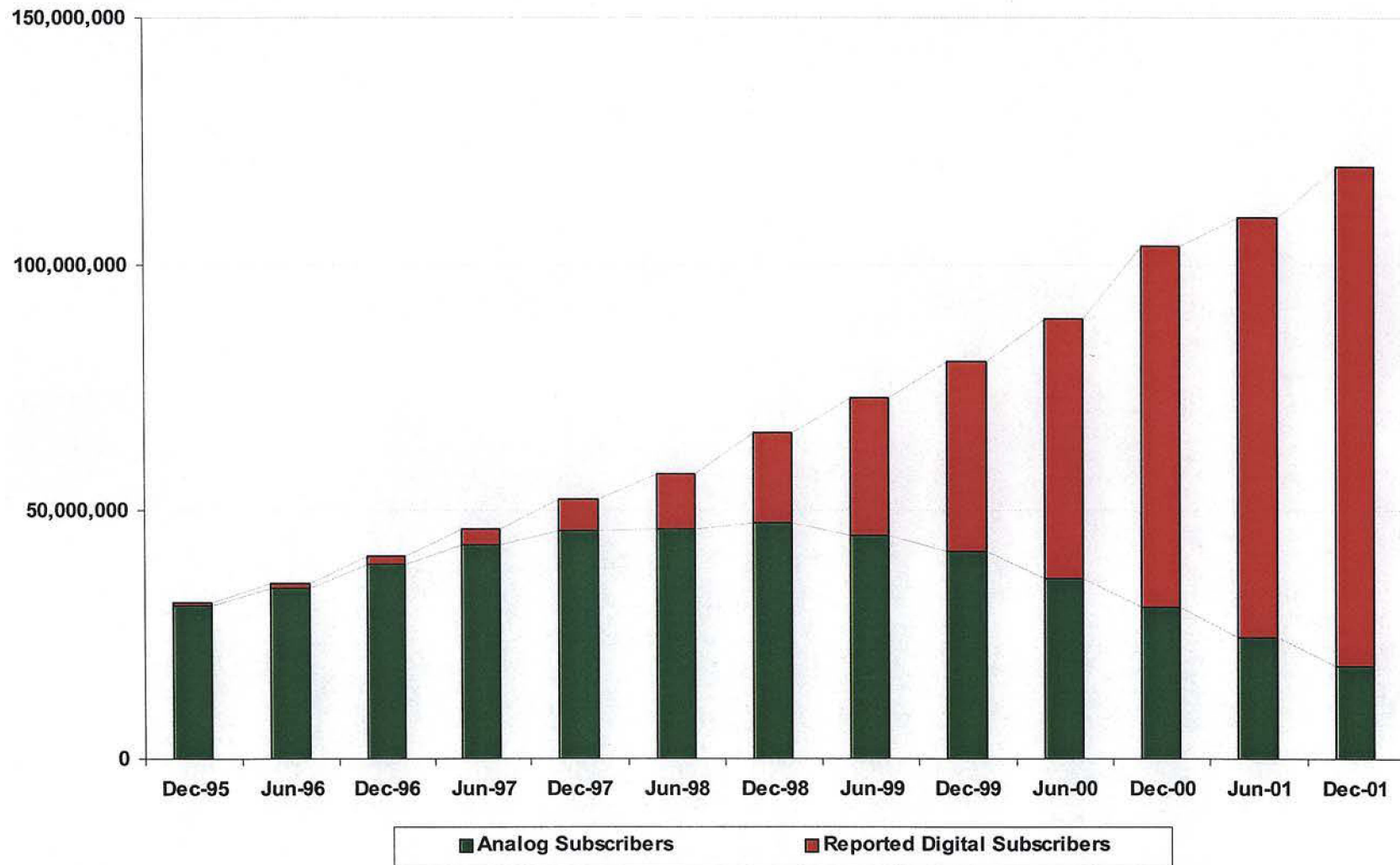
Average Local Monthly Bill



Local Monthly Bill is up 4.6 percent Year Over Year

Source: CTIA

Digital Migration



More than 85 percent of Reported Subscribers are now Digital

Source: CTIA