

# U.S. Wireless Market

## *The Opportunity*

GAZELLE START



# U.S. Wireless Market: The Opportunity

During the last couple of years, the U.S. wireless market has continued its substantial growth: from about 86 million subscribers at the end of 1999, the total number of subscribers has increased to 128 million by end of 2001, a 22% compound annual growth rate. Carriers are all upgrading their networks to gain more capacity and efficiency for their voice networks as well as to introduce high-bandwidth data capabilities. 2001 was the year of experimentation with wireless applications and in developing various relationships amongst the players in the wireless value chain. It is becoming more and more evident that carriers are finally accepting the need to partner with application developers with unique value proposition and offerings. We explore here the various factors that make the US wireless market most attractive in the coming years.

## The market potential

The Yankee Group estimates the US market penetration rate to be about 45%. The percentage of population using wireless phones is nowhere near saturation, especially when compared to some of the European countries like Finland, and Asian countries like Japan, where the penetration rates are reaching over 80% in some cases but on average are well above 65-70%. While European and Japanese carriers are facing market saturation, the US market is still open for a significant growth in the next three years, and hence represents one of the most attractive opportunities in terms of revenue potential for wireless technology providers and application developers. In 2002, the total number of consumers is expected to reach 140 million (source: Morgan Stanley Dean Witter). Figure 1 shows the expected subscriber growth for both voice and data.

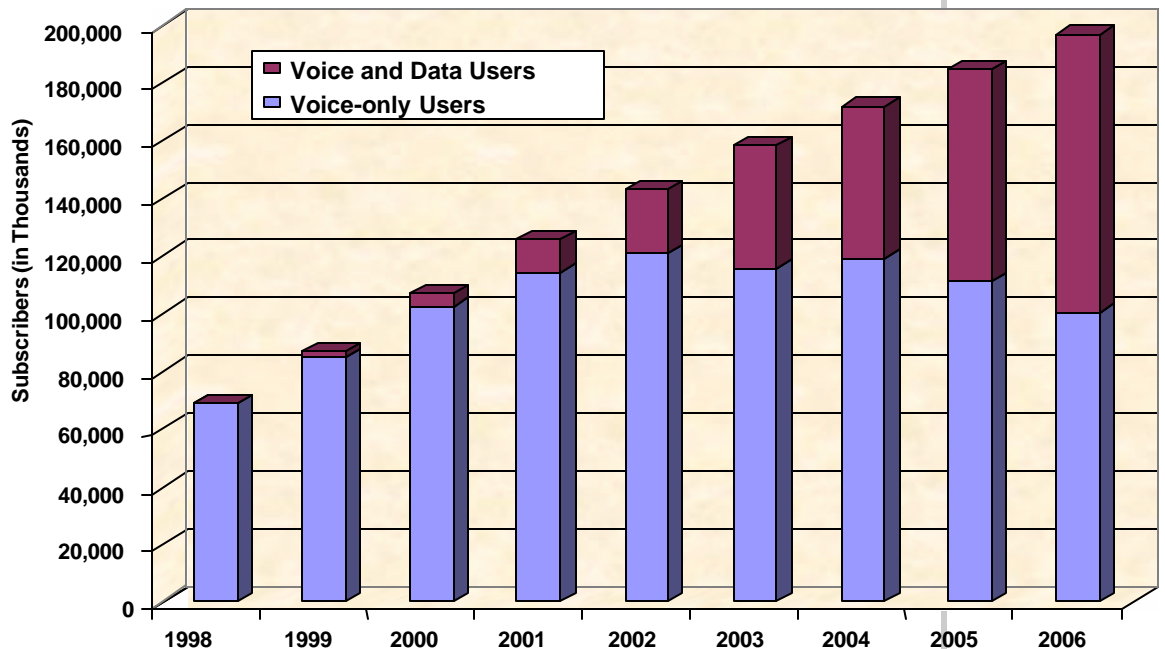


Figure 1. Forecast of US subscriber growth (Source: Yankee Group)

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## US moving ahead of Europe in Wireless

For most of the nineties, Europe had a commanding lead over the U.S. in the wireless industry. But due to the 3G spectrum auctions in which the European carriers invested billions of dollars on licenses, and as such are finding it difficult to spend resources on new applications and services. Additionally, launch of WAP in Europe has not met expectations. In the meantime, the laggard US industry has been infiltrating the heart of the wireless market. The latest attempt to turn mobile phones into pocket computers that can download stock prices, music and video is based for the most part on U.S. technology. In a Wall Street Journal analysis piece titled **“Europe Had Decisive Wireless Lead, But Lost It to U.S. With Poor Moves”**, David Pringle argued that the US wireless industry is primed to take the lead from Europe. This is supported by the concentration of wireless investments in U.S. vs. Europe. According to Rutberg & Co., a San Francisco research firm, over the past two years, venture capitalists have pumped \$12.1 billion (13.8 billion euros) into North American wireless startups and only \$4 billion into their European counterparts.

## Plans of US Carriers

US carriers are very aggressively pursuing their plans for network upgrades to 2.5/3G wireless technologies (see table below), with AT&T Wireless, Cingular, and VoiceStream building GSM/GPRS networks, thus enabling roaming with other GSM network providers around the world. This would also foster the introduction of applications that have been successful on the European GSM networks. Carriers are also seeking to penetrate new subscriber segments like the youth market and provide new offerings to high-ARPU (average revenue per user) business consumers. As such, US carriers are more willing to work with application developers instead of doing things on their own. Q4 2001 also saw the emergence of MVNOs (Mobile Virtual Network Operators) in the US market. Sprint and Virgin Group launched Virgin Mobil USA wireless services. The joint venture focuses on the under-thirty age market with a “pay-as-you-go” prepaid model and target entertainment, messaging, and music-centric offerings. This trend will continue for the next several years as carriers seek to differentiate and win over customers.

Carrier	Technology	Roll-out Plans
Verizon	CDMA 1xRTT	70% POPs by 4Q02; 100% POPs by 4Q03
Sprint PCS	CDMA 1xRTT	100% of POPs by 2Q02
AT&T Wireless	GPRS	40% POPs by 1Q02; 100% POPs by 4Q02
Cingular	GPRS	70% POPs by 4Q02; 100% POPs by 4Q03
VoiceStream	GPRS	Available nationwide
Nextel	iDEN Upgrade	2002-2003

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## **Enterprises in US are more amenable to wireless data applications**

Unlike Japan or Europe, enterprises in US have been willing to experiment with wireless data and adopt the technology in comparison to the consumer market. While being focused on ROI, enterprises are willing to invest in projects that can improve their bottom line, increase efficiency of the work force, spread brand awareness and give customer loyalty a boost.

US corporations quite routinely allocate budgets for wireless data projects. PDA-based applications and services will continue to be most prevalent in US than any other wireless market.

Additionally, corporate IT industry spending on wireless applications are expected reach an average of \$680,000 in 2002, a dramatic 94 percent rise over \$360,000 in 2001, according to a new report by the World Information Technology and Services Alliance (WITSA) and the Wireless IT Research Group (WIRG) released at the 2002 World Congress on IT in Adelaide, Australia. The Global Wireless IT Benchmark Report - 2002 says that that 51 percent of firms report increasing their wireless budgets in 2002, while only 8 percent will decrease their budgets and 41 percent of wireless budgets will remain unchanged.

## **Increase in cross-carrier roaming agreements for SMS and messaging applications**

Since September 11, there has been an increasing pressure on carriers to provide seamless interoperability when it comes to SMS and messaging as it proved critical for many citizens who were trying to get in touch with their loved ones. Large carriers like Cingular and AT&T Wireless are planning cross-carrier SMS capability in their networks. Other carriers are going to follow suit.

## **Position Location technology roll-out**

Though the E911 infrastructure roll-out had a deadline of Oct 1<sup>st</sup>, 2001, none of the carriers were ready. However, since September 11, lawmakers and the FCC have been under pressure to force carriers to comply with the FCC mandate to provide position location coverage for all phones and all regions. Carriers like Verizon, Sprint, and AT&T Wireless have shown willingness to expedite their roll-out, thus spawning a new set of applications and services based on position location. This, coupled with presence-based technology, have the potential to provide considerable value to the enterprises and consumers alike. Figure 2 shows the estimated subscriber growth for each type of applications.

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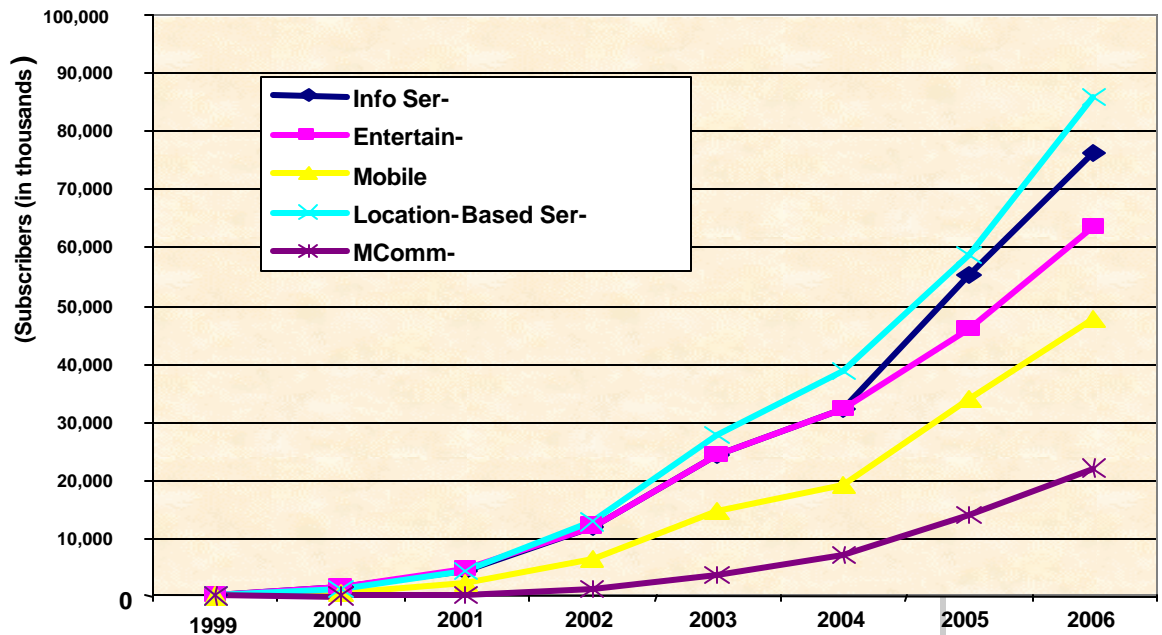


Figure 2 Estimated subscriber growth by applications (Source: Yankee Group)

### Wireless data expected to give carrier ARPU a lift

According to estimates by Forrester Research, wireless carriers are looking at a monthly increase of \$8 in ARPU by wireless data applications and services by 2005. This increase will come with applications like person-to-person communications, M-commerce, content and entertainment subscriptions, advertising, PIM-based applications like email.

### Openness to share revenue streams with application developers

Following NTT DoCoMo's successful i-mode model of revenue sharing with application developers and due to their own failed attempts at doing it themselves, carriers are more than willing to share revenue streams with application developers. The CEOs of Sprint and AT&T Wireless have publicly invited application developers to work with them to develop and launch innovative applications that provide customer value, reduce churn, and increase revenue. The other carriers will follow suit.

### Summary

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**In summary, the US market is ripe for future growth and the market potential is one of the most attractive in the world due to the market size, its maturity and the opportunity to launch innovative applications and services. With network upgrades, carriers are reducing the number of standards in the market thus enabling new roaming agreements with worldwide operators as well as opening the market for application developers to transport successes from foreign markets into the US.**

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