

Wireless Caller Name Service: A Business Case

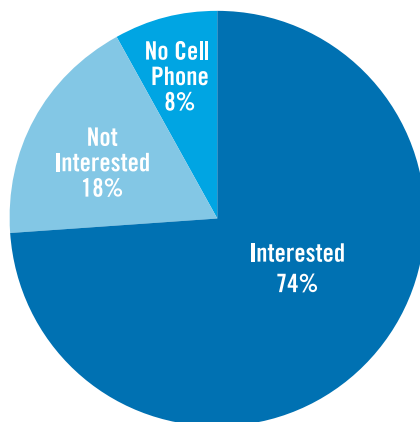
A TARGUSinfo White Paper
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Executive Summary

Caller Name (CNAM) service, also referred to as Caller ID, is one of the highest revenue generating features in the telecommunications industry. Consumers are willing to pay a premium each month to identify who is calling them before picking up the phone, which made this feature a financial windfall for landline carriers. Today, the Wireless CNAM market represents over \$6 billion in annual revenues.

Consumers See Value in Wireless CNAM

Harris Interactive, a recognized U.S. market research firm, recently conducted an online survey of over 2,100 adults that revealed that nearly four in five mobile phone owners (74%) are interested in having Wireless CNAM delivered to their mobile phones. Also interesting is that among those who are interested in receiving Wireless CNAM, over half (52%) would pay extra for this service. This survey confirms that consumers would be **willing to pay \$2.00-\$4.00 per month for Wireless CNAM²**.



Source: Harris Interactive

When Wireless CNAM capability became available in 2004, handset and network barriers were obstacles to making the solution commercially viable for carriers. Since then, technological advances and the need to increase average revenue per user (ARPU) makes today's environment ripe for a Wireless CNAM solution. With consumer demand on the rise driven by individuals choosing to discontinue landline service and rely solely on their wireless phone, Wireless CNAM can be a highly profitable business. For example, a regional wireless carrier with 18 million subscribers can **generate an additional \$10.8 million per month in gross revenue** with a 30% penetration of subscribers choosing Wireless CNAM as a value added feature¹.

As the U.S. wireless market reaches its saturation point, operators are no longer able to count on new subscriber adds to boost their revenues and profits. Instead, they are focused on increasing ARPU generated from their existing subscribers by selling additional services and capabilities. Wireless CNAM can be a key part of this strategy.

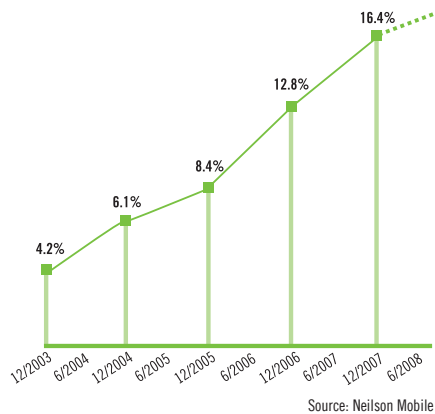
¹\$2.00 price point with a 30% penetration rate on a base of 18 million subscribers

² Harris Interactive, Consumers Intrigued by Prospect of Caller ID on Wireless Phones, September 2007

The Disruptive Nature of Wireless

The wireless industry has proven to be more insulated than most in a down economy. According to the wireless industry association, CTIA, there were more than **262 million wireless users** as of June 2008, representing a year-over-year increase of nearly 8%. Moreover, wireless data service revenues for the first half of 2008 rose to \$14.8 billion, a 40% increase over the first half of 2007. In addition, mobile handsets continue to evolve with more than 600 unique devices available for sale — ranging from simple, voice-only models to multi-function, multi-media devices (Smartphones) that enable consumers to do more than just voice calls. Now subscribers are increasingly relying on their devices for e-mails, Internet access, video and music downloads and much, much more. Industry factors at play is the growth of third generation (3G) network usage and Smartphone penetration in the U.S. market, both of which have been responsible for increasing wireless usage.

Figure 1: Percentage of Wireless-Only Households



Who Are Cord-Cutters Today?

Cord-cutters cut across a broad swath of U.S. households. As might be expected, age and affluence are the primary drivers of cell phone only usage. However, one of the surprise demographics is the high percentage of **value seekers** who are cutting the cord, specifically middle to moderate income, metro families with children. This group is 5.4 times more likely to be cell-only households compared to the average U.S. household of which cord-cutters represent about 30%. This group is followed closely by young mobiles — households with members just over 21 years of age, with moderate incomes and renting with no children.

The cost savings driver for cord-cutters **cuts across age lines**. Lower income retirees age 60 and over in suburban and metro areas are about three times more likely to be cell-only users compared to the general population (approximately 18% of households).

Who's not (yet) cord cutting? Generally, those people with higher incomes, with families and a home. This group may not be feeling the pinch of the economy just yet, and keeps a landline out of habit or for emergency situations. Only about one to two percent of households in this group are cell-only users — and about 80% are less likely to be cell-only users than the average household³.

³ TARGUSinfo Market Analytics Model & Data, December 2008

A growing number of these wireless users are taking the trend a step further and becoming “cord-cutters,” or wireless subscribers who discontinue their landline phone service entirely. A recent survey conducted by Nielson Mobile found that **17.1% of households abandoned their landline phone** for their wireless device⁴ as of the end of June 2008, continuing the steady increase in cord-cutters over the past several years, as illustrated in Figure 1. This trend is expected to continue, with as many as one in five households disconnecting their landline service within the next 12 months.

Why Wireless Carriers Stalled CNAM Deployments

Today, Wireless CNAM is well positioned to support many carrier marketing strategies including improved ARPU, service differentiation and customer loyalty. In fact, Wireless CNAM is one of the few value-added services left that wireless operators do not offer their customers, but wireline operators do. So what are the reasons wireless operators lagged in rolling out Wireless CNAM?

Network Enablement

In a wireline network, subscriber information is contained in a public database called the Line Information Database, or LIDB, which interfaces with third-party databases in order to provide CNAM services. A wireless network, on the other hand, stores numbers and corresponding subscriber information in databases called Home Location Registers, or HLRs. Many of the older HLRs were unable to support that interconnection with third-party databases, making it difficult for wireless-only operators to enable Wireless CNAM. Today, most wireless carriers have software deployed or the wireless intelligent network functionality required to support Wireless CNAM delivery.

Handset Displays

Many wireless handsets, particularly older ones, are limited in the number of characters they are able to display, restricting the phone’s ability to receive both the caller’s name and phone number. However, the average length of cell phone ownership is 17.7 months⁵ which means older handsets will quickly be out of circulation. Carriers with plans in place to get optimized handsets to their subscribers will likely recognize faster Wireless CNAM adoption rates.

With consumer demand on the rise, networks enabled and handsets optimized, barriers that initially stalled commercial deployments of Wireless CNAM no longer exist. Carriers preparing go-to-market strategies for a Wireless CNAM solution will need to evaluate the most profitable way to provision caller names to their subscriber devices. Today, wireless carriers have two choices — to use the traditional Network CNAM model developed for the landline phone network, or to select a Next Generation CNAM solution that takes into account the changing dynamics of the communications landscape.

⁴ Wireless Substitution in the United States, Neilson Mobile, September 2008

⁵ 2008 U.S. Wireless Mobile Phone Evaluation Study — Volume 1, J.D. Power & Associates, May 2008

Real Revenues for Wireless Carriers

In October 2008, TARGUSinfo launched the first commercial Wireless CNAM service in the U.S. market⁶. This deployment validated that a Wireless CNAM solution is an essential element of any wireless network looking for parity with landline services, and a feature that can significantly contribute to increasing ARPU. As shown in Figure 6, Wireless CNAM can generate millions of dollars per month in additional revenues for mid-size wireless carriers.

Figure 6: Potential Wireless CNAM Monthly Revenue by Subscriber Base

Penetration	5 Million	15 Million	30 Million	50 Million
10%	\$1M	\$3M	\$6M	\$10M
15%	\$1.5M	\$4.5M	\$9M	\$15M
20%	\$2M	\$6M	\$12M	\$20M
35%	\$3.5M	\$10.5M	\$21M	\$35M

Assumes per month feature price of \$2.00 per subscriber

In addition, wireless carriers can bundle the feature with more advanced services by targeting high-usage subscribers and leveraging their interest in protecting their wireless number. These consumers give out their cell number with greater frequency, and in turn, need ways to manage or screen incoming calls. Possible service bundles include:

Privacy Guard Services

An increasing number of cord-cutters are giving out their wireless numbers for legitimate purposes. However, those numbers frequently get into the hands of telemarketers, despite efforts by the Federal Communications Commission and individual wireless operators to limit telemarketing calls to wireless phones. Wireless CNAM helps consumers avoid nuisance calls by providing them with screening capabilities.

Parental Control Services

The youth market, particularly the “tween” segment, represents one of the fastest growing markets in the wireless industry. While parents often buy these young consumers cell phones to have in the event of an emergency or problem, they also look to restrict their children’s usage, including putting limits on incoming and outgoing calls. By combining Wireless CNAM capabilities with a policy management system, operators can provide a service that would block undesirable incoming calls on their childrens’ phones.

⁶ MetroPCS Launches Wireless Caller Name Service, October 16, 2008, www.metropcs.com

Prepaid Management

The prepaid wireless market, once the realm of the credit-challenged, is on the upswing, driven in part by growth in the youth segment. However, the pay-as-you-go model often causes these users to fiercely guard their minutes, including those wasted on answering unwanted incoming calls. A Wireless CNAM service would be a valuable differentiator for prepaid wireless providers, enabling their customers to better manage their valuable minutes.

All of the above services could provide wireless operators with a way to generate additional monthly revenues from subscribers and differentiate themselves in the market.

The Best in Wireless CNAM

There is a new approach in the market that directly addresses the limitations inherent in the traditional Network CNAM model and the changing communications landscape. The strategy behind this authoritative approach focuses on three key components of the provisioning operation that directly impacts the variable database query costs and the accuracy and coverage of caller names:

Data Repository Model

Since each operator has its own tariff structure and sends out its own bill for queries in the traditional Network CNAM model, the cost and complexity of maintaining multiple relationships with competitive carriers have made the economics of CNAM a dicey proposition for both wireless and wireline operators. The authoritative CNAM service is based on a data repository model that does not solely rely on the PSTN. The repository establishes relationships with traditional telephone operators, and new competitive carriers including CLECs, VoIP, cable and wireless in terms of data enhancements and transmission technologies. In return, these carriers provide real-time access to their CNAM data. To augment the repository, this model licenses over 100 trusted and unique data sources to fill the gap of hard-to-find caller names. This type of repository model *eliminates broker fees and stabilizes database query costs for all users.*

Standards-Based Records

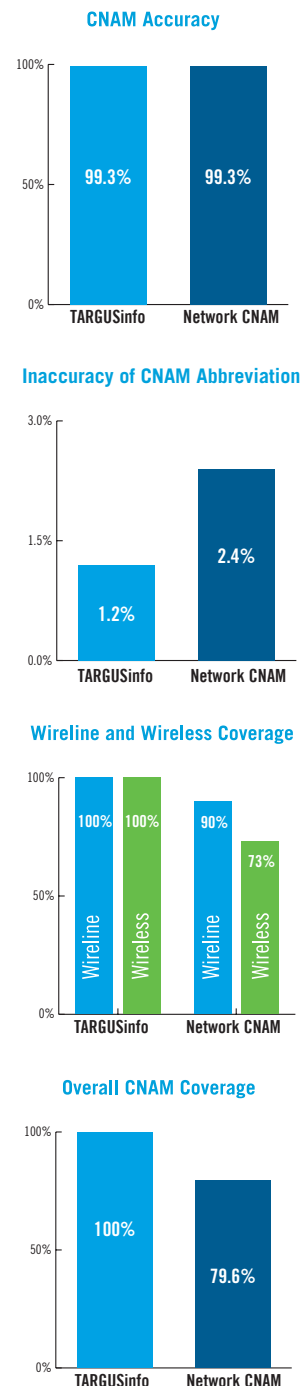
As noted earlier, inconsistencies seen in Network CNAM displays is due in large part to the diverse types of networks used to transport voice services. To correct this growing concern, the authoritative CNAM service establishes a national, standards-based repository of caller names. The repository acquires assets from specific standards organizations (SOs) associated with each attribute of the CNAM record — the name and the phone number. The SOs' assets are used to confirm the validity of each CNAM attribute and their display formats are applied across all CNAM records. Establishing a standards-based repository improves the display of caller names retrieved and *provides a substantially better subscriber experience.*

Corroborative Data Methodology

Finally, the authoritative CNAM service employs a corroborative data methodology to ensure the accuracy of caller names. As records enter the repository, each CNAM attribute — the name and phone number — is date and source stamped. When the repository receives a CNAM query, CNAM attributes are instantly reviewed and processed across all data sources to determine the most up-to-date link between the caller's name and phone number. This is important because business and consumer information is organic, not static. Every second of every day, people move, change their names or update their phone numbers. Adding a corroborative data process to CNAM provisioning ensures that when CNAM queries are initiated, the *provider receives the most accurate information available*.

In 2008, The Paisley Group, a respected, independent measurer of database accuracy and services, conducted a broad, nationwide study that compared the performance of Network CNAM delivery results with TARGUSinfo, the only provider offering this Next Generation CNAM repository model. In this report, The Paisley Group judged the TARGUSinfo CNAM service superior to Network CNAM in coverage and accuracy of caller names delivered⁷. As shown in Figure 5, the study reported that TARGUSinfo delivered 100% of wireline and wireless listings, as compared to only 79.6% from Network CNAM. And when it comes to accuracy, TARGUSinfo matches Network CNAM accuracy rates, but exceeds Network CNAM when it comes to abbreviating names with more than 15 characters.

Figure 5: TARGUSinfo vs. Network CNAM

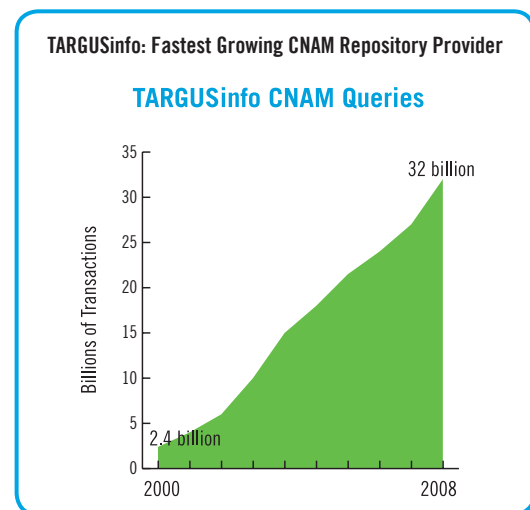


⁷ Paisley Study, Caller Name Audit, August 2008

Conclusion

Wireless carriers must increase ARPU generated from existing subscribers if they expect to meet their revenue goals. One of the primary ways to accomplish this goal is to introduce new applications or capabilities that encourage subscribers to rely more on their wireless phones. Wireless CNAM is an integral part of this strategy.

Choosing the authoritative CNAM solution ensures better caller name coverage at a lower cost and with less complexity. This new model allows wireless operators to focus on the far more important tasks of developing new services, focusing on customer care and increasing revenues without the challenges associated with a traditional CNAM implementation that involves multiple interconnection agreements, high per-query costs and shrinking data coverage. Wireless operators have a unique opportunity to capitalize on CNAM demand and offer differentiated value-added services to their subscribers, both business and residential.



About TARGUSinfo

For more than 12 years, TARGUSinfo has been providing CNAM information using its unique data repository model to more than 170 customers, including cable, VoIP, ILECs, CLECs and wireless operators — and fulfills over 32 billion CNAM queries per year. The TARGUSinfo CNAM solution is market-tested and proven to be superior to Network CNAM services across all CNAM criteria. Because TARGUSinfo simplified CNAM provisioning, it easily scales to your company needs and offers flexible business models including flat fee and per subscriber pricing.

A privately held company, TARGUSinfo is headquartered in Vienna, Virginia. It was launched in 1993 with a vision for making commercial interactions exceptionally precise, relevant and actionable. The company has since built an innovative information services model that draws from a network of more than 100 data sources, verified by the nation's telecommunication providers. In addition, the company uses real-time technology and patented processes to link together and deliver on-demand the most complete and accurate name, address and phone data available including additional layers of information such as demographics and firmographics, location data, predictive analytics and risk-assessment factors. TARGUSinfo processes close to 90 million transactions every day for more than 800 clients including communication service providers, retailers, consumer products and services companies and public sector organizations.

For more information, visit www.TARGUSinfo.com or call **800.6.TARGUS** (800.682.7487).



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