



Privacy Treatise

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Table of Contents

Can You Hear Me Now? (!)	3
Unmistakable messages from the marketplace	3
The Current Model is Broken	5
Privacy is what the consumer says it is.....	6
A New Model for Privacy <i>and</i> Communication.....	8
The Formula	9
1. Consumers want control	9
2. Consumers will not tolerate abuse.....	10
3. Information must become individual-centric rather than location-centric	11
4. Timing: Now is the time to act.....	13
5. Education: Consumers Need to Know.....	14

For more information on this and other topics about the greater Directory Assistance/Directory Enquiry (DA/DQ) market, please contact The Pierz Group. We provide consulting services and high-value reports on the key issues facing the greater information services market. Deliverables include detailed, actionable research and analysis, and strategic consulting services. Regular reports cover the issues and trends most likely to influence the current operations and future planning of DA/DQ service providers and the vendor community worldwide.

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The message is out and we have heard it. Consumers have clear and growing expectations when it comes to the privacy they expect and, ultimately, demand for their personal contact information. Telecommunications organizations that ignore this need for privacy do so at their own peril. Those who listen and meet, or better yet exceed, consumers' expectations will ultimately win in the marketplace. Privacy is what the consumer says it is – independent of regulation, laws and contract language.

Can You Hear Me Now? (!)

Consumers have spoken, make that screamed, out.

Under the sponsorship of the Cellular Telephone Industry Association, U.S. wireless carriers are working on a plan to assemble a national database of mobile phone numbers. This database would be held by a third party and only accessible to carriers one number at a time. Numbers in this database would not appear in print or in Internet directories and would not be sold to telemarketers. Based on recent market developments, changes in regulation, carrier pronouncements, and several national consumer surveys, the trend is clear: Consumer privacy matters as regards telephone numbers and other contact information.

Unmistakable messages from the marketplace

- In The Pierz Group's 2004 National Consumer Study¹, only 11 percent of U.S. consumers indicated that they would list their wireless telephone numbers *without* any privacy provisions and/or call-screening in place.
- In the same Pierz Group study, 53 percent of the total sample and 61 percent of 18-to-24-year-olds were willing to list their mobile numbers under the current CTIA plan. That plan as it is currently being implemented would make the numbers available only through directory assistance; they would not be included in print or Internet directories and could not be accessed by telemarketers.
- If consumers have a choice among various guaranteed privacy protections and/or defined call-screening procedures, the number of individuals willing to list their numbers increases to 74 percent. This is especially significant given that only 67 percent of U.S. residential telephone numbers are listed.
- In May, 2002 the European Union mandated opt-in directory databases. (Consumers must request listings in opt-in databases. Opt-out databases, which are more common worldwide, require consumers to ask to be unlisted.) Telecommunications companies across Europe now must explain to consumers not only why they need to be listed, and must provide them

¹ National consumer survey of 1,503 wireless subscribers in the United States conducted between July 15, and August 9, 2004.

with an easy way to list themselves in the directory. The Pierz Group projects that EU-wide the total number of unlisted phones (fixed-line and mobile combined) will grow from the current 53 percent to approximately 63 percent within five years, as a direct result of this opt-in regulation.

- According to the American Teleservices Association, 41 percent of U.S. consumers subscribe to caller ID services; 57 percent of 18-to-24 year-olds subscribe to caller ID services.
- Only 35 percent of all telephones in the United States are listed. More than 40 percent of residential phone numbers and 98 percent of wireless numbers are currently unlisted. The number of unlisted residential phones is even higher in many large metropolitan areas, where more than 50 percent of residential numbers are unlisted.
- As of December 31, 2004, nearly 83 million² residential and cell phone numbers are included on the United States national Do-Not-Call List, which is designed to prevent telemarketing to consumers who do not want to receive such calls.

Over 51 million of these telephone numbers – that is over 50 percent of all residential phone numbers - were added to the national Do-Not-Call list within the first three months of the registration process. The U.S. market has never seen a more clear indication that consumers are fed up with unwelcome commercial contact. In January 2005, one of the last “unwired” rural communities in the United States received fixed-line telephone service. One of the 15 households in Mink, Louisiana reported receiving a telemarketing call within the first hour of having a home phone line.

- Over six million wireless subscribers added their mobile numbers to the National Do Not Call List in November and December 2004 after an e-mail erroneously warned that telemarketers would soon be able to call cell phones. It is, of course, already illegal to telemarket to cell phones, but most consumers are not aware of this.
- Consumers believe the national Do-Not-Call list works. This is in strong contrast to what consumers said just a few years earlier.

Noted privacy expert Dr. Alan Westin's 2001 work² on wireless DA/DQ showed that 88 percent of wireless subscribers said their No. 1 reason not to list a mobile number was to avoid telemarketing calls. In the Pierz Group's August, 2004 study, only 24 percent of wireless subscribers listed fear of telemarketing calls as the top reason not to list a mobile number in the new Wireless 411 service.

² A national study of wireless subscribers in the U.S. market, Presented at GDD2002, Alexandria, VA, November 6-8, 2002

The Current Model is Broken

The current model for being “listed / not listed” is no longer viable for consumers in today’s technologically dynamic environment. The number of ways people can be contacted is growing: Listing all personal and professional phones, faxes, e-mail addresses, IM addresses, SMS, Push-to-Talk (PTT), physical addresses, etc., can exceed 15 to 20 entries for most people.

Our technological capabilities seem to have at least temporarily exceeded regulatory, social and ethical development in the area of communications. It is now possible for almost anyone to locate and communicate with almost anyone, anytime, anywhere. We will not even consider delving into Miss Manners-esque arena of wireless phones that ring at funerals and serve as the conduit for strange personal discussions in public venues; those social maladies are well beyond our scope. What we will focus on is the range of issues that surrounds connecting people to each other and to businesses. In the United States, the combination of relentless telemarketing and poor personal manners has converted telephones from communications conveniences into what some consider the bane of modern society.

Consumer backlash to this growing erosion of personal privacy is increasingly apparent. From the few research data points cited at the beginning of this document it is easy to see that the issue is reaching the boiling point. Marketers, telcos and database aggregators have not, to date, met consumer privacy needs or expectations. The inability to successfully introduce wireless numbers to a directory database (if they were not part of a database from the time mobile phones were introduced³) growing public ire and new and highly restrictive European regulations are the fruits of this collective failure to address consumer expectations.

Today, for most types of personal and professional contact information, there are two options: making the data listed or unlisted. In this case, listed means making the information available everywhere and to everyone. Having the data unlisted means the consumer’s number (or e-mail address, SMS etc.) is not listed anywhere and cannot even be given out to people the consumer wants to communicate with.

Fixed-line carriers offer consumers the choice (for a price) of being unlisted. Some also offer (again for a price) a “non-published” option, which keeps consumers in a directory assistance database but out of print and Internet

³Scandinavian countries have always included mobile numbers in DA/DQ databases. France, Australia and New Zealand all ran national advertising campaigns to encourage subscribers to list their mobile numbers. None of these offered any type of privacy protection scheme or consumer control feature. None of these programs added more than 10 to 20 percent of mobile numbers to the database.

directories. In Europe this has now changed to an opt-in database, which means subscribers must actually sign a document to be included in any type of directory database.

Many other communications points (see Figure 1 on page 13) are “unlisted” in the sense that they are not readily available in directories but that some, such as e-mail or Web sites, may be “guessed” (for instance, type the company name, or the person’s first initial + last name@company domain), or found through Internet service provider directories. These other communications devices or “addresses” fall under the category of permission-based devices, which require subscribers to provide their specific information to those they wish to be in contact with. Adding mobile numbers to a DA/DQ directory is the first step toward integrating a range of communications points for an individual. This lays the groundwork for the creation of an individual-centric database.

Privacy is what the consumer says it is

As was highlighted very eloquently by Judy Frederiksen, product manager at Sprint PCS, “Legal and regulatory definitions ultimately matter less than what your customer believes or expects.”

All wireless subscribers in the United States, with the exception of Cingular Wireless customers, have already technically opted in, or given permission for their name and cell phone number to be listed in a directory. Most U.S. wireless subscriber contracts today, with the exception of Cingular Wireless, state that the subscriber grants express permission for his or her number to be used for directory purposes. Until late 2004, companies that required that stipulation included Verizon Wireless, the nation’s largest wireless carrier. This does not mean that adding mobile numbers to the DA/DQ database will be easy, or even go unchallenged. In fact, very few consumers are aware of the fact that their mobile numbers could technically be listed, based on the contract language that grants express permission to include a mobile number in a directory database.

Consumers perceive their mobile numbers to be private. Any across-the-board move to change this would likely meet with not only consumer opposition but possible regulatory intervention as a result of those complaints.

U.S. Senate bill S1963, The Wireless 411 Privacy Act, (<http://commerce.senate.gov/hearings/witnesslist.cfm?id=1315>) proposed an opt-in model for wireless numbers as well as specific privacy requirements identifying callers to mobile subscribers. This bill failed, but in its wake numerous state laws have been drafted outlining privacy protections for wireless subscribers.

Ultimately, one national consumer-focused law would best serve both consumers and service providers. A consumer “bill of privacy rights” would create clear definitions to allow consumers to make informed choices. At the same time, it would foment innovation in privacy protection by the telecommunications industry.

This discussion, in principle, extends well beyond the introduction of wireless numbers to the U.S. DA/DQ database. It will ultimately expand to include the range of possible ways in which people could be contacted. For this reason, the time to act is now. A viable model must be found and implemented that provides for connectivity while giving consumers control over who may contact them, when, where and how.

The need for this pairing is especially true in the United States, given the combination of overzealous telemarketing and a general disregard for personal privacy consumers are just plain angry. This U.S. consumer position stands in contrast to Scandinavian countries where more than 90 percent of all phone numbers, including over 85 percent of mobile phones, are listed).

There is an upside for carriers in backing such legislation. If consumers are willing to list in large numbers, revenues from wireless directory assistance are estimated at approximately \$2 billion annually in the United States.

There are also huge potential downsides if the market fails to achieve the precise mix of improved business and personal communication, *and* consumer privacy control. Those downsides could include foregoing potential wireless DA/DQ revenue, an erosion in fixed-line DA/DQ databases if growing numbers of consumers sign up for unlisted service, an inability to launch future enhanced DA/DQ services, and increased regulation.

The obvious question is what happens if, as an industry, we get it wrong. Introducing Wireless 411 or other expanded contact information services without proper consumer-defined privacy controls could be disastrous. Not only could the offering fail, but in a worst-case scenario it could cause a cascade of related consequences. One key potential consequence is aggressive regulatory intervention that would place far more restriction on the use of consumer data. Another, and more important, potential outcome is infuriated consumers.

Actually, to a large degree, this short list of consequences has already begun to unfold. Recent press coverage, much of which has been inaccurate, has motivated consumers to add their mobile phone numbers to the national Do-Not-Call List by the millions and has prompted lawmakers to offer up a host of bills to protect the rights of mobile subscribers.

Even as privacy protections are defined thoroughly in the law, consumers must understand and believe in the privacy protections being offered, no matter what they are. The Wireless 411 plan already being implemented by the CTIA and wireless carriers meets the privacy expectation of a majority of wireless subscribers, and current laws block telemarketing to cell phones, but consumers are unaware of the details of the Wireless 411 plan, or current prohibitions against telemarketing to mobile phones.

Wireless carriers have created a set of privacy protections for the Wireless 411 plan which is currently being implemented. While perhaps not ideal, these protections are what the CTIA and the wireless carriers could ensure and they do meet with the approval of a majority of wireless consumers. More than half of consumers in the Pierz Group study stated that they would list their mobile phones in DA/DQ under the proposed plan. (They were unwilling to list the numbers in print or Internet directories or make them available to telemarketers.)

For a range of reasons, the CTIA failed to effectively communicate these protections to consumers, to legislators or to regulators. As a result, a media frenzy of misinformation took the place of facts. National and state laws have been proposed to ensure that wireless carriers follow through with their announced privacy plans. And, as was mentioned above, millions of panicked mobile subscribers rushed to place their numbers on the national Do-Not-Call list in late 2004 as a result of misinformation. Some wireless carriers, concerned about the public's reaction, have postponed their participation in the Wireless 411 plan.

A New Model for Privacy *and* Communication

Providing greater consumer privacy and better connectivity are not mutually exclusive goals. This issue extends beyond the discussion of wireless DA/DQ to include a range of personal contact points (see Figure 1 below).

As has been seen in Europe, consumers want more privacy and greater control over access to their personal contact information. If telcos and other directory providers are not meeting those demands, regulators have demonstrated a zeal to step in and ensure privacy through regulation – which can ultimately be detrimental to all parties.

Opt-in provisions limit consumer listings and those databases will shrink over time. As one clear example, European Union directory databases for fixed and mobile numbers have already shown some decline, just as consumers are

acquiring more mobile phone numbers and other points of contact. Incumbent fixed-line telephone service providers (and mobile carriers in Scandinavia) across the European Union are required to provide DA/DQ services for their customers. With an ever-shrinking database it is likely that these carriers will be paying union scale wages to operators who will spend a growing portion of their days saying "I'm sorry that number is not listed." This is costly and frustrates both callers and operators. Ultimately, call volumes will decline and, we argue, people's ability to communicate with one another will be increasingly limited.

The Formula

Five key factors will define the success or failure of combining increased privacy and increased communication capabilities for consumers. These factors have been confirmed by several national quantitative research studies and in consumer focus groups. Carriers and DA/DQ providers who embrace these elements, both integrating them into their service and effectively communicating them to consumers, will ultimately succeed in providing better services to their customers.

1. Consumers want control

The issue of control is the one make-or-break issue for consumers. If, in fact, consumers can control who reaches them, when, where and how, they will generally be willing to list their mobile numbers. This has been borne out in several studies, most recently in the national consumer-level research cited at the beginning of this document.

If well-defined and readily understood consumer controls are introduced, the number of consumers willing to be listed in the U.S. Wireless 411 database should increase to something approaching critical mass (over 50 percent of mobile subscribers). The research highlights the fact that if consumers had control and could select the privacy protection agreement that they liked best, 75 percent would list their mobile numbers. Considering that only 67 percent of residential numbers are listed in the United States, this is exceptionally high participation.

Consumers, at a basic level, want the calls they want and don't want the calls they don't want. Delivering against these criteria will distinguish successful implementations of DA/DQ services to mobile numbers. This becomes the litmus test for what consumers will tolerate in making their contact information available.

Consumer privacy regarding cell phone numbers, in its most simple form can be defined as: Consumers want to be able to identify who is trying to reach them

(on their mobile phones or any other devices) and they want to be able to accept or reject that contact, each time. From a technological point of view this is relatively easy to accomplish. In reality, however, implementation of this level of privacy requires the participation of all fixed and wireless carriers. There are over 3,000 fixed-line carriers in the United States; all of them would have to provide a base level of privacy for any privacy protections to be effective. Consumers will not list in sufficient numbers without adequate privacy protections. A base level of cooperation across all facets of the industry is required to deliver this control. Number-masking (not disclosing the actual phone numbers, and directly connecting the call) including no number listed on billing statements or on caller identification, create the basis for a range of different consumer privacy technologies/options for fixed and wireless numbers.

2. Consumers will not tolerate abuse

The backlash by consumers and congress over adding mobile numbers to the DA/DQ database clearly demonstrated that consumers want better privacy protections – and they want them in writing. Widespread consumer ire over wireless billing practices has created a deep-seated mistrust of carriers and contributed to a lack of trust in the companies' ability to ensure the privacy of cell phone numbers.

In the absence of information to the contrary, consumers believe that a cell phone number database could be sold at some future date. We argue that there is little real inherent value in a database of mobile numbers, beyond DA/DQ services, because unwanted commercial contact to cell phones or pagers (read, telemarketing) is already illegal in the United States. There would appear to be few buyers for lists of mobile telephone numbers. Longstanding frustration with telemarketing and more recent concerns over identity theft have created significant mistrust on the part of consumers. Recent research by the Pierz Group shows that since the introduction of the Do-Not-Call list the number of people listing telemarketing as their primary concern dropped substantially.

Existing privacy laws in the European Union, and the U.S. Do-Not-Call list, can help convince consumers to continue listing their residential fixed-line numbers and to add their wireless numbers. But consumers are asking for more control over who can reach them than just being listed or unlisted. Carriers and DA/DQ providers will have to ensure that consumers do not receive unwanted telemarketing calls or other nuisance or harassing calls as a result of DA/DQ service. This is a tall order, but well-defined and enforced privacy policies on the part of carriers and DA/DQ providers can reassure subscribers.

3. Information must become individual-centric rather than location-centric

A third dimension to this discussion is the fact that all directory assistance/enquiry databases have traditionally been built around three core pieces of information:

- **Name:** Any name will do, it may or may not be the name of the person who answers the phone
- **Address:** Any address will do as long as a bill sent to that address is paid
- **Phone number:** just this one phone number, not any other numbers used by an individual such as a home/business number or a mobile number

This model has been in place for over 100 years. While it worked admirably for the first 85 years, it is quickly becoming outdated and in fact detrimental to the communications process.

Until about 1980, the only contact points for most individuals were name, address, and home and office phone numbers. The advent of Internet-based communications, mobile phones and even the now-humble pager has forever changed this model. In addition, a much looser distinction between work and home contact information has evolved. Workers may conduct business from the office, on the road, in remote sites or even at home – and in varying places at varying hours depending on job demands or the presence of work teams in multiple time zones.

The distinction between fixed-line and mobile phones is blurring. Many individuals now consider their mobile phone to be their primary phone (approximately 20 percent of United States mobile subscribers today; the number is higher in other countries). These individuals may still have fixed-line phones both at home and at the office, but they rely primarily on their mobile phones. Based on the Pierz Group research, nearly 17 million Americans have abandoned landline phones completely in favor of having only a mobile phone. This shift will continue with the growth in mobile subscribers, the ability to use the same cell phone number after a change in carrier (number portability); increasingly competitive calling plans; and better nationwide wireless coverage.

Carriers and DA/DQ providers must begin to build databases that are based on the individual and the myriad ways he or she can be contacted, rather than a system that anchors a single phone number to a billing address. This will be no mean feat. Most consumers now have many points of contact.

Figure 1: Range of Contact Points for an Individual

At Home	Find Me At Work	Others
1. Home address	1. Office address	1. School E-mail
2. Home phone	2. Office desk phone	2. On-Star, in-car telephone
3. Personal mobile phone	3. Office mobile phone	3. Dorm room phone
4. Multiple personal E-mail addresses	4. Corporate E-mail address	
5. Personal IM address	5. Work IM address	
6. Pager	6. Work pager	
7. Push-to-Talk ID (Nextel/Verizon)	7. Push-to-Talk (Nextel/Verizon) for work	
8. Personal Web site	8. Company Web site	
9. Personal SMS	9. Personal Web site within corporate site	
10. Blackberry/Blueberry	10. Work SMS	
11. Home fax	11. Blackberry/Blueberry	
12. Home office phone line	12. Work fax	

Source: The Pierz Group, 2005

Consumers will be willing to list some, even most, of these contact points given privacy protections that meet their requirements.

The first step is for fixed and mobile carriers to create a menu of privacy packages, then contact their customers and ask for their additional points of contact. At this point, consumers would supply the information they wanted to make available under their preferred privacy scheme.

This information could be requested when a new subscriber signed on, but would have to be coaxed out of current subscribers. Self-registration (consumers input and update their contact information) is both the best and the worst method for gathering information. No one knows more about an individual than the individual himself, but getting him or her to provide and update this information will be daunting.

Self-Registration Will Play an Important Role

Ultimately, self-registration can be developed into a powerful tool for consumers. It gives them more control over who can reach them, how and where. Today, however, it remains more of an obstacle than an enticement.

Still, there is some reason for encouragement: Telephone subscribers who move to new homes or change offices must currently take and repeat a whole series of steps to communicate their new contact information to friends, colleagues, clients and others. They use change of address cards from the post office, e-mail notifications to all their electronic contacts, phone calls and ongoing follow-up to make sure they can be found at their new locations.

If all of these steps could be consolidated into a single database containing e-mail addresses, phone numbers, building addresses and other contact points, the information could be updated once and automatically distributed to people on an as-needed and privacy-defined basis.

We have seen the beginnings of such contact management through social networking offerings such as Plaxo, WhitePages.com, Friendster, Linked In and others, but these are all isolated. And while such services are growing, they still contain contact information for a small fraction of consumers.

We see little chance of broad self registration becoming a reality on a major scale (say, over 150 million Americans) in the near future. It remains, however, an admirable goal and, we predict, will ultimately become a reality in some form. In the meantime, we must rely on individuals to provide necessary contact updates. Not easy, but not impossible. Self-registration systems that enable strong privacy protections and the ability for consumers to better control access to themselves will emerge and change how directory databases are constructed and managed.

4. Timing: Now is the time to act

There is no better time than now to begin the process of creating individual-centric databases. In fact, as recent events have demonstrated, we are late.

Clearly, consumers and lawmakers are increasingly concerned about the collection and use of personal contact information. Pending legislation in several states, and the likelihood of a renewed effort to pass national legislation addressing the privacy of wireless telephone numbers, are driving the need for the industry to react.

Carriers now must try to create both a policy and a system for identifying wireless subscribers who want to be listed under the CTIA plan and adding them to a protected database.

It is surprising that despite longstanding plans to introduce wireless directory assistance, carriers have failed to add one key question to all wireless contracts:

“What is the name of the individual who will be the primary user of this phone and what is his or her home phone number?” This would allow carriers and/or database holders to associate the mobile number with the customer’s home phone number; the first step in creating an individual-centric database. It has been estimated that nearly 30 percent of cell phone records today contain some inaccurate information. This inaccurate information in current records may be the wrong name, the wrong address, a simple misspelling or other errors. Asking who will use the phone at least ensures that the correct name is associated with the mobile number.

The assembly of a high-quality WDA database could have been furthered substantially by this one simple step. As was mentioned earlier, the one line that has been added to most mobile contracts states that the customer gives express permission to have the mobile number included in a directory. This may create the legal basis for providing WDA, but if consumers do not agree with exactly how their numbers are included a large-scale consumer revolt, complete with unwanted regulatory intervention, could be invited. Remember, privacy is ultimately defined by the consumer, and virtually no subscribers are aware of the fact that they have given their express consent for their mobile number to be included in a directory.

5. Education: Consumers Need to Know

The “listed / not listed” model is the only one well understood by consumers today. An education process must accompany the shift toward an individual-centric model that includes consumer control over contact information. A clear, easy-to-understand message for consumers is central to this process. This policy must be clearly articulated, easily demonstrated (“prove it to me”), and widely propagated and reinforced. Consumers must understand and believe that privacy protections built into any DA/DQ service does give them greater control over who can reach them, when, where and how.

We have already seen how this can go wrong. Dozens, if not hundreds, of articles ran in newspapers and magazines around the United States citing the erroneous “fact” that adding a number to the CTIA database would generate telemarketing calls to mobile phones. An early, direct and readily understood campaign highlighting how privacy protections work and how they will serve consumers is necessary.

Meeting consumer needs within a technologically dynamic environment is not impossible. Consumers can and should have both better connectivity and better privacy. Retooling how it is delivered is the key.

About the Author:

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The Pierz Group was founded by Kathleen Pierz in 2003. Ms. Pierz is one of the best-known industry analysts in the directory assistance/enquiry space. She has published over 100 insightful articles and reports on the key issues affecting the industry worldwide and is a sought-after speaker. With over 25 years of strategic planning and marketing experience and a solid background in the information services industry from both the carrier and the vendor side of the business, she delivers a focused, actionable perspective within this dynamic market.

Prior to founding The Pierz Group, Kathleen Pierz held senior management positions at Zelos Group, The Kelsey Group, IBM and Ameritech (now SBC).

Ms. Pierz holds a Master's degree in International Management from the American Graduate School of International Management (Thunderbird) and a Bachelor of Science Degree in Business from The University of Colorado.

Available Reports:

- **Consumers & DA/DQ Pricing: A National Consumer Research Study**
January 10, 2005, Report Length 77 Pages
- **Consumers & Enhanced Features: A National Consumer Research Study**
November 11, 2004, Report Length 63 Pages
- **Consumers & Internet-based Telephone Number Lookups: A National Consumer Research Study** *(also available in Spanish)*
October 6, 2004, Report Length 51 pages
- **Consumers and the Mobile 411 Directory: A National Consumer Research Study** *(also available in Spanish)*
August 30, 2004, Report Length 105 pages
- **Adding Mobile Numbers to the US Directory Assistance/Enquiry Database** *(also available in Spanish)*
July 30, 2004, Report Length: 67 pages
- **Directory Assistance/Enquiry to Wireless Numbers : The European Market** *(also available in Spanish)*
May 20, 2004 Report Length: 132 Pages
- **EU Competition: Review & Analysis** *(also available in Spanish)*
December 10, 2003; Report Length: 70 Pages
- **Wholesale DA/DQ Providers: Global Overview** *(also available in Spanish)*
December 15, 2003; Report Length: 58 Pages