

## **Special Topic White Paper: Wireless Directory Assistance**

*One of the hottest topics in the DA market space today is Wireless Directory Assistance (WDA) – the searchable data set of mobile phone numbers, and its availability to users via 411 service. From surveys of subscriber sentiments, to congressional legislation on privacy controls, to one of the largest of wireless carriers waiting to see what happens,... it seems everyone is anxious to find out how it plays out.*

### **What is WDA and why is it needed?**

Simply put, WDA is the listing of a wireless phone number and associated subscriber name (at a minimum), along with the voice-based 411 service to connect a searching caller with the target mobile subscriber. The wireless listings are searchable only by a DA operator and are not available in print publications or internet-based search sites.

Today, with only a small percentage of exceptions, wireless listings are not included in directory assistance data and therefore one cannot easily locate a person's mobile phone number except through highly direct means (i.e., the person purposefully communicates it to their contacts). WDA will create an additional layer of "reach-ability" for those who wish to be reached outside of that close circle of direct contacts. With 150-175 million mobile phones in the U.S., the opportunity is large even if only a small percentage choose to be included.

Proponents list several benefits or useful situations for WDA:

- \* One can be reached more quickly during emergencies or times when wireline phones are dead.
- \* Business people can be reached more effectively by existing or prospective customers when their mobile phone is the primary or only phone line typically used.
- \* Enhance social connections using mobile phones as the new convention of society for connecting personally to others whenever and wherever desired. In a growing number of cases, the mobile phone is the *only* phone a consumer has.

### **How will it happen, and when?**

Through coordinated action among the major wireless carriers and CTIA, Qsent, Inc. was selected in 2003 to aggregate their wireless listing data and offer it securely to 411 service providers. Qsent, founded in 1998 by individuals also involved in the startup of 3<sup>rd</sup> party DA provider Metro One, is experienced

in the field of aggregating identity information and making it available to businesses via industry standard security mechanisms.

After original estimates looked to 2004 for launch of the service, Qsent currently publishes a 2006 timeframe for widespread WDA availability. Between now and then wireless carriers will formally notify subscribers of the service and how they can “opt in” to be listed (inclusion in the database is not automatic).

Once launched, the service is designed so that a listed subscriber can be reached on their mobile phone by someone calling 411 as they normally would for any other type of information. While each DA provider will set their own protocols regarding *how*, when the operator learns the caller desires a mobile number they will access wireless listings via a secure gateway to Qsent’s repository. If the desired listing is found, the caller will hear the number or be connected, or both.

For the DA providers servicing the 411 calls, this setup means an established connection for a “per-dip” experience above and beyond the existing database normally used during a search. The application development and operator training involved in making this happen should have plenty of lead-time to test and execute in the general timeframe expected.

## **What are the key angles to watch?**

### **Privacy**

One of the most publicized angles on WDA is the privacy/security concern for wireless phones. The overwhelming majority of articles and discussion has focused around this, several states have introduced legislation regarding it, and a formal Wireless 411 Privacy Act was presented at the federal level.

Though it did not pass the Senate this winter, the Wireless 411 Privacy Act is expected to return in substance again in the near future. The bill (S.1963) proposed legal requirements for:

- Wireless carriers to obtain specific direction from existing mobile subscribers to be listed in the database, via documentation separate from the subscriber’s mobile service agreement or service plan description.
- Wireless carriers to provide “convenient mechanisms by which the [new] subscriber may decline or refuse to participate in such database” – including bill information/inserts and notification when receiving any connected call from a WDA service.

- Mobile subscribers' ability to withdraw their listing from the database at any time and with no cost to them.
- Connecting a caller to the mobile subscriber only if the subscriber is notified of the caller's identity and is able to accept or reject the call, and if the subscriber's mobile number is not disclosed to the caller. This is also known as a "preannouncement" option.
- WDA listing data not to be published in any format.

Wireless carriers and Qsent assert they have already committed to ensuring this level of privacy, though Qsent indicates that operators may provide the number to the 411 caller. This particular point could mean dramatically different results as, under the heading of "privacy," mobile subscribers who want to be listed still hold a reasonable desire to choose and limit who has possession of their number. The preannouncement connection feature as described in the bullet above, keeping the mobile number unknown to the operator and caller, would provide an added layer of privacy.

Both with and without this feature there are a significant number of subscribers willing to list their number in the database. A Pierz Group survey in mid-2004 shows 53% of respondents would list their number under the Qsent/CTIA plan, while 59% of respondents would list under the preannouncement plan. A significantly larger 74% indicated they would list if able to choose among multiple options for ensuring added privacy.

Regardless, the debate continues over allowing the industry to self-manage privacy in the WDA implementation vs. ensuring compliance via legislation and penalties. Either way it appears a reasonable level of privacy protection combined with opt in/out control will be implemented.

Beyond the high profile privacy aspect there are several other critical success factors for WDA, including accuracy, "findability," and subscriber costs.

### **Accuracy & Findability**

The definitive measurement recognized by Paisley and by DA consumers is Customer Fulfillment. Providing *correct* and *complete* information are the pillars of Fulfillment – the DA caller needs to find that specific someone. It is in this area where we see one of the significant challenges for WDA, particularly in the state in which it stands today.

First, with approximately one-fifth or more of mobile subscribers automatically excluded from the database, the WDA data cannot come close to any measure of completeness. Though the carrier participated in the effort up through the point of selecting Qsent as the data aggregator, Verizon Wireless' decision to refrain from participation in WDA at this point, while understandable, is potentially a fatal blow to its successfully sustained launch. There are also mixed signals in the market regarding where Sprint PCS and Nextel will come down on participation in WDA. Earlier in 2005 there were announcements that Sprint would hold off on participating, though in March Qsent indicated the carrier is included in the effort.

Regardless, from a 411 user's standpoint, if the service is incomplete then there is less reason to use it (requests will prove fruitless more than 20% of the time if the caller does not know the subscriber's carrier) and fewer opportunities to try it out in the first place (if the caller knows ahead of time that the subscriber belongs to Verizon Wireless *and* knows this carrier is not included).

Second, in Paisley's years of experience surveying mobile subscribers via the wireline contact information available from the carrier, it appears that obtaining accurate information on a user-by-user basis will be a significant challenge – at least for some carriers if not all. Multi-phone accounts and changing (or non-existent) wireline information alone, are enough to push successful hit rates well below 85%. Qsent and participating wireless carriers have a real hurdle to deal with here.

This brings us to the point on “findability.” As city, state, and street address become less central or less known with respect to a person's identity, there need to be more ways to store unique or nearly-unique pieces of information about a person that make them more “findable.” Searchable fields for email addresses, wireline phone numbers (home or work), nickname, social/religious clubs or affiliations, high school or secondary education institutions, internet screen names, company name, work address, etc. would all potentially be helpful in finding someone in a mobile listing database.....or in any database, for that matter. This increased need for findability can create quite a large scope creep.

Consider how critical the addition of more searchable criteria would be, though, if one knows only a name and a city. Using a popular on-line directory search site, looking for “Bill Jenkins” in Chicago, eight distinct listings appear. Not insurmountable to try to go through each one, but probably more than most are willing to attempt especially if it means disturbing the incorrect Bills and Willies on their cell phones just to (hopefully) find the right one. Being able to search by even one more piece of information would cut down the list nicely.

There is a ray of hope shining through on accuracy, however. With Qsent's plan of a single database not to be replicated/updated locally at the DA provider's site, but "dipped into" directly as needed, the data will be as close to the source as possible when the DA operator accesses and provides it. Of the listings that are in the database and have good findability, the data will certainly be consistent across multiple DA providers and very likely updated quickly when changes are communicated by the subscriber.

### **Subscriber Cost Control**

Another aspect we touch on in this report is the ability of the subscriber to control the costs of an increasing number of incoming calls to their mobile phone – i.e., Calling Party Pays (CPP). It is likely that instituting a system in which the calling party pays for the cost of the mobile minutes of use for each call placed would reduce concerns about incoming calls from the WDA service.

Europe already experiences this, with a high number of searchable mobile listings and a larger percentage of incoming calls vs. outgoing calls on mobile phones (40-50% incoming calls in Europe, vs. 20-25% incoming calls in the U.S.). CPP is particularly helpful because it is already in place and widely accepted – incoming callers are accustomed to paying and to easily recognizing a mobile phone by its numbering scheme.

With most 411 callers in the U.S. already expecting to pay a premium fee for accessing the service, and often being accustomed to an additional fee for connection to the listing (for wireline 411 requests), the perception, usability, and functional concept of CPP do not seem all that difficult to implement for WDA alone. However due to other complexities and difficulties surrounding the larger CPP initiative, an extended discussion of this topic will be explored in detail at another time.

## **The UK Experience**

The UK DA/DQ environment teaches us, however, that CPP alone does not pave the way for a concerted WDA effort. The UK market is somewhere between where the US is today and a fully organized and centralized mobile listing database/service. Some of the mobile carriers provide an easy method for subscribers to list their mobile phone in the standard DA/DQ listing databases, and therefore a number of wireless listings are included among wireline listings. While a solid figure is not readily available, DA/DQ operators indicate that it is “common” to notice a mobile number while performing searches.

The subscribers who proactively “opt in” apparently do so most commonly for the same general reasons noted above – that is, it is their only phone, is their primary method of conducting business, or they wish to be located conveniently. In this environment it is interesting to note the lack of expressed need for specific privacy or number-masking at the operator or caller level.

Going the next step with a broader and deeper level of wireless listing organization and distribution is where the effort gets sticky and raises the most frequent concerns. It is most likely for this reason that mobile carriers in the UK have not proactively sought out a formal WDA solution as a group. When WDA advocates have broached the subject with mobile carriers there, the return message has essentially been one of non-interest. This could also be a pointer towards the US WDA initiative as several carriers have not expressed full (or any) commitment to the continued progress of the initiative.

## **Conclusion**

While there are challenges and nuances the U.S. market will likely only learn more about how to address as the effort moves forward, Wireless Directory Assistance looks like a viable solution to fill a primary need of the DA consumer. Satisfying the privacy concerns is the most basic and pervasive challenge to deal with, and the solutions presented seem sufficient. How much of the solution set will be formally regulated remains a question. Less is apparent on how the industry will address accuracy, findability/participation, and consumer cost control – each area a formidable hurdle in optimizing the full potential of a WDA service. The Paisley Group looks forward to observing and measuring this exciting effort in the future.