



Elisabeth Rainge
Program Director, Network Software

Enhancing Mobile Messaging for Content Providers, Application Providers, and Aggregators

March 2008

Mobile Messaging accounts for more than one-third of all mobile content revenues, and trends indicate this will continue to grow annually for some time. At the same time, rapid industry consolidation and competition in the mobile messaging market are forcing price pressures, whereby carriers are leveraging increased traffic volume for pricing considerations. These two issues combined mean it is now more important than ever to ensure that content providers, application providers, and aggregators can deliver the best service for the price by improving overall quality of service, features, functionality, and reliability.

The following questions were posed by NeuStar to Elisabeth Rainge, Program Director of IDC's Network Software research group, on behalf of NeuStar customers and key players delivering mobile content and messaging services in the wireless sector.

Q. What is a wireless message routing service, and why does the mobile messaging and advertising community require this service?

A. Wireless message routing services were originally established to provide an infrastructure that allowed service providers and carriers to access telephone numbering data and related information across a broad range of communication devices and protocols. Much of this same data is now needed by aggregators, application providers, ad-serving network providers, and new emerging players as reliable messaging delivery becomes essential to their success.

Wireless messaging routing services' complex network environment provides query-based access to a registry of authoritative telephone numbering data. It enables telephone numbers to be submitted and mapped to another location for reliable messaging between devices and/or providers. This capability becomes even more important as service and application providers prepare for the dynamics and flexibility required in a Web 2.0 environment.

Messaging encompasses an increasing portion of operator revenue streams, thus exerting more pressure on mobile messaging providers to provide their subscribers with a quality experience. Highly reliable messaging routing services create customer trust and become more important as maintaining customer loyalty becomes more challenging. Content and application providers and aggregators need to differentiate their capabilities, their service offerings, and their quality of service to maintain margins and ensure the correct content is delivered to the right destination. Advertisers want their ads delivered only to subscribers who

are interested in and are likely to purchase their products or services. Wireless messaging service providers that can ensure accurate delivery of messages and advertising to customers and minimize revenue leakage would make good partners for content and application providers and mobile advertisers.

Q. What are the essential components that aggregators and content and application providers should demand from any wireless message routing service provider?

- A. The inherent complexities of the technology makes the identity of the subscriber and the associated data an important business issue in terms of collecting and generating revenue from a customer base. Unravelling the complexity and different types of numbering schemes, and being able to identify the underlying service provider, are just some of the factors that must be properly handled by any wireless message routing service provider. They must be able to differentiate MVNO resellers and data from the underlying telecom carrier, and should also be able to identify Type 1 numbers as well as prepaid and post-paid services.

Aggregators also need to understand and manage the complexity of the systems to ensure they are delivering quality of service (QOS). For example, telco-grade service and data centers providing full-service redundancy should be the norm. Address lookups should not negatively impact the service response time, especially during peak load times. Reference systems, such as a numbering database or a wireless message routing service, need to be flexible when changes have to be made. Updates must be done in real time and changes should be carefully scheduled during off-peak hours with minimal disruption to service.

Finally, since there is intense competition among telecom service providers for consumers and business customers, aggregators as well as application and ad-serving providers should ensure their wireless message routing service is provided by a neutral and trusted third party.

Q. What are the benefits of this type of telephone-number resolution functionality?

- A. The primary benefit is an increase in customer, carrier, and advertiser satisfaction. Today's cost of customer acquisition and retention is too high because of existing inadequacies and problems plaguing the industry, including:
- Revenue assurance and revenue leakage
 - Growing complexity around multiple service providers, catalogs, services, and pricing models
 - Difficulty ensuring that subscribers get appropriate services, and are satisfied with the services to which they subscribed
 - Incorrect customer identification
 - Little visibility into customer behavior
 - Inaccurate and untimely billing
 - Inability to identify customer or service characteristics
 - Too much custom code, preventing operators from easily integrating or interoperating with new services that are rapidly appearing

A commercially-supplied and supported messaging service can provide improvements in revenue assurance, as well as carrier, advertiser, and customer satisfaction. It is solely focused on ensuring timely and accurate delivery of content and enabling billed and collected

revenue to be consistent with content consumption. Such an infrastructure can ensure advertisers that their products and services are only viewed by interested and well-targeted subscribers. It can improve billing inadequacies by ensuring customer invoices are consistent with content downloads and payload, and that content is only routed to customers that will pay for these services.

Taking steps to improve system performance and the integrity of number access and customer satisfaction can have a real impact on customer behavior and meeting consumer expectations for performance and reliability of their applications — particularly for broadband speeds required for Web 2.0 pages (e.g., Facebook). Message service providers not only can focus on all these tasks, but also can work with third-party partners to get the necessary network optimization resources.

Q. Beyond the basics, what are some other areas of consideration for aggregators, as well as content, application and ad serving/network providers, when choosing service providers for number-resolution data?

A. Since messages are continuously transmitted around the world, having an international presence is essential for conducting business on a global scale. It is also the reason that both the telecom and the mobile industry think and act globally first, and nationally or regionally second. Global messaging is laden with its own set of challenges, including different technology and numbering standards, various regulatory and localization requirements, and the fact that users in different countries and regions have varying levels of tolerance for service performance and message delivery accuracy. There are also new services and technologies that have to be tracked, including customer international roaming privileges, surcharges for certain types of connectivity, supplier capacity to handle WiFi or WiMAX networks, and so on.

Aggregators requiring an international reach should look for a financially stable service provider capable of providing global information for both domestic and international number resolutions. The service provider should also have local access to improve information exchange and be able to provide important capabilities such as “Policy-Aware Responses.” Aggregators and application providers requiring customized capabilities from their wireless message routing service provider should request flexibility in response formats and flexible secure connectivity options.

Q. In addition to the technical infrastructure outlined above, what business support and operational support tools round out a complete service?

A. There is a growing need to understand subscriber usage patterns and preferences, making it essential to have tools with good tracking, analytical, and reporting capabilities. The resulting data can be used by application providers and aggregators to maximize the use and sale of services and ultimately grow revenue associated with them. The complexity of today’s systems require good statistical analysis, diagnostic, and reporting tools to facilitate understanding and monitoring of events.

ABOUT THIS ANALYST

Elisabeth Rainge manages IDC's research efforts in the areas of network and telecom software, and contributes expert insight and analysis to IDC's broad portfolio of network infrastructure services. She covers all aspects of the next-generation network (NGN) and VOIP infrastructure markets, including IMS.

A B O U T T H I S P U B L I C A T I O N

This publication was produced by IDC Go-to-Market Services. The opinion, analysis, and research results presented herein are drawn from more detailed research and analysis independently conducted and published by IDC, unless specific vendor sponsorship is noted. IDC Go-to-Market Services makes IDC content available in a wide range of formats for distribution by various companies. A license to distribute IDC content does not imply endorsement of or opinion about the licensee.

C O P Y R I G H T A N D R E S T R I C T I O N S

Any IDC information or reference to IDC that is to be used in advertising, press releases, or promotional materials requires prior written approval from IDC. For permission requests contact the GMS information line at 508-988-7610 or gms@idc.com. Translation and/or localization of this document requires an additional license from IDC.

For more information on IDC visit www.idc.com. For more information on IDC GMS visit www.idc.com/gms.

Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com