

About Openwave

Openwave Systems Inc. (Nasdaq: OPWV) is the worldwide leader of open IP-based communication infrastructure software and applications. Openwave is a global company headquartered in Redwood City, California. For more information, please visit <u>www.openwave.com</u>.

Openwave and the Openwave logo are registered trademarks and/or trademarks of Openwave Systems Inc. in various jurisdictions. Java and all Java-based marks are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries. All other trademarks are the properties of their respective owners.

Copyright © 2002 Openwave Systems Inc. All rights reserved. November 2002.

Wireless Subscriber Data Adoption with Event Marketing

Contents

1	Introduction	4
2	Service Provider Challenges	5
3	Event Marketing Case Study: Telesp Brazil	6
4	Key Success Factors	8
5	The IBM-Openwave Event Marketing Solution	9
6	Summary	11
7	IBM-Openwave Alliance Background	12

1 Introduction

WIRELESS EVENT MARKETING is a sports- and entertainment-based messaging solution designed to encourage first-time adoption and usage of data services. For service providers, the object is to tie the *interactive, wireless messaging services* they offer directly to *sports and entertainment*, in order to create an emotional experience for subscribers, and drive them to engage and interact with real-time events and activities.

Event marketing can enable promotional campaigns, personalized alerts, voting, advertising, chat, downloads and betting applications. Highly-targeted campaigns can be distributed through a range of messaging channels and optimized for an end user's handset. Service providers can create and manage both internal and external third party promotional campaigns, and deliver messages through a network throttling engine to govern traffic, priority and bandwidth.

The **IBM-OPENWAVE EVENT MARKETING SOLUTION** incorporates Openwave's mobile platform with IBM's WebSphere Portal and Personalization Servers. In addition to a turnkey platform, Openwave and IBM each offer consulting services to design, target and operate campaigns, measure their effectiveness and create cross retail promotions.

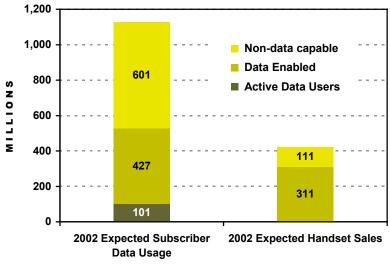
This white paper outlines this new approach to increasing subscriber data adoption and boosting service provider brand effectiveness. The challenges faced by service providers are identified as well as an example of how a carrier was able to overcome these challenges.



2 Service Provider Challenges

Wireless service providers are facing a difficult economic environment and are searching for ways to increase revenue. Average Revenue Per User (**ARPU**) has been declining in recent years due to commoditization of voice services, and many service providers are looking to mobile data services as one way to counter declining voice revenue.

Original expectations for data as a percentage of revenues were high. However, in general, revenue from mobile data usage has not lived up to expectations, comprising only about 10% of revenues.





Although data adoption has been disappointing, a large installed base of subscribers has data-capable handsets and a majority of new handsets have data capability as well (see Figure 1). This presents a huge opportunity for service providers if they can just get subscribers to try data services.

In order to acquire new subscribers and retain existing ones, wireless service providers are spending large sums of money on promotional activities in an effort to enhance brand awareness. In addition to using such traditional media as print and broadcast, service providers are sponsoring various events in an effort to build an emotional bond with the demographic attracted to sports and entertainment events, and garner fan loyalty. Examples of this type of "Event Marketing" include sponsorship of a race car, tennis tournament, golf championship, or a movie.

Because sports, music and entertainment generate an emotional bond and higher excitement than news, stocks or weather, service providers can gain significant brand equity by associating services with such an event, and thus benefit from the strong interest and loyalty of sports fans or celebrity followers.

The cost of these sponsorship activities is significant. In 2002 in the U.S., Communications Service Providers are expected to spend over \$375 million for Event Marketing (based on research from IEG). Yet the ROI and subscriber impact of this spending, in terms of usage, adoption and retention, remains unclear.

Up to now, the effectiveness of these Event Marketing campaigns could not be measured, since there has been no direct link to the value provided to subscribers or service providers from these sponsorship activities. For example, how many additional minutes of usage does a service provider generate by sponsoring a golf tournament?

What service providers need today are programs that draw directly from the power of the sponsorship, and an effective way of measuring the ROI on Event Marketing. Service providers must be able to determine if their investments, by delivering value, are attracting and retaining subscribers, and also whether their investments are keeping them ahead of the competition.

Working with IBM and Openwave, service providers can now direct their marketing budgets to sponsoring events that will increase data services and create subscriber loyalty. They can do this by tying sponsorship of events to their own data services, utilizing existing infrastructure and offering personalized, interactive, easy-to-use services to subscribers – using IBM-Openwave solutions that ensure measurable successes.

3 Event Marketing Case Study: Telesp Brazil



TELESP CELULAR is the largest wireless service provider in Brazil, and has rapidly gained a reputation for innovative marketing. Within 12 months of deploying mobile Internet

services, Telesp achieved 22% mobile Internet penetration. These results were achieved by targeting specific segments with personalized services, attracting prepaid users and accelerating product delivery cycles.

Telesp's World Cup Campaign

During the 2002 World Cup competition, Telesp engaged in a collaborative venture with Openwave and Folha , the largest newspaper in Brazil, to deliver World Cup game schedules, scores, event news and other information directly to their wireless phones. The already high level of excitement surrounding the World Cup was raised to even greater levels as Brazilians were able to follow the games by receiving updates, and with one click, immediately accessing detailed content which brought subscribers closer than ever to the World Cup experience.



Using Openwave push technology, the World Cup Push Campaign increased wireless data services usage through its "Waaap" portal by 40%. Telesp Celular usage numbers grew from 500,000 transactions per day at the beginning of the games to a sustained average of 700,000 transactions per day. And the collaboration

between Telesp Celular and Openwave ensured that regardless of the surge in traffic, the service was successful, and able to support the additional hits.

Among the websites used by the campaign, most popular were those listing game scores, upcoming games and news surrounding the Cup, provided by Folha Online. The campaign was supercharged by push as a critical functionality for developers, making content richer, more engaging and easier to receive.

Telesp's campaign objective was to drive increased usage among provisioned subscribers. Telesp created the following applications for users:

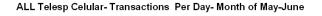
- **Ultimas da Copa:** Daily alerts
- **Bolao:** Betting on who will win! And get airtime!
- Deters: News, Results, Chat accessed from a Campaign Portal

Telesp advertised their services via push, their website, print and radio, as shown in Figure 2 below:



FIGURE 2 - Telesp World Cup campaign ads

THE RESULTS: The campaign, over a period of 22 days, generated in excess of 1.4 million minutes – a 33% increase from the previous period, as shown in Figure 3 below. In addition, the increase in transaction volume continued even after the World Cup was over.



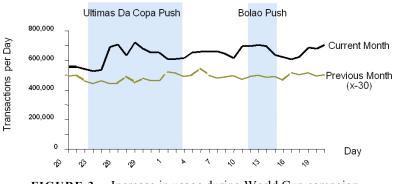


FIGURE 3 – Increase in usage during World Cup campaign

The success of the Telesp World Cup Campaign as measured against its objectives can be seen in the following increases:

1	Registered Users % increase from Direct Marketing Push	2.3%
1	URL Activation % from Daily Alerts	40%
1	Additional Users coming to the site	230,000
1	Total Usage increase	+ 33%

4 Key Success Factors

A successful, cost-effective Event Marketing campaign must meet several key requirements to ensure acceptance and adoption by both subscribers and service providers. The most crucial factors for maximizing the effectiveness of Event Marketing sponsorships are:

- i Content should be targeted and relevant.
- i Services and content should be personalized.
- I Registration and applications should be optimized for ease of use.
- i Services should be interactive.
- The solution should integrate easily with existing infrastructure.
- i Results should be measurable.

Subscriber Needs

In order to increase awareness of data services, service providers have to appeal to subscribers' emotions, expressed in terms of what customers value, which can help define long-term loyalty drivers, not merely what customers purchase today. **EXAMPLE**: While a daily news update may be of some interest, it won't generally invoke a strong desire to sign up for data services, while content such as sports, music, and movies is more likely to generate strong subscriber interest.

→ Event Marketing content must be targeted and relevant.

Subscribers want personalized information delivered to them at the right place and the right time. They are not interested in receiving "spam" and other unsolicited information. A service that delivers relevant content, personalized for the subscriber and delivered in an unobtrusive manner will increase subscriber satisfaction and reduce churn. **EXAMPLE**: A subscriber can select a specific team, delivery of specific information, delivery at a specific time, and optimized for the subscriber's device.

Event Marketing services and content should be personalized.

In addition to lack of awareness, low adoption may be the result of difficult registration and difficulty using mobile data applications. Signing up for the service should be easy (either through PC or mobile handset), and the applications should be easy to use, and require minimal steps to access content. **EXAMPLE**: If a user has to log on every time the user accesses content, this will make the service less appealing.

Figure 3 Event Marketing registration and applications should be optimized for ease of use.

In order to generate more interest, applications and content should be interactive. **EXAMPLE**: Just receiving sports scores may not be as appealing as receiving the score along with a link for more details about the game or for the latest news about the teams, and additional interactive offerings could include polling, trivia quizzes, and contests with prizes such as 30 minutes of airtime.

→ Event Marketing services should be interactive.

Service Provider Needs

For a service provider, a service that increases data usage and reduces churn should integrate with existing infrastructure. Service providers have already spent large sums of money on their infrastructure and are not keen to spend more, or add to its complexity. A new service should leverage existing investment while providing added functionality.

An Event Marketing solution should integrate easily with existing infrastructure.

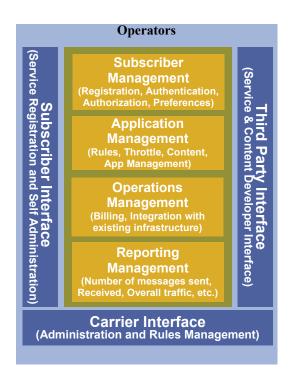
A service provider should be able to measure the results associated with offering an event marketing service. What is measured depends on what the service provider's goal is. If it is increased usage, minutes of use (MOU) may be appropriate. If increased revenue is the goal, then an appropriate billing infrastructure should be in place to keep track of all transactions.

→ Event Marketing results should be measurable.

5 The IBM-Openwave Event Marketing Solution

IBM and Openwave have joined forces to address these key success factors, in a complete end-to-end solution for event marketing called the **EVENT MARKETING PLATFORM**, shown at right in Figure 4.

An Event Marketing Platform enables service providers to deliver timely content, related to events. IBM's broad relationships with different content providers helps to ensure delivery of content that is relevant to a service provider's subscriber base, while its WebSphere® middleware creates a robust scalable platform. Openwave contributes its market-leading Mobile Access Gateway (MAG) and Mobile Browser to enable mobile access to content and alerts.





All intellectual property rights in this work belong to Openwave Systems Inc. The information contained in this work must not be reproduced or distributed to others without written permission of, or used except as expressly authorized by, Openwave Systems Inc. Copyright © 2002 Openwave Systems Inc. All rights reserved. November 2002. IBM's WebSphere Portal, combined with Openwave's Mobile Access Gateway (MAG), forms the core engine of the **EVENT MARKETING SOLUTION**. The integration gives service providers the ability to offer their subscribers a highly personalized information portal capable of handling rich multimedia content, transactions, and multi-modal user interfaces. It includes a pre-integrated subscriber management system.

CUSTOMER SEGMENTATION – Relevant content is a key success factor in event marketing campaigns. IBM has developed a systematic approach, called Customer Value Segmentation (**CVS**), which helps service providers define, refine and target products to specific segments. CVS targets desired segments based on value drivers that customers find attractive. It identifies the "value of" customers to the service provider, then delivers the appropriate cost-justified "value to" each customer/segment. It also identifies new value-added services to further delight customers and thus build greater loyalty and retention.

EASE OF USE – A major challenge faced by many service and content providers is how to properly introduce and stimulate first-time trial of mobile data. One solution is to allow new subscribers the option to receive push notifications of a key sporting event during the "introduction" phase of their service. The first message may introduce them to key phone features with a "teaser" headline including chat, email, games or news, depending on the subscriber.

WAP Push dramatically improves usability, which will increase mobile Internet adoption and encourage usage. An example of this is the dramatic improvement in stock purchase transactions from receiving a stock alert and retrieving the details of the quote, to making a purchase. Using standard SMS delivery of the alert on the network of a major U.S. service provider and the current WML site of a major brokerage firm, a subscriber must make 36 clicks from the receipt of the alert to the completion of the purchase. Using the WAP Push delivery mechanism, the same transaction requires just 6 clicks from start to finish.

CAMPAIGN MANAGEMENT – A carrier might have different marketing events in progress, with specific goals for each event. As a result, carriers need the ability to orchestrate which content is delivered during a given time period and to a specified target segment. For example, a carrier may want to deliver a retail promotion or alerting service to the teen market around a reality show, then expand that capability for a broader audience during a weeklong sports event during the same period. The Campaign Management component of WebSphere Personalization provides this capability.

Campaign Management provides the ability to set business goals, create sets of rules that are active for a specific period of time, create the right target segment and construct messages. Each campaign can be effective at any time for any duration. A GUI manager drives a rules engine to pull and push personalized information to Web site visitors, e-mail recipients or, with customization, via SMS, MMS, WAP Push or JavaTM-enabled handsets.

PERSONALIZATION – Because Event Marketing campaigns are segment- or event-based, the WebSphere Personalization component of WebSphere Portal can address the need of delivering specific content to targeted users. The Recommendation Engine and Rules Engine components are used to tailor content to the interests of each subscriber, and the Campaign Management component can be used to specify which content is delivered to which subscriber segment for a given event (campaign).

INTERACTIVE APPLICATIONS – Openwave's MAG enables a service provider to push wireless campaign messages to data-enabled phones and personal digital assistants (PDAs). (A push is a message sent to a mobile subscriber, without explicit request. Users subscribe to these services and receive alerts according to their preferences.)

The IBM-Openwave Event Marketing Platform goes beyond these simple alerts, combining WAP Push and campaign management. By leveraging existing event sponsorships with WAP Push, service providers and content developers can increase subscriber adoption and usage, and offer enhanced revenue opportunities with improved and new applications.

INTEGRATION WITH EXISTING INFRASTRUCTURE – The Event Marketing platform conforms to IBM's Service Provider Delivery Environment[™] (SPDE), an open standards-based framework that gives wireless and wire-line telecom service providers the flexibility to introduce new voice, text, and Internet services faster, easier, and at a lower cost. IBM developed the SPDE framework by working with service providers worldwide in their 2G and 3G businesses.

The ability to integrate with existing infrastructure is essential for event marketing solutions. Service providers must introduce technology into existing systems quickly and position themselves for next-generation platforms With SPDE as its reference architecture, the Event Marketing platform takes advantage of open-source industry standards and gains flexibility to respond quickly to new opportunities.

MEASURABLE RESULTS – The ability to accurately measure and analyze the results of a campaign is key to evaluating success and driving future successes. Usage statistics on visitor trends and content offer important insights into effectiveness, and will drive changes to strategy, business rules, and many other elements. This information can be used to make adjustments during the campaign, and as a resource for tailoring subsequent campaigns. For example, analysis might indicate a required change to a business rule governing the type of information targeted to specific users.

The IBM WebSphere Site Analyzer detects visitor trends and preferences, manages Web site content and structure, and helps improve the overall effectiveness of Web initiatives and campaigns. Users can import analysis logs from WebSphere Portal into Site Analyzer and create reports about portlet usage and performance, and these analyses can be categorized to gather statistics about specific groups of visitors.

Furthermore, Openwave Mobile Business Intelligence (MBI) Services are a comprehensive solution set for the Openwave Mobile Access Gateway (MAG) that allows carriers to understand and improve the effectiveness of their wireless Internet service offering and maximize the substantial investments they have made to bring these services to market.

MBI enables intelligent analysis of usage data from the Openwave MAG by providing key data (reports) and insight (analytics) necessary to refine service offerings, drive adoption, and increase service usage.

Implementation of a business intelligence solution is a key enabler of carrier efforts to increase customer adoption and usage rates of wireless Internet services. Widespread adoption is the key goal for carriers striving to roll out highly profitable data services.

All intellectual property rights in this work belong to Openwave Systems Inc. The information contained in this work must not be reproduced or distributed to others without written permission of, or used except as expressly authorized by, Openwave Systems Inc. Copyright © 2002 Openwave Systems Inc. All rights reserved. November 2002.

6 Summary

While service providers are some of the most aggressive sponsors of events, many are unsure of their return on this promotional investment, beyond brand awareness. It is unclear how sponsorship of these events addresses the skyrocketing costs of customer acquisition, high churn and declining user revenues.

In order to maximize the effectiveness of their marketing budgets, service providers should tie their sponsorship to their data services through **EVENT MARKETING**. IBM and Openwave offer the industry's first integrated platform combining campaign management, personalization and WAP Push. Key success factors in developing a wireless event campaign include:

- i Content that is targeted and relevant
- I Registration and applications optimized for ease of use
- I Personalized content specific to a demographic or user segment
- I The ability for users to interact in a stimulus-response model
- I Proven integration with existing infrastructure and systems
- i Measurement capability to gauge success

The IBM-Openwave Event Marketing solution addresses all of these key success factors with turnkey services and a platform that is easily integrated into a service provider's existing infrastructure. The results of using the Event Marketing solution include:

- Improved effectiveness of existing promotional spending
- Increased usage of data services
- I Creation of simple first-time use cases driving trial of data services

7 IBM-Openwave Alliance Background

IBM and Openwave have a strategic alliance designed to help wireless service providers grow revenue, lower costs and reduce customer turnover. Through this strategic alliance, the two companies will develop, deploy and market open solutions, combining IBM's leadership in e-business infrastructure and Openwave's strength in messaging and mobile software. IBM and Openwave are collaborating on an open joint reference architecture.

The new set of turnkey solutions will be based on the integration of Openwave's portfolio of messaging and mobile software with IBM's WebSphere middleware. These new solutions will be delivered using IBM's Service Provider Delivery Environment (SPDE), an open standards-based architecture designed to give wireless service providers the flexibility to introduce new revenue-generating voice, text and Internet services to their customers faster, easier and at a lower cost. Service providers will be able to mix components to match subscriber demand. SPDE will build a bridge for a seamless transition as service providers transition from 2 to 3G-based networks.



Openwave Systems Inc. 1400 Seaport Boulevard Redwood City California 94063 U.S.A. Corporate +1 650 480 8000 Europe +44 1442 458 800 Japan +81 3 5909 6100 http://www.openwave.com