

# I D C   E X E C U T I V E   B R I E F

## **A Smarter Pipe: Managing, Monitoring, and Monetizing the Mobile Internet**

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### **The Mobile Internet: A Mixed Blessing for Operators**

Usage of the Internet on mobile phones is poised to take off. The "mobile Internet" — i.e., Internet access and usage via mobile phones — will play a key role in mobile operators' search for new revenue-generating services, as growth in voice and SMS revenues starts to slow. However, operators are treating the prospect of an explosion in mobile data usage with some caution. On PCs and fixed networks, the service provided by Internet access providers has trended quickly toward simple connectivity. Value-added services are mostly provided by third parties. Mobile operators are worried that, as the mobile Internet takes off, they too could be reduced to providing a "dumb pipe" to the Internet.

In IDC's view, mobile operators are right to worry about becoming "dumb," but they need not worry about being "pipes." The mobile Internet will differ from the PC-based experience in several important ways. To cope with those differences, end users and the providers of goods and services will both need help that only a trusted, dedicated intermediary is in a position to provide. In other words, the role of a "smart pipe" will be indispensable to all the other members of the value chain in getting the best out of the mobile Internet.

### **Obstacles to the Mobile Internet Start to Come Down**

Internet access on mobile phones has been possible for a decade, but until recently, both uptake and usage of the mobile Internet have remained modest. However, that is now changing. The obstacles that have held back the mobile Internet are weakening, and a number of key enablers are falling into place. IDC expects strong growth in both uptake and usage of the Internet on mobile phones over the next few years, owing to the following:

- **Improvements in the user experience.** Made-for-mobile sites are becoming richer and more numerous. "Standard" Internet sites can be adapted for phones. Handsets are acquiring better browsers, bigger screens, and easier user interfaces.

- **Improvements in the networks.** Operators' deployments of 3G networks and high-speed upgrades are giving mobile users an Internet experience that is comparable in performance to that of fixed-network broadband.
- **More user-friendly data pricing.** Customers have been deterred by pricing based on data volume. They worry about unwittingly incurring high data bills. The introduction of flat-rate charging has made data bills more predictable and has thus reduced user concerns over trying out the Internet on their mobile phones.

As a consequence of these developments, we are starting to see good levels of mobile Internet uptake in developed markets. For example, in a June 2008 survey, IDC asked 3,000 U.S. Internet users aged 13+ the following question: "What mobile devices, if any, do you use today or have you used in the past 12 months to access the Internet?" 30.5% of respondents said that they had used a normal cell phone with Internet access. A further 14.8% said that they had used a smartphone to access the Internet.

## **Using the Core Business as the Basis of Operators' Role in the Internet Value Chain**

### ***It's Bad to Be "Dumb," But It Can Be Good to Be a "Pipe"***

Fixed-network ISPs are seen by their customers mainly as the "pipe" through which they travel to reach independent destinations such as Amazon, eBay, YouTube, Facebook, and hundreds of other Web sites. Mobile operators are concerned that, as the mobile Internet starts to take off, they too will be relegated from their accustomed role as customer-facing service providers to the ISP's role of "dumb pipe."

Such concerns are intensified by the increasing tendency of mobile Internet users to leave the operator's portal and go to sites on the open Internet. In IDC's June 2008 survey, for example, the 10 most popular Internet destinations among mobile handset users were all operator-independent sites: Google, Yahoo!, MySpace, Facebook, YouTube, Weather Channel, Mapquest, Wikipedia, ESPN, and eBay.

Mobile operators are right to be concerned about becoming low-visibility providers of simple Internet connectivity. But it's a fallacy to identify the role of connectivity provider inevitably with such a fate.

For most end users, using the Internet independently on their mobile phones is still tricky. Mobile operators are in a position to make their customers' experience more satisfying, both by packaging access with content and services and by adapting third-party content and services for easier use. Third parties also benefit by using the mobile operators as intermediaries. They could go it alone, but their content and services can be promoted more effectively and made to work better in partnership with mobile operators.

The core business of a mobile operator is to provide network access and carriage. The most successful approaches to the mobile Internet will be founded firmly on those two services. In other words, operators *are* pipes. But they don't have to become *dumb* pipes. Mobile operators can add substantial value to Internet access, both for their customers and for third parties, by becoming "smart pipes."

## Role of the "Smart Pipe": Providing Help

What distinguishes a smart pipe from a dumb pipe? The answer can be summarized in a single word: help. Users at one end of the pipe want to find and use content and services at the other end. The providers of content and services want to find and provision those users who are most interested in what they provide. Advertisers want to place their advertising on the most appropriate inventory and target the most appropriate users. The role of the "smart pipe" is to help those constituencies connect with each other and to help make the resulting transactions as satisfying as possible for all parties.

As "smart pipes," operators **help their customers** to:

- **Find the Internet content and services they are looking for** and use that content and those services easily on their mobile phones.
- **Avoid unwanted content and block malicious attacks.** Customers relate to their phones on a personal level, and so they will take intrusions personally.
- **Solve problems.** The mobile Internet will be harder to use than PCs for some time to come, and customers will be looking for someone to call on for help when they encounter difficulties.

As "smart pipes," operators **help content and service providers** to:

- **Bring their content and services to customers' attention.** They can market more effectively to mobile users if they can leverage operators' mobile Internet portals, as well as operators' more general marketing activities.
- **Provision customers quickly and easily.** Content and client software must be provisioned either over the air or at the point of sale. Both will be easier and more reliable in partnership with the operator.
- **Give customers a good usage experience.** By adapting Internet content according to the capabilities of their customers' handsets, operators can help Internet content and service providers overcome the difficulties caused by the wide variation in the specifications of handsets that are in use.
- **Collect payment from customers.** Independent providers cannot bill their customers, and in many cases, their customers are too young to have credit cards. Cooperation with the operators can help them overcome those obstacles to collecting payment.

As "smart pipes," operators **help advertisers** to:

- **Place advertising on customers' phones efficiently.** As users' starting points, the phone's idle screen and the operator's portal are among the most valuable pieces of advertising inventory on the mobile network.
- **Target advertising to the most appropriate customers at the most appropriate time.** Operators can gather data about who their users are, what they are doing, and where they are doing it. That data can be analyzed into the intelligence required to ensure that advertising is as relevant as possible to its audience.
- **Monitor, measure, and improve the effectiveness of advertising.** Operators can find out whether their customers act upon advertisements and can produce the metrics that advertisers need to monitor and improve the effectiveness of their advertising.

### ***What's Needed to Be a "Smart Pipe"***

To deliver all the various types of help that the "smart pipe" can provide, mobile operators require the ability to:

- Smoothly provision, configure, adapt, and optimize Internet content and functionality for use on handsets
- Collect data on customers' actions and draw inferences from it about whether or not customers were satisfied with their Internet experience
- Collect and analyze data about pages that customers visit on the Internet and what they do while they are there and then correlate that information with demographic data and location data
- Track users' journeys through multiple external sites and analyze the resulting data into standard metrics that can be used by third parties to audit the performance of their marketing activities
- Collect data on customers' preferences about the types and formats of marketing that they receive and ensure that those preferences are enforced
- Protect against viruses, phishing, and other attacks and collect and enforce data about customers' preferences regarding advertising and Internet content

## **Case Study Briefs: Role of Mobile Operators in the Mobile Internet Ecosystem**

### ***Nextel Mexico: Focus on High-End Customers, Retain a Value-Added Position***

Nextel in Mexico caters primarily to business customers, and it is keen to grow data revenue to offset declining voice ARPU. Nextel expects mobile Internet usage to grow substantially once its broadband network and services are available.

Nextel intends to play a value-added role in providing mobile Internet services rather than simply providing the wireless link. In pursuit of that strategy, Nextel intends to boost its ability to track and analyze user behavior on the Internet, using the mobile access gateway to capture data about URLs visited and the length of time spent on sites.

Nextel will analyze this data to target customers with services and content that are a close fit with their needs and interests. Such market intelligence could also be used to target advertising, and Nextel is exploring future possibilities in that area.

### ***Sprint: Foster an Ecosystem, with the Operator at Its Center***

Through its Sprint Web portal, Sprint provides access to made-for-mobile content and services from 67 partners, including brands such as CNN and ESPN. Sprint sees the carrier's primary role as coordinating this ecosystem of content and service providers.

One of the tools that Sprint can use to stay at the center of the ecosystem is information about its customers' behavior. Sprint uses that information to tailor its customers' Web experience according to their preferences. Behavioral information is used by Sprint to serve appropriate display advertising when a customer accesses the portal.

As a complement to the Sprint Web portal, Sprint also offers its customers open Internet access via their mobile phones. However, the extremely heterogeneous mix of access devices has made it hard to offer a good Internet experience for all customers. To address this problem, Sprint has implemented a solution that reformats, transcodes, and compresses the content of standard Web pages so that they look good and function well on each subscriber's phone.

### ***Telstra: Using Integration to Play a Key Role in the User Experience***

In Telstra's view, the operator is uniquely positioned to provide a good end-to-end mobile Internet experience. Its strategy is to provide "one-click" access to Internet services for its customers.

Telstra provides a portal site, but it is also seeing an increasing trend of Internet users going "off-portal." It intends to encourage both types of usage, as each caters to a different set of customer needs. Telstra helps customers to get a good off-portal experience via its 3Tab environment, using server-side and device adaptation.

Telstra ensures that all customer devices go through its Internet gateway. The resulting usage data is used to analyze customer needs, market trends, and competitive trends.

The operator is also using traffic data as an asset in its nascent advertising business. In July 2008, Telstra launched a service called Mobile Codes, enabling users to scan barcodes on advertisements with their phones. Telstra can identify the location of customers when they scanned the code, as well as the segment to which they belong. By providing this data (on an anonymous basis), Telstra can give advertisers direct information about the effectiveness of their advertising spend.

## ***O2: Providing a High-Quality User Experience Is Key to the Mobile Internet***

As mobile Internet usage increases, O2 believes it is important for the operator to defend its position as the visible service provider — encouraging customers to start their Internet usage on the operator portal. The most effective way to do that is to ensure that the portal provides a route to the best experience of the mobile Internet.

O2 in the United Kingdom has recently launched the latest evolution of its "O2 Active" portal, initially for around 15 high-end devices (e.g., the Nokia N95). The portal includes a "browser bar," similar to those found on PC Internet browsers, which follows users wherever they go on the Internet. Users can personalize their home page for quick access to their favorite content and services, either directly or automatically based on the subscriber's usage pattern. The portal is used as inventory for placement of display advertising.

## **Summary and Conclusion**

To play the "smart pipe," mobile operators need to help their subscribers find what they want on the Internet. Operators need sophisticated systems for capturing, analyzing, and exploiting detailed data about their customers. They need to know about what their customers do — especially when they go off-portal. They need to know the capabilities of their customers' handsets. They need to be able to convert data into business intelligence and performance metrics. They need to be able to adapt Web pages for use on phones without HTML browsers. And they need to be able to identify and protect against unwanted content, on a customer-by-customer basis.

By acquiring these capabilities, mobile operators can position themselves to play a central role in the mobile Internet ecosystem as it evolves.

## Methodology

Information in the Case Study Briefs section is drawn from interviews, conducted either by phone or by email, with the operators. Openwave nominated the interviewees but did not participate in the interviews. Statistics on mobile Internet usage are taken from IDC's June 2008 *Digital Marketplace Survey*.

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