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## THE PREPAID INTERNET INDUSTRY

### Summary

This paper provides an overview of the prepaid marketplace, including the relevant history, and presents the specific aspects that are necessary and desired for a prepaid Internet access product. The intent is to provide a useful educational reference to quickly bring readers up to speed on the product and service elements that make up prepaid Internet access. This paper also highlights the common pitfalls and relevant concerns for evaluating existing products in this marketplace and new entries into the market.

### Prepaid Services Background

The traditional model for getting access to any communications network requires that the user become a monthly subscriber and establish a formal billing relationship with the provider. This is true of long distance phone service, local phone service, cable access, satellite TV, Internet access, DSL, and cellular. It is also true of proprietary content networks like HBO, Showtime or similar. In the early 1990s, the idea of selling long distance access in predefined amounts on a plastic card with a PIN code emerged and an unexpected revolution began.

With this new, credit-free, private, and portable means of access to long distance services, new customers, who previously had either limited or no access to the services, could now have long distance service on terms that worked for them. People who found the prepaid model attractive and useful included customers without a credit history, such as students and immigrants; military and transient workers that were too mobile to have a billing address; parents who wanted to control their children's use; busy professional travelers looking to control their costs; and consumers who preferred to pay with cash.

By 1997, prepaid cellular services became available and these provided a phone as well as pre-allocated, discrete chunks of time for a reasonable price with no multi-year contract or monthly fees. Families used these as emergency phones, while students, immigrants and low-income households used them to gain access to cellular services for the first time, and spendthrifts used them to control their expenses.

As this consumer prepaid revolution was expanding, a similar expansion was occurring for retailers, carriers and promotional marketers. A tangible, discretely valued product like a prepaid phone card created new channels for the sale of long distance and cellular services. For example, the local convenience store could now get involved in the sale of long distance service. Carriers also found new opportunities to use prepaid cards to sell their services and their brands. Promotional cards with smaller amounts of time could be used as a "thank you", a give-away, or a teaser, and a whole new category of marketers became experts in using these services to entice customers.

In the past couple years a few companies have tried to build prepaid Internet access services. These efforts have exposed a number of obstacles to building a reliable, easy to use, highly secure product. These issues are worth looking at to understand what it will take to create a large and viable prepaid Internet access market on par with prepaid long distance or prepaid cellular.

### Prepaid Internet

Prepaid Internet access has the potential to expand the Internet access market as much as prepaid long distance benefited from the introduction of a prepaid model. Prepaid long distance is now a \$4B US market. According to Jupiter, Dataquest and IDC, 45% of US households are not yet on the Internet. Globally, the number of PC owners not yet on the Internet is enormous. To get on the Internet, the predominant Internet Service Provider (ISP) access model is complex and intrusive: It requires the user to navigate a long software installation process, to create and remember a username and password, to choose a local phone number from a long list, to provide a large amount of personal information (including a valid credit card number), and to pay a regular monthly fee no matter how often or how much the service is used. Free ISPs have provided another possible method for getting online, but that opportunity has started to disappear as the sustainability and reliability of that model has eroded. These two pathways to access clearly work for at least half the households in the US and some smaller percentage of households internationally but

leave open the possibility for a new model to emerge and engage prospective Internet users in a reliable, secure, and controllable access product.

Many of the customers mentioned above as frequent users of prepaid long distance or prepaid cellular services are still left without a good prepaid option connecting to the Internet. The challenge has been confronting the complexity of the Internet access model while adding a prepaid interface to it and making the resultant product sufficiently secure and reliable.

### Challenges to Prepaid Internet

Internet access is unlike phone service and cellular service in three key ways. The first and most critical difference is that Internet access is a consumer software product. This means that a prepaid Internet access provider is fundamentally a packaged goods consumer software company. The product the company creates will be a reflection of the company's skill and mastery of consumer software development. The second distinguishing aspect involves the nature of the Internet itself. Providing service as an ISP requires substantial experience with the security, reliability, maintenance and scalability of an Internet accessible datacenter. In-depth knowledge of and experience with Internet-specific equipment and software is also required. A skilled Internet datacenter team will have extensive experience with successfully providing a reliable Internet access service while dealing with unavoidable security issues such as hackers and spammers. The third challenge is to deftly handle the technical support that is required to take excellent care of customers. Every ISP survey reports the high value customers place on the quality of customer care they receive, both via the product itself and from support personnel. Therefore, excellent customer service is also critical to a successful prepaid Internet product.

In many other ways, including the marketing, financial modeling, channel development and customer profiles, prepaid Internet access is very similar to prepaid long distance or prepaid cellular. These other markets have successfully blazed the trail to building awareness among retailers, carriers, marketers and customers of the prepaid product category, as well as establishing the potential value of extending the success of those products to Internet access. What has slowed or stopped companies from delivering prepaid Internet access products in the past have been the two issues mentioned above: lack of consumer software skills and/or ISP datacenter experience. Beyond existing prepaid companies, the major telcos and ISPs have also dabbled in the prepaid Internet market and found their own challenges. The top two issues they have encountered are (1) the risk and complexity of

modifying an existing post-paid billing ISP platform to a prepaid model, and (2) the cost/benefit trade-off of focusing on a "less attractive" customer that doesn't want a long-term subscription relationship. These two factors have been the primary block for the top ISPs to commit to the prepaid market.

### Fundamental Elements of Prepaid Internet Access

The combination of consumer software skills and datacenter operations skills enables the four necessary elements of a successful prepaid Internet access product.

1. Geographic and Demographic Reach
2. Broad Platform Compatibility
3. Highly Secure and Reliable Service
4. Minimal Complexity and Great Ease of Use

#### *Geographic and Demographic Reach*

Reach is achieved in prepaid Internet by providing for the following: guaranteed accessibility from any location and localized software that works in any language. To deliver on guaranteed accessibility, the product needs to provide affordable toll-free and local connection options so that rural or traveling users can use the service. The ideal is that this works internationally with the same ease. This issue is also driven by the retailers who want to be able to sell the product from any of their stores without the fear or concern that the product will be returned because it does not work for their customers. To reach the most users, multilingual software is required to address the demographics many prepaid users are immigrants, and some of the biggest prepaid markets are international. A multilingual software product is orders of magnitude more complex than a multilingual phone card and the success of such a product will come from the quality of the design, development and testing of the software.

#### *Broad Platform Compatibility*

Broad compatibility means the broadest support for modems, PCs and operating systems that can be achieved. This is driven both by retailers looking for a simple, turnkey product, but also by users of older or less popular systems who have not yet been provided with reliable options for Internet access. This is the most complex work required of a prepaid Internet company and depends heavily on their skills in consumer software development. At another level, the software needs to be able to gracefully handle and recover from common errors that occur when PC modems connect over a phone line. Due to the nature of the telephone system, there will be failures to connect and the software should gracefully handle this for the customer without requiring their involvement. If assistance is required due to a technical glitch, then the customer must be able to

easily reach a technical support person for assistance.

### *Minimal Complexity and Great Ease of Use*

The benefit of smart consumer software design is that the entire customer experience is well orchestrated. Everything the font choices, the size of the printing on the PIN code card, the packaging, the installation experience, the connection experience, the error handling, the recharge experience, settings changes, account balance reporting and even the uninstall experience is delivered with a commitment to minimal complexity and the greatest ease of use. Executing well on ease of use takes detailed planning and testing, and depends heavily on the experience of the software design team.

Simplicity is important since most of the remaining potential Internet users are not as comfortable with using a PC as those who are already on the Internet. One simple philosophy is to free the user from having to know or remember anything in order to use the service. The top two call generating issues for ISP customer service organizations fall in the categories of (1) forgotten usernames and passwords, and (2) issues related to complex configuration procedures. For many customers, these really are barriers to access. Designing a product that completely removes these barriers is a difficult challenge, but it is an achievable and essential goal for creating a simple and usable prepaid Internet access product.

Additionally, Internet software design today dictates that client-driven Internet products incorporate automatic version management and the ability to heal themselves when they are out of synch with the network. This is critical for managing a large customer base, supporting security and usability enhancements, and responding to bugs in the software or the network.

### **Desired Elements of Prepaid Internet**

Beyond these basic and necessary elements, an excellent prepaid Internet access product also has the opportunity to support even more customer functionality. Because this is a software product, and not just a service being offered at some simple rate, there is the opportunity to design behaviors and experiences that either enhance the product or enable whole new types of products.

A "behavior" in software is some kind of scripted or triggered response to an action the customer undertakes with the product. Behaviors allow the product to support the customer's intentions in a way that makes his or her work easier or simpler. People who travel use a prepaid Internet access product as a great, inexpensive, and portable Internet access

option. Travelers need a way for the product to work from anywhere and to give them the best value possible when they are connected. A great prepaid Internet access product will behave exactly as the user would expect and help them get on the Internet automatically no matter where they are. It would do this by finding the nearest local phone number for them or connecting through the toll free network if that is their best option. Other behaviors for example, allowing the customer to connect to the system when they have run out of access time so they can add or buy more time, demonstrate a well-refined product and high level of software development skill.

"Experiences" are complete, produced vignettes that fully account for the whole customer experience and provide for great customer satisfaction. A prepaid Internet software product makes the creation of brand new business opportunities that give rise to unique customer experiences possible. Since it is software, and therefore very malleable, a prepaid Internet access product allows for promotional marketing opportunities that greatly exceed both the flexibility and the available options for promotional prepaid long distance. Complete multimedia experiences with dynamic audio, video and interactive content can seamlessly integrate with prepaid Internet access on a CD. This leads to user behaviors that produce results like online purchases, ticket ordering, online gaming, interactive contest participation, or responses to online direct marketing tools. This essentially enables any web-based property or marketer to use the same successful promotional tactics that AOL has used to acquire 30 million members. Now any business with a web property or e-commerce site can easily acquire customers by sending out promotional CDs with, for example, 30 minutes of "free" prepaid Internet access time. The promotional CD creates a great consumer experience and enables the customer to get instantly online and be delivered directly to the businesses' web site.

### **Conclusion**

Prepaid Internet access creates new retail, promotional and international opportunities that extend the reach of Internet access to millions of new consumers. The growth of this market will depend on the quality of the products that customers first encounter. Therefore, it's important to examine the consumer software and datacenter talent of the companies developing such products. Building a high quality, easy to use, reliable and secure product is challenging but critical to success in this market. Each of these elements is necessary to extend the success of prepaid phone and prepaid cellular products to the prepaid Internet category and to contribute to the uniqueness of the category. Prepaid Internet access is a great way to provide people with

control over their privacy, their costs and their experience of getting online. The power and flexibility that is possible with a software product make this an exciting opportunity to create whole new customer experiences and invent new marketplaces for prepaid products.