

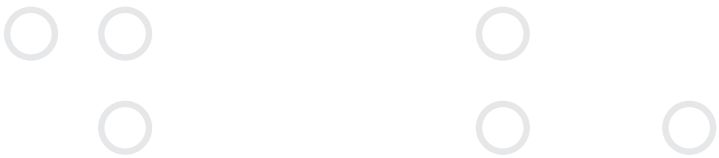
Service Expert Series



THE SERVICE DILEMMA
IN DSL

→ proactive

Communications Industry
White Paper



The service dilemma in DSL

The economic equation of DSL

The past few years have seen carriers in North America jump into the DSL business at a break-neck pace. The infrastructure investments of companies like SBC, Verizon, Deutsche Telecom, and NTT have brought DSL service to a substantial number of homes and businesses. However, with changing economic times and increased competition slowing growth, most providers are looking to move past the subscriber "land grab" and focus on profitability.

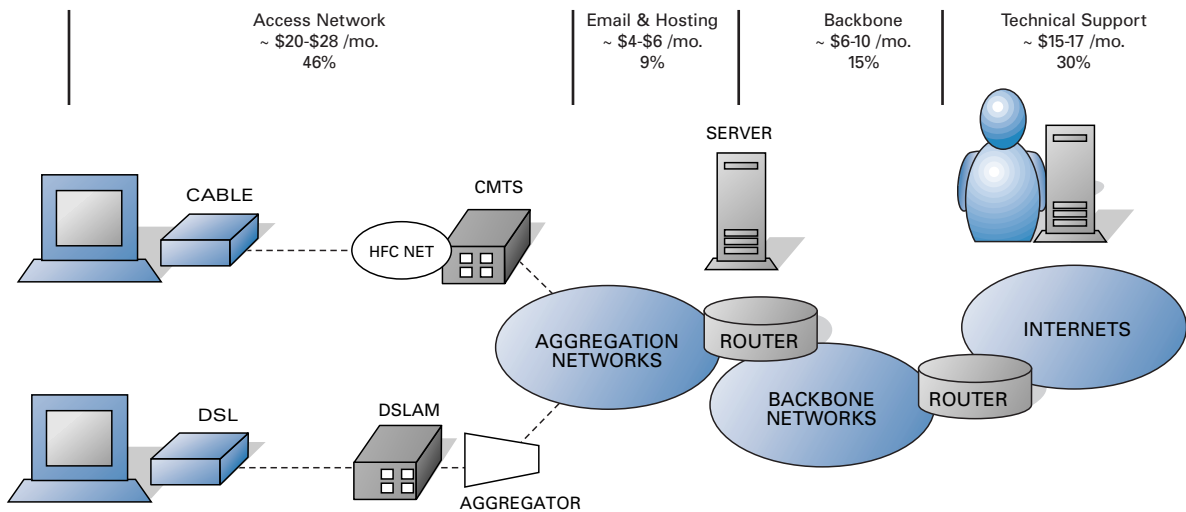
While the notion of profitable service is not revolutionary, the focus to date on growth has made it necessary for many providers to offer base services at a loss. The provider profit equation is simple: profit is a function of the number of subscribers, the revenue per subscriber, and the cost per subscriber. Whereas providers initially focused on growing the subscriber base, they are now actively trying to influence each of these variables to maximize profit in their businesses.

$$\text{PROFIT} = \text{USERS} * (\text{ARPU} - \text{ACPU})$$

(Where ARPU is equal to the Average Revenue per User and ACPU is the Average Cost Per User)

Growing the Revenue Base

The first variable of the profit equation is "U," the number of subscribers or users. The downturn in the economy and competition from cable providers has slowed the growth of DSL, and if providers are to meet their original targets, they will have to focus on new channels and partnerships to continue acquiring customers. In addition, providers must ensure that subscribers who try to order service via these channels are successful. Recent data has shown that online ordering processes today have unacceptably poor conversion rates, with as low as one in ten qualified customers actually placing an order. Studying this problem further shows that a major factor in order abandonment is access to service during the ordering process. Once ordering is complete, the next step is installation of the DSL software and equipment in the



DSL Cost Structure



home or business. This continues to be a significant cost, both from a technician perspective as well as a support perspective. Providers continue to average between 1.5 and 3 calls per subscriber in the first 30 days of service. In the next 12-18 months more complex CPE and home networks will make an effective automated installation solution a necessity.

Reducing Customer Support Costs

The second variable of the profit equation, ACPU, is under the microscope at all providers. The DSL Cost Structure illustration shows the allocation of \$50 revenue per month to the various costs of providing DSL service.

A closer look at the breakdown of cost categories points to a key determinant of profitability—customer support costs. Upfront costs for acquisition and installation are high, which means providers are in the red from the outset. The remaining costs are largely fixed: network equipment is a sunk cost, while backbone and ISP services are mature industries and have already been optimized for low cost. Overall, providers need ways to reduce customer support costs and improve the customer service experience in order to retain subscribers past the initial, unprofitable acquisition and installation stage.

Increasing Revenue Per User

The third and final variable in the equation, ARPU, is a key challenge for providers in 2002. Additional services offer providers both an accelerated path to profitability and an effective anti-churn strategy. What services and products are the ISPs and DSL providers in a position to sell with a compelling value proposition? The “killer app” continues to be elusive. However, several trends offer some hope for providers.

Perhaps the most significant of these trends is the proliferation of home networks. At the end of 2001, 6.5 million homes were networked, and the majority of these homes were broadband homes. The existence of the network offers providers the opportunity to step to the plate and offer services to manage and support the home environment. The primary opportunity is supporting this complex environment; automated home network management applications are the key to delivering value in this area. For example, the service application may enable subscribers to install a new PC on the network, set up file and printer sharing, and troubleshoot problems. A second trend is the demand for security applications that require an “always-on” connection. Recent events in the United States have heightened consumers’ sensitivity to online security, and applications such as virus protection and firewalls are a natural fit for providers.

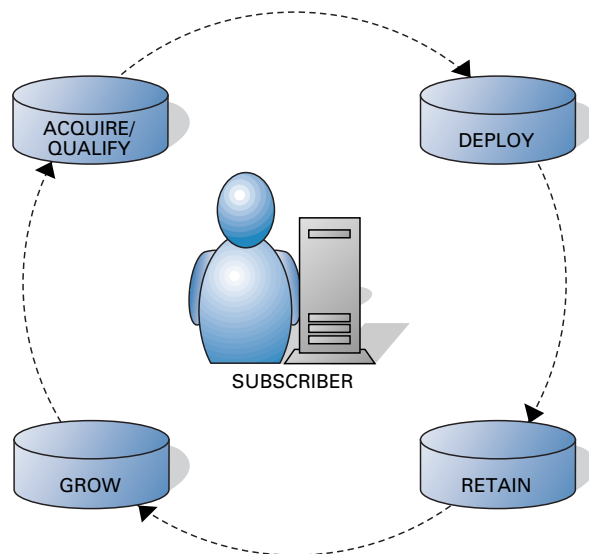
For additional services to reduce the time to profitability, the services need to be delivered and supported cost-effectively. New processes and technologies must be put in place to manage and provision new desktop applications, regardless of how providers decide to approach the introduction of these applications. The addition of any new services only accentuates the need for improved customer service and support. Furthermore, the addition of multiple suppliers (application vendors, equipment vendors) into the product value chain makes service coordination that much more difficult. In light of these challenges, providers need to take a proactive approach to service as new products are rolled out.



The integrated customer lifecycle approach to service

Providers could choose to address each of their problems in an isolated manner, implementing a solution for ordering, another for installation, and yet another for customer service, troubleshooting, and value-added services. This is essentially a “point solution” approach. However, customers do not distinguish their experiences based on providers’ internal processes, and the disjointed experience created by multiple service approaches leads to a poor customer experience and “churn”. Additionally, multiple non-integrated solutions present a multitude of administrative and training challenges that include:

- Higher cost of implementation and integration
- Higher cost of administering and maintaining multiple solutions
- Higher training burden for call center staff
- Higher cost of hardware to support multiple solutions



Customer Lifecycle

A better alternative for providers is an “integrated customer lifecycle” solution, which provides specific solutions for each stage of the customer lifecycle, from acquisition and ordering to deployment, retention, and growth (see below).

This graphic identifies the four key phases of the customer lifecycle, illustrating how subscribers move through various stages of the lifecycle and the challenges associated with each. Each stage of the lifecycle offers an opportunity to improve the subscriber experience, improve the effectiveness of resources, and drive enhanced profitability for the provider.

At which phase might a provider begin to streamline its service applications in order to increase profitability? That depends on the provider’s position in the market and its needs. For example, a new provider with a new or not-yet-established customer base might begin integration at the order and acquisition stage, essentially getting as many customers up and running as possible in the most profitable way. Another provider with a large, well-established subscriber base might begin integrating its service offerings by focusing on improving its current customers’ experience.



The benefits of the integrated customer lifecycle solution include both an improved customer experience and a lower overall cost. A more detailed discussion of each phase of the lifecycle and the type of solutions available is provided in the following sections.

Phase 1: Subscriber Acquisition and Ordering

Driving order conversion

DSL providers are looking to online channels to improve the rate of order conversion and thus the acquisition of new customers. Presently, as few as one in ten visitors to an order site actually completes their order online, with many leaving the site to get answers they cannot find online. Successful online ordering applications must assist potential subscribers by providing help that follows the customer through the ordering process. Additionally, these solutions need to qualify the subscriber's home environment, ensuring that the subscriber can receive service. Applications that address these two primary needs will be the most effective in improving online order conversion rates.

Improving installation success

Once providers address the order issue, they must next automate the installation process using self-installation tools, which should help:

- Eliminate dependence on technicians
- Reduce calls to support staff during the first 30 days of subscription

The first generation of self-installation tools reduced the need for technicians but did not reduce call

volume, which is as high as 1 to 3 calls per subscriber during the first month of service. To reduce calls, providers must ensure that self-installation tools are tightly integrated with their service offerings. This means the most effective self-installation solutions must help subscribers install hardware and software, and then automatically walk them through a troubleshooting process if they encounter problems during installation. Additionally, the troubleshooting process itself must go beyond software problems to address cabling, modem problems, and other issues that commonly drive subscribers to call tech support.

Overall, to successfully increase the subscriber base and increase revenue, providers must offer a comprehensive online ordering service that provides extensive information for, and effectively qualifies, potential subscribers. In addition, they must introduce more sophisticated self-installation tools that automate and streamline the installation process while reducing the installation support burden.

Phase 2: The customer service experience

DSL providers with large and well-established subscriber bases can improve retention rates and encourage revenue growth by improving the overall service experience and reducing service costs. Giving subscribers simple tools to troubleshoot and manage their accounts is critical to improving the service experience. Most customers cannot explain the difference between IP addresses and DNS settings, and in many cases do not even know where to get this information in order to communicate with support staff. Making the service process easy to use is critical to reducing costs and, more importantly, reducing churn.



Troubleshooting

There are three components to improving the service experience as it relates to troubleshooting systems:

- Eliminating calls through improved self-service;
- Optimizing calls through electronic service;
- Improving phone service overall, which offers the highest potential for improvement.

Service must be consistent across all three of these avenues in order to significantly enhance the customer service experience and lower costs.

In addition to consistency for the subscriber, these support tools must be simple enough for Level 1 analysts to use effectively. Call centers serving DSL customers face high turnover rates and training costs for analysts. Plus, because even trained analysts generally follow a set process when assisting subscribers, the information provided to them must be simplified and accessible. Providers can alleviate these problems by applying the concept of guided resolution to analysts. This requires giving analysts tools that allow for:

- Access to information about the subscriber's environment;
- Systematic identification of potential trouble spots and easy tools to correct problems;
- Quick, convenient collaboration with more experienced technicians when facing complex problems.

Intelligent subscriber solutions

A key component of improving the customer service experience in terms of troubleshooting is providing subscribers with optimum desktop software that is fully integrated with call center support tools. But software usability must then be optimized for subscribers. How is this accomplished?

First, because providers are dealing with mainstream consumers who are not generally tech-savvy, software support must to be easy to use. First-generation software often provided too much technical information to consumers. Next-generation solutions help mass consumers by focusing on recognizable symptoms that subscribers can identify, such as the inability to retrieve e-mail or connect to the Internet. Additionally, these new tools offer guided resolution that provides actionable solutions, such as "check cables" or "check which lights are lit on your modem."

Second, next-generation tools must be effective both on- and off-line, since 50 percent of reported problems are connectivity problems.

Third, next-generation solutions must be proactive and relevant to subscribers in order to avoid spikes in call volume that arise when a new operating system is released, a virus is identified, there is an e-mail server outage, or other events occur. Traditional broadcast messages typically get ignored or are ineffective either because subscribers don't receive them due to a service outage or because the message is not relevant to them. More effective



solutions will focus primarily on message relevance, answering the questions “who is the user and what are they trying to do?” This type of customization, coupled with finding new methods for proactively communicating important information, is key to reducing call volume overload.

To improve the overall customer service experience—a primary means for established DSL providers to retain customers, lower costs, and improve revenue—troubleshooting mechanisms at call centers and on the subscriber’s desktop must be improved and integrated. In addition, there must be a focus on guided resolution for both analysts and subscribers, actionable solutions for subscribers, and proactive solutions to common problems that regularly cause spikes in call volume.

Phase 3: Driving revenue growth with value-added services

Providers who are looking to roll out new, value-added services to subscribers have tremendous opportunity for revenue growth. But they also face big challenges if they don’t couple their new products with service applications that are dynamic, adaptable, and can help providers install, configure, and support the services as they are rolled out. Concurrently, providers must look to previously untapped market opportunities in order to realize significant revenue growth. For DSL providers, these opportunities will be in the home and home office environments, which are expected to grow significantly in the coming years. Providers can begin to charge to manage home networks and other devices, such as file and printer sharing, as an

effective way to increase revenue and expand their service menu.

Another challenge facing providers is the potential need to work with third party vendors as a means to providing a broader selection of products and services affordably. In order for this arrangement to be profitable in the long run, providers need to be able to coordinate services with third-party vendors through an intelligent service infrastructure that isolates problems to the appropriate vendor, and routes the subscriber’s problem or question to that vendor. For successful providers, the intelligent service infrastructure is key to introducing value-added services that successfully drive revenue growth.

Measuring the effectiveness of your solution

As with any solution, integrated lifecycle solutions must have robust measurement tools to enable providers to deliver not only operational metrics, but also business value. Vendors that simply provide software are leaving the providers holding the bag. Providers should demand that any vendor be able to articulate what people and processes are available to help drive the successful deployment and use of their solutions. Examples of services that providers should look for include:

- Marketing services to ensure subscriber adoption of electronic tools;
- Continued involvement to measure deployment success and business value;
- Usability testing for specific provider user interfaces;
- Electronic service best practices education to help integrate electronic service into traditional call centers.



Services such as these give a strong indication of a vendor's willingness to stand behind its products and the success of its customers.

Conclusion

The expanding DSL landscape presents tremendous challenges alongside potentially lucrative opportunities. Forward-thinking DSL providers are embracing an integrated, intelligent service infrastructure now to increase profits and lower costs in the coming years. By integrating service into all phases of the customer lifecycle, successful providers will have the ability to impact all components of the profit equation. At whichever stage of the customer lifecycle providers choose to begin improvement—acquisition and ordering, overall customer experience and retention, or new product introduction—a fully integrated service and support structure is imperative if they are to lower costs, increase revenue, and claim their share of the growing marketplace for DSL.



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