Value-added Services:
Which Direction Should Utilities Take?

By Teresa Hansen, Managing Editor

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—Ed Barlow, DistribuTECH '99.

VALUE-ADDED SERVICES

As electric utilities plan their strategy for the competitive marketplace, value-added products and services cannot be ignored. Ed Barlow, a keynote speaker at the 1999 DistribuTECH Conference and Exhibition, said, "Value-added services, not core services, will be the future."

The Internet and Internet technologies, which have affected so many areas of our personal and professional lives, appear to be infiltrating the value-added services market as well. Many believe that the Internet and related technology can provide utilities with a single flexible, standards-based telemetry channel to communicate with residential and small commercial customers. They also believe that this can be done without investing huge sums of money like some utilities have done in the past few years. However, recent attempts to provide expanded services show that even with more reasonably priced technology solutions, finding the path to success is still difficult.

The Value-added Market

Most experts agree that in order to attract new customers, and even more importantly, retain existing customers, utilities must come up with a strategy that makes them more attractive than their competitors. In addition, as utilities begin to compete, the profit margin on electricity will likely shrink. David Pruner, Executive Vice President of Engage Energy, one of the nation's largest energy marketers, also spoke at DistribuTECH. He said that since competition has been introduced in California, profit margins have shrunk to one-fourth to one-half cent per kilowatt-hour. If this is an indication of what will happen in the rest of the country as states deregulate, it is clear that utilities must find other ways to increase revenues and profits. This can be done by adding customers, by adding new products and services, or by doing both.

Failed Attempts

This need for value-added products and services is not a new concept to utilities; however, it is still a concept hard to put into play. Many utilities have tried. Some have succeeded, but others have failed—some in a big way. "There are some good opportunities, but there are some big risks. Some will make money, but not everyone," said Tony Fakonas of Hagler Bailly.

A few progressive North American utilities know all too well the risks involved with offering value-added products and services. In the past three or four years a few utilities invested heavily in expanded residential utility service packages. Unfortunately, these utilities found that even though customers liked the services, wide-scale deployment was much too costly and most of the programs have been curtailed or completely abandoned.

In his presentation at the latest DistribuTECH Europe Conference and Exhibition, Rick Madge, General Manager of Emerald Gateway International Inc., a company that develops and sells enabling technology for utilities in a deregulated market, identified some of these utilities. Madge pointed out that Pacific Gas & Electric in California, along with TCI and Microsoft Corp., attempted to develop a new technology called the "smart box" that would allow residential customers to control appliances, pay bills, etc. on their television screens. In addition, the utility could use the technology to read meters, detect outages and generate bills automatically. However, the project, which was introduced in 1996, never advanced beyond the pilot.

Among the other similar utility projects that Madge mentioned were Dallas-based Central and South West Corp.'s Laredo, Texas, project and the Public Service Electric & Gas Co. of New Jersey and Lucent (formerly AT&T Bell Laboratories) Integrated Broadband Utility Solution project. These projects, like the one mentioned above, did not progress past pilot programs. The projects fell far short of their goals because the technology was too complex and too expensive, Madge said.

Where Do Utilities Go From Here?

Considering the disappointing outcome of the projects mentioned above, it is easy to see the big risks involved in offering value-added products and services.

According to Madge, all the utility projects cited in his presentation had common themes. They all required implementation of expensive technology. In most cases they involved a combination of narrow and broadband services and the utilities had to install the two-way broadband infrastructure. All of the projects also used 486 computers as their gateways, which was another expensive solution, Madge said.

The failure of these projects should teach utilities that the market for high-end services is limited, Madge said. "The killer application is still as elusive as ever," he said.

Changing Times

Another common theme of these projects, and others like them is that deployment began around 1995 or 1996. The utilities not only had to install expensive infrastructures and gateway technology, they also had to pioneer the concepts and products. While many of the services offered were well liked and accepted by the pilot customers, the business case for the offerings was just not there. These utilities could not offer the desired services and at the same time receive any return on their investment.

However, times are changing. The Internet has significantly changed utilities' options, according to David Gaw, President and CEO of Coactive Networks, a company that markets solutions for connecting control systems to enterprise networks and the Internet. Wide acceptance of the Internet and Internet technologies is having a major impact on value-added services deployment, and utilities today will not be faced with many of the challenges with which the utilities mentioned above were faced.

In addition, more clarity in the home control network protocols—CEBus, LonWorks and X-10—has had a significant impact, as has the availability of much less costly, off-the-shelf gateway devices and meter retrofit devices, Gaw said.

The Internet and Value-added Services

Gaw stressed that the acceptance of open standards has had a profound impact on system architectures and product designs. The demand for Internet services has driven IP (Internet Protocol) connections to be present wherever people live and work, whether by telephone lines, cable modem, ISDN (integrated services digital network) or DSL (digital signal line). The fact that there is technology available allowing value-added services to be offered via telephone lines can make a significant difference in utilities' strategies.

In addition, Gaw said he has seen studies that say broadband will be deployed to between six and seven million customers within the next three years. "For a utility considering value-added services, this is significant," said Gaw. "While the number does not represent all residential and commercial customers in the country, it is a good start." Most utilities will not need or want to install their own broadband infrastructure, they can simply add their offerings on top of the infrastructure that is already in place.

Another significant impact the Internet has had on the value-added services market is that the cost of creating devices with IP connectivity has also dropped dramatically. Gaw said that embedded software and embedded processor technologies have enabled full-featured IP appliances to be created for well under $200. These devices can support a variety of media including PSTN (public switched telephone network), Ethernet, fiber optic and wireless.

Home Automation Protocols

Many of the value-added services utilities are contemplating relate to home automation, such as appliance control and monitoring. Gaw stressed that over the past few years, there have been significant advances in the standardization of control networks. While there is still not one standard across all residential and commercial/industrial applications, the three standards mentioned above are now well established and are positioned as leaders in home and commercial networking.

All three of these technologies support powerline carrier communications, meaning they will support services to existing homes. These standards have also been widely adopted by multiple vendors, which has contributed to the development of many off-the-shelf products. The acceptance of CEBus, LonWorks and X-10 has had a major role in driving down the cost of these products, said Gaw.

Gateways

A third significant difference between today's environment and the environment that utilities faced a few years ago is the availability of a reasonably priced gateway into the residence. According to Gaw, it has become clear that the IP-based network connection to the home is here to stay, meaning gateway requirements are much easier to determine. The acceptance of this standard, coupled with technology advances, has resulted in the production of low cost multi-service

gateways that can be used to implement a variety of services. This will have a decisive impact on driving down value-added services implementation costs.

Barriers Beyond Technology

Taking advantage of this approach makes offering value-added services seem simple; however, utilities still have the daunting task of deciding what services and products will meet their customers needs, and, more importantly, whether or not they be able to make money if they offer them.

According to a national study conducted by RKS Research & Consulting, a nationwide market research and public opinion polling firm, the time is right for creating and marketing highly targeted packages of products and services. RKS researchers found that residential and small-business customers are ready and willing to purchase additional products and services from their current energy supplier.

Study results show that most residential customers are ready for one-stop shopping. They would like to see bundles of products and services that include heating and air-conditioning services, home-appliance maintenance and repair and electrician's services. The study shows they are also interested in advanced products such as "smart" thermostats, home automation and control, surge protection and security systems. In addition, customers would prefer for these bundles to be provided by their local energy supplier or from a contractor in strategic alliance with the energy provider.

Residential customers also showed an interest in phone and Internet services. Some of the products and services they would also consider purchasing from

their energy supplier are Internet access, long distance, and advanced television/data systems, such as cable modems and Internet/TV technology.

If customers indeed want these services, then why is it that some utilities' attempts at providing them have failed?

While championing new technology is often thought of as the best way for utilities to add to their bottom line, some utilities have attempted to diversify and increase revenues through acquisitions. For example, New Orleans-based Entergy Corp. made the decision to diversify into home security. Entergy made its first acquisition in October 1996, and by mid-summer 1997 had purchased another 11 security companies. In less than a year, Entergy Security had 140,000 customers in five states. However, the venture was short lived. In January 1999, the utility sold Entergy Security. According to the company's 1998 annual report, the utility has decided to turn back to its core competencies and shed businesses that do not fit with its current strategy. In addition to ridding itself of its security business, Entergy realized a loss on the sale of Efficient Solutions, a poorly performing value-added business specializing in energy-efficient lighting installations for commercial establishments.

Another, high profile value-added products and services campaign that fell by the wayside is EnergyOne. In 1995, Kansas City-based UtiliCorp United announced the formation of a company, EnergyOne, that would provide a host of energy services and products under the common brand name. PECO Energy joined the EnergyOne partnership in 1997.

The EnergyOne products and services included appliance repair, carbon monoxide detection, gas balancing, power quality, energy management, environmental services, wholesale power, etc. The products and services were to be sold nationwide. Despite spending millions of dollars to launch and promote the new brand, the endeavor was unsuccessful and in April 1998 the company was disbanded. UtiliCorp still continues to use the EnergyOne brand with its existing utility customers.

According to George Minter, a spokesman for UtiliCorp, EnergyOne was ahead of its time. The company was formed with the anticipation that deregulation and competition would move along faster than it actually has. The residential and small business market just hasn't developed the way many experts predicted. Currently, deregulation is moving in a patchwork-quilt manner from state to state. UtiliCorp's effort to launch national marketing programs can be resurrected if the market changes significantly in the future, Minter said.

Even though customers say they are ready for value-added products and services, these examples indicate that utilities should proceed with caution. No matter what products and services utilities offer, the purpose is the same—to generate revenue and goodwill and/or loyalty that will satisfy existing customers and attract new ones when competition arrives. Determining which products and services will be successful, which technology will best deliver those products and services, and when those products and services should be offered requires a lot of research and planning. ∎