

UTC Study Finds Powerline Telecom Profitable Today

Reprint from Restructuring Today, March 22, 2002 The United Telecom Council (UTC) commissioned The Shpigler Group to learn whether powerline telecom (PLT) can pay right now. A two-month, in-depth study of transmitting data, voice, and video over existing power lines shows PLT can make money with today's technology if you have tomorrow's customer count. RT reported in January that field trials would begin later this year. Then we talked with David Shpigler, President of The Shpigler Group and author of Building the Business Case in Powerline Telecom, March 2002. The report points to early actions by Ameren, Southern, Fayetteville Electric, PEPCO, and PPL. He sees profitability from three PLT business models:

- The utility provides the grid for landlord service providing telecom to tenants;
- The utility develops it's own telecom network for wholesale availability or hands it off to a provider and;
- The utility builds a network for retail services.

Shpigler and his report will get major attention June 24-27 at UTC's annual conference in Las Vegas and on a TeleForum conference call.

His people interviewed about 30 from the technology industry, utilities in lab tests, and utilities in field trials. Technology providers included Main.Net, PowerComm, Ambient Corp, Amperion, and Current Technologies – but none has an ideal technology, a silver bullet. Various strategies, demographics and grid architecture call for differing technology solutions. A clear industry leader has yet to emerge. Most vendors are partnering with utilities to test and demonstrate the viability of their designs. Some technology developers have wide acceptance internationally.

Shpigler's assignment was to assess profitable deployment on the U.S. grid where the transformer-customer ratio is five- or six-to-one. Europe has fewer transformers by a factor of about 100. Four of the five US field trials have moved out of the lab into a live grid environment. Several interviewees claim a PLT initiative will be commercially available next year. A major limiting factor, said Shpigler, is the small size of the trials – maybe eight or ten connections. Distance and bit rate were scrutinized and found not to be a limiting factor to commercialization.

As with DSL and modem development, a number of unique infrastructure hurdles have to be overcome. Regulatory restraints on commercialization are expected to vary from state-by-state and to be significant for utilities with multi-state service areas.

But the promise is great, the report shows. To be able to plug your computer or video player into an existing light socket and transmit data, video, and voice throughout the house may give PLT a high advantage over other traditional access technologies. Preliminary business models suggest that PLT may also have a price advantage. Looking over recent utility telecom failures points to survivors being good at adding value.

The study looks at broadband technologies now in the market – fixed wireless, wireless LAN, DSL, cable modem, fiber optics, and satellite. Early trials suggest that bit speeds, capacity and

multi-transport (voice, video, and data) can meet or beat other access deployments. An incremental “smart build” rollout compliments the utility PLT culture.

PLT wins when compared on cost with DSL and cable. It wins as well on cost of getting new customers, customer service and network maintenance. PLT’s per-subscriber recurring cost is \$4 versus \$10 for DSL and \$8 for cable. PLT of course can be used within the utility for energy management, load balancing, real-time pricing, automated billing, outage notification, remote connect/disconnect tamper alarm, and thermostat control. Capital investment for PLT is significant but offset by the utility’s already owning the wires and in many cases being able to cash in on a loyal customer base.

Home networking, connected appliances, personal computers, home monitoring and other services within the home provide a new industry being developed by GE, Whirlpool, Microsoft, Cisco, and Hewlett Packard.

The Shpigler Group is a strategy management consulting firm focused on the telecommunications and technology sector. The Shpigler Group works with utilities, municipalities, telecom service providers, and infrastructure and technology developers. For these clients, The Shpigler Group works to solve complex issues involving strategic assessment, market analysis, business case development, economic evaluation of network design, and competitive and partnership assessment. For more information about the firm, visit the company website at www.shpigler.com.

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