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Three-Phase Approach to Broadband Over Powerline

(PROPRIETARY AND CONFIDENTIAL)

Fiber Bridge Communications, Inc. ("FBC") utilizes a three-phase approach that assists electricity utilities ("UTILITY") in their decision to implement broadband over powerline ("BPL") and other access network technologies using their existing electricity grid infrastructure. FBC designs and executes business plans that ensure organizational success. If requested by the UTILITY and supported by the business case, FBC will take an equity position in and operate the new broadband over powerline business of the UTILITY.

Typical BPL Engagement Approach

UTILITY would like to design, implement, and operate a BPL network to offer broadband communication services, such as Internet access, Voice-over-Internet-Protocol, video on demand, and other media rich services to its existing customer base. However, UTILITY has significant questions it believes it must answer before proceeding with the BPL deployment and market development. Questions such as which business models should be adopted (sole operator, partnership, landlord-only) need to be answered with due consideration to organizational and regulatory issues. There are likely concerns about whether the UTILITY can sell this new service to its customers. Other key concerns revolve around technology feasibility with existing grid characteristics, technology selection, operations, customer applications as well as regulatory concerns. As a result, UTILITY believes that it must conduct research and analysis so as to better understand how to successfully proceed with a BPL entry. FBC's program will allow a UTILITY to decide if deployment and operation of a BPL network is a prudent decision.

All of FBC's work for UTILITY will be conducted under strict non-disclosure. FBC analysts and consultants work closely with many BPL and telecommunication industry companies and have access to their proprietary and sensitive information. FBC is authorized to use this proprietary and sensitive data to ensure FBC provides an independent recommendation, and where applicable, the optimal solution.

FBC 3-Phase Approach

FBC has designed a 3-phase approach to assist UTILITY in developing and implementing BPL plans. Phase I will help UTILITY better understand the business case for the BPL opportunity and establish the feasibility of a UTILITY entry. If UTILITY then decides to proceed, Phase II will provide infrastructure and market planning assistance to ensure that UTILITY can bring the right offering to the market for customers and be successful. Ultimately, UTILITY may need financing, network implementation, operations, and business development assistance in a Phase III effort.

PHASE I – Feasibility Study

Purpose and Objectives

The purpose of Phase I is to conduct a feasibility assessment such that the UTILITY will better understand the BPL opportunity and the feasibility of a market entry. Specifically, UTILITY needs to clearly understand:

- Power grid characterization and technical feasibility of offering

- Market definition
- Technology, service offering, and market dynamics and trends
- Market size, segmentation and forecast
- Competitive analysis - Cable modem, xDSL, satellite, Wi-Fi and applicable marketing
- User requirements - special focus on unmet needs and opportunities
- Applicable UTILITY applications (e.g. SCADA, automatic meter reading, demand analysis)
- Incremental cost/benefit analysis of applicable UTILITY applications
- BPL technology requirements, and possible differentiation from competitive offerings
- Define a probable UTILITY service line and roadmap
- Telecom backhaul, Internet Service Provider, and third-party application software and support
- Marketing and sales requirements
- Channels of distribution
- Customer service and support
- Critical success factors for a new entry
- Identification of local regulatory issues
- Risks and barriers for a new entry
- Costs of entry
- Assessment of UTILITY's ability to successfully enter and compete - image, time to market, telecoms experience, pricing, channel management, alliance management, local decision-making.

FBC and UTILITY would work together to adjust this list to ensure that information critical to UTILITY's feasibility assessment is addressed. FBC believes that establishing successful operations and marketing is an especially critical area for examination. FBC will focus on evaluating UTILITY's options in this area.

Approach

In Phase I, the focus will be on the existing market. The FBC team will utilize a mix of existing market and BPL/telecoms technology expertise and focused consulting assistance to accomplish this work for UTILITY. FBC will also conduct some additional research to fill in gaps and to better understand UTILITY's particular strengths, weaknesses, and constraints in regards to the market. FBC believes that by using its existing analyst expertise and market data that it quickly can bring more critical information to UTILITY with a high level of confidence and authority.

The Phase I project will proceed as follows:

Task 1: Project Initiation - FBC and UTILITY will confer at the outset of the study to review objectives, discuss details, and establish the relationships and timelines of the project. Some portion of this meeting should be devoted to establishing the parameters of UTILITY's mission for BPL deployment and discussing possible or likely scenarios for a UTILITY success. The objective is to begin to engage in a way that points to a rapid and successful conclusion by the stated timelines.

Task 2: Review of Prior and Ongoing FBC Research - FBC's expertise in the BPL and broadband industry is obtained via objective and independent review of research programs worldwide. Through these programs and other methods, FBC closely tracks the BPL, broadband technology and marketing activity of relevant suppliers, technology, and customer needs.

FBC has access to a significant body of the most recent syndicated and proprietary research and analysis in the areas of BPL, telecom, and broadband that can be utilized in this study. FBC will use this information as a platform from which to build a solid feasibility analysis specifically designed for UTILITY. Additionally, key members of the project team have extensive operations and start-up experience in telecom and Internet Service Providers, and extensive training in BPL technology and deployments. They are continually in conversations and discussions with competitors, potential entrants, and customers in this market. Much of FBC's BPL knowledge and expertise is based on training with the world's leading BPL equipment providers and FBC independent evaluation of the

equipment providers' strengths and weaknesses. FBC has also gained knowledge by site visits and surveys of users and buyers of BPL equipment.

Task 3: Power Grid Characterization - Working closely with UTILITY, FBC will obtain relevant facts of UTILITIES existing electricity grid including grid architecture, geographic layout, topological environment, and operating parameters.

Task 4: Determine Beneficial UTILITY Applications to be Used in BPL - Working closely with UTILITY, FBC will identify potential uses of BPL applications in the current UTILITY operating environment.

Task 5: Research with Vendors, Distributors, and Potential Customers - While FBC has a substantial existing wealth of information, research and analysis that can be utilized in this study, FBC will conduct high level discussions with competitive broadband suppliers, Internet Service Providers, telephone companies, and some customers to confirm assumptions and clarify positions.

Task 6: Interim Meeting - FBC and UTILITY should plan to meet or at least confer together at the midpoint of the study to relay initial conclusions and to provide the opportunity for a mid-course correction if necessary. FBC team members expect to visit and confer with UTILITY as the Phase I work progresses. A significant portion of the Phase I work may be performed at the Utility's place of business if requested.

Task 7: Analysis, Conclusions, and Recommendations - FBC will segment the opportunity into sectors that can be analyzed as to their attractiveness to UTILITY. This will assist FBC and UTILITY to focus on the market segments that promise the highest potential for success for UTILITY. Among the factors to be considered include:

- Fit with UTILITY strengths, weaknesses, brand name and image
- Market segment size
- Segment growth potential
- Unique product requirements
- Channel requirements
- Support requirements
- Competitive threats

This profile of each market will give UTILITY a methodical tool for assessing its prospects in the various market opportunities uncovered. FBC will analyze this and other data in the context of the decisions that UTILITY must make:

- Whether (and where) an entry into the BPL market will work - segments, positioning, etc.
- Requirements for success
- Market structure and competitive dynamics - risks and obstacles
- What the service line(s) should be
- Software and hardware service specifications and requirements
- Channel and marketing issues
- Service and support considerations

FBC will make recommendations and conclusions aimed at assisting UTILITY to determine how and whether it should enter this market.

Task 8: Final Presentation - FBC will prepare a Final Presentation of the results and findings of the research and analysis to be presented to UTILITY. FBC would expect an interactive presentation, with UTILITY consolidating the information it needs to make a "go/no go" decision.

Task 9: Final Report - FBC will prepare a bullet format Final Report of the results and findings of the research and analysis soon after the Final Presentation.

PHASE II – Infrastructure and Market Planning

Purpose and Objectives

At the completion of Phase I if UTILITY decides to proceed with BPL deployment, FBC will assist UTILITY in developing a business and service-offering plan in a close and interactive working relationship.

The business and service-offering plan will accomplish the following:

- Prepare detailed financial projections
- Design a detailed BPL network, including backhaul and third-party service integration
- Develop a strategy for the UTILITY's BPL product line
- Establish a detailed BPL product plan, including schedule, cost, and service specifications
- Establish a sales, marketing, support, operations, and administrative infrastructures
- Determine the necessary relationships with third parties
- Set up an organization plan
- Layout a detailed project schedule and timeline
- Identify and prepare to monitor risks and obstacles to success

Approach

The Phase II project will proceed as follows:

Task 1: Project Initiation - The Phase I Final Report will set the direction of the Phase II work. FBC and UTILITY will confer at the outset to develop a workplan to accomplish the service plan and to prepare UTILITY for a market and product entry.

Task 2: Service and Marketing Plan Development - FBC will use its knowledge of the market and the expertise of dedicated product and marketing consultants to assist UTILITY in developing a plan for market entry and success. There will be a significant focus both on service planning and on market planning.

Product Planning - FBC will assess both UTILITY's own service requirements, intentions, and the current and expected future services of the leading vendors to arrive at a highly competitive service offering six to twelve months out. This will be a very iterative process, involving discussions with UTILITY engineers concerning its capabilities and directions, as well as the expectations of a rapidly evolving market. Technology and market trends will be closely monitored to ensure that the UTILITY entry represents a strong offering from announcement through initial system offering, with an appropriate plan for future product growth and enhancement.

At the same time, UTILITY needs to gain an understanding of the cost trade-offs of building vs. buying various capabilities. UTILITY should maximize its investment in its key value-add areas and minimize it in commodity areas or where it is not seeking a strategic advantage. Trade-off considerations will be weighed and recommendations made. Development schedules and service specifications will also be accomplished. Costs of various alternatives will be evaluated.

Market Planning - FBC will assess both UTILITY's market requirements and intentions as well as the current and expected future marketing strategies of the leading BPNL vendors to arrive at the best marketing strategy and program. This too, will be a very iterative process, involving discussions with UTILITY marketers and planners concerning its capabilities and intentions. Key areas of concern will include geographically segmented emphasis, market positioning, channels, key partners, etc. Costs and trade-offs of various options will be evaluated. An evaluation of critical success factors (e.g., broadband capacity, pricing, focus on critical product and marketing concerns, etc.) necessary for UTILITY to make this service a success will be underscored.

Task 3: Research - FBC will accomplish necessary research with prospective suppliers to UTILITY, channel partners, buyers, and competitors to develop the appropriate plan.

Task 4: Final Presentation - FBC will prepare a Final Presentation of the Plan to be presented to UTILITY.

Task 5: Final Report - FBC will prepare a Final Written Plan of the results and findings of the research and analysis. FBC believes that for such a plan to be successful, UTILITY must take ownership of the plan. FBC will provide information and assemble the plan, but UTILITY must be in full accord as to its strategy, scope, and detailed content.

PHASE III – Implementation and Operations

Phase III is the rollout of the BPL market entry, and will involve financing, network implementation, operations and business development. As Phase III is dependent on Phase II, FBC believes that it is premature to begin to formulate a specific Phase III approach. The Phase II plan must be agreed upon and established before an inventory of needs and assets can be created in Phase III. Issues to be considered include UTILITY access to capital, joint-venture possibilities, rollout schedule, and out-sourcing requirements.