

I. Market Overview

The network system protocols market closely follows the trends in home and building automation markets. Home and building controls can effectively be performed through wireless and powerline platforms. In addition, several manufacturers produce systems based on proprietary protocols. Any changes in the home or building automations markets have a direct impact on the market demand for these platforms. The residential segment forms a major portion of the application for these platforms, driven by a growing awareness about the benefits rendered through home automation. In 2005, revenues for the North American home automation market were estimated at \$1,268.9 million and the market is expected to witness steady growth in the future. As a result of this, the protocols market is also experiencing healthy growth.

Another crucial trend in this industry is the developing shift from proprietary platforms to open ones, which offers interoperability and more flexibility to end-users.

The industry is also witnessed an increasing interest in wireless solutions, which in turn has driven the markets for radio frequency (RF) platforms. Although wireless solutions have been able to make some headway in the home automation market, some critics remain unconvinced of their effectiveness in terms of reliability. On the other hand, powerline communication offers more reliability and an extended reach.

Hence, there is a need for simple and affordable protocol that can offer the benefits of both RF and powerline platforms. Moreover, the use of this open platform is likely to enable end-users to choose from a range of products, which is not feasible when using native or proprietary platforms.

Due to the immense potential available in the home and building automation markets, the protocols side of the home automations market has been witnessing intensifying competition, with more participants forming alliances or collaborating with major original equipment manufacturers (OEMs) and developers or system integrators. On the RF front, some of the major participants include ZigBee™ and Z-Wave™. On the powerline front, there have been several standards and the latest one being Universal Powerline Bus™ (UPB). The only other type of protocol that combines wireless radio frequency and existing electrical wiring is INSTEON™ from SmartLabs™, Inc.

II. Award Categories and Relevance

The market for home automation/control is in a growth phase and presents a huge potential for growth driven by increasing awareness about the benefits of these systems, penetration of these systems into mid range of homes, and better

economic conditions. The increase in the sales of home automation systems has had a direct effect on the demand for network system protocols. Moreover, the increasing trend of homeowners preferring open protocols has enabled new companies with superior technology to enter the market.

Some of the major challenges faced by market participants include educating end-users about benefits offered by these protocols, and constant innovation to meet the changing needs of the consumers. To maintain a competitive edge, technology innovation is the key factor expected to aid companies in gaining a competitive sustenance in this highly technology driven marketplace.

Garnering a higher customer base, penetrating new markets and geographic regions, develop strategic partnerships, and continuously re-evaluating market strategies are some of the other tactics used to stay abreast in this market. Moreover, a major thrust for platform developers to maximize their coverage spectrum is to not only focus on one specific industry but also expand the technology to other verticals and applications. In the due course, developers must also emphasize on simple and affordable systems to address the needs of all consumers.

III. 2006 Building Technologies Emerging Technology of the Year Award

2006 Building Technologies Emerging Technology of the Year Award Award Recipient: SmartLabs, Inc. (INSTEON)

Award Description	Research Methodology	Measurement Criteria
<p>The Frost & Sullivan Emerging Technology of the Year Award is given to the company that has demonstrated technological superiority within its industry. This award recognizes the ability of the company to successfully develop or introduce a new technology, formulate a well-designed product family, and make significant product performance contributions to the industry.</p>	<p>To choose the recipient of this award, the analyst team tracks emerging and existing technologies as well as research and development (R&D) developments. This is accomplished through interviews with major market participants and extensive secondary research. Also considered are elements such as product launches, customer acceptance, penetration rates, and time to market. Finally, competitors are compared and ranked for relative position. Frost & Sullivan then presents the award to the company that received the number one industry rank.</p>	<p>In addition to the methodology described above, specific criteria are used to determine the final competitor ranking in the industry. The award recipient has excelled based on one or more of the following criteria:</p> <ul style="list-style-type: none"> ▪ Technology innovation ▪ Number of competitors having similar industry technology (competitive factor) ▪ Value-added technology and services to the customers ▪ Time to market ▪ R&D expenditures ▪ Price premium ▪ First to market ▪ Adoption rate

The 2006 Frost & Sullivan Emerging Technology of the Year Award is presented to SmartLabs, Inc. for developing INSTEON, a practical and lucid wireless home control technology that combines wireless RF and the powerline. INSTEON is an open and

interoperable solution, which integrates systems in a home in a subtle manner thereby ensuring enhanced safety, efficiency and convenience to end-users.

The Power of a Radical Idea

The network protocols market is experiencing healthy growth and innovation in this market and is recognized as a decisive determinant for success among market participants. To sustain an edge over competition, a company must essentially discern itself through pioneering solutions. INSTEON not only allows effective control and integration of leading sub-systems, but also offers the benefits of both wired and wireless technologies. This strategic initiative has helped the company maintain an explicit edge over its competitors.

The enumerable benefits offered by this technology include:

- Affordability
- Reliability and flexibility
- Simplicity and speed
- Compatibility with X-10 thereby addressing retrofit concerns
- Interoperability
- Security

Listening to Customers

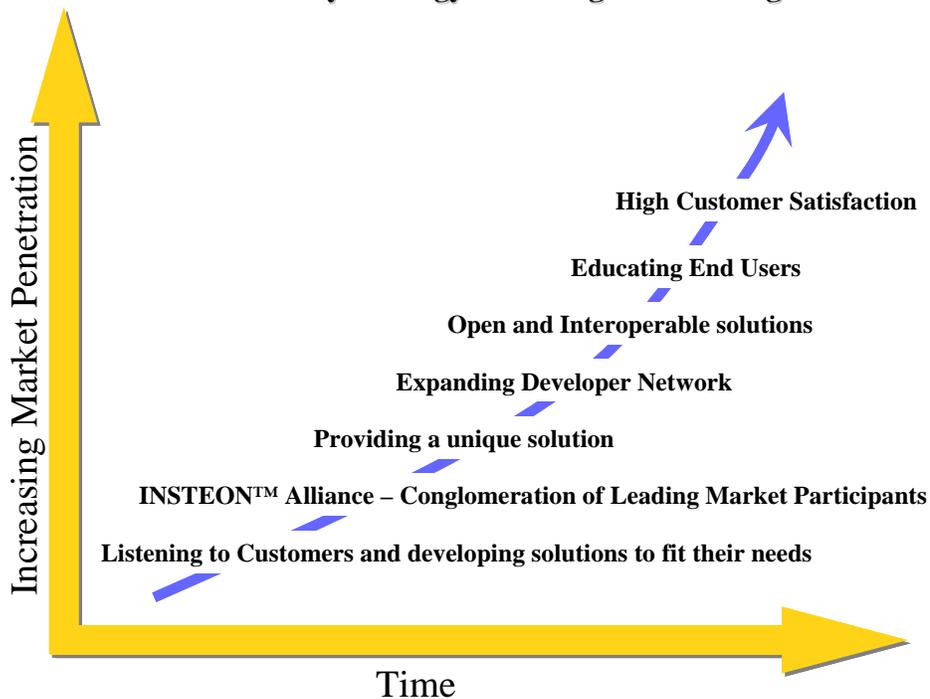
Identifying and catering to end-user needs are unambiguously defining the market boundaries in network system protocols market. With over 13 years of experience in the industry, SmartLabs has been collecting suggestions and feedback from more than a million customers during the pre- and post-sales processes. Having listened to the customer's voice for such a length of time, SmartLabs introduced INSTEON in 2005 incorporating in it the customer's views thereby addressing their concerns.

Chart 1.1 provides a snapshot of factors helping INSTEON provide outstanding customer value

Maintaining a close relationship with its customers has helped the company understand how consumers want to use home automation to control their homes, Having listened to end-users, SmartLabs came out with INSTEON, a technology optimized for the home environment and the consumer.

INSTEON is a technology that simply works. It is reliable, easy to install and manage. Plus, it is low cost so that the devices embedded with the technology remain affordable. These contributing attributes make home control accessible to the mass market.

Chart 1.1 INSTEON™ Key Strategy: Creating Outstanding Customer Value



Expanding Penetration through Virtue and Strategy

With a sound technology, SmartLabs was able to develop a rapport with over 1,000 developers within a year of the launch of INSTEON. With the developer's kits offered at only \$99, the company has removed the hurdle of entry for any developer.

SmartLabs created the INSTEON Alliance, which is an open forum for product developers that further contribute to the advancement of INSTEON. The INSTEON Alliance aids the development of better solutions and charts out product development for INSTEON-enabled products.

Interoperability and seamless integration between systems have been some of the crucial factors that companies have to meet in order to penetrate the retrofit market. RF solutions have addressed the installation concerns in the retrofit market, which is a major avenue for growth for market participants entering into

partnerships, producing innovative solutions, and highlighting the cost benefits offered by wireless solutions can increase penetration into this market.

SmartLabs has entered into partnerships with manufacturers of core home systems such as security alarms, ceiling fans, temperature controls, garage door openers, pool and spa controls and access controls. While these companies are early adopters of the technology, other home products such as window blinds, faucets and other devices can be embedded with an INSTEON chip to become part of the network. This will allow consumers to create meaningful applications like increased security, energy efficiency and time savings.

Recently, SmartLabs introduced ALL-Link™ interoperability, which allows any INSTEON™-enabled controller to operate any other device on its network. This further widens the market reach of INSTEON because it ensures that disparate manufacturers products will work together.

INSTEON Alliance – Paving the Way for Future

One of the key metrics for a product to become a success is the level of penetration achieved by the company. It created the INSTEON Alliance of 89 member companies and over 1,000 developers. It is an open forum for product developers that further contribute to the advancement of INSTEON. The INSTEON Alliance aids the development of better solutions and charts out product development for INSTEON-enabled products. The increasing number of leading companies in this alliance bears ample testimony of the capability of INSTEON.

The increasing reach of the alliance and feedback about product performance from homeowners help in the development of next-generation solutions. Within a short span of time, INSTEON has seen a very high level of acceptance, which in turn has helped the company achieve higher growth rates. Furthermore, this alliance can help SmartLabs produce solutions that address the needs of a global audience and cater to several other verticals.

IV. Conclusion

Leveraging on this innovation, that was the first of its kind in the market, the company is expected to experience elevated market penetration. In addition to a forward-looking technology, the company demonstrates a strong commitment to receiving feedback from customers. The accommodation of end-user needs by the company reflects its strong resolve to unknit market problems. This binder of the company on providing better-quality products and satisfying customer needs is driving the regard of the company. Banking on this originality, the company is effectively placed on the trajectory of growth in future.

These cumulative factors for developing INSTEON make SmartLabs the deserving recipient of the 2006 Frost & Sullivan Emerging Technology of the Year Award in the Building Technologies Market.

About Best Practices

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.

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