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RESEARCH REPORT

Executive Summary:

Smart Building Managed Services

Software as a Service plus Energy Management/NOC Services and On-Site Installation & Maintenance Services for Commercial Buildings: Global Market Analysis and Forecasts

NOTE: This document is a free excerpt of a larger report. If you are interested in purchasing the full report, please contact Pike Research at sales@pikeresearch.com.

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Section 1
EXECUTIVE SUMMARY

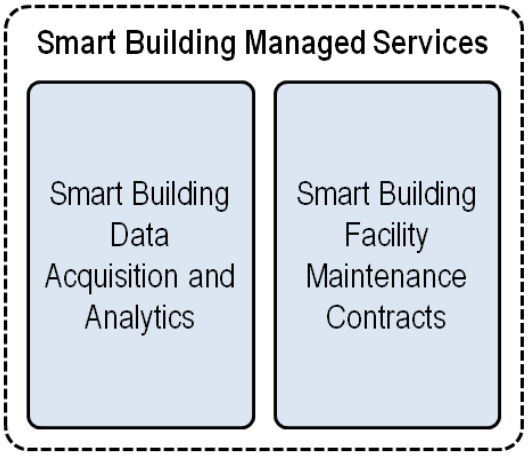
1.1 Smart Building Managed Services Market Overview

Two issues currently receiving a high level of attention worldwide include the amount of energy commercial buildings consume and the amount of potential energy savings they could generate if they were operated more efficiently. Although many building efficiency technologies have been around for quite some time, smart building controls and sophisticated software platforms (among other advances) have enabled huge new efficiency inroads and have significantly changed the landscape for making buildings more efficient. In today's commercial buildings a tremendous amount of data can be acquired from digital controls as well as other equipment that can provide a continuous stream of data relating to energy use, operations, environmental comfort, and sustainability goals.

One of the leading factors influencing these efficiency gains and the understanding of how buildings truly work is the advancement of building energy management systems (BEMS). Among the wide variety of BEMS that are available for commercial buildings, most have common features, including the abilities to acquire, analyze, assess, and report how efficiently a building is operating. Significant differences do exist, however, in the depth of knowledge and control that the individual systems can provide. Some are passive systems that monitor and report on a building's performance, while others can provide sophisticated analysis and control functionality that actively manages a building's components more efficiently. While these new systems can provide significant efficiency gains, their sophistication can be beyond the capabilities and resource levels of a building's operating or maintenance staff. Consequently, smart building managed services (SBMS) are growing in demand and popularity as a means for helping solve these and other building energy management market issues.

As defined by Pike Research, smart building managed services are outsourced services that encompass smart building data acquisition and analytics and building maintenance contracts that address the increased complexity and sophistication of smart building technology. The diagram below provides a visualization of smart building managed services.

Figure 1.1 Smart Building Managed Services Concept



(Source: Pike Research)

1.2 Market Forces

In recent years, the global recession has driven building owners to cut costs where possible. One of the main reasons for installing a BEMS system in a commercial building is to help building owners reduce operating expenses. Evidence has shown, however, that once these BEMS are installed, many are not being utilized to their full capabilities. BEMS vendors tout the sophistication of their systems and the benefits they can provide, but often the personnel assigned to use these systems can render them ineffective. The number of operating staff members in a building has dropped, but so have their skill levels. The lack of resources and the decreasing skill level have significantly impacted the quality of efficiency initiatives in many commercial buildings. Maintenance procedures and task priorities tend to devolve to a break-and-fix maintenance process that can drive up the cost of operating a building and lead to downtime. Part of the value of a sophisticated BEMS is their ability to identify areas for efficiency improvements. If these areas cannot be addressed or if they cannot be scheduled for implementation, opportunities for additional savings are missed.

SBMS providers have seen this shift in market dynamics and are offering timely solutions that help building owners and operators manage costs and get the most out of the systems installed in their buildings. They provide high levels of expertise for the installed systems, as well as a deep understanding of how buildings operate. Using service models that feature regular interaction with building personnel, SBMS vendors become an extension of the building's operating staff. By gaining an intimate knowledge of a client's buildings, and with the ability to process and understand the huge volumes of data that are available from those buildings, an

SBMS vendor can offer capabilities that a building owner or operator could not develop for themselves without significant time and resources. The result is better and more consistent efficiency, as well as better and more reliable return on investment (ROI).

In many respects, the market drivers for SBMS are similar to the market drivers for BEMS. The most important of these similarities is cost savings through reduced energy consumption, but the identification and management of preventative maintenance activities can provide additional cost savings. Through skilled observation of a building's systems 24/7, SBMS vendors can identify and resolve operational issues before they become more serious, costly, or disruptive to tenant comfort and safety. These advantages ultimately translate into reduced operating risk for a building owner.

SBMS vendors do, however, face market hurdles and challenges, including the growth and proliferation of utility demand-side management (DSM) programs. Utilities are looking for ways to engage with their customer bases and, more importantly, looking for ways to manage the increasing demand for electricity production. The growth of utility DSM programs has resulted in building owners and operators expecting that many of the services SBMS vendors provide are already available from their local utilities. For those vendors who do not currently have working relationships with utilities, this will amount to a market hurdle and a business risk. Vendors that have existing relationships with utilities can take advantage of these relationships as a significant market channel since utilities rarely have the internal capabilities to build and manage a comprehensive service offering on their own. Other challenges that SBMS vendors face include understanding the process of selling a service versus selling a product. For some in the industry – especially those vendors who have had experience marketing services – this is not an issue, but for those vendors choosing to migrate from a product-based BEMS offering to a more service-oriented approach, this could pose a challenge. Those same vendors who desire to build a service offering will also face challenges related to operating with a significantly different business model as well as building the necessary infrastructure to provide 24/7 coverage.

1.3 Competitive Landscape

The current SBMS market has very few players that could be considered purely managed service providers. Some of the strongest competitors are the large original equipment manufacturers (OEMs), including Johnson Controls, Siemens, and Schneider Electric; these companies provide a wide variety of products and services in many different areas. With global reach, these companies have the market presence, brand recognition, and infrastructure necessary to have a significant edge on the competition in the SBMS market. Two notable companies competing in the SBMS market are Ecova and Pacific Controls. Both have developed significant technology infrastructures targeted at a service-oriented approach right from the beginning. Ecova has made many strategic acquisitions throughout its history and extended its capabilities as well as its market reach. It serves both utility and commercial customers, giving it deep knowledge in the space. Pacific Controls has global reach, several network operations centers (NOC) already operational, and a platform that is being used by one of the largest facilities management firms in the world, Jones Lang LaSalle. Several small,

early-stage companies, including AIMNET and Lean-Green, have also entered the SBMS market and gained regional acceptance. These companies have developed the necessary technology and infrastructure to penetrate the SBMS market and are making inroads and growing their businesses both regionally and globally.

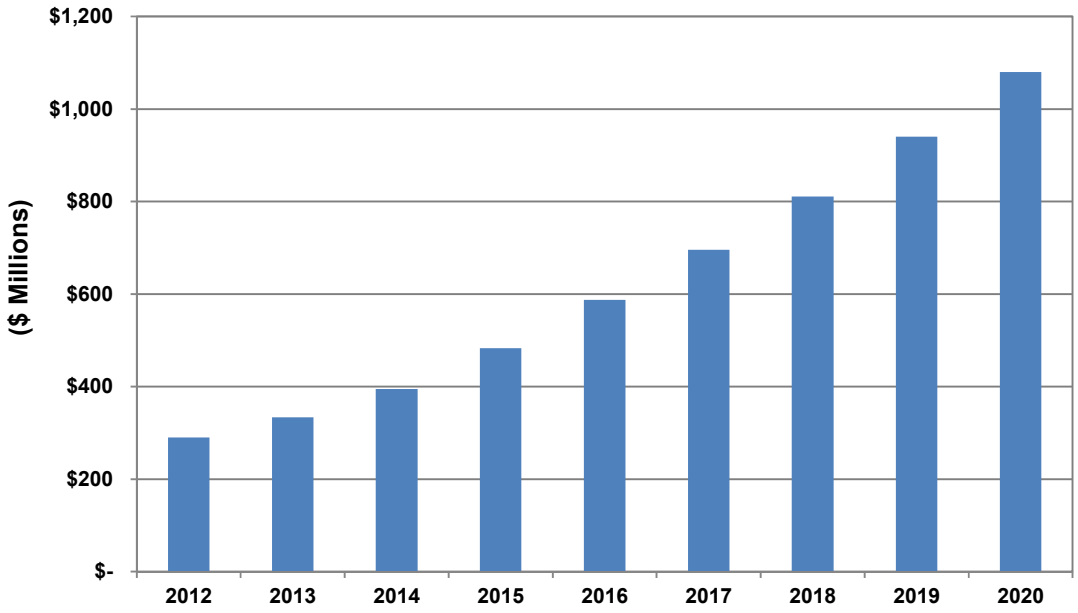
Other firms participating in this market segment have chosen to focus on one particular area of a building's operating components; in most cases, this focus has been the heating, ventilation, and air conditioning (HVAC) system, one of the highest energy using systems in a building. Companies with a system-specific focus can provide a level of service that is both a differentiator and a barrier to entry into the market. Overcoming this type of experience curve barrier becomes more difficult without adequate resources or backing. Eliminating this barrier through innovation is also more difficult. Vigilent is one company that has chosen to focus on the optimization of HVAC as its current differentiator. It offers both turnkey systems and managed services and has proven that it can afford immediate savings to its clients.

Large and more traditional IT companies see the SBMS market as an opportunity that takes advantage of their core expertise. Most notably, IBM has created a compelling offering and argument for utilizing its systems integration expertise, technology, and tools in a smart building. With the ever increasing amount of data that can be gleaned from BEMS, building management systems (BMS), and smart meter applications, for an IT company to offer comprehensive solutions in the BEMS segment is a natural fit. Given the number of diverse systems that must interact to understand and optimize a building's energy use, a concerted systems integration effort is necessary for providing an optimal solution at the enterprise level. So, IT companies are claiming that they are the ones who can best understand the issues and offer the best solutions.

BEMS vendors who have recognized the increasing market demand for a more service-oriented approach are slowly building their capabilities to offer services. These companies will face challenges and growing pains, but the capabilities of their original software tools provide them the basis for making this transition over time. Pure BEMS vendors who choose to stick with a product-oriented approach will face stiffer market challenges ahead. Exacerbating this challenge, BEMS software offerings are experiencing the first stages of commodity pricing in the market.

The market for SBMS is closely linked to the overall market for BEMS solutions. In fact, it can be considered a submarket of the BEMS market. Pike Research projects that SBMS growth rates from 2012 through 2020 will outpace projected growth rates for the BEMS market and will signal increasing market demand for a more service-oriented approach to building energy management. In 2012, SBMS market spending amounts to $291 million. It will grow to $1.1 billion by 2020, the end of the forecast period, representing a compound annual growth rate (CAGR) of almost 18%.

Chart 1.1 Smart Building Managed Services Spending, World Markets: 2012-2020



(Source: Pike Research)

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SCOPE OF STUDY

This report examines the smart building managed services (SBMS) market from a global perspective. In addition to the SBMS market, Pike Research provides separate market sizing and forecasts for the SaaS and energy management/NOC services and initial installation services. Note that Pike Research looks at the entire SBMS market according to the definition provided in this research report. Pike Research feels that its definition of SBMS provides a higher level of focus for the intended readers of this report and does not include other services that are widely available for commercial buildings.

The forecasts provided in this study represent Pike Research's best estimates and projections for 2012 to 2020, with 2012 as the base year. Pike Research has based the forecasts on primary and secondary information obtained in 3Q 2012 from interviews conducted with over 20 SBMS vendors of various kinds. Pike Research collected secondary research information from a wide range of sources, such as industry publications, governmental agencies, national and international laboratory research reports, standards organizations, press releases, and industry peer interviews and discussions.

SOURCES AND METHODOLOGY

Pike Research's industry analysts utilize a variety of research sources in preparing Research Reports. The key component of Pike Research's analysis is primary research gained from phone and in-person interviews with industry leaders including executives, engineers, and marketing professionals. Analysts are diligent in ensuring that they speak with representatives from every part of the value chain, including but not limited to technology companies, utilities and other service providers, industry associations, government agencies, and the investment community.

Additional analysis includes secondary research conducted by Pike Research's analysts and its staff of research assistants. Where applicable, all secondary research sources are appropriately cited within this report.

These primary and secondary research sources, combined with the analyst's industry expertise, are synthesized into the qualitative and quantitative analysis presented in Pike Research's reports. Great care is taken in making sure that all analysis is well-supported by facts, but where the facts are unknown and assumptions must be made, analysts document their assumptions and are prepared to explain their methodology, both within the body of a report and in direct conversations with clients.

Pike Research, a part of the Navigant Consulting, Inc. Energy Practice, is a market research group whose goal is to present an objective, unbiased view of market opportunities within its coverage areas. Pike Research is not beholden to any special interests and is thus able to offer clear, actionable advice to help clients succeed in the industry, unfettered by technology hype, political agendas, or emotional factors that are inherent in cleantech markets.

NOTES

CAGR refers to compound average annual growth rate, using the formula:

CAGR = (End Year Value ÷ Start Year Value)$^{(1/steps)}$ – 1.

CAGRs presented in the tables are for the entire timeframe in the title. Where data for fewer years are given, the CAGR is for the range presented. Where relevant, CAGRs for shorter timeframes may be given as well.

Figures are based on the best estimates available at the time of calculation. Annual revenues, shipments, and sales are based on end-of-year figures unless otherwise noted. All values are expressed in year 2012 U.S. dollars unless otherwise noted. Percentages may not add up to 100 due to rounding.

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