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# Communications of the Association for Information Systems

CAIS 

## Social Media and Evolving Marketing Communication Using IT

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### Abstract:

American Power Conversion (APC) was formed in 1981 by three MIT graduates. Its business scope has evolved from standard uninterruptible power supply systems (UPS) products to customized products to full data center solutions. Its name has become synonymous with UPS. Currently, it is part of the European multinational firm Schneider Electric. APC has always been at the cutting edge of using information systems. This case study covers the evolution of their marketing communication function using information technology. They began with implementing database-driven marketing, which was supplemented with Siebel CRM. In order to exploit the marketing data that this platform was generating, they implemented a business intelligence platform. They have developed a collaborative project execution application to drive relationship building with business partners. The case describes the challenges APC has faced in exploiting the power of social media channels and integrating them into existing operations.

**Keywords:** CRM; business intelligence; social media; collaborative platform

**Editor's Note:** A teaching note for this case can be obtained from [achaudhu@bryant.edu](mailto:achaudhu@bryant.edu). Only active MIS faculty who are currently listed in the AIS Faculty Directory are eligible to receive the teaching note.

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### I. INTRODUCTION

It was late summer and Aaron Davis, Chief Marketing Officer (CMO) at Schneider Electric, had just returned from a trip to China. He was in a reminiscent mood. Davis had started his career with American Power Conversion (APC) in 1989 as Director of Marketing Communication, when APC was a small company selling portable uninterruptible PC power systems costing a few dollars. Over the years, he had seen APC progress from selling small standalone systems to heavy-duty engineered systems for large servers, and then to selling complete data center solutions in partnership with other firms. According to his vision, APC's line of business would be subsumed into a much larger emerging market of Intelligent Energy Systems that would cover production, distribution, and control of energy in both the residential and industrial sectors. He felt that perhaps five or six consortiums might come to dominate the sector worldwide, and he hoped that Schneider Electric would be one of them.

Aaron Davis is a great believer in information technology (IT)-driven marketing. His marketing communication team helped APC to become the premier brand in the uninterruptible power supply (UPS) industry worldwide. He built an award-winning advertising program, and in 1996 *Marketing Computers* magazine recognized his accomplishments by naming him one of the top twelve information technology marketers of the year. When he introduced his system at APC, workers would manually input the thousands of responses that would arrive by mail or phone into spreadsheets and analyze them. Now this happens over the Web and social media, and his department stays up-to-date on how the promotions are performing by data mining on the buzz in the social media world.

As CMO, Davis is responsible for global marketing and sales functions, including Internet marketing, at Schneider; it is his responsibility to see that his data-driven marketing efforts are taken up by other firms in the Schneider family. He is driving an integrated marketing communication project. Under his stewardship, Jamie Locks has spearheaded development of their business intelligence platform, and Jennifer Wendt, Global Social Media Director, has helped develop their social media initiatives. Jennifer has introduced the firm to the world of blogs, LinkedIn, and YouTube. She is building an integrated communication platform to enable the firm to stay continuously in touch with its customers using multiple channels. Wendt is proud of APC-Schneider's track record as an early adopter of information technology innovations. She appreciates the environment at the firm that allows its employees and departments to experiment and its great allowance for failure in this process.

### II. APC'S HISTORY

American Power Conversion (APC) was founded in 1981 by three MIT Lincoln Lab electronic power engineers.

It was born in the early years of the personal computer (PC). The PC was slowly migrating from home use to business use, and so was APC's product line. During this time, it was well known that computer systems required backup power solutions. It was quite common for a mainframe computer to have a large uninterruptible power supply and a big generator installed in tandem. APC came at the market from a smaller and different end. Industry trends involving the personal computer made APC management realize that smaller UPS units were necessary for a market that included personal computers, PC servers, and their networks.

The customers and the markets for the personal computer UPS were very different from those for large systems meant for mainframe computers. In the small UPS world, APC's customers were value-added resellers who were selling PC systems to small establishments such as retail centers and restaurants. Their competition in their growth phase (1981–1996) consisted of thirty to forty small firms in the United States, and over 100 such firms in the same line of business in Europe. APC was one of the smallest in this crowd.

The market in this early growth phase was characterized by a large number of suppliers selling similar products who differentiated themselves through bells and whistles incorporated into their products. APC had a choice: it could go with the crowd or differentiate itself using some other principle. Right from the beginning, APC began focusing on very specific platforms such as UPS for Mac computer configurations and IBM PCs, and designing systems that were appropriate or minimum for that platform only. In general, the competitors tried to stake out a name in terms of engineering, which was often overdone since they were run by pure techies. The following quote comes from Neil Rasmussen, one of APC's founders (Mitchell, 2007):



*"We spent a year and a half in the lab making the world's highest-performance small UPS. We took every product that was in the market and took the best of every feature and every performance spec and beat it. It took us a year to get it out. And we sold 30 of those total.*

*Then we took a whole different approach: Forget the specs. What would the minimum product be that would be effective at doing this job? And that product was called the Back-UPS.*

*That product was designed over a weekend. The first plastic bezel on that product was made by a company that made dog food bowls. This was the most complicated thing they ever made. That's how cheap we went.*

*We changed our whole design philosophy after that: Don't ask [customers] what they want; ask them what they're trying to do, and learn from that. Once we got that model going, we just kept rolling over everybody."*

While APC was growing in the segment of small UPS systems for PCs and local area networks, the market for UPS in the mainframe area was dominated by much larger firms such as GE. Over time, APC migrated from small systems to medium and eventually large systems, where they were more than able to compete with large players and successfully establish their presence (Appendix A). Most of the large firms serving large systems eventually fell on hard times in trying to compete against firms such as APC and left the business.

Through the 1990s—a decade that would bring phenomenal growth to personal computers and related markets—APC rode the growing market for personal computers. The company's sales had increased impressively during the 1980s, rising from \$400,000 in 1984 to more than \$35 million in 1989. Industry observers took notice of APC's advances. In 1989, *Business Week* ranked APC number four on its list of the 100 "hottest" companies in the country; in the same year, *Fortune* listed the company as one of the ten "stock superstars of the 1990s." APC was holding sway with a 30-percent share of the backup power supply market. Its products, ranging from a \$2,000 power supply for minicomputers to a \$169 backup for desktops, were respected, and APC grabbed the lion's share of the power protection business in the 1990s.

In time APC had to move up the value chain because it had saturated the existing lower-end segments. During 1996–2006, the globalization phase, APC went global and started enlarging their market to include all aspects of enterprise data centers other than the servers. In ten years' time, they had half their sales coming from outside the United States. By the late 1990s, APC was supplying over 50 percent by value of all items that went into data centers. By 2001, APC was one of the top ten global companies providing a full range of UPS products and data center solutions. Working with partners such as IBM, VMWare, and Cisco, APC came to offer full data center solutions. Their principal competitors were much bigger firms such as Exide Electronics, Emerson Electric, Eaton, Chloride Power, and MGE, a French firm.

In its own market, in this globalization phase, APC started facing more competition from global players who were often part of large conglomerates. APC's major strength from its inception had been highly skilled personnel, whom APC knew it would have difficulty replacing. Competition for these highly skilled people was becoming intense. APC always had a generous stock option plan for all its employees; however, the company was still finding it difficult to retain highly skilled hardware and software engineers and sales and marketing personnel who specialized in high-technology products.

By 2005, APC was making more than 55 percent of its sales abroad. The company was invoicing in different currencies, and did not have any derivative agreements to hedge against foreign exchange exposure. The bulk of their sales still came from small systems, which had become a highly commoditized area, driving margins low. It did not help that, even in large systems, increased technology development and IT support costs frustrated their goal of higher margins.

The boom times of the 1990s were followed by a series of economic busts in the 2000s. The economic and political environment was not beneficial for medium-sized firms such as APC, which was competing against large firms such as Eaton and Emerson (whose UPS business was only a fraction of their total business). The first decade of the century was marked by two major financial shocks: the dot-com bust at the beginning of the decade and the financial meltdown in 2007. The 9/11 attacks and the second Iraq war only added to the economic distress, and the dollar started depreciating against major world currencies. In 2001, it took 1.1 Euro to buy one dollar; by 2005, it was around 0.8. Risk factors associated with globalization started turning negative for many U.S. firms, and the financial markets were very volatile worldwide. APC's share prices seesawed between \$10 and \$30, and it had little to do with the firm's performance.



APC reported sales of \$2 billion for the year ending December 31, 2005 (Appendix B), and was a Fortune 1000, Nasdaq 100, and S&P 500 company. It had over \$700 million in cash, 7,900 employees, and no debt. While its revenue continued to grow, its margins had been shrinking all along (Appendix C). Much investment had been made in new plants around the world, and in major IT systems such as CRM, but the impact on cost reduction was not yet evident. Management felt that the learning curve for the new systems had been more protracted than expected, which impaired their financial numbers. As a peripheral manufacturer, APC could not escape the boom and bust business cycles in the industry. After the protracted slowdown in the PC industry in the last decade, APC faced tough times and became an attractive target for acquisition.

On October 30, 2006, APC and Schneider Electric, a leading provider of solutions for electrical distribution, industrial control, and automation projects, announced that the two companies had executed a definitive merger agreement under which Schneider Electric would acquire all outstanding shares of APC for \$31.00 per share in cash, which was higher than the current market value. The aggregate transaction value was approximately \$6.1 billion. The acquisition was completed on February 14, 2007, beginning the latest phase in APC's history as a member of the Schneider family. The European Union authorized the merger, provided that Schneider divested itself of the MGE UPS Systems global UPS business below 10kVA. The combination of these two businesses created an industry-leading business for both single-phase and three-phase uninterruptible power supply (UPS) systems, as well as a preeminent provider of integrated systems for IT and data center applications.

UPS products are increasingly being marketed as elements of large projects. According to the vision of Aaron Davis, APC/MGE's current product lines will eventually be subsumed into a new industry segment called the Intelligent Energy Market. The Schneider corporation has been preparing for this eventual transition for some time. It started as an old-time industrial firm but, starting in the 1980s, began shedding non-electrical business units and acquiring firms in the electrical and energy space. Until six years ago, it was a very distributed entity where individual firms were being run their own way—a classic multinational or multi-local approach with some stripping out of common costs. Since then, the conglomerate has been moving toward a closer integration of individual constituent firms under the rubric of a campaign known as One Schneider that will be ideally structured to meet the emerging needs of the Intelligent Energy Market.

After APC and MGE became part of Schneider's Critical Power and Cooling Services unit, marketing for the two came under a single roof. With the business moving away from selling standalone products through distributors and toward selling solutions as part of a larger consortium, marketing in this group started edging toward relationship building with clients and business partners. According to Chris Carroll, Senior VP of Marketing Operations, from a transaction focus where brand awareness is critical, APC-Schneider is moving toward a customer focus by trying to build social capital with their client and partner firms. The focus has evolved beyond the marketing funnel toward the end-to-end process of selling as well as execution.

With the progressively worsening business environment in the United States and Europe after 2008, cost control became a watchword in APC-Schneider. Platform-heavy IT systems came under closer scrutiny. Cloud-based applications, even though they had limited functionality, started looking more attractive because of their substantially lower costs. While APC had chosen Siebel as its CRM system, it is now felt that it is economical for the whole Schneider enterprise to migrate to a cloud-based offering such as Salesforce.com. Platform-lite systems such as social media started looking attractive, and it became easy to introduce these initiatives, as they did not require upfront investment in an expensive IT platform. It has now become an important goal of APC-Schneider to exploit the potential of emerging technologies such as social media, which provide new and multiple touch points, and to develop a collaborative platform where all business partners, including clients, can deal cooperatively with project management issues.

### III. MARKETING AND PROMOTION AT APC

Market growth during the first two decades of APC was fueled by the proliferation of PCs, servers, Web hosting centers, large data storage centers, and large networks. APC had developed a full product range to meet this wide range of UPS demand. APC's strength came from its first-rate products, which were a result of channeling back about 3 percent of sales into R&D. One of the founders, Neil Rasmussen, knew about the inevitable commoditization of the product line and decided to be at the forefront of this change, rather than be swept away by it. Rasmussen's goal was for APC to create and then dominate a premium price segment in the business. According to Rasmussen, their competitors constantly fought this commoditization phenomenon by developing products that were more specialized and had more options to suit more specific applications. They spent their advertisement dollars on direct end-user communications by providing detailed specifications in expensive catalogs to convince end users that their product was tailor-made for them. This kind of promotion spending by their competitors was driven by the fact that such spending could be linked to individual accounts and be justified by orders obtained.

APC chose otherwise. They went in for general advertisement using mass media channels where the relationship between increased sales and promotion dollars was much more nebulous. It was a risk-laden approach that took some time to start paying off. During the early years of APC, technology did not exist that could help a firm to collect and compile the requisite data to measure the efficacy of promotion campaigns within a reasonable time frame. Data had to be manually collected at points of promotion, posted using physical mail, compiled manually from multiple sources, and then analyzed. APC had to develop complex metrics that gave them confidence as to which advertisement media and specific promotions were more effective than others, but it was only much later when many of the steps were automated by APC that they realized their approach of building high brand equity was really working.

To occupy a premium price segment, developing APC as a brand became a corporate priority, and they were the only firm in the market to do so. Aaron Davis, who joined APC in 1989, was charged with leading those efforts. His goal was to make the term "APC" synonymous with UPS technology, much like early movers such as Xerox and FedEx had done in their respective industries. APC started selling not only to value integrators, but also to retail chains such as CompUSA and Staples that were selling directly to end users. They also sold through distributor channels that sold PCs and peripherals such as printers and modems; this was the channel through which they began selling medium and bigger units that were required for computer and server rooms. APC's brand-building effort started paying off, and their products were being pulled through by customers wanting specifically APC products. APC started to enjoy a price premium and customers were willing to pay more for the APC-branded products.

In terms of product nature, according to Davis, buying a UPS is like buying insurance. Reliability as it is perceived by the customer is the key decision variable in purchasing. APC has been able to make its name synonymous with UPS by consistently spending more in advertising dollars than the industry average and hammering on the point of reliability associated with its product lines. Davis is happy to note that APC enjoys a strong pull factor from the customers, so much so that 90 percent of the resellers sell exclusively APC product. APC policy is not to appoint resellers on an exclusive basis in a region, but to go with the largest number of resellers in the region. The channel lock-up by APC is very strong, and their advertisement strategy has played a major part in this.

APC is strongly into broad reach campaigns, as they feel increasing loyalty and awareness of the firm helps all its product lines; as the saying goes, a rising tide lifts all boats. APC has a strong belief in integrated marketing communication (IMC) and uses most media channels, such as print, TV, online, press relationships, public events, and direct marketing. Managing such a portfolio of media channels in an optimal fashion is a challenging issue. They are much less into focused marketing that promotes specific product lines. To them, promotion that is tested, that leads to a sense of great reliability of their product line and buys loyalty from the customers, is the promotion that pays.

Aaron Davis introduced database marketing at APC. His department developed prospect lists using both internal and external sources. APC uses extensive testing and control groups to measure the efficacy of a promotion directed at this large prospect list. Only one variable is changed at a time, and the results provide a real-time response by the customers to the actual promotion. Various features of an advertisement can be tested in this fashion: the main tag line, the size of the advertisement and its placement in the magazine, the particular magazine, and so on. Since the world keeps changing, this is a continuous activity. By comparing data between the control group (the usual group without any changes) and a test group (which is being subjected to a change), it is possible for APC to compare marketing costs to increased revenue and margins and thus determine the ROI of the proposed change. With these kinds of data, APC is in a position to bargain more effectively with advertisers and track how the promotion is doing at various stages of the order cycle.

APC's promotion budgets were larger than their competitors'; the marketing department could get away with this only because Davis's department had loads of data to support their claim that the budgets paid for themselves. With such data to back them up, they have found it easier to convince the CEO/CFO about their promotion budgets at economically strained times such as now. Because the decision-making on how to distribute advertisement dollars is data-driven, it is possible for APC to drive the decision-making powers to junior-level executives. This option also makes it easier to optimally apportion the advertising budget into various media channels.

To assist customers in different stages of the marketing cycle, APC developed different activities to promote awareness, help customers evaluate products, and support customers during the use phase. To develop awareness, APC increased their budget for direct mailing, television advertising, and exhibitions at computer trade shows. Their customer service department became responsible for technical marketing inquiries and customer support. To assist their distribution channels, they had reseller trainings, formal product distribution, and toll-free assistance. Progressively, most of these activities would migrate to their digital marketing and social media platform.

APC's current sales department structure reflects its combination of channels and product lines. The sales department is organized into three divisions: solution sales, which handles projects; channel sales, which handles value-added resellers selling standard off-the shelf products; and finally service sales, which handles orders realized during the course of providing service to existing customers. Data flowing in and out of these departments run over an IT platform that is becoming increasingly integrated over time (Table 1).

**Table 1. IT Platform for Integrated Marketing Communication at APC**

Department	Activity	Role played by marketing IT platform
Marketing	Develop branding by managing a portfolio of media channels	Insight Dashboard, by extracting sales opportunity and final demand data from InTouch (Siebel), provides ROIs for various promotion activities through various channels.
	Demand generation through directed promotion	The InSight tool helps identify the response to promotion activity and tracks it through the different stages of the marketing funnel.
Sales	Track customers through various life cycle stages	In the pre-order stage, Salesforce.com and Siebel are used. After the order, the Oracle ERP system tracks the order fulfillment process.
	Develop quotes	An Oracle bill of material system is used to develop quotes.
Customer service	Enhance customer equity through better service	By extracting product and process failure data from InTouch (Siebel), the InSight Business Intelligence (BI) tool is used to track and store customer complaints and their solutions. This is then used to modify product design. Record all service activities and actions taken against the asset (startups, field service bulletins, unscheduled maintenance, preventive maintenance).

#### IV. CRM AND BUSINESS INTELLIGENCE

Rodger Dowdell is an important figure in APC's history, even though he was not a founder of the company. Dowdell joined APC as its president in August 1985, and left twenty years later after APC was acquired by Schneider. The basic motivation for overhauling APC's IT platform came from Dowdell. Managers reporting to him described Dowdell as an extraordinary person and a voracious reader of IT-related publications who firmly believed that APC was not part of the old traditional battery industry, but rather part of the computer industry, and therefore subject to the same threats of continued obsolescence all computer-related equipment faces.

The employees at APC had great faith in Dowdell's ability to forecast broad trends in the computer industry and how they would impact APC. By the mid-1990s, in spite of the bad press associated with packaged software systems such as enterprise resource planning systems and customer relationship management, Dowdell was sure of these technologies and their relevance to APC in helping the company go global and cope with the inevitable commoditization of their product line. He was closely involved with most IT decisions, and this allowed APC to implement a high-end IT platform compared to others in the industry. It was his style to drive key decisions and then allow immense autonomy to individual departments in how they implemented them.

At APC, the initial motivation for CRM was improved product design. Dowdell was a great believer in the system of predictive-failure-driven design. He believed that CRM systems coming to market for customer support provided product failure data that allowed such a design philosophy to work. Siebel was selected for CRM and acted as consultants on the project.

Over time, much of the marketing and sales activity at APC migrated to their new integrated IT-marketing platform (Table 1). The platform provided assistance across the whole customer life cycle. Internally, APC's customer-facing activity was organized into the three distinct phases of the cycle: building awareness by the marketing department, getting orders by the sales department, and supporting customers by the field service department. Different phases in this process cycle got automated, and a wealth of data was generated by the system. Progressively, this became a data source for the business intelligence platform. With all their promotion and marketing functions running on their emerging new IT platform, it became possible for APC to start integrating the different customer-facing functions in the firm.

The focus of the CRM is now on providing excellent customer support. The software has helped set up an alarm system whereby calls from important clients and calls with high frequency are assigned the resources and top management attention that they deserve. Recently the company has introduced a middleware system, IBM's WebSphere, that helps information exchange among disparate systems, such as the Siebel CRM, Siebel Analytics, APC's website, and existing Oracle systems, that is being connected to their VAR customers.



The successful implementations of the Oracle ERP system in 1998 and the Siebel CRM application in 2000 necessitated the implementation of a business intelligence (BI) data acquisition and analysis tool, given the thousands and eventually millions of unique pieces of data available to different parts of the business. This responsibility was given to Jamie Locks, who is currently the VP of Marketing Systems based in Beijing, China.

It is Locks's personal mission to be at the cutting edge of using IT. "Am I still ahead in the game? Is it easy for them to copy?" he remarked when we met him for the first time. Locks graduated from URI with a MIS major in 1993. He joined APC to work in the area of Help desk and IT Operations immediately after, and has been with APC since then, with only a few gaps when he went to work in Europe in the area of Operations Management. He moved over to Business and Marketing data analysis in the year 2002, working for Chris Carroll.

During the early 2000s, much of the customer and marketing promotion data resided in Excel tables. These data were moved over from various databases spread around the firm. With increasing data volume, Locks's department migrated to using Access, which gave him more flexibility in joining data from multiple sources and making queries to these large integrated data sets. The query outputs would then be carried over to Excel to produce pivot tables for managerial use. Other departments such as Supply Chain and Finance introduced Cognos and began using their OLAP Cubes as a business intelligence (BI) tool. Unlike the Marketing Communication department (MarCom), these two departments had the IT department of APC to run their BI systems.

The MarCom BI systems are used to manage three activities: (1) campaigns, (2) partnerships, and (3) sales. In the campaign management system, they gather data about various campaign events such as magazine advertisements, Web banners, webinars, conferences, and trade shows. Every event has a unique code and all responses generated through the event bear that code. This allows them to set up their system for calculating the efficacy and eventually the ROI for individual events and event classes such as banner advertising. According to Locks, APC is now in a position to provide its users with a detailed ROI for, say, Web banner advertisement during a quarter in a particular country such as South Africa. Similarly, in the field of partnership management, APC maintains extensive efforts in training and discounts offered to its value-added sellers. Results and responses generated by these activities are tracked and eventually moved over to BI systems for analysis.

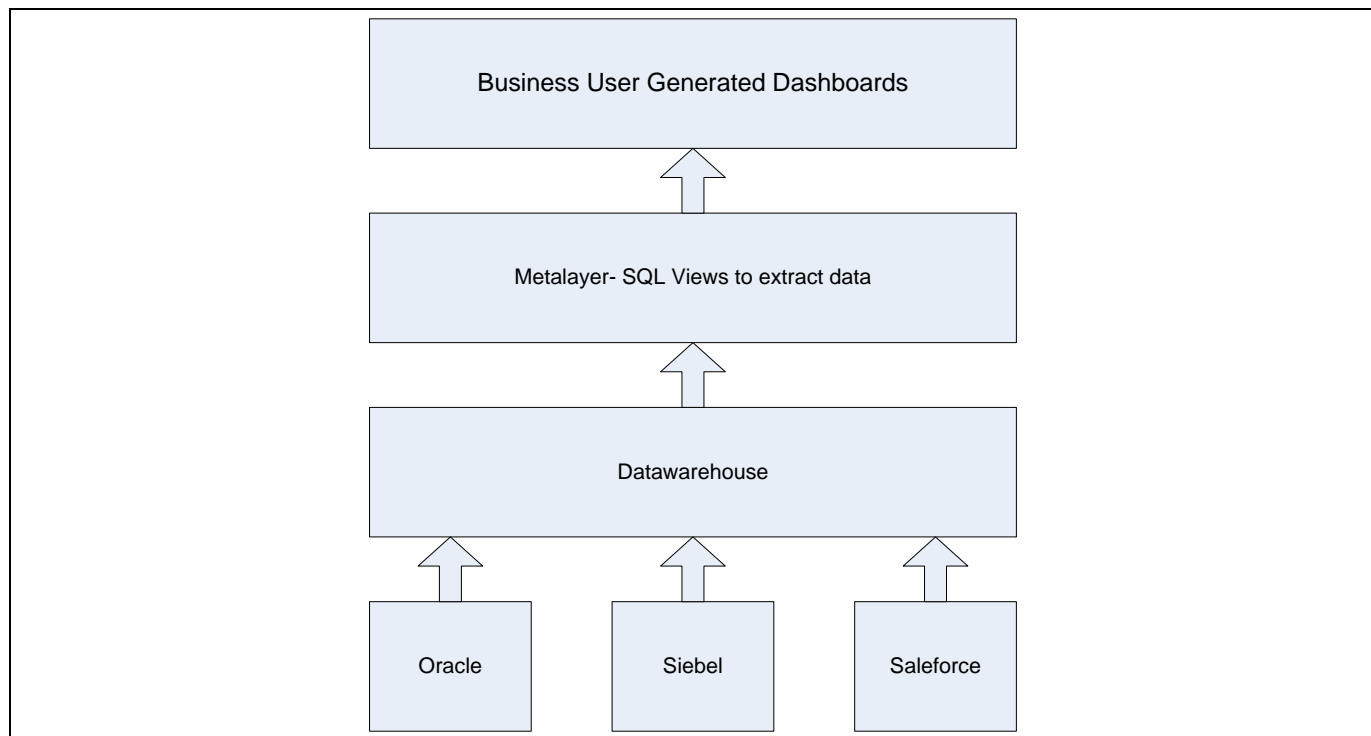
In the field of sales management, APC uses BI at every stage of the marketing funnel. The marketing funnel describes various stages in the selling process; it begins with some "marketing endeavor" that creates *awareness*, and then with some more interaction by the firm results in *interest*, and finally a "salesperson" completes the *sale*. At APC, the first stage is known as the response stage. This is the immediate result of all marketing campaigns. BI helps them to reduce the response list by applying some credibility criteria to a list of "leads." The salespeople follow the leads and develop a smaller proportion of this list, which becomes the "opportunity" list. This list includes the items that are more intensively followed up. Finally, some of the opportunity list is converted to sale. The system at BI helps to focus their resources at each of these stages so that the returns are maximized.

The BI unit develops periodic reports such as Marketing Performance Management (MPM) reports. These reports are provided to each country and regional MarCom director. The reports help individual business units (BUs) in different parts of the world to track how much they are spending on different promotion channels and also the outcome they get from such spending. It helps the BUs to identify which activities are doing well and which are laggards. These reports generate accurate cost figures such as cost per response, cost per unit revenue, cycle time, and percentage conversions from one stage to another, such as from leads to opportunities to final sale.

*BI Architecture* had CRM systems running using platforms such as Oracle, Siebel, and also Lotus Notes. MarCom settled for the Oracle BI system, which used the platform from Essbase, a firm that Oracle bought. Essbase is a multidimensional database management system (MDBMS) that provides a multidimensional database platform upon which to build analytic applications. The name Essbase derives from "Extended Spread Sheet dataBASE"; it began as a product with Hyperion Software that was acquired by Oracle Corporation in 2007 and is now marketed as "Oracle Essbase."

OLAP stands for online analytical processing. In contrast to "online transaction processing" (OLTP), OLAP defines a database technology optimized for processing human queries rather than transactions. The result of this orientation is that MDBMS orients their performance requirements around a different set of benchmarks than those of RDBMS. Other departments are using Cognos OLAP Cubes. The current architecture can be described in terms of layers (Figure 1). At the top is the user interface layer, which consists of dashboards that the user groups build and maintain. Usually, employees with enough Excel skills to do pivot tables are assigned to building new dashboards. The dashboards are built atop SQL-views that have been defined by the IT group and the user groups. This prevents user groups from launching SQL queries that can hog server capacity and slow down all the applications





**Figure 1. Business Intelligence Platform at APC**

that are using the database. The second layer from the top that has these SQL-views is called Metadata or Skin in APC. This layer in turn calls upon the actual data warehouse.

The IT department runs the data warehouse. APC has developed an enterprise level centralized support group at their office in Bangalore, India. Two persons work full-time for MarCom applications relating to business intelligence. The data warehouse currently used by MarCom is Oracle Business Intelligence (OBI) Enterprise edition. The data warehouse receives its data from Oracle CRM, Siebel CRM, and an old Lotus-Notes-based CRM that is still used by the engineering department. The future goal is to move most data to clouds and integrate them onto a single platform and then use cloud-based analytical applications.

InSight is a query-based data extraction tool that maps to the different business applications through a data warehouse (Figure 1). Users from different business functions enter data into the different applications. The data are “pumped” into the data warehouse every twenty-four hours for extraction by business users such as sales, finance, engineering, field service, and so on. APC found that the twenty-four-hour lag met its needs without compromising its ability to manage its business; real-time data or a shorter lag would have increased its IT costs without returning a commensurate improvement in business intelligence. The tradeoff was insignificant and clearly favored the twenty-four-hour update cycle. InTouch is a system tool that automates and speeds up different processes used for query and reporting in Oracle systems.

The mapping of the BI tool to the various applications was done in-house; APC did not outsource its business intelligence, ERP, or CRM programming functions to consultants. As usual, different departments at APC continued using different tools. Some in marketing were using Cognos, and some were using SAS-Cube.

## V. COLLABORATIVE PLATFORM

After APC and MGE became part of Schneider’s Critical Power and Cooling Services unit, marketing for the two came under a single roof. With the business moving away from selling standalone products through distributors and toward selling solutions as part of a larger consortium, marketing in this group started edging toward relationship building with clients and business partners. According to Chris Carroll, Senior VP of Marketing Operations, from a transaction focus where brand awareness is critical, APC-Schneider is moving toward a customer focus by trying to build social capital with their client and partner firms.

In April 2010, APC-Schneider launched an internally developed platform for project planning and execution for the benefit of its own employees and its business partners. The initiative has been led by Michele O’Brien, Worldwide Global Enterprise Marketing Director. The platform has multiple goals to meet. From the marketing point of view, the

firm wanted to move away from mass marketing and promotion and toward community-oriented sales and marketing. Mass marketing at APC had always helped in building general awareness and brand power, and they were not going to abandon that. However, as their projects were getting more complex, they needed good relationship building across the spectrum to push sales in this business-to-business environment. In terms of execution, the platform allowed multiple parties to come together in a digital environment to plan and execute their data center projects. It also acted as a repository of the project design and contract documents and helped save time and money by allowing participants to avoid traveling. Most importantly, once clients were used to using the collaborative site to execute projects, there would be a disincentive for them to migrate to a different vendor and different environment, and so it would act as an important hook in cases of repeat sales. O'Brien thinks that with this first move in the field, APC will be able to lock in many of the channel and business partners.

The internal platform (collaboration platform at Schneider Inc.) allows consultants, various contractors, and multiple APC departments to come to a common website and manage data center projects without meeting face-to-face. Technically, it is a mash-up of several existing technologies: a Siebel front end, Salesforce.com's sales automation module, and Microsoft's project management tool. The site has been developed by APC using its own engineers and software developers. While collaborative sites allowing document sharing and meetings are common, APC is using joint project management activity as a hook to bring in customers and lock them into the habit of using this system for all their project management needs.

The website is built around an in-house-developed process methodology that drives project execution through well-defined phases. The site allows multiple views according to different roles, such as architects, contractors, designers, and APC's departments. It is a big hit with small and medium firms that do not have such a collaborative tool of their own. New customers and suppliers are brought into the system only through referrals. The site allows Web-based meetings among multiple parties that are then recorded and made available to participants. It acts as a means of recording commitments being made. Different parties can exchange messages that are not visible to others, thus allowing confidential interaction to take place. Webinars are held on the site as part of product promotion. All documents and drawings relevant to a project are available on the collaborative website.

The platform has embedded several features of social sites such as Facebook, Google+, and LinkedIn. You can define individuals as colleagues who then get to comment on your "wall" and read your blogs. You can see their profiles and rate their performance. These performance ratings help clients select individual architects and designers during early phases of the contract. As on LinkedIn, a participant can start a forum and administer the discussion threads in the forum. Group members can share a wiki and develop documents. The system makes blogs by experts available, and employees can post white papers on new products and technologies.

## VI. SOCIAL MEDIA

The marketing objective of Schneider Inc. is to differentiate themselves as a premium provider of end-to-end energy solutions focused on green technology and energy efficiency. The marketing focus has expanded beyond the marketing funnel to the end-to-end process of selling as well as execution. APC-Schneider is eager to exploit social media to use new and multiple touch points and to develop a collaborative platform where their business partners can deal cooperatively with project management issues. In line with this strategy, Jennifer Wendt has fixed up a social media strategy to do the following:

- Strengthen their brand and generate leads
- Expand the firm's ability to promote and support its products
- Become a key influencer in these new emerging channels by identifying and relating to influential people and decision-makers
- Grow firm-level participation through publicizing events and marketing campaigns

Social media today is a part of an integrated marketing mix. It acts like a force multiplier enhancing the impact of traditional promotion functions through:

- *Call to Action:* The firm reviews media (advertising) assets and monitors their effectiveness.
- *Direct Marketing:* The firm integrates new marketing with existing direct marketing activities and print customer retention pieces.
- *Trade Shows/Events:* Through these shows the firm drives the conversation beyond the physical event (generating brand awareness outside of the event and then driving customers to the booth).

- *Public Relations:* This is used for difficult customer complaints and for managing official company responses to delicate corporate questions.

In 2005, Jennifer Wendt was charged with implementing social media at APC. As a leader and initiator, reporting to Aaron Davis, VP of Marketing, she faced two choices: go slow and do it right or seize the new opportunities before being fully prepared. She decided, "Better to do it quickly with room for improvement rather than slow and perfect."

It did not take long for Davis and Wendt to be convinced of the potential of these new emerging tools. They could envision how these tools might substitute for a face-to-face community and come to complement their mass media promotion. They could see the beginning of the trend of firms' insides being turned around and boundaries becoming permeable. Today, current and potential clients can get into conversations about products, technologies, and services with employees inside the company, and communication shifts away from the one-to-many pattern to a many-to-many pattern. For the first time, employees who have traditionally had no exposure to customers, such as research and development managers and manufacturing engineers, can participate in the firm's marketing and promotion activities. This is a major change in culture and expectations for traditionally in-house employees. To guide employees in this new interactivity, APC developed a social media policy that emphasized proper etiquette and behavior on the part of the employees. The policy prohibited using improper language, writing anonymously, and violating confidentiality norms.

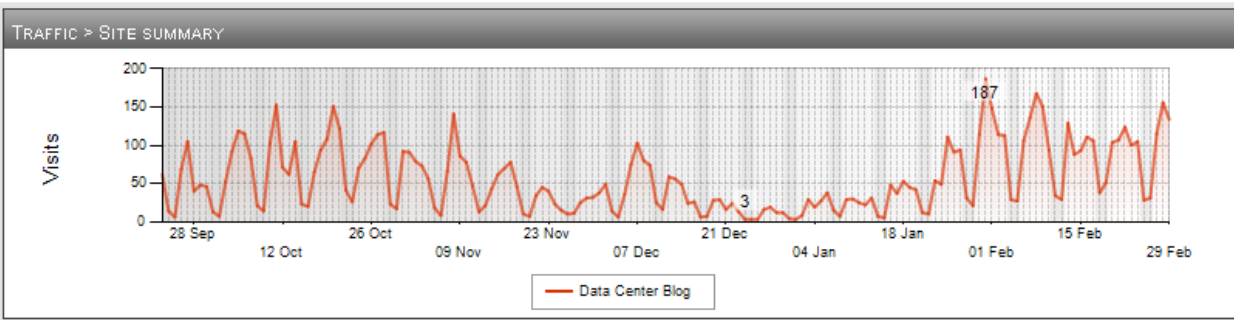
APC initially started uploading their webinars and product support materials to YouTube. LinkedIn has also become an important element of their social media usage campaign (Table 2). The site LinkedIn started as a community of professionals that allowed firms to target prospective employees; over time, it has progressed to become more like a Facebook site for professionals. It allows employees from APC to have profiles, set up discussion groups, manage forums where APC product users can post questions and comments, form groups that are similar to Facebook groups, and identify important influencers in a group. Twitter supplements APC's efforts on LinkedIn. APC employees who are active on LinkedIn keep their followers up-to-date about future promotions, product launches, training, and webinar-related activities. Facebook is indirectly used by marketing employees to maintain current and detailed profiles that clients can also refer to.

**Table 2: Social Media IT Platforms at APC-Schneider**

Social media IT platforms	Social sites	Role played at APC
Communication platform	Microsoft NetMeeting, Sametime, and shared calendar system	Internal use only: removes barriers to communication within the firm.
Community-building platform	LinkedIn	Main source of social media usage by APC. Brings the firm into contact with users. Helps build awareness about new campaigns and evaluations by other customers.
	Twitter	Allows APC to broadcast new promotion and events.
	YouTube	Makes technical video material accessible to the user community that helps with detailed evaluation and making product choices.
	Blogs	Enable the user community to have access to the latest developments in technology.
	Monitoring sites	Sysomos.com, one such site, helps APC monitor social media and provides quantitative estimates of the impact of promotion and new product launches.
Collaboration platform	Collaborative system using extensive mash-up of existing technologies	Allows business partners and clients to work collaboratively in designing and executing data center projects. Develops loyalty among the participants and introduces switching cost.

Data center blogs were next on Wendt's list (Figure 2). Some of APC's data center architects had started blogs on technology topics, which enabled their engineers to provide current information about their new products, invite comments from the user community, and post white papers on their sites. Data center blogging efforts at APC-Schneider have gone through three different phases:

- First Phase
  - Identification of key subject matter experts and provision of "best practice" education for experts



**Figure 2. Measuring Site Traffic at Blog Websites Metrics (supplied by Jennifer Wendt)**

- Preparation for launch, with fifty blog posts created prior to going live with communication
- Search engine optimization (SEO) preparation for spiders/crawlers for search engines to find blogs easily
- Second Phase
  - Actual launch of the blogs; the official blog launch date was fixed on September 23, 2011
  - Internal training of 100+ experts on the rules and processes for posting
  - Inclusion in blogs of interviews via text posts, podcasts, and webcasts
- Third Phase (January 1, 2012, to date)
  - Continuous training and identification of new experts
  - “Tightening” of liberties to post; adding red tape to slow down the process and avoid mishaps during posting
  - Trade shows and events—making blogs one of the main vehicles for communication with prospective attendees
  - Education of teams outside of North America and creation of sites in local languages after identification of local needs
  - Server purchase for more room as they started running out of space
  - Mobile enablement of their blog sites

The social media group uses Google search, Google blog search, and Sysomos.com to monitor conversation and comments that APC and their product lines are attracting in the social domain. The Sysomos site provides data mining and textual analysis to its clients covering a wide range of sources in the social media world. It helps APC track comments made on their products in the social media community, identify important influencers in the digital world, and compute proportions of positive to negative comments over a particular time period. Sysomos helps APC identify important influencers in their field by using factors such as friend count in their social networks, number of blog postings, number of comments posted on their blogs, how often they appear in other people’s conversations, and so on. It also provides multilingual translation so that APC can track how they are being viewed in China and Brazil, which are growing markets for them. APC can now quantifiably measure the impact of social buzz in a geographic area as a result of their specific campaigns (Figure 3).

### Lessons Learned

- The social media member model is not easily scalable. To begin with, one has a pool of early adopters who are excited about this new technology and take initiative to get onto this medium. Organizations usually start small, and initiative is often led by smaller skunk-works and task forces running at a department level. For social media, the firm relies on curious employees and digitally savvy executives to provide the initial thrust and promotion, with top management playing the role of a champion and influencer. However, once you have exhausted this pool, it is a hard task to motivate the rest of the population. Training non-social-media members to help with efforts locally came out to be a difficult sell. It is critical to have department and divisional managers act as champions for social media activities within their own departments.





**Figure 3. Social Media Metrics (supplied by Jennifer Wendt)**

- Customer care teams were ill-prepared for the floodgates that opened when customers started using social media to voice their complaints. Social media channels do not close at 5 p.m., and firms need to be concerned that social media calls left unanswered can easily turn negative and go viral.
- Communication with your clients using social media does not require your own paid-for IT platform, but this should not create the illusion that social media is free. Almost no investment in internal IT hardware and infrastructure is required, as social media runs on publicly available platforms such as LinkedIn and YouTube. But there are enormous costs involved in manpower usage for resident experts in various subjects.

Jennifer Wendt was generally pleased that APC-Schneider was using a rich mixture of tools from all platforms of social media (Figure 3). Wendt wondered how she could upgrade social media awareness at Schneider to an enterprise level, as it was currently limited to divisions such as sales and marketing. Which issue should she tackle first: culture or structure? In terms of Owyang's model [Owyang, 2012]), which Wendt followed, APC's social media initiative is still small and centralized. Wendt is encouraging other departments within Schneider to get on the bandwagon, at which point she will transition to a decentralized hub-and-spoke model in the firm where her unit will only control policies and the individual units will start taking their own initiative. She is looking forward to that day.

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## REFERENCES

*Editor's Note:* The following reference list contains hyperlinks to World Wide Web pages. Readers who have the ability to access the Web directly from their word processor or are reading the article on the Web can gain direct access to these linked references. Readers are warned, however, that:

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## APPENDIX A: PRODUCT AND MARKET EVOLUTION

**Table A-1: Evolution of Products and Markets for APC**

Phases	Year	Products	Channels	Competition
<u>Growth phase:</u> Small Systems— Standalone UPS Systems	1983+	KVA- less than 5, 5-15, 16+	Value-added resellers, direct sale to large customers	APC is one among many small firms; larger firms, such as Eaton and others, are also its competitors.
<u>Globalization phase:</u> Large Systems— Data Centers	1996+	UPS plus cooling systems, racks, control systems	Direct to large customers	APC comes to dominate the lower end of the market. Half of APC's sales are derived from abroad. Firms such as Eaton, Emerson, Hitachi, and Mitsubishi are its competitors.
<u>Schneider phase:</u> Emerging Systems— Intelligent Energy Management Systems	2007+	Software to control systems	Direct to large customers as part of the Schneider Group	Consortium of firms.

*American Power Conversion Corp, Form 10-K, (Annual Report), Edgar Online 2005, page 21*

## APPENDIX B: APC'S COST STRUCTURE

	2005	2004	2003	2002	2001
Net sales	\$ 1,979,532	\$ 1,699,877	\$ 1,464,798	\$ 1,300,025	\$ 1,404,784
Cost of goods sold	1,260,407	1,017,981	852,615	816,318	920,895
Gross profit	719,125	681,896	612,183	483,707	483,889
Operating expenses	532,160	477,447	383,068	332,760	339,036
Operating income	186,965	204,449	229,115	150,947	144,853
Other income, net	21,877	9,711	9,990	10,889	13,700
Earnings before income taxes and cumulative effect of accounting change	208,842	214,160	239,105	161,836	158,553
Income taxes	64,761	32,705	62,167	45,314	45,188
Earnings before cumulative effect of accounting change	144,081	181,455	176,938	116,522	113,365
Cumulative effect of accounting change, net of income taxes of \$15,459 in 2002	—	—	—	34,500	—
Net income	\$ 144,081	\$ 181,455	\$ 176,938	\$ 82,022	\$ 113,365



	2000	1999	1998
Net sales	100.0%	100.0%	100.0%
Cost of goods sold	58.5	55.6	57.1
Gross profit	41.5	44.4	42.9
Marketing, selling, general & administrative expenses	21.0	21.1	21.3
Special charges	3.2	-	-
Research & development	3.2	2.6	2.9
Acquired research & development	-	-	.6
Operating income	14.1	20.7	18.1
Other income, net	1.6	1.0	1.0
Earnings before income taxes & minority interest	15.7	21.7	19.1
Net income	11.2	15.3	13.0

American Power Conversion Corp, Form 10-K, (Annual Report), Edgar Online 2000, Page 11

## APPENDIX C: SALES & INCOME AT APC

The following table sets forth key data, expressed as a percentage of net sales, for the years ended December 31, 2005, 2004 and 2003.

	2005	2004	2003
Net sales	100.0%	100.0%	100.0%
Cost of goods sold	63.7	59.9	58.2
Gross profit	36.3	40.1	41.8
Marketing, selling, general & administrative expenses	22.3	23.1	21.6
Research & development	4.6	5.0	4.6
Operating income	9.4	12.0	15.6
Other income, net	1.1	0.6	0.7
Earnings before income taxes	10.5	12.6	16.3
Net income	7.3	10.7	12.1

American Power Conversion Corp, Form 10-K, (Annual Report), Edgar Online 2005, Page 25

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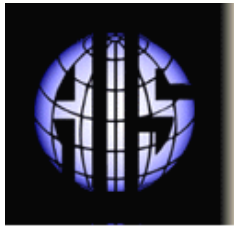
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