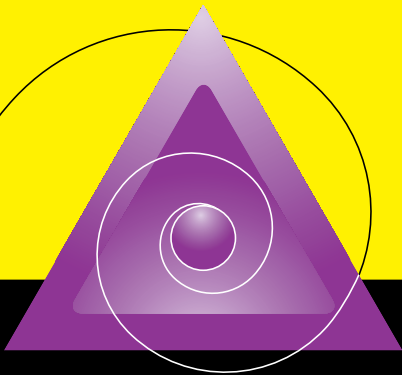


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The Strategic Benefits of Knowledge Management



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How Knowledge Management makes Customer Satisfaction a Strategic Asset

Abstract

As business operations shift increasingly to the Internet and the Web, organizations are being forced to move their customer support and service operations online. The benefits of such a move can be substantial, since the virtual world operates nonstop 24/7/365, and provides unlimited opportunities for customer interaction. But it's also the case that satisfying unlimited demands for information and service can be expensive, and creates an "instant response" mentality in the customer base.

The solution to this problem lies in deploying a knowledge management (KM) initiative. Using KM technologies, organizations make it possible for their customers to obtain information just by searching for it, enabling them to satisfy their own demands around the clock. Because customers and end-users can answer many of their own questions through tier zero "self-service," customer service and support agents can devote more time and resources to handling complex issues.

In an enterprise environment, KM solutions make it possible to deliver expert knowledge to all sites within an organization. KM solutions also help mitigate the effects of personnel turnover and job changes since captured knowledge remains accessible at all times. Finally, KM solutions deliver the latest and most-up-to-date answers and information across the enterprise, because knowledge sharing and replication ensures that all captured knowledge is current and available.

Implementing a KM solution requires that an organization recognize that knowledge is widely and unequally distributed within the minds of its employees, and buried in documents, e-mails, FAQs, manuals, and other information resources. The main hurdle to implementing a KM solution lies in the cultural

changes needed to make KM really work—namely, the notions that knowledge must be explicitly captured, shared, and used effectively to provide the best possible benefits. Thus KM is as much a mindset as it is a set of tools and related information. Without management support, proper training, and a committed effort to make implicit knowledge explicit, KM technology will be ineffective. But companies can successfully avoid these pitfalls by choosing the right people, processes, technology, and knowledge to implement a KM solution.

The best guarantee of a successful implementation lies in partnering with a KM provider that offers the right mix of methodologies and tools to address KM needs. Those solutions include software that can capture and organize knowledge elements, along with the necessary support and training to insure a successful launch of KM solutions within an organization.

This Technology Guide discusses the nature and benefits of knowledge management, and explains what's involved in implementing knowledge management solutions.

Introduction

It's very clear that today's business models depend greatly on maximizing resources, eliminating redundancy, and automating processes to meet business goals. Furthermore, it's also clear that e-commerce has become an essential part of the business equation. One of the truisms of this new model, in fact, is that the competition is merely a 'click' away. The juxtaposition of these forces brings business executives to the conclusion that they must move to an effective e-business strategy that enhances customer satisfaction while improving enterprise efficiency. Key to this is the effective use of information. But information, i.e. the mere accumulation of data, is, by itself, rather meaningless unless it can be collected, structured, organized and made available as knowledge.

The effective use of knowledge is a key ingredient in all successful organizations, no matter what business they may be in; or what services they may provide.

“With the advent of e-business, knowledge management is moving to the forefront of CEO agendas as a disciplined approach for enterprise transformation”.¹ Effective knowledge management enhances products, speeds deployment, increases sales, improves profits, and creates customer satisfaction. But using knowledge correctly in an organization requires an understanding that the mere availability of simple, disconnected bits of information is not knowledge and cannot adequately address these enterprise imperatives.

With that in mind, the subject of this Guide is a discussion on the use of knowledge management to enhance customer satisfaction through effective customer service. Customer service, as defined in this Guide, includes customer support, technical support, and product support.

Why Enterprises Implement KM Solutions for Enhanced Customer Satisfaction

There are a number of issues that are increasingly obvious to business executives that motivate them to consider KM solutions in order to meet the customer satisfaction goals of the enterprise. Of course customer satisfaction touches many areas of the enterprise including product quality and suitability, price points, warranties, speed of delivery, etc., but one key area of customer satisfaction occurs when the customer has a

problem or a question that needs to be answered. Many people think that a customer problem is a disaster, or worse, not important at all! Successful enterprises, however, recognize that a customer problem may be an opportunity to cement a lasting relationship with the customer by taking care of the problem quickly and efficiently, with good humor and real concern for the customer’s satisfaction. But this cannot easily be done without KM solutions.

Critical Issues Facing Customer Service Organizations

Customer Service concerns head the list of enterprise issues as organizations struggle with the broad implications of new e-business models. Among those concerns are the following issues that are related to the KM discussion.

1. **Growth in on-line customer base** — As successful businesses continue to build their customer base it is not unreasonable to expect that e-commerce could generate a tremendous increase in on-line customer activities.
2. **High expectations** — Today’s customers are increasingly conditioned to expect superior customer service or they can easily move to a more satisfying competitor.
3. **Costly and complex** — The cost and complexity of maintaining an effective level of customer satisfaction grows in dramatic proportion to the size and sophistication of the customer base.

¹ Source: Gartner Group, L. Wallace, F. Caldwell, *Business Process Modeling and Knowledge Mapping*, May 2000

4. **Significant challenges** — There are real challenges to maintaining a high level of customer satisfaction, including:
- **Increased call volumes cause mounting delays which drive customers away:** When the competition is never more than a mouse click or a phone call away, frustrated customers can — and do — go elsewhere to satisfy their needs when they get “stuck on hold”.
 - **Ratio of customers to agents:** The difficulty in maintaining a traditional ratio of contact center agents to customers is exacerbated by a fast growing customer population. In a business environment in which Internet access can multiply the customer base by several orders of magnitude, it is simply not possible to maintain traditional agent to customer ratios.
 - **Developing experienced and effective agents takes time and money:** Developing the all-important human resources to succeed at customer service takes time and costs money. Good people are often hard to find and organizations can be hard-pressed to find and develop sufficient support staff, and to cultivate their expertise.
 - **Turnover and job changes can mean knowledge gets lost:** If hard-earned knowledge about support issues remains locked in key agents’ heads, it walks out the door when they do. Organizations that invest heavily in developing service and support staff can easily lose their investments when such staff leaves or moves into other positions.
- **New agents need extensive training to become productive:** Entry-level agents must learn and master large amounts of information while developing communications and relationship skills. It takes time and effort for service and support agents to come up to speed and assume a full workload even though their expense goes straight to the bottom line.
 - **Identical queries must be repeatedly researched and answered:** When knowledge isn’t shared, agents must repeatedly research and reply to the same questions. This causes considerable duplication and waste of effort and resources.
 - **Information accessible to some agents may not be accessible to all agents:** In traditional, labor-intensive support organizations, expertise grows over time and is related to ability, background knowledge, and problem-solving skills. Some agents know more than others, and can therefore handle a wider range of queries. This can lead to inconsistent and unsatisfying service and support encounters for some customers.

Knowledge Management Is the Solution

Knowledge is as much a product of learning (e.g. “the last time this happened, the right solution was to use the IRA account number, instead of the main account number”) as it is a function of understanding the abstract relationships that affect underlying causes

or effects. Customer queries, therefore, must be addressed within the context of the situation in which their questions occur. Automatically resolving such queries through proper KM requires that the system prioritize the substitutions, corrections, or workarounds that are most likely to remedy the situation; and this knowledge can then be made available to end users or support agents.

For most organizations, training support agents can be an exercise in repetition and frustration. It takes time for individuals to learn the right set of symptoms, fixes and information that is most likely to satisfy customers' issues. No sooner does an agent master this complex body of knowledge than he or she changes jobs or leaves the organization, taking their knowledge with them when they go.

KM solutions attempt to make these vast, implicit bodies of knowledge as explicit as possible, and make it possible to organize, search, use, and adapt any explicit body of knowledge in response to changing customer needs, circumstances, and technologies.

Employing a knowledge management solution can make a huge difference in resolving the issues described previously, as follows:

- **The ratio of call agents to customers can be controlled and the interaction can be made more efficient:** A knowledge management solution that enables enterprises to offer customers, partners, and end-users effective self-service access to support knowledge permits consumers of knowledge to handle many of their own queries directly. This lets the organization leverage its service and support staff to concentrate on more difficult calls and to provide faster escalation and resolution.
- **Increasing call volumes can be handled via Tier Zero:** The self-service aspect of a knowledge management solution means that

customers can search for answers to their questions 24 hours/day via the web. By providing this tier zero support, live agents can devote their time and resources to answering more complex questions. According to the Gartner Group, the average call to a help desk can cost as much as \$27, but it can cost as little as a quarter of that for a user to check an online knowledge base.²

Robert Mirani, Research Director for CRM at the Yankee Group says that “allowing customers access to corporate knowledge assets through self-service web-sites is a crucial component of next generation customer support — great customer service is not just about call tracking, but providing quick, accurate answers to customer inquiries”.³

- **Expertise can be shared:** A knowledge management solution not only captures scarce expertise, it makes that expertise available to all support and service agents uniformly. Thus, organizations can leverage their knowledge and make it much more broadly and consistently available to their customers, partners, or end-users.
- **Turnover and job changes do not cripple the system:** A key capability of knowledge management solutions is to capture knowledge and make it accessible to all service and support agents. Thus, knowledge no longer stays with those who hold or discover it; it becomes an organizational asset available to all who need it. This addresses two essential problems: the challenge of making the job more effective and satisfying so that key people stay with the company; and it addresses the problem of how to keep the

² Source: Gartner Group, ComputerWorld, September 11, 2000

³ Source: Robert Mirani, Research Director, CRM, Yankee Group, April 2000

knowledge in the company if a key person does leave. Therefore, it can reduce turnover and minimize the impact when it does occur.

- **Training time for agents to become productive is reduced:** By training service and support agents to effectively use a knowledge management solution they quickly become productive. Once agents know how to use their KM solutions, they become much more efficient and are ready to consistently and accurately deal with whatever customer queries may come their way.
- **Identical queries can be answered from already-discovered solutions:** Once knowledge is captured in a KM solution, it is readily accessible to all agents. Thus, once a question is researched and answered the benefits of that work is available to anyone who needs access to that information. The result is increased productivity, allowing agents more time to deal with new queries and improve customer satisfaction.
- **Information is accessible to all agents:** Because knowledge captured in a KM solution is accessible to all agents, individual agents can reach the same level of expertise by building on each other's experience and knowledge. High level, built-in mechanisms for enterprise-wide replication in KM solutions enable agents in remote offices to have access to the same information as agents in the organization's headquarters — ensuring consistent, right answers.

Implementing Knowledge Management

Knowledge management is as much an activity (“something you do”) as it is a type of system or technology. That's why it's worthwhile to explore what's involved in implementing knowledge management, or to put it more formally, in capturing existing knowledge within an organization, and then adapting that old knowledge while capturing new knowledge going forward. The process can involve a series of steps: creation, identification, collection, organization, sharing, adaptation, and use.⁴ Once such knowledge is captured, knowledge management professionals can apply the processes of analysis, organization, assigning relationships and priority rankings between questions and answers.

To begin, implementing a KM system within an organization means analyzing its current sources of knowledge. This includes not only capturing useful information from wherever it may exist, it also requires analyzing call logs, customer e-mails, and other sources of customer interaction to learn not just what the answers are, but what questions make such answers necessary. The phases that a KM effort goes through when capturing knowledge, and the activities related to completing each phase are:

- **Document knowledge:** Analyze all possible sources of organizational knowledge to build a taxonomy of knowledge types and to decide what attributes and values should be associated with

⁴ Source: APQC and Arthur Andersen, 1995

each type (let's call an instance of some knowledge type — a specific item of knowledge — a knowledge element). Next, examine all possible sources to uncover existing knowledge elements, and make it possible to discover new knowledge elements.⁵

- **Share knowledge:** Start by recording all known knowledge elements from documents, communications, and subject matter expert interviews. Analyze the collection to classify knowledge elements by type, and to establish a hierarchy or organization among types. Finally, tag the knowledge elements and hierarchy information to make it possible to search the knowledge base by keyword, explicit match, or relationships to one or more named problems. At each step along the way, include input forms to elicit feedback from KM system users about knowledge elements, element organization, element search and retrieval, and element relevancy.
- **Apply knowledge:** This is where customers and support staff interact with the knowledge base to locate and use relevant knowledge. This is where it is essential to refine the contents of knowledge elements and to adapt the structure of the knowledge base in response to such interaction. The ability to make and suggest useful relationships between problems and solutions is powerful enough to enlist a strong buy-in from support staff and knowledge management professionals when they see that a dynamic system can improve

⁵ There are other sources of knowledge that are worth investigating. ServiceWare, for example, offers its RightAnswers.com™ knowledge portal, which takes the form of knowledge channels that together comprise the world's largest collection of multi-vendor support content. These knowledge channels include hundreds of thousands of problem-solution pairs, along with diagnostics, illustrations, technical articles, and reference documents for more than 3,000 hardware and software products. Available channels include Microsoft, Novell, 3Com, PC Show and Tell, and BugNet. ServiceWare's own Foundation Channels include solutions for Netscape, Corel, Lotus, Linux, and Microsoft, just to name a few.

search results, agent productivity and customer satisfaction.

In general, and within the context of customer service systems based on customer contact centers, KM encompasses the broad range of capabilities needed to logically capture, organize, share, and use knowledge elements in order to recognize problems and suggest possible solutions to customer service queries. The following functions are crucial for a successful KM implementation. KM vendors must provide solutions that are able to:

- **Capture and organize knowledge elements** for identification and relevance ranking. At the outset of a KM system implementation, existing knowledge must be captured; and as the system is used over time, new knowledge must be added as needed, and likewise captured, organized and ranked for relevancy.
- **Apply contents of the knowledge base** to incoming queries to look for matches and establish relevance between knowledge elements and query contents. The KM system must make it possible to analyze the lexicological and semantic content of queries to look for whatever connections or relationships might exist between queries and knowledge elements.
- **Maximize re-use of knowledge elements** — any relevant query is represented in a KM system as it occurs, generating a knowledge element that will be considered each time a similar query occurs.
- **Represent any workflow or organizational process** with its own application-specific sources of knowledge within the KM system — thus, HR professionals could have access to HR knowledge, IT professionals to IT knowledge, and so forth.

- **Solicit continuous feedback** on the applicability of existing knowledge elements to new situations, new problems and new scenarios. This permits the number of element relationships to grow, and explains how organization and relevancy ranking can improve with time, thereby increasing the value of the knowledge base itself.⁶

Experience has shown that implementing a KM solution is both attainable and desirable within most organizations. Typically, it is possible to conduct a standard initial implementation within thirty business days. Within that timeframe users are able to demonstrate the success of installing, populating, and using a modest knowledge base system to address service or support issues within a well-defined problem area.

This initial implementation enables organizations to understand the processes and methodologies necessary to carry out a successful KM project and can provide a powerful demonstration of a KM system's capabilities within the user organization. The right supplier can also provide all the necessary project management, systems engineering, knowledge management consulting, technical training and support needed to obtain the results targeted from an initial deployment.

⁶ ServiceWare's KM solutions are based on industry-standard component technology, and use the patented Cognitive Processor™, an associative network that provides each user the "collective experience" of everyone who has previously used the system. Unlike a standard text search model, where each person's search is an independent interaction, eService Suite™ products allow a customer to capitalize on the successful searches of those who have gone before.

Checklist:

What Knowledge Management Systems Should Deliver

- Support for multiple channels of user access, including Web, e-mail, chat, and VoIP
- Personalized, self-service end-user experience (whether access from inside or outside an organization)
- Costs must scale effectively as services needs grow and expand
- System must support unassisted service (self-service) and assisted service with equal facility (and be able to track interactions from the unassisted side into the assisted side, so support staff can put a customer's problems into context)
- Ability to capture feedback from end-users, customers, support staff, and knowledge management
- Rapid solution development with proactive service for end-users, so that any unsolved problem is solved as soon as possible
- Must apply to any subject area, from sales to customer service, where knowledge elements can be captured, organized, and ranked for relevancy. Ideally, a KM system should be able to handle multiple subject areas within the same overall framework.
- KM vendors must supply training and consulting support, so that organizations can learn how to utilize the system, and build their knowledge bases
- KM systems should be able to incorporate pre-existing knowledge bases, especially for widely used IT products and technologies.

Benefits & Payback for Knowledge Management

Given the right degree of investment in KM systems and technologies, and the right level of organizational commitment to their deployment, upkeep, and regular use, the following benefits for KM may be realized:

- Re-use of existing knowledge elements prevents recurring costs related to repeated research of the same topics, and repeated formulation of the same solutions.
- Access to in-depth knowledge elements for support staff, partners, and customers improves the customer service experience and speeds the time from problem statement to problem resolution.
- Support organizations can deliver faster, more accurate responses to questions. Be it from a successful self-service support, or from an assisted service call, customer satisfaction improves when problems are resolved quickly.
- Faster resolution of support calls means improved support staff productivity: support organizations can handle more incidents overall (particularly when self-service works for common problems and queries), and support staff can concentrate on helping customers with more serious problems or questions.
- As a knowledge base is used over time, continuous feedback from its users helps the system improve relevance ranking, identify new and improved solutions, and establish the applicability of known solutions to all related problems. This increases the value and usability of the knowledge in the knowledge base.

- Because KM systems can capture and manage knowledge from just about any subject area, organizations can use their KM systems to handle problems across a broad range of topics and job functions. This permits the knowledge base to become a real repository of collective organizational wisdom.
- Because support volume can increase dramatically with little or no increases in cost for support personnel, and the most needed knowledge is available online 24/7/365, organizations that deploy KM systems become much more competitive than those, which don't. They can offer more services more often at the same price as those organizations that still rely on 8-hour or half-day telephone support coverage.

The proper use of a KM system to support even tough calls ensures that answers based on shared knowledge come up quickly, and are far more likely to be correct. The paybacks from a committed investment in KM systems and technology go beyond controlling escalating support costs. They also involve an increase in customer satisfaction, the ability to capture knowledge and resolve related problems of all kinds, and an increasing ability to recognize and deal with an organization's problems, no matter where and how they occur.

As a result, proper deployment and use of KM systems and tools promise a substantial payback. Not only can organizations do more with the same or fewer resources, they can also deliver a better quality of service to their customers.

Summary

Organizations are moving to a 24/7/365 e-business model. In this nonstop environment, the quality of the customer or end-user experience is key to maintaining market and mindshare in the new economy.

Enterprise executives who recognize this new business paradigm and who are willing to commit their organizations to a process aimed at embracing this reality will gain a tremendous advantage from deploying knowledge management systems and technologies. By building on their organizations' customer support experiences and by making the most out of their current investments in support staff, these enterprises can gradually move from seeing customer support as a costly and reluctant overhead to recognizing it as a business advantage.

KM technology holds the key to capturing the most precious of all business commodities—it's workers' knowledge. Turning that knowledge into a dynamic, re-usable resource that is always improving in value provides a level of customer satisfaction that is unsurpassable in today's competitive e-business world.

Case Study I: One-to-One with ServiceWare Customers

A conversation with David Breit, director of customer service technology for Marconi, about knowledge management, self-help and creating a service-oriented corporate culture.

Customer Snapshot

With roots in the work of the Nobel Prize winner and wireless communications pioneer, Guglielmo Marconi, Marconi p.l.c. is one of the world's fastest growing communications and IT companies. Before becoming Marconi in November 1999, the company was known as GEC (The General Electric Company, p.l.c.) Today, the company is comprised of a wide range of organizations including Marconi Communications, providing high-performance broadband solutions for the New Public Network and Modern Enterprise; Marconi Services, facilitating network planning, building, and operation; Marconi Mobile, providing private mobile and strategic communications solutions; and Marconi Systems, offering advanced electronic and information technology solutions for customers in more than 100 countries including various industries. Marconi is a global-leader in smart broadband optical networks, ATM backbone switches, telephony products, wireless products, medical imaging and more.

Marconi's ServiceWare Connection

A team of internal analysts plus a worldwide network of field-service personnel provides customer service, installation and trouble shooting for Marconi's constantly expanding product range. In a two-pronged effort to provide consistent and high quality information while reducing training necessary to prepare analysts and field personnel, Marconi turned to ServiceWare for a Knowledge Management eService solution that could be integrated into its already internationally recognized Web-based Support Services Center.

Today, Marconi's internal analysts are up and running on ServiceWare's eService Suite™ knowledge management software. Expert knowledge is available to junior and senior level analysts alike and training time has been reduced dramatically. David Breit discusses the company's experience as a ServiceWare customer in this One-to-One Interview.

SW: Can you give me an idea of what led you to ServiceWare?

M: I'd be happy to. Like many companies that experience rapid growth, we realized that small pools of information were developing throughout our organization. To maximize the effectiveness of our support organization, we wanted to make this knowledge available to our own people and our customers. That meant organizing the knowledge in a central place. Keep in mind, this was in 1997 and we were a bit ahead of the curve. However, we knew what we wanted to accomplish and had a good idea of what would or wouldn't meet our needs.

SW: What kind of options did you consider?

M: We found that database options fall generally into two schools of thought. One simply indexes documents and notes into a search engine so they can be

easily found. The other philosophy — the one that ServiceWare fits into — packages knowledge into clean packets of information that are placed into a centralized database in a structured, organized fashion that can be presented to users and internal staff.

SW: What excited the people at Marconi about the ServiceWare eService Suite concept?

M: In general, when customers go to the Web for solutions, they want to emulate their best service experiences from the physical world. Therefore, we wanted a trouble-shooting or problem-flow analysis mode where people can walk through sort of a “Is this the case?” “No, it's not” “Well try this” scenario. We were very excited to find that eService Suite would give us the ability to build trees of information that do just that. We also needed a scalable solution we could roll out worldwide throughout our existing organization. And again, ServiceWare has provided these tools as well as the other key elements we were looking for.

SW: You mentioned that alternative solutions are based primarily on a search engine. What is the drawback to that approach?

M: From our perspective, the number one problem with a simple search-engine approach is that the information displayed to the end user is uncontrolled. Our ultimate goal is to promote self-support by opening our knowledge base to our end users. Therefore, we must have a system that allows us to edit content while providing a process flow that ensures the knowledge we provide both internally and externally has been reviewed and meets basic criteria before it's published.

SW: You bring up a very interesting point. Does this mean that the knowledge you present in your online help Web site has to meet the same kind of standards as brochures and other collateral?

Even more important, the eService Suite process helps us ensure we give not just the right answer but the “best” right answer. This is crucial in complex, business-to-business product support.

SW: I understand that you also have goals associated with training. How can a company like ServiceWare help in that area?

M: We’ve actually realized significant training improvements that are tied to the eService Suite implementation.

Basically, our technical support team is divided into three levels. A person can begin as a Level One support person and then advance to Level Two and Level Three status — so the training received at all levels is important.

Our Level One Analyst’s responsibility is to take a phone call, get as much information about the customer and about the problem as possible, enter it into the Remedy™ call tracking system and pass it off to the Level Two Analyst within about three to five minutes. The great thing now is — with the eService Suite implementation these frontline people can handle many of the simple problems themselves.

SW: How does this compare to life before you began working with ServiceWare?

M: Before we implemented the eService Suite solution, our Level One Analysts never answered technical problems. They basically took a call, took down some general information and passed all questions to

our Level Two Analysts. Right now our Level One Analysts handle about 50% of the incoming calls.

We used to spend almost 90 days training new hires before putting them on the phones. We’ve dramatically reduced training time to a little less than eight weeks. With the knowledge database, our employees know they’re giving the right answers, so their confidence level is heightened. This makes them more productive, improves our call resolution metrics and makes customers happier. It also helps with employee satisfaction — because motivating and keeping good analysts is critical.

SW: What about the other levels of analysts— do they use the system too?

M: Oh yes. The bulk of our organization is made up of Level Two Analysts whose jobs are to solve customers’ problems 100% of the time. These people basically live in our eService Suite database where they search for solutions for customers. We’ve integrated eService Suite with Remedy call tracking, so if the solution to a customer’s problem is not in the system, the analyst can go back into Remedy and work the case in a more traditional fashion.

Once the case is complete, the new solution is submitted through the eService Suite ‘contributor’ element with the push of a button on the Remedy screen. At that point the analyst reviews the information, verifies that it is technically correct and if it is, makes the new solution available to our internal technical staff only. It’s not viewable by the outside world because it hasn’t been cleansed and scrubbed by an auditor — but if someone calls with a similar problem five minutes later the analyst working the case will find a solution.

SW: And what about the Level Three Analysts? Where do they come into play?

M: Our Level Three Analysts are really our technical product specialists. They handle the very difficult problems and, if necessary, interface with engineering about hardware or software issues. In addition, they play an important role authoring the knowledge for the database.

Our Level Three Analysts use the eService Suite Architect Module. When knowledge is contributed by a Level Two Analyst, a Level Three Analyst goes into the Inbox tool (which is a very nice tool that ServiceWare provides) and verifies that the solution is technically sound, complete and the best solution. At the same time he or she will enhance or embellish the information as necessary and adjust grammar and style for consistency. Once completed the solution gets passed back to our supervisor who does a very meticulous check before it is made available to customers for self-help.

SW: How long does that whole process take?

M: From start to finish, most solutions are posted into the customer-searchable database within two days, maybe five for a very complex issue. But remember, the solutions are made available to internal analysts at the Level Two stage, so our internal staff can draw from that knowledge virtually in real time.

SW: How does this process affect the corporate culture at Marconi?

M: First and foremost, the eService Suite solution has made our people more self-sufficient. Our internal and field staff can log onto the Web interface and find answers to their problems without having to call in.

This has dramatically reduced our call volumes. Also, as I previously mentioned, our new hires become actual contributors to solving problems much faster than before.

There are philosophical ramifications too. Many companies have an unspoken undercurrent that creates a feeling that knowledge is power — kind of an “I’ll keep it all to myself and I’ll become indispensable” mentality. This simply doesn’t work in today’s demand-driven, Web-driven economy where customers rule. The improved online self help and support ServiceWare helps us provide supports a very important set of corporate goals: to provide better service, faster service and better quality answers to our customers — that’s what we’re here for.

SW: Do your customers notice a difference? Are you seeing improvements in customer satisfaction now that they can actually go in and get the information themselves?

M: Absolutely. We receive emails from customers all the time who tell us how much they appreciate the knowledge database, how much it has sped up the solution to their problem. They think it is a very valuable addition to our Web site. Plus, with the escalation mechanism that is built into the knowledge database, customers can communicate with an analyst via email if the knowledge database doesn’t go into enough depth or does not solve their problem.

SW: Ok, here’s the big question. What was the implementation process like?

M: Actually the time it took to implement the eService Suite solution was shorter than we expected. I would say the entire implementation took about three weeks.

SW: What about the interface with Oracle? How did it go?

M: It went very smoothly — in fact, it was quite simple. We were among the first companies to interface eService Suite and Oracle with the version of Remedy we use. That process went very well. ServiceWare sent out a very competent team of project managers and developers to facilitate the integration, so we had the transition completed within a two-week period.

SW: Would you consider one of ServiceWare's core competencies to be the team of project managers and the level of knowledge they're able to bring in to solve specific problems.

M: Right. We were very happy with the ServiceWare implementation team, both with their technical skills and their ability to prepare our large staff for the process.

Prior to the actual implementation, the ServiceWare team surveyed our management to understand our expectations. When we were ready to move ahead, their technical folks came in and pretty much implemented the entire set up as a turnkey project. All in all, the implementation was extremely well orchestrated.

SW: About how long did it take before you started receiving results?

M: We started realizing benefits in about eight weeks. However, I think we saw the maximum return in about 90 days. To be honest, since we started at zero and had to build up to a critical mass we have actually held people back. We really wanted to develop and input a comprehensive set knowledge into the database before we encouraged our staff to start actively looking.

SW: Is there anything else that I should know that I could tell someone who is looking at ServiceWare or considering another product?

M: One interesting thing is we recently revisited our decision to implement eService Suite by talking with other knowledge database vendors to determine if we are still using the best product. At the end of that analysis we came to the same solution: ServiceWare is still the best company for us to work with.

To learn how ServiceWare can help your company develop an online support presence point your browser to www.serviceware.com or call 1-800-572-5748.

Case Study 2:

Stream International

Stream International Inc. provides innovative customer care and technical support services. With over 7,000 employees, innovative technologies and the commitment to continuously exceed the expectations of its clients, Stream has a global reputation for enhancing the customer experience for the world's premiere technology businesses. On a twenty-four hours a day, seven days a week basis and in 13 languages, Stream harnesses its knowledge resources to resolve over 20 million customer and technical issues annually in its eleven contact center locations in the United States, Europe and a joint venture in Japan.

To manage these complex inquiries and improve responsiveness to customers, Stream wanted to put a knowledge management infrastructure in place that would leverage best practices throughout the organization.

Using ServiceWare's solutions, Stream can now gather, document and refine knowledge, and make that knowledge available through several mechanisms to internal employees. Stream selected our solution for its technically advanced knowledge engine, its ability to be easily integrated with other information technology systems and our strong expertise in the knowledge industry. For clients using eService Suite, information that is captured from every customer interaction, whether via telephone, email or chat, is channeled by eService Suite into Stream's knowledge base.

Additionally, this knowledge is made available as a self-service option to its customers via the Web. After installing eService Suite, Stream quickly became more effective in their ability to solve and report customer problems. Support agents have significantly decreased call escalations and improved the consistency and quality of answers.

Case Study 3:

Yamaha Corporation of America

With an inventory that includes a wide range of music-making devices, from pianos and synthesizers to electric guitars, sound equipment and CD recorders, the Product Information Department at Yamaha Corporation of America supports over 1,850 products, including recently added lines to its U.S. product offerings and all products carrying the Yamaha name, even if they have been discontinued. With the interactive Yamaha Solutions Network™ located on the Service & Support section of its Web site, Yamaha has made their knowledge directly available to their customers via the Web and, in the process, improved customer satisfaction.

Based upon ServiceWare's eService Suite, the Yamaha Solutions Network features a constantly evolving knowledge base that provides the answers that customers need when they need them. Since its deployment, Yamaha has experienced a decrease in its time-to-resolution as well as in the number of calls to Yamaha's support center, while improving customer satisfaction significantly. In addition, because the product information is categorized and managed by our software, Yamaha has been able to partially outsource the support related to one of its new high-tech products. Yamaha has recently been awarded the prestigious WebStar award by the Software Support Professionals Association, which recognizes companies that utilize the Web to excel at meeting their customer service expectations.

Glossary of Terms

Artificial Intelligence — The branch of computer science concerned with making computers behave like humans.

Call Center — A physical location where calls are placed, or received, in high volume for the purpose of sales, marketing, customer service, telemarketing, technical support or other specialized business activity.

Chat — Real-time communication between two users via computer.

Call Management System (CMS) — Software used to track customer and employee calls coming into the call center or help desk.

Cognitive Processor™ — Cognitive Processor is ServiceWare's patented self-learning technology for capturing each client event (electronic or live interaction) so that future events with similar or same queries can be resolved faster and more accurately.

Customer Relationship Management (CRM) — An integrated information system that is used for sales, marketing, and customer service activities.

Customer Support — Service that computer and software manufacturers, and third-party service companies, offer to customers.

eBusiness — The use of Internet technologies to bring together customers, business partners, suppliers and employees.

End User — The final or ultimate user of a computer system. The end user is the individual who uses the product after it has been fully developed and marketed.

Enterprise — The entire business conglomerate networked together as a single operating entity.

Escalation — The process of raising a problem or question to higher levels of attention or expertise.

eService Suite — ServiceWare’s set of web-based solutions for customer service and support. The Suite consists of three core components: eService Site, eService Professional and eService Architect. Also included in the eService Suite is access to ServiceWare’s online help desk solution, RightAnswers.com™ and their world-class professional services and support.

eService Site — ServiceWare’s browser-based application which allows self-service users to query a knowledge base to solve their technical, product or service issues in an unassisted mode.

eService Professional — ServiceWare’s eService solution designed for customer service professionals in the call center. With this product agents are able to access existing knowledge, increment the “collective experience,” and submit new knowledge. The system has a highly intuitive user interface that provides the ability for any agent to add knowledge “on the fly.” In addition, it can host embedded applications for e-mail and chat, providing a single, seamless interface for a variety of interaction options.

eService Architect — ServiceWare’s eService solution for authoring and publishing knowledge into a knowledge base. eService Architect provides the administrative and editing tools necessary for ensuring that high-quality knowledge is published to the right audience as quickly as possible. The application contains tools for reviewing new knowledge submissions; providing style and technical reviews; and determining which knowledge should be viewed by the outside world of self-help users, and which knowledge should remain internal, for use by subject matter experts.

Help Desk — A department within a company that responds to user’s technical questions. Most large software companies have help desks to answer user questions.

Intellectual Capital — The real asset value of the knowledge and experience of an organization’s members.

Internet — A global network connecting millions of computers.

Intranet — A network based on TCP/IP protocols belonging to an organization, usually a corporation, accessible only by the organization’s members, employees, or others with authorization.

Knowledge — Accrued understanding of Enterprise related information gained through experience or study.

Knowledge Base — The accumulation of business-related information stored within a database.

Knowledge Channels — Specific collections of problem-solution pairs, diagnostics, illustrations, technical articles, and reference documents pertaining to software and hardware products within RightAnswers.com.

Knowledge Management — A discipline designed to identify, manage and share all of an enterprise’s information assets. These assets may include existing knowledge in databases and expertise of individual employees. Knowledge Management also includes developing, implementing and maintaining technical and organizational infrastructures that support knowledge sharing throughout the enterprise.

Natural Language — Programming computers to understand natural human languages

NOTES



A YAMAHA GUITAR IS MUSIC TO THE EARS. SO IS THEIR CUSTOMER SERVICE.

In today's competitive marketplace, customer service is a top priority. Which is why for nearly a decade, innovative companies like Yamaha have turned to ServiceWare for the technologies and services they need to improve their customer care. With ServiceWare, your hard-earned customers have immediate access to proven, accurate answers across all touch points: Web, phone, e-mail or in person. For more information, visit www.serviceware.com or call 800-572-5748. Because after all, if your customers aren't with you, they're probably against you.

ServiceWare

Web solutions for enterprise service and support

This **Technology Guide** is one in a series of topic-focused Guides that provides a comprehensive examination of important and emerging technologies.

This series of Guides offers objective information and practical guidance on technologies related to Communications & Networking, the Internet, Computer Telephony, Document Management, Data Warehousing, Enterprise Solutions, Software Applications, and Security.

Built upon the extensive experience and ongoing research of our writers and editorial team, these Technology Guides assist IT professionals in making informed decisions about all aspects of technology development and strategic deployment.

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