



KMXperts
KNOWLEDGE SOLUTIONS

Knowledge Management for Remedy

Best Practices for the Knowledge Initiative

A Professional Services White Paper

May 19, 2005

Best Practices for KMR and the Knowledge Initiative

Strong technology has never been sufficient to guarantee success in knowledge-based Service Resolution Management.

Support teams implementing Knowledge Management solutions tend to focus most of their attention on the knowledge repository and the search tool they are adopting. But strong technology has never been sufficient to guarantee success in knowledge-based Service Resolution Management. Success requires an appreciation of the complexities, and development of sophisticated solutions, not just in the application of tools, but in at least three other types of issues:

- People issues
- Process issues
- Content issues

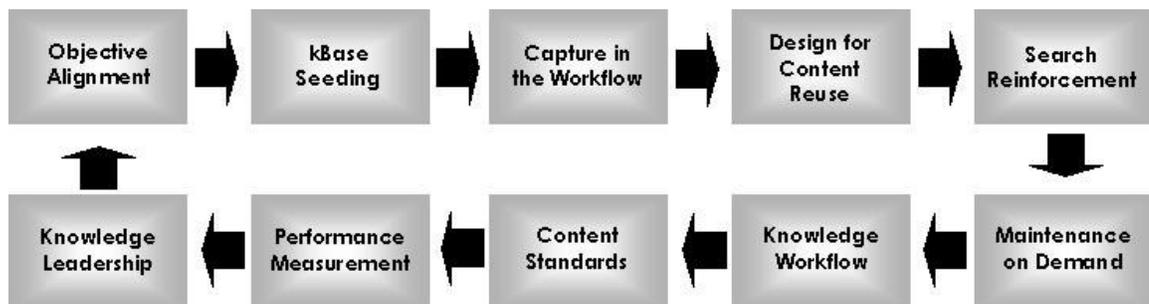
KMXperts has designed a methodology and a set of professional services to provide a reliable roadmap to successful implementation of the Knowledge Management for Remedy (KMR) solution.

This methodology joins the collective experience of one of the support industry's pioneer knowledge management leadership teams with the industry's emerging Best Practices for knowledge. KMXperts has, for example, elected to adopt **Knowledge-Centered Support (KCS)**, an influential set of Best Practices developed by the Consortium for Service Innovation™ (www.serviceinnovation.org), as a source of guiding principles for design and implementation.

The purpose of this White Paper is to lay out the elements of a roadmap for your organization's implementation of Service Resolution Management tools and methods.

The Roadmap

Successful leveraging of customer support knowledge is a permanent commitment, a process that has no specific starting and ending points. It requires adoption of a cyclical process for establishing and constantly renewing Best Practices. KMXperts believes the most critical best practices are in the following 10 stages of implementation.



A 10-Step Knowledge Best Practice Schema

1. Objective Alignment

IT projects generally are sponsored and funded by companies or departments/functions within companies. It is critical to remember, however, that all projects are driven by *individuals*, who have individual agendas. This is particularly true of knowledge initiatives. When resources are scarce, no matter whom the initial driver for adoption is, the knowledge base must have an executive sponsor – a **Champion** – to secure funding and support.

BEST PRACTICE: Identify a Champion, and secure his or her continuing commitment to supporting knowledge tools and practices by understanding how the knowledge base advances the Champion's professional objectives.

If the Champion has staked prestige on Six Sigma, or ITIL, or some other, larger initiative, position the knowledge base as an offshoot of that initiative, if possible. Ensure that everyone on the team that has a significant stake in the knowledge base understands the Champion's goals and align the initiative's objectives with those of the Champion. This will give the project's executive sponsor continuing incentives to lend prestige, influence and funding to the knowledge tools and practices you seek to establish and sustain.

2. Knowledge Base Seeding

One of the first challenges in establishing knowledge-sharing practices in the support organization is: How to build analyst and customer excitement about the knowledge base. You must give the early adopters of your system a taste of success, so you can depend on them to build broader support. But in order to provide a satisfying user experience, you must start with some knowledge base content. The issue is: Where does the initial seed content come from?

Published methodologies such as KCS are ambivalent about the pre-seeding of knowledge bases. KCS counsels support organizations to let go of legacy knowledge and let practical experience – the *workflow* – generate the knowledge for the knowledge base. However, it takes time to amass a significant base of knowledge in the workflow, and most organizations legitimately can anticipate at least some of the issues that inevitably will be relevant.

The other extreme is to only rely upon legacy content to resolve issues. Since it has been useful in the past, at least some of your legacy content will enable resolution of common problems. But a large proportion of legacy content will be outdated, will pertain only to rarely occurring issues or will exist only in a form that is unwieldy for anything but offline reference purposes.

BEST PRACTICE: Analyze past occurrences based on your legacy call data, and identify the highest priority areas for problem

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solving – e.g., your five most frequent types of problems. Then make a prudent investment in building out knowledge domains that will enable your team to resolve those kinds of issues in most cases, on day one of your implementation. Then **stop**, and let actual experience dictate what knowledge you build.

For each of these pilot knowledge domains, build a small working group including individuals from all tiers of your support organization to map out the logic they would use to diagnose and resolve the issue. Include Tier 1 agents, the people closest to your customers, who are in the best position to frame the issues as the customers frame them. That way you will have the highest likelihood of generating content that satisfies your end users, and that empowers your agents to solve problems and close tickets at Tier 1, avoiding expensive escalations.

KMR is designed to enable *categorization* of issues that allows the Knowledge Manager to establish a useful taxonomy for solutions. The initial identification of priority knowledge domains can be reflected in this taxonomy.

3. Capture in the Workflow

It is widely assumed that, when it comes to trouble-shooting knowledge, more is better. This sounds like common sense, but it conflicts with a practical issue that all knowledge management teams must face: Building knowledge bases is a significant investment of time and effort. In any given area of problem-solving knowledge, “More” will encompass content that, while accurate, may be:

- Based on ideal user environments and configurations that do not match those of the customer;
- Appropriate to resolve issues that rarely occur, have not occurred recently, or are unlikely to occur because root causes have been addressed; or
- Inappropriate for the support agent or customer to use in problem solving.

Once you have your initial base of content, the most pragmatic way to build out the knowledge base is to capture the bulk of the knowledge in the workflow – that is, your agents should be capturing at least the basics in draft form, in the process of resolving the customer’s issue.

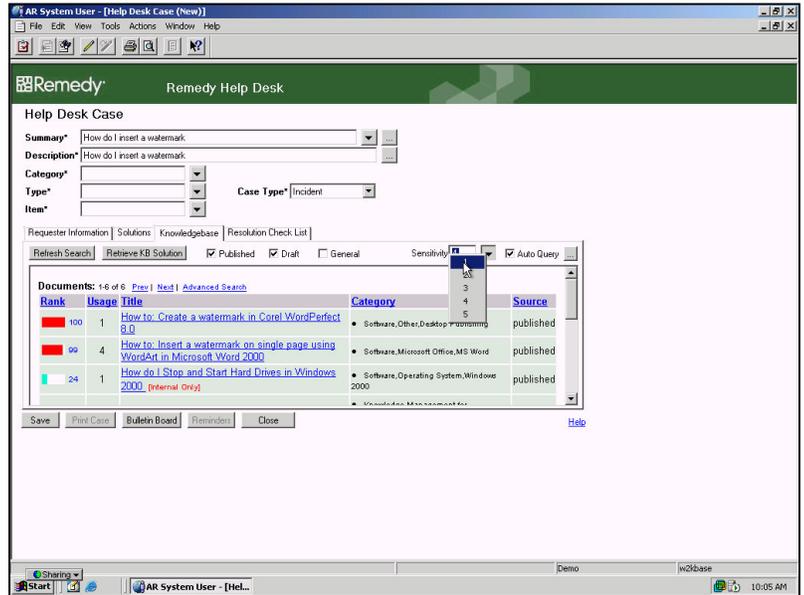
Accomplishing capture in the workflow requires the management of the team to overcome the tendency of agents to see using the knowledge base as something they do *in addition to* solving the customer’s problem. The agent must accept the use of the knowledge base as *the way he or she resolves the customer’s problem*. The distinction is important, and the team will benefit from adoption of this approach in several material ways. Most importantly, the team will capture the knowledge that really solves problems in the customers’

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environment and context, and eliminate the cost of developing the large volumes of content that is relevant only in theory.

Tight integration between KMR and the Remedy ARS or Magic incident management platforms is one of the critical differences between KMXperts and other knowledge tool vendors. **KMR, succinctly, is designed to facilitate knowledge capture in the workflow.**

Wherever relevant content exists in the knowledge base, agents will find that they can populate fields in the incident management system by selecting details from dropdown lists and, by choosing



solutions from the knowledge base. Thus, working with the knowledge base genuinely becomes part of the customer support workflow.

BEST PRACTICE: Capture the symptom and the solution – but also capture aspects of the environment in which the issue arose. KMR’s flexible categorization capability enables the team to develop an issue classification schema that is most effective for your agents’ and customers’ common understanding of critical issues.

4. Design for Content Reuse

In many organizations, the term “knowledge” refers to a collection of documents that have been useful for reference purposes in troubleshooting. Within these documents – often buried deeply – are the answers to specific questions. Different agents will interpret and use documents such as these inconsistently. A critical measure of service quality is the degree to which customers get a common answer each time a given question arises; reference documents rarely are useful in achieving this end.

An effective knowledge base contains Solutions – specific answers to anticipated questions – each designed not only to resolve the issue but to be the best solution every time the question arises. In other words,

A critical measure of service quality is the degree to which customers get a common answer each time a given question arises.

Do not strive for literary excellence; the goals are to be clear and readable during the resolution of the present incident, and easy to find the next time this issue occurs.

an effective Solution is one that is *reused* again and again. Reuse is a measurable attribute of a Solution; it is the strongest measure of Solution quality.

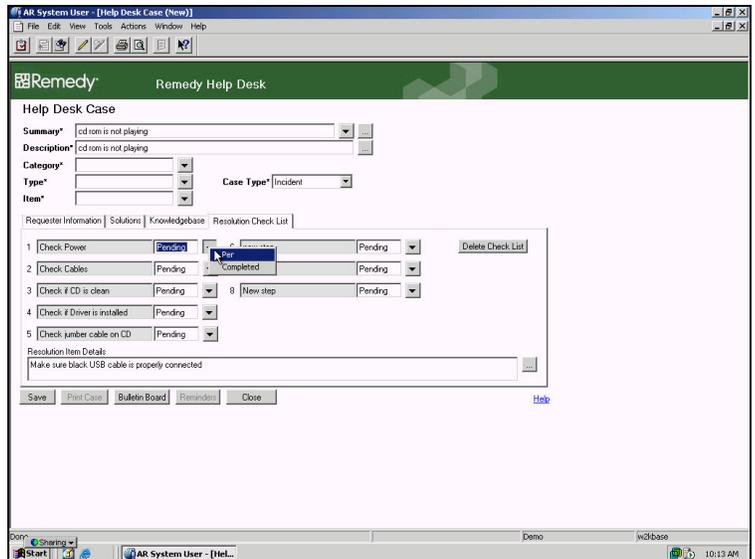
What makes a Solution reusable? It is not a question of length or detail, necessarily. Effectively written, a brief, bulleted summary of a topic with clear steps provided in the right order, is as enabling as a complete, literate article in carefully constructed prose.

The tendency to equate literate, error-free writing with usefulness is understandable, but the fact is, business people commonly communicate in telegraphed, bulleted phrases...not because they are lazy or incapable of completing a sentence, but because this kind of communication works. It is ideal for time-constrained, pressured interactions.

BEST PRACTICE: Just answer the question. In each solution, identify what the customer is asking or trying to accomplish, and provide a brief, specific response that will resolve the issue. Use bulleted phrases or, where appropriate, explain the resolution in *numbered steps*, in order. If the resolution lends itself to the inclusion of a graphic illustration, use one. Do not strive for literary excellence; the goals are to be clear and readable during the resolution of the present incident, and easy to find the next time this issue occurs.

KMXperts has published more specific guidelines on document authoring, and your professional services consultant will provide these guidelines.

KMR supports the authoring of reusable Solutions in several ways. Authors use a built-in WYSIWYG editor for HTML format documents, with functionality that encourages bulleted presentation.



Perhaps more important, a unique feature of KMR that takes advantage of the tool's close integration into the Remedy ARS platform is the ability to migrate a list of resolution steps to the incident ticket in the form of a *Resolution Checklist* that enables the agent to track the status of the solution each step along the way – in *each ticket* where the Solution is reused. Thus, the Solution not only reinforces reuse, but reuse in a consistent way by all agents.

The system reinforces the “findability” of the Solution in future incidents by allowing the capture of synonyms and related terms, so that each solution is associated with all variants of the customers’ common terminology for the issue is used in the search.

It is not always easy to convince support agents that searching has value. Frequently, they believe they know the answer to the issue off the tops of their heads and prefer to simply key in a short description and skip the search, which they see as an extra step.

5. Search Reinforcement

Using the knowledge base ensures its vitality and continuity. The key to maintaining a viable and valuable knowledge base is encouraging and training analysts to search the knowledge base early and often for resolutions to customer issues. Searching is essential to proactive knowledge sharing – e.g., identifying and filling in the gaps in your knowledge base.

It is not always easy to convince support agents that searching has value. Frequently, they believe they know the answer to the issue off the tops of their heads and, pressured to keep their call volumes high and talk times down, prefer to simply key in a short description and skip the search, which they see as an extra step.

This makes it difficult to achieve the objective, explicit in KCS and other knowledge methodologies, of linking a Solution to every ticket in the incident management system, which is crucial to getting genuine leverage from the team’s knowledge. It also leads to an all-too-common practice of deferring the linking of Solutions to incidents until the end of the day, when the agent sets aside time to link or author Solutions retrospectively, in batches – in the process, losing the immediate connection between the Solution and the context of the customer’s problem.

An effective knowledge initiative succeeds in convincing the agents to search the knowledge base every time an incident comes in, even if they know that there currently is no Solution. Why would you want the agents to do this? Because even if the Solution has not been documented yet, capturing the way the customer describes the issue and the environment in which it occurred helps to *frame* the issue and establishes the context for the resolution, when it is written. Even while the agents have no answer that they can share, they can share the framing of the issue, and the knowledge that someone is working on a Solution.

BEST PRACTICE: Establish and reinforce a problem-solving routine in which all agents search the knowledge every time they take a call. Or, as the authors of the KCS methodology put it, “Search early, search often.”

Again, KMR is uniquely suited to this practice because of the closeness of the integration between the knowledge base and the incident ticket. Retrieving the Solution from the knowledge base and transferring the reference to the incident ticket is how the agent populates key fields in ARS – not an extraneous step.

6. Maintenance on Demand

The first obstacle for most people embarking on a knowledge initiative is the belief that “quality” Solutions must be technically and stylistically perfect before they are allowed to enter the “hallowed” confines of the knowledge base. Unfortunately, perfection comes at an unacceptable price in practical situations. There is a tradeoff:



A Solution can be “perfect,” or it can be available immediately to solve customer problems. It cannot have both attributes.

Here is reality:

- **Knowledge is MESSY** – Perfect solutions do not exist. Solutions should always be improving. Analysts should always feel a sense of ownership for every solution they view, to refine that solution and make it better. Thus, your knowledge is constantly a work in progress.
- **Complete solutions are obsolete solutions** – A complete solution is one that is no longer being refined. When a solution gets to that state, the solution is no longer being viewed, modified, or used. Thus, that solution is obsolete. As long as a solution in your knowledge base is being used, your analysts should be reviewing and refining that solution – this continually makes the solution better.
- **Content review should be demand-driven** – Your whole service center is based on a demand-driven model: Analysts resolve issues as customers bring those issues to the analysts’ attention. Your knowledge review process should be the same. You should only review those solutions that will be reused. Your solution review process should be seamlessly integrated into your analysts’ normal workflow.

The idea that Solutions can be deployed in an incompletely verified state and still have value is central to KCS and other methodologies.

These “realities” concepts tend to conflict with conventional Knowledge Management practices. But the idea that Solutions can be deployed in an incompletely verified state and still have value is central to KCS and other methodologies. It is conceivable that in incompletely verified Solution could lead an agent to advise a customer to take steps that would cause additional problems. The important insight of more recent methodology is that such situations are exceptional, and that most support functions derive far more value from immediate deployment of content than from exhaustive verification. In other words, “Perfect is the worst enemy of good enough.”

The key learning is the importance of a “demand-driven” review model, and an investment in education and coaching to enable your agents to adhere to both the style and the process.

BEST PRACTICE: Review and refine the quality of the Solutions that get the most reuse – those are the ones that have the greatest value to the customer. Train the agents not to expect perfection in the Solutions, and when issues arise, to either earmark the Solution for revision by a subject matter expert or editor or, if the agent is authorized to do so, go ahead and fix the Solution at the time it is used. If the knowledge base is available to end users in a self-help mode, collect their feedback on Solution value and modify content to meet their expectations.

Your organization will need a flexible definition of content quality. KMXperts has published guidelines on Solution style and format; you may leverage these insights or develop your own content style guide. The key learning is the importance of a “demand-driven” review model, and an investment in education and coaching to enable your agents to adhere to both the style and the process.

Some Examples of Solution Style Guidelines

Formatting Issues

- Title – how the solution title should look and what it should include
- Bullets and numbered lists – how to use instead of paragraphs
- Bold, Italic, and Underline usage – if and when to use
- Links – how to use and format

Authoring Standards Issues

- Preferred vocabulary and voice – must be consistent; customer terminology preferred
- Use of acronyms – if and when to use
- Use of graphics – if, when, and how to use
- Issue description – what should and should not be included
- Resolution – what should and should not be included
- Keywords – if, when, and what to use

The rule of thumb to follow when establishing a content standard is...**KEEP IT SIMPLE**. Setting a complex standard will guarantee your analysts will not follow it. Keeping it simple increases compliance, accuracy, and speed from your analysts and ensures consistency, accuracy, and speed for your customers.

7. Knowledge Workflow

Close integration between the KMR knowledge base and the incident management system reinforces another crucially important principle: Effective use of support knowledge requires a problem solving workflow structured to enable the agent and the customer to come to

an understanding of the issue before attempting to solve it. This is different from – but not necessarily more time-consuming than – the informal practices of logging incidents and retrieving Solutions.

BEST PRACTICE: Train your analysts to frame the issue first, ideally from the customer’s point of view, so that the next agent can recognize the same situation the next time a customer tries to describe it. In addition, train them to recognize the importance of searching for previous incidents framed the same way, so reusable Solutions can be leveraged.

If the analyst sees that the solution needs to be fixed, enhanced, or refined they should have the rights to either modify the solution on the spot or submit a change request to someone who has rights to modify it indicating what needs to be fixed.

As analysts view/review a solution, they are able to check accuracy, compliance, and applicability to the content standard and the customer issue. Then, if the analyst sees that the solution needs to be fixed, enhanced, or refined they should have the rights to either modify the solution on the spot or submit a change request to someone who has rights to modify it indicating what needs to be fixed.

The system is designed to maintain content in specific “states” to determine where the Solution is in the review process. For instance, the following is a sample of a simple workflow for solution review:

1. Draft
2. Approved
3. Publish

You can always add workflow states later on as you see the need. For instance, you may find the need to have some of your solutions go through a technical review before they are approved. Or, that solutions need to go through a compliance review before they are published to make sure all “i”s are dotted and “t”s crossed.

8. Content Standards

It is crucial to the maintenance of effective knowledge processes that agents/authors adhere to defined content standards. This does not necessarily mean that all authors write to a specific Solution template, nor does it mean that no Solution should be made available for use before it meets tight style requirements. The objective, again, is not perfection. The objective is to maximize the usefulness of the knowledge content, from the day it is created, through a lengthy life cycle until the Solution is no longer relevant and can be retired. The term used in the KCS methodology is “Content Vitality.”

Nearly every support organization implementing a knowledge base has a mandated review process, meaning, that every authored solution must go through each step in the review process before it is admitted into the knowledge base. An analyst authors an article and submits it to the next step in the workflow. The next person reviews the solution, performs the task he or she is responsible for and promotes it to the next step. This continues through each step of the workflow until the solution is “published” – made available in the knowledge base.

Mandated review processes create bottlenecks. Bottlenecks equate to latency between authoring a solution and when it is available for reuse. This translates into a knowledge base large amounts of knowledge languishing in one or more draft states, and published content that is not up to date.

At this point, the value or “quality” of this solution is unproven, because we do not know if it will be reused. If the solution is reused, clearly the time required to review the solution was well worth it. One source of dissatisfaction with knowledge initiatives in the past has been that many, or most, of the solutions authored are never reused. Thus, using a mandated review workflow requires significant resources and costs a great deal in time. Mandated review processes create bottlenecks. Bottlenecks equate to latency between authoring a solution and when it is available for reuse. This translates into a knowledge base with high *latency* – that is, large amounts of knowledge languishing in one or more draft states, and published content that is not up to date.

BEST PRACTICE: Implement a demand-driven review model, in which content is released after a rapid, not necessarily exhaustive review, so that it can demonstrate its value as soon as possible through reuse. As analysts research and resolve customer issues, as a part of their normal process of finding and using solutions, they evaluate whether a given solution will resolve the customer’s issue and whether it contains the requisite terms, meta-data and formatting to be reusable in a broad range of environments.

Further, empower agents who are off the phone to randomly sample existing published Solutions they believe likely to be reused, flag technical or style issues, and either refer them to analysts with authoring rights or revise them on the spot, to improve usefulness, reliability and “findability.”

9. Performance Measurement

Organizations with mandated review processes to ensure “clean, pristine” content in their knowledge base generally limit the number of analysts who have rights to author knowledge articles. The newer knowledge Best Practices such as KCS promote the idea that every agent on the team is a potential knowledge contributor – especially Tier 1 agents, who are closest to the customer context and best positioned to frame the issue from the customer perspective.

Education and coaching are essential in developing a demand-driven workflow in which analysts at all levels can author new knowledge. Another essential is objective measurement of performance in knowledge authoring maintenance.

Because the service center dynamics and analysts’ responsibilities will change with adoption of KM best practices, you will need to identify and communicate performance assessment measures and metrics to your analysts.

Agents need to know that their managers recognize the impact of a new knowledge sharing initiative on conventional call center metrics.

(Measurements such as talk time and call volumes per day generally get worse before they get better, as agents involved in authoring and using Solutions make their way down the “experience curve.”) Participants also must recognize that adoption of the knowledge base in the problem solving workflow is a requirement, and that management will measure specific elements of performance in using and contributing knowledge.

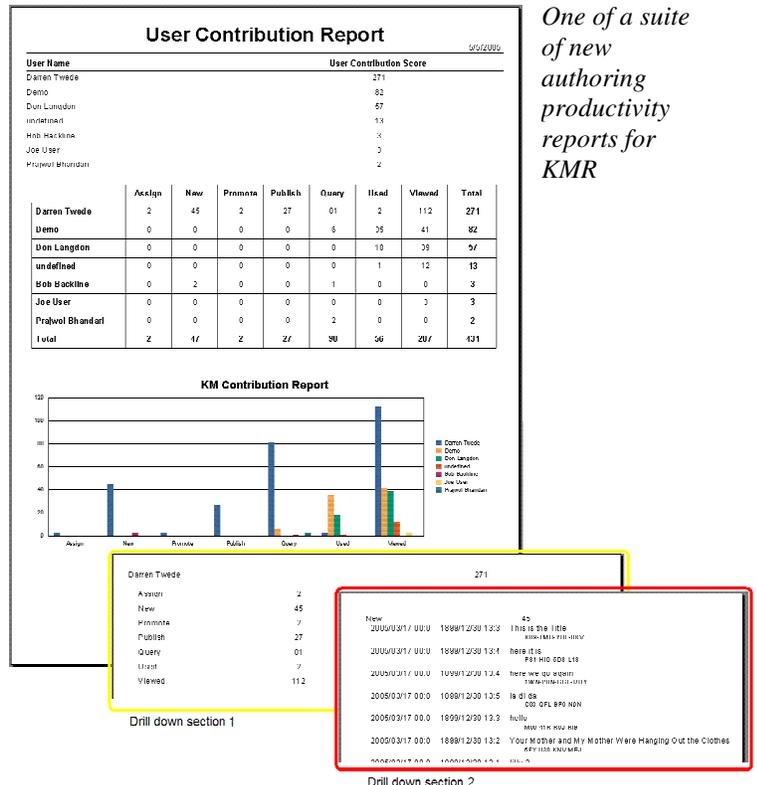
The team’s managers and supervisors, for their part, must make it clear that they understand the other side of the equation: The best performers will be recognized.

Metrics based on activities can be “gamed” or “spoofed.” This means that a person can adjust their behavior to focus on being good at these activities – e.g., authoring or reviewing/ revising a specified number of Solutions in a given time interval.

BEST PRACTICE: Establish realistic levels of proficiency in knowledge use and contribution, assign specific rights/profiles to these established proficiency levels, and set up an internal certification program (KCS refers to this as a “license metaphor”) to enable agents to earn more responsible roles and associated privileges and incentives.

KMXperts, through its Professional Services team, can assist in establishing appropriate levels of expertise and set up a schema for profiling and assigning rights to team members as they prove competency.

The issue with setting incentives for activities is that activities can be “gamed” or “spoofed.” This means that a person can adjust their behavior to focus on being good at these activities – e.g., authoring or reviewing/ revising a specified number of Solutions in a given time interval. Hitting or exceeding their quotas on each activity can become the primary focus for analysts.



BEST PRACTICE: Providing incentives for volume of contribution is virtually never an effective measure of performance. Provide incentives to contribute to the quality and utility of the knowledge base. For example, instead of rewarding the author of the largest

number of Solutions, provide recognition of the *most-reused* Solutions.

Four factors that together drive solution quality in a Best Practice knowledge are:

- Review of solutions based on usage, not idealized standards of format or accuracy;
- The proficiency roles, rights and measurements;
- Content standard that defines Solution quality from the customer's point of view;
- Random sampling and scoring of Solutions and feedback to the individual.

10. Knowledge Leadership

Without a senior Champion, the initiative may have leadership, but it will not have sufficient leverage to secure funding and support.

Recall that the Best Practices presented in this White Paper were laid out at the beginning as a cycle, beginning with Objective Alignment. In truth, any knowledge initiative begins and ends with Leadership.

Adopting Best Practices based on knowledge sharing is a significant shift from conventional process. It will generate issues in the minds of every contributor, such as:

- Can I succeed at this?
- How do I know when I'm really prepared to do this?
- What are the consequences if I don't succeed? What's in it for me if I do?
- Where will I get the time to do this? Won't my performance metrics suffer if I have to stop and write Solutions every time a call comes in?
- Who really cares whether we do this? Is anyone watching?

BEST PRACTICE: Don't allow the knowledge initiative to be seen as a collective ambition – associate it with a specific senior executive Champion and, if possible, a broader program (process re-engineering, Six Sigma, service level management) that already has substantial buy-in. The ideal Champion is a senior level executive, with a clear reason to be interested in support team performance, willing to offer personal, highly visible support, and a clear picture of what success in knowledge sharing means to his or her objectives.

Without a senior Champion, the initiative may have leadership, but it will not have sufficient leverage to secure funding and support.

The Champion is in the best position to understand:

- How KM will affect the bottom line of the company
- How KM will increase customer satisfaction
- How KM will improve employee job satisfaction
- Short-term and long-term affects of KM

Through its Professional Services team, KMXperts can help recruit executive Champion support and set expectations for the executives who will impact the success of the knowledge base. However, the Champion is not the only stakeholder. His or her objectives will have to be aligned with those of others:

Aligning objectives for all of these stakeholders is essential at the outset. Sustaining the commitment of all of these players is what keeps program leadership intact.

- **Management** – Generally, it is the service center manager who initiates and is the champion of the KM effort. However, regardless as to whether this is the case or not for your company, the service center manager is the person(s) that will bear the weight of responsibility for monitoring the KM implementation, and, must know and understand the following:
 - Everything the executives must know and understand
 - How KM will improve service center performance as a whole
 - How KM will improve the performance of each analyst
 - How to implement KM
 - How KM will affect the service center culture

- **Analysts** – Analysts are your KM infantry. They bear the responsibility of accomplishing a successful KM implementation. Analysts ultimately determine your organization's ROI on knowledge. They are the ones that have to deal with the process, policy, and possibly cultural changes. So, to enable your analysts to be successful in their efforts, they must know and understand the following:
 - Executives are on board with KM
 - How KM will affect their performance
 - How their individual performance affects the success of the service center and organization
 - How their performance will be measured
 - How KM will affect their job satisfaction

Aligning objectives for all of these stakeholders is essential at the outset. Sustaining the commitment of all of these players is what keeps program leadership intact.

BEST PRACTICE: Get it all down on paper – the vision for the knowledge base and the team that owns it, the values you reinforce by investing in a knowledge base, the way you will change the way you do business, the metrics you will use for success, and the benefits for everyone who chooses to play a visible role. Market this vision – brand it and promote it. And keep reminding the Champion how critical his or her sponsorship and commitment really are.

Best Practice Services from KMXperts

Success in knowledge based Service Resolution Management requires an understanding and adoption of Best Practices covering People, Process, Content and Technology issues. An excellent starting point is with KCS. A foundations training course in KCS will benefit individuals at all levels of your team. The principal point of contact for KCS training and certification is the Help Desk Institute (HDI):

<http://www.thinkhdi.com/certification/individualCertification/kcs.aspx>

KMXperts has developed services to guide and assist clients in the realization of Best Practices. Provided by KMXperts Professional Services consultants, these offerings include:

- **Knowledge Management Readiness Assessment** – Evaluation of your organization's support practices, designed to gauge the team's readiness to adopt knowledge Best Practices, including a gap analysis and recommendations.
- **Best Practice Workshop** – On-site training for your team (managers, contributors and administrators) on Best Practice adoption.
- **Best Practice Adoption Consultation** – Because development of any new behavior or practice typically takes approximately 21 days to come to fruition, KMXperts offers continuing consulting assistance to help drive the cultural and procedural changes needed for establishment of Best Practices.



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