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**RIGHTNOW CX
CLOUD SERVICE**

An Oracle Best Practice Guide
April 2012

Best Practices for Knowledgebase and Search Effectiveness

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Introduction

Ensuring that your knowledgebase is properly optimized to help customers find what they need has benefits for both your self-service success rate and your customers' experience. This guide will help you tune your knowledgebase to maximize its effectiveness for your agents as well as your customers. The products this guide focuses on are

- Oracle RightNow Knowledge Cloud Service

- Oracle RightNow Dynamic Agent Desktop Cloud Service

- Oracle RightNow Customer Portal Cloud Service

This document is intended to be used in parallel with the Knowledgebase/Search Tune-Up Checklist, available on the RightNow Community to properly tune your knowledgebase. It should be read by anyone who wants to improve the experience customers have when searching the knowledgebase.

Assuming that you have a reasonable working knowledge of Oracle RightNow CX Cloud Service but no specific expertise with Oracle RightNow Knowledge Cloud Service, the tuning should take approximately two hours of focused time to complete. The time required may vary, depending on the depth of changes you want to make to your configuration.

Addressing Knowledgebase and Search Effectiveness Through Best Practices

When thinking about your knowledgebase from a business perspective, there are two basic best practices to be followed:

Best Practice 1: Optimize Results for Frequent Customer Searches

The following directive and guidance will help organizations improve the results returned for the top 20 most frequently searched terms on their Website.

- Directive: Each popular search term should return an answer for the customer's specific need within the top one to three results (see Figure 1).

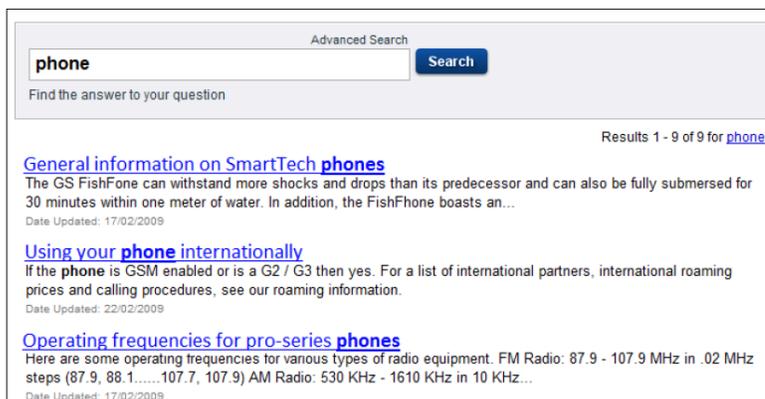- Guidance: Follow the tuning process outlined in this document.

Figure 1. A set of great search results will help your customers find the information they need.

Best Practice 2: Monitor Customers' Frequent Searches

The following directive and guidance will enable you to track customer searches to continue your ongoing tuning.

- Directive: Configure the *Keyword Search report* so that it is automatically e-mailed to you once a week.

- Guidance: Keep an eye on this report to watch for any changes to your top 20 searches. If new *phrase stems* appear in this list, repeat the knowledgebase tuning process for this new customer.

Here are the instructions for setting the Keyword Search report to automatically e-mail itself to you weekly:

- Use Oracle RightNow Dynamic Agent Desktop Cloud Service and navigate to **Reports Explorer** >> Public Reports\Service\Site Reports\Keyword Search\Keyword Search\

- Create a copy of the Keyword Search report, and save it in a convenient location.

- Right-click your new copy, and choose **Edit Report Definition**.

- In edit mode, on the **Home** tab, choose **Scheduling**.

- Choose **Add Schedule**, and then change the format to **HTML Email (Images/Charts sent in email)**

- Name the schedule, fill in your e-mail address, and set the recurrence to weekly.

- Save your report.

Knowledgebase Tuning

Before going further, you may want to review the glossary at the end of this document. All terms in this guide whose first reference is italicized have a corresponding definition listed in the glossary.

To troubleshoot and improve your knowledgebase in Oracle RightNow Knowledge Cloud Service, Oracle recommends using a basic process that uses the actual words customers have entered into the **Search** box as the basis for efforts to improve their experience.

This process begins by opening the Keyword Search report, in the following location:

REPORTS EXPLORER >>Public Reports\Service\Site Reports\Keyword Search\ Keyword Search\

This report shows you the most frequent phrase stems to which customers' *search strings* can be reduced (see Figure 2).

Figure 2. To see customers' search strings, click a row in the Answers column in the Keyword Search report's list of phrase stems.

Clicking a row in the Answers column drills down into the report and shows you the actual search strings customers have entered into the **Search** box (see Figure 3).

Figure 3. Clicking the REGISTR phrase stem's row in Figure 2 brings up these actual search strings a particular customer has entered.

You will then take the most popular search string for the most popular phrase stem and visit your Oracle RightNow Customer Portal Cloud Service pages to perform this search (see Figure 4).

Figure 4. The search string "registration" has been entered on the Oracle RightNow Customer Portal Cloud Service page.

At this point, put yourself in the shoes of your customers in order to evaluate the *search results* shown and take action as needed to ensure that these results are of very high quality. Remember, "registration" is the #1 topic about which customers on this site are trying to find information. You should make the appropriate effort to give these customers the best chance of self-service success.

The flowchart in Figure 5 illustrates how the tuning process proceeds from here. Please review this chart in detail.
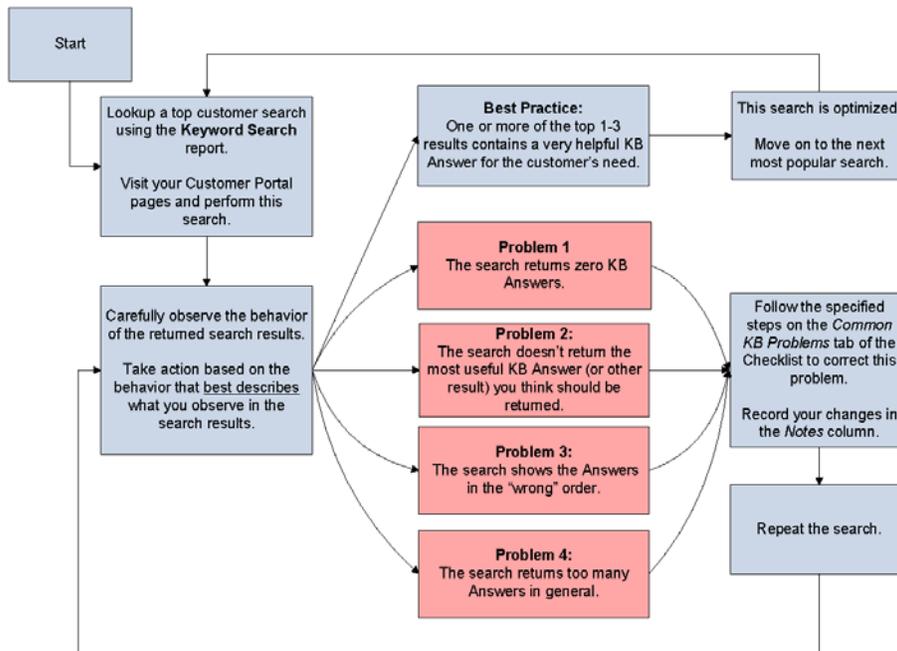
Figure 5. This flowchart illustrates the process for knowledgebase tuning in Oracle RightNow Knowledge Cloud Service.

As you can see in the flowchart, if a top customer search string returns great results, no further action is needed for this search. You can simply proceed to the next-most-popular phrase stem. Once you have worked your way through the top 20 most popular searches, you can be confident that your knowledgebase is improved up to the minimum standard required for a successful Web experience.

Please note that to maintain this standard, you will need to regularly monitor and take action on your top 20 searches, because these will change over time.

To go beyond a minimum level of performance, several options are available to you:

- Use the tuning process for *all* your customer searches (not just your top 20).

- Access the free document "Knowledgebase Optimization," available in the RightNow Community, to learn about the use of more-advanced knowledgebase optimization techniques practiced by Oracle Professional Services.

- Leverage two distinct paid Oracle Professional Services offerings for full-service optimization. If you are interested in these offerings, please contact your account representative.

  - Oracle Professional Services offers a two-day, full-service knowledgebase optimization. This is a more advanced methodology for knowledgebase tuning that goes beyond the tuning described here. The methodology used in the two-day engagement is also available without charge on the RightNow Community.

- There is also a comprehensive, full-service knowledgebase optimization offering for larger customers with multiple interfaces and even multiple languages. This paid professional services offering ensures the highest level of knowledgebase performance and is tailored to a specific business use case. This engagement generally takes approximately three weeks of effort in the course of a month and concludes with onsite delivery of findings and implementation.

Conclusion

In today's business world, it is simply not feasible for organizations to continue the old model of offering only phone, e-mail, chat, and other direct contact service for customer inquiries. Enterprises that offer a functional, comprehensive self-service knowledgebase on their Website are poised for success. Further, those organizations that optimize their online knowledgebases and search capabilities will quickly distinguish themselves from the competition.

Use this white paper as a reference, along with the Knowledgebase/Search Tune-Up Checklist, to complete such an optimization of your installation of Oracle RightNow CX Cloud Service. The primary tasks in effectively tuning your knowledgebase solution are to optimize results for the top 20 most frequent customer searches and monitor the results those frequent searches return. Most importantly, the tuning process is effective only if it is applied at regular intervals to get the most out of your knowledgebase as a customer self-service tool—a tool that can translate to reduced direct customer interaction and increased revenue.

Appendix: Glossary

- **alias.** An alias is used when customers' actual search terms don't match the official words you use in your knowledgebase. Using an alias instead of a *keyword* is recommended when it is a term that applies broadly to your knowledgebase.

  This will capture terms such as the following:

  - Synonyms – Different customers will often use different words to describe the same thing. For instance, three different customers might use three different terms to refer to the conveyance they drive: *automobile*, *car*, and *vehicle.*

  - Abbreviations – An example is *CRM* versus *customer relationship management.*

  - International spelling variations – An example is *color* versus *colour.*

  - Certain misspellings – Customers will frequently misspell a word in a particular way, such as *RightNow*, *Right Now*, or *Write Now*

  If you have an ambiguous word or phrase, do not use an alias. An example of such a term is *live* if you have a product called "Product Live" and the concept of the "go-live" date. You should *not* use an alias here, because *live* can't be mapped to a single concept.

  Aliases are used during all searches and therefore require an extra level of cloud processing. If you have too many aliases, it may have an impact on both the speed and the accuracy of your customers' searches, so thoughtfully consider each addition to make sure it is useful for a large portion of your users.

- **"and" search.** Setting your *search engine* to use "and"-type scoring will require that *all* terms entered into the **Search** box be found in an answer if it is to be returned. Although it may seem tempting to use this type of scoring to ensure that only top-quality results are returned, using the dynamic *Search Result Limiting* feature of Oracle RightNow Knowledge Cloud Service instead is preferable.

- **answer content.** This is the actual information contained in the text of an answer. This content is automatically indexed for searching, and any words that appear here do not need to have keywords added for them.

- **Answer editor.** This console in Oracle RightNow Dynamic Agent Desktop Cloud Service enables you to add new answers to your knowledgebase or to edit answers you already have created (see Figure 6).
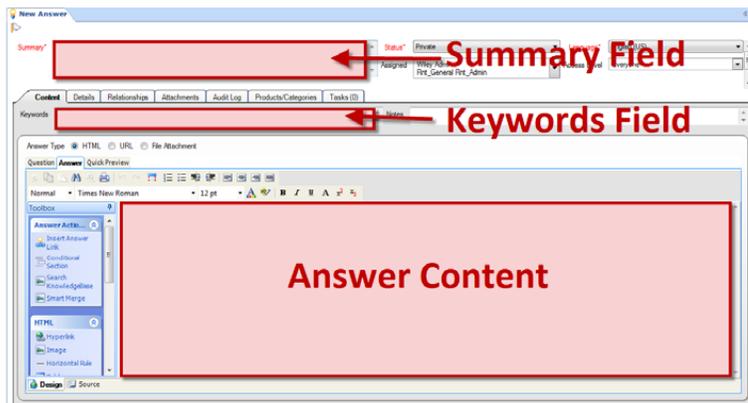
Figure 6. Enter or edit answers in your knowledgebase with the Answer editor feature of Oracle RightNow Knowledge Cloud Service.

- **Answers Last Access Time report.** This standard report in Oracle RightNow Dynamic Agent Desktop Cloud Service displays the score (sometimes referred to as the *solved count*) for all your answers as well as the time each answer was last viewed by a customer. This score increases with usage.

- **Answer Stopwords editor.** This tool in Oracle RightNow Dynamic Agent Desktop Cloud Service (see Figure 7) enables you to enter *stop words*. A stop word is a certain term that you don't want to be used in the scoring of all search results. By default, the search technology includes terms such as *I, a, the, but, be, by, can,* and *will.* It is common to add a new stop word if your knowledgebase contains a word that is not useful to differentiate between answers (such as your company name).
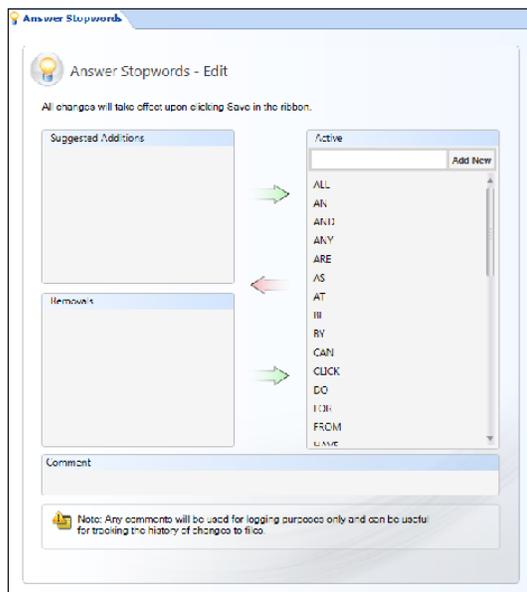

Figure 7. The Answer Stopwords editor removes certain terms from search scoring. Note that no suggested additions are shown—this is normal and means that no stop words have yet been automatically detected.

- **field bias.** This refers to the weights assigned to each of the answer attributes through which the system searches when looking for an answer match. Changing these values is not normally recommended. These fields include

    - Product

    - Category

    - Keywords box

    - Subject (summary)

    - Question

    - Answer body

    - File attachments

    - Search usage

    - Recency

    Two exceptions to this rule include turning the keyword weight down (or off)—see below—and turning both the product and category weight down (or off).

- **keyword.** Keywords are used a bit differently in Oracle RightNow Knowledge Cloud Service than you might expect, and you might instead think of them as bonus keywords. When authoring a new answer, *do not* assign any keywords! Remember that all words that appear in the answer content will automatically be used to return matches for this answer. You need to add an individual answer keyword only if you want to artificially boost the weighting of an individual word for which customers are frequently searching.

    For synonyms or customer misspellings, using an alias is helpful. In the long term, using an alias will greatly improve your ability to maintain the knowledgebase.

- **Keyword Search report.** This is a standard report, available to you as part of Oracle RightNow Dynamic Agent Desktop Cloud Service, for monitoring which search terms customers are actually entering into the **Search** box. The actual characters entered are broken down into phrase stems and then ranked by the frequency with which customers have searched for the term(s).

    Careful monitoring of this report is critical to helping you uncover customer trends and needs and take action by adjusting your search results or authoring new answers to promote self-service.

- **"or" search.** Setting the search engine to use "or"-type scoring will return answer matches for any terms entered into the **Search** box. These results are then ranked by how many times the word or the phrase appears in the answer and according to the other field bias weights.

    "Or" search is the preferred searching method when the document repository is relatively small (compared to that of Google or Bing, for instance), which is the case for most Oracle RightNow Knowledge Cloud Service installations and even most complete corporate document repositories. This is as opposed to internet or library searching, where the document repository is effectively infinite and where an "and" search would be better suited.

"Or" search can be effectively augmented with the Search Result Limiting feature of Oracle RightNow Knowledge Cloud Service.

- **phrase stem.** This refers to the basic word piece that is used for search indexing. Words such as *register*, *registering*, *registration*, and *registered* are broken down into the phrase stem REGISTR and then treated as the same word. Phrase Stem is also the header of one of the columns of the Keyword Search report.

- **search engine.** This is the technical solution that keeps track of which answers contain what information, ranks these answers for relevance, and then returns search results.

- **Search Priority Words editor.** This feature of Oracle RightNow Knowledge Cloud Service used to be known as the Topic Words editor in versions released before May 2010. This feature (see Figure 8) is used to manually show an answer at the top of all search results when a certain search term is entered. Entering a search priority word is helpful when you are confident that you know exactly which answer a customer wants to read when that person enters a particular search term.

  Widely using the Search Priority Words editor is not recommended; instead, use it sparingly for special situations, such as when you have an *umbrella answer*.

Figure 8. The Search Priority Words editor is useful when you know the answer the customer wants when entering a particular search term.

- **Search Result Limiting.** This feature of Oracle RightNow Knowledge Cloud Service is not to be confused with Search Thresholding, a similar feature available in older versions. This feature uses a dynamic artificial intelligence algorithm when scoring customer searches. It combines the best of both worlds from "or" searching and "and" searching.

  Although the actual algorithm is more sophisticated, you can think of this feature as doing an "or" search first (which returns all possible results) and then performing an "and" search to see if there is a group of high-quality results that jump to the top and can be separated from the rest.

- **search results.** These are the actual answers that are ranked and returned when a customer search has been performed.

- **search string.** This term refers to the actual word(s) a customer types into the **Search** box (see Figure 9). Customers' search terms are shown in the Keyword Search report.
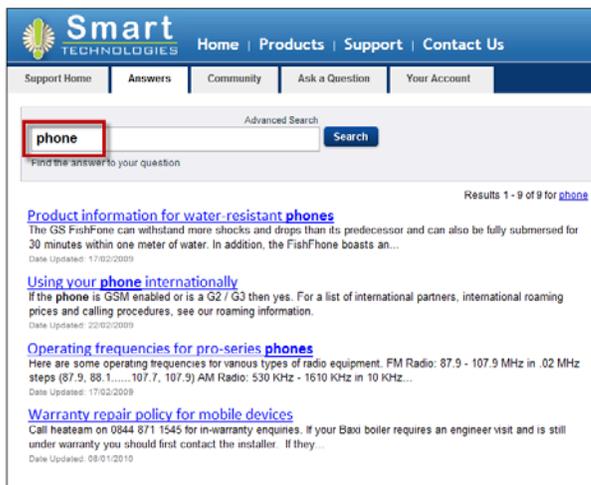

Figure 9. A customer has searched on "phone." This is stored in the Keyword Search report as a search string.

- **summary line.** This field in the Answer editor contains the title for the answer shown in the search results (see Figure 10). A good summary line should be a like a newspaper headline: accurate, punchy, attention-grabbing, and limited to five to seven words.

Figure 10. Search results are shown with the summary lines highlighted.

- **solved count.** This is an automatically calculated value intended to reflect how useful each answer is. This number is sometimes referred to as the "score" for the answer.

- **umbrella answer.** This is technically an answer like any other but is called an umbrella answer because it serves as an introduction to or overview of a series of subsequent answers that describe the information in more detail.

  Umbrella answers are commonly used for a product: when the customer enters a generic product query as a search term, you can use a search priority word to point that person to your umbrella answer about this product—rather than providing a bunch of overly detailed individual answers.

  An alternative to using an umbrella answer is to require that customers select a product or a category before you present them with popular answers or a **Search** box. See the free online book *Designing Search User Interfaces*, by Marti Hearst (searchuserinterfaces.com/book), and the Oracle Best Practice Guide entitled "Best Practices for Web Experience Design" (oracle.com/rightnow) for more information on designing or tuning your Support home page to support this style of interaction.

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