1.Overview

Introduction

It has been our experience that some otherwise knowledgeable Engineers, Partners, and Customers do not know how to do effective searches. They try unplanned searches frantically entering in one term after another without success. This document discuss techniques to yield better results regardless of the knowledge type or search engine.

Search Engines

There are many articles covering the characteristics of good search engines. Some important ones are:

- Available any time on any major platform.
- Returns results quickly.
- Has different modes (Expert, Novice).
- Boolean operators (And/Or/Not).
- Accessible via API.
- Ability to save searches.
- Results with descriptions.

All this and more will aid effective knowledge portfolio searches.

What is the goal of a helpful technical knowledge search?

The desired result is to find sources that are

- Trusted

- Relevant

- Current

- Appropriate for my situation. (Such as the same operating system, product release etc.)

- Contains clear and helpful next steps including workarounds and quick resolutions.

2. Search Strategy and Techniques.

Question 1: What is my search strategy? (First Pass: Pre-search.)

Having your first search be a pre-search can help reach those search results faster. Start by thinking about the results that you wish to achieve and working backwards to get them. Some examples:

- What are some of my search constraints (certain time periods, vendors, releases, specific error messages etc.?)

- Is this a general (tell me all that about *x*) or a specific question?

- Is it a series of related questions?

- What are the search repositories best suited for my search? (Broadcom-specific, third-party vendors, general search databases?)

- How many returned articles am I willing to go through?

- What keywords in the result title or description would make it a keeper?

Question 2: What type of technical search query do I have?

 Just like in a Community where many types of questions are asked, so it is with searches.

You may require the following:

- An information request on a general or specific topic. The range of topics is nearly infinite.

   * Examples: Error Messages, Starting/Stopping a Component, Log locations, Metric Values and what they mean, and many more.

 - Task(s) details

   * Examples: Preparing for or performing an upgrade, system optimization/maintenance.

- Broader topics:

   * Examples: Backup software and strategies, administration responsibilities, best practices, customization approaches, and many more.

 Knowing the type of query will determine:

 - Keywords to use

 - Sources to search

- Length of search

- Returned results

Question 3: What is my search strategy? (Second Pass: Deeper Dive.)

So what approaches/techniques are best for searches? Here are some to consider:

- General>Specific or Specific>General

 Each approach has its uses. If completely new to a topic, a general search is always a good place to start. This will get useful ideas of possible keywords to search with.

In some cases, this may be all that is needed. A specific search is good when you already know something on your topic -- **Why does the server component not start after an upgrade from release 200.x?** Sometimes "backing up" and doing an analogous search may help. (Does this happen with earlier releases and different components? Does it happen during operating or on starting/stopping? Is it load related? What is the impact of third-party components on this issue?

 - Constraints

Playing around with the constraints listed above may provide greater insight on what is the optimal search. This can include:

- Data sources used

- Timeframes

- Images, Texts, or Videos returned

- Vendor for operating systems, database, etc.

- Releases

- Log names

- Error Messages and Exceptions

-Code components involved.

 - Search terms, search terms, search terms.
A major reason for not finding information is simply the search terms used. Some guidelines for successful searches:

- For Java (languages), searching on the error and the troublesome class/method may help

- Operation being performed and the components and screens impacted

- Include the component name/version, third-party software version. Try this again with one of these factors and then expand to various combinations.

- List what is and is not happening. (Such as no reports).

Question 4: Did I search in my installation/update files, logs, and configuration files?

An often-overlooked area is to check the files used for installs/updates, any logs, and configuration files for the current and default settings. There also may be some details on recommendations, next steps for errors, and what various configuration settings mean.

Question 5: Did I search though the documentation and support web site?

The support web site has links to documentation, software, knowledge docs, technical advisories, end of support details, compatibility guides, and more. Please review as an additional informal resource.

The Documentation search engine can assist in finding information within/across releases and components.

Question 6: Do I have other options?

If all of the above fails to yield results, then consider trying the following:
-Third-party web search site. These are very helpful for generic error messages for an application, operating system, database, etc. Many Broadcom product-related links are also searchable here.
-Ask around the Community message boards for suggestions and answers.
-Ask your Broadcom Account Rep to ask internally for a response or a next step.
- Try to reproduce and experiment with a sandbox environment. Sometimes, doing what-if scenarios can reveal a lot of information. Making mistakes can be very helpful. Some people learned just as much about playing chess from a computer program that made wrong moves as compared to one that was a stiff competitor!
⯀ And if all else fails, open a support case. However, with more information being added each day to the Broadcom product knowledgebase, there should be less of a need to do that for many common basic and intermediate problems.