

KC Search Technology Perspective



Patent pending iCommNet® Knowledge Communicator™ (KC) Search™ is a linguistics-based, intelligent precision search technology that delivers the most relevant search results in a search-once manner to enterprise customers in real time. When searching for unknown knowledge, describing what to search for is more natural. Thus, a compelling technology is the one that can extract precise knowledge from descriptions expressed in free-style, natural English, and deliver precise search results that best match the description. In short, a linguistics-based precision search technology is required. KC Search is that technology.

1. Problem Statement

Conventional search engines lack precision, accuracy, and efficiency. Using keyword-based search techniques yields a large volume of indiscriminant search results without regard to the content. Consumers are left with a burden of manually sifting through the search results to find the most relevant knowledge. New Web contents are being posted on the Internet every day, and consumers will spend even more time locating the desired knowledge.

Search engines must yield precise search results that are most relevant to search requests. KC Search delivers precise search results by using knowledge extracted from search requests and search contents in a search-once manner. With the linguistics-based search technology, KC Search becomes the compelling technology for realizing the precise search for enterprise customers.

2. Compelling Technology Solution

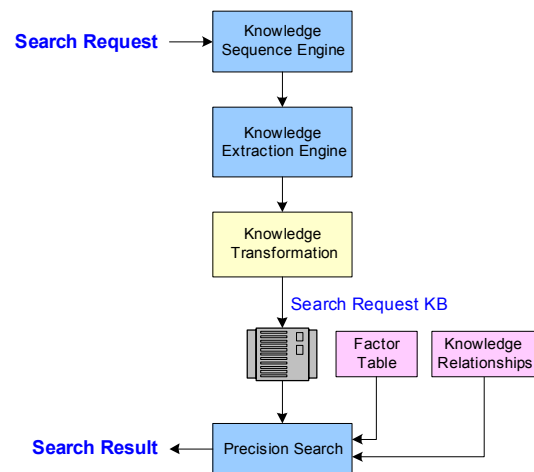
KC Search extracts domain-aware knowledge from search requests per Knowledge Cells™ and business rules written in Intrinsic Knowledge Language™ and Behavior Specification Language™, respectively. With KC sequencing and extraction rules, KC Search supports expressive search request formats. That is, a search request may be documents, paragraphs, sentences, phrases, and keywords in conversational English. With these rules, KC Search sequences search requests and extracts precise search results that best match search requests.

3. KC Search Core Competencies

KC Search offers three major capabilities: precision, expressiveness, and adaptability.

Precision

KC Search uses inherent knowledge embedded in a sentence, not just keywords. KC Search is a precision search technology that returns precise search results from expressive descriptions in natural language. A precision search begins by sequencing search requests and the search contents into Parametric Knowledge™. With intrinsic knowledge relationships, industry-aware rules, customer-specific business rules, and customizable match factors, KC Search extracts search contents that are most relevant to search requests.



Extracting Parametric Knowledge from search requests lays the foundation for selecting the

most relevant search results. The Knowledge Sequence Engine™ sequences search requests, and the Knowledge Extraction Engine™ extracts knowledge from sequenced knowledge and creates the Parametric Knowledge containing parametric data extracted from sequenced search requests. KC Search calculates and delivers the most relevant search contents.

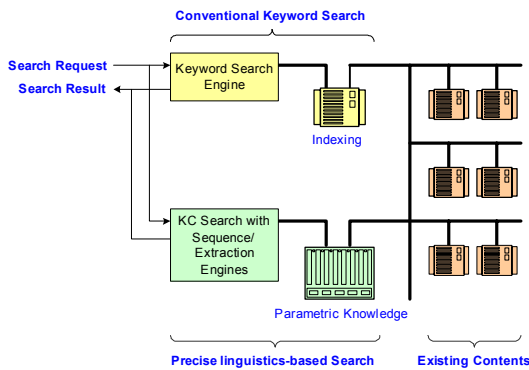
Expressiveness

KC Search implements expressive methods as search requests, which can be documents, paragraphs, sentences, phrases, and keywords in natural English, capturing unique linguistic characteristics existing in natural language.

The Knowledge Sequence Engine sequences search requests into orthogonal linguistic tokens and Knowledge Cells. The Knowledge Extraction Engine applies Knowledge Extraction Rules, extracting application-aware knowledge from expressive search requests.

Adaptability

KC Search is a precision search technology designed to adapt to existing corporate infrastructure; designed and built for Internet search engines and search contents. Using standard protocols, KC Search can receive search requests from existing devices and delivers precise search results to those originating devices.



KC Search adapts to existing infrastructure by using industry standard protocols. With standard protocols, search requests are routed to KC

Search for knowledge extraction. Extracted knowledge from search request is calculated against the Knowledge Base containing extracted knowledge from search contents.

Precise and best results are then returned to the requesting device. Consequently, KC Search adapts to existing infrastructure and delivers precise search results without disrupting on-going business transactions.

4. Key Benefits to Enterprise Customers

With KC Search, enterprise customers achieve the following key benefits:

- **Precise Solution Delivery to Consumers:** With natural English, consumers describe their needs more precisely and expressively, rather than using a few keywords.
- **Protection of Corporate IP:** KC Search protects corporate IP by not making IP available to external companies. With KC Search, enterprise customers have control over what can be available to consumers.
- **Increased Productivity and Rapid Issue Resolution:** Delivering precise solutions to consumers not only increases consumer satisfaction, but also increases productivity by making the right decision quickly.
- **Adaptation to Dynamic Business Models and Rules:** KC Search is dynamic and adaptable to dynamic changes in business models.

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