

***Johns Hopkins Enterprise Search  
Google Inc.***

Enterprise search capabilities are a high priority for many enterprise architecture and application technology teams because they can simplify end users' access to critical business information. Though they often fail to present truly relevant results, consumer search engines from Google and Yahoo have raised expectations among enterprise users, who now expect their own organizations to provide similar capabilities.

Over the past several years, Johns Hopkins has been using an Enterprise Search Application provided by Autonomy, a leading vendor in Enterprise Search. There has been much debate about the effectiveness and reliability of search results within the current application; which has led to a fairly aggressive research initiative to understand modern Search capabilities, identify customer needs and business requirements, and exploration of the existing application and its strengths and weaknesses.

In an effort to improve our overall Search functionality at Johns Hopkins and after much due diligence, we have decided that the Google Search Appliance (GSA) is the best solution for our search requirements. Our primary goal is to provide a Search solution to major institutional web sites that have a requirement to enhance their marketing and public relations initiatives using a custom search solution.

Google is the leader in the Internet search market and by taking advantage of this product; we will be able to create custom search applications for our various stakeholders in a very short period. This will also allow our Portal Search Task Force to focus on Enterprise Search initiatives while providing our customers with a familiar search experience. Some of the features available to with this product are as follows:

**Personalized search experience**

With the latest release of Google Search Appliance, users can now personalize their search experience. Thus, engineers might choose to weigh code or design documents higher, while marketers might prefer marketing documents. Further, with the Alerts feature, employees can subscribe to email alerts for topics and documents of interest, choosing an hourly, daily, or weekly alert schedule.

**Secure search, every time**

Google Search Appliance integrates with your existing security and access control systems to provide document-level security. Users will only see search results if they have access to the source content, ensuring your organization's information is always safe and secure. Google Search Appliance supports numerous authentication and single sign on mechanisms, including LDAP, HTTP Basic and NTLM authentication, PKI authentication with X.509 certificates, Kerberos, and Windows Integrated Authentication.

## **Making life simple for administrators**

By integrating hardware and software into an easy-to-install appliance, Google simplifies administering search in your organization. Without the hassle of configuring hardware and operating systems, Google Search Appliance can be up and running quickly, and is easily maintained by a single administrator. Further, using sophisticated software algorithms, Google has created a product that “just works” – in other words, it delivers the right search results, quickly and reliably, time after time. Google Search Appliance leverages numerous factors in determining relevancy, many of which are algorithms specific to enterprise content. With thousands of engineers focused on the continual improvement of search quality and user experience, users benefit from Google’s constant innovation and the latest developments in search technology.

## **End-user experience**

Google Search Appliance offers end users many of the same benefits they have come to expect from Google.com with specific enterprise enhancements that make search easy, useful, and intuitive:

**New! Personalized Search Experience** Allow administrators to adjust search results for different user groups, based on department or function.

**New! Alerts** Employees can subscribe to email alerts for topics and documents of interest, choosing an hourly, daily, or weekly schedule.

**New! Spellchecker in six new languages** French, Italian, German, Spanish, Portuguese, and Dutch.

**Google Quality and Ranking** Google algorithms analyze every document using complex proprietary signals in order to determine the optimal placement in the results, so that each search yields the highest quality and most relevant documents.

**Automatic Spellcheck** Avoid missing results through typos or misspellings. Google automatically suggests corrections with startling accuracy, even on company-specific words and phrases.

**Dynamic Page Summaries** Judge relevance of results more easily with dynamically generated snippets showing your query in the context of the page.

**Results Grouping** Navigate search results easily and clearly using intelligent grouping of documents residing in the same narrow subdirectories.

**Dynamic Results Clustering** Enable users to drill down on a specific subject and more easily refine searches with with automated grouping of search results by subject.

**Google Toolbar for Enterprise** Put a Google search box in your corporate browser. Installer package enables deployment across your enterprise; custom search buttons enable easy Toolbar integration with Google Search Appliance.

**Google Desktop** Search content on your local hard drive – files, email, instant message, chats, web pages viewed, etc. Integrates with Google Search Appliance to provide search results from users’ computers, your intranet, and the Internet, all in a unified experience.

**Cached Pages** View search results even when the sites are down via cached copies of pages included in the search results.

**Highlighted Query Terms** Quickly find the most relevant section of a document using the highlighted query terms displayed on cached documents.

**View as HTML** Display documents without needing the original client application of the file format thanks to automatic reformatting of over 220 file formats into HTML.

**Sort by Date** Access time-sensitive information first via date sorting.

**Advanced Boolean Search** Perform complex and sophisticated queries with over 10 special query terms, including Boolean AND, OR searches.

**Number Range Search** Restrict search results by a number range, making it easy for users to define price range or another numerical value.

**Date Range Search** Enables users to restrict search results to a particular date range.