

# Google Search Appliance – OneBox for Enterprise



## SPECIFICATIONS

### Related Technologies:

- XML – Extensible Markup Language
- XSL – Extensible Stylesheet Language
- HTTP – Hypertext Transfer Protocol

## Google Search Appliance

- Hardware: v4.0 or greater
- Software: v4.6 or greater

## ORDERING INFORMATION

- [www.google.com/enterprise/onebox/](http://www.google.com/enterprise/onebox/)
- [www.code.google.com/enterprise/](http://www.code.google.com/enterprise/)

Email [appliance1@google.com](mailto:appliance1@google.com)

## Business Overview

The new Google OneBox for Enterprise provides unified and secure access to an unlimited array of real-time information sources from inside or outside a company. Developed in partnership with some of the world's leading enterprise applications vendors, Google OneBox for Enterprise provides fast, easy to use, and secure access to business information right from the search box. "OneBox" refers to the simple process of typing a query into Google.com to get specific information such as airline flight times, local weather, or stock prices. With OneBox for Enterprise, employees can use the same familiar technique to access information such as contact and calendar info, HR benefits, sales leads, or purchase order status.

Google OneBox for Enterprise was built with developers in mind. The REST-based API is simple to use and the gallery of existing OneBox modules makes it easy to unify access to your business applications. The API is fully documented and you can download the SDK including examples and a simulator at [code.google.com/enterprise](http://code.google.com/enterprise).

## Proven User-Centric Approach

Google OneBox for Enterprise leverages the proven, user-centric approach to information access popularized on Google.com. From a simple search box, with no training required, business users can access all enterprise information sources inline with the natural search results.

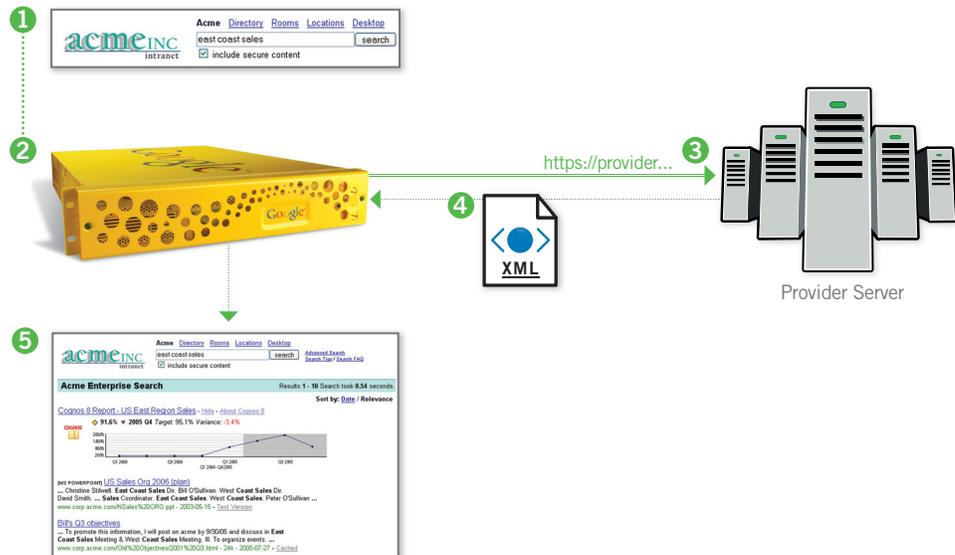
The screenshot shows the Acme Enterprise Search interface. At the top, there are navigation links for 'Acme', 'Directory', 'Rooms', 'Locations', and 'Desktop'. A search box contains the text 'east coast sales' and a 'search' button. Below the search box, there is a checkbox for 'include secure content'. The search results are displayed under the heading 'Acme Enterprise Search' and show 'Results 1 - 10 Search took 0.54 seconds'. The results are sorted by 'Date / Relevance'. The first result is a Cognos report titled 'Cognos 8 Report - US East Region Sales' with a summary showing '91.6%' and '2005 Q4 Target: 95.1% Variance: -3.4%'. Below the report title is a line graph showing sales performance from Q1 2004 to Q3 2005. The second result is a link to 'Bill's Q3 objectives' with a snippet of text: '... To promote this information, I will post on acme by 9/30/05 and discuss in East Coast Sales Meeting & West Coast Sales Meeting. Ill. To organize events. ...'.

Quarter	Performance (%)
Q1 2004	~2000%
Q3 2004	~2000%
Q1 2005	~8000%
Q3 2005	~14000%

Google OneBox for Enterprise results are triggered by normal, intuitive search keywords and phrases ensuring users access to real-time business information without requiring complex training or application interfaces.

## Real-time Information Flow

Google OneBox for Enterprise gives organizations the ability to provide users with specific results to their query pulling from information in business applications, directories, and nearly any source of information inside or outside the enterprise. The OneBox system works like this:



1. User enters a query into the enterprise search system, powered by the Google Search Appliance.
2. The OneBox "trigger" determines if the query is relevant to a given OneBox module. Triggers can be as simple as keywords or as sophisticated as regular expressions.
3. The Google Search Appliance makes a secure REST call (https GET request) to the predefined OneBox provider, passing security credentials and other parameters.
4. The provider uses the information to determine appropriate, user-specific, secure results to the query, and passes those results back to the appliance in XML.
5. The XML is transformed into HTML based on the XSL template provided in the OneBox module and presented to the user inline with their search results.

Multiple OneBox modules can be defined to provide users with just the right information they are looking for, based on the context of their query.

## Defining OneBox Modules

Creating a OneBox module is as simple as creating a trigger, selecting a provider, and formatting the results output.

### **Creating a Trigger**

The OneBox module's trigger determines when the OneBox will be invoked. The goal of the trigger is to only call the OneBox module when it is relevant to the user's query. The trigger can be defined as one of the following:

- Always On: the module is invoked for every query
- Keyword(s): the module is invoked in response to specific keywords
- Regular Expression: the module is invoked when the query matches a regular expression

### **Selecting a Provider**

The OneBox module provider is the system that accepts the request from the Google Search Appliance and provides results based on the query and the information passed. There are two types of providers:

- Internal – Calls to a collection on the Google Search Appliance, performs a full-text search across the contents of the collection, and returns the results in a OneBox user interface. Internal providers can be used to provide specialized searches across a specific set of content on the appliance.
- External – Calls to an external provider at a specified URL to get real-time business data returned from the provider as XML. External providers are calls out to external system, directories, or business applications to retrieve data. For more information on how to develop an external provider, or to download providers already developed, please visit the Google Enterprise Developer community at [code.google.com/enterprise](http://code.google.com/enterprise).

### **Formatting the Results**

Results are returned from the provider in XML. You can display the results in an appropriate format by creating an XSL template to transform the XML into HTML. The default XSL template will display the "title" of the results, an associated link, and up to three individual results as they are returned from the provider, above the main set of search results.