

Enabling Online Search Experience

Client Case Study: Swisscom

How to take advantage of a mandatory software upgrade to increase online search business benefits and to improve customer experience

The screenshot shows the Swisscom website's search results interface. At the top left is the Swisscom logo. To its right is a search input field with a magnifying glass icon and the text 'Search'. Below the logo and search field is a navigation bar with dropdown menus for 'Residential Customers', 'SME', 'Corporate Business', 'About Swisscom', and 'Online Shop'. The main content area is titled 'Search results' and features two expandable sections: 'Residential Customers (870)' with a 'show' button and 'Business Customers (4880)' with a 'hide' button. Below these are two columns of search results. The left column is titled 'SME (1720)' and contains four search results, each with a blue link and a snippet of text. The right column is titled 'Corporate Business (3160)' and contains three search results, each with a blue link and a snippet of text. On the right side of the page, there is a 'Top searches' sidebar with a list of links: 'Login', 'iPhone', 'Prepaid', 'Hotline', and 'XtraZone'.

Client Situation



Swisscom portal has traffic of X visitors per Month, which generates 3 million search requests per Month. The purpose of renewing the Swisscom search engine is to assist Swisscom visitors by reducing help-desk calls, to convert search visitors traffic into clients and to enhance the visitor user experience by leveraging Swisscom internal properties and Selfcare community.

Executive Summary

„ Open Web Technology and Tomorrow Focus have delivered, in a first iteration of 3 months project, a new search concept to Swisscom and Bluewin portals, providing an optimized customer experience. Their agility and expertise lead Swisscom to operationalize its new search strategy and processes in a very short timeframe.“

Swisscom - Switzerland's leading telecommunication provider - traditionally has a very strong online presence; especially through its entertainment portal www.bluewin.ch which is used by millions of visitors every year.

Introduction

In order to help its client browsing through its vast content and internal properties, Swisscom offers search functionalities. Search is widely used by visitors to get many kind of information that goes from the latest news about a phone asset to the next live show to be held in Switzerland.

The Swisscom Online Search leverages Google products suite. The www.bluewin.ch portal leverages Google web search API in order to render web search results; this API has come to an end of life. For this reason, the Online Orchestration Team - in charge of the Swisscom online presence - decided to launch a new project to replace the ending technology. This provided the opportunity to also improve the quality and relevance of search, re-align business logic with business goals

and change user experience paradigm.

In the old search version, search traffic was split in 75% of web inquiries, 10% of entertainment, 15% of products/services.

The rise of the new search concept is expected to change the visitor behavior in the first three Months by 45% of web inquiries, 15% of entertainment, 20% of products/services and 20% of direct links to Swisscom properties.

This will bring down the helpdesk call center traffic and keep visitors inside the Swisscom properties sites.

Our Solution: Reinventing Online Search

Swisscom decided to appoint Open Web Technology – a long-time privileged partner – to be in charge of this mission. Open Web Technology and Swisscom already worked together several time in the past on different strategic and customer management projects.

An efficient back-end

In order to reduce the complexity of the project, limit the changes to the current Swisscom architecture and offering state-of-the-art technology to its visitors, the decision to continue to work with Google Enterprise products was made. This also had the advantage to let Swisscom keep its current data model.

In cooperation with Tomorrow Focus Technologies GmbH (TFT – a leading specialist in Enterprise Search Technologies – the new architecture was designed (see Figure 1). A combination of Google Search Appliance (GSA) and Google Custom Search Engine (CSE) was chosen: While the GSA is responsible for indexing and providing results from the Swisscom websites swisscom.ch and bluewin.ch, the CSE is offering search results of the entire web. GSA is an

on premise solution, which offers a complete package of hardware and software ready to put into the data-center and providing the well know Google Relevance and Performance. In addition it is easy to maintain (hot backup and replication can be configured in minutes) and to scale.

Swisscom has the full control over the index and could decide what and when to index their properties.

CSE is a cloud product from Google and offers the possibility to search the entire web, but the behavior and the look and feel could be customized to customer's needs.

This combination has the advantage to clearly separate the Swisscom results from the ones coming from other sources such as from google.com. In this way, Swisscom can promote its own relevant content and also keep those visitors on its websites searching the entire web.

Different use cases were setup to ensure that users will find the best available information for their needs. For example for users starting a search within the private customer area the results are focused on product information, available products from Swisscom Online shop and supporting information from the Help and Selfcare Section.

Current GSA out-of-the-box features as Spellchecker ("Did you mean"), promoted Results, Query Suggestions while typing and multilanguage query expansion were enabled to bring more convenience to the customers usage of Swisscom Search.

A big challenge was the existing variety of technologies and content management systems within Swisscom. For example there were different technologies (cookies, url patterns) for the Multilanguage support on the webpages of swisscom.ch and bluewin.ch. As GSA provides the full control over crawl patterns using regular expressions the project team was able to index all relevant results in every language.

Figure 1:

A smart combination of Google Search Appliance (GSA) and Custom Search Engine + API provides search results of all swisscom properties and the entire web

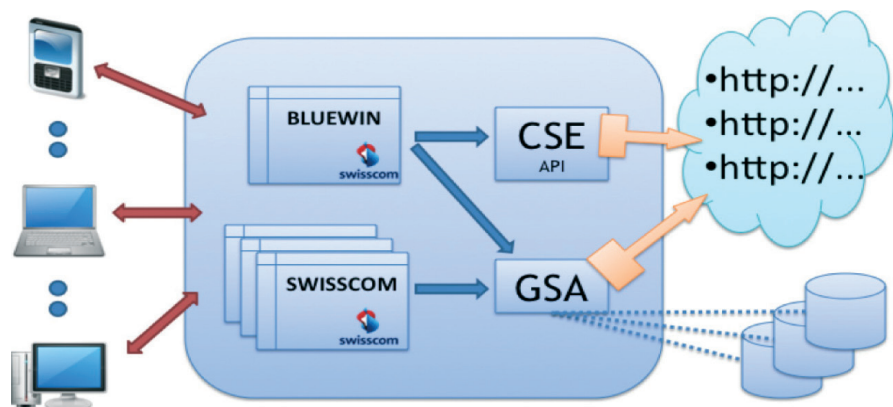


Figure 1

Figure 2:
New Layout for Swisscom Search
including vertical tabs

An innovative front-end

The new architecture presented in the previous section provides Swisscom with more accurate and better organized results for each search request made by its clients. However, the former layout of the search used to display results also suffered some severe limitations. First, website analysis showed that the navigation buttons available on top and on the left of pages were not used at all. Second, by displaying the outside web results first, visitors were leaving the site even when relevant content was available on one of the Swisscom websites. In order to resolve these problems, a new layout – slightly different for Swisscom and Bluewin – was designed (see Figure 2 and Figure 3). The vertical tabs – splitting the results based on their source – offer a huge flexibility in concern of promoting specific results compared to others. Every column only contains results of a subset of the Google Search Appliance Swisscom Index (i.e. “collection for private customers” or “Help & Support”).

So during conception it was required to include each Swisscom Business unit to decide, which part of the website should be indexed within “their” section.

First, the order of the tabs can be easily modified to put certain results on the top and others further down on the page. Second, depending on the usecase, a specific tab – not always the first one – will appear opened by default. Using this feature, Swisscom can promote the result linked with the current customer. A business owner for example will first see the result from the Small and Medium Enterprise (SME) website (see Figure 1) as default. On the right, a static element is available for highlighting some specific content. It can be the “top searches” or current Swisscom promotions for example. These links are defined by Swisscom through an admin console.

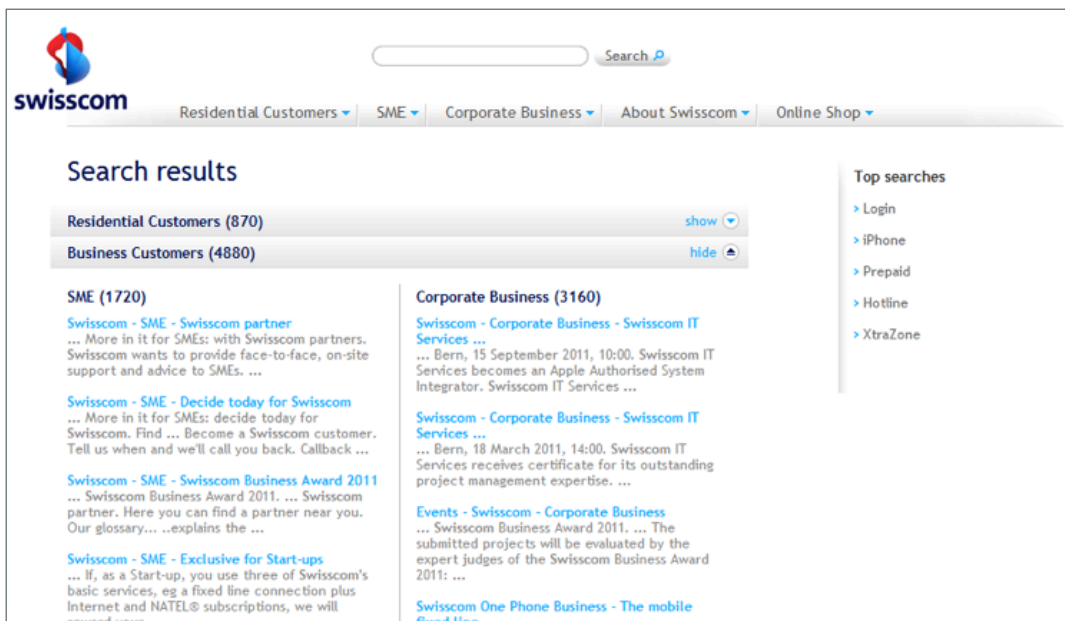


Figure 2

Figure 3:
New Layout for Bluewin Search
including AFS and Universal
Search Results (Images)

On the Bluewin.ch portal, additional functionalities were implemented in order to enhance the visitor experience and Joy-of-Use.

One of the biggest needs was the implementation of a promotional area above the search results, which allows Swisscom to either show relevant results of the Swisscom properties (i.e. searching for the new released iPhone 4s) or have very successful performance advertisement AdSense for Search (AFS) in place, provided by Google. This allows Swisscom to promote its own products and content within relevant queries and to generate advertising revenues in all other cases.

Within Bluewin.ch search results "Images and Videos" corresponding to the search query are displayed after textual results (see Figure 3) as known from Google Universal Search.

Another individual feature of the Bluewin.ch resultpage is the appearance of Swisscom Partner results local.ch being displayed on the right Top of the result screen. In this way, visitors can find nearby places related to their search query: a local car reseller for a query with the keyword "car" for example.

Another layout element, which is placed on the top of the page, allows Swisscom to promote some of its own products in relation with the search query done by the user. If the search term has nothing to do with Swisscom core business – it's the case for the "car" research, for example – adds coming from Google AdSense will be displayed instead. This allows Swisscom to promote its own product when it's relevant and to generate advertising revenues from the other researches.

The web search result tab is below this section – easy to find for the user, but the first view is spent on Swisscom / Bluewin results. Web results are returned by Google CSE API to ensure to get relevant search results from google.com.

This is necessary as a lot of Bluewin.ch users start their web session on Bluewin.ch and use the search instead of browsing to google.com and to change i.e. to SBB or Facebook.

With this flexible solution both interests – Swisscom business interests and an excellent innovative user experience – could be reached in one step.

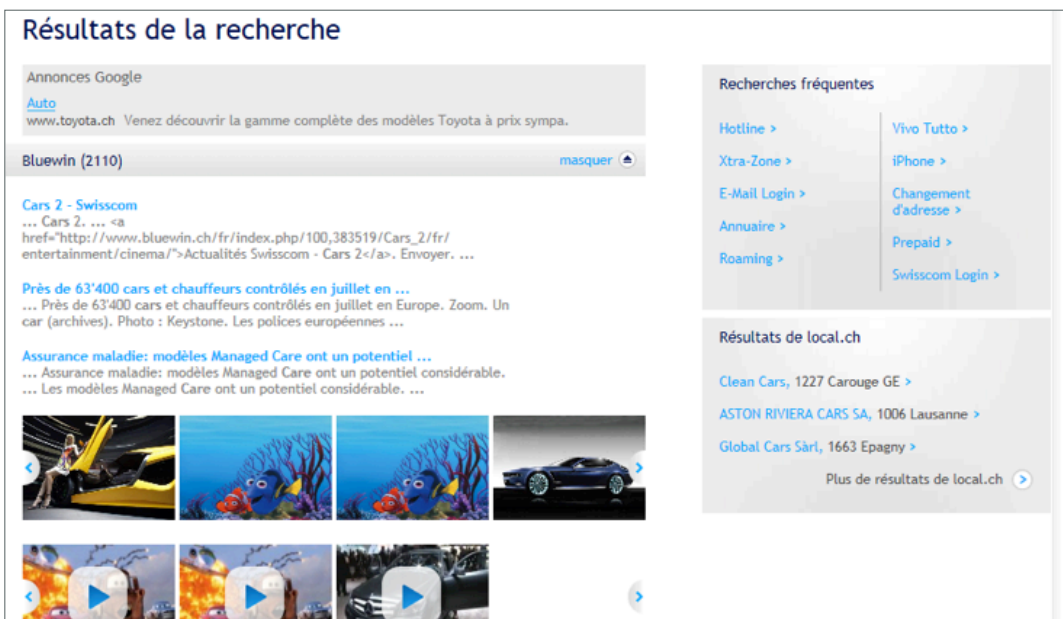


Figure 3

About



Open Web Technology is a digital strategy consulting firm that design, deploy and drive digital strategies concerning the sourcing and management of innovative internet services and multi-channel solutions.

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Swisscom is Switzerland's leading telecoms provider, with 5.9 million mobile customers and around 1.6 million broadband connections. Swisscom has a presence throughout Switzerland and offers a full range of products and services for mobile, TV, landline and IP-based voice and data communication. Swisscom also offers services for IT infrastructure outsourcing as well as the management of communications infrastructures