

An Example of Mobile Search in Poland,

the Implementation of Google Search Appliance on Plus.pl

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1

Polkomtel S.A. mobile operator of Plus brand

- Plus is one of three major mobile telephony networks in Poland, providing its services under trade names of Plus (postpaid), Simplus (prepaid), MixPlus, iPlus (wireless Internet access). The distinguishing features of its business are: top efficiency, innovative services, customer care.
- In October 2007 Polkomtel launched new Multi Access Portal (www and wap) under brand Plus.pl. To drive usage browsing within wap.plus.pl is free for Plus customers.
- Plus covers 99% of the area of Poland and provides services to over 13 million customers, operates in the GSM 900 and DCS 1800 systems and offers services in 3G standard.
- Polkomtel has pioneered innovative GSM-technology-based services on the Polish market. Among other notable achievements, it was the first company to offer MMS messaging, voice-based access to text messages (SMS), and GPRS and EDGE based data transmission services. In September 2004 Plus was the first operator in Poland to launch 3G mobile telephony services including UMTS.

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2

Google Search Appliance - GSA

- The Google Search Appliance delivers fast, relevant and secure access to information. Taking Google's core search technology and optimizing it for business use, GSA provides universal search across variety of internal and external sources: file shares, intranets, databases, applications, hosted services and content management systems.
- GSA crawls content and creates a master index of documents that's ready for instant retrieval whenever a customer or employee types in a search query.
- GSA can index millions of documents, and its security features ensure that users can only access the information that they have permission to view. It's integrated hardware and software, making it easy to set-up and maintain.
- GSA is used among many other by Apple in www.apple.com , Intel and Xerox in intranet search.

Key reasons for choosing GSA

- Best of its class - GSA uses Google's core search technology, constantly developed and improved.
- Powerful brand for users – synonymous with Internet search.
- Strategic partnership with Google – delivering innovative but mainstream mobile services for Plus customers
- Cost efficiency and quick deployment of the solution
- GSA implementation on Plus.pl was the biggest so far in Poland and deployed in record time.
- GSA implementation on mobile wap.plus.pl was first in Europe.

Key Mobile Search Issues

- Understanding of Mobile Intent – described by Ajit Jaokar and Tony Fish in book Mobile Web 2.0 – mobile user uses short preferably one keyword query in search for „recommended” results. The recommendation of search results is based on algorithms i.e. page ranks but can also be tweaked as in GSA case (relevant ads, filtering of search results).
- I want it now – user expects relevant results delivered instant moment, will not only repeat search if the keyword was mistyped but expect search engine to „make-up” for limitations of mobile keypad (3-clicking), search is used in specific context i.e. just heard the tune I want mp3.
- Very powerful will be combining location info (known by Mobile Operator) and search i.e. search for „pizza” while being in strange town.

Mobile Search – project goals

- Internal search – enabling users to search for relevant content within wap.plus.pl which is free for browse.
- Relevancy – presentation only relevant content for user’s mobile device.
- Polish characters – ability to serve specific characters in Polish language
- Easy integration - flexible integration with external content sources used by Polkomtel.
- Cost efficiency – utilizing existing hardware and software involving the same GSA servers used earlier in www implementation.
- Search efficiency – ensuring high capacity of the system, in indexing high documents volume and short search time (good user experience).

Main GSA features

- Unique architecture of the solution – implementation of GSA in mobile (WAP) channel.
- FEED indexing technology – data for indexing is delivered in specific format of XML documents.
- High accuracy of results enabled by Google technology.
- For content (music, ringtones, walpapers) - visualisation of search results and „Buy Now” buttons.
- Filtering search results for content applicable to phone used.
- Flexible ranking of search results i.e. paid content before news.
- Presenting ads served by Plus based on search phrases.

User experience – How it works?

- User types in keyword within search box i.e. Madonna
- Search results are presented on the screen in customizable categories :
 - Recommended - ads served by Plus
 - Music MP3, Ringtones (not yet all our content bases are integrated with GSA)
 - Videos
 - Games
 - Wallpapers
 - News
- Content is visualised with „Buy” links



How it works for Plus

A bit too early to judge results as the implementation was in mid-March and we haven't so far promote Search, but:

- Can not show yet users and page views statistics :(
- Increasing number of search requests :)
- A slight upward trend in content sales via wap channel (can not only be attributed to search :)
- We are gathering invaluable information about user preferences i.e 6 in top 10 keywords are connected with sex :)

Polkomtel – Google cooperation

- Search – GSA implemented in www and wap, new content sources will be integrated.
- AdWords - cooperation
- GMaps mobile – launched in mid-March, free download available on wap.plus.pl.
- GMail/GApps/Gcalendar mobile/www Plus branded- under consideration
- YouTube mobile - feasibility study

Issues in Google MNO relations

Few loose thoughts from working with Google:

- Google is perceived by Operator as potential competitor with clear threat of loosing customer data and later customers - the big bad Google :(
 - On the other hand Google has sexy products which customers love and Operator wants for their existing and acquired customers - the good Google :)
 - But their products are direct competition and can cannibalize Operators services existing and future secret weapons – the bad Google :(
 - Google culture and mindset is completely opposite Operator freestyle against regulations and procedures – the irresponsible Google ;)
- So it's not easy to get things done with Google within MNO :)

Thank You

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Obviously some views in the presentation are not shared by neither
Polkomtel nor Google:)

Universal Search

Web Content



Portals



File Shares



Secure Content



Content Mgmt



Content Acquisition:

- Crawls 220 filetypes
- File system crawling
- Direct connection to databases
- Content feed API
- Partner Connectors

Google Search Appliance



Query Processing:

- Google Algorithm, Keymatch; Google Stemming
- Leverages existing Security

Results



Results Display:

- Google Standard
- Templates/Wizard
- Output in XML