Identification Agent: Who are You?

Knowing All You Need about Your Caller at the Very First Ring

Our communication today

The more the access to communication media becomes easy and rich, the more our communication environment becomes complex and tough to manage.

In our professional and private lives we have to cope with an ever changing and ever growing amount of:

- callers and contact information (legacy telephony, VoIP, e-mail, Instant Messaging, chat, blog, Web site, collaborative environment for the work or entertainment, etc.);
- exchanged information such as e-mails or documents;
- sources of information related to the exchanges and callers, available in our information system or accessible over Internet.

Even if all the information is accessible, finding it becomes a difficult and time-consuming task. Each source of information is in general accessible with a dedicated kind of tool. Browsing the information may take time and the selection and the correlation of information must be done manually. Moreover as a great number of sources of information may exist, the information search may fail or be incomplete through lack of time or because the user does not know all the sources.

There is a real need for a search agent dedicated to the context of communication that aggregates all the sources of information, automates the search and selection of the relevant information, and provides fast access to the context.

The service

The identification agent is a Web search service that collects all available contact information on a given person. Seamlessly integrated with the user's professional and public services, it provides an automatic access to the context of a call:

- caller identification,
- creation of dynamic electronic business cards (vCards),
- personal information,
- history of exchanges.

WHO IS MY CALLER?

The identification agent provides a transparent access to all available sources of contact information such as directories, documents, white pages, shared address books, and Web pages.

The identification can be triggered automatically (incoming call, new e-mail, etc.) or can be performed on-demand by the recipient, who can personalize the search with his/her own criteria.

The search engine collects all related information from the appropriate sources by using correlation mechanisms to ensure that the selected information is really related to the caller.

HOW CAN I CONTACT HER/HIM?

During identification, all the possible contact IDs of the caller (voice, video, IM, chat, etc.) are collected to update the recipient's address book.

This provides an easy way to populate the address book (unknown caller) and to maintain it up to date.

The service also provides an infrastructure that allows part of address books to be shared with a social network (colleagues, friends). The collected information is available for a peer-to-peer search. Of course, the identification agent takes into account the privacy rules during the search process (policy management of access to the shared address books).

MORE ABOUT MY CALLER?

The identification information may also be automatically made available to the recipient's other search tools such as a desktop search. This then enables a fast and easy access to all the context of an ongoing call, such as a history of the previous exchanges (e-mails, docu-ments), recent news on the caller, a personal Web page (display of only public information and documents accessible by the recipient).
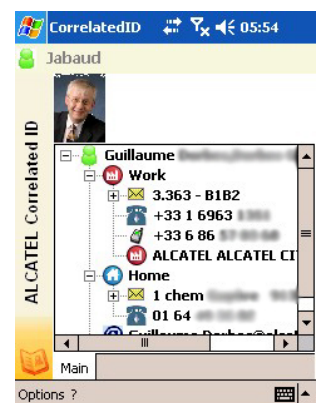

Figure 1: Identification display on Mobile device
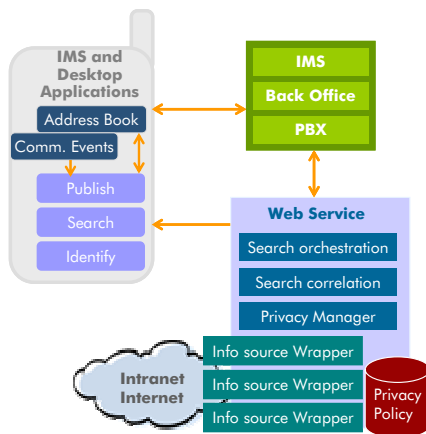
Solution description

Figure 2: Intelligent Agent infrastructure

Integrated with the IT and the communication infrastructures (IMS, back office, etc.), the Web search service aggregates all the possible sources of information (directories, white pages, Web pages, and others). It orchestrates the search by selecting the pertinent sources according to the found data. It correlates the information to select the relevant information. It is also in charge of the privacy policy management to ensure that only the accessible data are provided.

Integrated with the recipient's desktops, the client part provides the interface with the communication events, with the local applications and with the recipient. It provides an entry point for the on-demand search. It triggers the identification on communications event detection. It displays the identification results and provides accesses to the context of exchanges (e-mails, documents ..). It permits the definition of sharing rules for the recipient's address book.

In this case, the recipient is currently using a PDA for voice communication and a laptop for work.

Both PDA and laptop are connected to the IMS infrastructure. An incoming call (legacy or IMS) with an unknown ID is detected.

The identification agent is provided with the ID. It browses all the sources information and identifies the caller (starting by a reverse directory lookup). All the found contact information is passed to the connected devices to be displayed.

The history of exchanges is displayed and the recipient may access e-mails and documents exchanged with the caller (the phone number was unknown but not the caller). The recipient's address book is updated.

Alcatel's cutting-edge innovation

The identification agent is a real answer to the increasing need for simplicity of multimedia communication by:

- providing a faster and a richer access to the context for an ongoing communication;
- offering a converging solution ready to be integrated with the legacy and the future IMS infrastructure;
- taking into account the diversity of devices;
- enabling more confidence by providing information on the caller (identity, friend of friend, personal news).
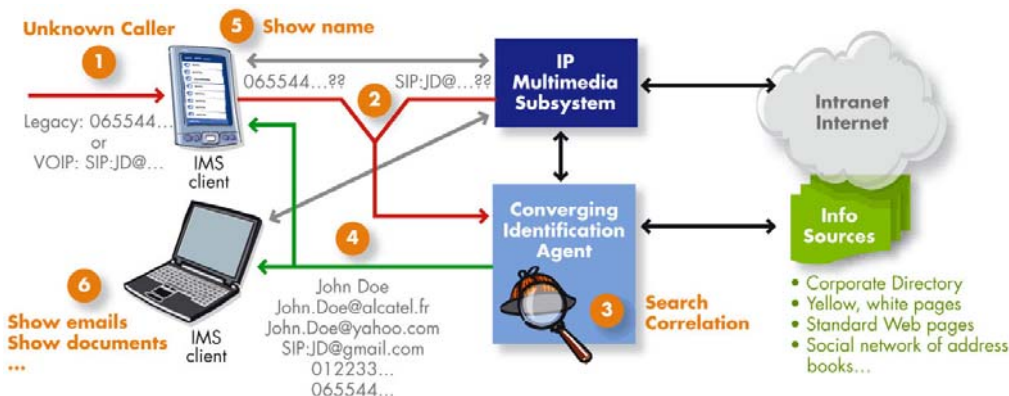
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An example of use

Figure 3: My Identification Agent