



Netwell IMConnector

Release 1.01

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About this white paper

Trademarks

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Intended Audience

This whitepaper is for Netwell IMConnector. It is intended for all those who want to get information about the product and get more out of their Sametime environment. This paper will also take a brief look into Sametime bot architecture. For more information on the Sametime BOT, see http://www-10.lotus.com/ldd/today.nsf/lookup/ST_Bots1/.

This paper does not include information about IBM Lotus Instant Messaging (Sametime). For more information on the Lotus Instant Messaging, see <http://www.lotus.com/products/product3.nsf/wdocs/homepage>.

For more information on the Sametime Everyplace, see <http://www.lotus.com/products/product4.nsf/wdocs/sametimeeveryplacehome/>.

Requirements

The Netwell IMConnector (installer) runs on Lotus Notes 6.0 workstation or higher. System requirements for bots are:

Workstation bot:

- Java JRE
- STComm.jar (Sametime Toolkit, single jar file)
- Notes.jar / NCSO.jar

Server bot:

- Domino Server (R5 or higher)
- STComm.jar (Sametime Toolkit, single jar file)
- Java JRE (in case the bot is not a servlet)

(jar files are dispatched with IBM products)

Sametime BOT in brief

A Sametime BOT is a kind of robot, finding or giving you immediate information or response. This robot can be programmed using Java and it can access all kind of information and perform a lot of different tasks. Only your imagination can limit the possibilities that the BOT technology offers. This BOT will act like a person in your Sametime client, and you basically "talk" to the BOT or ask it for info and you can receive any information you request.

With Sametime Everyplace you can expand the usage of your bots into mobile devices, including PDAs and smartphones. For more information on the Sametime Everyplace, see <http://www.lotus.com/products/product4.nsf/wdocs/sametimeeveryplacehome/>.

Sametime BOTs are usually programmed in Java, which means you need to have some level of basic or advanced Java knowledge, which can be a huge challenge for some of us. Netwell IMConnector helps you to build and deploy your Sametime BOTs easily without any heavy coding.

What is a Netwell IMConnector?

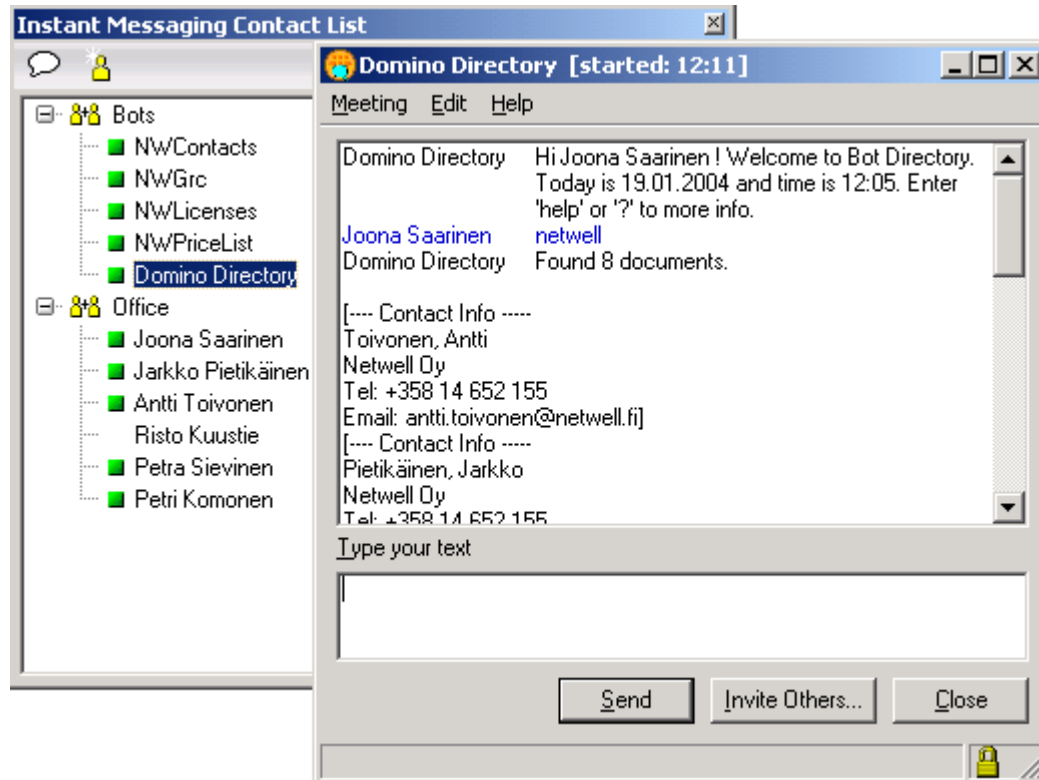
Netwell IMConnector is a product that links Lotus Domino server together with the IBM Lotus Instant Messaging server (Sametime). With Netwell IMConnector you can build up an army of never exhausted “persons” to find information you need quickly and accurately. These BOTs are available in Sametime client as well as in web browser. You can also contact these bots with wireless devices anywhere, at any time.

This product can be used with computer as well as with mobile devices like cellular phones. You can use the IBM Instant Messaging (Sametime) or www/xhtml browser as a user interface. Netwell IMConnector is build with Java (J2EE) technology. Product implementation is easy and needs no changes to existing softwares.

You can have a number of Sametime BOTs to search for different kinds of information from any of your Notes databases. For example when you need to find your customer’s phone number you can start to chat with your own Contacts BOT and give it the name you are looking for. The BOT will find the information for you in seconds.

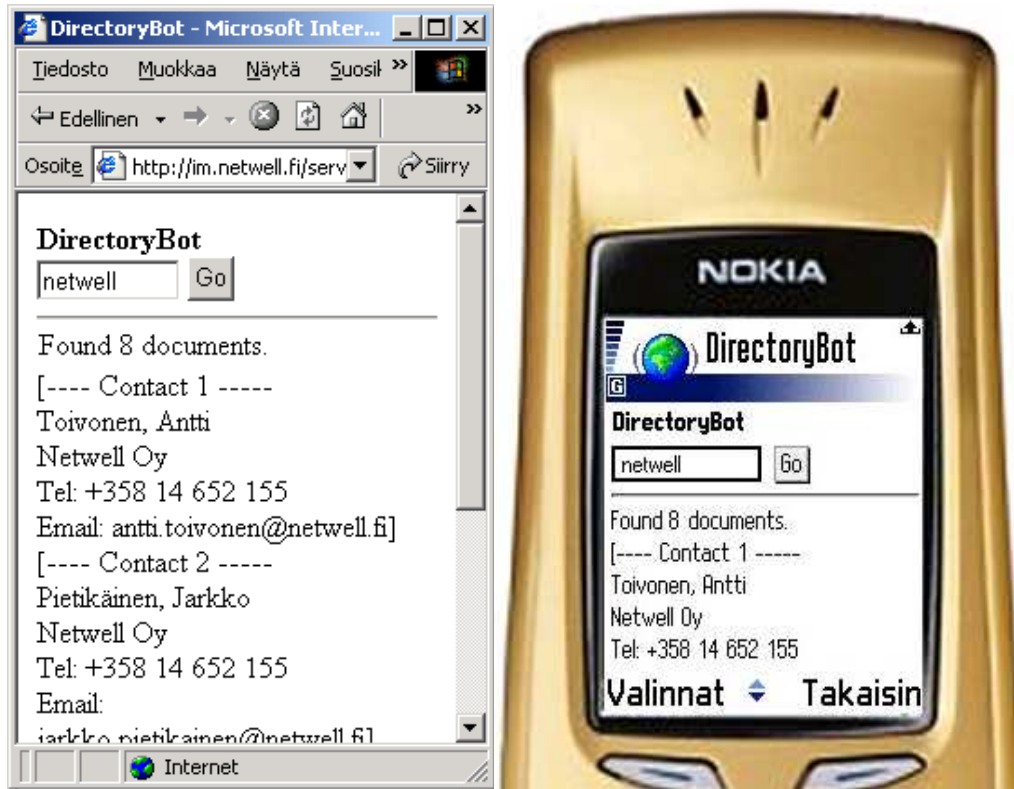
Sametime user interface

Bots are shown as active users in Sametime and you can start chatting with them anytime. You can ask the Bot for some information and it will respond to you in seconds. If you are using the Sametime Everyplace you can access Bots wirelessly with mobile phone or PDA.



WWW and XHTML user interfaces

It is also possible to use Netwell ImConnector Bots completely without Sametime. One way is to use browser interface and for example implement a bot as a part of intra/extranet. The other way is to use bots with XHTML browser in mobile phone. Following example shows the DirectoryBot used with web browser and with XHTML browser in mobile phone:



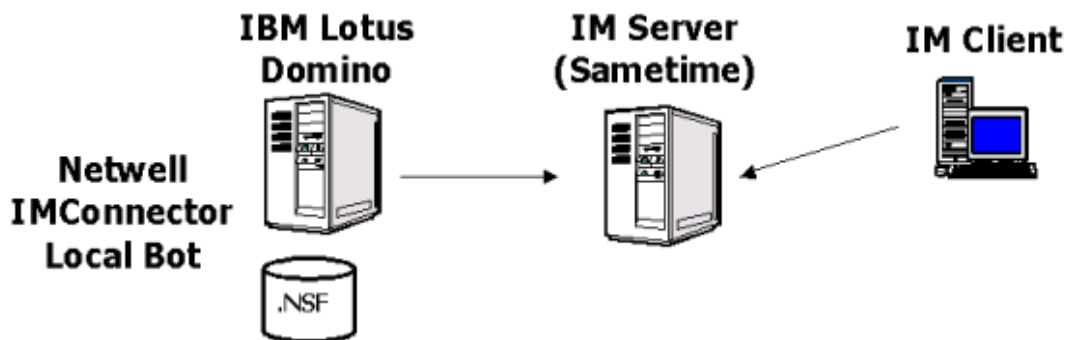
When you are using Bots with mobile phones or with PDA's there is no need to install any additional software. You just use the XHTML browser that comes with the device.

Ways to install Netwell IMConnector Bots

Netwell IMConnector BOTs may run either on a workstation as an Application BOT or on Domino server as a Servlet. Architecture is visualized in the following pictures with the advantages/disadvantages of each installation type.

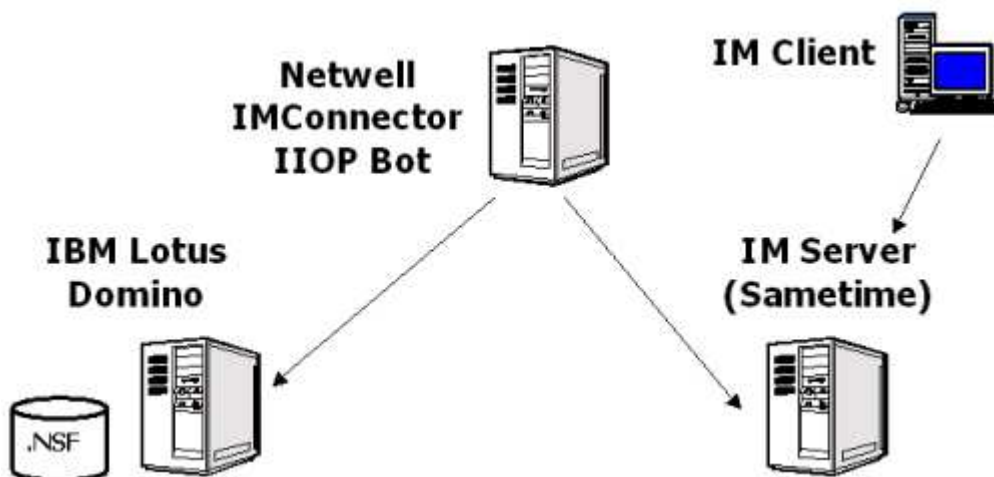
Application BOT – Local connection to database:

- + no changes to server
- + for demonstration
- + easy to configure and deploy
- no automatic startup
- Sametime use only



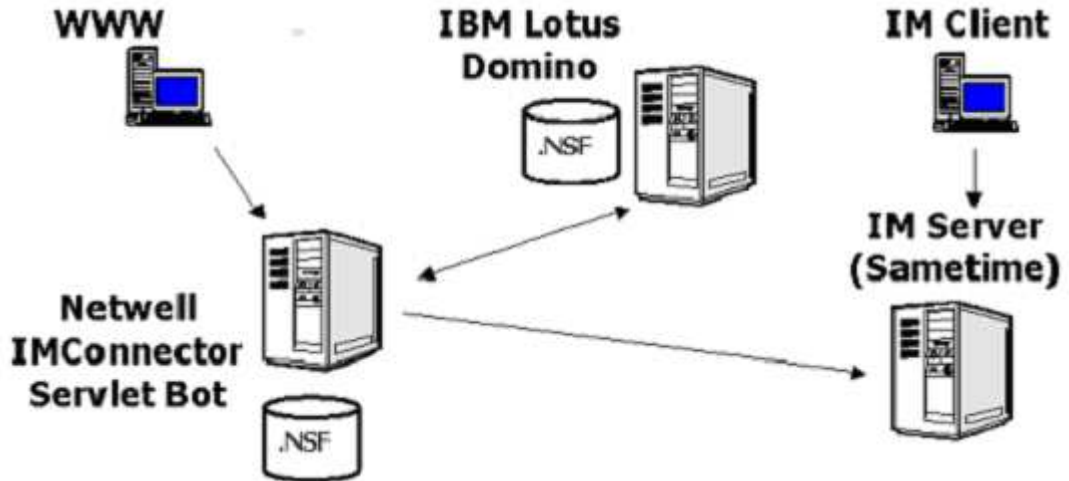
Application BOT- Corba/IIOp connection to database:

- + deployment to separate workstation or server
- + only Java Environment needed on workstation
- no automatic startup
- Sametime use only



Servlet BOT - Local or IIOp connection to database:

- + fastest response time with local connection
- + automatic startup/shutdown with http process
- + can be used via web browser
- Http process and servlet manager needed on server



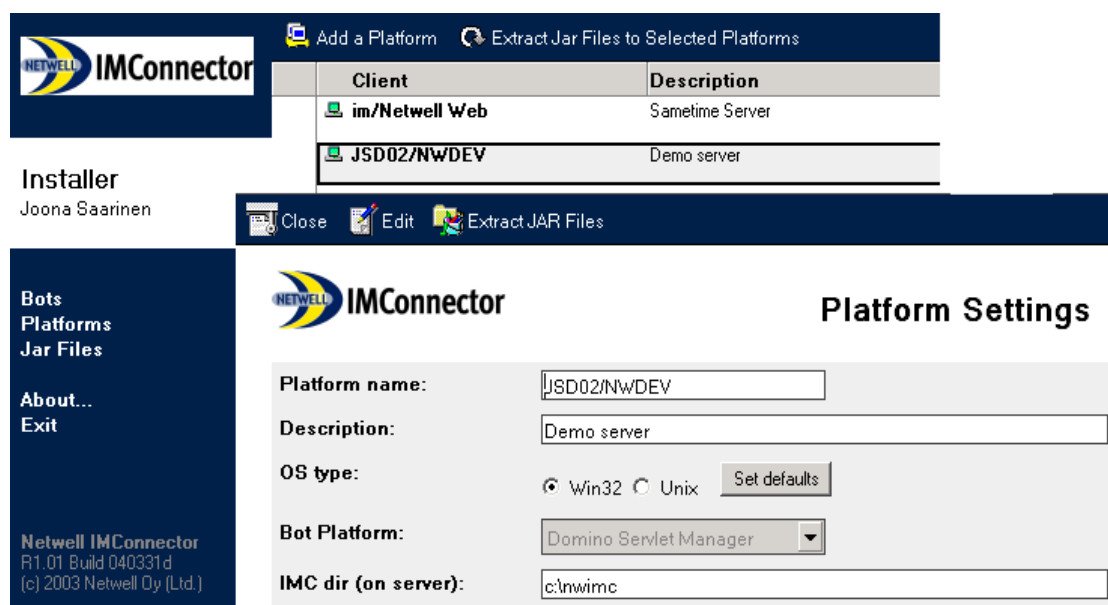
You can use SSL encryption to secure the connection between the Bot and the Domino server. IIOp connection may be secured with SSL as well.

Netwell IMConnector Installer

Creating a new BOT is as easy as it gets, you only need to follow a few simple steps and you are ready to start your first bot. Netwell IMConnector BOTs are created with Netwell IMConnector Installer which is actually a simple Notes database. There are three different sections: Bots, Platforms and Jar Files. Bots and Platforms are explained later in this document. Jar Files is a document that contains two attached documents NWIMC.jar and STComm.jar which both are needed in BOT installation.

Setup Documents


There are only a few things you have to do when you are creating a new BOT. First you have to define a platform on which you are going to deploy your new BOT. In a platform document you name the platform and give a brief description. Then you select the operation system (Win32/Unix) and a BOT platform. Depending on the chosen platform you then have to define filepaths from where you want the files to be extracted.



The other thing you have to do is create the actual BOT. On first two tabs in the BOT document you define the server/database, the platform, and the search type you are going to use. On the Messages tab you can give all the messages, help texts, result line texts. Messages may contain predefined %codes% that allow you to access system variables as well as user's input. You just insert %codes% in to your text string and the BOT will replace these with the current value.

In the following scenes there is a basic Domino Directory BOT that finds contact information based on the person name or the company name:

Ok
 Cancel


Bot Settings

Logins | Basics | Messages | Notes Formulas | Access Control List

Online status:
 Netwell IMConnector's bot service

No access text:
 Sorry %username%, you are not authorized to use this service.

Welcome:
 Hi %username%! Welcome to %databasetitle%. Today is %date% and time is %time%. Enter 'help' or '?'

Help:
 This is a help text.

Result Summary:
 Found %resultcount% documents.


Result none:
 No documents found.

%codes%:
 %date% Current date, format is defined in Basics sheet
 %time% Current time, format is defined in Basics sheet
 %databasename% File path of target database

Search options

There are three different ways to define the search criteria: you can use basic Notes formulas, Full Text Search, or a View Lookup. Notes Formulas tab will vary based on your selection on the Basics tab. In this example there is formula type search used in which case you have to define the Search Formula and the Result Line Formula. Here you can use the same %codes% as in Messages tab regardless of the search type you are using.

Ok
 Cancel


Bot Settings

Logins | Basics | Messages | Notes Formulas | Access Control List

Search Formula:
 "%userentry%"=FieldName


Result Line Formula:
 "--- EXAMPLE RESULT %resultline% ---\n" + Field1 + "\n" + Field2

%codes%:
 %date% Current date, format is defined in Basics sheet

Access Control

Every BOT has its own Access Control List where you can define users who are allowed to access the BOT. Empty list allows everyone to use the bot.

✓ Ok✗ Cancel



Bot Settings

LoginsBasicsMessagesNotes FormulasAccess Control List

Name format:

Allowed user(s):
(No one allows all)

Administrators:
(No one denies all)

Use only non-hierarchical names

Ready to go!

Now you have the platform and the BOT documents configured, the Netwell IMConnector Installer includes all the other files needed. Finally you are ready to publish your new bot and put an end to wasting your time on searching information.

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