Gigaset

LDAP –
Configuration Guide

Gigaset**pro**

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Content

LDAP directories on Gigaset phones

For telephones in professional use, Gigaset offers access to telephone and address directories in LDAP format. The Gigaset IP phones act as LDAP clients. The objects of the directory (phone book entries) are listed on the telephone displays. For each entry the associated detailed information (attributes) can be displayed.

IP network   LDAP database

Query

LDAP
server

Entry:

Surname: Brown
First Name: Charly
Phone (Home): 0987654321
Phone (Mobile): 1234567890
eMail:charly.brown@example.com
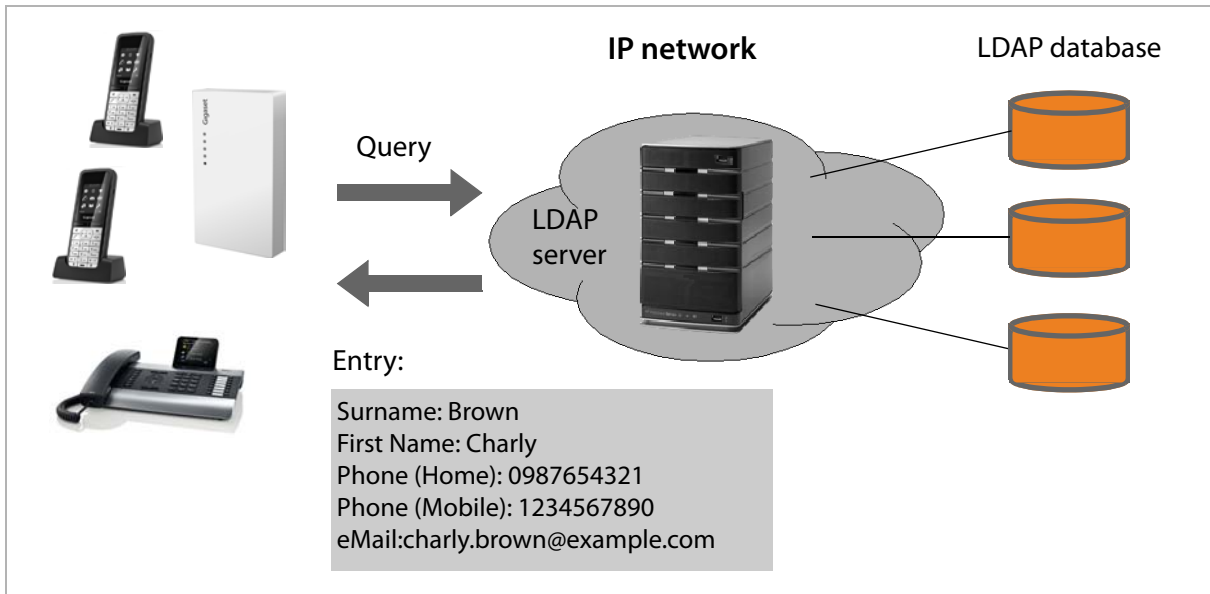
This document explains how to configure the LDAP client and how the information from an LDAP directory is displayed on the phones. The following Gigaset phones support LDAP directories:

Gigaset DE310 IP PRO   Gigaset DE410 IP PRO
Gigaset DE700 IP PRO   Gigaset DE900 IP PRO
Gigaset N510 IP PRO   Gigaset N720 IP DECT Multicell System

The following description is based on a Gigaset N720 IP DECT Multicell System. To illustrate the LDAP phone book on the telephone display, we have chosen the Gigaset SL610 PRO handset. Because the range of functions and the screen display vary on the different phones/phone systems, the LDAP implementation of your phone may differ from this description, but generally speaking the configuration and display are similar across all models.

For detailed information on the telephones, please see the respective user guides. These are available online on the product page of the phone at: www.gigaset.com/pro.

Configuration

To allow the entries of an LDAP directory to be displayed on the Gigaset phones, you will need to configure the phone's LDAP client. This involves the following:

◆ Setting up access to the LDAP server and database

◆ Specifying the attributes to be displayed (→ **p. 5**)

◆ Defining search criteria (filters) (→ **p. 7**)

For configuration you use the web configurator of your Gigaset phone or phone system.

i	Accessing the LDAP configuration in the web configurator menu on your phone/phone system may differ from this description. If necessary, see the user guide for your particular model.

Access to the LDAP server

To ensure that entries from the LDAP database are displayed on the phones, enter the access data via the web configurator of the phone system or phone.

▸ Open the web configurator.

▸ On the **Settings** tab, select **Online directories** from the navigation menu.

▸ Under **Corporate directories**, enter a name for the phone book in the **Directory name** field.

This is the name under which the phone book will appear in the list of network phone books on the telephones (→ **p. 10**).

▸ Select the option **Enable phone book**, so that the phone book will be displayed on the telephones.

▸ Enter the access data for the LDAP server.
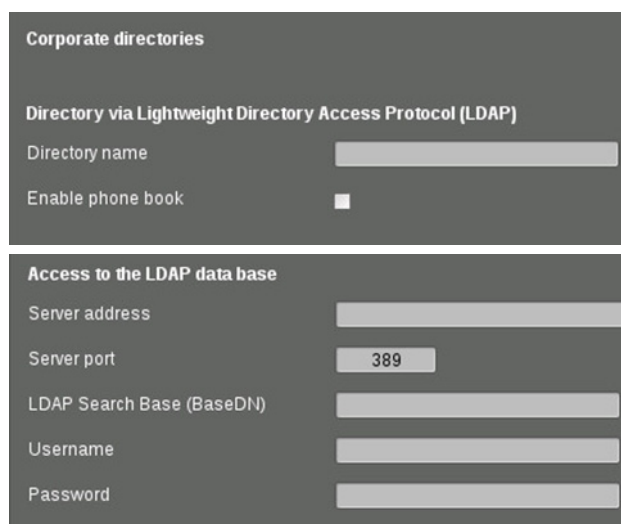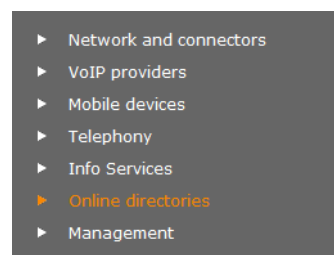
Server address	IP address or domain name of the LDAP server, e.g. 10.25.62.35 or `ldap.example.com`
Server port	Port on which the LDAP server expects queries from the clients. Normally the port number 389 is used (default).
Username / Password	Authorisation data for access to the LDAP server.

LDAP Search Base (BaseDN)

The **LDAP Search Base (BaseDN)** parameter specifies the starting point for the search in the LDAP directory tree. This starting point must be defined on the LDAP server and entered here for the LDAP client according to the server configuration. It is used to define which section of the hierarchical LDAP database is to be searched. Access to the entire directory can be enabled (e.g. to the company phone book) or only to a subdirectory (e.g. the phone book of a particular organisational unit).

Enter as the starting point the Distinguished Name (DN) of the starting object. This is a special LDAP name which represents an object including its position in a hierarchical directory. The DN is specified as follows:

◆ The directory hierarchy is specified from left to right from the lowest level to the highest, e.g. object, organisational unit, organisation, domain.

◆ A hierarchical level has the following format: keyword=object, e.g. cn=PhoneBook.

◆ Hierarchical levels are separated by commas.

The following objects are often used as hierarchical levels:
cn: common name
ou: organisational unit
o: organisation
c: country
dc: domain component

But other objects can also be used. For this parameter you require information on the structure of the LDAP server.

(For the meaning of the objects, see section **Attributes → p. 5**)

Examples:

Starting point: Object `PhoneBook`, in the domain `example.com`

Definition: `cn=PhoneBook,dc=example,dc=com`

Starting point: Object `PhoneBook` in the subdirectory `sales/support`, in the domain `example.sales.com`.

Definition: `cn=PhoneBook,o=support,ou=sales,dc=example,dc=sales,dc=com`

Attributes

For a phone book entry (an object), a series of attributes are defined in the LDAP database, e.g. surname, first name, phone number, address, company etc. The set of all attributes that can be stored for an entry is stored in the schema of the relevant LDAP server. To access attributes or define search filters, you must know the attributes and their names in the LDAP server. Most attribute names are standardised, but there can also be specific ones defined.

Which attributes can actually be displayed on a phone depends on

◆ which attributes are defined for an entry in the LDAP database,

◆ which attributes are set in the web configurator for display on the phone,

◆ which attributes can be displayed on the phone or handset.

Available attributes on Gigaset phones

The following table shows the attributes that are supported by Gigaset phones and can be displayed in the detailed view of a phone book entry. The table takes into account the following telephones/handsets:

1 Gigaset N720 IP DECT Multicell System

2 Gigaset N510 IP PRO

3 Gigaset DE700 IP PRO / Gigaset DE900 IP PRO

4 Gigaset DE310 IP PRO / Gigaset DE410 IP PRO

In the case of cordless phones **1** and **2**, the display depends on the handsets used.

Attributes of a phone book entry	Attribute name in the LDAP database	
First Name	givenName	1 2 3 4
Surname	sn, cn, displayName	1 2 3 4
Phone (Home)	homePhone, telephoneNumber	1 2 3 4
Phone (Office)	telephoneNumber	1 2 3 4
Phone (Mobile)	mobile	1 2 3 4
eMail	mail	1 2 3
Fax	facsimileTelephoneNumber	1 3
Job Title	title	3
Company	company, o, ou	1 3
Street	street	1 3
City	I, postalAddress	1 3
ZIP	postalCode	1 3
Country	friendlyCountryName, c	1 3
Web Address / URI	labeledURI	3
Caller Pictures	jpegPhoto	3
Notes	description	3
Additional Attributes	(defined by the user)	1

Specifying attributes for display on the phone

In the web configurator you specify which of the available attributes from the LDAP database are to be queried and displayed on the phone.

‣ For each attribute of a phone book entry, select the appropriate attribute from the LDAP database (see table on **p. 6**).

Alternatively you can enter manually a different attribute defined in the LDAP database for this field.

‣ If an attribute is not to be displayed, select the option **None**.

In the **Additional Attributes** field, you can enter an additional attribute that is available in the LDAP database. This will be displayed in the detailed view of the telephone entry (➔ **p. 11**).

Configuration of Directory Items

The attributes of the LDAP data must be allocated to the different phone book entries.

First Name

Surname

Phone (Home)

Phone (Office)

Phone (Mobile)

eMail

Fax

Company

Street

City

ZIP

Country

Additional Attributes

i	If you specify a number attribute as an additional attribute, the phone number will be displayed but it cannot be dialled from the phone book.

The attributes **First Name** and **Surname** will be used for the following functions:

◆ Display in the list of phone book entries in the form **Surname, First Name**

◆ Alphabetical sorting of the phone book entries on the phone

◆ Name display of a caller or call participant

If the database query only produces one of the attribute values (e.g. because a contact is only stored with their first name), only this one will be displayed.

Filters

With filters you define criteria by which the phone searches for certain objects in the LDAP database.

The name filter determines which attributes are used in the search for phone book entries.

The number filter specifies which attributes are used for the automatic search in the LDAP database when phone numbers are entered.

Search in the LDAP data base

Define the filters for searching of entries in the LDAP data base.

Name Filter: (|(cn=%)(sn=%))

Number Filter: (|(telephoneNumber=%)(mobile=⁹

Format

A filter consists of one or more criteria. A criterion defines the LDAP attribute in which the entered string is to be searched for, e.g. sn=%. The percent sign (%) is a placeholder for the user input.

Multiple criteria can be connected with logical AND (&) and/or OR operators (|). The logical operators "&" and "|" are placed in front of the criteria. The criterion must be placed in brackets and the whole expression must be bracketed again. AND and OR operations can also be combined.

Examples:

AND operation: `(&(givenName=%)(mail=%))`
Searches for entries in which the first name **and** e-mail address begin with the characters entered by the user.

OR operation: `(|(displayName=%)(sn=%))`
Searches for entries in which the display name **or** surname begins with the characters entered by the user.

Combined operation: `(|(&(displayName=%)(mail=%))(&(sn=%)(mail=%)))`
Searches for entries in which the display name **and** e-mail address **or** the surname **and** e-mail address begin with the characters entered by the user.

i	The LDAP protocol offers various setting options for filters and search functions, e.g. wildcards, fixed character strings and further operators. For full details see the RFC 4515.

Name Filter

The name filter determines which attributes are used for the search in the LDAP database.

Examples:

`(displayName=%)` The attribute **displayName** is used for the search.

The percent sign (%) is replaced with the name or part of the name entered by the user.
If you enter e.g. the character "A", the phone searches the LDAP database for all entries in which the attribute **displayName** begins with "A". If you then enter a "b", it searches for entries in which the **displayName** begins with "Ab".

`(|(cn=%)(sn=%))` The attributes **cn** or **sn** are used for the search.
If you enter e.g. the character "n", the phone searches the LDAP database for all entries in which the attribute **cn** or **sn** begins with "n". If you then enter an "o", it searches for entries in which the attribute **cn** or **sn** begins with "no".

i	LDAP does not distinguish between upper and lower case in the search request.

Number Filter

The number filter defines which attributes are used in the automatic search for a phone book entry. The automatic search is performed when a phone number is entered and in the case of an incoming call with calling line identification. If an entry is found for a phone number, the display shows the name instead of the number.

Entries are only found and displayed if the stored phone number matches the entered phone number exactly.

Examples:

`(homePhone=%)`   The attribute **homePhone** is used for the search.

The percent sign (%) is replaced with the phone number entered by the user.

If you enter the numbers "1234567" when dialling, the phone searches the LDAP database for entries with the private phone number "1234567".

`(|(telephoneNumber=%)(mobile=%)(homePhone=%))`

The attributes **telephoneNumber, mobile** and **homePhone** are used for the search.

If you enter the numbers "1234567" when dialling, the phone searches the LDAP database for entries with the private **or** mobile **or** work number "1234567".

Display on the phones

If an LDAP phone book is set up in the web configurator, it will be available on Gigaset phones with the following functions:

◆ Scroll through phone book or search for phone book entries,

◆ Display phone book entries with detailed information (no edit or delete),

◆ Dial phone numbers directly from the phone book,

◆ Add phone book entries to the local phone book.

When a phone number is entered or a call comes in, the phone book is automatically searched for an entry that matches the phone number. If an entry is found, the name is displayed instead of the phone number.

To display network phone books on the telephone screen:

▣ ➔ 📖 **Contacts** ➔ **Net Directories**

i	Depending on the settings of your phone, you may also be able to access network phone books or the company phone book directly via the navigation key ▢ or one of the display keys. For details, see the user guide for your phone.

Entries in the phone book

The following description shows the display of an LDAP phone book on a Gigaset SL610 PRO handset.

The **Net Directories** menu shows all phone books that have been set up and activated on the **Online directories** page in the web configurator. Each one appears with the name entered under **Directory name** in the web configurator (➔). In the example on the right, the LDAP phone book is shown as **Corporate Directory**.

▢ Use the navigation key to select the phone book and confirm with `OK`.

The phone initiates a query to the LDAP server defined in the web configurator.

The LDAP phone book is displayed according to the following rules:

◆ The search begins in the directory/subdirectory which is defined as the search base on the LDAP server and specified with the **LDAP Search Base (BaseDN)** parameter in the web configurator (➔).

◆ The entries are listed in alphabetical order.

◆ The entries are displayed with **Surname** and **First Name** if both attributes are available in the LDAP database. Otherwise only the surname or first name is displayed.

Net Directories
Corporate Directory
XML Central NetDir
Private XML NetDir
KlickTel
Additional Provider
Back   OK

Corporate Directory
Albert
Bond
Bond, James
Bond, Paul
Brown, Charly
View   Options

Searching the phone book

☐ Scroll through the phone book with the navigation key.

Or

⌨ Enter a name (or the first few letters).

As soon as you press a key on the keypad, the telephone goes into search mode. You can enter up to 15 characters. All entries in the LDAP directory that match your input are displayed.

< C Deletes the last character you entered.

The current search string is shown in the top line.

b
Bond
Bond, James
Bond, Paul
Brown, Charly
< C   Options

br
Brown, Charly
< C   Options
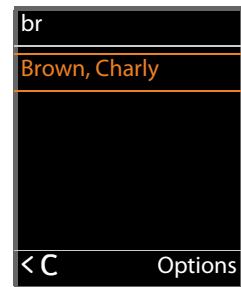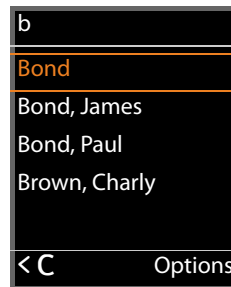
Displaying a phone book entry

☐ Select the entry you want.

▸ Press the display key View or the navigation key ■.

Or

▸ Options → **View**

The phone book entry is displayed with its detailed information. Only attributes for which a value is stored are shown (→ **p. 5**).

☐ Scroll through the entry with the navigation key.

☎ Press the End call key or the Back display key to close the entry.

Brown, Charly
Surname:
Brown
First Name:
Charly
Phone (Home):
1234567890 ▾
Back

Dialling a number from the phone book

☐ Select the entry you want in the phone book.

📞 Press the Talk key. If only one phone number is stored, it is dialled. If there are several phone numbers, they are displayed in a selection list.

Or

☐ Select the phone number you want in the detailed view of an entry: **Phone (Home)**, **Phone (Office)** or **Phone (Mobile)**.

📞 Press the Talk key. The number is dialled.

Brown, Charly
▴
Phone (Office):
0987654321
Phone (Mobile):
0908987876
Street:
Avenue 12 ▾
Back
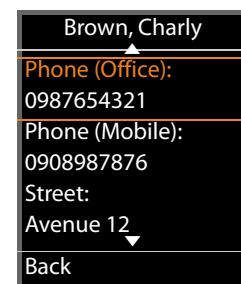
Copying an entry to the local directory

☐ Select the entry you want.

▸ Options → **Copy to Directory**

If an entry contains several phone numbers, they are displayed in a selection list. For the selected number you can create a new entry in the local directory or add the number to an existing entry.

LDAP Central NetDir
Albert
Bond
Bond, James
Bond, Paul
Brown, Charly
View   Options

Brown, Charly
Copy to Directory
View
Back   OK

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