

3. LDAP filters configuration with N510 IP PRO

Name Filter:

- Max. length of field - 128 characters
- Defines filter used for search requests when browsing phonebook entries

Number Filter:

- Max. length of field - 128 characters
- Defines filter used for autolookup feature

Display Format

- Max. length of field - 50 characters
- Defines what information will be shown on search results list, as header of entry's detailed view and, during active call or on calls' list, as autolookup result.

Max. Number of Search Entries

- Value range: 1 - 50
- Defines how many entries will be shown on list with search results. If more entries are available for search result user needs to specify search string. Also proper notification will be displayed when end of list is reached.

Filter's syntax

Basic rules of syntax

Basic LDAP filter consists of one simple criterion. More advanced filters could use more criteria. Each criterion in filter can be concatenated by logical operators. Such operators are always placed in front of the operands (criteria).

The search criteria have to be surrounded by brackets and the whole filter has to be bracketed one more time.

Example:

(givenName=Tom) - search for any entry with *givenName* attribute equal to 'Tom'

(&(cn=John)(sn=Smith)) - search for any entry with *cn* attribute equal to 'John' **AND** *sn* attribute equal to 'Smith'

Operators

Following operators can be used to create filters used to search in a LDAP Online Directory:

Operator	Meaning	Example
=	Equality	(attribute1=abc)
!=	Negation	(!(attribute1=abc))
>=	Greater than	(attribute1>=1000)
<=	Less than	(attribute1<=1000)
~=	Proximity (LDAP server dependent)	(attribute1~=abc)
*	Wildcard	(attr1=ab*) or (attr1=*c) or (attr1=*b*)

Asterisk operator ("*") can be also used to create filters which searches for absence or presence of given attribute.

Example:

(sn=*) - search for any entry with non-zero values of *sn* attribute

(!(telephoneNumber=*)) - search for any entry without *telephoneNumber* defined

Special characters

LDAP filters can be used also to find entries with special characters. If user wants to compare these characters within an attribute string he'll have to use backslash ('\') and 2-digit hex ASCII code as follow:

Special char	ASCII code	Special char	ASCII code
(\28	=	\3d

)	\29	&	\26
<	\3c	~	\7e
>	\3e	*	\2a
/	\2f		\7c
\	\2a		

Example:

(givenName=James \28Jim\29) - will find any entry with givenName attribute's value equal to "James (Jim)"

Web Configurator settings

Name Filter and Number Filter

In Web Configurator user can configure two sets of search criteria (filters). One for Online Directory browsing (**Name Filter**) and one for autolookup function (**Number Filter**).

User has to use "%" in those filters to indicate where search string (names or numbers) has to be inserted. Multiple usage of "%" results in multiple insertion.

Using attribute as "no show" flag

It is possible to define any attribute to work as "no show" flag. To achieve this, following construction is required:

```
(&(noShowAttribute=false)(|(cn=%)(sn=%)))
```

Such filter will search for entries with user-defined search string in *sn* **OR** *cn* attribute **AND** with *noShowAttribute* set as "false".

Display Format

Attributes defined here are responsible for:

- displaying entries on Online Phonebook list
- displaying header for detailed view of single entry
- displaying name replacement in case of matching number found via autolookup feature

The '%' character indicates attribute which will be substituted with value provided from Online Directory. Attribute without such character will be treated as normal string and will be displayed as it is.

Example:

Display Format field set as: **%sn, %givenName**. It means that on list each entry will be shown with values of *sn* attribute and *givenName* attribute separated by comma.

Display Format field set as: **sn, %givenName**. It means that on list each entry will be shown with "sn" string and *givenName* attribute separated by comma.