

How to Use LDAP

Version 1.0

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1. What is LDAP?

LDAP stands for Lightweight Directory Access Protocol which is a client-server protocol for accessing a directory service.

The main idea of LDAP is to keep in one place all the information of a user (contact details, login, password, permissions), so that it is easier to maintain by network administrators. For example you can:

- use the same login/password to login on an Intranet and on your local computer.
- give specific permissions to a group of user. For example some could access some specific page of your Intranet, or some specific directories on a shared drive.
- get all the contact details of the people in a company on Outlook for example.

LDAP is used as a phone book on MyPBX so that you can search a key word from your IP phone. MyPBX support LDAP since firmware version x.19.0.23.

This article explains how to use your existing LDAP with different phones. The configuration settings you enter in your phone will alter wildly dependant on how your LDAP server is configured. In this guide, the LDAP settings on all kinds of IP phone are configured according to MyPBX LDAP default settings.



2. Configure LDAP Server on MyPBX

Check the option of "Enable LDAP", and use default configuration in the other fields. MyPBX acts as one LDAP server.

Default configuration as below:						
Root Node:	dc=pbx,dc=com					
PBX Node:	ou=pbx,dc=pbx,dc=com					
User Name:	cn=admin,dc=pbx,dc=com					
Password:	(fill in as required)					

Then you can add contacts as required.

LDAP Server			
LDAP Settings			
		LDAP is running	
	Enable LDAP:	P: 🗹	
	Root Node:	le: dc=pbx,dc=com e.g. dc=pbx,dc=com	
	PBX Node:	le: ou=pbx,dc=pbx,dc=com e.g. ou=pbx,dc=pbx,dc=com	
	User Name:	e: cn=admin,dc=pbx,dc=com e.g. cn=admin,dc=pbx,dc=com	
	Password	rd: password	
	Add Contact	x	
	Nick Name: Bill		
LDAP Phone Book	Email: bill@yeastar.com	Department: TS	
Add Contact X Delete th	First Name: Billi	Family Name: Gate	25 🔻
	Office Number:	Mobile Number: 14586214458	20
	Home Number:		
	×.	Save Cancel < <prev next="">> Page : 0 / 0</prev>	Goto

Figure 1 Add Contacts in LDAP Server



3. Using LDAP in Yealink Phone

Here we take Yealink T-28 IP phone as an example. Firmware version: MyPBX: x.19.0.23 Yealink: 2.70.0.x

Please note that LDAP Phonebook support on T28\T26\T22\T12, the version

must be V51 (x.51.x.x) and higher, then access to the web UI $\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$ Contacts $\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$

LDAP page, you can find the configured option is like following picture.

Status Account Network Phone Contacts Upgrade Security LOCAI Phone Book Remote Phone Book Phone cal info LDAP LDAP name filter	Yealink					an ing		
Local Phone Book Phone cal info LDAP LDAP name fitter LDAP number fitter Server Address 0.0.0 Port 389 Base Usertlame Usertlame Max. Htts(1~32000) S0 LDAP number attributes LDAP number attributes LDAP display name Protocol Version3 Search Delay(ms)(0~2000) 0 LDAP sorting results LDAP sorting results	ERRY LOP	Status	Account	Network	Phone	Contacts	Upgrade	Security
LDAP name fiter LDAP number fiter LDAP number fiter Server Address Server Address O.0.0 Port Server Address UserName UserName UserName UserName SearO DaP number attributes LDAP number attributes LDAP number attributes LDAP display name Version3 Search Delay(ms)(0~2000) UDAP losplay name LDAP losplay name LDAP losplay name LDAP otting results LDAP sorting results L			Local Phone Bo	ok Remote Pi	ione Book Phor	e callinfo LDAP		
Confirm Cancel		LD/ Ser Por Bas Use Pas Man LD/ LD/ Pro Sea LD/ LD/ LD/ LD/ LD/	AP name filter AP number filter ver Address t e erliame sword k. Hits(1~32000) AP name attributes AP number attributes AP display name tocol arch Delay(ms)(0~2000) AP lookup for incoming of AP lookup for incoming of AP lookup for PreDial/Dial Confirm	0.0.0.0 389 50 Version3 0 Enabled Enabled Disabled			I NOTE	

Figure 2 LDAP Setting Interface of Yealink Phone

Note : For higer firmware version, like 2.72.0.25, you need to enable LDAP first.



Vaalink								Log Out
	Status	Account	Network	DSSKey	Features	Settings	Directory	Security
Local Directory Remote Phone Book Phone Call Info LDAP Multicast IP Setting	Direc	tory ? Disabled History	4 1 1	Enabled Local Directory Remote Phone B LDAP			NOTE Directory The directory administrator.	parameters for
	Sean	ch Source List In Disabled Remote PI Local Direc History Recent Cal	Dialing @	Enabled LDAP	▼ ? Cancel			

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Figure 3 Enable LDAP in Yealink Phone of Later Versions. And you could check the common attributes below.

Parameter	Value
givenName	First Name
sn	Last Name
cn	Nickname
telephoneNumber	Work Phone
homePhone	Home Phone
mobile	Mobile Phone
mail	E-mail
departmentNumber	Department



Yeal	ink			-	-			<u>Loqout</u>
Easy vo		Status	Account	Network	Phone	Contacts	Upgrade	Security
	Local Dire	ctory BlackLis	t Remote Phone Bo	ook Phone C	all Info LDAP	BroadSoft	Call Log Multicast P	aging
		LDAP	Name Filter	((cn=%)(sn	=%))	0	NOTE	
		LDAP	er Address	()(telephone 192.168.4.1	42	0	LDAP s	ettings
		Port		389		0		
		Base		dc=pbx,dc=	com	0		
		Userl	Name	cn=admin,do	=pbx,dc=com	0		
		Passv	vord	•••••		0		
		Max.	Hits(1~32000)	50		0		
		LDAP	Name Attributes	cn sn displayl	Name	0		
		LDAP	Number Attributes	telephoneNu	mber homePho	0		
		LDAP	Display Name	%cn		0		
		Proto	ocol	Version3	٣	0		
		Sear	ch Delay(ms)(0~2000)	0		0		
		Matc	h Incoming Calls	Enabled	T	0		
		LDAP	Sorting Results	Enabled	T	0		
		LDAP	Lookup For PreDial/Dial	Enabled	¥	0		
			Confirm		Cancel			

Figure 4 Fill the Corresponding Parameters in the Field

The example configurations are set according to MyPBX LDAP default settings. You can use the below settings as a starting point and adjust the filter and display attributes according to your needs.

LDAP Name Filter	((cn=%)(sn=%))							
LDAP Number Filter	((telephoneNumber=%)(homePhone=%)(mobile=%))							
Server Address	192.168.5.142 /the IP of MyPBX/							
Port	389							
Base	dc=pbx,dc=com							
User Name	cn=admin,dc=pbx,dc=com							
Password	***** /the password you have set on MyPBX/							
Max. Hits	50							
LDAP Name Attributes	cn sn displayName							
LDAP Number Attributes	telephoneNumber homePhone mobile mail							
	departmentNumber							
LDAP Display Name	%cn							



Protocol	Version 3
Search Delay(ms)(0~2000)	0
LDAP Lookup for Incoming Call	Enabled
LDAP Sorting Results	Enabled
LDAP Lookup for Pre Dial/Dial	Enabled

Note: "LDAP Lookup for Pre Dial/Dial" is removed in version 2.72.0.25 After above configuration click the "confirm" button, and the LDAP will take effect.

Then configure the DSS Key for linking to the LDAP setting.

alink							<u>Logo</u> i	ut
	Status	Account	Network	Phone	Contacts	Upgrade	Security	
Preference	Features So	ftkey Layout 丨 D	SS Keys EXT Key	Action URL	Voice Ring	Tones Dial Pla	n SMS	
Memor	y Keys >> 🕜					NOTE		
Key	Туре		Value	Line	Extension	Key Ty The fre	pe e function key 'Type	s'
DSS Key 1	LDAP	•		Auto	•	Speed I Intercor	Dial, BLF, Key Event, m, URL.	
DSS Key 2	N/A	•		Auto	•	BLF		
DSS Key 3	N/A	•		Auto	•	Busy Lin	e Field function with	90
DSS Key 4	N/A	•		Auto	•	must be	supported by the si	ip p
DSS Key 5	N/A	•		Auto	•	Kov Ev	ont	
DSS Key 6	N/A	•		Auto	•	Key eve	ents are predefined	
DSS Key 7	N/A	•		Auto	•	function	is.	
DSS Key 8	N/A	•		Auto	•	Interco Enable 1	om the 'Intercom' mode	
DSS Key 9	N/A	•		Auto	•	and it is environ	useful in an office ment as a quick acce	55
DSS Key 10	N/A	•		Auto	•	to conn the sec	ect to the operator retary.	or
Line Ko Progra	eys >> 🕜 mmable Keys >	> 🕜		ancel		URL This key send HT server.	/ function allows you ITP requests to a we	to eb
		Confirm		ancel				

Figure 5 Enable LDAP in DSS Key

If you enable the "LDAP Lookup for Pre Dial/Dial", you can use LDAP feature either in Pre Dial/Dial page. And enter in the LDAP from Directory or by pressing DSS Key on the phone like the figure as below:





Figure 6 LDAP in the Direcotry of Yealink Phone

2))	Yealink	4
R	None	
	Back 123 Delete	
	1 2 3	MESSAGE HEADSET
		CONF HOLD

Figure 7 Enable LDAP via DSS Key





Figure 8 Search Result of LDAP

Note: there may be some difference among the different IP phones or softphones. The following examples are references.



4. Using LDAP in Cisco SPA 50X IP Phone

Configuration in Cisco SPA 50X(admin login in advanced mode):

LDAP Number Mapping:

sco SPA502G Configura	tion Utility							<u>User Login</u>	<u>basic</u> advan
Voice Call His	tory	Personal Directory	Attendant (Console Status					
Info System	SIP Pro	ovisioning F	legional F	hone	User	Attendant Console			
Ext 1									
Call Feature	Sync Ext: Disable	led 🔻							
AP Corporate Directory Search									
LDAP D	ir Enable: yes 🔻	•				LDAP Corp Dir Name:	LDAP Test]	
LD	AP Server: 192.168	8.2.127:389				LDAP Auth Method:	None •		
LDAP	Client DN: dc=pbx,	,dc=com]			
LDAP U	sername: cn=adm	nin,dc=pbx,dc=c				LDAP Password:	*****]	
LDAP Sea	rch Base: dc=pbx,	,dc=com							
LDAP Last N	ime Filter: sn:(sn=	*\$VALUE*)				LDAP First Name Filter:	cn:(cn="\$VALUE")]	
LDAP Sea	ch Item 3:					LDAP Item 3 Filter:]	
LDAP Sea	ch Item 4:					LDAP item 4 Filter:]	
LDAP Dis	play Attrs: a=sn;a=	=cn;a=telephoneNumb	er,n=Phone,t=p;						
LDAP Number	Mapping:								
L Service									
XML Directory Serv	ce Name: Phoneb	book]			
XML Directory Se	vice URL: http://19	92.168.5.124/cgi/autop	2DownCfg=/tftpboot/pho	nebook/cisco/ci	sco.xml				
XML Application Serv	ce Name:]			
XML Application Se	vice URL:								
			Undo All Changes	Submit All	Changes				
09 Cisco Systems, Inc. All Rights Reserved.									SPA502G IP F

Figure 9 Fill the Parameters in the Field on Cisco Phone



5. Using LDAP in Zoiper Softphone

Configuration in Zoiper:

LDAP server: 83.247.70.23 /the IP of MyPBX/ Password: ****** /the password you have set on MyPBX/ CN: cn=admin,dc=mypbx,dc=com DN: dc=pbx,dc=com Result limit: 0 Min Chars to Search: 1 Fields to Search: sn,gn XMPP presence:

Preferences	8
Accounts Audio Contacts Automation Skin Advanced	
Search Advanced	
LDAP options	
Vse this server to search for contacts	
LDAP server: 83.247.70.23	
Password:	
CN: cn=admin,dc=pbx,dc=com	
DC: dc=pbx,dc=com	
Result limit: 0 Min chars to search: 1	
Fields to search: sn, gn	
XMPP presence: <do not="" use=""></do>	
X Cancel	

Figure 10 LDAP Option and Configuration in Zoiper



🥝 ZOIPER					•0
			Settings	√ He	lp 🚽 🞆
Q ro				×	CALL
Contacts	History	Ϋ́	Dialpad	Ci	alls
▼ LDAP					
L Roel koster					
L roel Roel					
			Add -	Sort +	Filter +
Online +			🗟 0 new	/ 🔊 0 n	nissed 🙆

Figure 11 Search Result in Zoiper

6. Using LDAP in Bria Softphone

Configuration in Bria: Server settings Server: 192.168.1.120 /the IP of MyPBX/ Authentication method: Anonymous User Name (dn): cn=admin,dc=originsystems,dc=co,dc=za Credential: ****** /the password you have set on MyPBX/ Root DN: dc=originsystems,dc=co,dc=za Search expression:



Search options

Type to filter list Search timeouts: 2000 Max results: 500 Update interval: 120

Attribute Mapping

Display name: cn First name: givenName Last name: sn Job title: title Department: department Location: I Work number: workNumber Mobile number: mobile Softphone: sipUri Home number: telephoneNumber E-mail: mail Instant message: jid



Directory						
Configure Directory						
Directory type: LDAP 🗸						
Server Settings Search Options Attribute Mapping						
Server: 192.168.1.20						
Authentication method: Anonymous						
Username (dn=): cn=admin,dc=originsystems,dc=co,dc=						
Credential:						
Root DN: dc=originsystems,dc=co,dc=za						
Search expression:						
Directory						
Configure Directory						
Directory type: LDAP						
Server Settings Search Options Attribute Mapping						
Search on demand (requires pressing Search button)						
Type to filter list						
Search timeout: 2000 seconds						
Max results: 500						
Update interval: 120 minutes						
Directory						
C Configure Directory						
Directory type: LDAP						
Server Settings Search Options Attribute Mapping						
Display name: Con Work number: workNumber						
First name: givenName Mobile number: mobile						
Last name: sn Softphone: sipUri						
Job title: title Home number: telephoneNumber						
Department: department E-mail: mail						
Location: I Instant Message: jid						



