

Htek IP Phones LDAP Guide



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OpenLDAP

1. To install OpenLDAP Server

OpenLDAP Server is free available from: <u>http://www.openIdap.org/software/download/</u>

1.1 Double click the OpenLDAP application to start the installation: **For example:** openIdap-2.2.29-db-4.3.29-openssl-0.9.8a-win32_Setup.exe



1.2 Click "Browse" to locate the installation path(for example: c:\OpenLDAP), and then click "Next".



JSetup - OpenLDAP	
Select Destination Location Where should OpenLDAP be install	led?
Setup will install OpenLDA	P into the following folder. Id like to select a different folder click Browse
C:\OpenLDAP	B <u>r</u> owse
At least 0.7 MB of free disk space is	s required.
	< Back Next > Cancel

1.3 Select "Full installation" as below and click "Next" to continue.

j <mark>g</mark> Setup - OpenLDAP	
Select Components Which components should be installed?	R
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.)
Full installation	*
install OpenLDAP openIdap-2.2.29 10.7	MB
🛛 🗹 install BDB-tools 0.3	MB
Install UpenLDAP-sturpd as NT service	
Current selection requires at least 11.4 MB of disk space.	
< <u>B</u> ack Next >	Cancel

1.4 Click "Next/Install" as Default setting.

j∯ Setup - OpenLDAP
Select Start Menu Folder Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
OpenLDAP Browse
Don't create a Start Menu folder
< <u>B</u> ack <u>N</u> ext > Cancel



Setup - OpenLDAP	
Select Additional Tasks Which additional tasks should be performed?	
Select the additional tasks you would like Se then click Next. Additional icons: Create a <u>d</u> esktop icon	tup to perform while installing OpenLDAP,
	< <u>₿</u> ack <u>N</u> ext > Cancel
Setup – OpenLDAP Ready to Install Setup is now ready to begin installing OpenL	DAP on your computer.
Setup – OpenLDAP Ready to Install Setup is now ready to begin installing OpenL Click Install to continue with the installation, of change any settings.	DAP on your computer.
Setup – OpenLDAP Ready to Install Setup is now ready to begin installing OpenL Click Install to continue with the installation, of change any settings. Destination location: C:\OpenLDAP Setup type: Full installation Selected components: install OpenLDAP openIdap-2.2.29 install OpenLDAP openIdap-2.2.29 install OpenLDAP-slapd as NT service Start Menu folder: OpenLDAP C	DAP on your computer.

1.5 Click "Finish" to complete the OpenLDAP installation.



2. To configure the LDAP Server

2.1 Add the schema commands.

Open the *slap.conf* file under the installation path. And find the

command :./schema/core.schema, and then add the following commands:

include ./schema/cosine.schema

include	./schema/inetorgperson.schema
include	./schema/corba.schema
include	./schema/dyngroup.schema
include	./schema/java.schema
include	./schema/misc.schema
include	./schema/nis.schema
include	./schema/openIdap.schema

#				^
#	See slapd.c	onf(5) for details on configuration opt	tions.	
#	This file s	hould NOT be world readable.		
#				
u	cdata-path	./ucdata		
iı	nclude	./schema/core.schema		
in	iclude	./schema/cosine.schema		
in	iclude	./schema/inetorgperson.schema		
in	iclude	./schema/corba.schema		
in	clude	./schema/dyngroup.schema		
in	clude	./schema/java.schema		
in	clude	./schema/misc.schema		
in	iclude	./schema/nis.schema		_
in	clude	./schema/openIdap.schema		
4				
#	Define glob	al ACLs to disable default read access.	ı.	
#	Do not enab	le referrals until AFTER you have a wor	king dire	()
#	service AND	an understanding of referrals.	-	
#:	referral	ldap:/root.openldap.org		
p: a:	idfile rgsfile	./run/slapd.pid ./run/slapd.args		
# #	Load dynami modulepath	c backend modules: ./libexec/openldap		
#	moduleload	back_bdb.la		
#	moduleload	back_ldap.la		
#	moduleload	back_ldbm.la		
#	moduleload	back passwd.la		~
<			>	

2.2 Edit the manager information:

Find the foll	owing commands in <i>slap.conf</i> :
suffix	"dc=my-domain, dc=com"
rootdn	"cn=manager,dc=mg-domain,dc=com"
rootpw	secret

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suffix defines the components of the domain name. rootdn is the manager access to the LDAP server. rootpw means the password of the manager.

For example, you can change the context as following:

suffix "dc=HanLong,dc= com"

rootdn "cn=manager,dc=HanLong,dc= com"

rootpw secret

database bdb suttix dc=my-domain, dc=com cn=Manager, dc=my-domain, dc=com rootdn # Cleartext passwords, especially for the rootdn, should # be avoid. See slappasswd(8) and slapd.conf(5) for details. # Use of strong authentication encouraged. rootpw secret # The database directory MUST exist prior to running slapd ANI # should only be accessible by the slapd and slap tools. # Mode 700 recommended. directory ./data # Indices to maintain index objectClass eq database bdb suffix "dc=HanLong, dc=com" cn=Manager, dc=Hanlong, dc=com rootdn # Cleartext passwords, especially for the rootdn, should # be avoid. See slappasswd(8) and slapd.conf(5) for details. # Use of strong authentication encouraged. rootpw secret # The database directory MUST exist prior to running slapd ANI # should only be accessible by the slapd and slap tools. # Mode 700 recommended. ./data directory # Indices to maintain index objectClass eq

3. To Run Slapd Server

3.1 Click Start \rightarrow Run \rightarrow input cmd \rightarrow Enter.

3.2 Perform the cd command to locate the server installation path. For example: input cd c:\OpenLDAP(c:\OpenLDAP)





3.3 Enter the slapd -d -1 command to start the slapd server.



When showing "slapd starting", it means the slapd server runs successfully.

C:\VINDOVS\system32\cmd.exe - slapd -d -1	×
guage \$ employeeType \$ employeeNumber \$ displayName \$ departmentNumber \$ carLice nse \$ documentPublisher \$ buildingName \$ organizationalStatus \$ uniqueIdentifier \$ co \$ personalTitle \$ documentLocation \$ documentVersion \$ documentTitle \$ doc umentIdentifier \$ host \$ userClass \$ roomNumber \$ drink \$ info \$ textEncodedORAd	-
dress \$ uid \$ dmdName \$ houseIdentifier \$ dnQualifier \$ generationQualifier \$ in itials \$ givenName \$ destinationIndicator \$ physicalDeliveryOfficeName \$ postOff iceBox \$ postalCode \$ businessCategory \$ description \$ title \$ ou \$ o \$ street \$ st \$ 1 \$ c \$ serialNumber \$ sn \$ knowledgeInformation \$ labeledURI \$ cn \$ name	
\$ ref \$ vendorUersion \$ vendorName \$ supportedSASLMechanisms > > 2.5.13.1 (distinguishedMameMatch>: matchingRuleUse: < 2.5.13.1 NAME 'disting uishedMameMatch' APPLIES < dITRedirect \$ associatedName \$ secretary \$ documentAu thor \$ manager \$ seeAlso \$ roleOccumant \$ owner \$ member \$ distinguishedMame \$ a	
liasedObjectName \$ namingContexts \$ subschemaSubentry \$ modifiersName \$ creators Name > >	
2.5.13.0 Conjectidentifiermatch); matchingKuleUse: (2.5.13.0 MMHE 'objectid entifierMatch' APPLIES (supportedApplicationContext \$ supportedFeatures \$ support rtedExtension \$ supportedControl > >	
slapd startup: initiated. backend_startup: starting "dc=HanLong,dc=con" bdt db averst destart destart	
bdb_db_open: dbenv_open(./data)	
daemon: added 1860r daemon: select: listen=1860 active_threads=0 tvp=NULL	
	-

Note: Keep the window open to ensure the server is running.

4. To add initial Entry to the LDAP Directory

4.1 Create .ldif file under the located path. For example: create a file test.ldif under c:\OpenLDAP. Input the following context in the .ldif file and save.

dn:dc=HanLong,dc= com objectclass:dcobject objectclass:organization o:xmHanLong dc:HanLong



dn:cn=manager,dc=HanLong,dc= com dc=HanLong objectclass:dcobject objectclass:organization cn=manager sn:summer



- 4.2 To make the Entry effective.
- 4.2.1 Click start→run→Enter cmd→Enter
- 4.2.2 Input cd c:\OpenLDAP

4.2.3 Input Idapadd -x -D "cn=manager,dc=HanLong,dc=com" -w secret -f test.ldif



5. To Install LDAP Client

LDAPExploreTool2 is free on web http://ldaptool.sourceforge.net/.

5.1 Double click LDAPExploreTool2.exe, and then click "Next".



5.2 Select the installation and then click "Next" as default setting.



🕫 Setup - LDAPExplorerTool 2
Select Destination Location Where should LDAPExplorerTool 2 be installed?
Setup will install LDAPExplorerTool 2 into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\LDAPExplorerTool 2 Browse
At least 18.2 MB of free disk space is required.
< <u>Back</u> <u>N</u> ext> Cancel
🕼 Setup - LDAPExplorerTool 2
Select Start Menu Folder Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
LDAPExplorerTool 2 Browse
Don't create a Start Menu folder
< <u>B</u> ack <u>N</u> ext > Cancel
j∰ Setup - LDAPExplorerTool 2
Select Additional Tasks Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing LDAPExplorerTool 2, then click Next.
Additional icons:
Create a <u>desktop icon</u>
< <u>B</u> ack <u>N</u> ext> Cancel



Setup - LDAPExplorerTool 2	
Ready to Install Setup is now ready to begin installing LDAPExplorerTool 2 on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination location: C:\Program Files\LDAPExplorerTool 2 Start Menu folder: LDAPExplorerTool 2 Additional tasks: Additional icons: Create a desktop icon	8
<	
< <u>B</u> ack	Cancel

5.3 Click "Finish" to finish the installation.



6. To Configure LDAP Client

6.1 Run LDAPExplore Tool2.

Double click LDAPExploreTool Icon on the table.



6.2 To Create a Configuration.



6.2.1 Click File \rightarrow Configuration \rightarrow New, to add a new configuration.

LDAPExplorerTo	ol 2		
<u>File</u> <u>T</u> ools			
Open last configure	tion		
Configurations	he -		
Ant			
			//
Configur	ations		
		Actions	
		New	
		Open	
		Edit	
		Delete	

6.2.2 Fill the Configuration name, for example: LDAP.

Configuration				
Configuration Serve	r Connection	Option SS	il/TLS	
Configuration name		LDAP	_	
	Ok	Cancel		

6.2.3 Fill the Server Name or IP under Server table, for example: 192.168.0.90. Leave the Server port and Server SSL port as default.



Configuration		
Configuration Servi	er Connection Option	n SSL/TLS
Server name or IP	192.168.0.124	
Server port	389	☑ Use default port
Server SSL port	636	☑ Use default port
Version	○ 3 ○ 2	
	Test connection	
	Ok Canc	el

6.2.4 Under the Connection table, fill the User DN and Password.

The context filled on User DN is same as "rootdn" in .ldif file.

For example:

User ID: cn=manager,dc=HanLong,dc=com

Password: secret

Click the "Guess value" to get the base DN and then click "Test connection" to test the connection status.

Configuration		×
Configuration Server	Connection Opt	ion SSL/TLS
User DN	cn=manager,dc=	🗖 Anonymous login
Password	*****	Store password
Use SSL port Use TLS	○ Yes ● No○ Yes ● No	Test Result 🗙 ① Test OK (T) 頒定
Base DN	dc=HanLong,dc= Test connection	
	Ok Car	ncel

6.2.5 Click "Ok" to finish the configuration.

7. To Add contacts

7.1 Open the created configuration.

7.1.1 Click File \rightarrow Configuration \rightarrow select the created configuration.

For example: LDAP

Configurations	×
LDAP	- Actions
	New
	Open
	Edit
	Delete

7.1.2 Click "Open" to open the configuration.

7.2 To Add the new entry creation.

7.2.1 Right click the root entry and click the "Add" button to add new entries.

LDAPExplorerTool 2		
File Tools		
Root-do Entry	dc=HanLong, dc=com	
Add		
Copy to		
Rename		
Delete		
Search		



New entry creation	
Parent DN	dc=HanLong,dc=
Entry RDN	
Object class (from schema)	_
Object class (manual)	
dc=HanLong,dc=com	
MUST attributes	MAY attributes
Attribute(when schema is unavailable)	Add
Sa	ve Cancel

7.2.2 Fill the "Entry RDN" follow the format: cn=xxx, for example: cn=Alyssa.

7.2.3 Select the "Object Class", for example: person.

7.2.4 Double click the sn in the "MUST attributes", and then right click sn to fill the value: For example Cheng.

New entry creation	
Parent DN	dc=HanLong,dc=
Entry RDN	cn=Alyssa
Object class (from schema)	person 💌
Object class (manual)	
Cn=Alyssa,dc=HanLong,dc=co Attribute Remove attribute Add value	om
MUST attributes	MAY attributes
cn objectClass	userPassword telephoneNumber seeAlso description
Attribute(when schema	Add

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7.2.5 Double click cn in the "MUST attributes", and then right click cn to add the cn value(the value is same as "Entry RDN", here for example is Alyssa).

New entry creation	×
Parent DN dc=HanLong,dc=	
Entry RDN cn=Alyssa	
Object class (from schema) person	-
Object class (manual)	
☐ cn=Alyssa,dc=HanLong,dc=com	
⊡ sn Cheng	
cn sn	
Enter a new value	
Alyssa	
0	Cancel
MUST attributes	
sn userPass telephon objectClass description	word eNumber on
Attribute(when schema	Add

7.2.6 Double click "Object Class".

7.2.7 Double click the telephoneNumber in "May attributes", and then right click to add the value.

7.2.8 Click "Save" to save this Entry.

7.2.9 Repeat Step 7.2.1-7.2.8 to add more Entries.

Note:

- 1. sn means surname. cn means common name
- 2. "MUST attributes" must be selects, and "MAY attributes" is optional.

8. To configure LDAP on Htek IP Phones

8.1 Login webpage and configure LDAP features. Click Directory→LDAP

LDAP Name Filter: This parameter specifies the name attributes for LDAP searching. The "%" symbol in the filter stands for the entering string used as the prefix of the filter condition.

For example (cn=%), when the name prefix of the cn of the contact record matches the search criteria, the record will be displayed on the IP PHONE LCD.

LDAP Number Filter: This parameter specifies the number attributes for LDAP searching.

Server Address: Fill the domain name or IP address of the LDAP Server. For example: 192.168.0.124

Port: Fill the port of the LDAP Server, for example: 389 as default.

Base: Fill the same value as suffix value mentioned before.(On page 6) For example: dc=HanLong,dc=com

User Name: Fill the same value as rootdn mentioned before.(On page 6) For example: cn=manager,dc=HanLong,dc=com

Password: Fill the same value as the rootpw mentioned before. (On page 6) For example: secret

Max.Hits: Fill the maximum number of the search results to be returned by the LDAP server.

LDAP Name Attributes: Fill the LDAP Name Filter, separated by a space between two values. If you set this attribute, the LDAP Server will send the name attribute to SIP Server, for example: cn

LDAP Number Attributes: Fill the LDAP Number Filter, separated by a space between two values. If you set this attribute, the LDAP Server will send the number attribute to SIP Server, for example: telephoneNumber

LDAP Display Name: Fill the display name of the contact record displayed on the LCD screen, separated by a space between two values, for example: %cn %sn

Filled the relative value and then click "SaveSet" button to save the settings. Following is the example screenshot for the configuration.

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				logout
TEHtek	Home Account Net	work Function Keys	Setting Directory Management	
Directory Remote Phone Book Call History	LDAP Name Filter LDAP Number Filter	(cn=%) (((telephoneNumber=%)	2 NOTE	
LDAP Network	Port	389	2	
MultiCast Paging	Base User Name	dc=HanLong,dc=com er,dc=HanLong,dc=com	2	
	Password	•••••	3	
	Max.Hits(1~32000)	32000 cn sn displayName	2	
	LDAP Number Attributes	honeNumber homePho	3	
	LDAP Display Name	%cn %sn	3	
	Search Delay(0~2000ms)	Version2 • Version3	3	
	LDAP Lookup For Call	⊛ On © Off	3	
	LDAP Sorting Results	🖲 On 💿 Off	3	
	LDAP Synchronize Time(0-9999mins)	Cancel	2	

8.2 To Configure LDAP Key.

8.2.1 To configure LDAP Key via Web:

- Click Function Key \rightarrow Line Key \rightarrow choose Line Key 4(for example).
- Select LDAP in the Type field.
- Click "SaveSet" to save the configuration.

Htek	Но	ome Acc	count	Networ	k Func	tion Keys	Setting D	irectory Management	<u>logout</u>
Line Key Memory Key Programmable Key EXP KEY	Line Key1 Key2 Key3 Key4	Line Line Line LDAP	• • • • • • • • • • • • • • • • • • •	Value	Label	Account Auto Auto Auto Restart	Pickup Code	NOTE	

8.2.2 To Configure LDAP Key via LCD:

- Press Menu→Feature→Function Keys→Memory Keys as Function Keys→Memory Key 1.
- Select LDAP in the Type field.
- Press "Save" or "OK" key to save the configuration.

9. To use LDAP on Htek IP Phones

Press the LDAP Key.

	LDAP C	ontacts	1/68
navy		828	
william		831	
Simon		829	
jack		817	
nancy		827	
Filter Prefix:		ماهــــــــــــــــــــــــــــــــــــ	
Cancel	2aB	Delete	Option

Active Directory

1. To install the Microsoft Active Directory Domain

Services

Note: This section shows you how to install an active directory on Microsoft Windows Server 2008 or Microsoft Windows Server 2008 R2 Enterprise 64-bit system.

1.1 Click Start→Run.

1.2 Enter dcpromo in the pop-up dialogue box and click "ENTER".

1.3 The Active Directory Domain Services Installation Wizard will appear after a short while, click "Next":



\overline Active Directory Doma	in Services Installation Wizard	×
	Welcome to the Active Directory Domain Services Installation Wizard This wizard helps you install Active Directory Domain Services (AD DS) on this server, making the server an Active Directory domain controller. To continue, click Next.	
	Use advanced mode installation Leam more about the additional options that are available in <u>advanced mode installation</u> .	
	More about <u>Active Directory Domain Services</u>	
	< Black Next > Cance	

- 1.4 Popup hint window, click "ok".
- 1.5 Read the provided information and click "Next":

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Improved security settings in Windows Server 2008 affect older versions of Windows		
<u>î</u>	 Windows Server 2008 domain controllers have a new more secure default for the security setting named "Allow cryptography algorithms compatible with Windows NT 4.0." This setting prevents Microsoft Windows and non-Microsoft SMB "clients" from using weaker NT 4.0 style cryptography algorithms when establishing security channel sessions against Windows Server 2008 domain controllers. As a result of this new default, operations or applications that require a security channel serviced by Windows Server 2008 domain controllers might fail. Platforms impacted by this change include Windows NT 4.0, as well as non-Microsoft SMB "clients" and network-attached storage (NAS) devices that do not support stronger cryptography algorithms. Some operations on clients running versions of Windows earlier than Vista with Service Pack 1 are also impacted, including domain join operations performed by the Active Directory Migration Tool or Windows 	
	For more information about this setting, see Knowledge Base article 942564 (http://go.microsoft.com/fwlink/?LinkId=104751).	

1.6 Mark the "Create a new domain in a new forest" radio box and click "Next".

Note: We recommend that you set a strong password for the local Administrator account before you create the new domain.

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a Active Directory Domain Services Installation Wizard	×
Choose a Deployment Configuration You can create a domain controller for an existing forest or for a new forest.	
C Existing forest	
C Add a domain controller to an existing domain	
C Create a new domain in an existing forest This server will become the first domain controller in the new domain.	
Create a new domain in a new forest	
More about possible deployment configurations	
< Back Next >	Cancel
	Canobi

1.7 Enter an appropriate domain name for the forest root domain and click "Next":

me the Forest Root Domain The first domain in the forest is the forest root domain. Its name is also the name of the forest.	0000
Type the fully qualified domain name (FQDN) of the new forest root domain.	
FQDN of the forest root domain:	
Idap.htek,com	



The wizard will check if the domain name is in use on the local network:

The first domain the forest.	Root Domain in the forest is the forest root domain. Its name is also the name of	
Type the fully qu	alified domain name (FQDN) of the new forest root domain. est root domain:	
Idap.htek.com		
Example: corp	Checking whether the new forest name is already in use	
	< Back Next > C	ance

1.8 Select the desired forest functional level from the pull-down list of "Forest functional level", and click "Next".

For more information, click "domain and forest functional levels":



Horest fu Window	s Server 2003	-
Details:		
The Wir available features - -	dows Server 2003 forest functional level provides all features that are in Windows 2000 forest functional level, and the following additional Linked-value replication, which improves the replication of changes to group memberships. More efficient generation of complex replication topologies by the KCC. Forest trust, which allows organizations to easily share	
Δ	You will be able to add only domain controllers that are running Windows Server 2003 or later to this forest.	
More ab	out <u>domain and forest functional levels</u>	

1.9 Select the desired domain functional level from the pull-down list of "Domain functional level", and click "Next".

For more information, click "domain and forest functional levels".



Domain f	unctional level:
Details:	
The follo level: - - - -	wing features are available at the Windows Server 2003 domain functional universal groups group nesting group type conversion SID history Constrained delegation, which an application can use to take advantage of the secure delegation of user credentials by
A More ab	You will be able to add only domain controllers that are running Windows Server 2003 or later to this domain.

1.10 Select additional options for this domain controller if required, and click "Next".



additional Domain Controller Options	
Select additional options for this domain controller.	
DNS server	
🔽 Global catalog	
<u>Read-only domain controller (RODC)</u>	
Additional information:	
We recommend that you install the DNS Server servi controller.	ice on the first domain
More about additional domain controller options	

1.11 The wizard will prompt a warning about DNS delegation. Since no DNS has been configured yet, you can ignore the message and click "Yes".



1.12 Specify the desired paths for the database, log files and SYSVOL folders, and click "Next".

For more information, click "placing Active Directory Domain Services files".

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For better performance and recoverability, store the database and log files on separate volumes. Database folder: C:\Windows\NTDS Log files folder: C:\Windows\NTDS Browse SYSVOL folder: C:\Windows\SYSVOL Browse More about placing Active Directory Domain Services files	Specify the folders that will contain the Active Director database, log files, and SYSVOL.	ry domain controller
Database folder: Browse Log files folder: Browse C:\Windows\NTDS Browse SYSVOL folder: C:\Windows\SYSVOL C:\Windows\SYSVOL Browse More about placing Active Directory Domain Services files	For better performance and recoverability, store the da volumes.	atabase and log files on separate
C:\Windows\NTDS Browse Log files folder: C:\Windows\NTDS SYSVOL folder: C:\Windows\SYSVOL C:\Windows\SYSVOL Browse More about placing Active Directory Domain Services files	Database folder:	
Log files folder: Browse C:\Windows\NTDS Browse SYSVOL folder: C:\Windows\SYSVOL C:\Windows\SYSVOL Browse More about placing Active Directory Domain Services files	C:\Windows\NTDS	Browse
C:\Windows\NTDS Browse SYSVOL folder: C:\Windows\SYSVOL C:\Windows\SYSVOL Browse	Log files folder:	
SYSVOL folder: C:\Windows\SYSVOL Browse More about placing Active Directory Domain Services files	C:\Windows\NTDS	Browse
C:\Windows\SYSVOL Browse More about placing Active Directory Domain Services files	<u>S</u> YSVOL folder:	
More about <u>placing Active Directory Domain Services files</u>	C:\Windows\SYSVOL	Browse
	More about placing Active Directory Domain Services	<u>files</u>

1.13 Configure the password for the active directory recovery mode, and click "Next".For more information, click "Directory Services Restore Mode password".The password should be complex and at least 7 characters long.



		1
Directory Services Resto	ore Mode Administrator Password	
The Directory Services F Administrator account.	Restore Mode Administrator account is different from the o	domain
Assign a password for the controller is started in Dire choose a strong password	e Administrator account that will be used when this doma ectory Services Restore Mode. We recommend that you rd.	in
Password:	•••••	
Confirm password:	•••••	
More about Directory Ser	rvices Restore Mode password	

1.14 Review your selection and click "Next".

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mma	y	
Rev	ew your selections:	
Con	gure this server as the first Active Directory domain controller in a new forest.	
The	new domain name is Idap.htek.com. This is also the name of the new forest.	
The	NetBIOS name of the domain is LDAP0	
Fore	st Functional Level: Windows Server 2003	
Dom	ain Functional Level: Windows Server 2003	
Site	Default-First-Site-Name	
Add	ional Options:	•
To c	nange an option, click Back. To begin the operation, click Next.	
The othe More	e settings can be exported to an answer file for use with unattended operations. about using an answer file	

The wizard will prompt that the system begins to create the Active Directory Domain Services.

The wizard is configuring Activ from a few minutes to several that you selected.	ervices Installation Wizard ve Directory Domain Services. This process can take hours, depending on your environment and the options
Waiting for DNS installation to	finish
	Cancel

1.15 Click "Finish" to complete and exit the wizard:





2. To Install the Active Directory Lightweight Directory

Services Role

You should also install the Active Directory Lightweight Directory Services role on Windows Server 2008 system.

- 2.1 Click Start->Administrative Tools->Server Manager.
- 2.2 Right click "Roles", and then select "Add Roles".
- 2.3 The Add Roles Wizard will pop up, click "Next".



dd Roles Wizard	
Before You B	egin
Before You Begin Server Roles Confirmation Progress Results	 This wizard helps you install roles on this server. You determine which roles to install based on the tasks you want this server to perform, such as sharing documents or hosting a Web site. Before you continue, verify that: The Administrator account has a strong password Hervork settings, such as static IP addresses, are configured The latest security updates from Windows Update are installed If you have to complete any of the preceding steps, cancel the wizard, complete the steps, and then run the wizard again. To continue, dick Next.
	☐ Skip this page by default
	< Dracinge Next > Tostall Cancel

2.4 Check the "Active Directory Lightweight Directory Services" checkbox and click "Next".

Add Roles Wizard		×
Select Serve	r Roles	
Before You Begin Server Roles AD LDS Confirmation Progress Results	Select one or more roles to install on this server. Roles: Active Directory Certificate Services Active Directory Pederation Services Active Directory Lightweight Directory Services Active Directory Lightweight Directory Services Active Directory Rights Management Services Application Server DHCP Server ONS Server (Installed) Fax Server Pile Services Print Services UDDI Services Veb Server (ITS) Windows Deployment Services	Description: Active Directory Lightweight Directory Services (AD LDS) provides a store for application-specific data, for directory- enabled applications that do not require the infrastructure of Active Directory Domain Services. Multiple instances of AD LDS can exist on a single server, each of which can have its own schema.
	< Previous	Next > Install Cancel

- 2.5 Follow the default settings and click "Next".
- 2.6 When the installation is completed, click "Close".



Add Roles Wizard		×
Installation Res	sults	
Before You Begin Server Roles AD LDS Confirmation Progress Results	The following roles, role services, or features were installed successfully: 1 warning, 1 informational messages below Windows automatic updating is not enabled. To install the latest updates, use Windows Update in Control Panel to check for updates. Active Directory Lightweight Directory Active Directory Lightweight Directory Installation succeeded Instances of AD LDS can be created by launching the Active Directory Lightweight Directory Services Setup Wizard from the Administrative Tools folder on the Start menu. Print, e-mail, or save the installation report	
	< Previous Next > Close Cancel	

After the installation succeeds, you will find the "Active Directory Lightweight Directory Services" role listed in roles of the server manager.



3. Configuring the Microsoft Active Directory Server

To add an entry to the Active Directory:



- 3.1 Click Start->Administrative Tools->Server Manager.
- 3.2 Double click Roles->Active Directory Domain Services->Active Directory Users and Computers.
- 3.3 Double click the domain name created above (e.g., ldap.htek.com), and then select Users->New->Contact.



3.4 Enter the desired name of the Contact.

<u>First name:</u>	nancy	Initials: nw	
Last name:	wang		
F <u>u</u> ll name:	nancy nw. wang		
Display name:			

3.5 Click "OK" to accept the change, you can see the added contact in the Users field.



📕 Server Manager								
File Action View Help								
Server Manager (WIN-DY7V4YDZFMK)	Users 20 objects [Filter Activated]			Actions				
E PROJES	Name	Type	Descriptio	Users				
Active Directory Domain Services Active Directory Lisers and Computers [WINH	🔏 Administrator	User	Built-in ac	More Actions	•			
Active Directory Osers and Computers [WIN4	Allowed RODC Password Replica	Security Group	Members	More Actions				
E Builtin	😣 Cert Publishers	Security Group	Members	nancy nw. wang	-			
E Computers	& Denied RODC Password Replicati	Security Group	Members	More Actions	•			
🗉 🖬 Domain Controllers	Sector 2 Construction of the sector 2 Constru	Security Group	DNS Admi					
ForeignSecurityPrincipals	A DnsUpdateProxy	Security Group	DNS client					
Users	Bomain Admins	Security Group	Designate					
Active Directory Sites and Services	Bomain Computers	Security Group	All workst					
Active Directory Lightweight Directory Services	Controllers	Security Group	All domain					
	Domain Guests	Security Group	All domain					
	Domain Users	Security Group	All domain					
Configuration	Contemprise Admins	Security Group	Designate					
🗄 📑 Storage	Creup Palicy Creater Owners	Security Group	Members					
_	Group Policy Creator Owners	Security Group	Puilt in ac					
		User	Duitenac					
		Contact						
	& RAS and IAS Servers	Security Group	Servers in					
	Read-only Domain Controllers	Security Group	Members					
	& Schema Admins	Security Group	Designate					
		second, croop						
	<u>ــــــــــــــــــــــــــــــــــــ</u>		F					
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4. Configuring Htek IP Phones

LDAP is disabled on IP Phones by default. You can configure LDAP via web interface or using configuration files. The feature is supported version 1.0.3.82 or later. To configure LDAP feature via web user interface:

- 4.1 Press the "OK" key on the phone when it is idle to obtain the IP address.
- 4.2 Enter the IP address (e.g., http://192.168.0.100 or 192.168.0.100) in the address bar of web browser on your PC and then press Enter.
- 4.3 Enter the user name and password in the login page. The default login user name is admin (case-sensitive) and the password is admin (case-sensitive).
- 4.4 Click on Directory->LDAP.
- 4.5 Enter the desired values in the corresponding fields.

The screenshot for reference is shown as below:

Htek

Home Account	Network Function Keys S	Setting Directory Managemer
LDAP Name Filter	(cn=%)	® NOTE
LDAP Number Filter	((telephoneNumber=%)	3
Server Address	192.168.0.191	2
Port	389	3
Base	dc=ldap,dc=htek,dc=co	3
User Name	cn=Administrator, cn=Us	3
Password		3
LDAP Name Attributes LDAP Number Attributes	cn sn displayName honeNumber homePho	3
LDAP Display Name	%cn %sn	3
Search Delay(0~2000ms)		3
Protocol	O Version2 Version3	3
LDAP Lookup For Call	On Off	3
	On Off	2
LDAP Sorting Results	IN THE REPORT OF A DESCRIPTION OF A DESCRIPANTO OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESC	

4.6 Click "SaveSet" to accept the change.

5. LDAP Attributes on Web Interface

LDAP Name Filter: This parameter specifies the name attributes for LDAP searching. The "%" symbol in the filter stands for the entering string used as the prefix of the filter condition.

For example (cn=%), when the name prefix of the cn of the contact record matches the search criteria, the record will be displayed on the IP PHONE LCD.

LDAP Number Filter: This parameter specifies the number attributes for LDAP searching.

Server Address: Fill the domain name or IP address of the LDAP Server. For example: 192.168.0.191

Port: Fill the port of the LDAP Server, for example: 389 as default.

Base: Fill the same value as suffix value mentioned before. For example: dc=HanLong,dc=com

User Name: Fill the same value as rootdn mentioned before.

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For example: cn=manager,dc=HanLong,dc=com

Password: Fill the same value as the rootpw mentioned before. For example: secret

Max.Hits: the maximum number of the search results to be returned by the LDAP server.

LDAP Name Attributes: Fill the LDAP Name Filter, separated by a space between two values. If you set this attribute, the LDAP Server will send the name attribute to SIP Server, for example: cn

LDAP Number Attributes: Fill the LDAP Number Filter, separated by a space between two values. If you set this attribute, the LDAP Server will send the number attribute to SIP Server, for example: telephoneNumber

LDAP Display Name: Fill the display name of the contact record displayed on the LCD screen, separated by a space between two values, for example: %cn %sn

Filled the relative value and then click "SaveSet" button to save the settings. Following is the example screenshot for the configuration.

Example for Configuration

LDAP Name Filter: (|(cn=%)(sn=%)) LDAP Number Filter: (|(telephoneNumber=%)(Mobile=%)(ipPhone=%)) Server Address: 192.168.0.191 Port: 389 Base: dc=ldap,dc=htek,dc=com Username: cn=Administrator,cn=Users,dc=ldap,dc=htek,dc=com Password: secret Max Hits (1~32000): 32000 LDAP Name Attributes: cn LDAP Number Attributes: Mobile telephoneNumber ipPhone LDAP Display Name: %cn Protocol: Version 2 LDAP Lookup For Incoming Call: off LDAP Sorting Results: off

6. To Use LDAP feature

To configure an LDAP key via web user interface:

6.1 Log into the web interface of the phone.

6.2 Click on Function Keys->Memory Key (or Line Key).

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6.3 In the desired memory key (or line key) field, select LDAP from the pull-down list of "Type".

Htek	Ho	ome Account	Netwo	rk Func	tion Keys	Setting Di	ی rectory Management	ogout
Line Key	Line	Туре	Value	Label	Account	Pickup Code	NOTE	
Programmable Key	Key1 Key2	Line • Line •			Auto Auto			
ЕХР КЕҮ	Key3 Key4	Line • LDAP •]		Auto 💌			
		SaveSet			Restart			

6.4 Click "SaveSet" to accept the change.

6.5 Press the LDAP key on the phone when it is idle. The LDAP contacts will display on the LCD:

_	LDAP C	Contacts	1/2
nancy nw. v	vang	789456	
clyde wu		123123	
Filter Prefix:			
Cancel	2aB	Delete	Dial

6.6 You can search contacts by entering character in the Filter Prefix field.