Akkadian Contact Manager

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Akkadian Labs

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1. Introduction

Akkadian Contact Manager simplifies directory management for IT while providing an intuitive directory search interface, making it easy to locate and connect with contacts.This manual will guide you through the process of deploying and configuring Akkadian Contact Manager. This manual will guide you through the process of deploying and configuring Akkadian Contact Manager.

2. 1. Requirements and Limitations

The following sections provide information about the requirements that your system must meet, and limitations that apply when you install or upgrade Akkadian Contact Manager.

2.1. 1.1. Virtual Machine Requirements

Akkadian Contact Manager 3.5 is a Linux based Virtual Appliance supported on VMware ESXi.

Supported Versions of VMware vSphere ESXi = 5.0 U1, 5.1, 5.5, 6.0, and 6.5.

The recommended server requirements for Akkadian Contact Manager depend on several variables.

To assist with allocating the proper resources for Contact Manager 3.5, use the Table below to determine the appropriate system resources.

Size	Contacts	End Users	vCPU	vRAM	vDISK	vNIC
Small	500,000	1 – 5,000	2	8	1 × 110 GB	1
Medium	1,000,000	5,000 – 15,000	2	12	1 × 110 GB	1
Large	1,000,000+	15,000 – 30,000	4	16	1 × 110 GB	1

- Applications servers are defined as configured applications servers in Contact Manager and are not related to the number of servers with a cluster.
- Minimum of 2000 MHz reserved

2.2. 1.2. Application Support

Contact Manager provides support for the following applications:

Application	Versions
Cisco Unified Communications Manager	10.x – 12.x

2.3. 1.3. Supported Cisco IP Phones

Akkadian Contact Manager supports the following Cisco IP Phones:

- Cisco 7925
- Cisco 7937
- Cisco 794X/796X
- Cisco 797X
- Cisco 88XX
- Cisco 8961
- Cisco 9951
- Cisco 9971
- Cisco DX650
- Cisco DX70
- Cisco DX80

2.4. 1.4. SMTP Requirements

Akkadian Contact Manager requires an SMTP server to send users their initial password as well as other important notifications. Ensure that Contact Manager is authorized to send mail via the configured SMTP server.

2.5. 1.5. Browser Support

Contacting Manager supported browsers:

- Microsoft Internet Explorer 11+
- Microsoft Edge 39+
- Mozilla Firefox 53+
- Chrome 50+

2.6. 1.6. Network Requirements

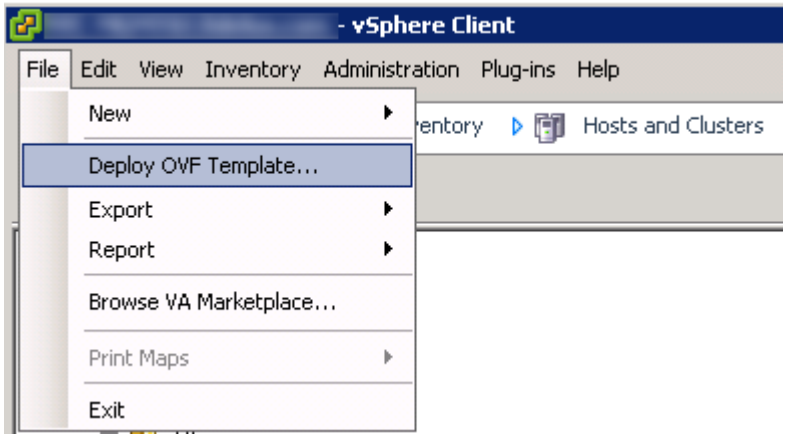
Akkadian Contact Manager communicates on the following ports:

Traffic	Port	Direction
Application Web Access	TCP Port 80 (HTTP) TCP Port 443 (HTTPS)	Inbound —> Contact Manager
SSH	TCP Port 22	Inbound —> Contact Manager
SMTP	TCP Port 25	Contact Manager —> Outbound to Mail Server
FTP	TCP Port 21	Contact Manager —> Outbound to FTP Server
Secure FTP	TCP Port 22	Contact Manager —> Outbound to SFTP Server
LDAP	TCP Port 389	Contact Manager —> LDAP Server
LDAP Global Catalog	TCP Port 3268	Contact Manager —> LDAP Global Catalog Server
CUCM UDS/AXL	TCP Port 8443	Contact Manager —> CUCM UDS/AXL

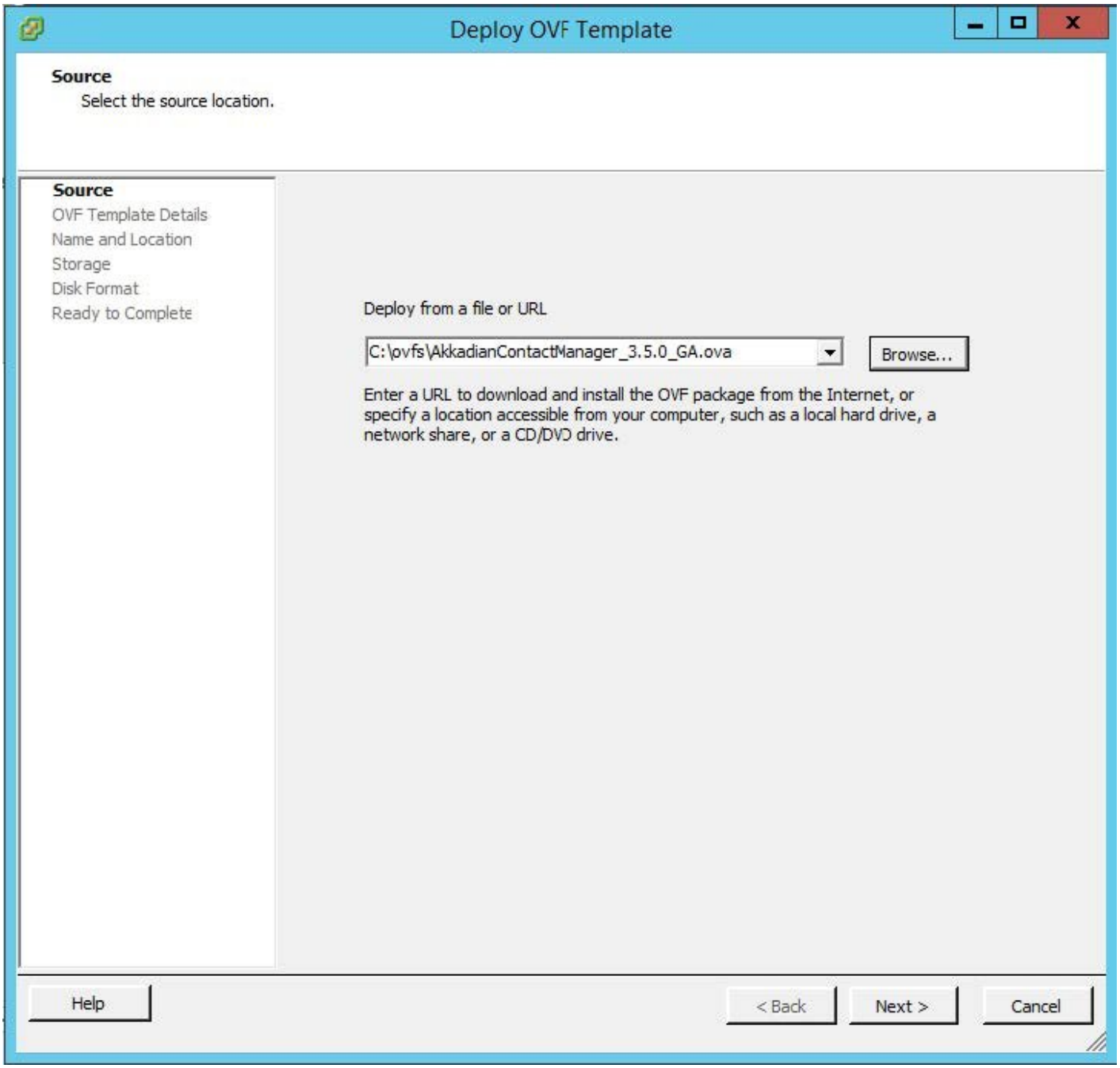
3. 2. Virtual Appliance Deployment

Akkadian Contact Manager is deployed as a virtual appliance on VMware ESXi versions 5.x and above. The steps below will help guide you through the process of deploying the virtual appliance; however, you should understand VMware or contact your VMware administrator for assistance.

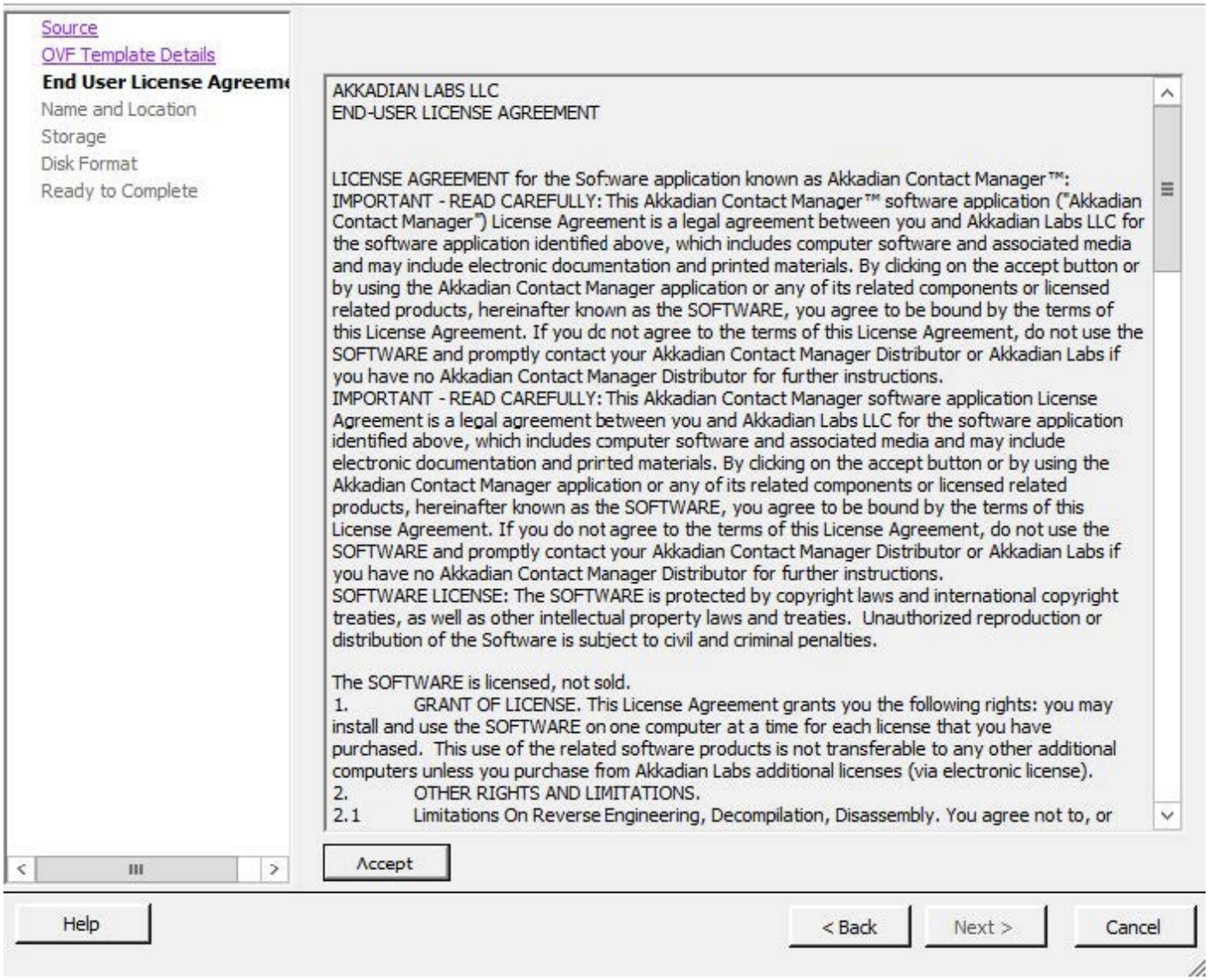
1. Download the latest Akkadian Contact Manager OVA to a location accessible by the vSphere client.
2. From the vSphere client select **Deploy OVF Template** from the **File** menu.



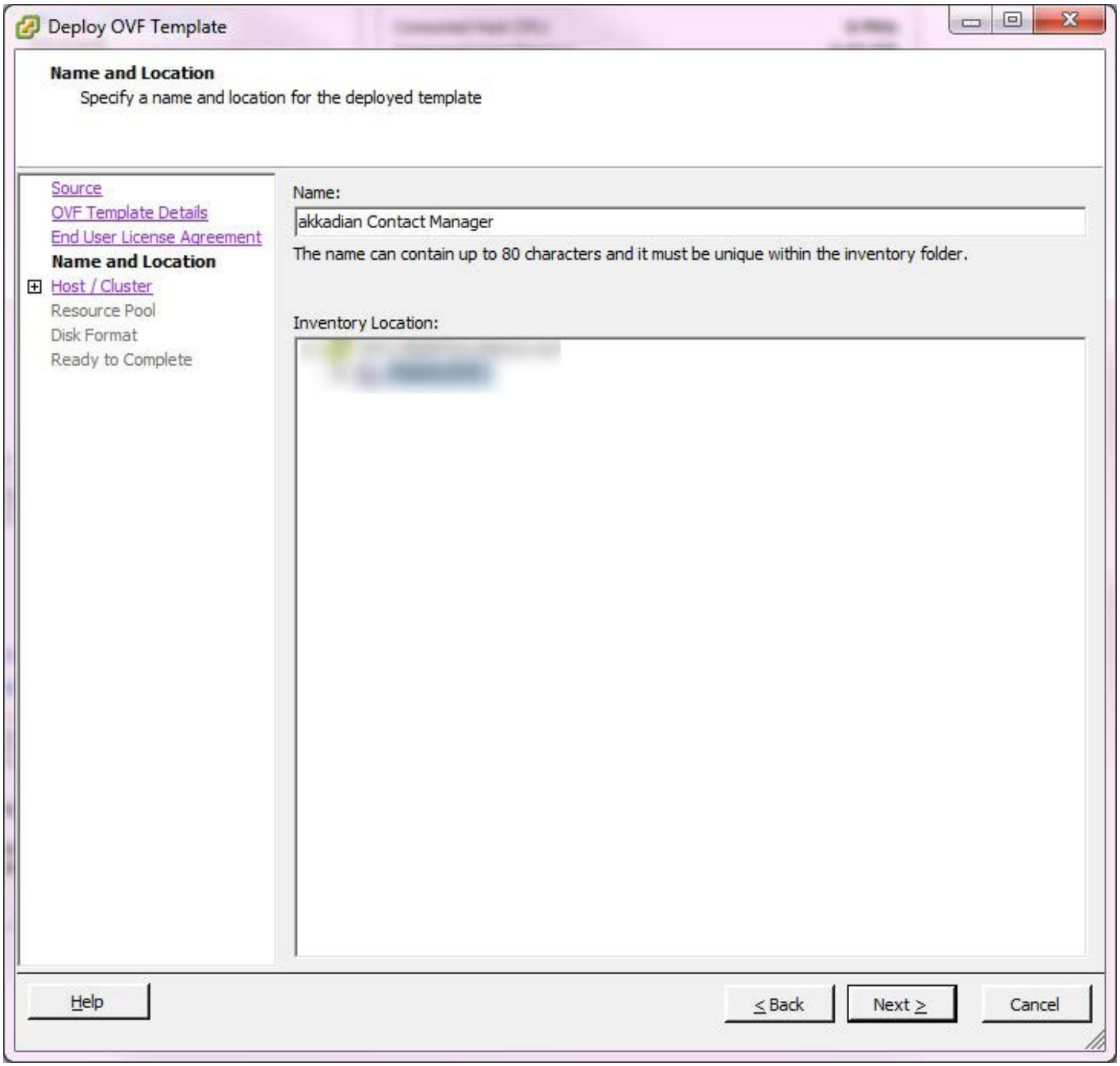
3. Select the OVA from computer or network location and click Next to continue.



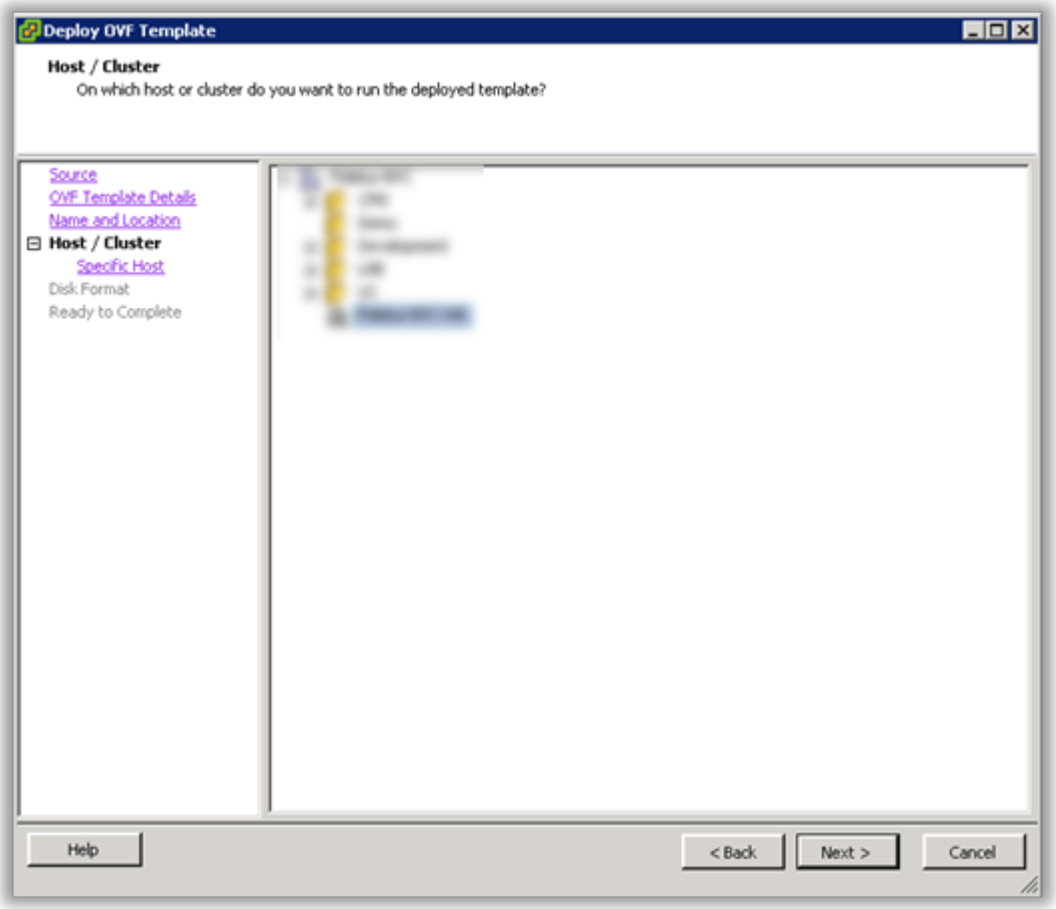
4. Review the License Agreement and click **Next** to continue.



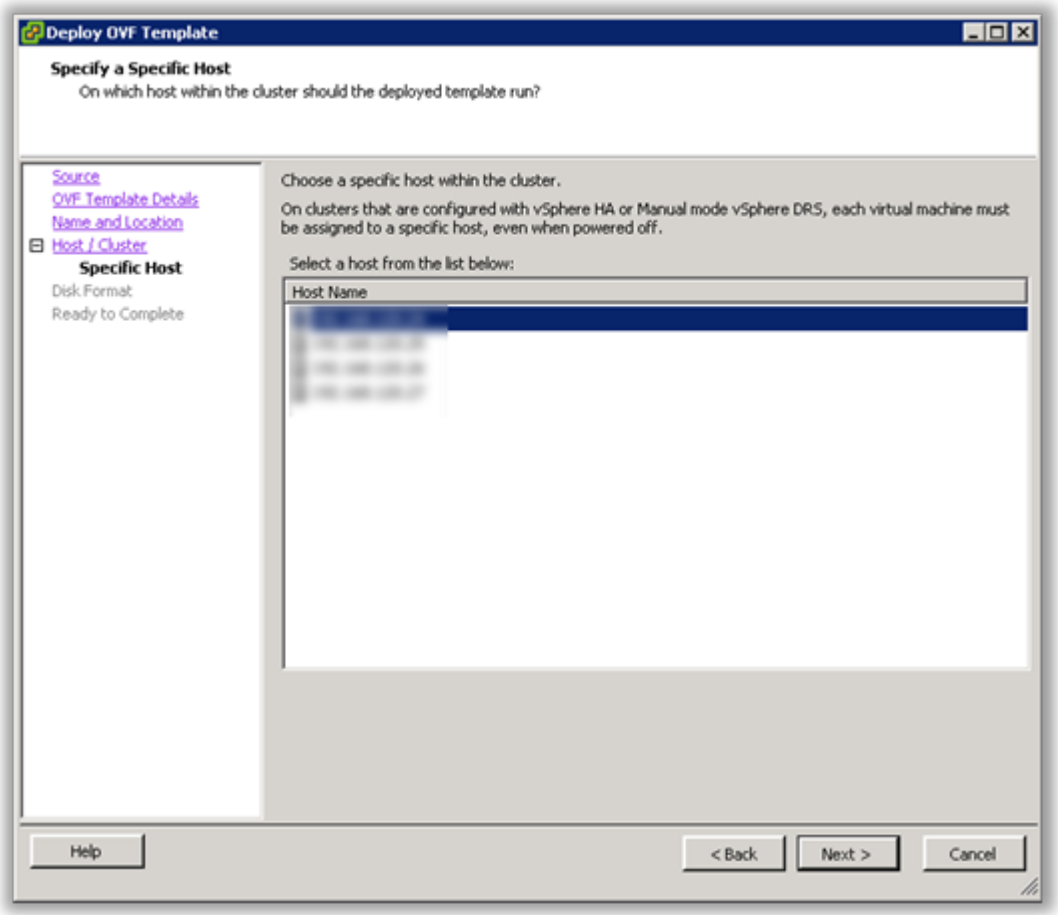
5. Specify the name and location for the VMware machine and click Next to continue.



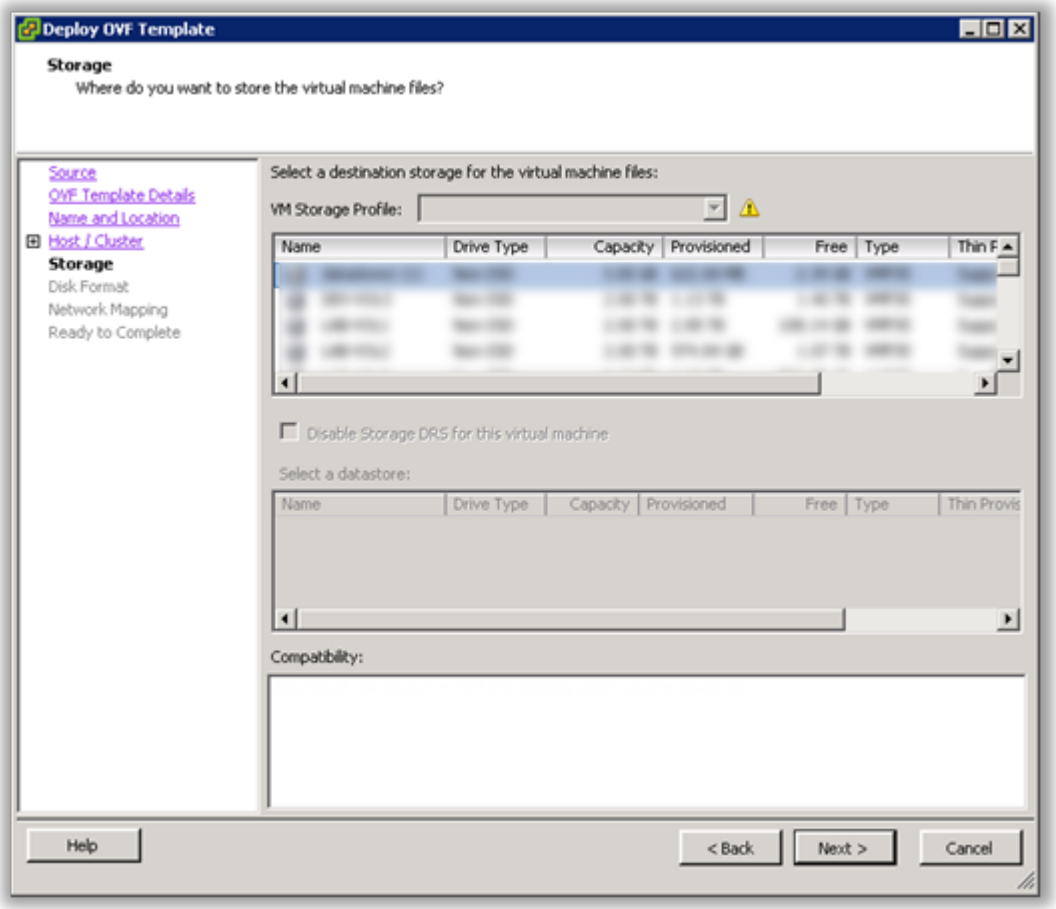
6. Specify the VMware Host / Cluster and click **Next** to continue.



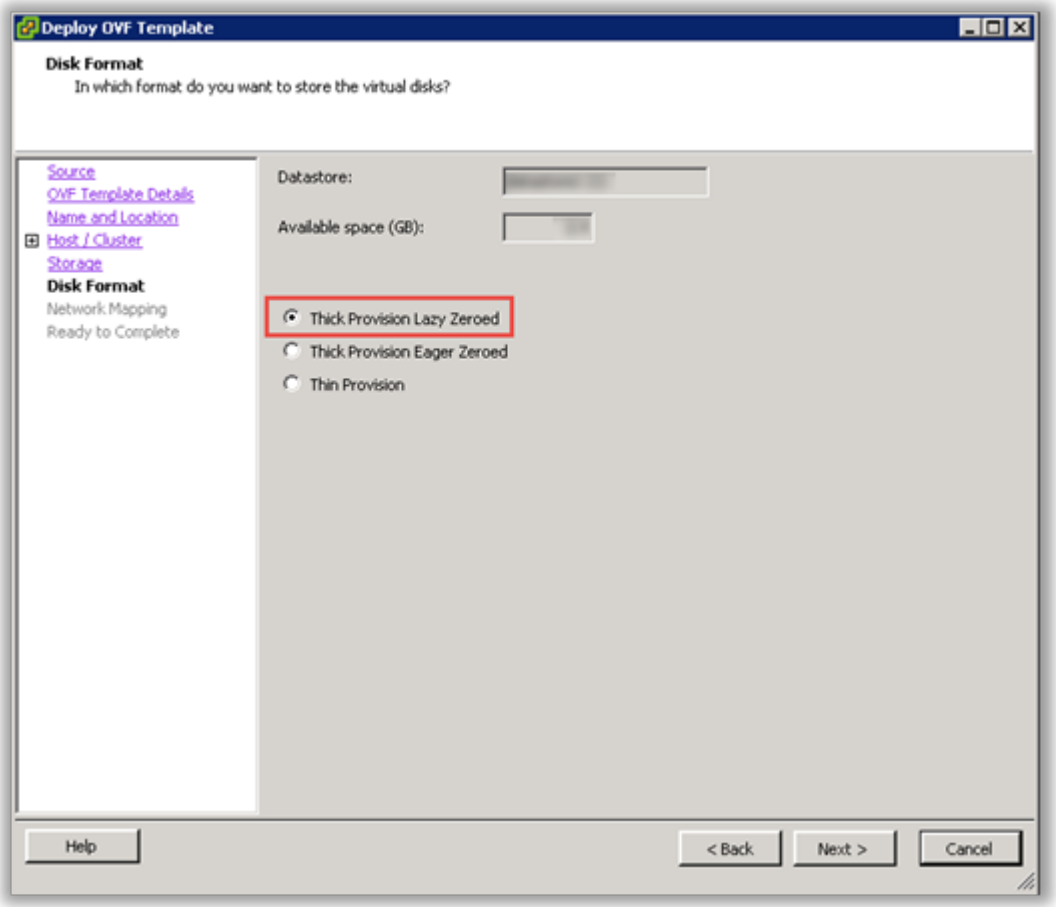
7. Specify a host within the cluster and click Next to continue.



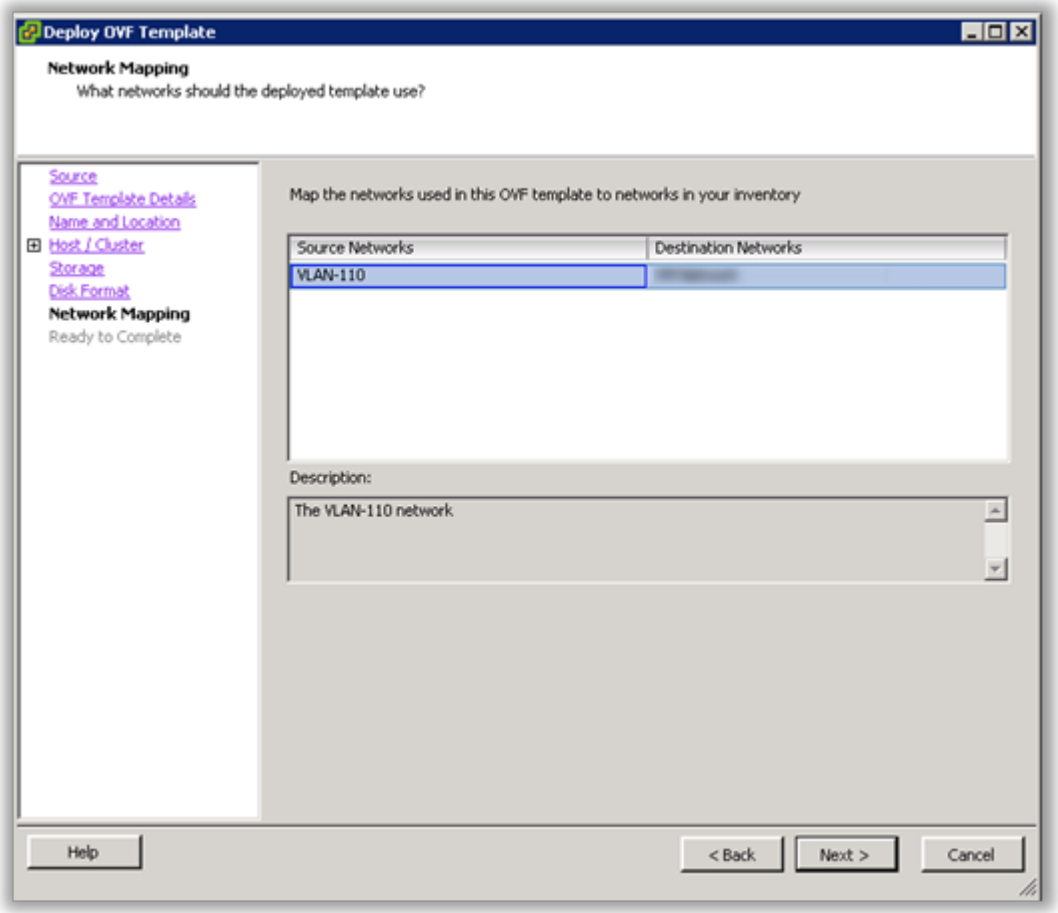
8. Specify the storage location for the virtual machine and click Next to continue.



9. Select Thick Provision Lazy Zeroed and click Next to continue.



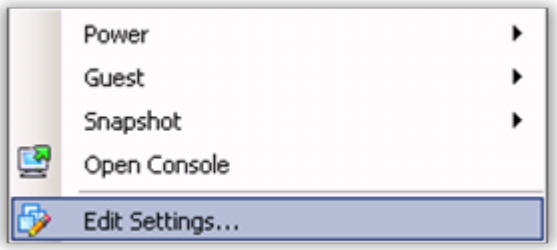
10. Select the Destination Network for the virtual machine and click Next to continue.



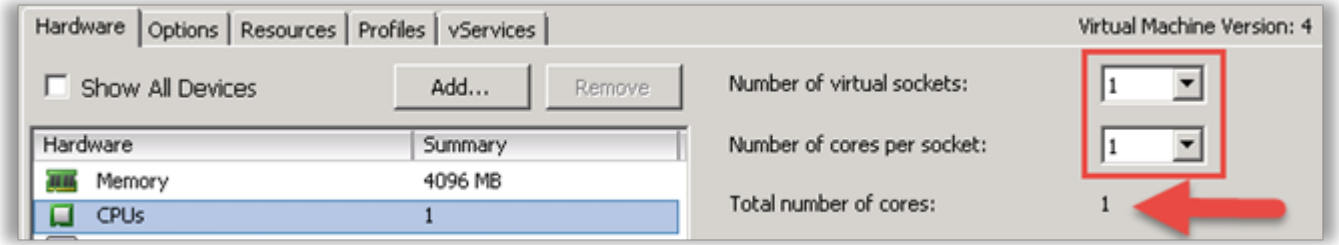
11. Verify the virtual machine settings. The initial OVA deploys with 2 vCPU and 8GB Memory. Depending on your system requirements, you may need to adjust the virtual CPU and Memory settings. Please refer to the virtual machine requirements to determine the appropriate settings for your environment.

12. Click OK to complete the deployment.

13. To adjust the virtual machine CPU and Memory, locate the newly deployed virtual machine in vCenter, right click on the virtual machine and select Edit Settings.



14. On the Hardware tab, select CPU and adjust the setting to provide the required number of cores for your environment.



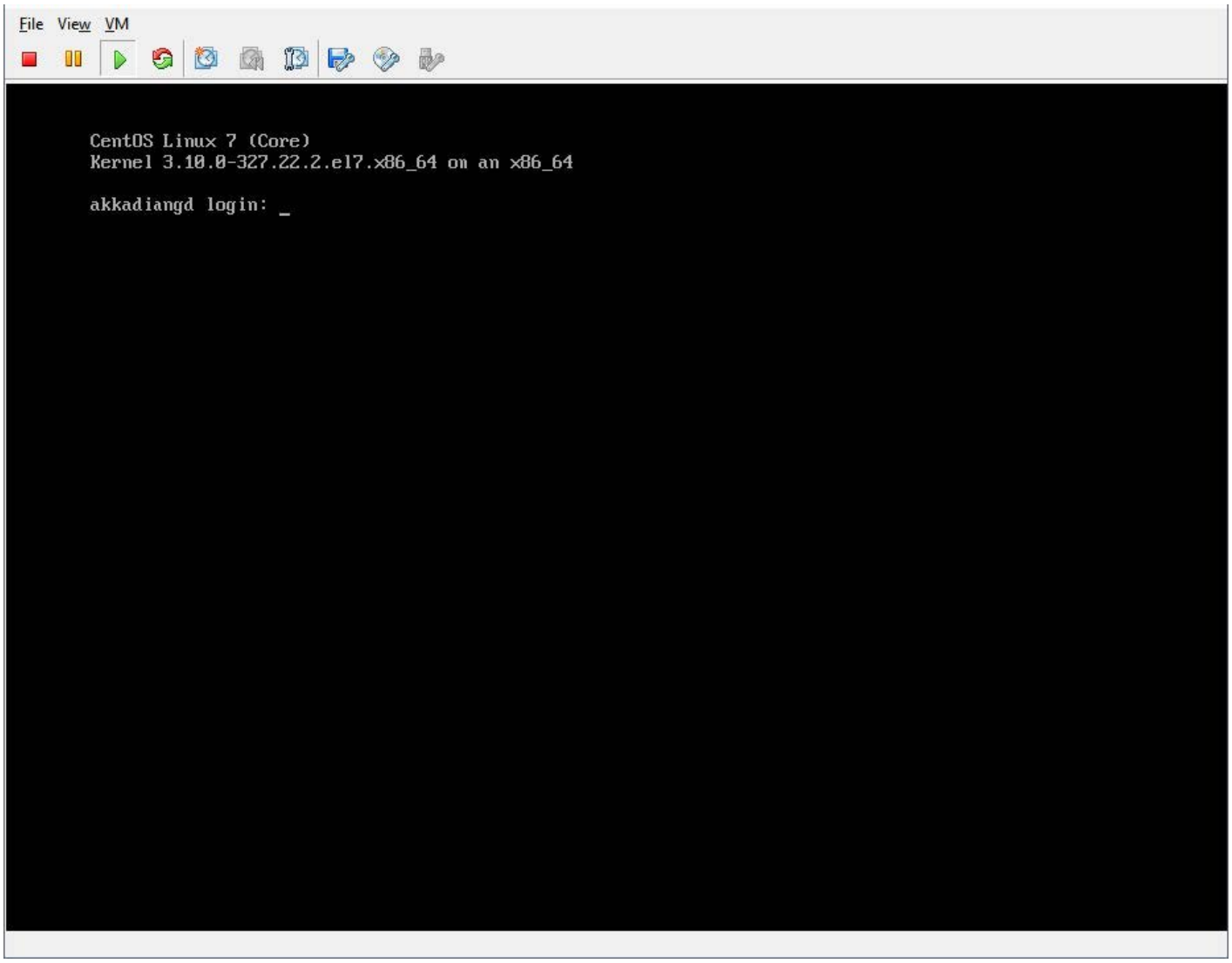
15. After adjusting the CPU, click on Memory and adjust the settings to provide the required resources for your environment. When completed, click OK to commit the changes.

16. Power on the virtual machine and proceed.

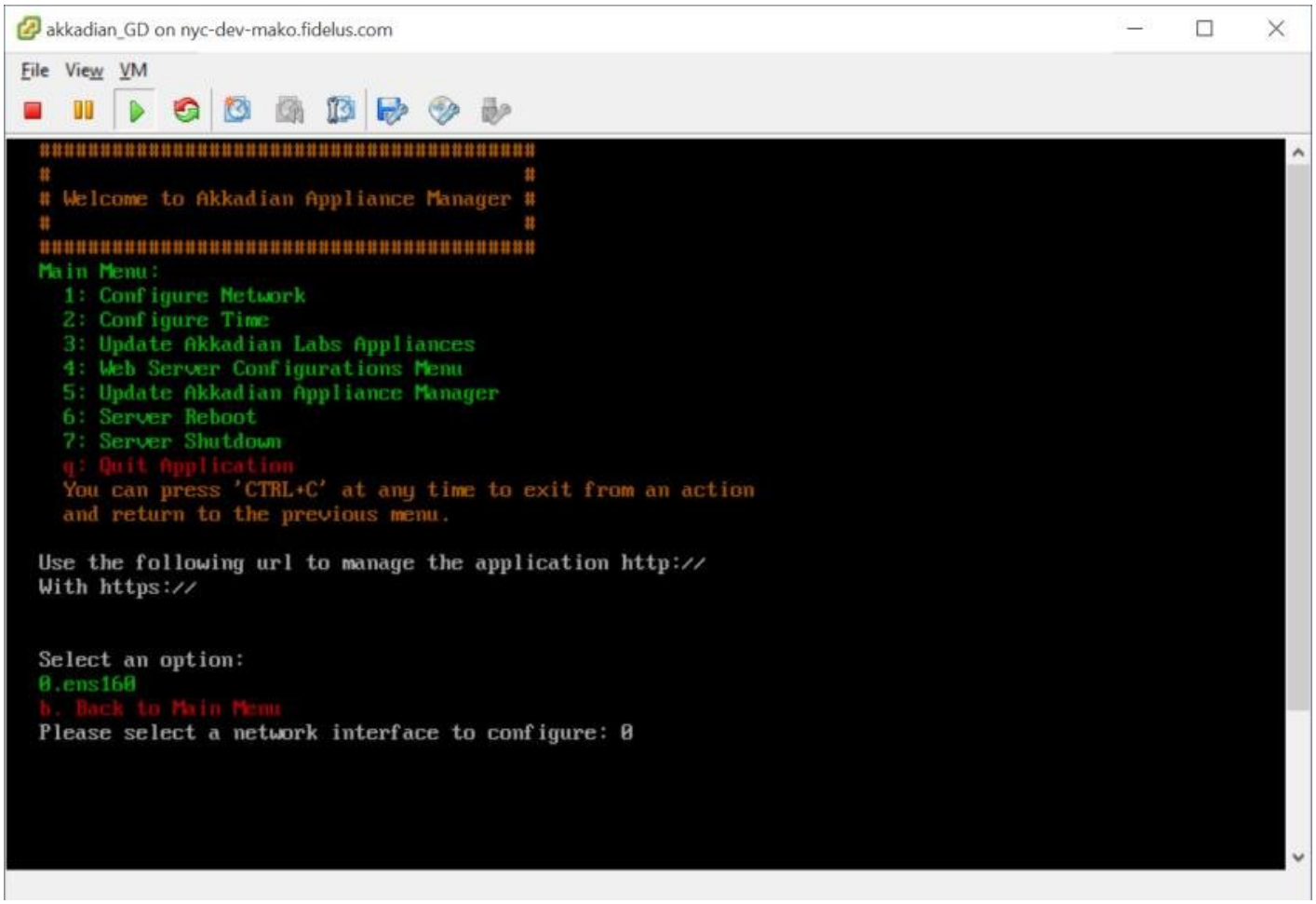
17. Locate the virtual machine in vSphere and open a console.

18. When the server boot process is complete, the system will arrive at a login prompt. Login using:

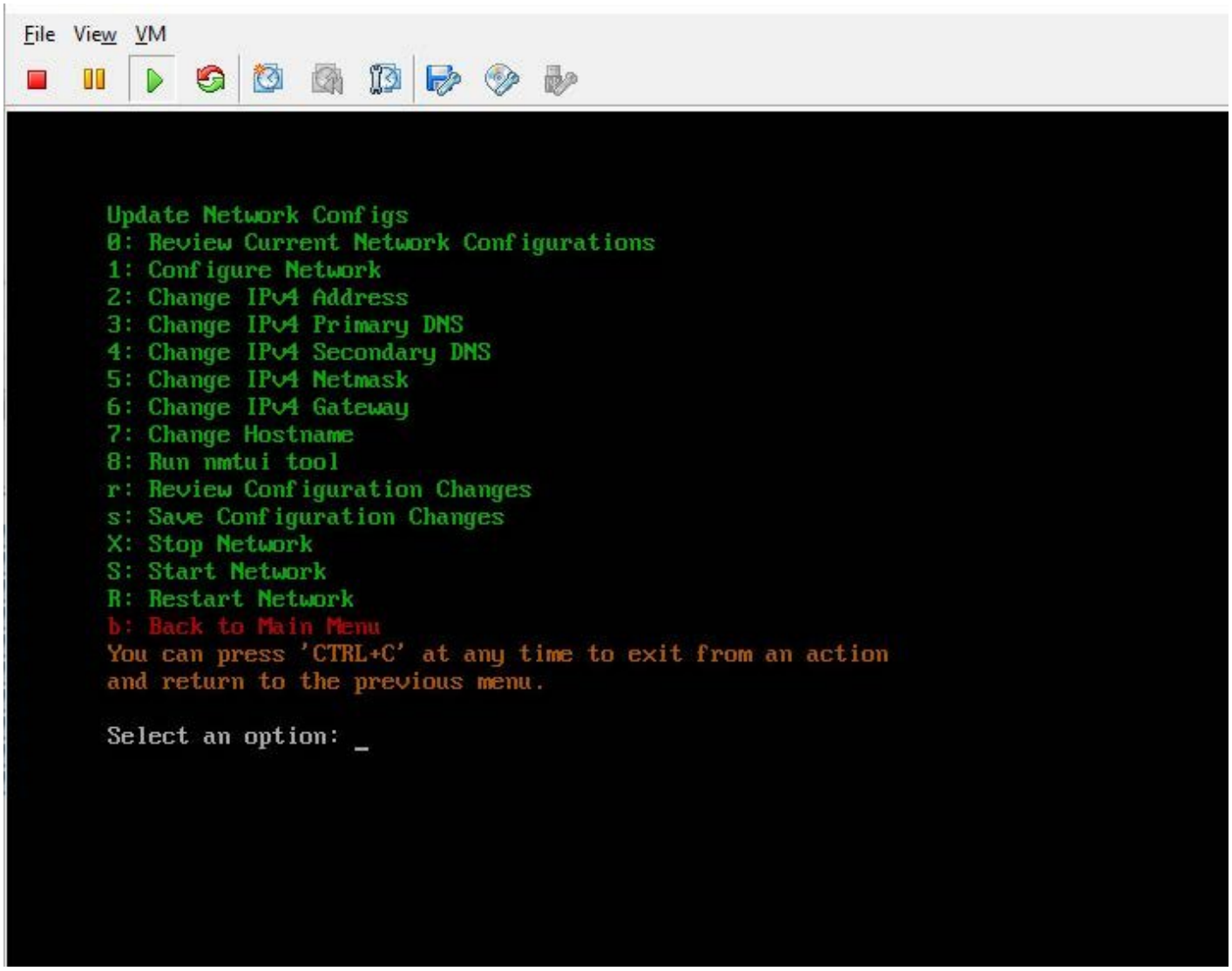
Username	**akkadianuser**
Password	**akkadianpassword**



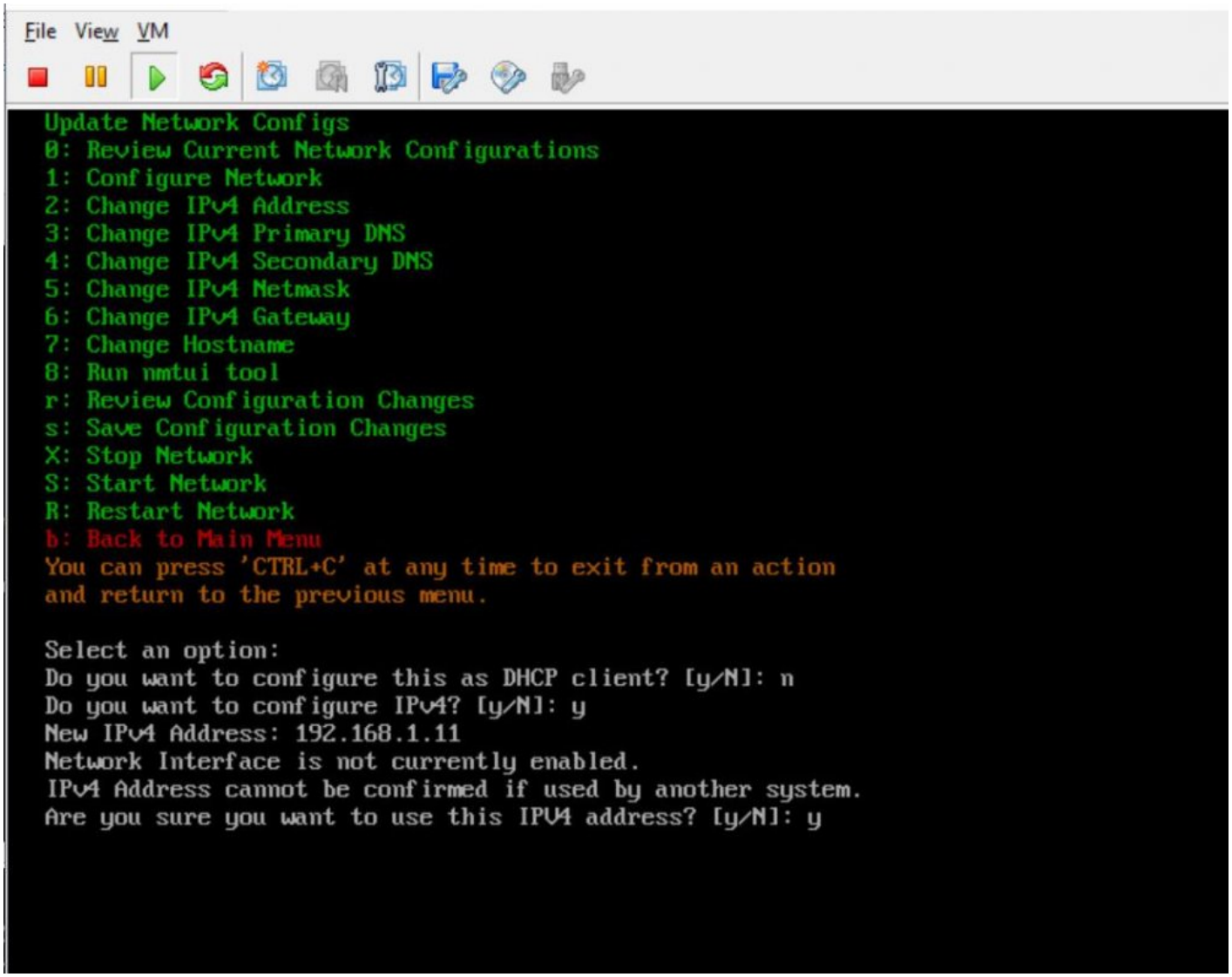
19. From the Akkadian Appliance Manager main menu, select option 1 to Configure Network.



20. Select option 1 to configure the network setting.

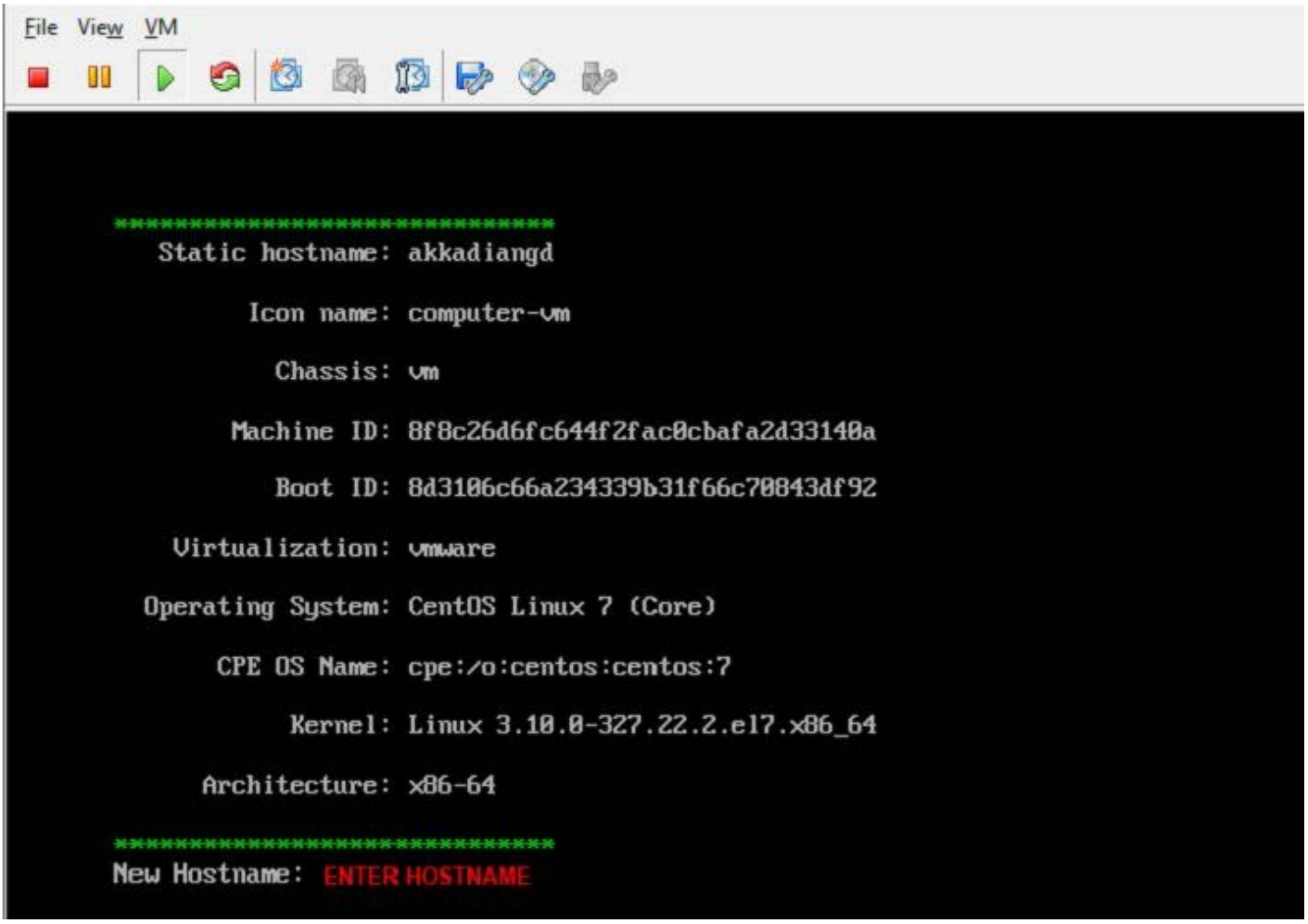


21. Follow the prompt to configure the network settings for your environment.



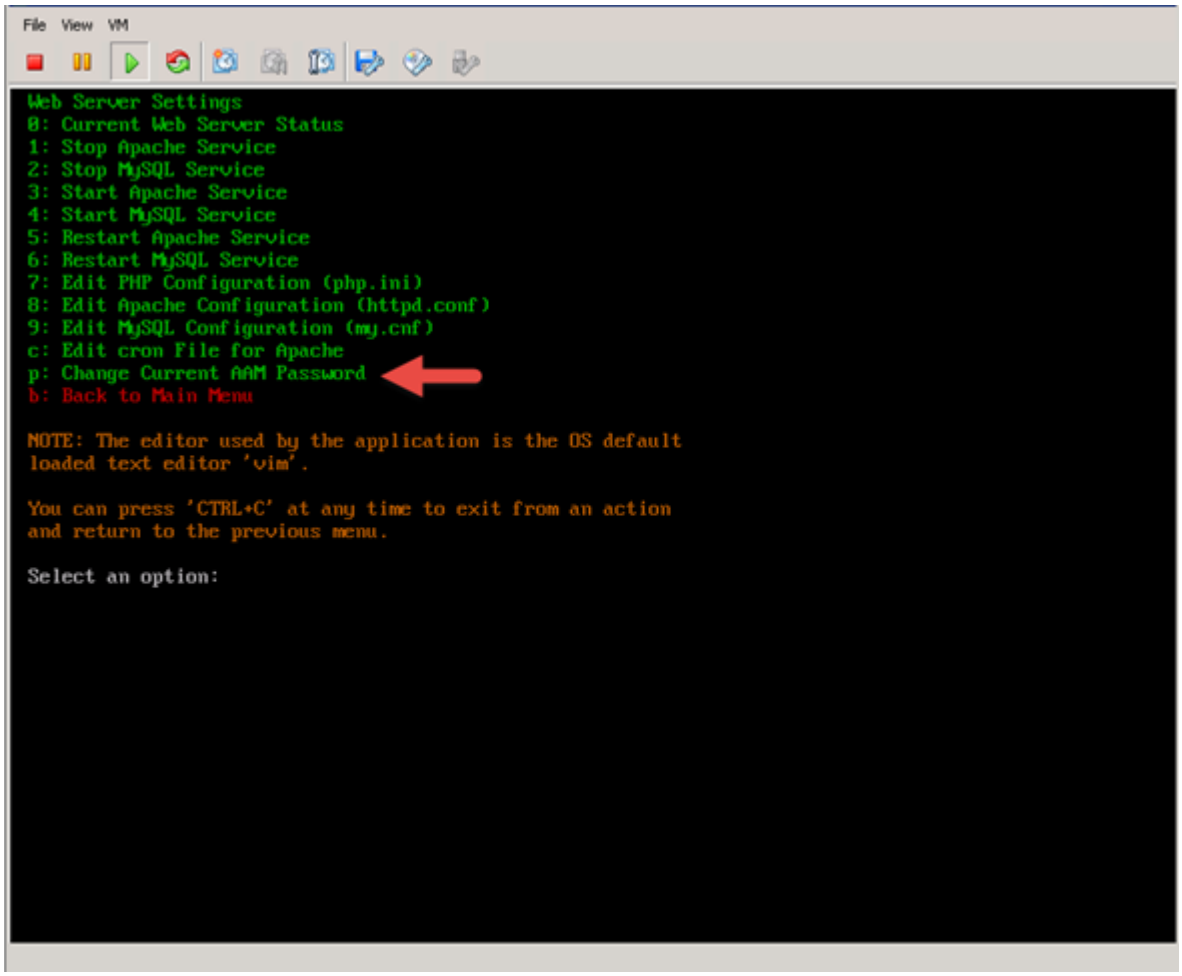
22. Select option 7 from the network configuration menu to configure the hostname. It is recommended the hostname is entered using the fully qualified domain name.

    Example – Contact Manager.yourdomain.com



23. Optionally you may configure the server time by selecting option 2 form the configure network menu.

24. It is recommended you change the default Akkadian Appliance Manager password by selecting option 4 (Web Server Configuration Menu) from the main menu and then selecting “p” (Change Current AAM Password).



25. When all configurations are complete, select “s” from the network configuration menu to save the configuration and restart the network.

26. From the main menu, select Reboot Server to finalize the configuration.

27. When the system returns to the login prompt, the Akkadian Contact Manager virtual appliance deployment is complete and can be accessed by going to https://{Server IP or Name}/agd.

4. 3. Initial System Configuration

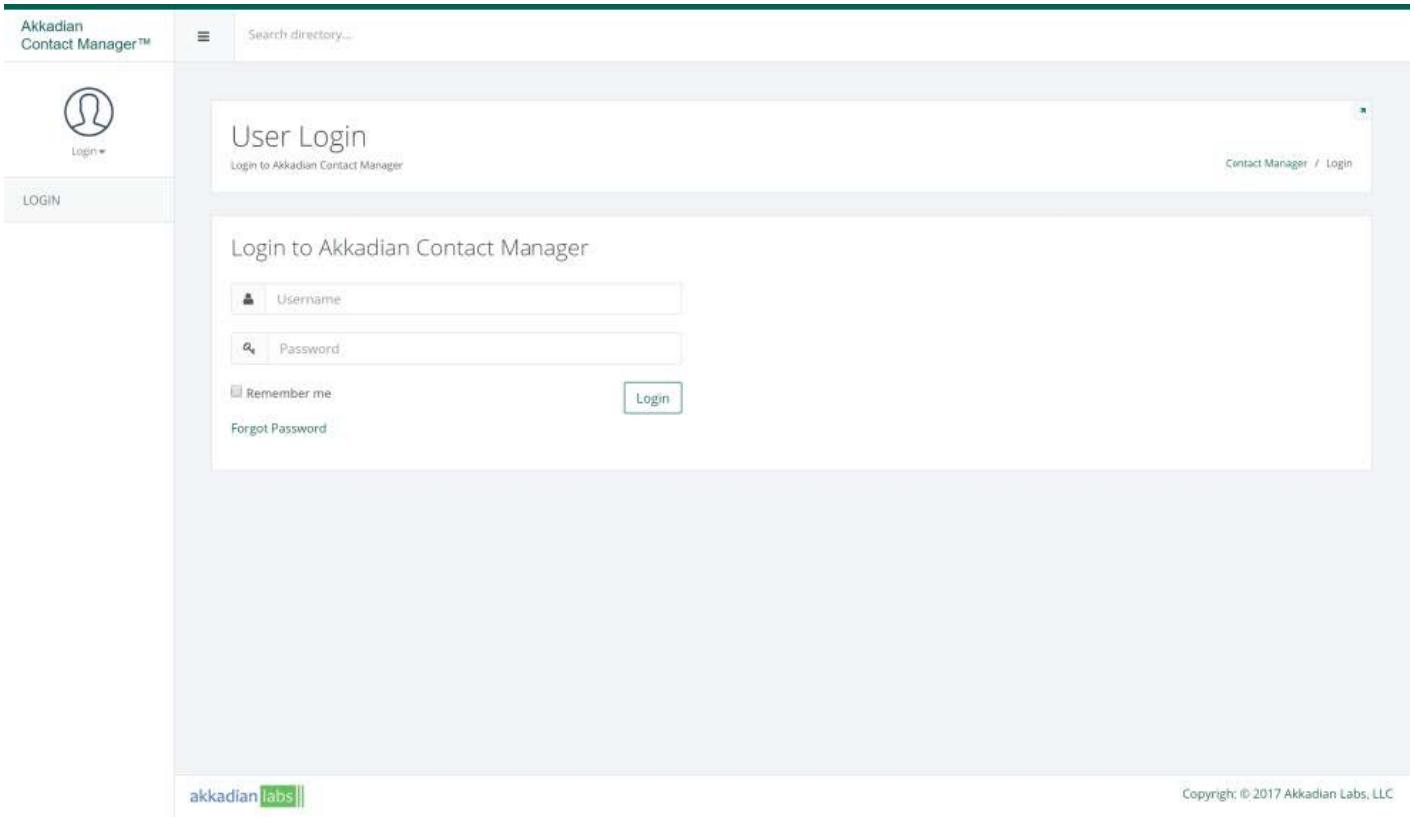
4.1. 3.1. Logging into Akkadian Contact Manager

1. Akkadian Contact Manager can be accessed using the following URL:

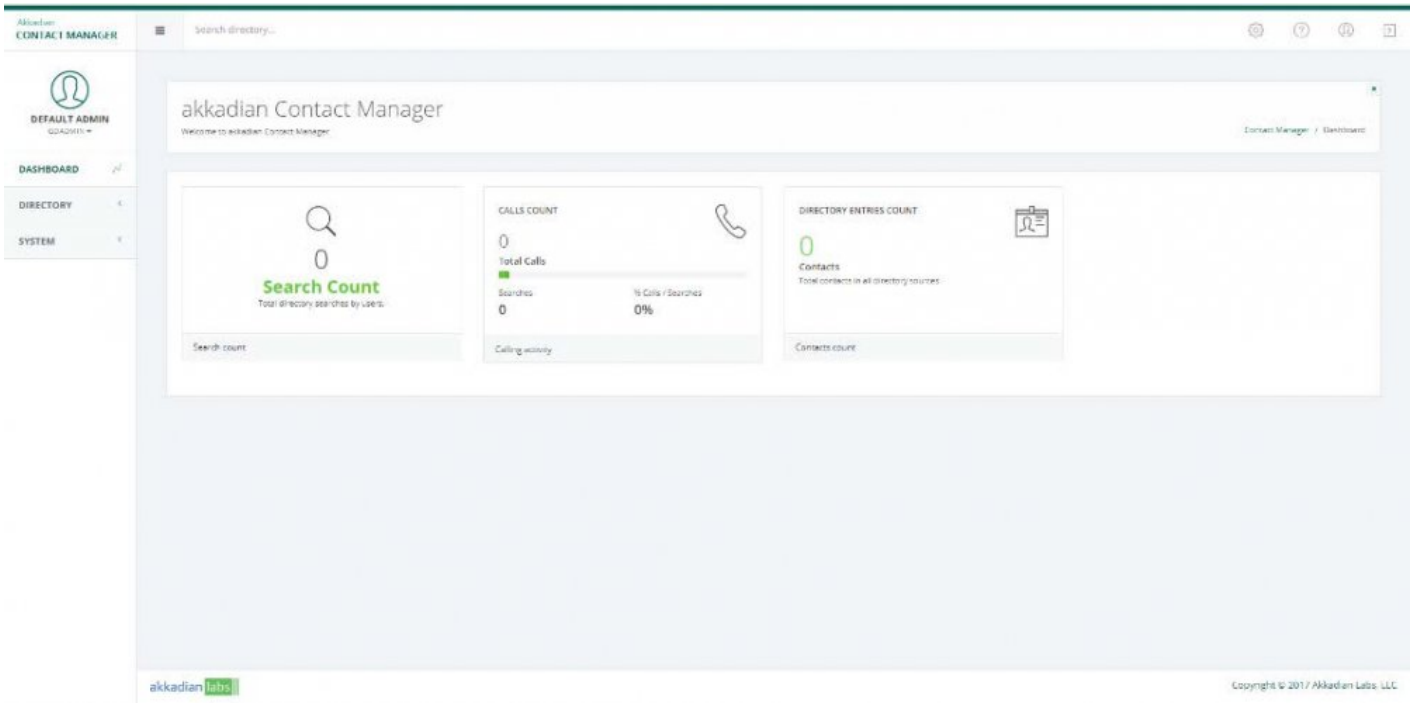
   https://{Server IP or NAME}/agd

2. Log in using the default credentials:

Username	**gdadmin**
Password	**admin** (Case sensitive)

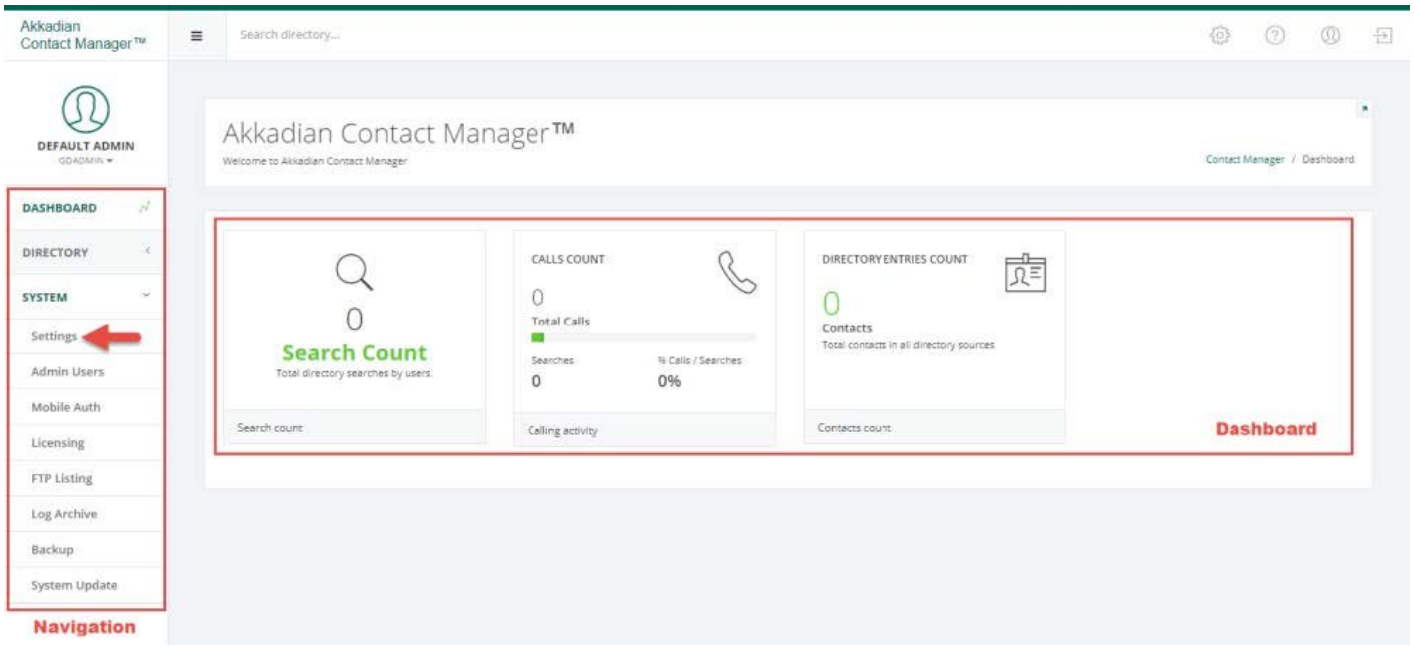


3. After logging in, you will be presented with the Dashboard. Use the navigation to access other features


CONTACT MANAGER
DEFAULT ADMIN
DASHBOARD
DIRECTORY
SYSTEM
akkadian Contact Manager
0
Search Count
CALLS COUNT
0
Total Calls
Searches
0
% Calls / Searches
0%
DIRECTORY ENTRIES COUNT
0
Contacts
Search count
Contacts count
akkadian labs

4.2. 3.2. Settings

1. Expand **System** menu from the navigation bar and select **Settings** as shown below.



2. Modify the information in the **Company**, **Directory** and **CUCM Phone Authentication** sections as needed.

Field	Description
Company	
Company Name	Company name to display on directories
Directory Title	Directory title to display on directories
Hostname	URL hostname to be used when publishing directories. Hostname must be resolvable. Default setting of localhost will use IP address.
Enable Clustering	Check this box enable high availability
Set as Publisher	Check this box to set this server as the Publisher
Publisher Address	Enter the Publisher IP address or hostname
Public Key	Enter the public key for the publisher server

Directory

Enable Mobile Directory	Check this box to enable Mobile Directory services. This will allow mobile devices to access Contact Manager services.
Default Directory	Specify the directory service for mobile devices

CUCM Phone Authentication	
Authentication Required	Check this box to require Cisco phones to authenticate to access directory
Authentication URL	Provide CUCM authentication URL used for phones to authenticate

Admin User LDAP Authentication	
Type	Enter a name to identify this specific LDAP configuration
Base	Enter the LDAP search base
Server	The LDAP server IP address or DNS name
Port	Enter the LDAP server port number
Username	Enter the LDAP Username used to authenticate to the LDAP server
Password	Enter the LDAP Password used to authenticate to the LDAP server
LDAP Username Bind Attribute	Enter LDAP Attribute to bind to Username during authentication
LDAP Version	Enter the LDAP version
Enable LDAPS	Enable secure LDAP. Port will be updated to 636

3. In the **Email Configuration** section, email is required in order to send initial access information to users and enable notifications. Enter the information for your SMTP server. Ensure Contact Manager is authorized to send mail via your SMTP server.

Email Settings	
Host	Enter the IP address or hostname of the SMTP server
Port	Enter the SMTP server port
Username	Enter the username for SMTP authentication
Password	Enter the password for SMTP authentication
Notifications email	Enter the email address for SMTP notifications

4.3. 3.3. SSL Configuration

The default SSL certificate included with Akkadian Contact Manager will not be trusted by most Web Browsers. Optionally, you can upload a self-signed or public certificate trusted by your organization. Uploading a certificate in Contact Manager, requires three steps:

1. Generate a Certificate Signing Request (CSR)
2. Use the CSR to generate a certificate with a Certificate Authority
3. Upload the certificate to Contact Manager and restart the server

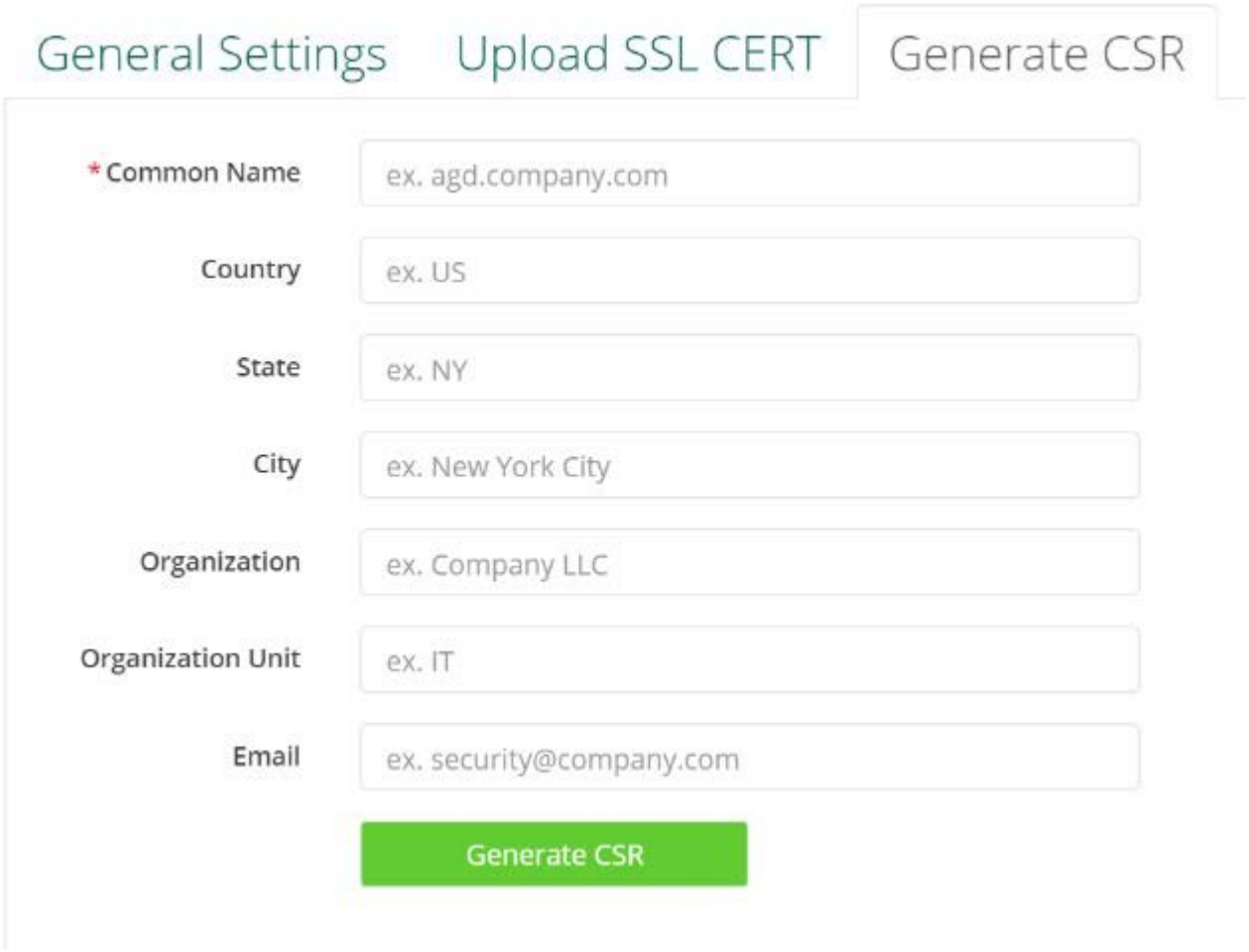
See Sections 3.3.1 Certificate Signing Request, 3.3.2 Generate a Certificate, 3.3.3. Upload Certificates for more detail

4.3.1. 3.3.1 Generate a Certificate Signing Request

A CSR is an encoded file that provides you with a standardized way to submit your public key along with some information that identifies your company and domain name.

1. Log in as gdadmin
2. Select **Settings** from the **System** menu
3. Click the **Generate CSR** Tab
4. Enter the information for the certificate request as demonstrated in the table below
5. When complete, click **Generate** and choose a location to save the CSR file.

Field	Description
Common Name	This is fully qualified domain name that you wish to secure e.g. ‘www.example.com’ or ‘provisioning.example.com’.
Country	The two-letter ISO code for the country where your organization is located e.g. GB, FR or US etc..
State	This should not be abbreviated e.g. Sussex, Normandy, New Jersey
City	e.g. London, Waterford, Paris, New York, Dhaka, Kochi
Organization	Usually the legal incorporated name of a company and should include any suffixes such as Ltd., Inc., or Corp.
Organizational Unit	e.g. HR, Finance, IT
Email	An email address to contact the organization. Usually the email address of the certificate administrator or IT department


General Settings
Upload SSL CERT
Generate CSR
* Common Name
ex. agd.company.com
Country
ex. US
State
ex. NY
City
ex. New York City
Organization
ex. Company LLC
Organization Unit
ex. IT
Email
ex. security@company.com
Generate CSR

4.3.2. 3.3.2. Generating a Certificate

With the CSR generated, the next step is to generate a certificate using your designated Certificate Authority. Contact Manager supports certificates from any valid public certificate authority such as DigiCert or Verisign as well as self-signed certificates authorities.

Using the CSR generated from Contact Manager, follow the instructions provided by your certificate authority to generate a certificate. Download the certificate bundle most appropriate for Apache Web Server, which is typically a ZIP file containing the individual certificate files. The Certificate should have a .crt extension and will need to be renamed to server.crt before being uploaded to Contact Manager.

4.3.3. 3.3.3. Uploading Certificates

With the certificate generated, the next step is to upload the certificate into Contact Manager. Please ensure the certificate is renamed to **server.crt** before proceeding.

1. Log in as gdadmin
2. Select **Settings** from the **System** menu
3. Click the **Upload Cert** Tab
4. Select **Choose File** and locate the server.crt file, and click **Upload Certificate**
5. Restart Contact Manager server for the change to take affect

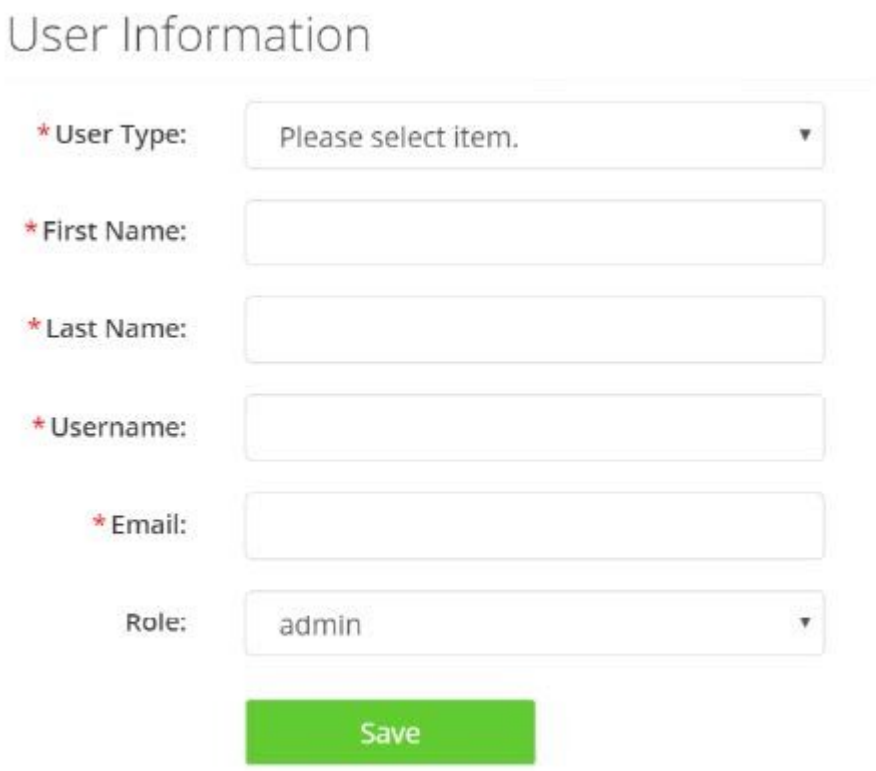
4.4. 3.4. Admin Users

Akkadian Contact Manager Admin Users provide additional users administrative access to the system. Based on the initial Admin User Authentication Type selected in the settings, you may add Local or LDAP users to Akkadian Contact Manager as admins. This section provides details on adding and removing Admin Users from the system.

4.4.1. 3.4.1. Create an Admin User

Administrators of **Contact Manager** have the ability to add other users.

1. Log in as gdadmin
2. Select **Admin Users** from the **System** menu
3. Click the **Add New** button
4. Select **User Type**, fill in user information and click **Save**



4.4.2. 3.4.2. Delete Admin User

Administrators of **Contact Manager** have the ability to add other users.

1. Log in as gdadmin
2. Select **Admin Users** from the **System** menu
3. Click the **Checkbox** next to user to be deleted
4. Click **User Type**, fill in user information and click **Save**

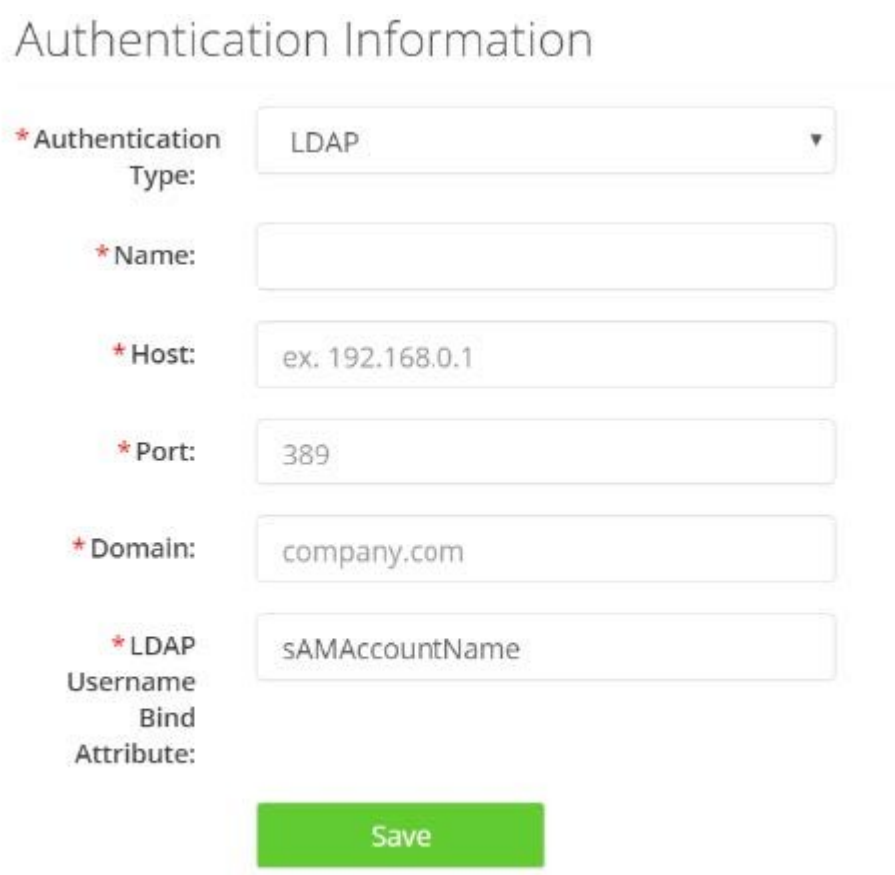
4.5. 3.5. Mobile User Authentication

Akkadian Contact Manager is accessible via Web Browsers and Mobile Devices (Android and IOS) using the mobile apps available in the Play Store and Apple App Store. Web and Mobile Users can be authenticated using LDAP and/or Cisco UDS. Add Mobile User authentication sources to enable users to access the Contact Manager via the web browser and mobile devices.

4.5.1. 3.5.1. Mobile User Authentication source

Administrators of **Contact Manager** have the ability to add other users.

1. Log in as gdadmin
2. Select **Mobile Users** from the **System** menu
3. Click the **Add New** button
4. Select **Authentication Type**, fill in the information related to your environment and click **Save**.

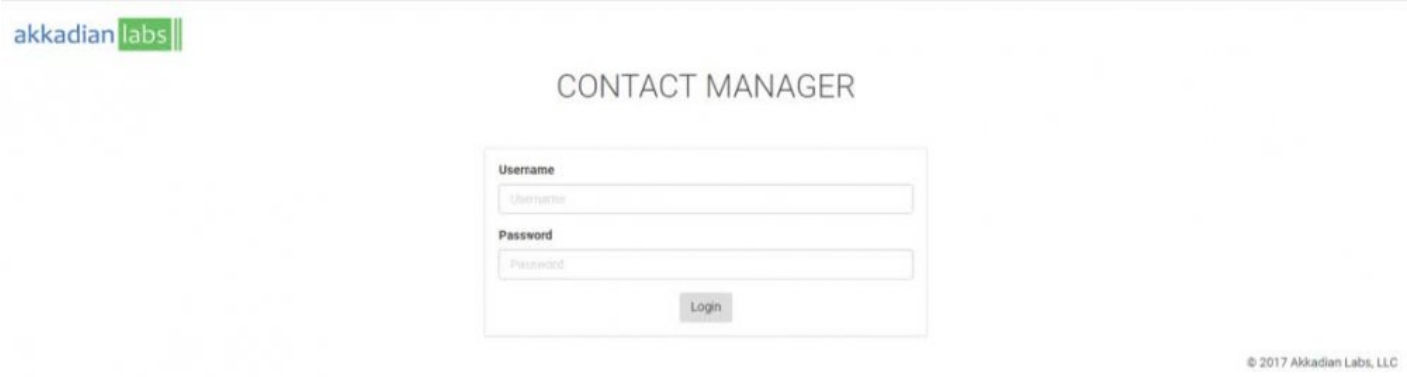


4.5.2. 3.5.2. Accessing the Web Browser Directory

1. Akkadian Contact Manager Mobile page can be accessed using the following URL:

   https://{Server IP or NAME}/agd/mobile

2. Log in using the mobile username and password

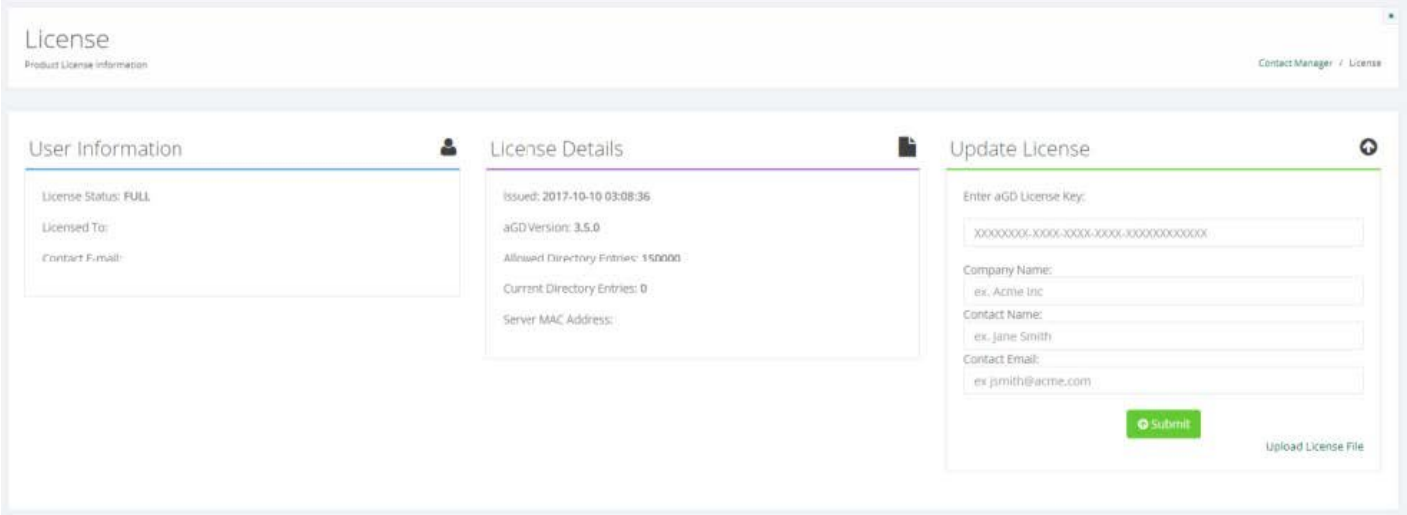


4.6. 3.6. Licensing

You can obtain a 30-day trial license for Akkadian Contact Manager after which it requires a license file to be installed. In order to obtain a license key or file, if you are already a client with access to the Akkadian Customer Portal, your license information will be accessible via the portal. If you are not yet a customer contact Akkadian Sales by email at sales@Akkadianlabs.com

4.6.1. 3.6.1. Activate a License

1. Once the license file has been obtained, log in as gdadmin
2. Select **Licensing** from the **System** menu
3. If Contact Manager has internet connectivity enter **License Key** and the information and click submit.
4. If Contact Manager does not have internet connectivity, upload a **License File**.



4.7. 3.7. Backup and Restore

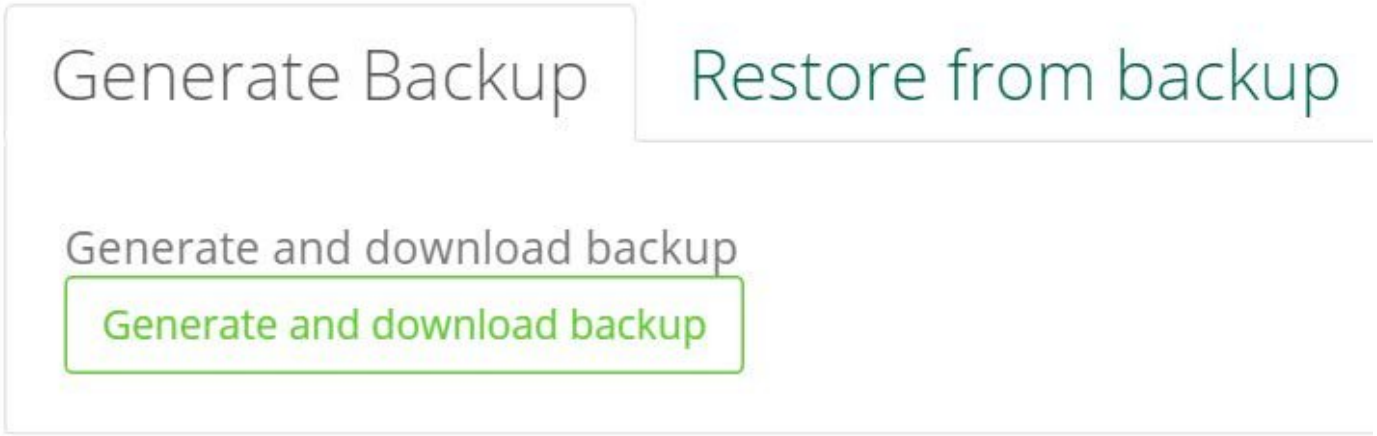
To **Generate a Database Backup**, the administrators of **Contact Manager** may create and download a database backup to their Akkadian Contact Manager.

4.7.1. 3.7.1.Generate a Backup

Database backup is recommended for the following:

- Before running a system update
- After a system update
- Before making configuration changes to Contact Manager

1. Log in as gdadmin
2. Select **Backup** from the **System** menu
3. Click **Generate and download backup**, save the download file to a secured location

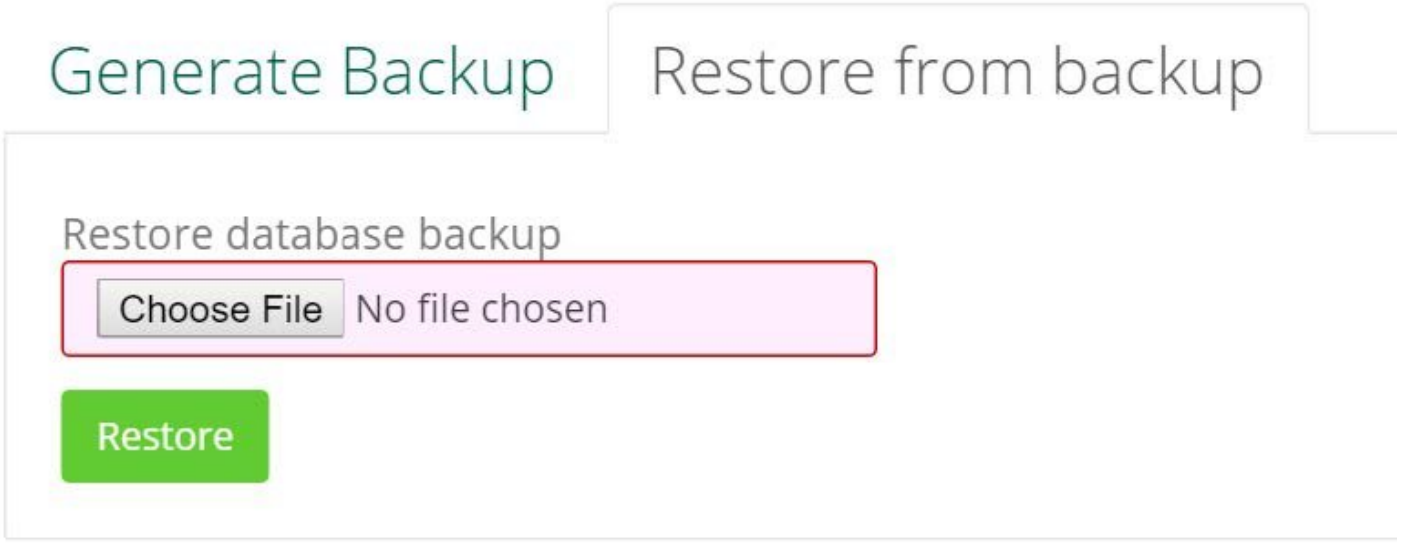


4.7.2. 3.7.2. Restore Database from Backup

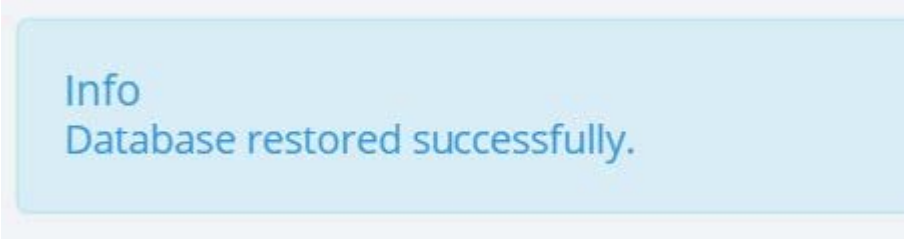
Database restore backup is recommended for the following:

- When moving to a new Akkadian Contact Manager instance
- Restoring Akkadian Contact Manager to a previous working state

1. Log in as gdadmin
2. Select **Backup** from the **System** menu
3. Click on **Restore from backup** tab
4. Click **Choose file** button to select the backup file and click **Restore** button.



5. Confirm database was successfully restored.

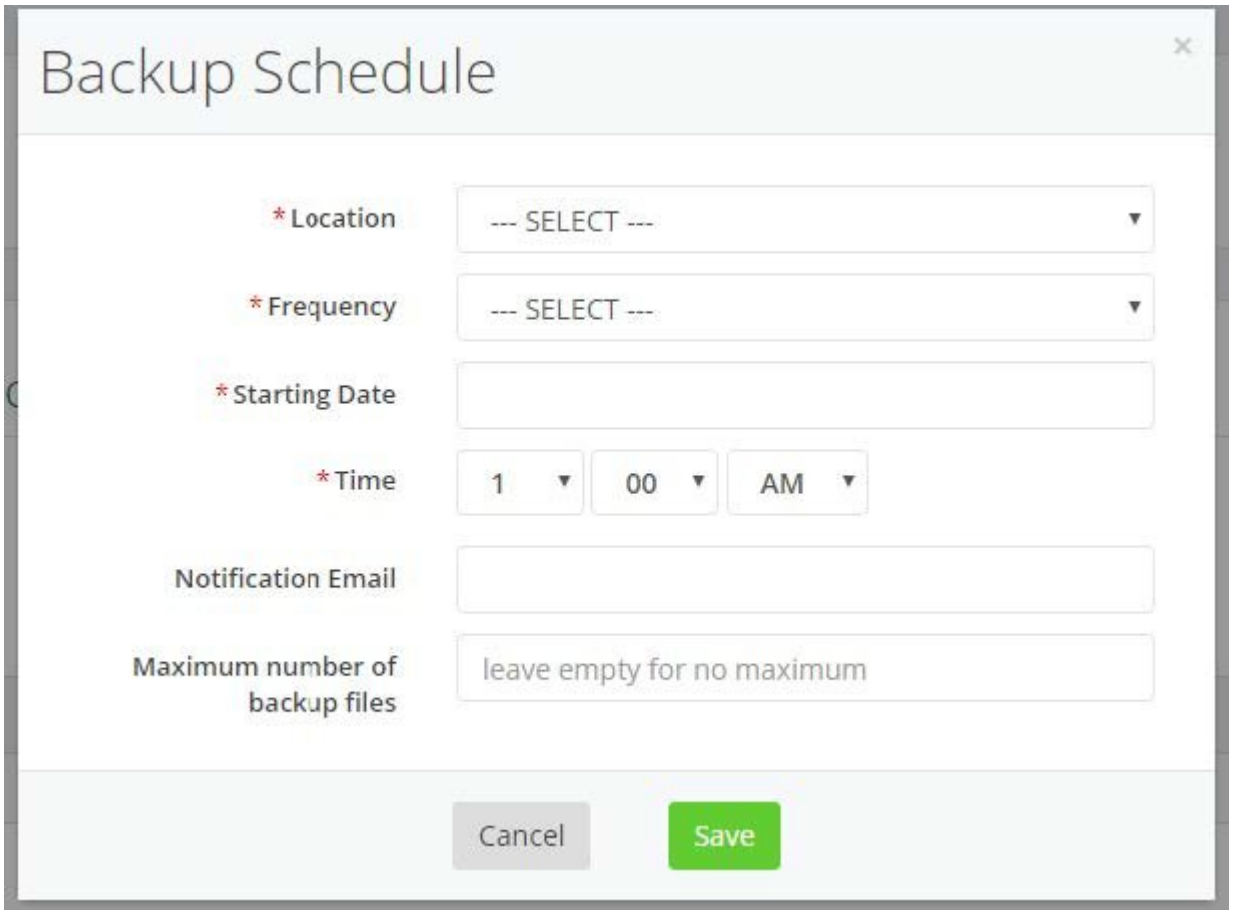


4.7.3. 3.7.3. Schedule a Backup

Scheduling a backup is recommended for the following:

- Before running a system update
- Before making configuration changes to Contact Manager

1. Log in as gdadmin
2. Select **Schedule Backup** from the *System *menu
3. Click **Add New** backup, choose location, frequency, start date, time, notification email and maximum number of backup files



4.8. 3.8. System Update

System Update provides the ability for Akkadian Contact Manager to be updated through the Web interface.

To Perform a System Update:

1. Log in as gdadmin
2. Select **System Update** from the **System** menu
3. If an update is available, click the **Update Available!** link to download the file
4. After downloading the update click **Choose File** and select the file from the download location
5. Select **Run Update**, once the update is complete, select **OK**

Note: *Occasionally, an update will be released as an OVA rather than a zip file. In these cases special instructions may apply. Please be sure to read any associated instructions as part of that update.*

- It is always recommended to perform a backup prior to running any updates.
- If your server does not have access to the internet, you can also access the latest updates using the following link http://portal.akkadianlabs.com and selecting **Contact Manager** from the **Products** menu

4.9. 3.9. FTP Listing

Configuring an FTP server is optional, but is highly-recommended and required to support scheduled backups.

1. Select **FTP Listing** from the System menu
2. Click **Add New** to create a new FTP connection
3. Enter the information for your FTP server
    a. Optionally, select **Secure FTP** if using a Secure FTP
4. When complete, click **Save**

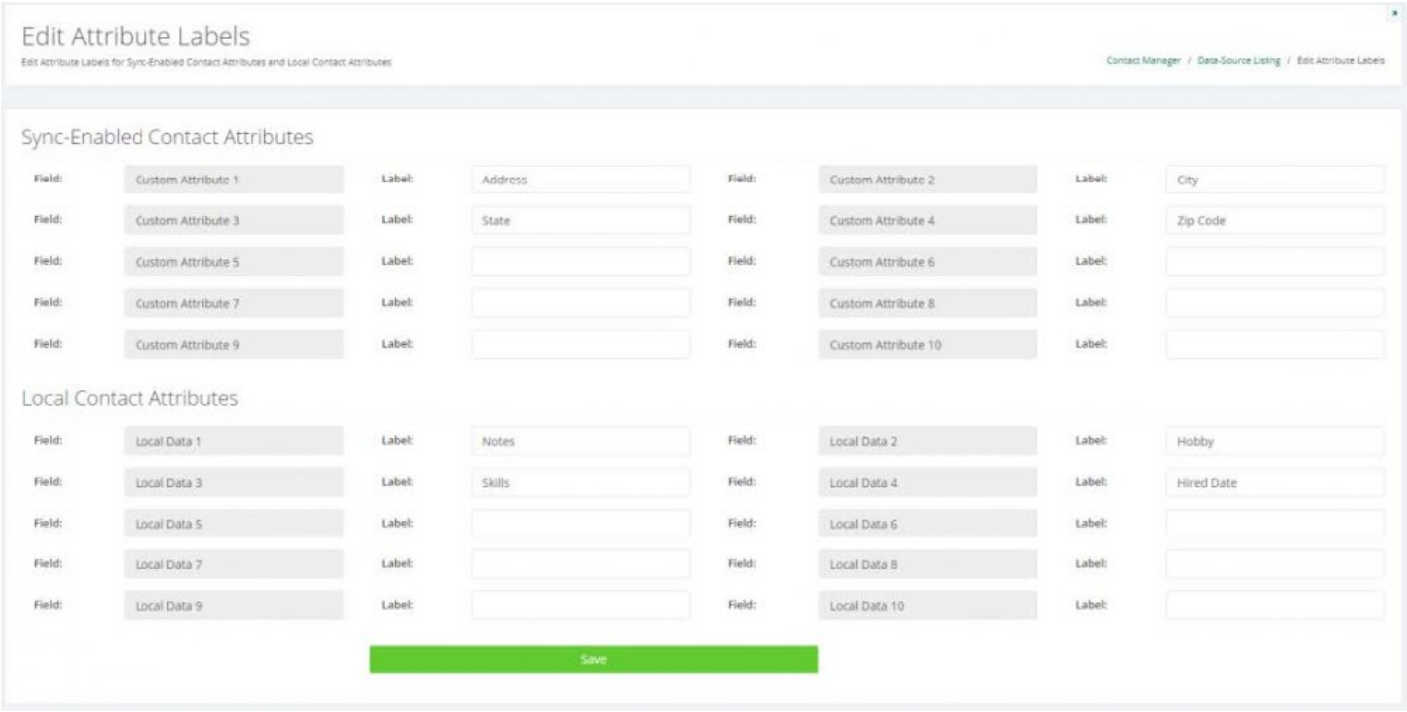
5. 4. Directory Configuration

Directory Configuration consists of the following components:

1. **Attribute Labels**: Create up to 20 custom Local and Sync-Enabled Contact Attributes to update values in data sources.
2. **Data Source**: Allows LDAP, CSV, Microsoft SQL, MySQL and Cisco Communications Manager (Cisco UDS) to be used as source for contacts.
3. **Listing**: Searchable contacts listing of all available data sources.
4. **Dial Rules**: Create dial rules to manipulate numbers to desired dial patterns
5. **Interface**: Ability to set the order and names of fields as presented on IP Phones
6. **Clients**: Ability to associate Client to Service URL
7. **Service URLs**: Create Cisco Communications Manager format service URLs

5.1. 4.1. Attribute Labels

Attribute Labels: Create up to 10 custom Local and 10 Sync-Enabled Contact Attributes to update values in data sources. Attribute labels gives you the flexibility to assign meaningful names to attributes to be displayed when the attribute value is presented.



5.2. 4.2. Data Sources

Data Source: Allows a LDAP, CSV, MSSQL, MySQL and Cisco CUCM to be configured as data sources within Akkadian Contact Manager. Akkadian Contact Manager synchronizes contacts from data sources to be made available to users.

5.2.1. 4.2.1. Adding a Data Source

1. Select **Data Source** from the **Directory** menu
2. Click **Add New** to add a new data source

3. Select Data Source **Type** and enter desired **Name**

Field	Description
Type	Select Data Source Type: LDAP, CSV File, SQL Server, MySQL or Cisco UDS
Name	Enter the data source name

5.2.1.1. 4.2.1.1. LDAP Data Source

Enter the LDAP data source information as shown in the table below

Field	Description
LDAP Type	Select the appropriate LDAP source: Microsoft Active Directory, Oracle Directory or OpenLDAP
Username	Enter the username for a service user for the LDAP Server, User should have a minimum of read access to the LDAP server directory
Password	Enter the password for the LDAP username
Host	Enter the host name or IP address of the server where the data for LDAP directory resides.
Domain	Enter LDAP domain. Ex. company.com
DN	Enter the location of the top level container. This will vary based on how the LDAP environment is setup. E.x. dc=company,dc=com
Filter	Must contain (sn=*) to ensure data integrity. LDAP entries that match the filter will be imported into the Akkadian Contact Manager database, but LDAP users These are example LDAP filters: • Microsoft Active Directory (AD): (&(sn=*)(givenName=*)(ipPhone=*)) • OpenLDAP: (&(sn=*)(objectclass=inetOrgPerson))
Properties Last Name	Enter the LDAP last name bind attribute. Example – “surname”
Properties First Name	Enter the LDAP first name bind attribute. Example – “givenName”
Properties Main Number	Enter the LDAP attribute to map to Main Number. Example – “ipPhone”
Properties Mobile Number	Enter the LDAP attribute to map to Mobile Number. Example – “mobile”
Properties Other Number	Enter the LDAP attribute to map to Other Number. Example –“homephone”
Properties Location	Enter the LDAP attribute to map to Location example – “l”
Properties Title	Enter the LDAP attribute to map to Title. Example – “title”
Properties Username	Enter the LDAP attribute to map to Username. Example – “sAMAccountName” ***Note**: If no username is present local contact attributes will be disabled*

Properties Additional	Enter any additional corresponding attribute ex “mail” to pull email address *Note: Some of properties terms may change depending on the configuration*

Note: Some of properties terms may change depending on the configuration

5.2.1.2. 4.2.1.2. CSV Data Source

1. Select the CSV source from the dropdown menu
2. Click **Download CSV template** if you do not have a properly formatted pre-existing CSV file. Populate CSV with data corresponding to the fields and save it.
3. For local CSV file, click **Choose File**, browse and select desired CSV file
4. For External CSV file, specify the external file source URL

Field	Description
CSV Source	Upload CSV File or External File – CSV file can be hosted at an external location and synced with Contact Manager periodically based on the sync schedule
Sync Filter	Build a custom filter to match your filtering preferences to only sync wanted contacts
Last Name Column	Enter the csv header name which corresponds to Last Name Example – “Last Name”
First Name Column	Enter the csv header name which corresponds to First Name Example – “First Name”
Main Number Column	Enter the csv header name which corresponds to Main Number Example – “Office Number”
Mobile Number Column	Enter the csv header name which corresponds to Mobile Number Example – “Cell Phone”
Other Number Column	Enter the csv header name which corresponds to Other Number Example – “Home Number”
Location Column	Enter the csv header name which corresponds to Location Example – “City”
Title Column	Enter the csv header name which corresponds to Title Example – “Title”
Additional Column	Enter any additional corresponding name ex “mail” to pull email address ***Note**: Some of properties terms may change depending on the configuration*
Username Column	Enter the csv header name which corresponds to Username Example – “username”. ***Note**: If no username is present local contact attributes will be disabled for contact*
Additional Columns	Associate any other additional attributes to be synced from data source

5. Click **Save**.

5.2.1.3. 4.2.1.3. Microsoft SQL Server Data Source

To obtain all the information required to connect to MSSQL Server, consult the SQL Server administrator.

1. Enter the information required for Microsoft SQL Server as shown in the table below

Field	Description
Database Server Name	Enter Database Server Name or IP Address
Database Username	Enter Database Username
Database Password	Enter Database Password
Database Name	Enter Database Name
Table Name	Enter Database Table Name
Last Name Column	Enter Database Table Column containing Last Name
First Name Column	Enter Database Table Column containing First Name
Main Number Column	Enter Database Table Column containing Main Number
Mobile Number Column	Enter Database Table Column containing Mobile Number
Other Number Column	Enter Database Table Column containing Other Number
Location Column	Enter Database Table Column containing Location Number
Title Column	Enter Database Table Column containing Title
Username Column	Enter Database Table Column containing Username ***Note**: If no username is present local contact attributes will be disabled for contact*
Additional Data Column	Enter Database Table Column containing Additional data such as email address

2. Click *Save *to add a data source and proceed syncing data source section 4.3

5.2.1.4. 4.2.1.4. MySQL Server Data Source

1. Enter the MySQL data source information as shown in the table below

Field	Description
Database Host Name	FQDN or IP Address of MySQL server, host should be reachable by the GD server
Database Name	Name of designated database in MySQL server containing tables with information to be used to populate directory
Database User name	MySQL user with at least read access to the database and tables to be used for directory
Database Password Password for MySQL User	
Table Name	Name of table in MySQL database containing information to be used to populate directory
Database Charset (optional)	Database character set i.e. UTF8 – Last Name Column
Last Name Column	Name of column containing last names data
First Name Column	Name of column containing first names data
Main Number Column	Name of column containing main telephone numbers data
Mobile Number Column	Name of column containing mobile telephone numbers data
Other Number Column	Name of column containing any other telephone numbers data
Location Column	Name of column containing location data
Title Column	Name of column containing title data
Username Column	Name of column containing username data ***Note**: If no username is present local contact attributes will be disabled for contact*
Additional Data Column	Name of column containing any other data which you would like to be present in the directory.

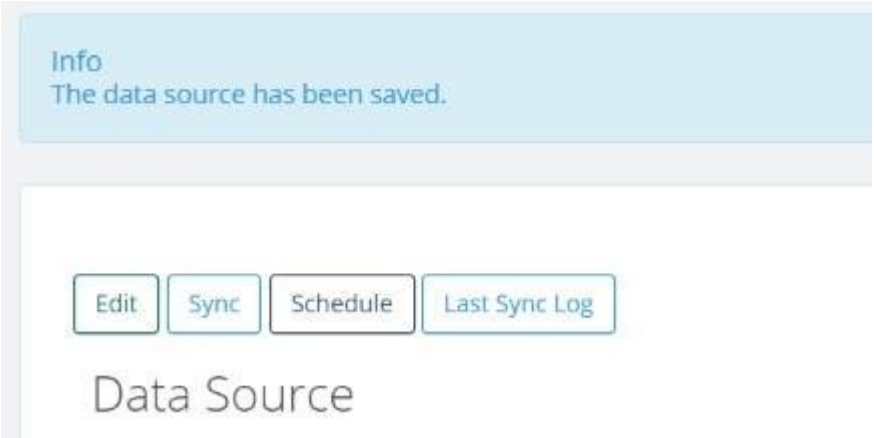
2. Click **Save** to add a data source and proceed syncing data source section 4.3

5.2.1.5. 4.2.1.5. Cisco Communications Manager Data Source (UDS)

Cisco Communications Manager can be used a data source, versions 10.x – 12.x of Communications Manager are supported.

1. Enter the CUCM UDS information as shown in the table below

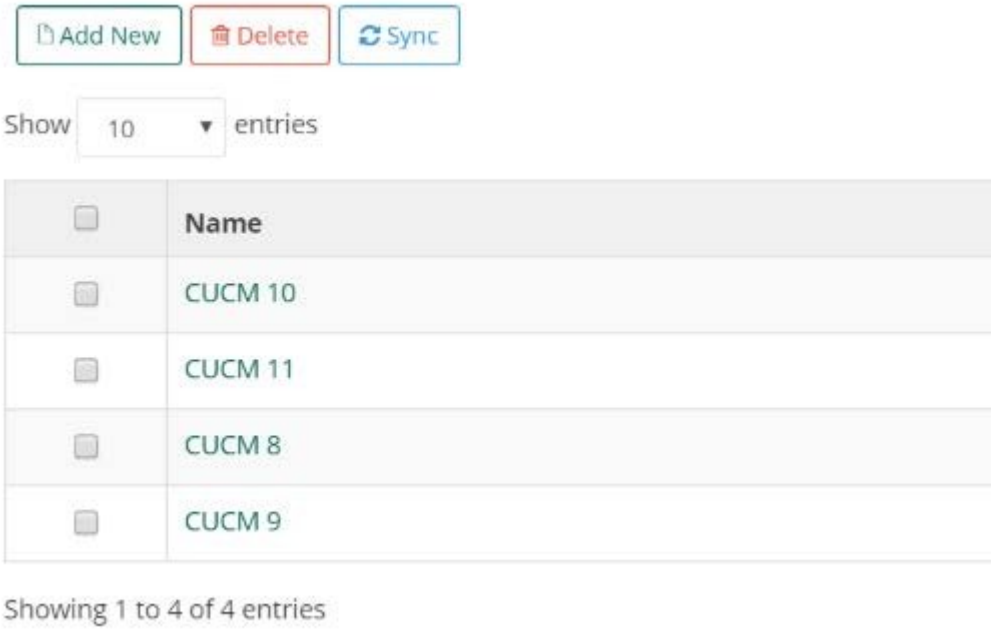
Field	Description
UDS Host Name	FQDN or IP Address of Communications Manager publisher, host should be reachable by the Akkadian Contact Manager server
Username (Optional)	Application user, not required
Password (Optional)	Application user password , not required
	Username: userName Email: email Department: department Directory URI: directoryUri Middle Name: middleName Nick Name: nickName Display Name: displayName MS URI: msUri Manager: manager Title: title Pager: Pager Additional Properties:



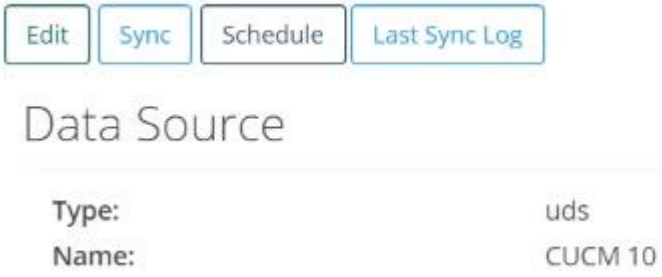
2. Click **Save** to add a data source and proceed syncing data source section 4.3

5.3. 4.3. Syncing a Data Source

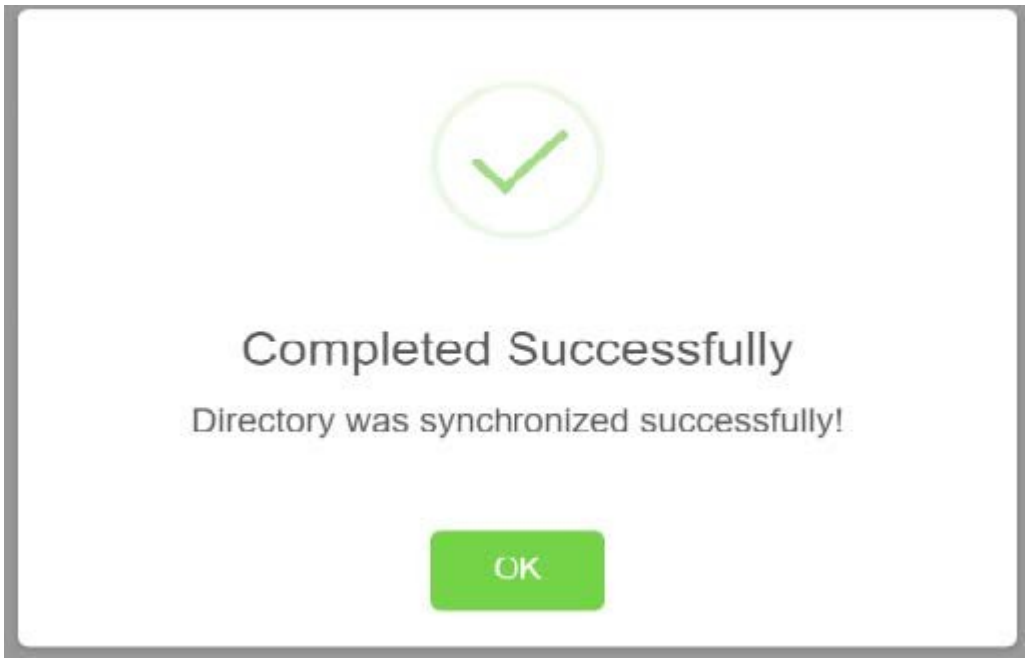
1. Select **Data Source** from the **Directory** menu
2. Click on the **Name** of **Data Source** to be synced **Directory** menu



3. Click **Sync** to add a new data source



4. Verify sync completed successfully

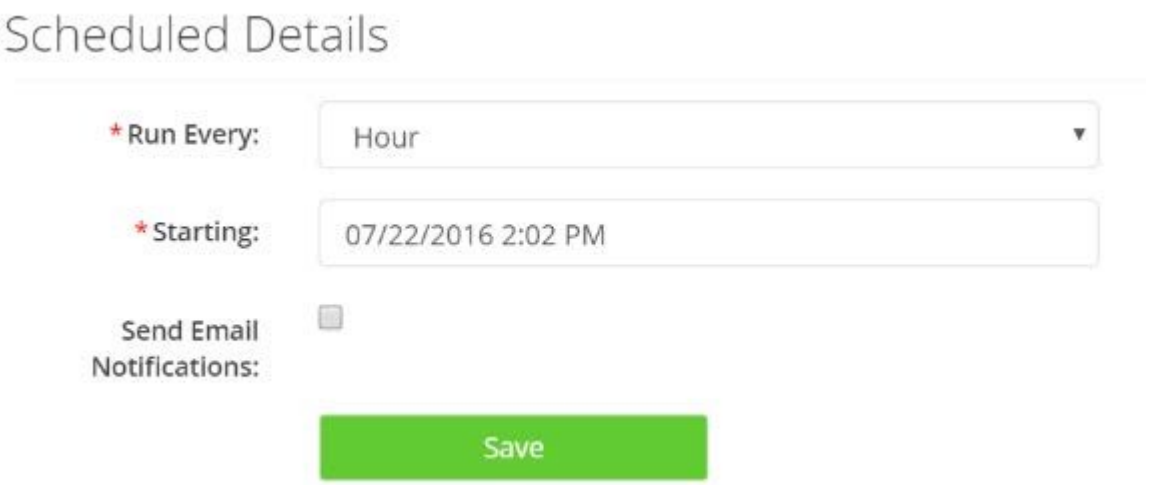

Completed Successfully
Directory was synchronized successfully!
OK

5.3.1. 4.3.1. Schedule Data Source Sync

1. Select **Data Source** from the **Directory** menu
2. Click on the **Name** of **Data Source** to be synced **Directory** menu
3. Click **Schedule**

4. Select sync increment and starting date and time.

   Note: Time zone is set to Coordinated Universal Time (UTC).



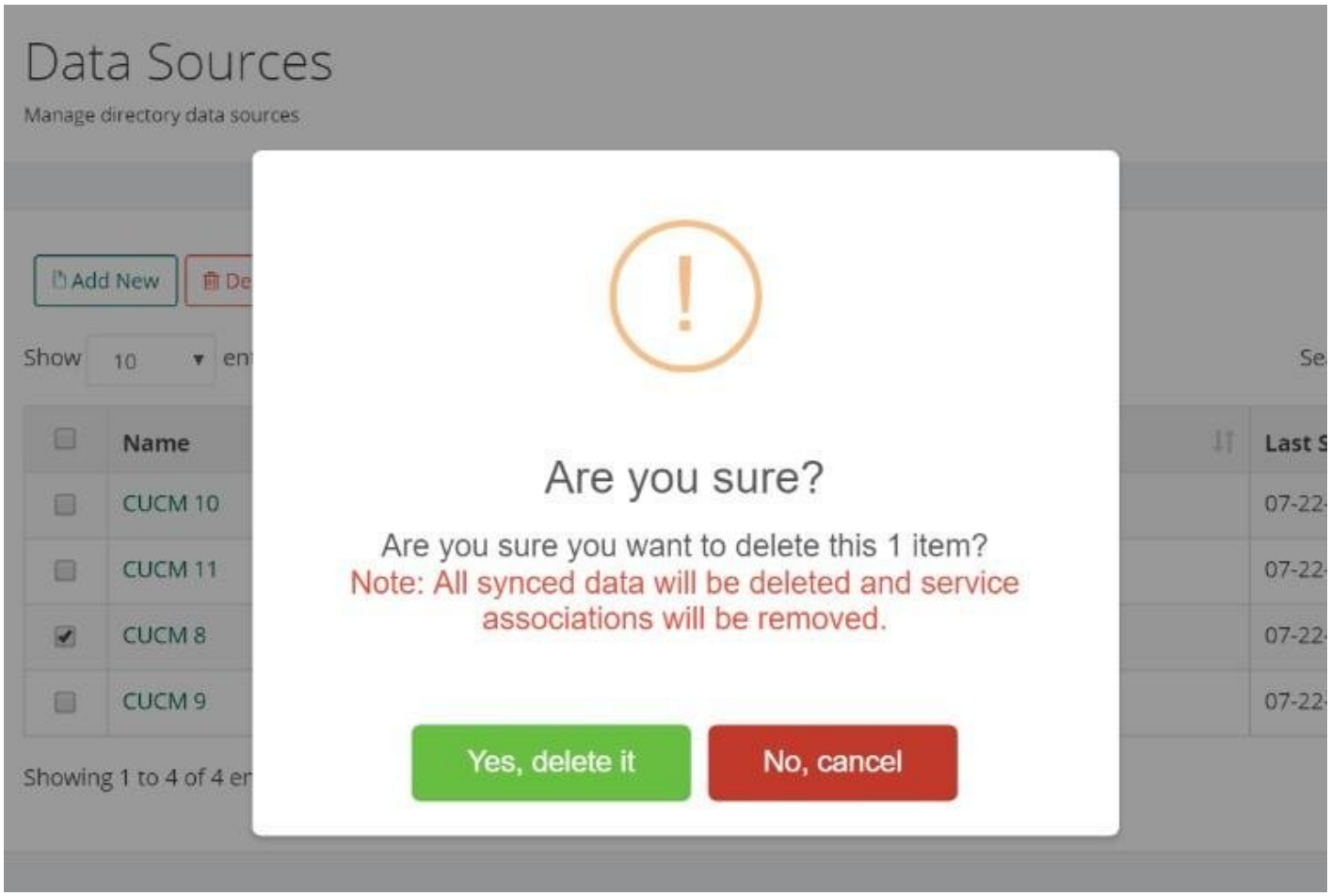
5. Click **Save**

5.4. 4.4. Delete Data Source

Akkadian Contact Manager administrators have the ability to delete a **Data Source**.

1. Select **Data Source** from the **Directory** menu
2. Check the checkbox(s) to the right of the **Name** of **Data Source** to be deleted

3. Click **Delete** button



4. Click **Yes, delete** it to confirm data source deletion

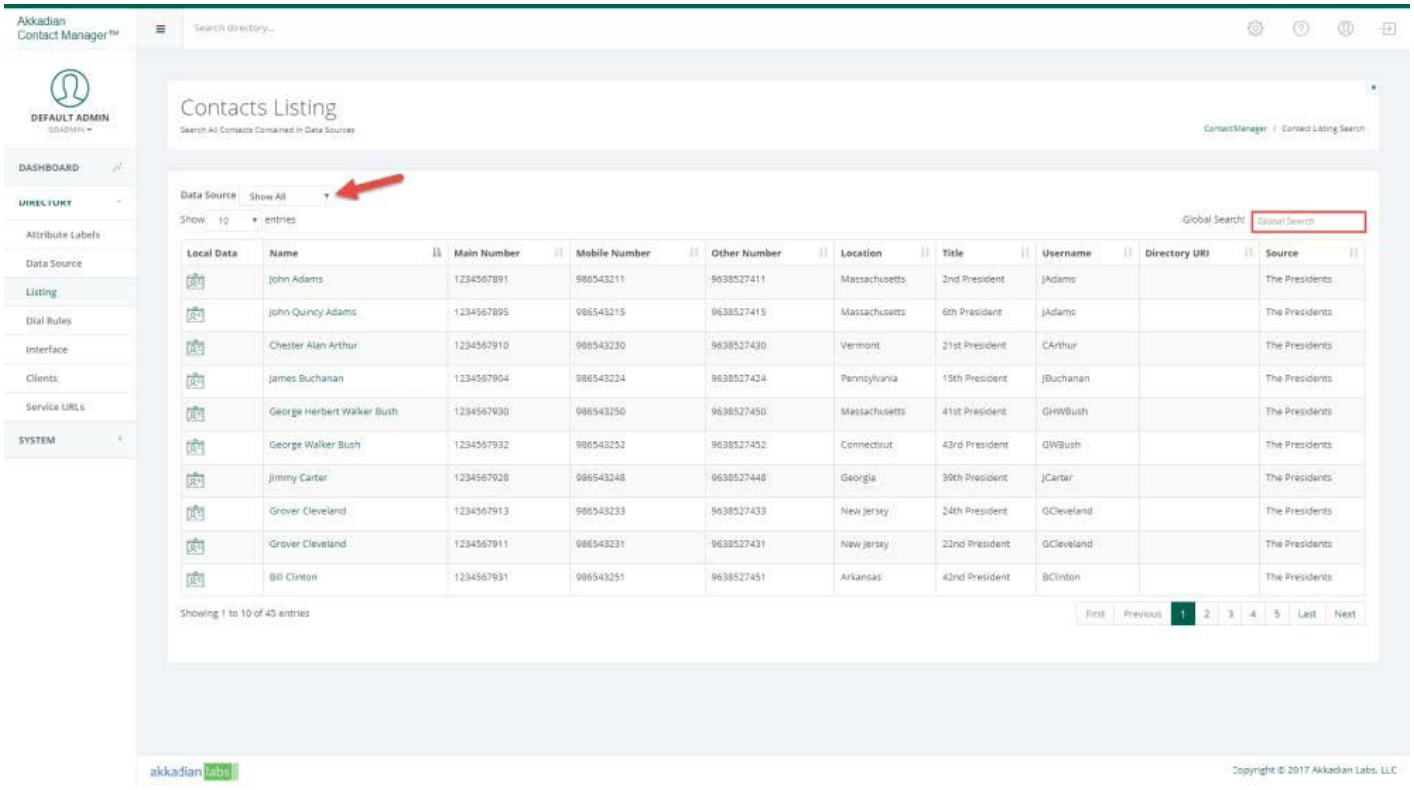
5.5. 4.5. Directory Listing

Akkadian Contact Manager provides a current directory listing for administrators to search for contacts available in all data sources.

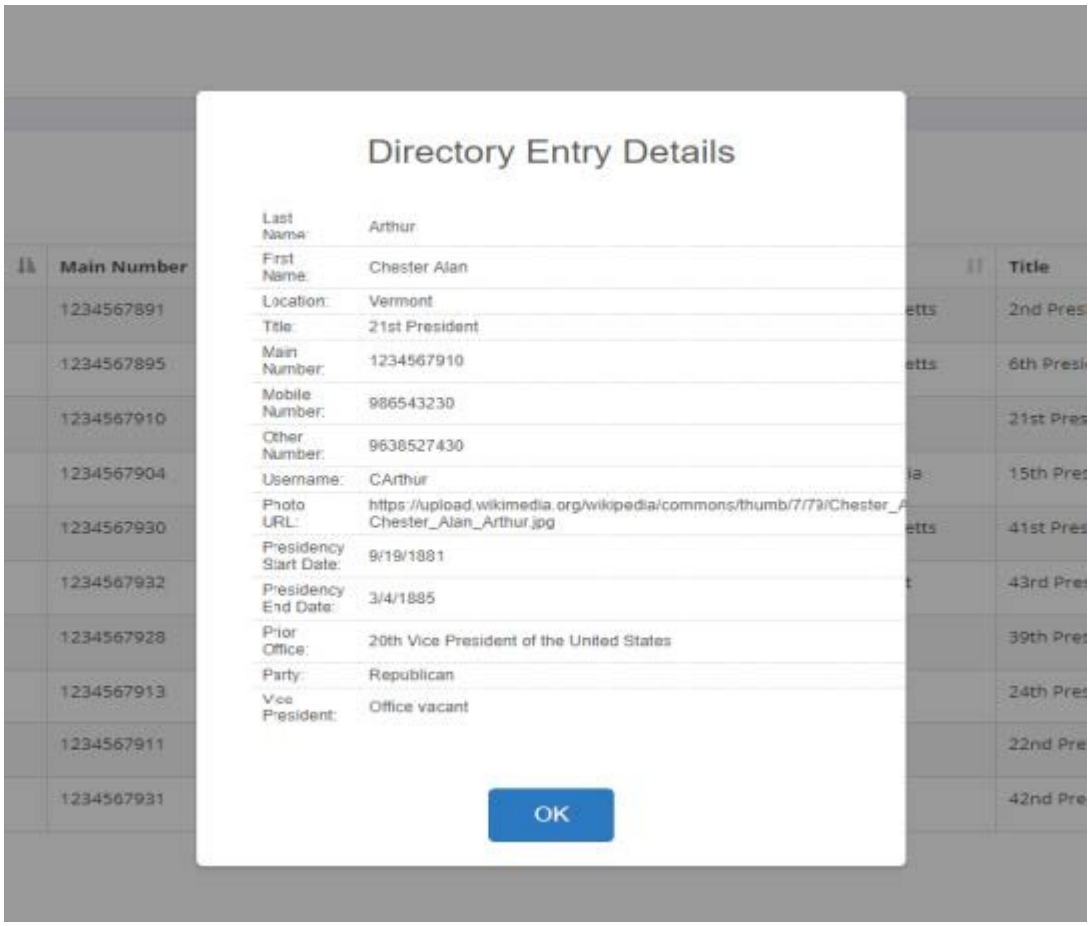
Note: *if directory listing has no data verify that Data Sources are added and synced.*

5.5.1. 4.5.1. Directory Listing Search

1. Select **Listing** from the **Directory** menu
2. Use the directory search to search for contacts



3. Use Data Source filter to filter contacts by data source
4. Click on contact name to view details of contact


Directory Entry Details
Last Name: Arthur
First Name: Chester Alan
Location: Vermont
Title: 21st President
Main Number: 1234567910
Mobile Number: 986543230
Other Number: 9638527430
Username: CArthur
Photo URL: https://upload.wikimedia.org/wikipedia/commons/thumb/7/79/Chester_A
Chester_Alan_Arthur.jpg
Presidency Start Date: 9/19/1881
Presidency End Date: 3/4/1885
Prior Office: 20th Vice President of the United States
Party: Republican
Vice President: Office vacant
OK
Main Number
Title
1234567891
1234567895
1234567910
1234567904
1234567930
1234567932
1234567928
1234567913
1234567911
1234567931

5.5.2. 4.5.2. Contact Local Data

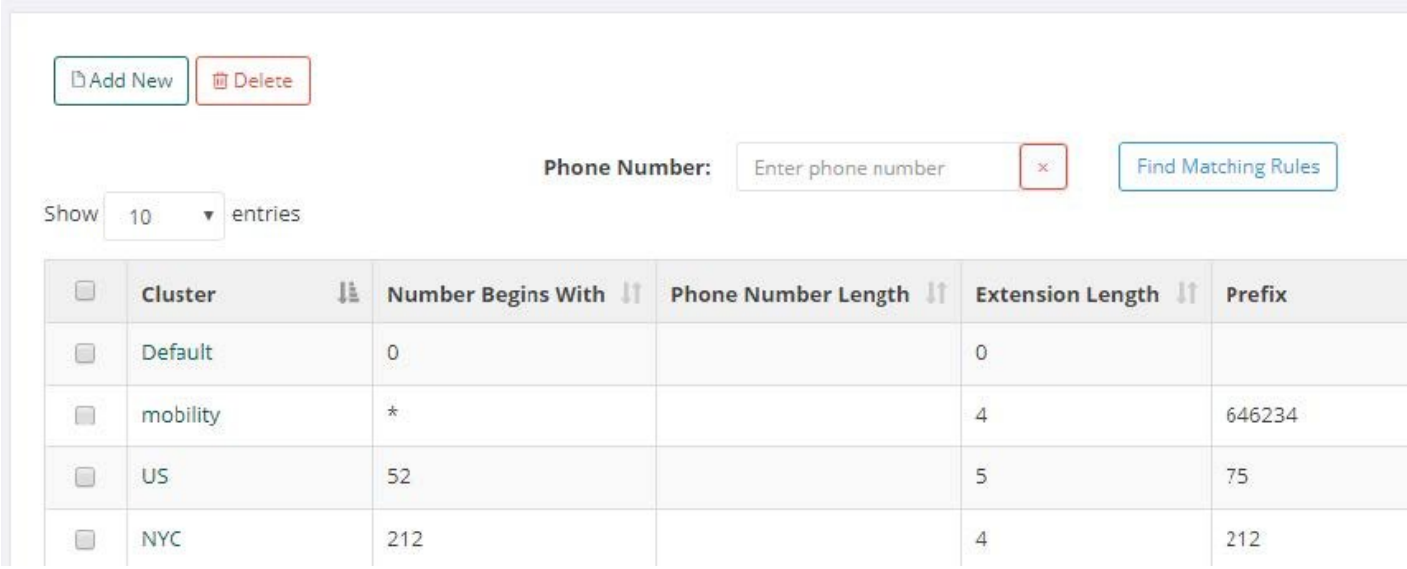
Local attribute can be added to contacts with usernames specified. Local attributes can be edited either be bulk or per contact using the administrative interface.

5.6. 4.6. Dial Rules

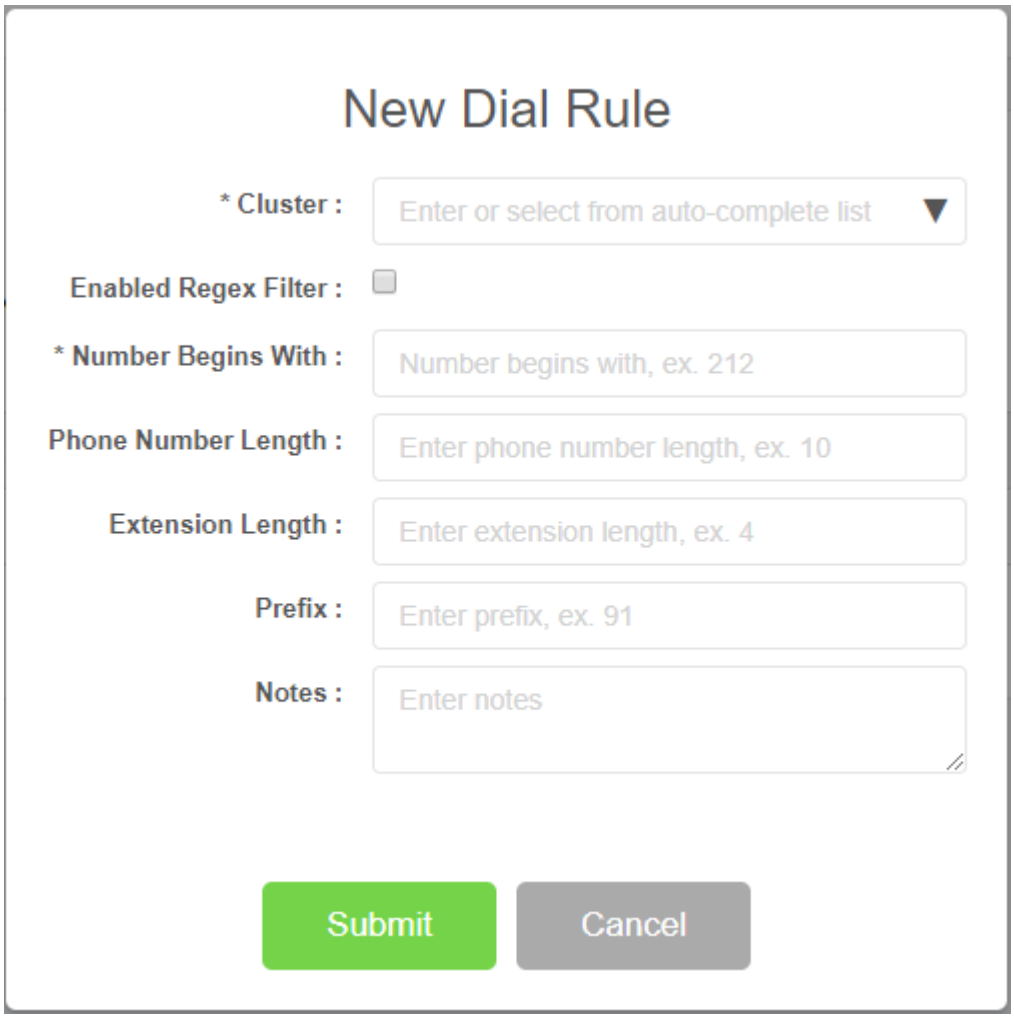
Dial rules can be enabled to enforce call routing rules. Creating dial rules in Contact Manager will enable more efficient enforcement of call routing using a customer’s WAN. This may, in many cases prevent calls from being routed out through the PSTN.

5.6.1. 4.6.1. Add New Directory Dial Rules

1. Select **Dial Rules** from the **Directory** menu
2. Click Add New

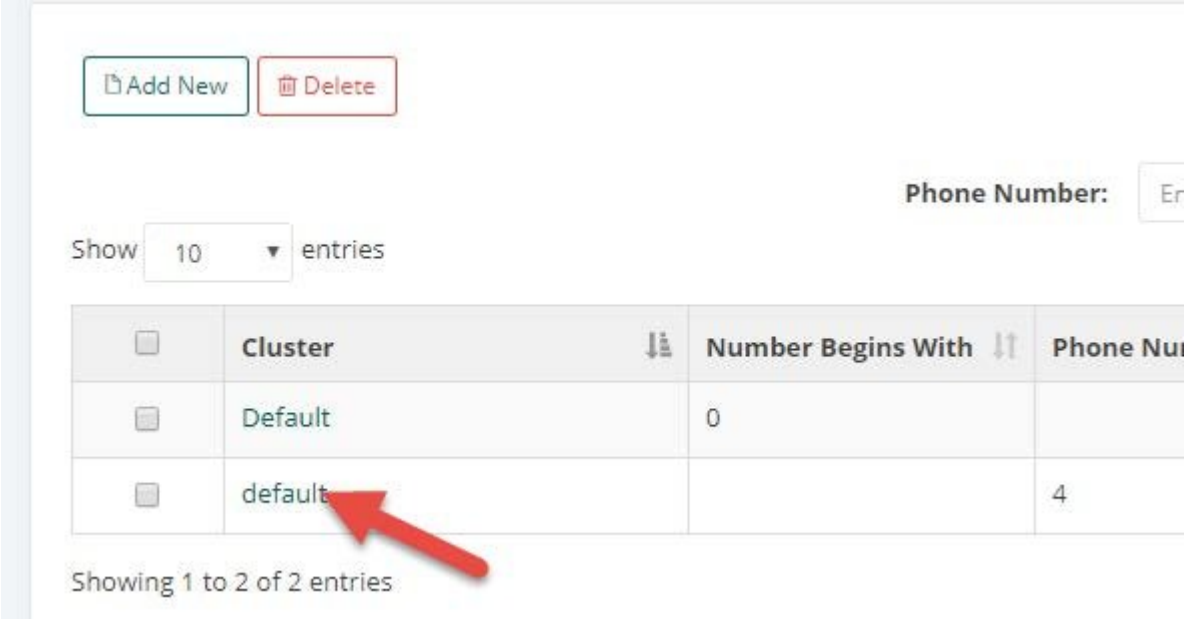


3. Fill New Dial Rule form and click submit


New Dial Rule
* Cluster :
Enter or select from auto-complete list
Enabled Regex Filter :
* Number Begins With :
Number begins with, ex. 212
Phone Number Length :
Enter phone number length, ex. 10
Extension Length :
Enter extension length, ex. 4
Prefix :
Enter prefix, ex. 91
Notes :
Enter notes
Submit
Cancel

5.6.2. 4.6.2. Edit Directory Dial Rules

1. Select **Dial Rules** from the **Directory** menu
2. Check **checkbox** next to dial rule to be edited and click **Edit**

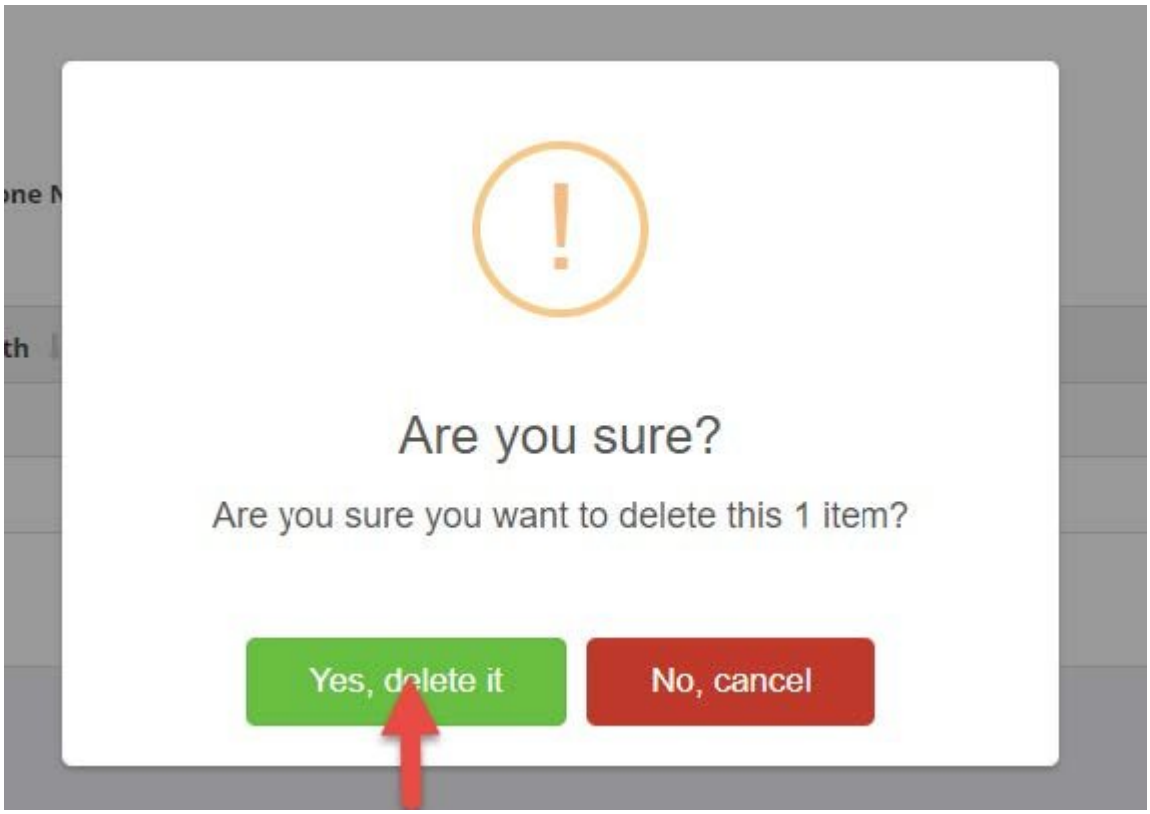


3. Edit dial rule and click **Submit**

5.6.3. 4.6.3. Delete Directory Dial Rules

1. Select **Dial Rules** from the **Directory** menu
2. Check **checkbox** next to dial rule to be deleted and click **Delete**

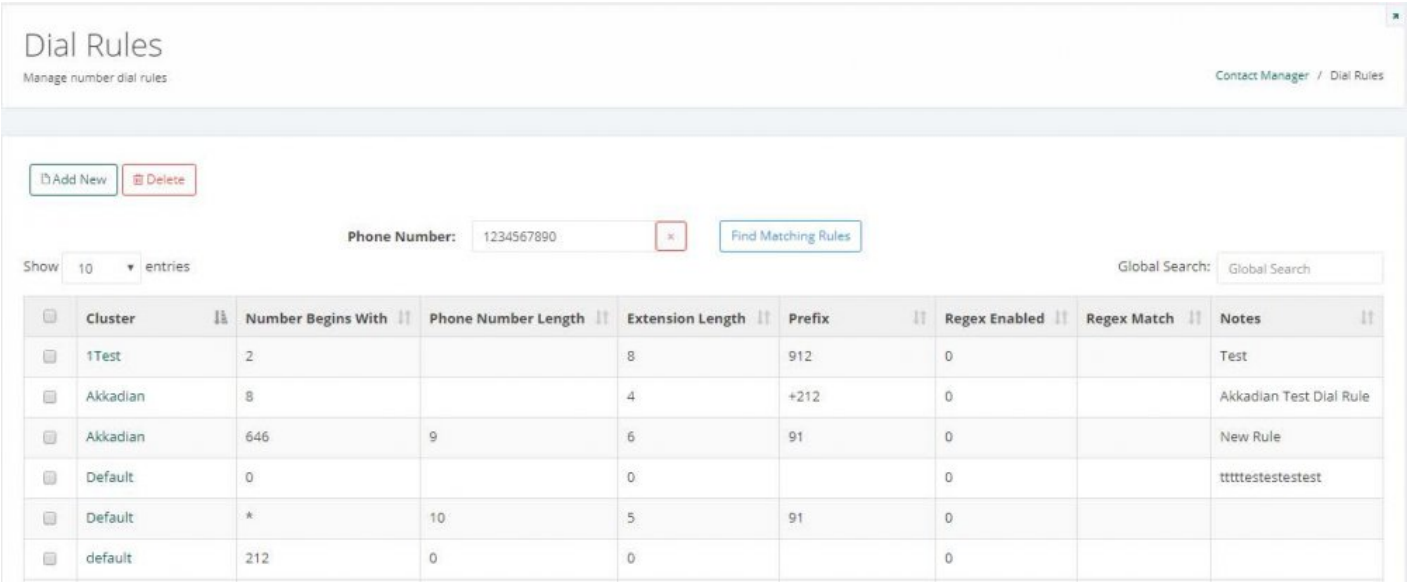
3. Confirm by clicking **Yes, delete it**


Are you sure?
Are you sure you want to delete this 1 item?
Yes, delete it
No, cancel

5.6.4. 4.6.4. Find Matching Dial Rule

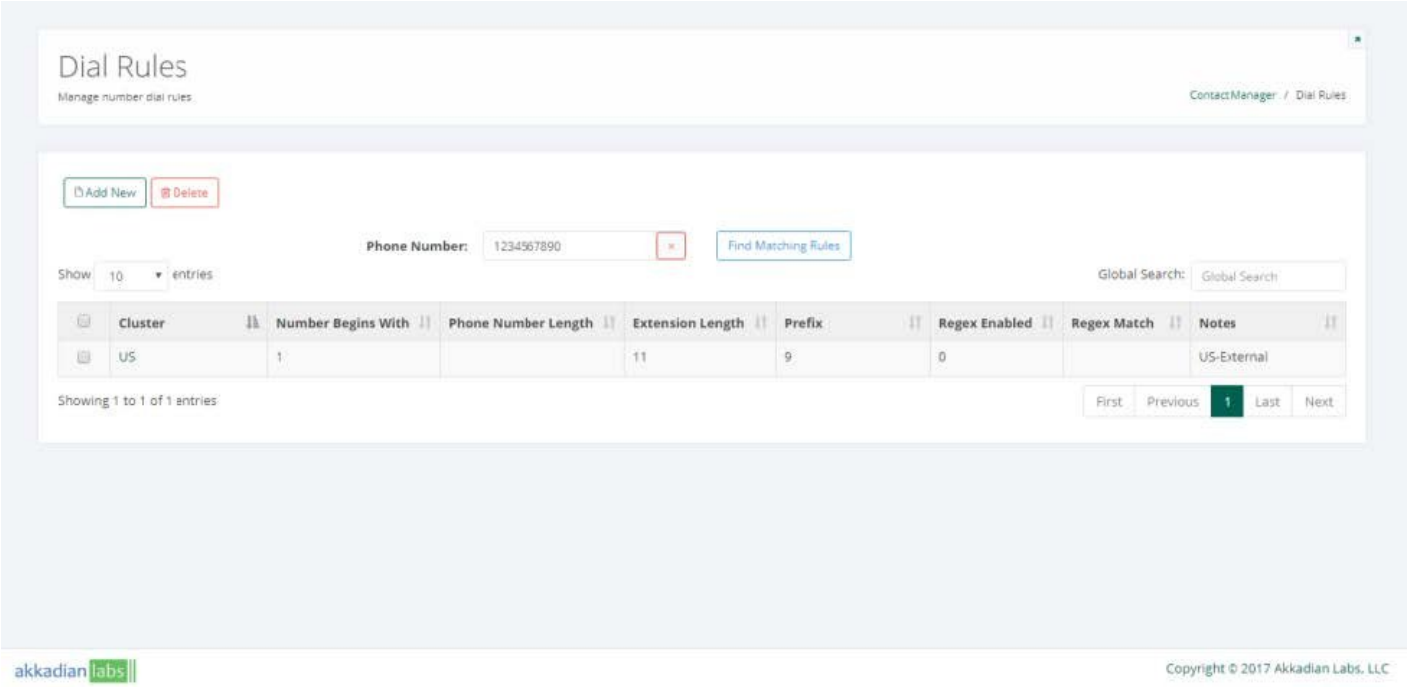
Akkadian Contact Manager administrators can find matching dial rules with phone numbers

1. Enter the phone number



Cluster	Number Begins With	Phone Number Length	Extension Length	Prefix	Regex Enabled	Regex Match	Notes
1Test	2		8	912	0		Test
Akkadian	8		4	+212	0		Akkadian Test Dial Rule
Akkadian	646	9	6	91	0		New Rule
Default	0		0		0		ttttestestestest
Default	*	10	5	91	0		
default	212	0	0		0		

2. Select **Find Matching Dial Rules**


Dial Rules
Manage number dial rules
ContactManager / Dial Rules
Add New
Delete
Phone Number:
1234567890
Find Matching Rules
Show 10 entries
Global Search:
Global Search
Cluster
Number Begins With
Phone Number Length
Extension Length
Prefix
Regex Enabled
Regex Match
Notes
US
1
11
9
0
US-External
Showing 1 to 1 of 1 entries
First
Previous
1
Last
Next
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5.7. 4.7. Directory Interface

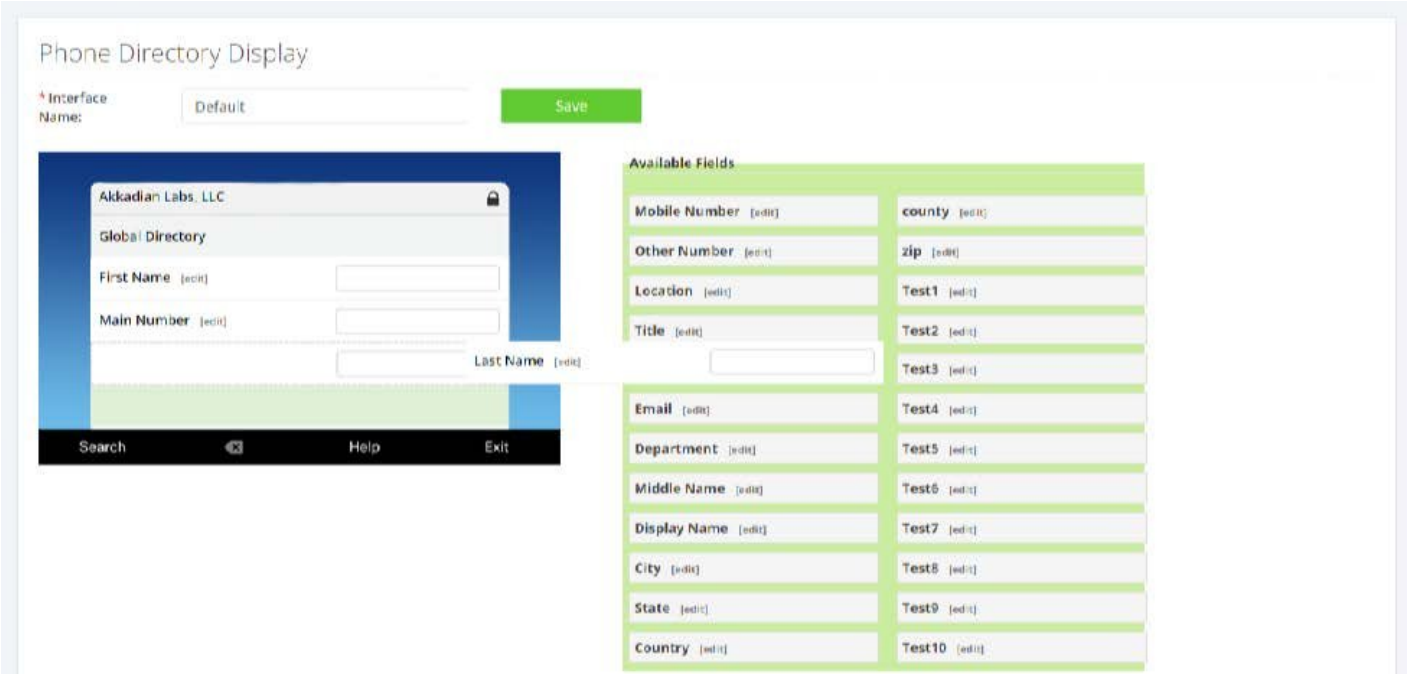
Akkadian Contact Manager administrators have the ability to set the order and names of fields as presented on IP Phones using the directory interface customization feature.

5.7.1. 4.7.1. Edit Default Directory Interface

1. Select **Interface** from the **Directory** menu.
2. Click on the **Name** of interface to be edited ex. **Default**.

3. Drag and drop field names and edit as needed.

   Add/remove field:
   Drag field from the list of available fields to the phone interface to be a used in your directory. To remove field from interface drag field from the interface and drop in available fields list.

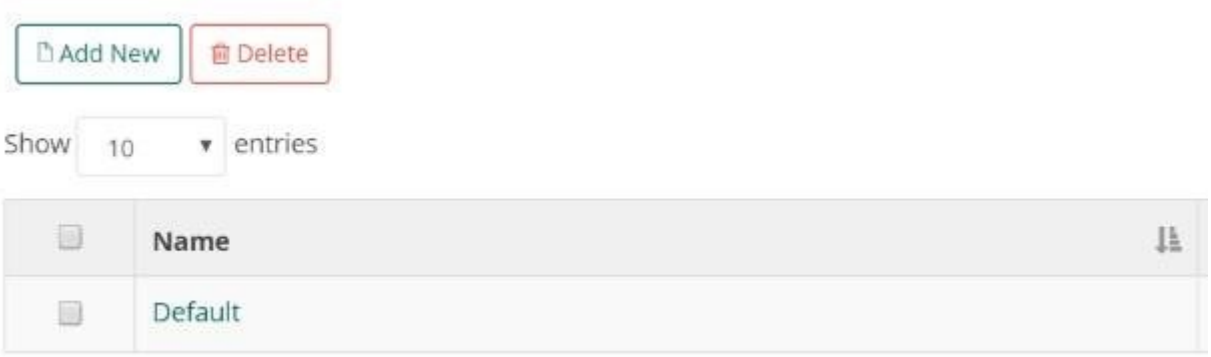


Customize field label:
Clicking on [edit] next to the field label will give you the ability to customize. The original label will appear when you mouse over the field.

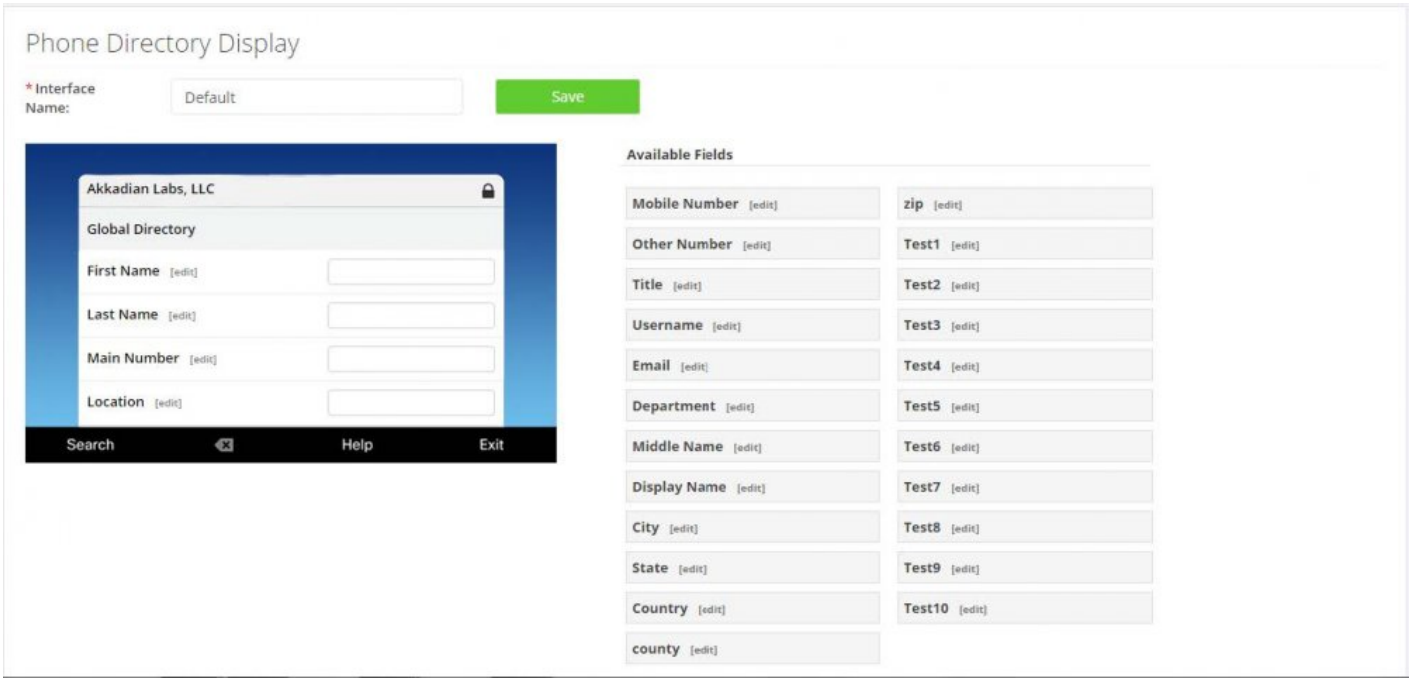
4. Click **Save** after completing changes

5.7.2. 4.7.2. Add New Default Directory Interface

1. Select **Interface** from the **Directory** menu
2. Click **Add New**



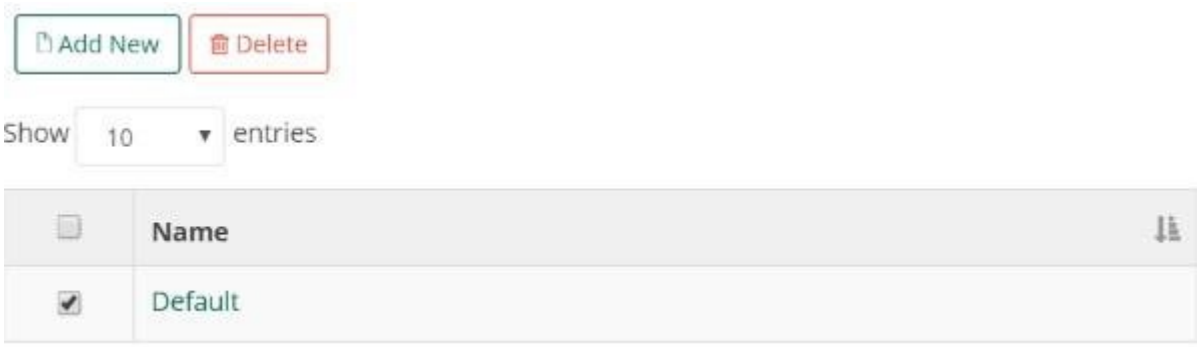
3. Drag and drop field names and edit as needed



4. Click **Save**

5.7.3. 4.7.3. Delete Directory Interface

1. Select **Interface** from the **Directory** menu
2. Check the **checkbox** next to the interface to be deleted and click **Delete**



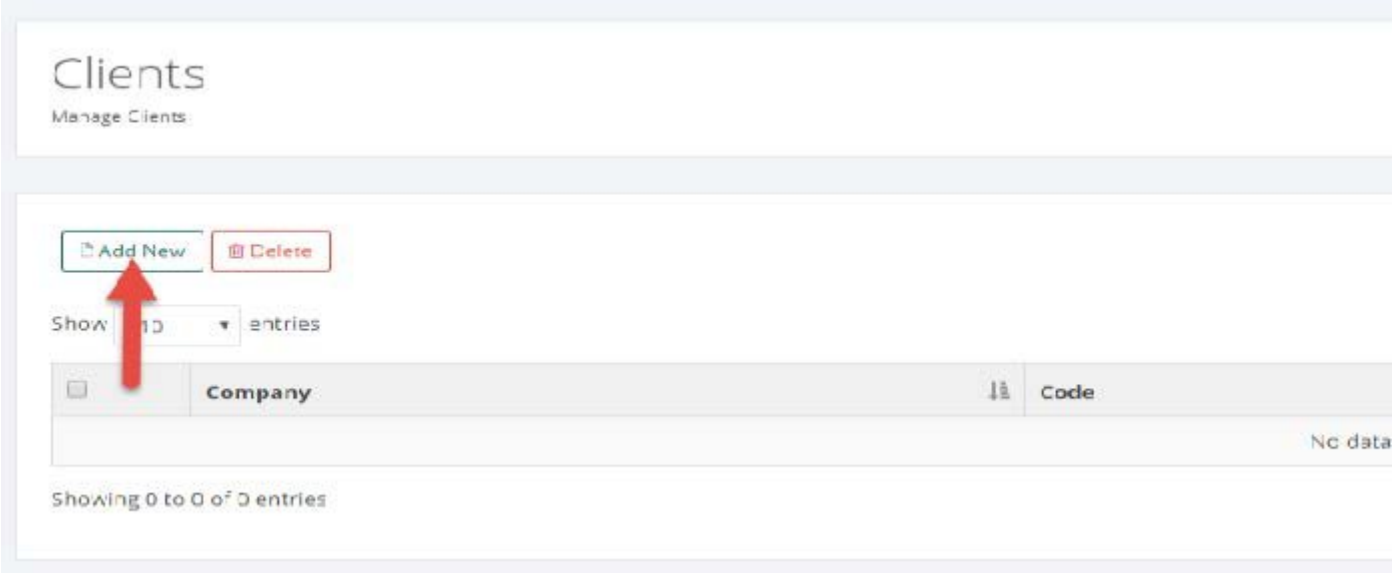
3. Confirm deletion

5.8. 4.8. Clients

Clients enable directory services to be associated to a client and produce a predictable service url.

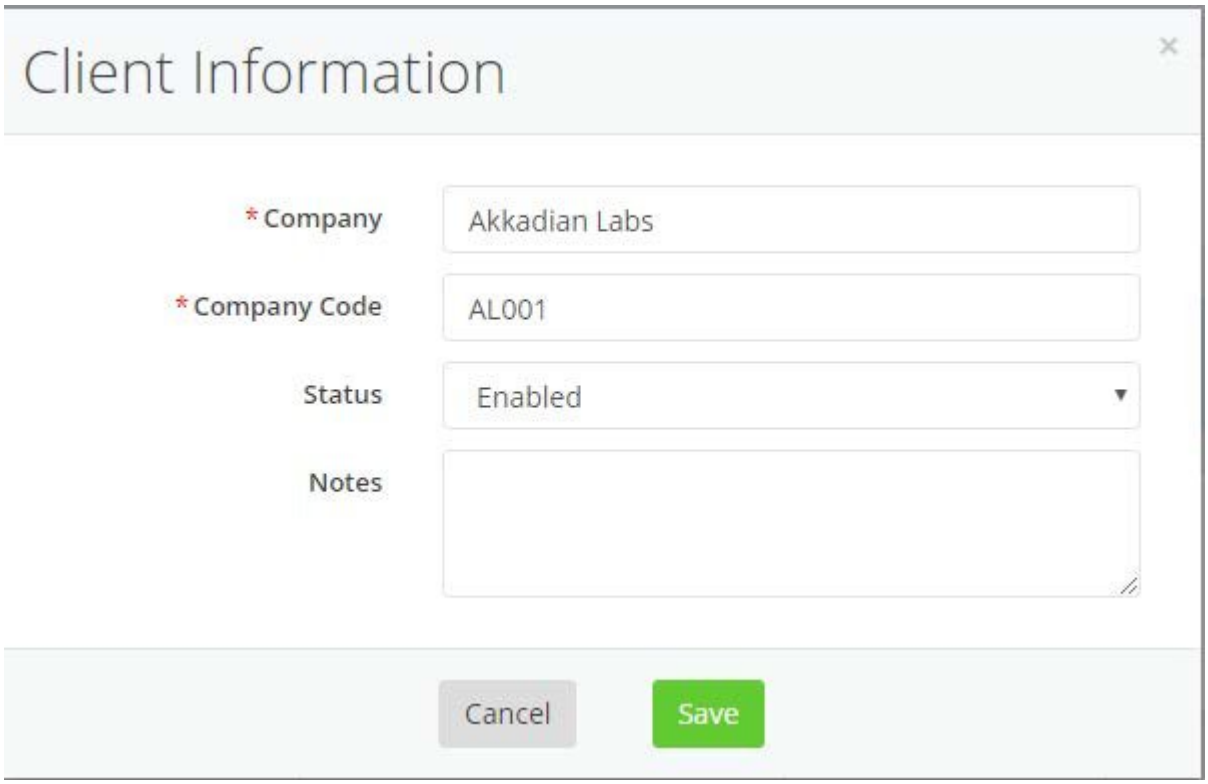
5.8.1. 4.8.1. Add a Client

1. Select **Clients** from the **Directory** menu
2. Click **Add New** button



3. Enter client name, company code and description

   Note *Make sure client status is set to Enabled for the client to be available to be associated to a Directory Service URL.*



4. Click **Save** to add client

5.8.2. 4.8.2. Edit a Client

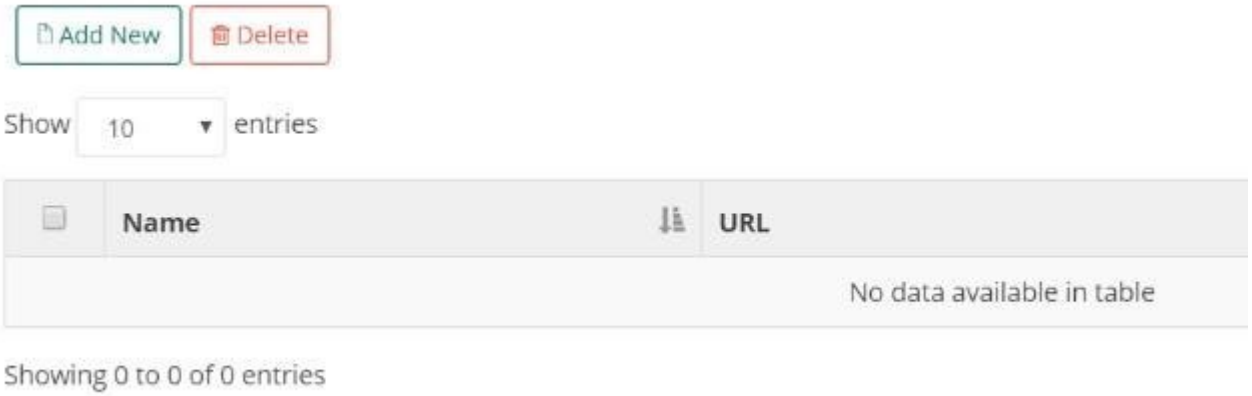
1. Select **Clients** from the Directory menu
2. Click on the Name of Company to be edited
3. Make desired changes and click **Save**

5.9. 4.9. Service URL’s

The service URL is required to provision a directory service in Communications Manager. Each directory will have its own unique Service URL. This will translate to an individual directory on the end user’s phone.

5.9.1. 4.9.1. Add New Phone Service URL's

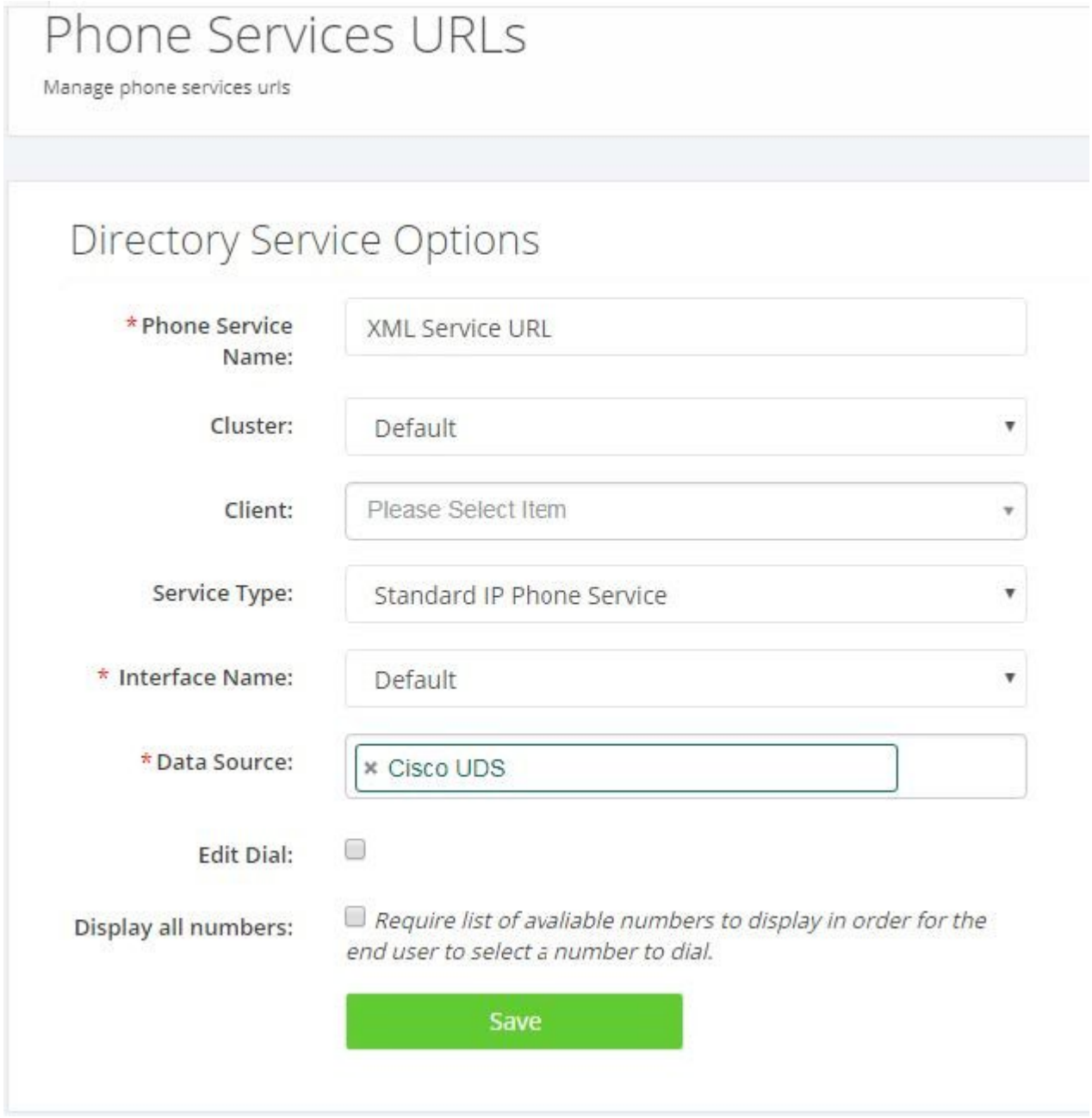
1. Select **Services URLs** from the **Directory** menu
2. Click **Add New**



3. Fill out the Directory Service Options form
   Select each **Data Source** to be included in directory from the drop down list. To remove a selected data source, click on the X next to the name of the data source.

   Choosing **Edit Dial** will enable the users to edit any telephone number through their Cisco IP Phone.

4. Click **Save**


Phone Services URLs
Manage phone services urls
Directory Service Options
* Phone Service Name:
XML Service URL
Cluster:
Default
Client:
Please Select Item
Service Type:
Standard IP Phone Service
* Interface Name:
Default
* Data Source:
× Cisco UDS
Edit Dial:
Display all numbers:
Require list of avaliable numbers to display in order for the end user to select a number to dial.
Save

5.9.2. 4.9.2. Edit Phone Service URL

1. Select **Services URLs** from the **Directory** menu
2. Click on the name of **Services URL** to be edited
3. Make changes to Service URL and **Save**

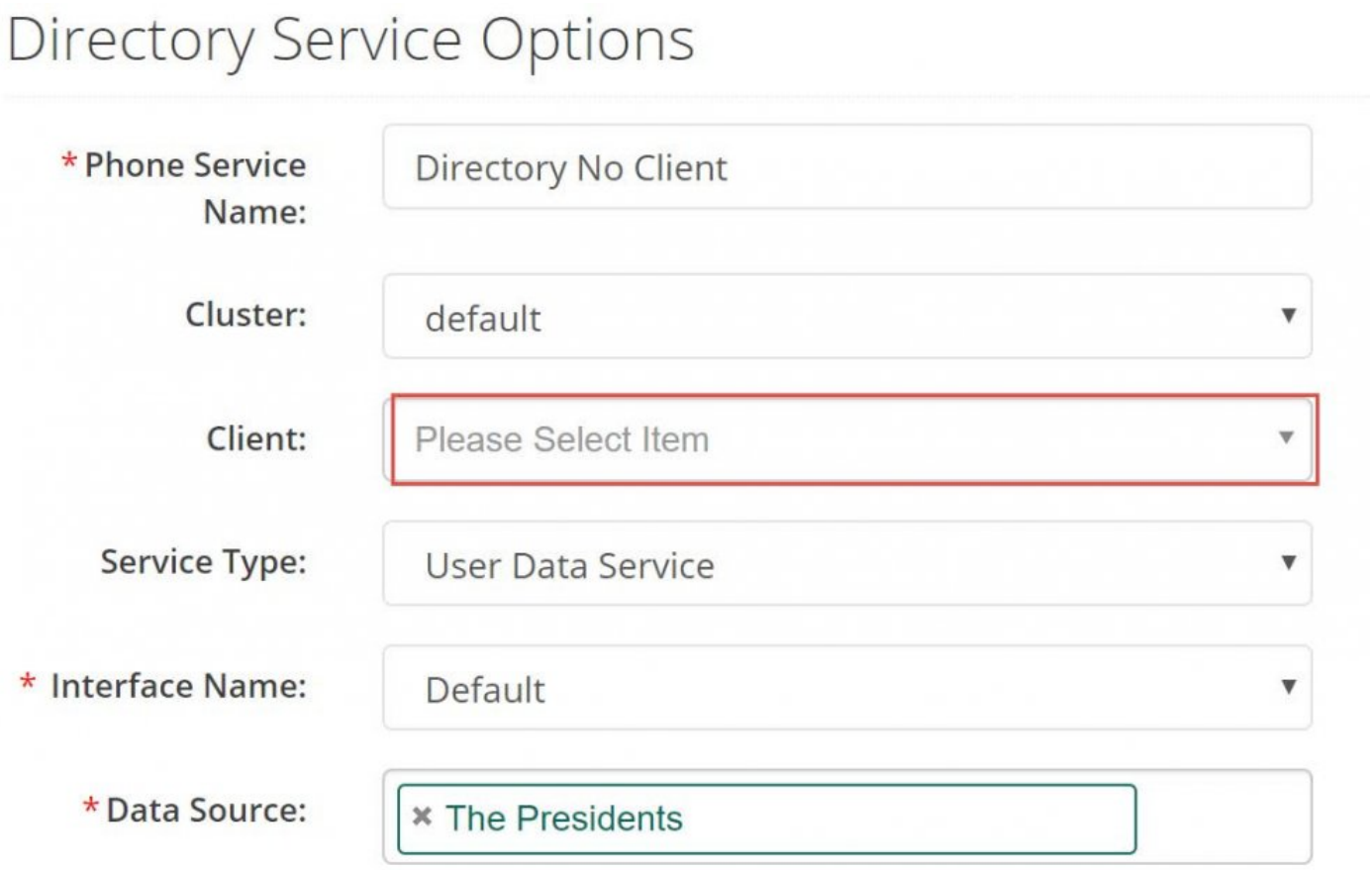
5.9.3. 4.9.3. Delete Phone Services URL

1. Select **Service URLs** from the **Directory** menu
2. Check the **checkbox** next to the service url to be deleted and click **Delete**
3. Confirm deletion

5.9.4. 4.9.4 Generated Directory Service URL

Based on the selections made when creating a Directory Service URL, the URL structure will reflect the options selected. Associating client to directory services allows you can effectively determine the url structure and allocate directories to specific clients. When a client is associated to a directory url the client's company code, which you set when creating the client, is used as the identifier in the url.

5.9.4.1. 4.9.4.1. Directory Service URL without Client



Format: **http://{ HOSTNAME }/agd/index.php/directory?service=1**

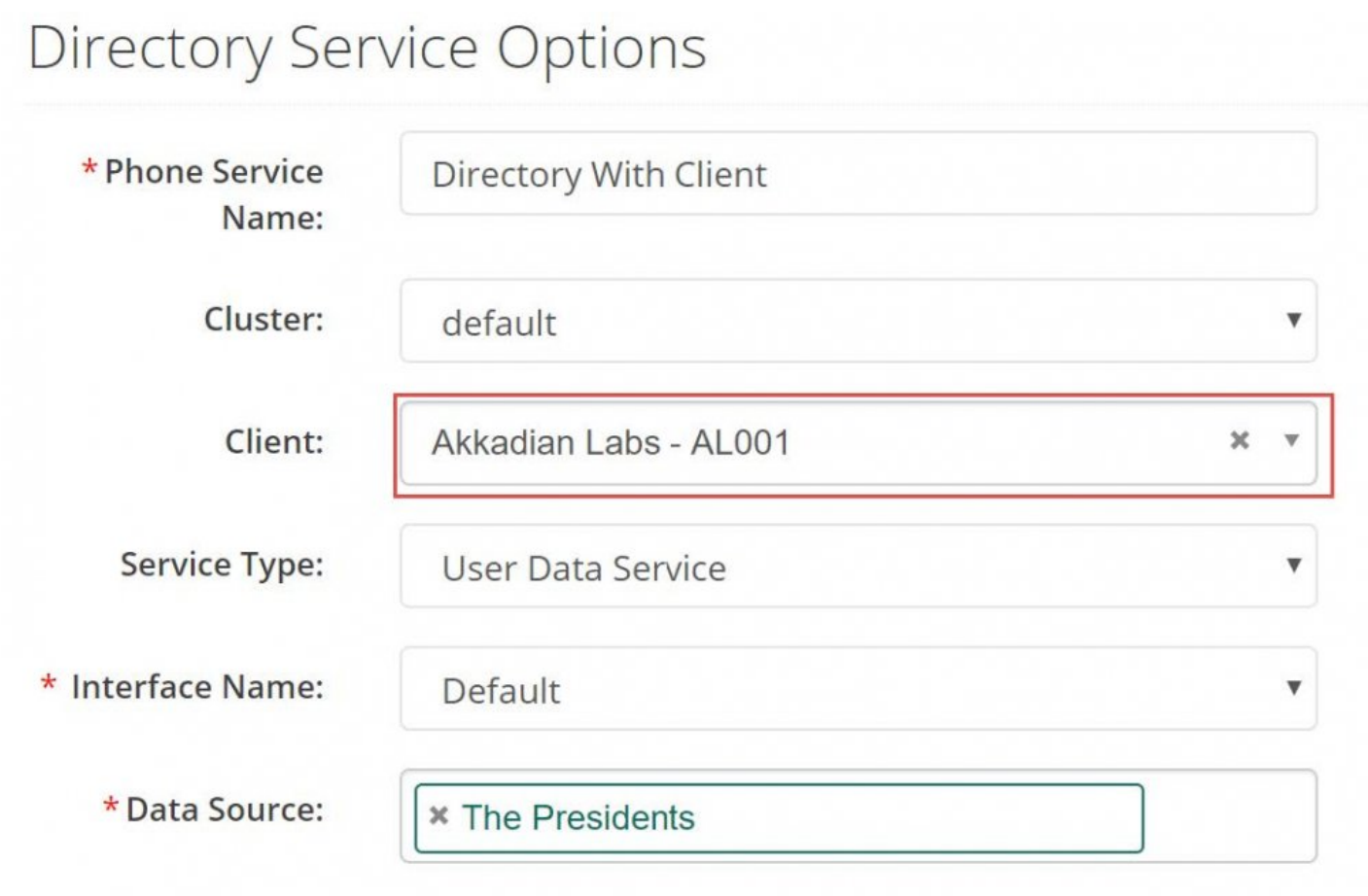
CUCM Service Provisioning Information

Service Name:	Directory No Client
Phone book server type:	User Data Service
Phone book server address:	http://192.168.110.26/agd/index.php/directory?service=4
Phone book server address (HTTPS):	https://192.168.110.26/agd/index.php/directory?service=4

Web Directory Information

Browser Directory URL:	https://192.168.110.26/agd/mobile?service=4

5.9.4.2. 4.9.4.2. Directory Service URL with Client



UDS Format: **http://{ HOSTNAME }/agd/index.php/directory?clientid=AL001**
IP Phone Service Format: **(http://{ HOSTNAME }/agd/index.php/directory?clientid=AL001&type=service &type=service&type=service&type=service &type=service&type=service &type=service**
IP Phone Directory Format: **http://{ HOSTNAME }/agd/index.php/directory?clientid=AL001&type= &type=&type= &type=dir**

CUCM Service Provisioning Information

Service Name:	Directory With Client
Phone book server type:	User Data Service
Phone book server address:	http://192.168.110.26/agd/index.php/directory?clientid=AL001
Phone book server address (HTTPS):	https://192.168.110.26/agd/index.php/directory?clientid=AL001

Web Directory Information

Browser Directory URL:	https://192.168.110.26/agd/mobile?service=4

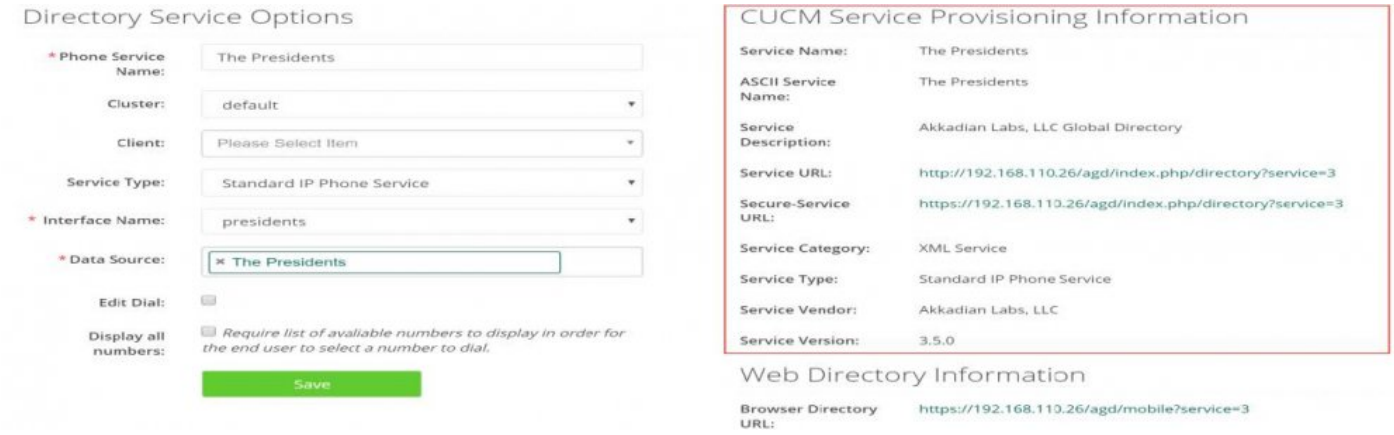
5.10. 4.10. Deploying Directory Services

Directory Services can be deployed in the following methods:

1. IP Phone Services
2. User Data Service for Jabber, Akkadian Console
3. Web Browser
4. Mobile App (Android and iOS)

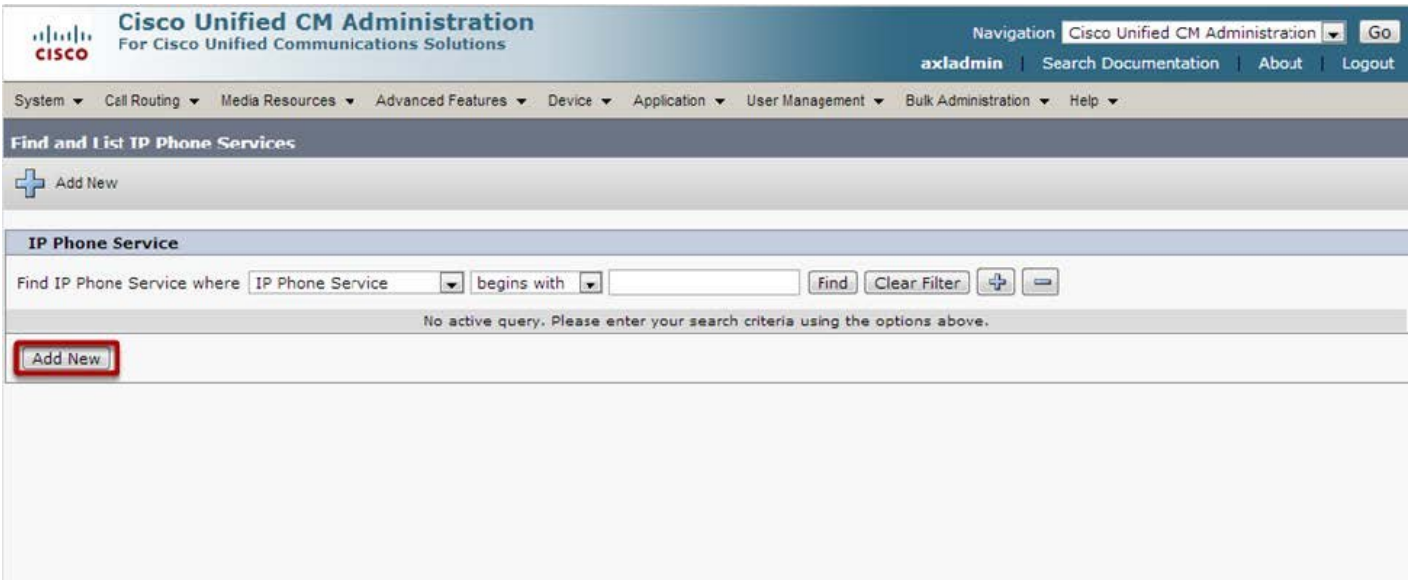
5.10.1. 4.10.1. Deploying IP Phone Service

The generated service information in Akkadian Contact Manager corresponds to a CUCM required information to create a service.

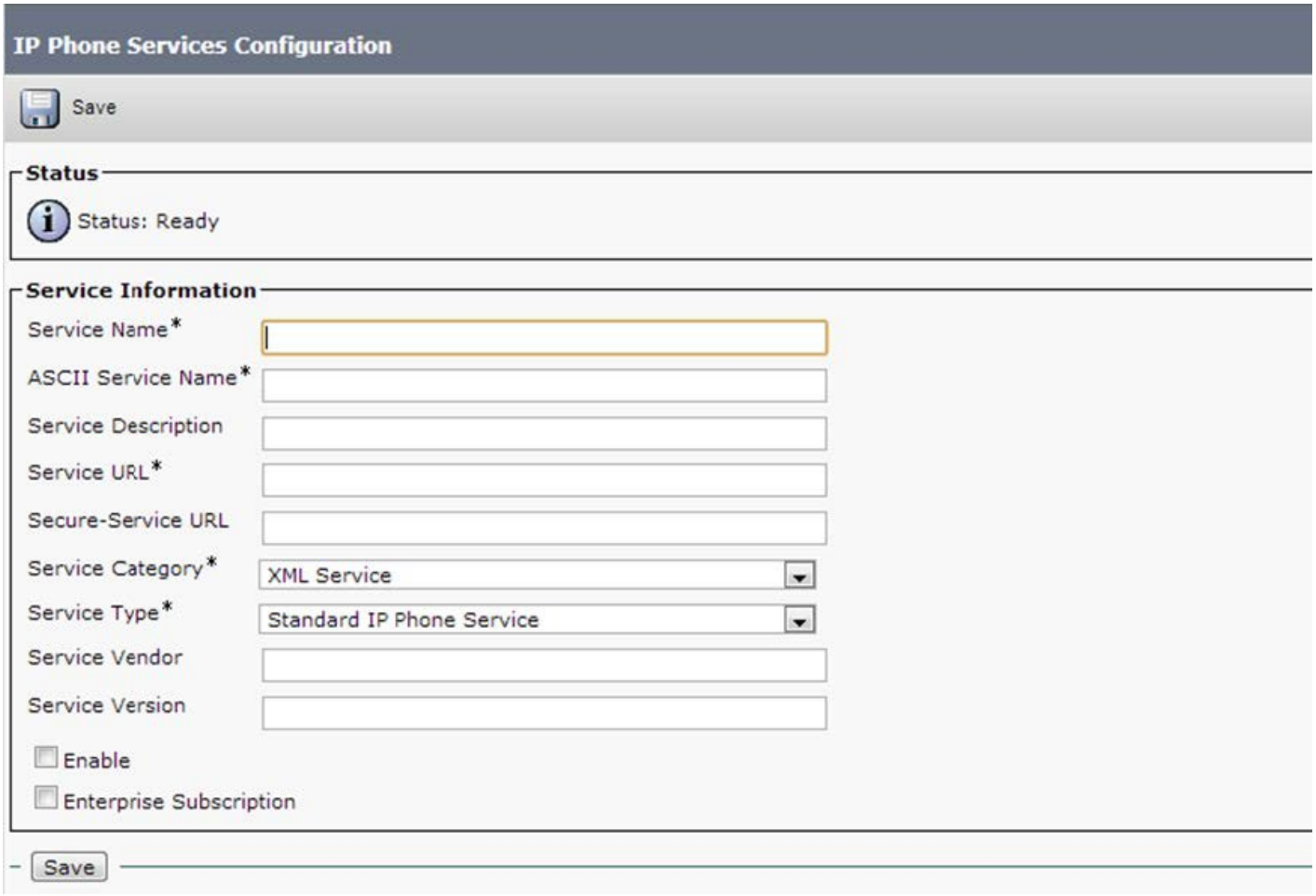


Create Service In CUCM

1. Log in to CUCM as with an account with administrative access.
2. Browse to IP Phone Services page: Device > Device Settings > Phone Services
3. Click **Add New**



4. Fill in the service information using the Akkadian Contact Manager provided **CUCM Service Provisioning Information**.



Enable: This check box allows you to enable or disable the service without removing the configuration from Cisco Unified Communications Manager Administration (and without removing the service from the database). Unchecking the check box removes the service from the phone configuration file and the phone

Enterprise Subscription: This check box automatically provisions the service to all devices in the cluster that can support the service.

***Note**: Checking the **Enterprise Subscription** checkbox will provision the service to every phone in the call manager cluster and cannot be reversed, service will have to be deleted to reverse.*

5. Check **Enable** and click **Save**

5.10.2. 4.10.2. Deploying UDS for Jabber

1. Before making any changes, backup your existing jabber-config.xml file. You can view config file in your browser by going here: **http://{ CUCM TFTP }:6970/jabber-config.xml**
2. Download a copy of the jabber-config.xml file

   Replace the directory UdsServer value in the config file with your UDS service URL without the protocol e.g. **/agd/index.php/directory?clientid=AL001**

3. .

```
<?xml version="1.0" encoding="utf-8"?>
<config version="1.0">
 <Options>
  <StartCallWithVideo>false</StartCallWithVideo>
 </Options>
 <Voicemail>
  <VoicemailPrimaryServer>unity1</VoicemailPrimaryServer>
 </Voicemail>
 <Phone>
  <TftpServer1>ccm1</TftpServer1>
  <TftpServer2>ccm2</TftpServer2>
  <CtiServer1>ccm2</CtiServer1>
  <CtiServer2>ccm3</CtiServer2>
  <CcmcipServer1>ccm1</CcmcipServer1>
  <CcmcipServer2>ccm2</CcmcipServer2>
 </Phone>
 <Policies>
  <TelemetryCustomerID>com.mycompany</TelemetryCustomerID>
  <EnableSIPURIDialing>true</EnableSIPURIDialing>
 </Policies>
 <Presence>
  <PresenceServerAddress>cups1</PresenceServerAddress>
 </Presence>
 <Directory>
  <DirectoryServerType>UDS</DirectoryServerType>
  <PresenceDomain>mycompany.com</PresenceDomain>
  <BDIPresenceDomain>mycompany.com</BDIPresenceDomain>
  <UdsServer>{ HOSTNAME }/agd/index.php/directory?clientid=AL001</UdsServer>
 </Directory>
</config>
```

4. Save jabber-config.xml file
5. Upload the jabber-config.xml file to each one of your TFTP servers

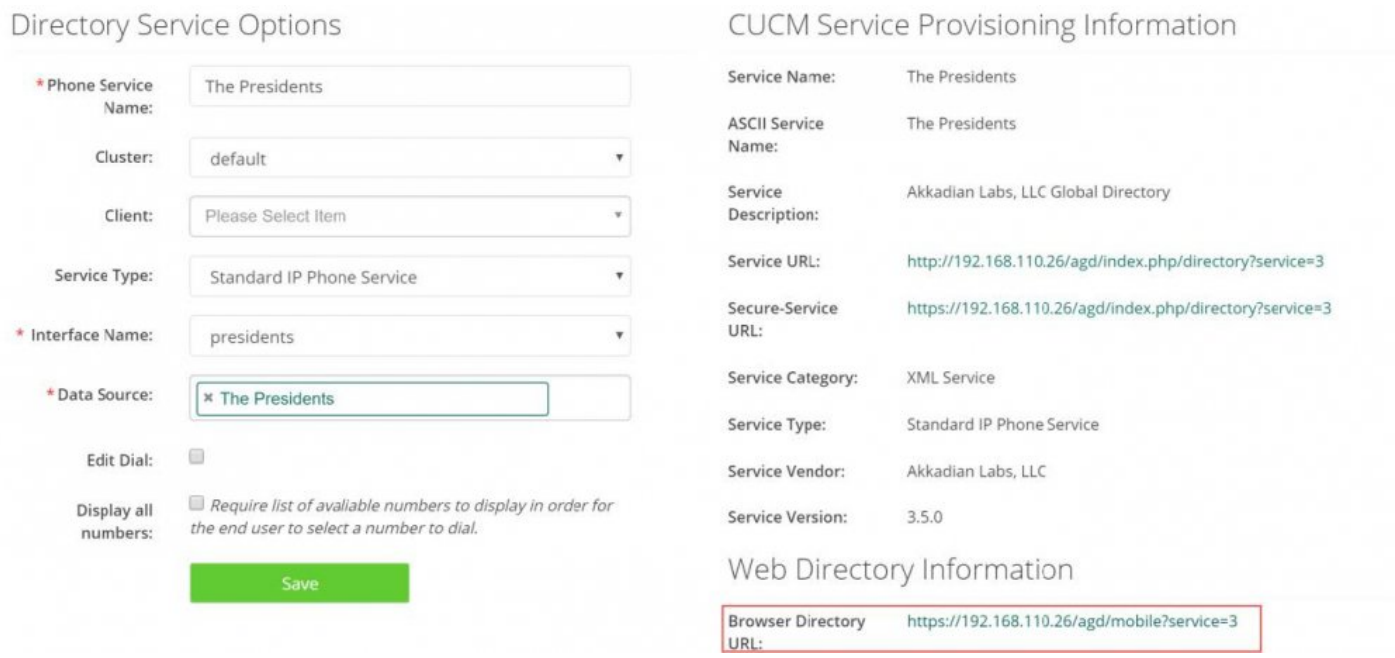
6. Restart the TFTP service on each of the servers
7. Client Jabber application will pick up the config file when they user signs into Jabber. In some situations, you may have to reset Jabber for change to take effect.

5.10.3. 4.10.3 Deploying a Web Directory

To access the directory service via the web browser, use the following url

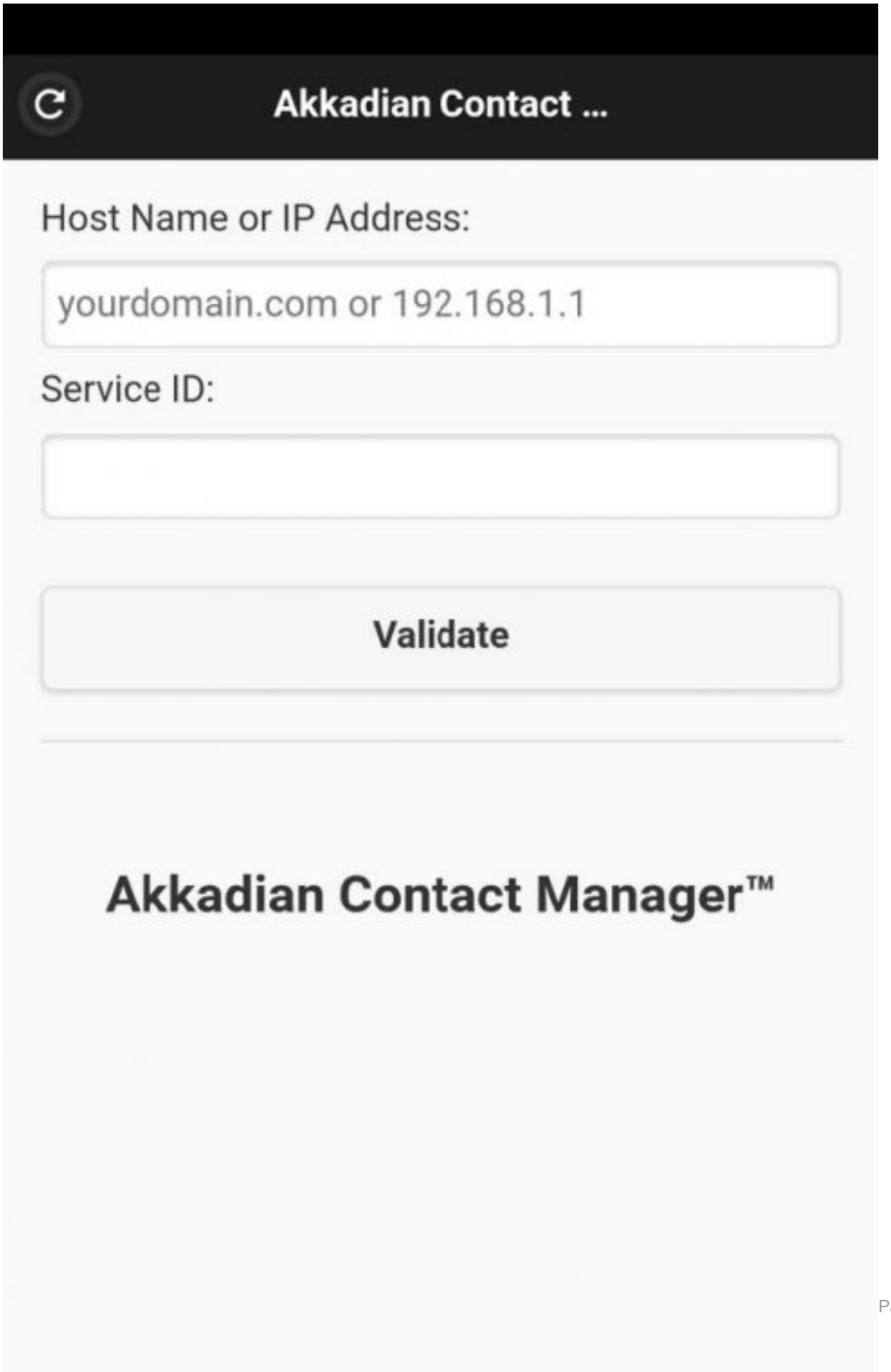
https://{Server IP or NAME}/agd/mobile
or
https:// {Server IP or NAME}/agd/mobile?service={service number}

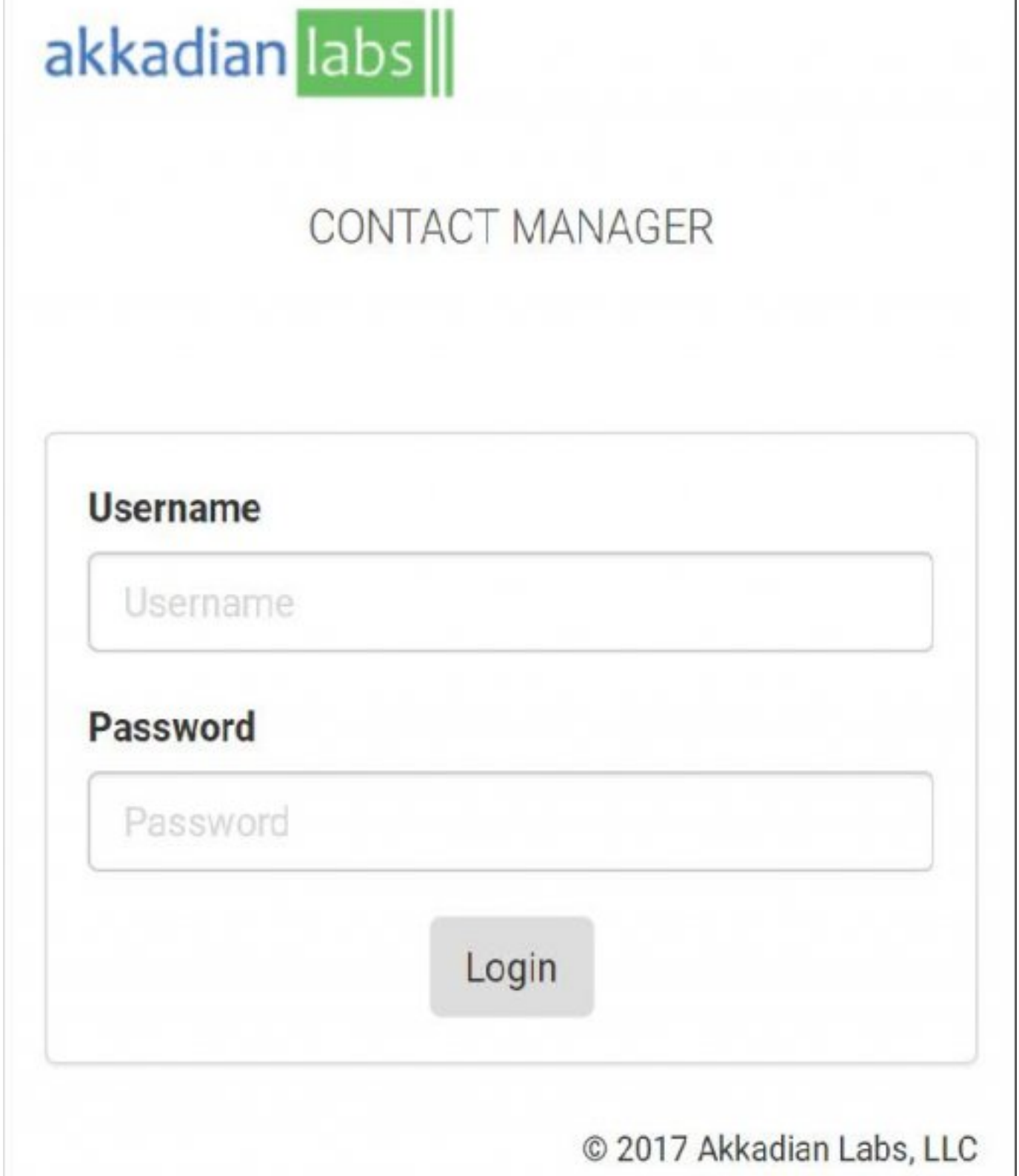
To access the web directory for a specific Directory Service from the browser use the url under the Web Directory Information section.



5.10.4. 4.10.4. Deploying Mobile App Directory

From the Mobile App ensure you have connectivity to the Akkadian Contact Manager. Enter the hostname or IP Address of the Akkadian Contact Manager and Service ID (optional).


Akkadian Contact ...
Host Name or IP Address:
yourdomain.com or 192.168.1.1
Service ID:
Validate
Akkadian Contact Manager™


akkadian labs
CONTACT MANAGER
Username
Username
Password
Password
Login
© 2017 Akkadian Labs, LLC

You will be redirected to the login page to authenticate again the Mobile Auth sources specified in **System > Mobile Auth** section of Contact Manager.

You will be presented with the mobile directory.

akkadian labs

CONTACT MANAGER

SEARCH

John Adams

2nd President

Massachusetts

John Quincy Adams

6th President

Massachusetts

Chester Alan Arthur

21st President

akkadian labs

CONTACT MANAGER

BACK

James Madison

4th President

Virginia

Main Number
1234567893

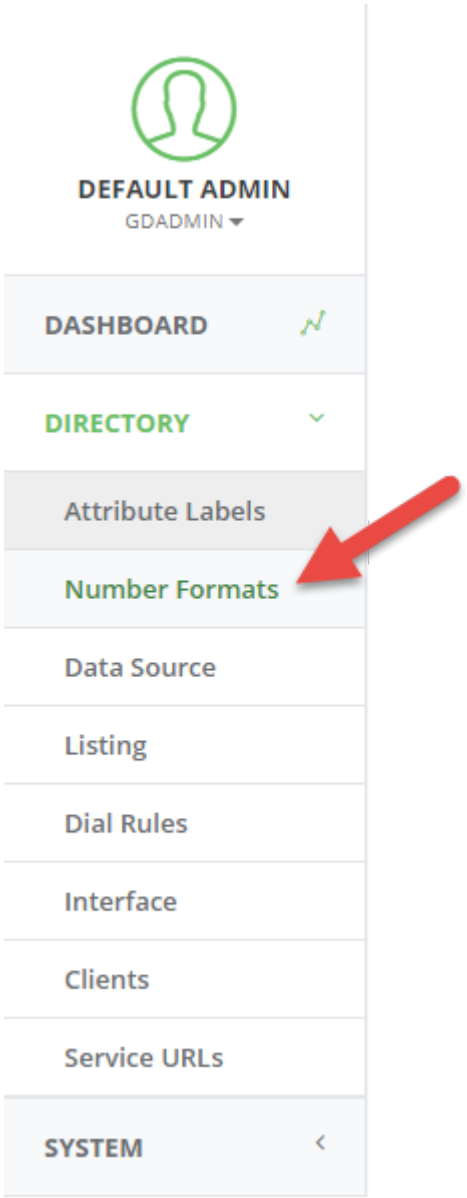
5.11. 4.11 Number Format

Number formats allow an Administrator to create a rule that will be applied during sync. These rules allow for a directory number to have a prefix appended to it, have a portion of a directory number extracted, or both. Once a Number Format has been applied, all directory numbers that match the rule will be displayed with the rule applied.

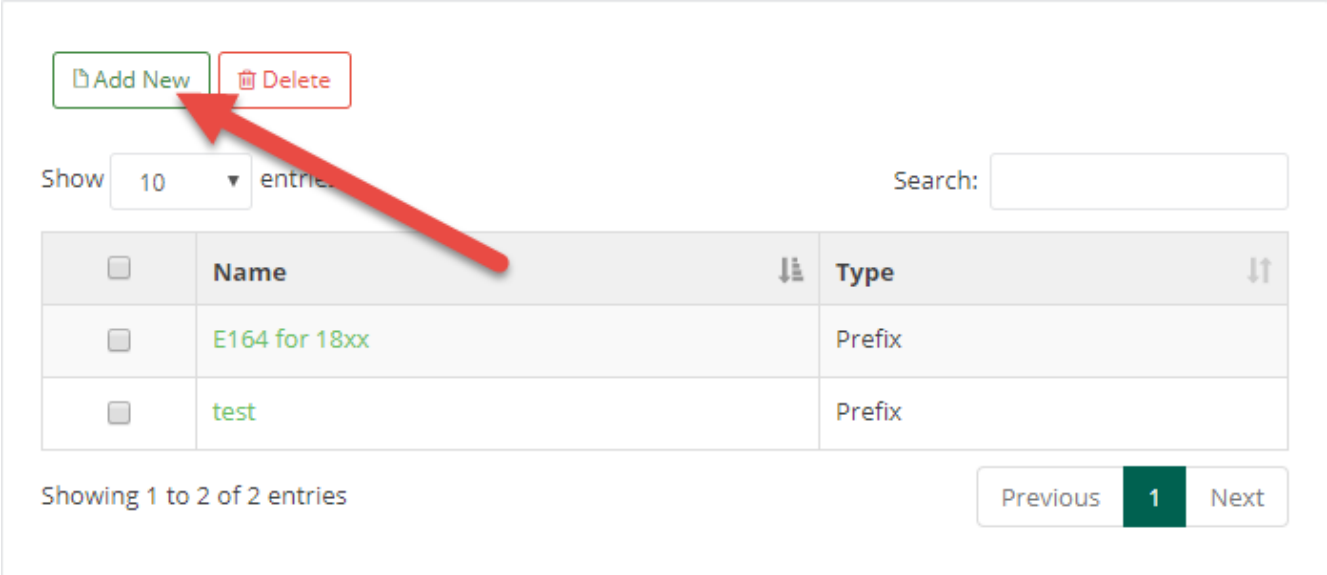
5.11.1. 4.11.1. Adding a Number Format

To add a Number Format:

1. Select **Number Format** from the **Directory** menu



2. Click **Add New** to add a new Number Format.



Administrators can add a name to Number Formatting, select the type of formatting that would be used, and select whether or not regex is to be used.

5.11.1.1. 4.11.1.1. Prefix

Prefix allows Administrators to append an existing directory number.

Number begins with: allows Administrators to set a series of numbers, which must be matched in order for a Number Format to apply.

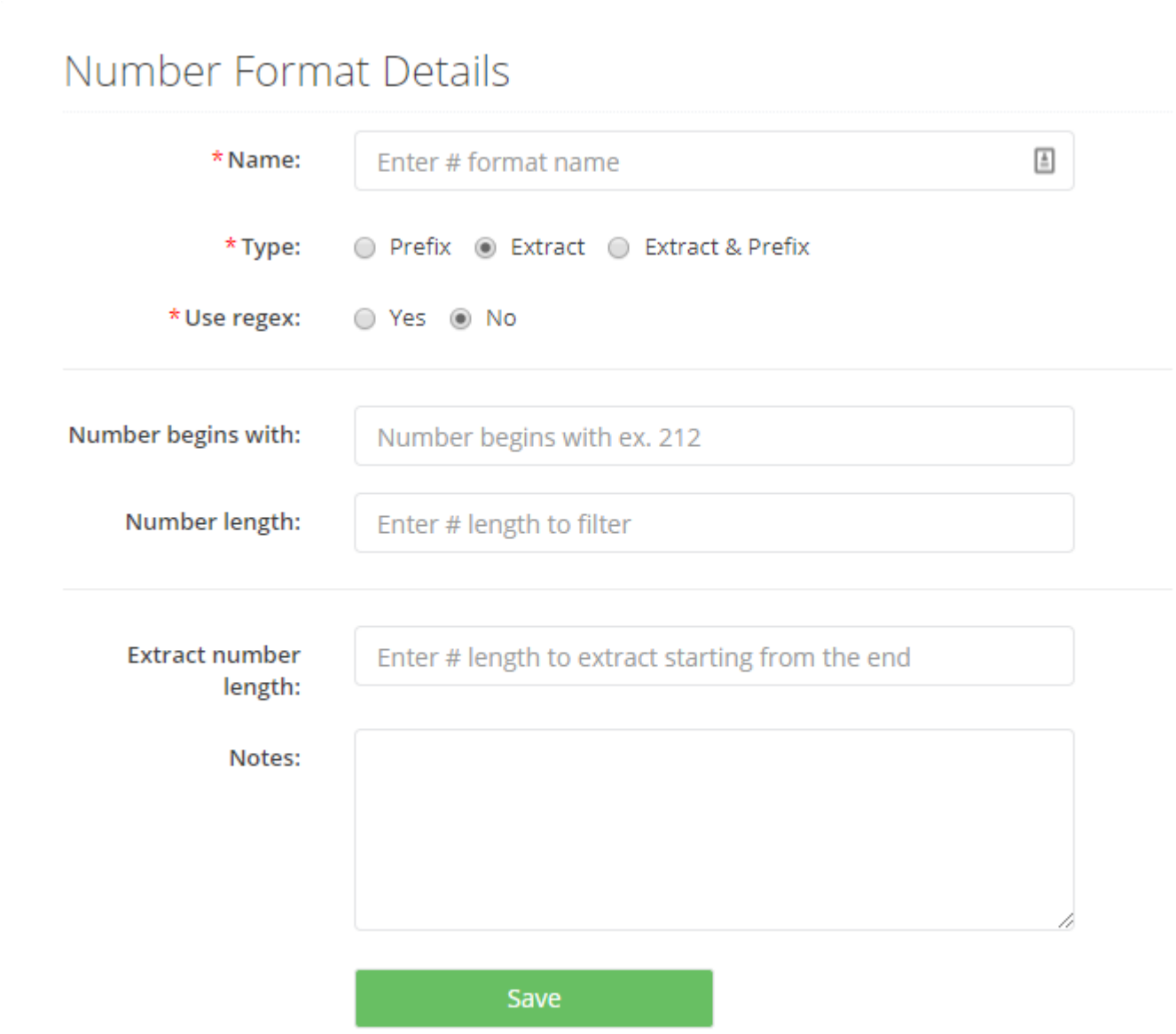
Number length: allows Administrators to set the number of digits that a directory number must contain in order for a Number format to apply.

***Note**: Number Formatting matches **Number begins with:** or **Number length**. If both fields are in use, Number Format will be applied to any directory number that matches either field.*

Number Prefix allows Administrators to select the prefix to be appended to a directory number that matches the Number Format.

5.11.1.2. 4.11.1.2. Extract

Extract allows Administrators to extract ending sections of a directory number.



Number begins with: allows Administrators to set a series of numbers, which must be matched in order for a Number Format to apply.

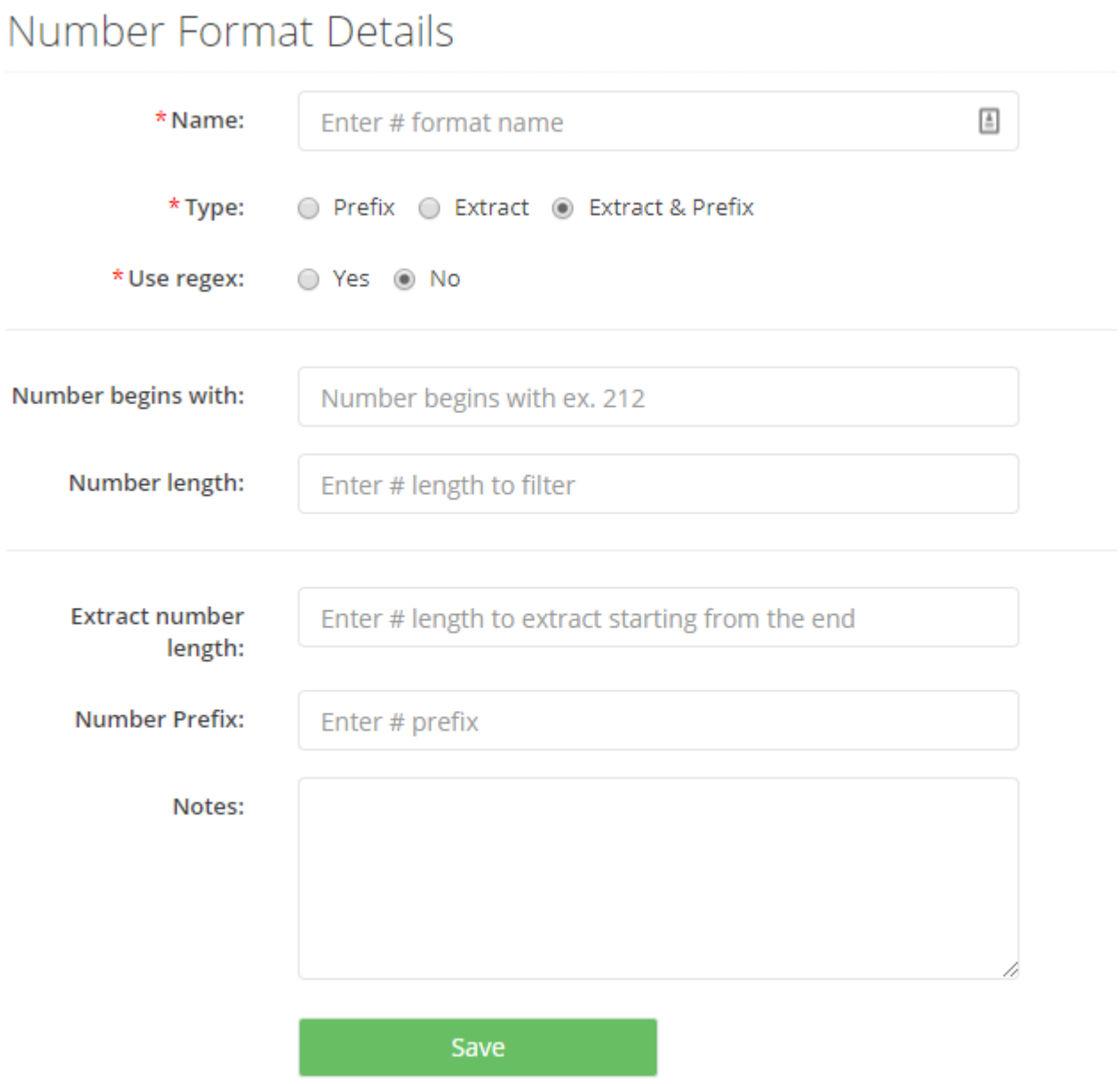
Number length: allows Administrators to set the number of digits that a directory number must contain in order for a Number format to apply.

***Note**: Number Formatting matches **Number begins with:** or **Number length**. If both fields are in use, Number Format will be applied to any directory number that matches either field.*

Extract number length: is the number of digits from a directory number that would be extracted for use starting from the last digit and going towards the first number.

5.11.1.3. 4.11.1.3. Extract & Prefix

Extract & Prefix allows Administrators to combine Prefix Number Formats and Extract Number Formats simultaneously.



Number begins with: allows Administrators to set a series of numbers, which must be matched in order for a Number Format to apply.

Number length: allows Administrators to set the number of digits that a directory number must contain in order for a Number format to apply.

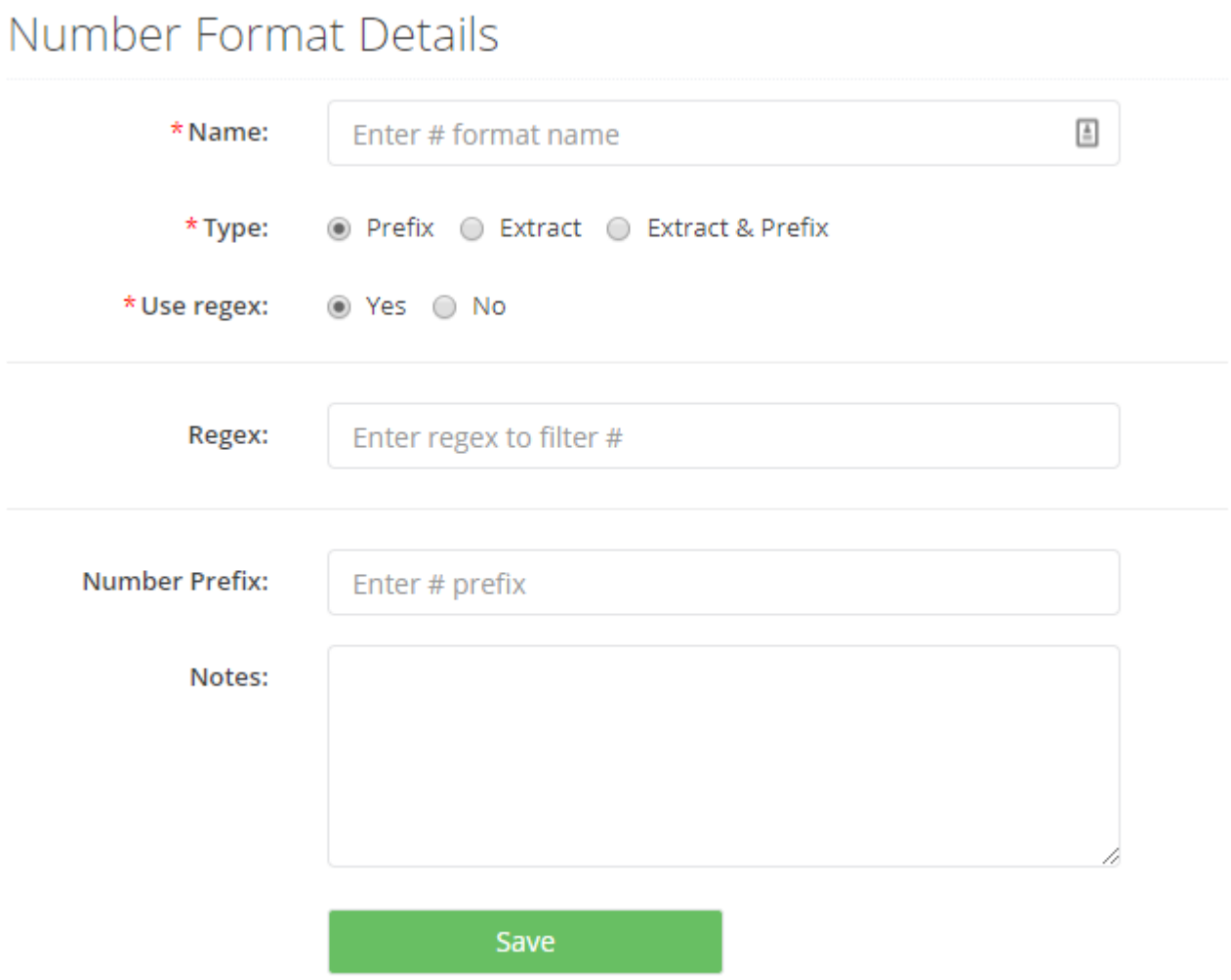
***Note**: Number Formatting matches **Number begins with:** or **Number length**. If both fields are in use, Number Format will be applied to any directory number that matches either field.*

Extract number length: is the number of digits from a directory number that would be extracted for use starting from the last digit and going towards the first number.

Number Prefix allows Administrators to select the prefix to be appended to a directory number that matches the Number Format.

5.11.1.4. 4.11.1.4. Using Regex

Number Format allows the use of regex to set the rules that must be matched when applying a Number Format. The **Number begins with:** and **Number Length:** fields are replaced with a **Regex:** field.

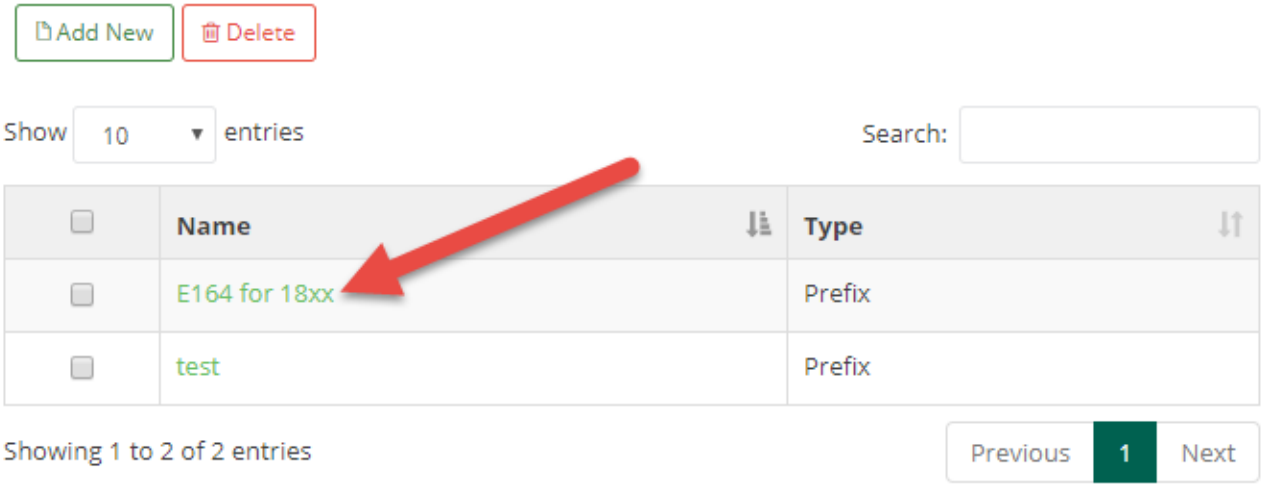


5.11.2. 4.11.2. Editing a Number Format

To edit a Number Format:

1. Select **Number Format** from the **Directory** menu

2. Click on an existing Number Format name.



Number Format Details

* Name: E164 for 18xx

* Type: (•) Prefix ( ) Extract ( ) Extract & Prefix

* Use regex: ( ) Yes (•) No

Number begins with: 18

Number length: 4

Number Prefix: +1347842

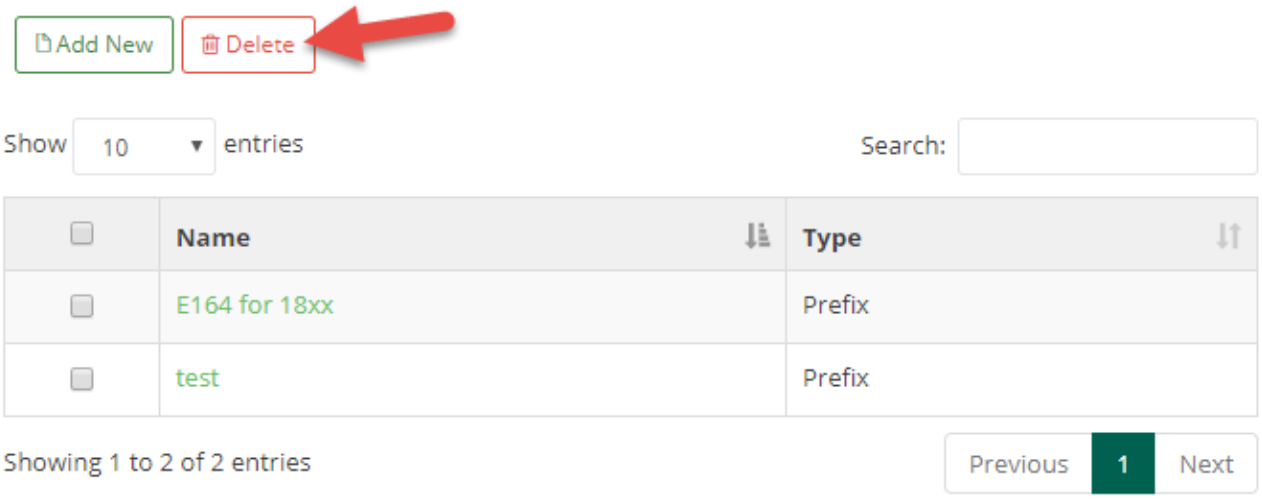
Notes:

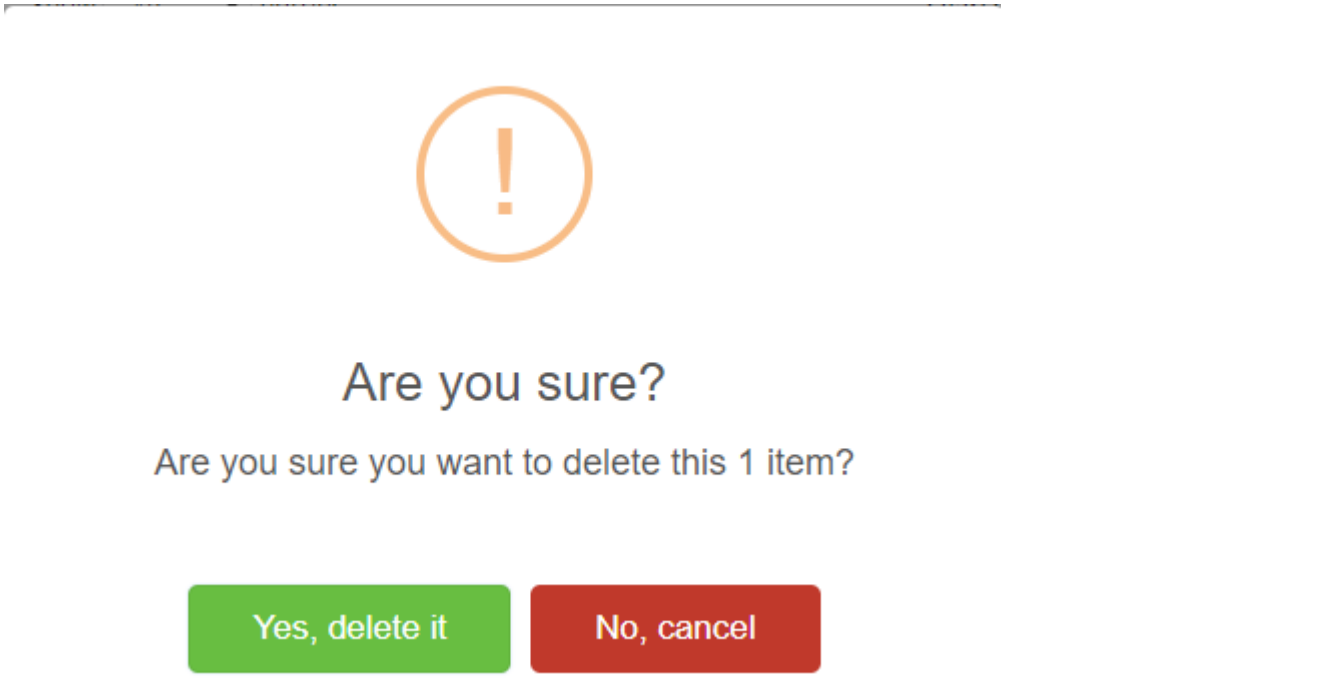
Save

5.11.3. 4.11.3. Deleting a Number Format

To delete a Number Format:

1. Select **Number Format** from the **Directory** menu
2. Click the checkbox next to the Number Formats to be deleted
3. Click **Delete**





Success
Selected number formats have been successfully deleted.

Add New Delete

Show 10 entries Search:

	Name	Type
	E164 for 18xx	Prefix

Showing 1 to 1 of 1 entries Previous 1 Next

5.11.4. 4.11.4. Adding a Number Format to a Data Source

To apply a Number Format to a Data Source:

1. Select **Data Source** from the **Directory** menu.
2. Select an existing **Data Source**
3. Click **Edit**
4. Select the drop down under the Main Number, Mobile Number, Other Number Columns.
5. Click **Save**

***Note**:After a Number Format has been applied, the **Data Source** needs to be synced again.*

5.12. 4.12. Placing calls using Contact Manager and Jabber

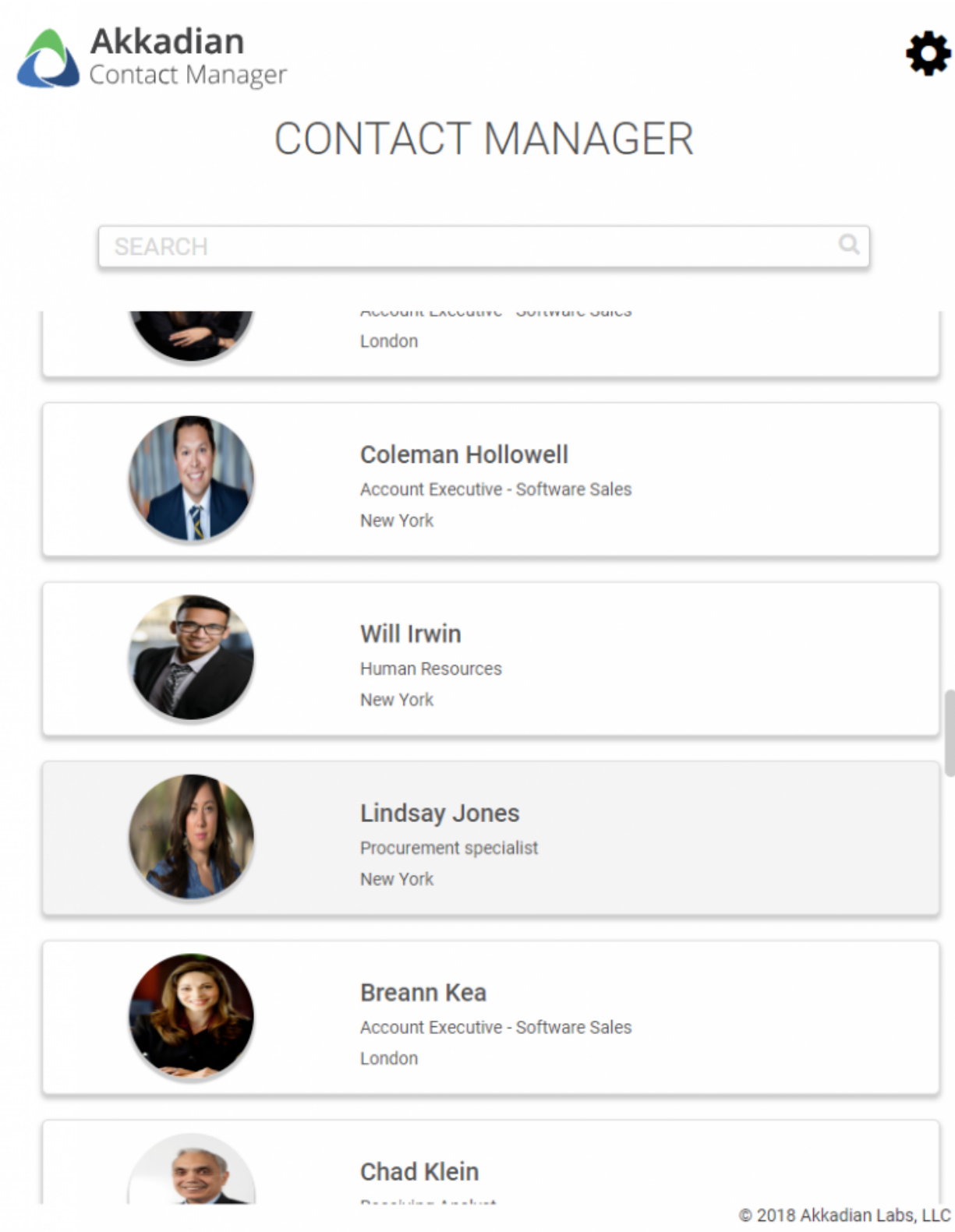
Contact Manager 3.5.14 now supports placing calls through Jabber from the web and mobile directories. When viewing a contact’s details, click on the phone icon to place a call.

5.12.1. 4.12.2. Placing a call

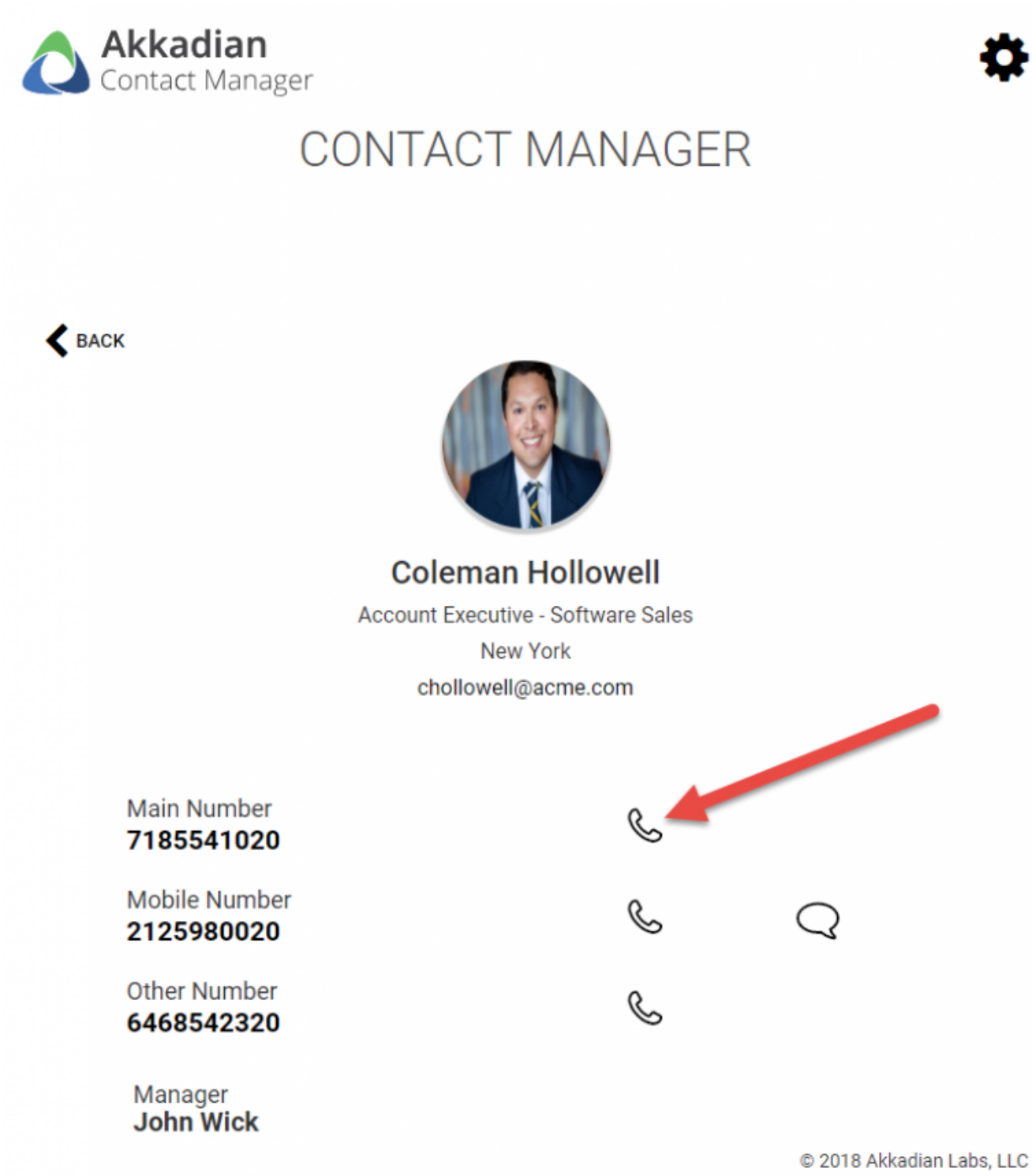
To place a call using Contact Manager and Jabber:

1. Log in to **https://{ HOSTNAME }/agd/mobile**

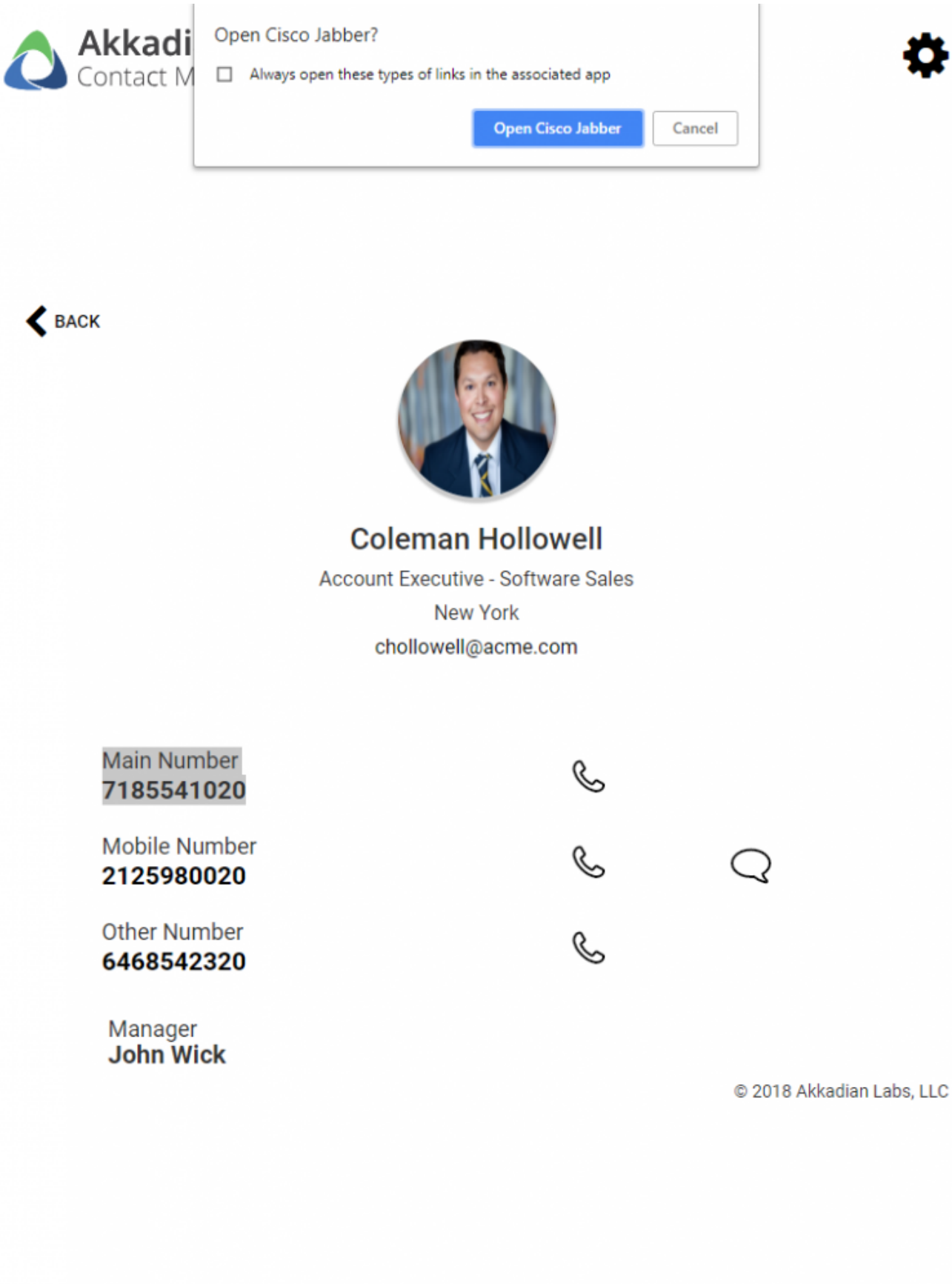
a. Alternatively **https://{HOSTNAME }/agd/mobile?service={ SERVICE NUMBER }** can be used as well.


Akkadian
Contact Manager
CONTACT MANAGER
SEARCH
London
Coleman Hollowell
Account Executive - Software Sales
New York
Will Irwin
Human Resources
New York
Lindsay Jones
Procurement specialist
New York
Breann Kea
Account Executive - Software Sales
London
Chad Klein
© 2018 Akkadian Labs, LLC

2. Select the contact that you wish to call.


Akkadian
Contact Manager
CONTACT MANAGER
BACK
Coleman Hollowell
Account Executive - Software Sales
New York
chollowell@acme.com
Main Number
7185541020
Mobile Number
2125980020
Other Number
6468542320
Manager
John Wick
© 2018 Akkadian Labs, LLC

3. Click on the phone icon


Akkadi
Contact M
Open Cisco Jabber?
Always open these types of links in the associated app
Open Cisco Jabber
Cancel
BACK
Coleman Hollowell
Account Executive - Software Sales
New York
chollowell@acme.com
Main Number
7185541020
Mobile Number
2125980020
Other Number
6468542320
Manager
John Wick
© 2018 Akkadian Labs, LLC

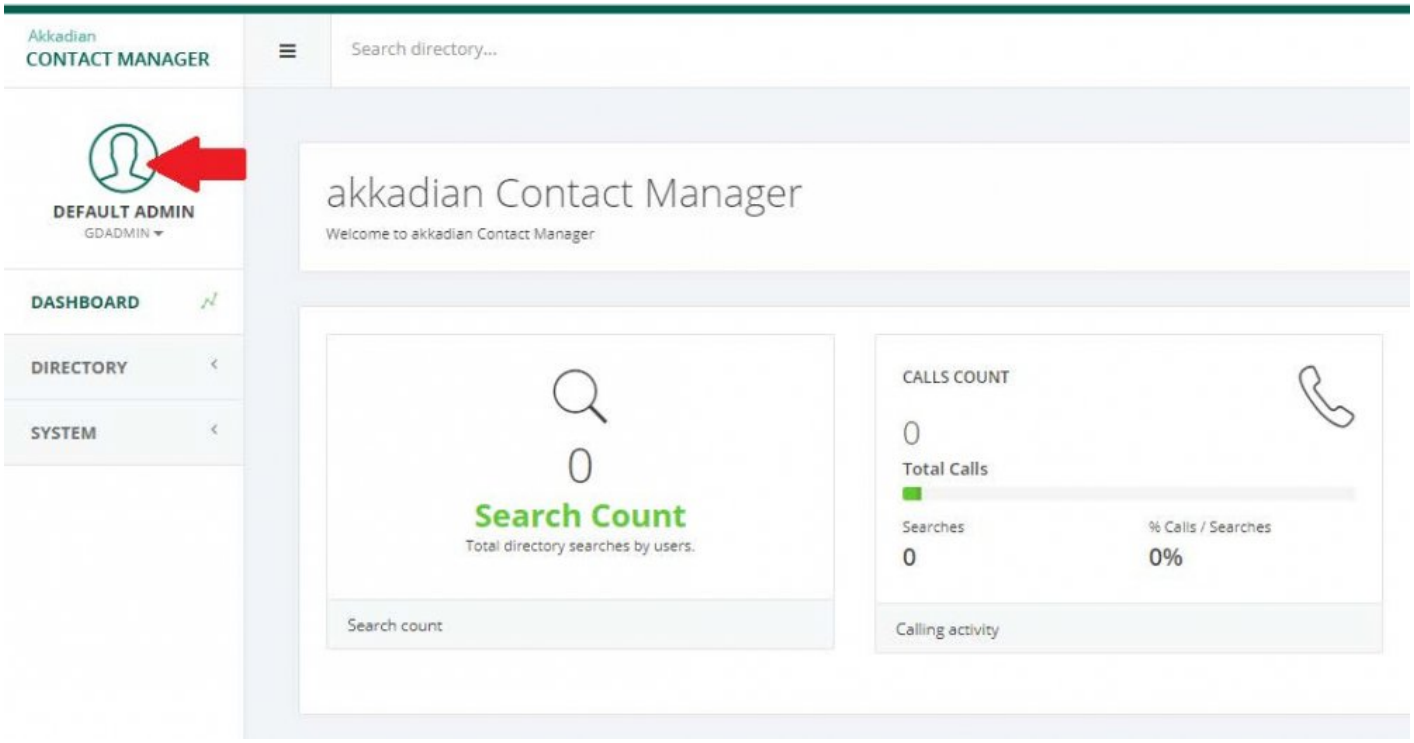
***Note**: Different clients approach this differently. See below for details.*

- When using the web directory via a computer's browser, you may be prompted to select a default application or launch Cisco Jabber.
- When using Android and the mobile directory, you may be prompted to select the default calling app.
- When using iOS and the mobile directory, Jabber will automatically launch and place a call if the Jabber app is already installed.

6. 5. User Profile

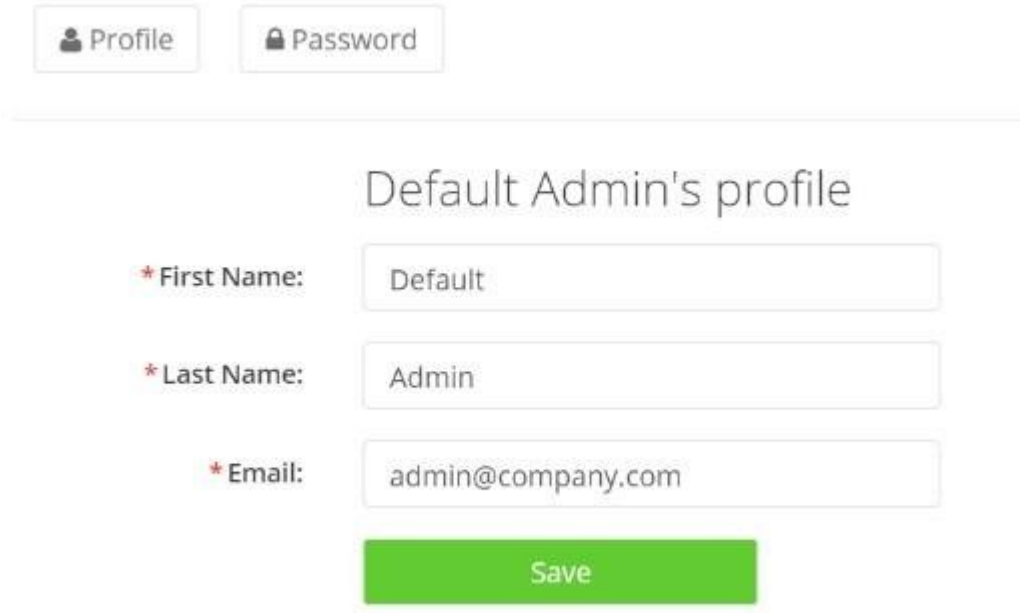
6.1. 5.1. Edit Administrator User Profile

1. After logging in to Akkadian Contact Manager click on user profile image
2. Update Profile as needed and save

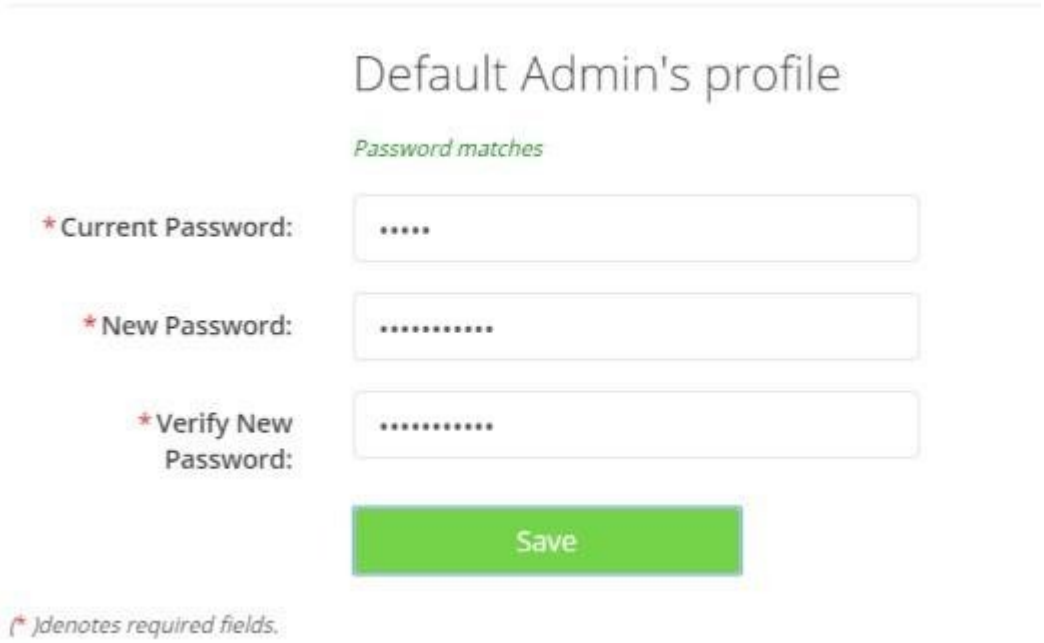


6.2. 5.2. Change Administrator User Password

1. After logging in to Akkadian Contact Manager click on user profile image



2. Enter current password, enter new password and hit tab key to navigate to the **Verify New Password** field.


Default Admin's profile
Password matches
* Current Password:
* New Password:
* Verify New Password:
Save
(*)denotes required fields.

3. Click **Save**

7. Glossary

Authentication URL

Corresponds to the URL authentication in CUCM located under the Enterprise Parameters Configuration. This URL is used to authenticate devices accessing the Contact Manager.

Cisco UDS

User Data Services (UDS) API is a REST-based set of operations that provide authenticated access to user resources and entities such as user's devices, subscribed services, speed dials, and much more from the Unified Communications configuration database.

CSV

Comma-separated values. Contact Manager can be configured to use a CSV for importing directory information. A template of the file can be obtained when the CSV option is selected when adding csv data source.

CUCM

Cisco Unified Communications Manager. The link to CUCM and Contact Manager is via the Services URL which should be populated in Call Manager. In addition, phone and CUCM authentication between the Contact Manager Server is required in order to publish directory settings on individual phones.

Dial Rules

Dial rules can be enables to enforce call routing rules. Creating dial rules in Contact Manager will enable more efficient enforcement of call routing using a customer's WAN. This may, in many cases prevent calls from being routed out through the PSTN.

LDAP

Lightweight Directory Access Protocol. Contact Manager can be configured to use LDAP for its directory source. A directory can be created on the entire directory, an individual, or set of "ou"s, or on a subset using filtering.

Login/Admin Roles

Login: Allows access only to the Directory Tab. Admin: Allows access to both the Directory and System Tab to enable changes for GD.

MSSQL

Microsoft SQL server. Contact Manager can be configured to import directories directly from MSSQL.

Publisher

This is the central Global Director server. When enabled in a multi-server configuration, this server is used to centrally administer directories, users, and URL's.

Service URL

This is the URL that constitutes the service representing a directory. Each directory will have its own unique Service URL. This will translate to an individual directory on the end user's phone.

Subscriber

The subscriber is a secondary Contact Manager server. It will pull its data either transnationally, or on a defined schedule from the Publisher.This is the URL that constitutes the service representing a directory. Each directory will have its own unique Service URL. This will translate to an individual directory on the end user's phone.