

Akkadian Contact Manager

3.5.0 — Last update: 2018/08/24

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

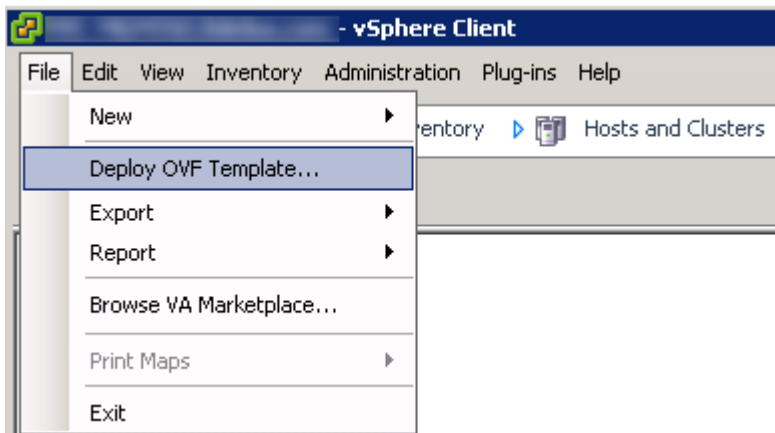
Akkadian Contact Manager communicates on the following ports:

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

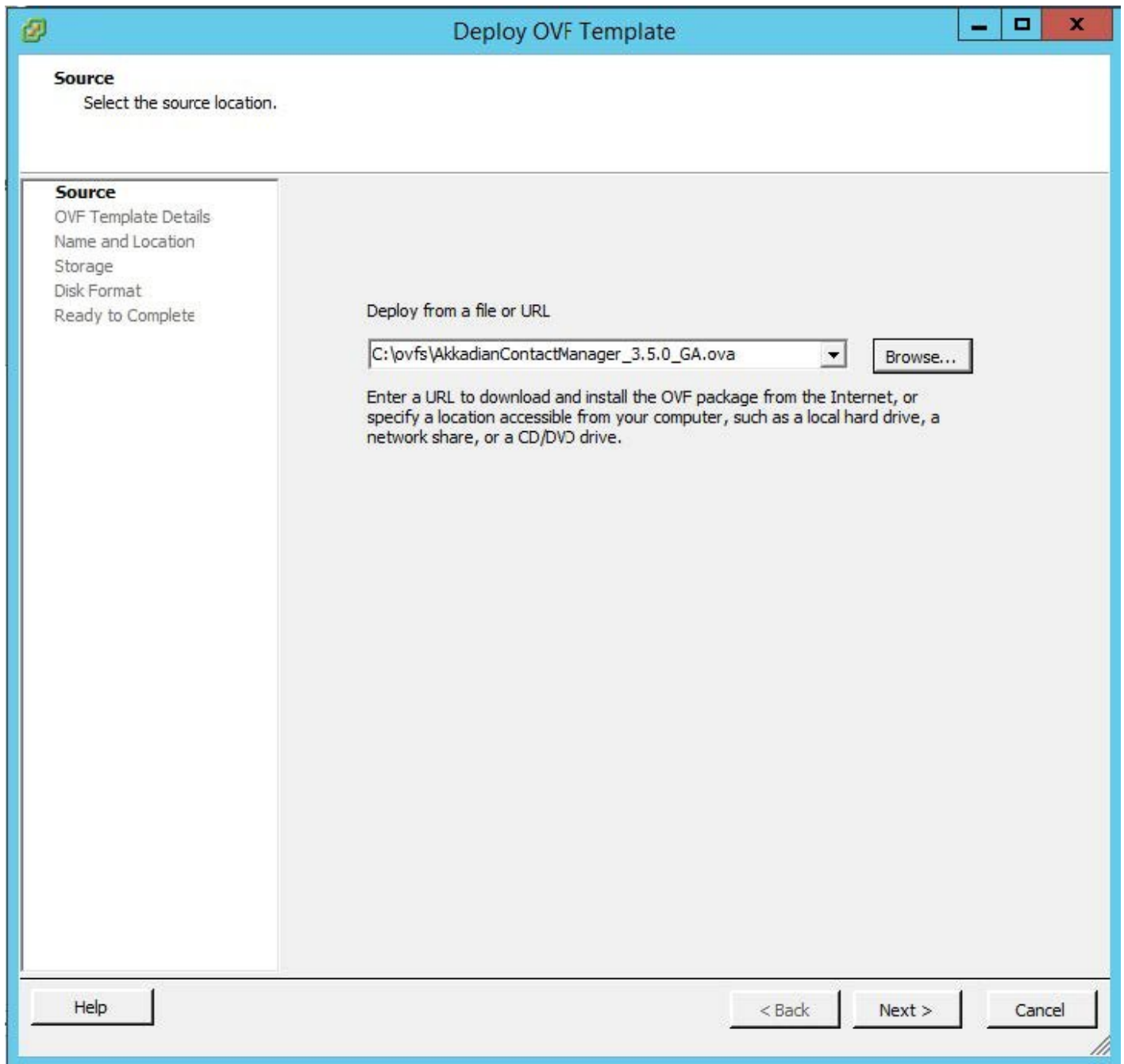
3. 2. Virtual Appliance Deployment

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.



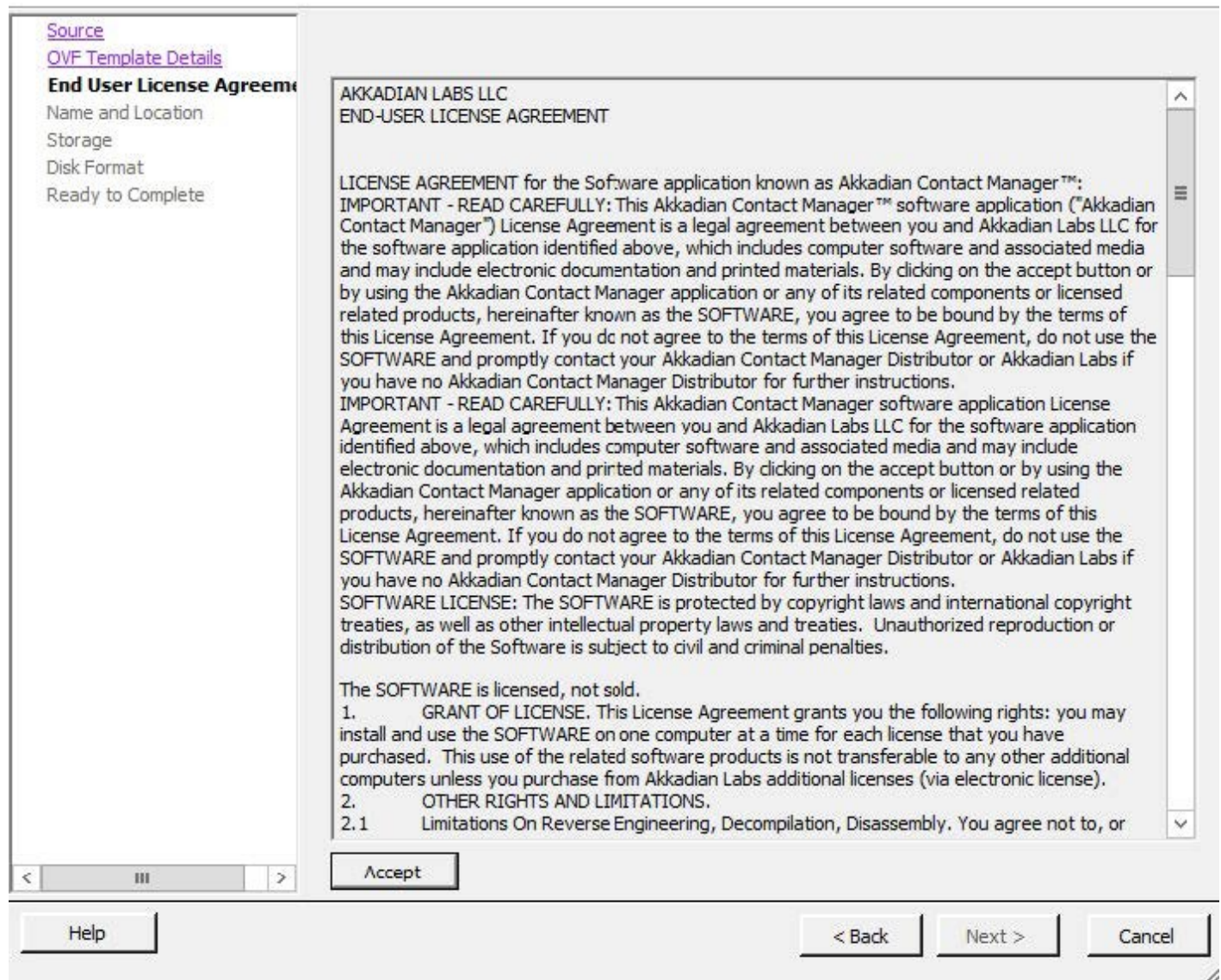
3. Select the OVA from computer or network location and click Next to continue.



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

End User License Agreement

Accept the end user license agreements.



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

The screenshot shows a Windows-style window titled "Deploy OVF Template". The window has a standard title bar with minimize, maximize, and close buttons. The main content area is divided into a left sidebar and a main panel. The sidebar contains a tree view with the following items: "Source" (with a sub-item "OVF Template Details"), "End User License Agreement", "Name and Location" (which is the current step and is expanded to show "Host / Cluster", "Resource Pool", "Disk Format", and "Ready to Complete"), and "Help". The main panel has a heading "Name and Location" with the instruction "Specify a name and location for the deployed template". It contains a "Name:" label followed by a text input field containing "akkadian Contact Manager". Below this is a note: "The name can contain up to 80 characters and it must be unique within the inventory folder." Below that is an "Inventory Location:" label followed by a large, empty text area. At the bottom of the window, there are three buttons: "Help", "< Back", and "Next >", and a "Cancel" button on the far right.

Deploy OVF Template

Name and Location
Specify a name and location for the deployed template

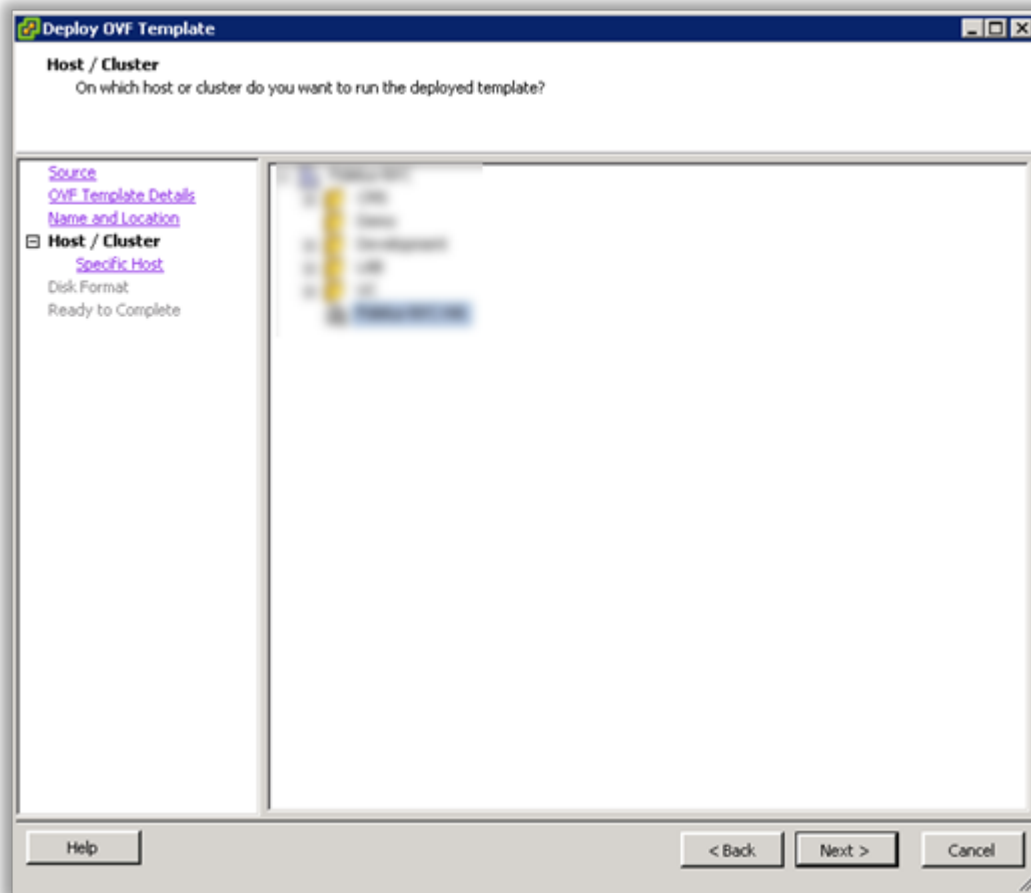
[Source](#)
[OVF Template Details](#)
[End User License Agreement](#)
Name and Location
+ [Host / Cluster](#)
Resource Pool
Disk Format
Ready to Complete

Name:
akkadian Contact Manager
The name can contain up to 80 characters and it must be unique within the inventory folder.

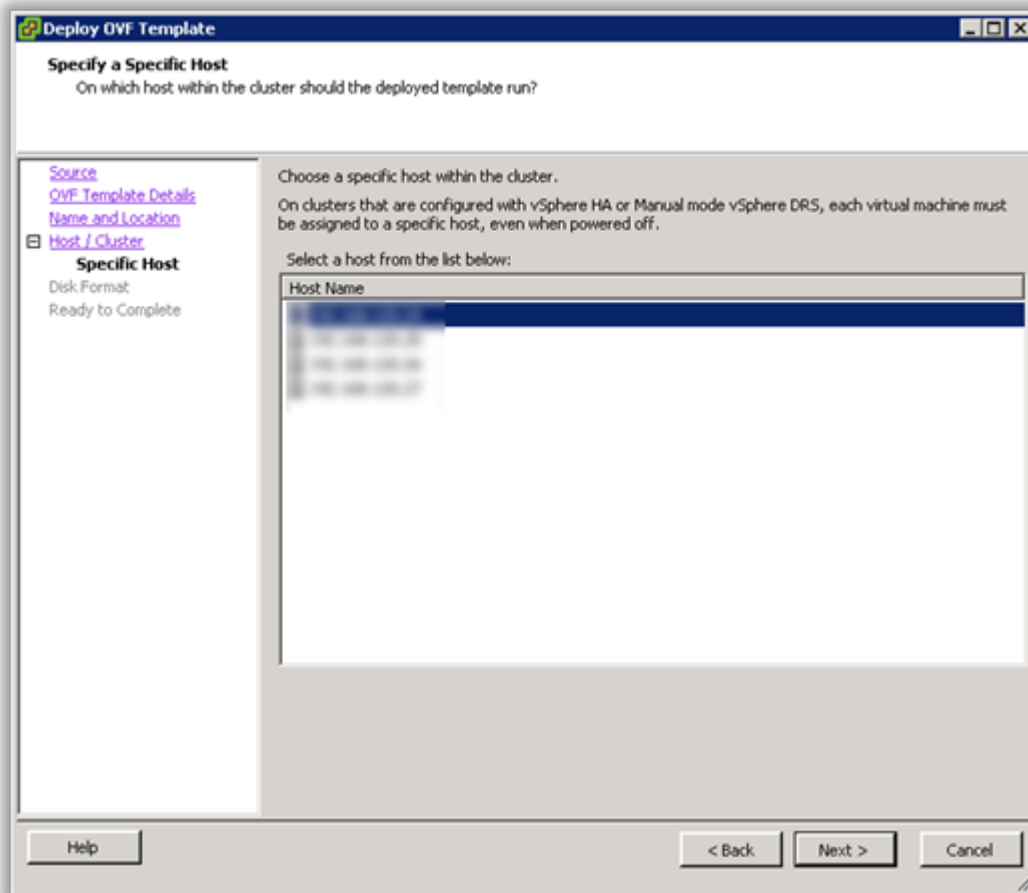
Inventory Location:

[Help](#) < Back Next > Cancel

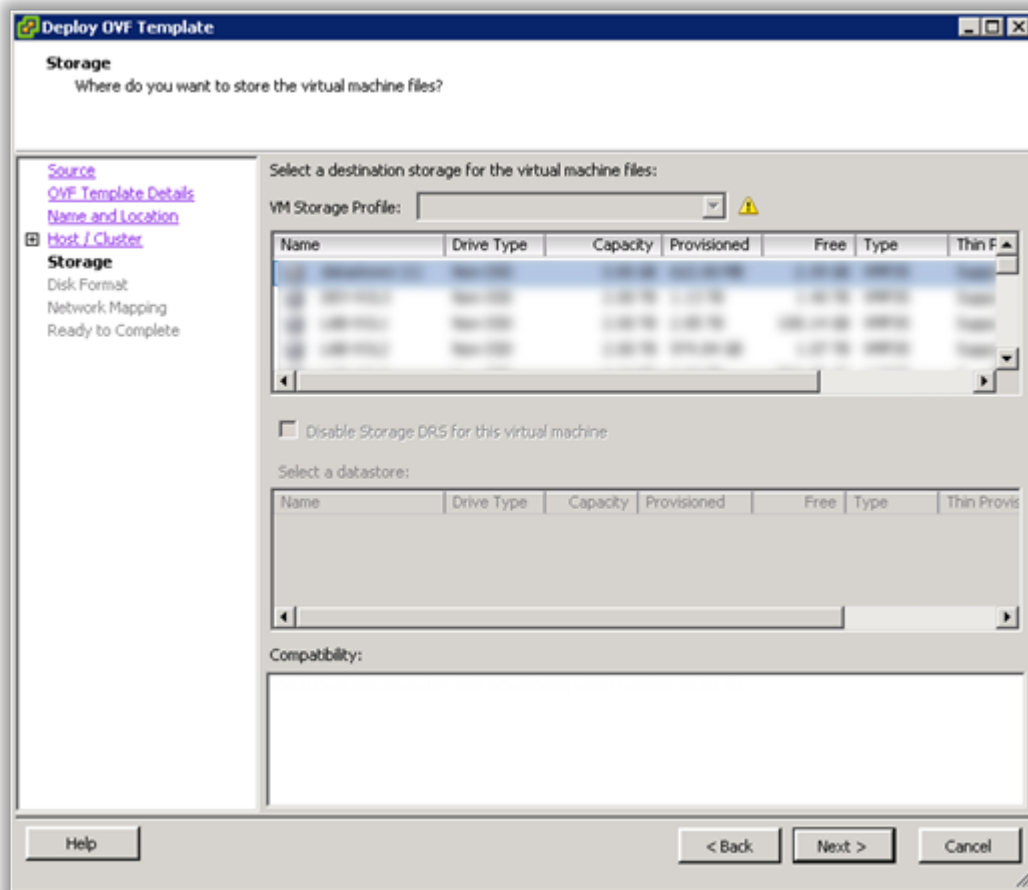
6. Specify the VMware Host / Cluster and click **Next** to continue.



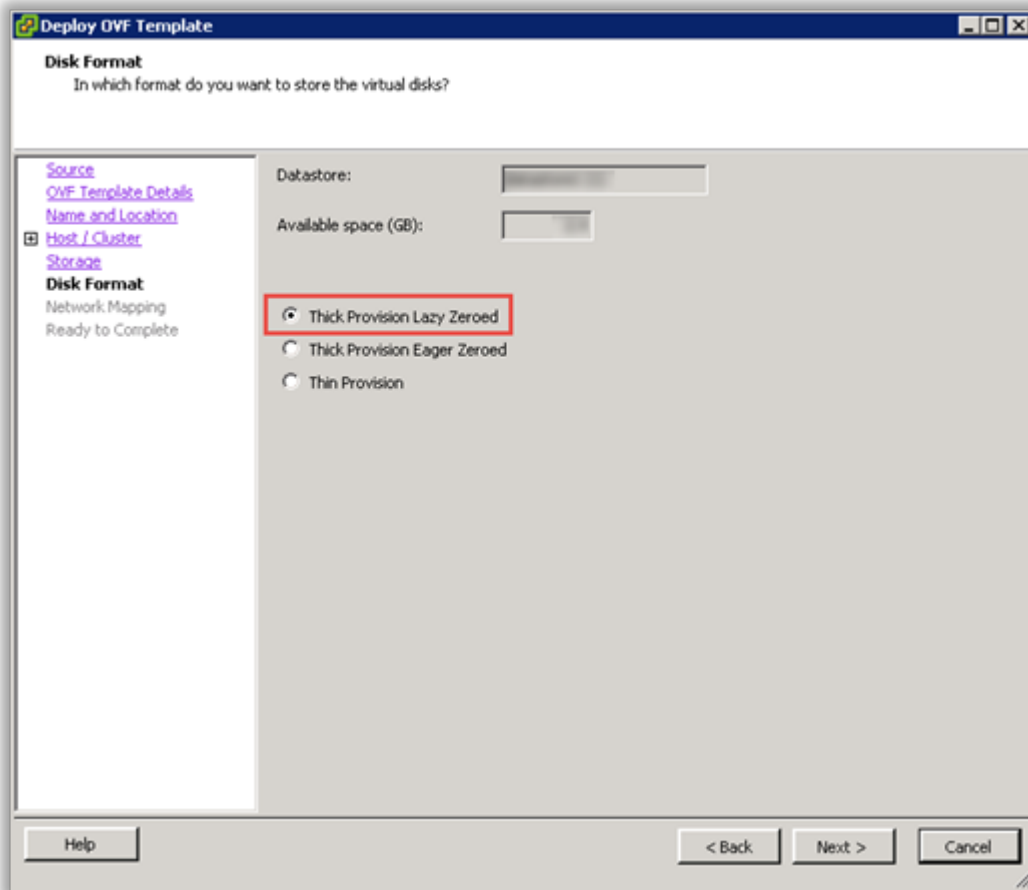
7. Specify a host within the cluster and click Next to continue.



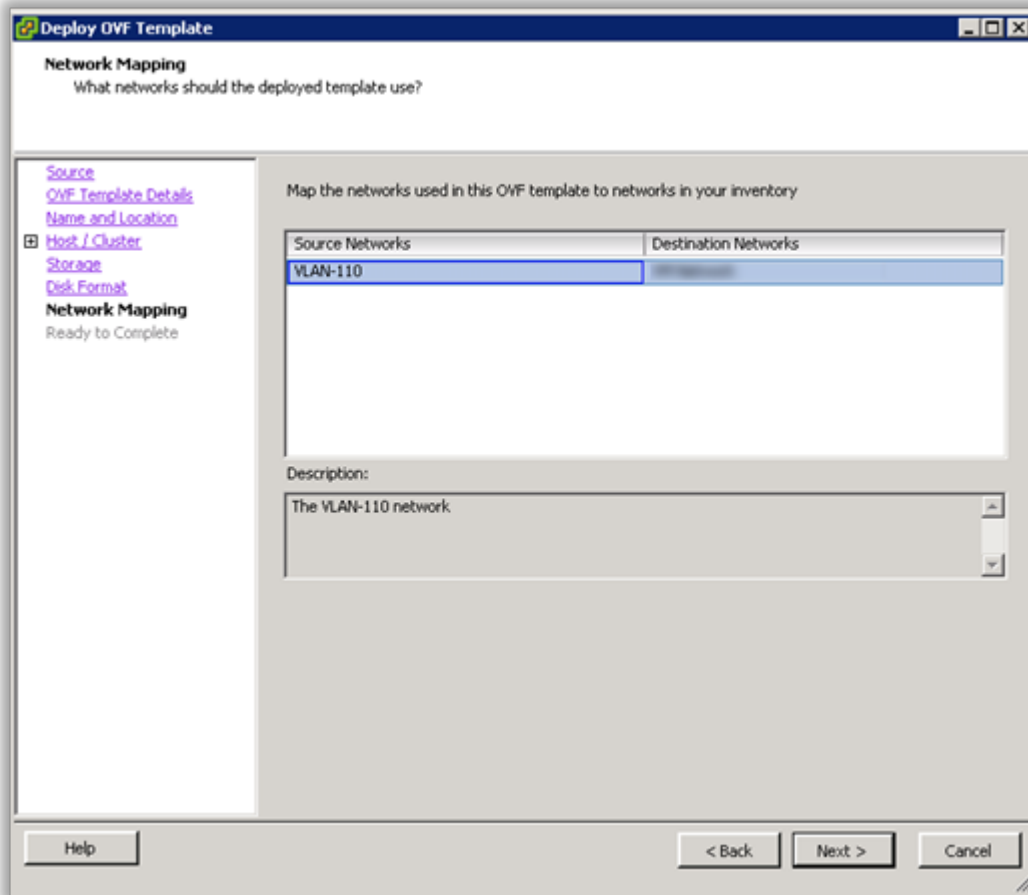
8. Specify the storage location for the virtual machine and click Next to continue.



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



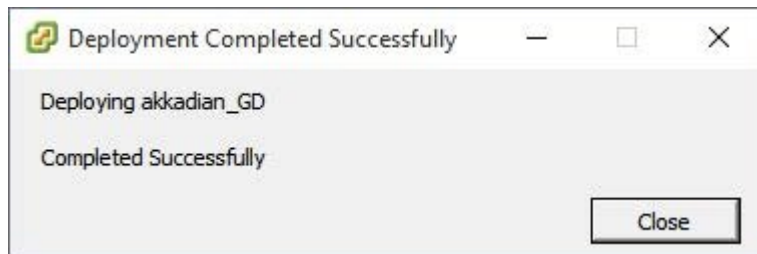
10. Select the Destination Network for the virtual machine and click Next to continue.



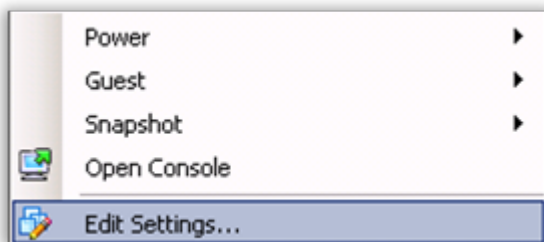
11. Verify the virtual machine settings. The initial OVA deploys with 2 vCPU and 8GB Memory. Depending on your system requirements, you may need to adjust the virtual CPU and Memory settings. Please refer to the [virtual machine requirements](#) to determine the appropriate settings for your environment.



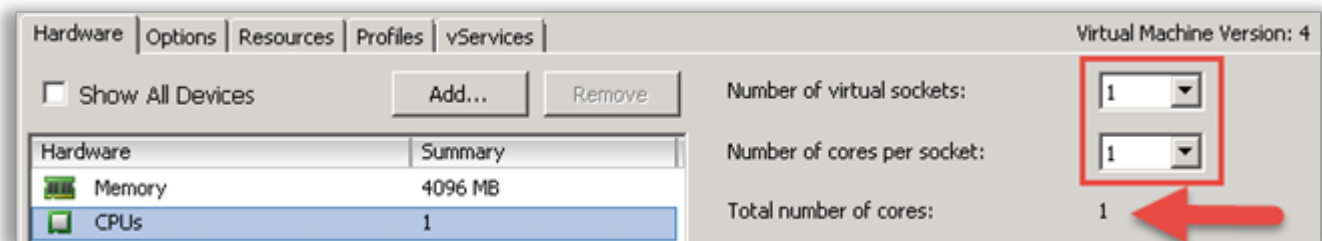
12. Click OK to complete the deployment.



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.

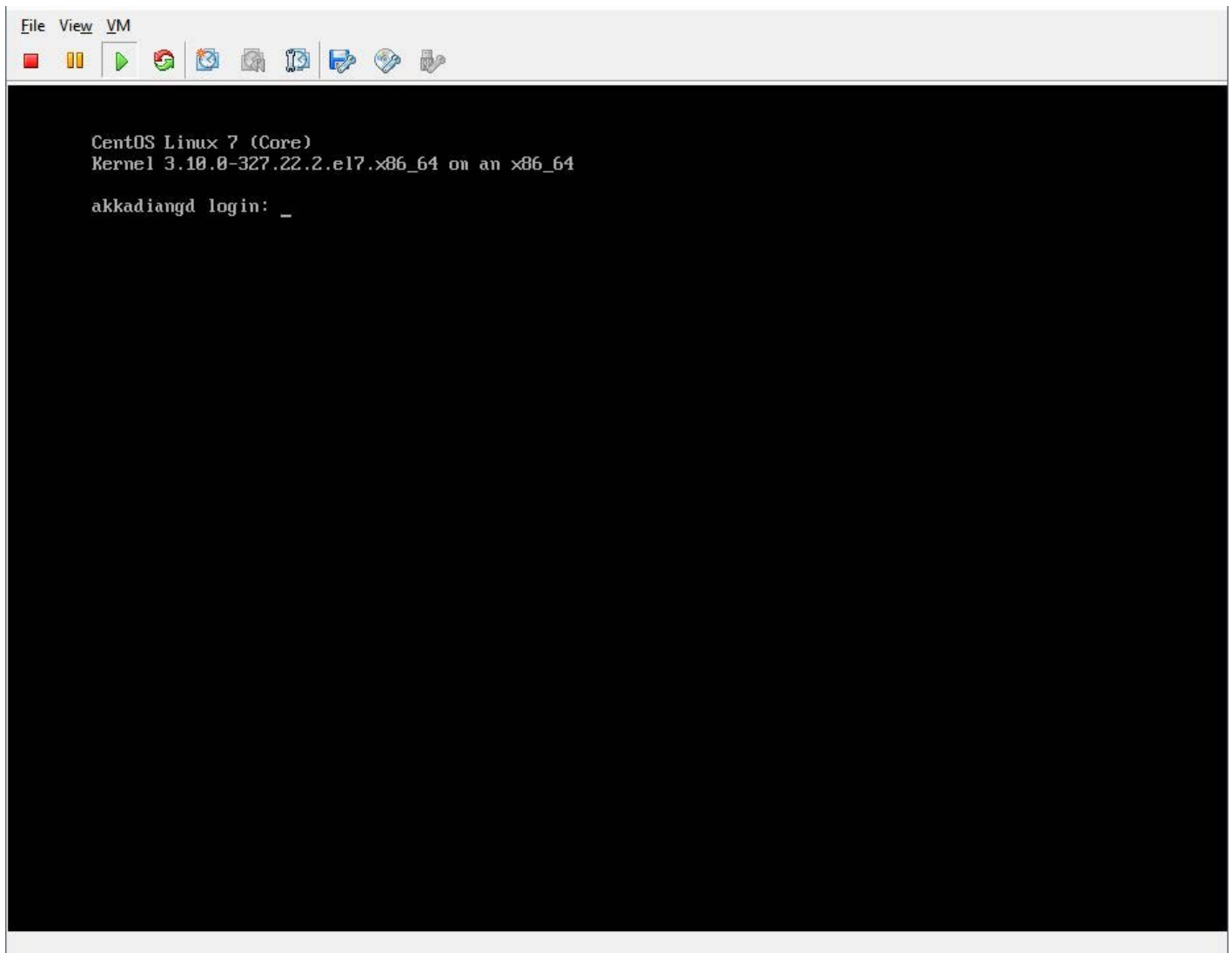


14. On the Hardware tab, select CPU and adjust the setting to provide the required number of cores for your environment.

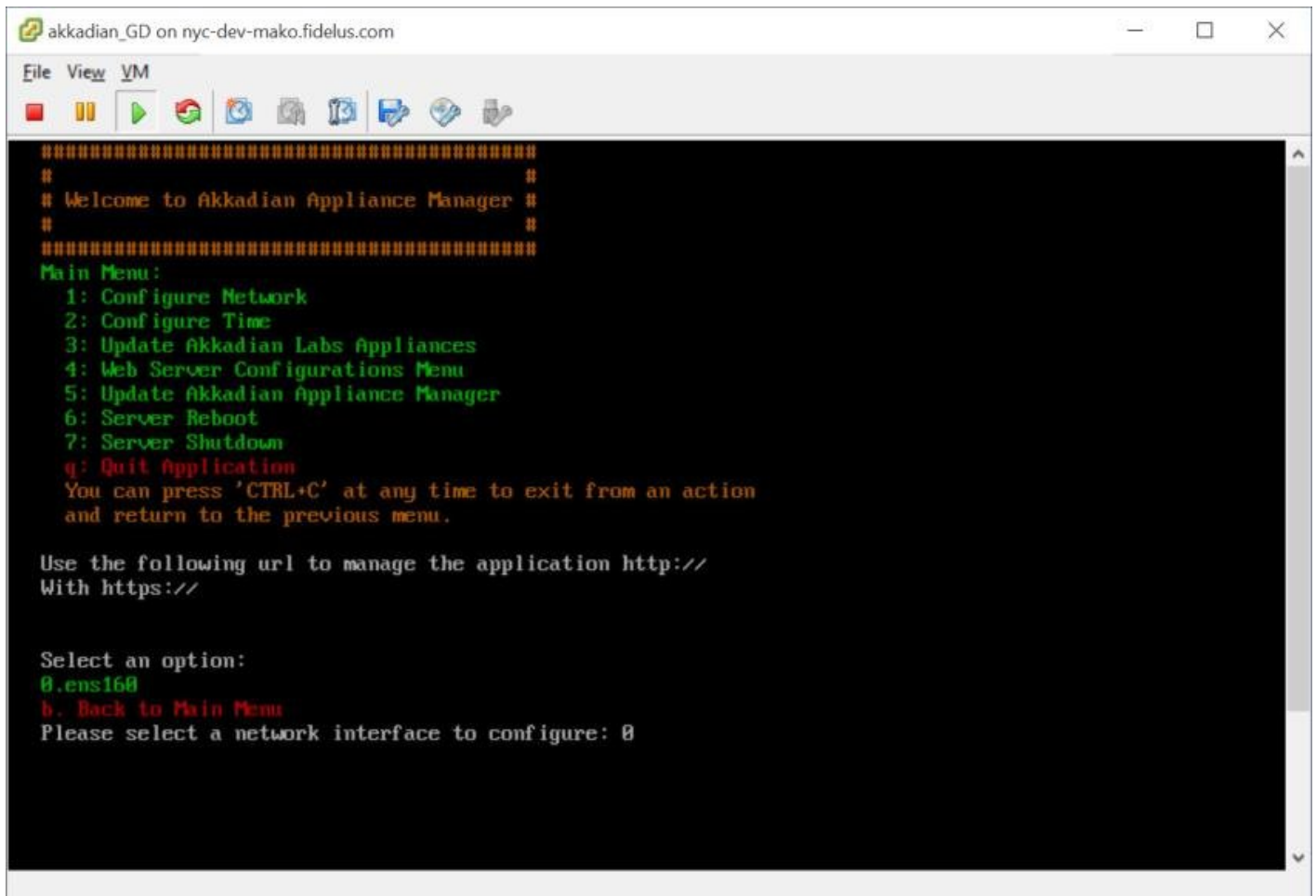


15. After adjusting the CPU, click on Memory and adjust the settings to provide the required resources for your environment. When completed, click OK to commit the changes.
16. Power on the virtual machine and proceed.
17. Locate the virtual machine in vSphere and open a console.
18. When the server boot process is complete, the system will arrive at a login prompt. Login using:

Username	akkadianuser
Password	akkadianpassword



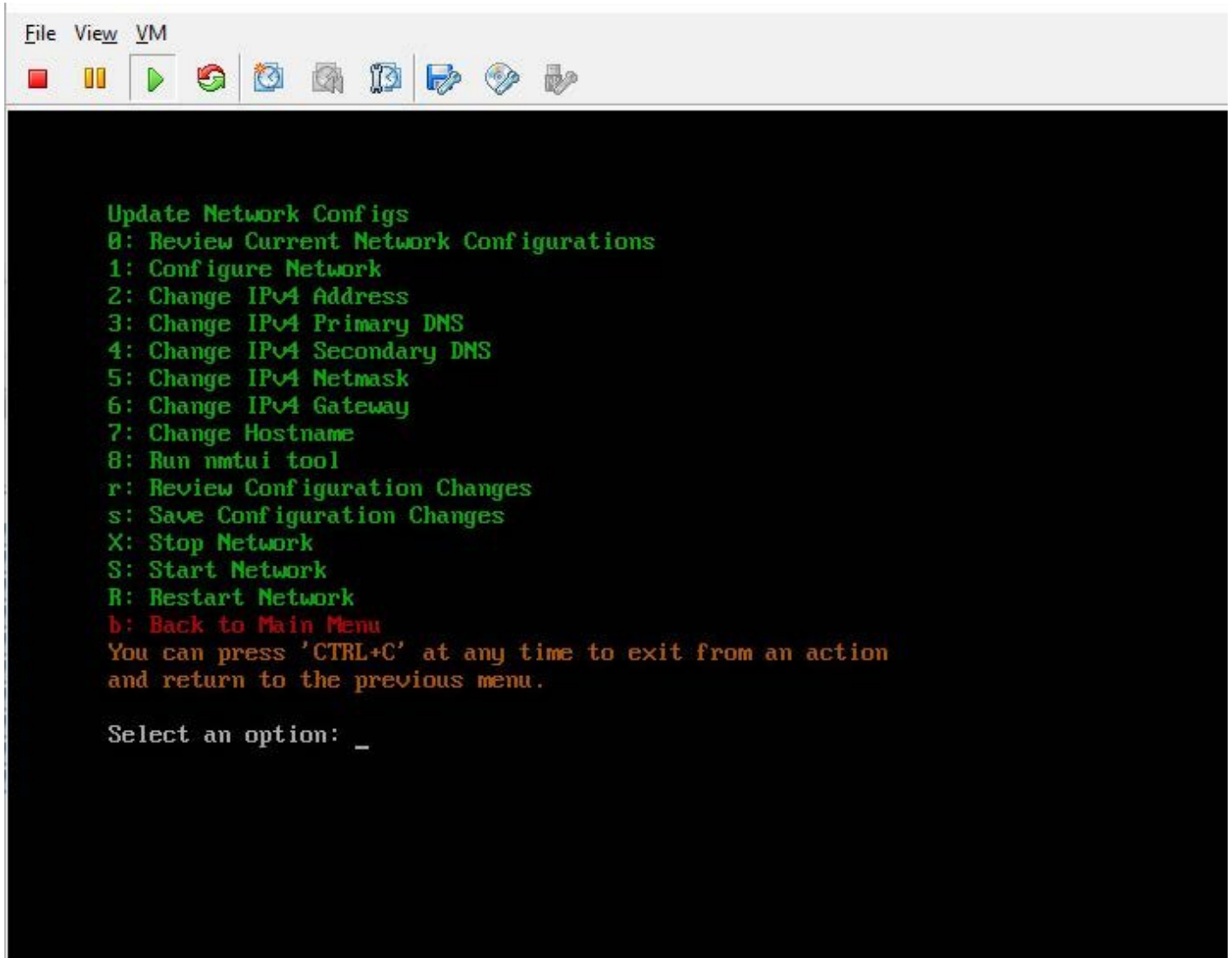
19. From the Akkadian Appliance Manager main menu, select option 1 to Configure Network.



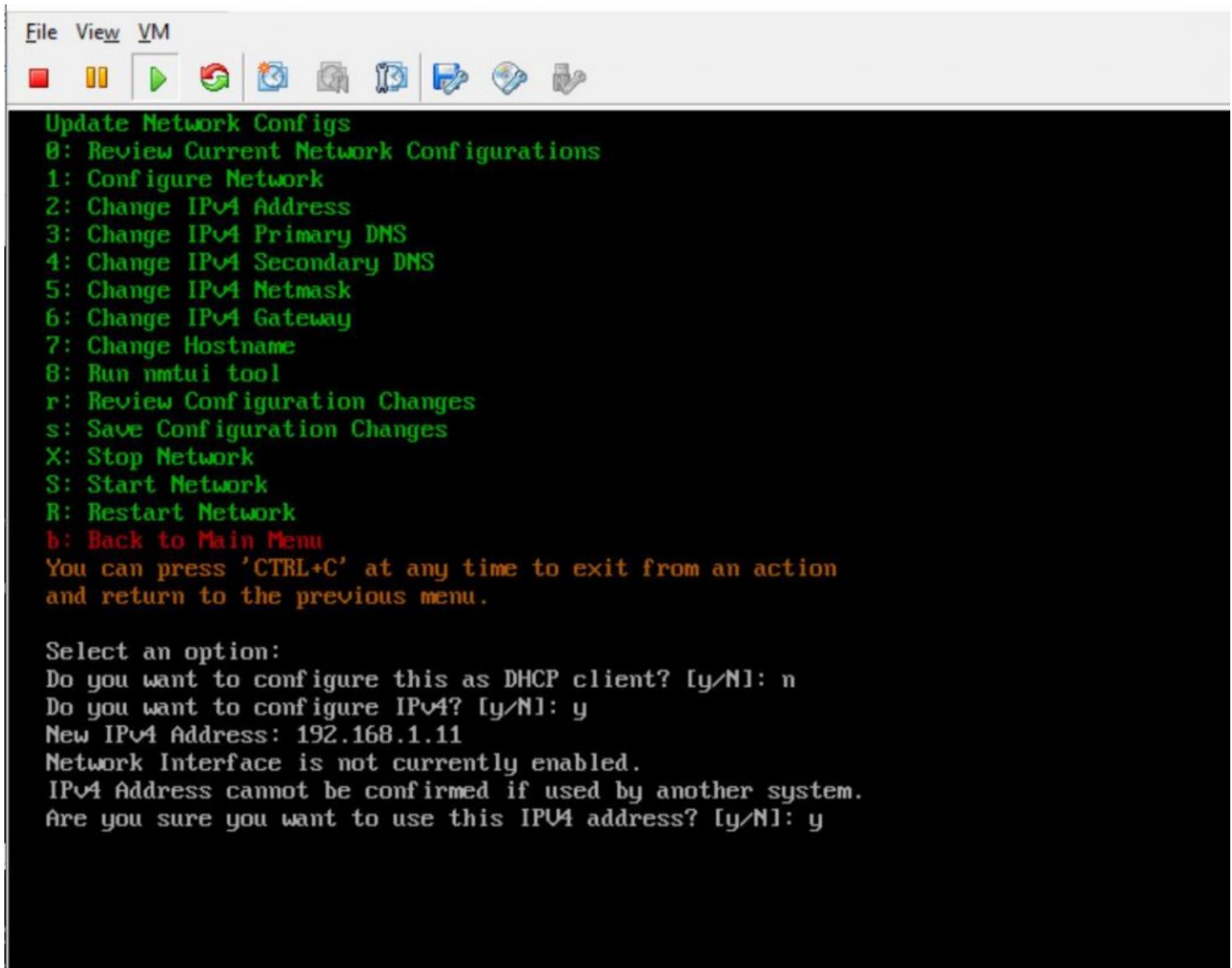
The screenshot shows a terminal window titled "akkadian_GD on nyc-dev-mako.fidelus.com". The terminal displays the "Main Menu" of the Akkadian Appliance Manager. The menu options are listed in green text: 1: Configure Network, 2: Configure Time, 3: Update Akkadian Labs Appliances, 4: Web Server Configurations Menu, 5: Update Akkadian Appliance Manager, 6: Server Reboot, 7: Server Shutdown, and q: Quit Application. Below the menu, there is a message in orange text: "You can press 'CTRL+C' at any time to exit from an action and return to the previous menu." followed by instructions on how to manage the application using http:// or https://. The prompt "Select an option:" is shown, and the user has entered "0.ens160". Below this, the prompt "Please select a network interface to configure:" is shown, and the user has entered "0".

```
#####  
#  
# Welcome to Akkadian Appliance Manager #  
#  
#####  
Main Menu:  
  1: Configure Network  
  2: Configure Time  
  3: Update Akkadian Labs Appliances  
  4: Web Server Configurations Menu  
  5: Update Akkadian Appliance Manager  
  6: Server Reboot  
  7: Server Shutdown  
  q: Quit Application  
  You can press 'CTRL+C' at any time to exit from an action  
  and return to the previous menu.  
  
Use the following url to manage the application http://  
With https://  
  
Select an option:  
0.ens160  
b. Back to Main Menu  
Please select a network interface to configure: 0
```

20. Select option 1 to configure the network setting.



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



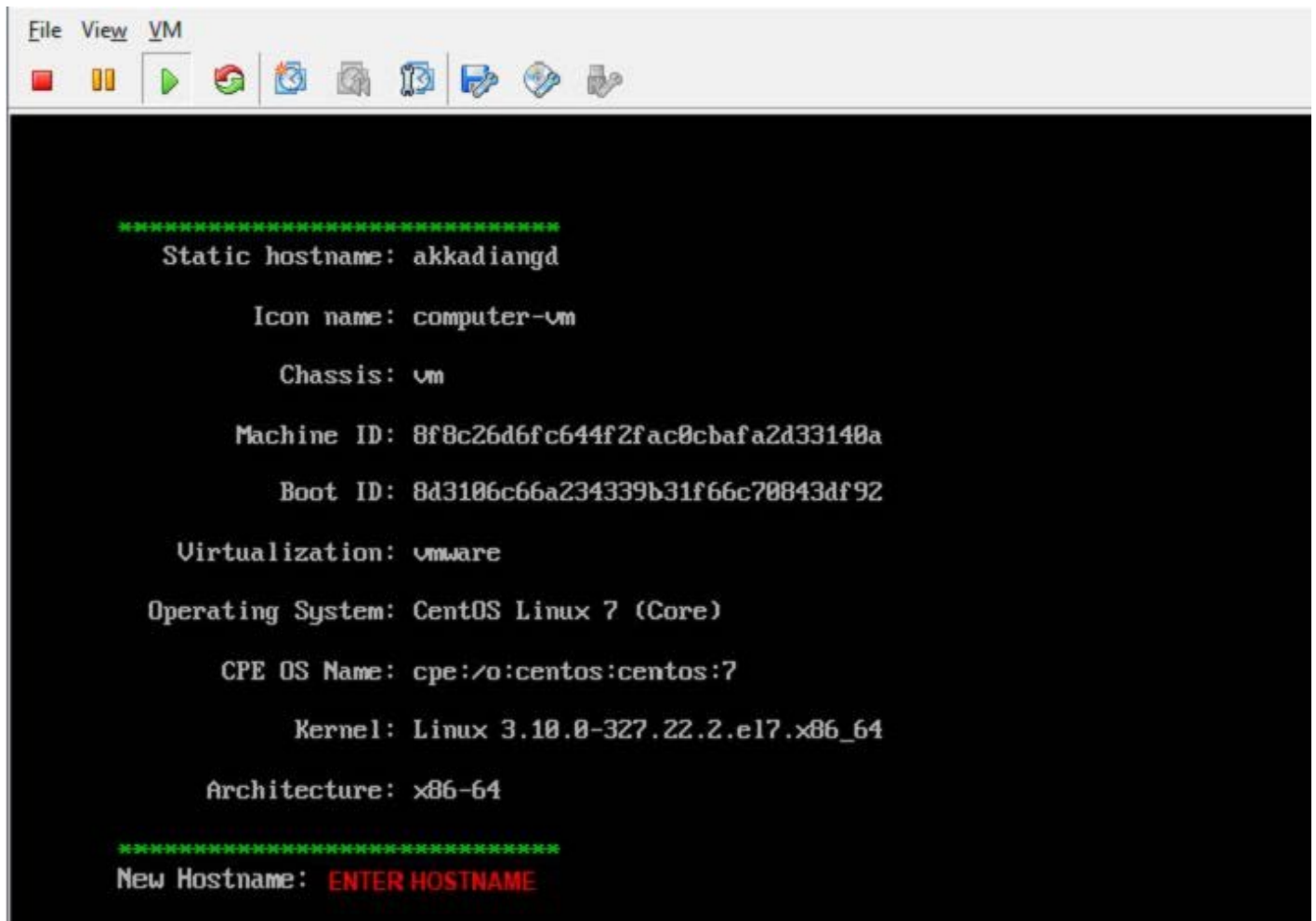
```
File View VM
[Icons]

Update Network Configs
0: Review Current Network Configurations
1: Configure Network
2: Change IPv4 Address
3: Change IPv4 Primary DNS
4: Change IPv4 Secondary DNS
5: Change IPv4 Netmask
6: Change IPv4 Gateway
7: Change Hostname
8: Run nmtui tool
r: Review Configuration Changes
s: Save Configuration Changes
X: Stop Network
S: Start Network
R: Restart Network
b: Back to Main Menu
You can press 'CTRL+C' at any time to exit from an action
and return to the previous menu.

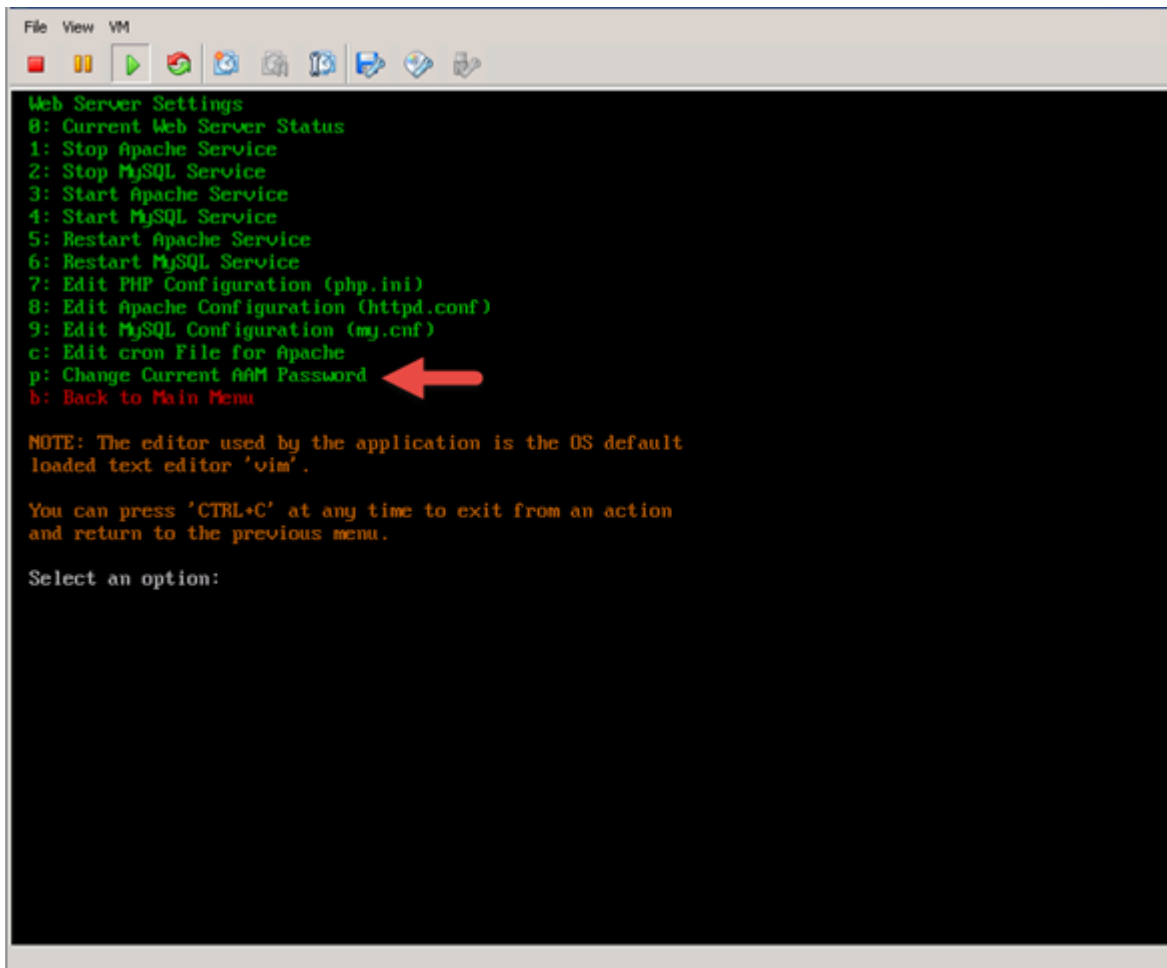
Select an option:
Do you want to configure this as DHCP client? [y/N]: n
Do you want to configure IPv4? [y/N]: y
New IPv4 Address: 192.168.1.11
Network Interface is not currently enabled.
IPv4 Address cannot be confirmed if used by another system.
Are you sure you want to use this IPV4 address? [y/N]: y
```

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 from 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).



```
File View VM
Web Server Settings
0: Current Web Server Status
1: Stop Apache Service
2: Stop MySQL Service
3: Start Apache Service
4: Start MySQL Service
5: Restart Apache Service
6: Restart MySQL Service
7: Edit PHP Configuration (php.ini)
8: Edit Apache Configuration (httpd.conf)
9: Edit MySQL Configuration (my.cnf)
c: Edit cron File for Apache
p: Change Current AAM Password
b: Back to Main Menu

NOTE: The editor used by the application is the OS default
loaded text editor 'vim'.

You can press 'CTRL+C' at any time to exit from an action
and return to the previous menu.

Select an option:
```

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

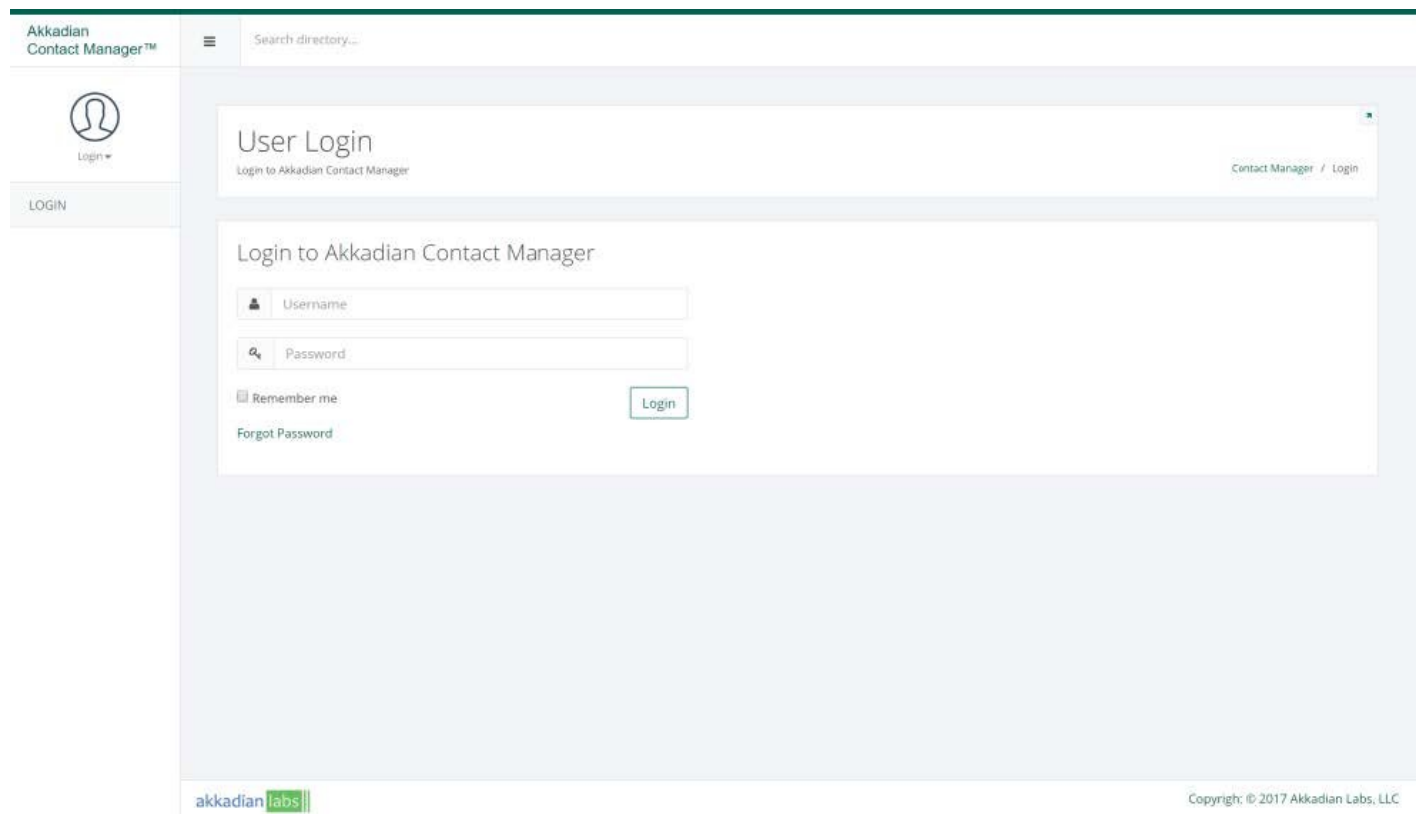
4.1. 3.1. Logging into Akkadian Contact Manager

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)

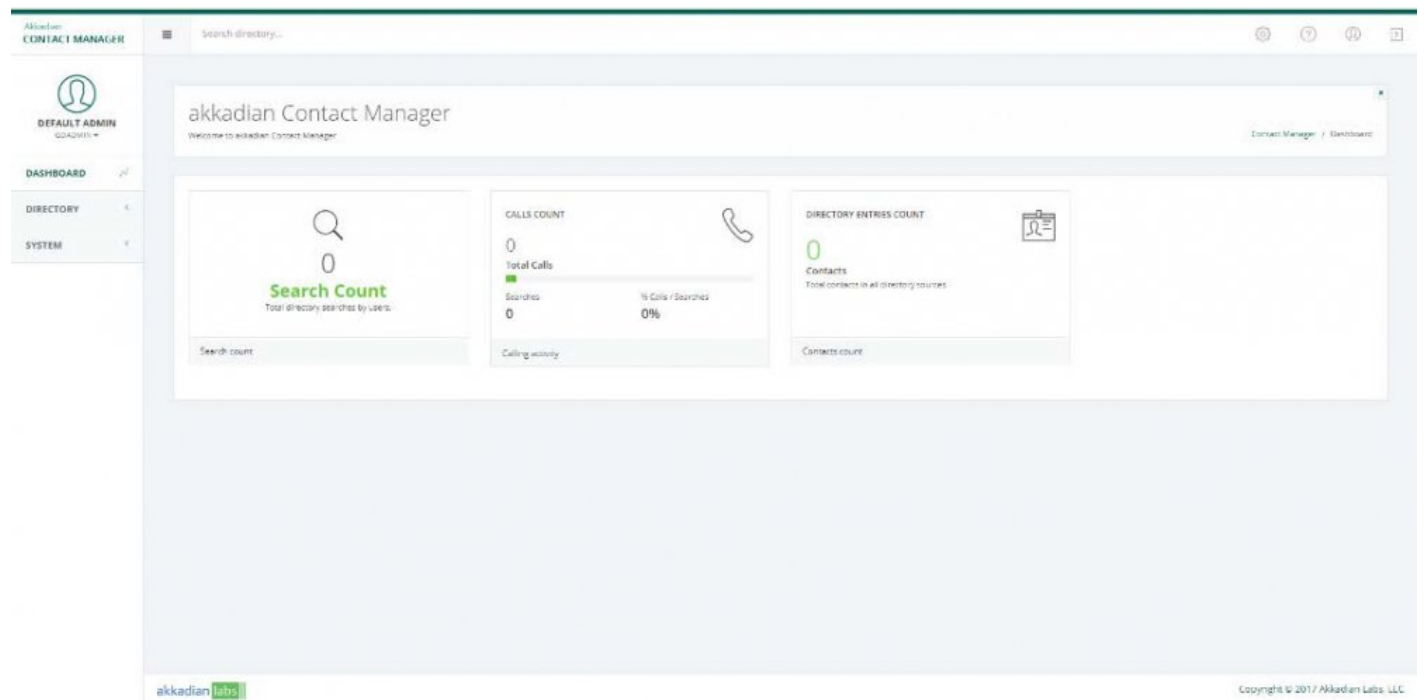


The screenshot shows the Akkadian Contact Manager login interface. On the left is a sidebar with the Akkadian Contact Manager logo and a 'LOGIN' button. The main content area is titled 'User Login' and contains a form with the following elements:

- A header section with 'User Login' and 'Login to Akkadian Contact Manager'.
- A sub-header 'Login to Akkadian Contact Manager' above the form fields.
- A 'Username' input field with a user icon.
- A 'Password' input field with a magnifying glass icon.
- A 'Remember me' checkbox.
- A 'Login' button.
- A 'Forgot Password' link.

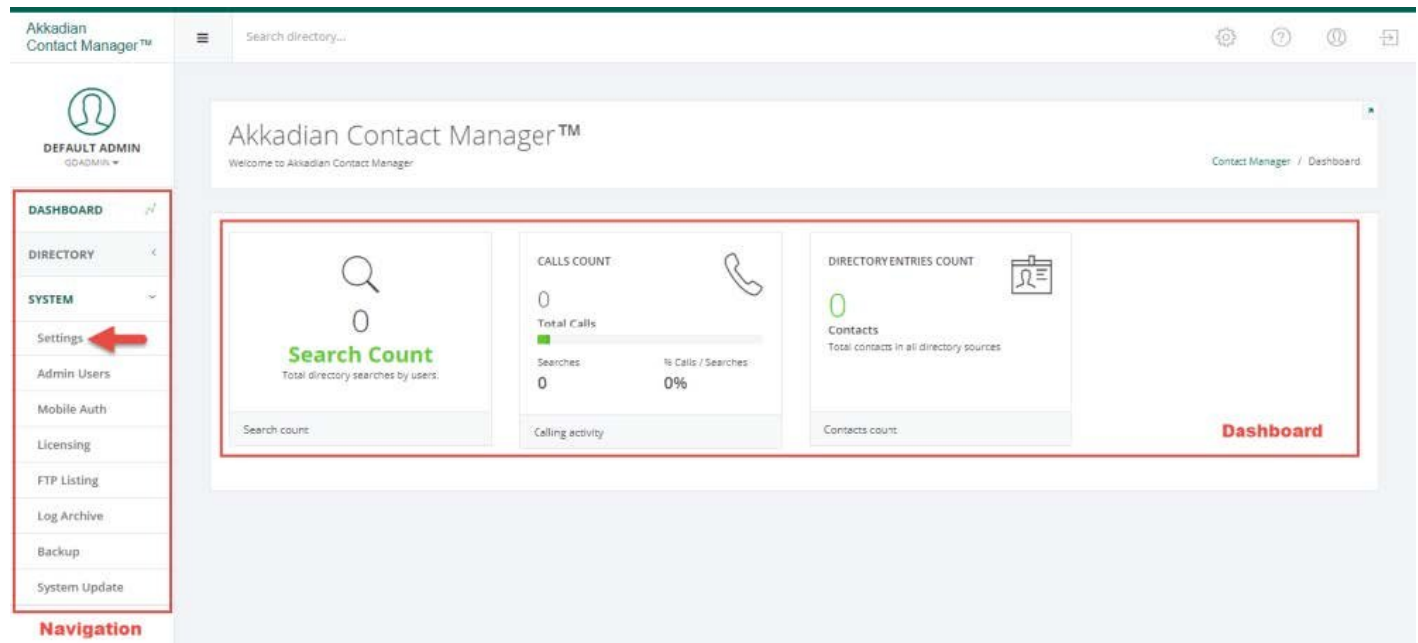
The footer of the page includes the 'akkadian labs' logo and the copyright notice 'Copyright: © 2017 Akkadian Labs, LLC'.

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



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 gadmin
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****Country****State****City****Organization****Organization Unit****Email**[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 gadmin
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**

User Information

* User Type:	<input type="text" value="Please select item."/>
* First Name:	<input type="text"/>
* Last Name:	<input type="text"/>
* Username:	<input type="text"/>
* Email:	<input type="text"/>
Role:	<input type="text" value="admin"/>
<input type="button" value="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 gadmin
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**

Show entries

<input type="checkbox"/>	Name	Username	Status
<input checked="" type="checkbox"/>	John Brown	jbrown	Enabled

Showing 1 to 1 of 1 entries

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 gadmin
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**.

Authentication Information

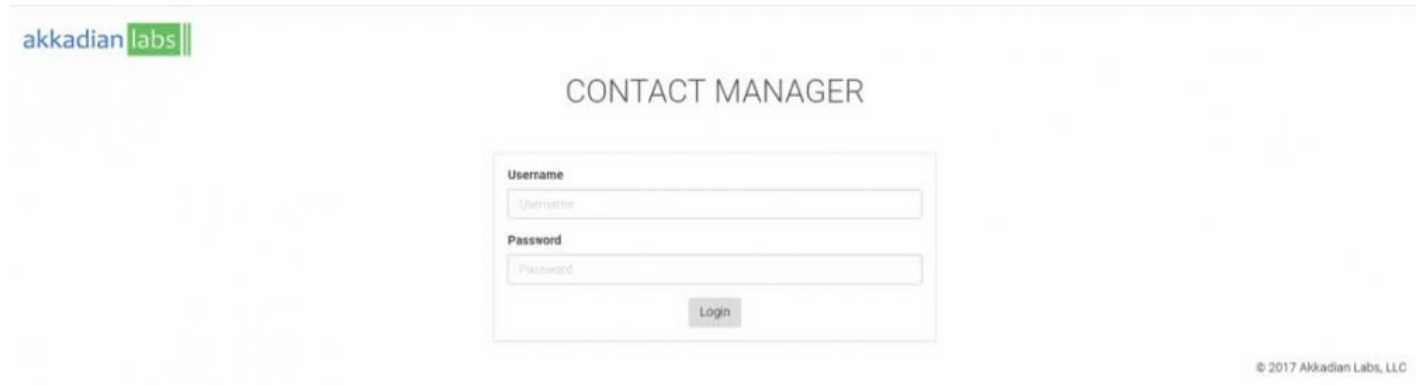
* Authentication Type:	LDAP ▼
* Name:	
* Host:	ex. 192.168.0.1
* Port:	389
* Domain:	company.com
* LDAP Username Bind Attribute:	sAMAccountName
<div>Save</div>	

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



The screenshot shows the mobile login interface for Akkadian Contact Manager. In the top left corner is the 'akkadian labs' logo. The title 'CONTACT MANAGER' is centered at the top. Below the title is a login form with two input fields: 'Username' and 'Password'. A 'Login' button is positioned below the password field. The background is a light gray with a faint grid pattern. In the bottom right corner, there is a small copyright notice: '© 2017 Akkadian Labs, LLC'.

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 gadmin
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**.

License
Product License Information

Contact Manager / License

User Information

License Status: FULL

Licensed To:

Contact Email:

License Details

Issued: 2017-10-10 03:08:36

aGD Version: 3.5.0

Allowed Directory Entries: 150000

Current Directory Entries: 0

Server MAC Address:

Update License

Enter aGD License Key:

XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX

Company Name:

ex. Acme Inc

Contact Name:

ex. Jane Smith

Contact Email:

ex. jsmith@acme.com

Submit

Upload 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 gadmin
2. Select **Backup** from the **System** menu
3. Click **Generate and download backup**, save the download file to a secured location

Generate Backup

Restore from backup

Generate and download backup

Generate and download backup

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.

Generate Backup Restore from backup

Restore database backup

Choose File No file chosen

Restore

5. Confirm database was successfully restored.

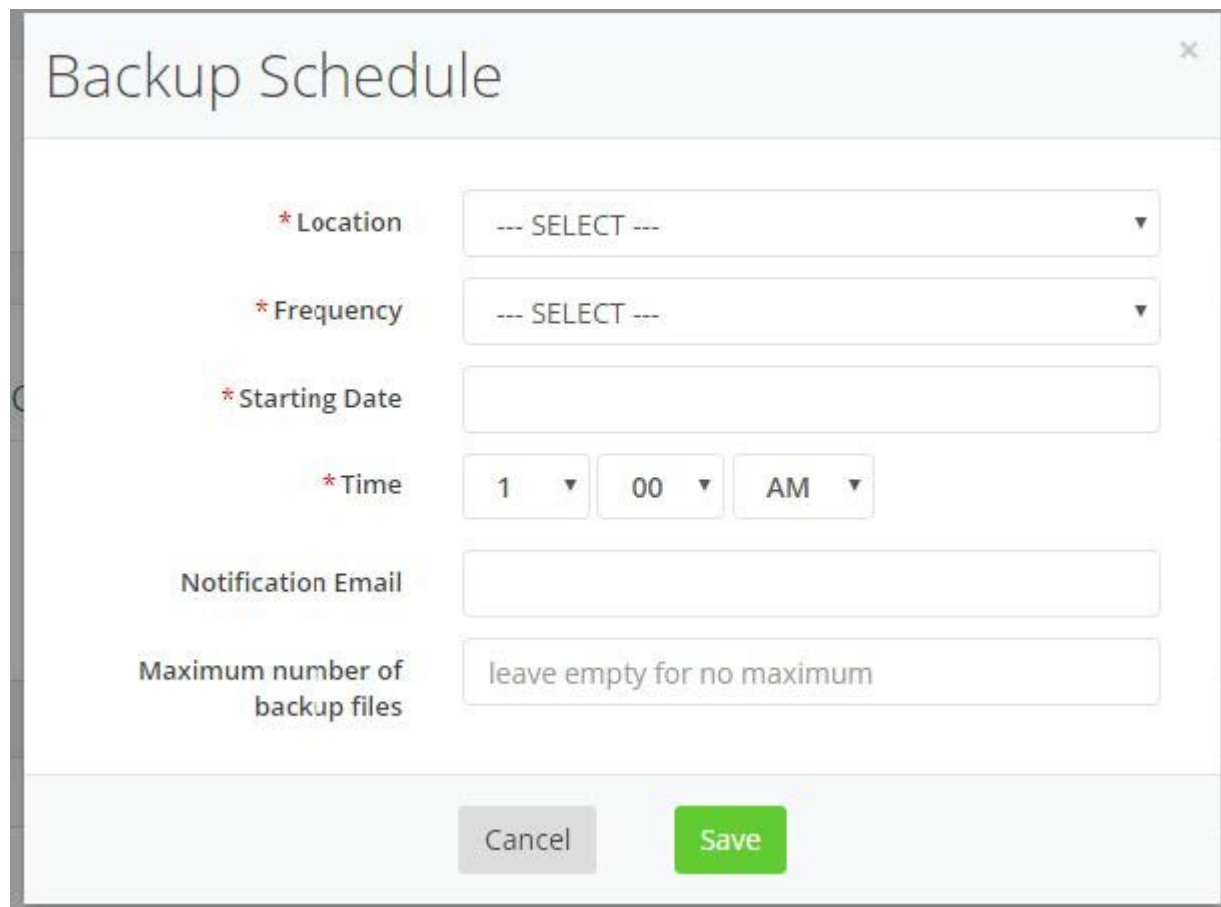


4.7.3. 3.7.3. Schedule a Backup

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



The screenshot shows a 'Backup Schedule' dialog box with a light blue header and a close button (X) in the top right corner. The dialog contains several form fields for configuring a backup schedule:

- * Location:** A dropdown menu with the text '--- SELECT ---' and a downward arrow.
- * Frequency:** A dropdown menu with the text '--- SELECT ---' and a downward arrow.
- * Starting Date:** A text input field.
- * Time:** Three separate dropdown menus for hour, minute, and period. The first shows '1', the second shows '00', and the third shows 'AM'.
- Notification Email:** A text input field.
- Maximum number of backup files:** A text input field containing the text 'leave empty for no maximum'.

At the bottom of the dialog, there are two buttons: a grey 'Cancel' button and a green 'Save' button.

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 gadmin
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.

Edit Attribute Labels

Edit Attribute Labels for Sync-Enabled Contact Attributes and Local Contact Attributes

Contact Manager / Data-Source Listing / Edit Attribute Labels

Sync-Enabled Contact Attributes

Field:	Custom Attribute 1	Label:	Address	Field:	Custom Attribute 2	Label:	City
Field:	Custom Attribute 3	Label:	State	Field:	Custom Attribute 4	Label:	Zip Code
Field:	Custom Attribute 5	Label:		Field:	Custom Attribute 6	Label:	
Field:	Custom Attribute 7	Label:		Field:	Custom Attribute 8	Label:	
Field:	Custom Attribute 9	Label:		Field:	Custom Attribute 10	Label:	

Local Contact Attributes

Field:	Local Data 1	Label:	Notes	Field:	Local Data 2	Label:	Hobby
Field:	Local Data 3	Label:	Skills	Field:	Local Data 4	Label:	Hired Date
Field:	Local Data 5	Label:		Field:	Local Data 6	Label:	
Field:	Local Data 7	Label:		Field:	Local Data 8	Label:	
Field:	Local Data 9	Label:		Field:	Local Data 10	Label:	

Save

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	<p>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</p> <p>These are example LDAP filters:</p> <ul style="list-style-type: none"> • 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	<p>Enter the LDAP attribute to map to Username. Example – “sAMAccountName”</p> <p>Note: If no username is present local contact attributes will be disabled</p>

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

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: <i>Some of properties terms may change depending on the configuration</i>
Username Column	Enter the csv header name which corresponds to Username Example – “username”. Note: <i>If no username is present local contact attributes will be disabled for contact</i>
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: <i>If no username is present local contact attributes will be disabled for contact</i>
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: <i>If no username is present local contact attributes will be disabled for contact</i>
Additional Data Column	Name of column containing any other data which you would like to be present in the directory.

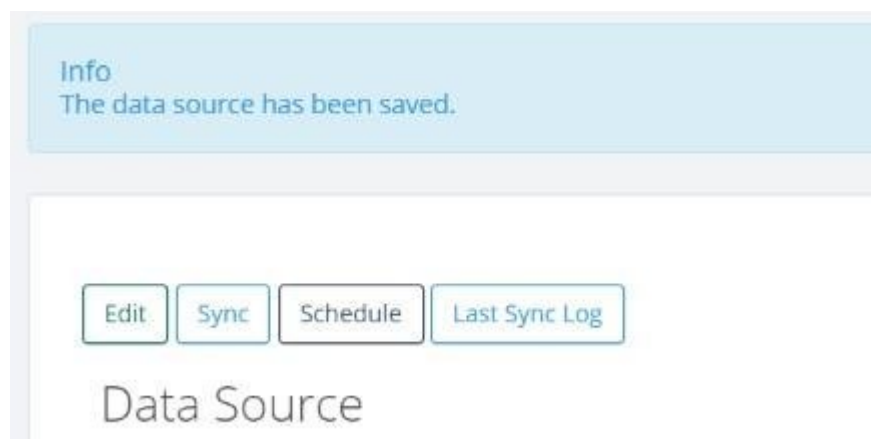
2. Click **Save** to add a data source and proceed syncing data source [section 4.3](#)

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

Cisco Communications Manager can be used as 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



Show 10 entries

<input type="checkbox"/>	Name
<input type="checkbox"/>	CUCM 10
<input type="checkbox"/>	CUCM 11
<input type="checkbox"/>	CUCM 8
<input type="checkbox"/>	CUCM 9

Showing 1 to 4 of 4 entries

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



Data Source

Type: uds
Name: CUCM 10

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**

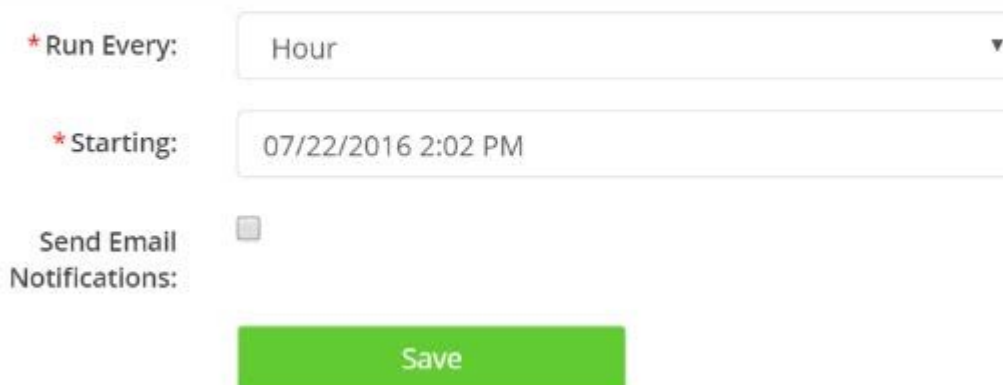


Data Source

4. Select sync increment and starting date and time.

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

Scheduled Details

A form titled 'Scheduled Details' with the following fields:

- '* Run Every:' with a dropdown menu showing 'Hour'.
- '* Starting:' with a text input field showing '07/22/2016 2:02 PM'.
- 'Send Email Notifications:' with a checkbox that is currently unchecked.
- A green 'Save' button at the bottom.

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

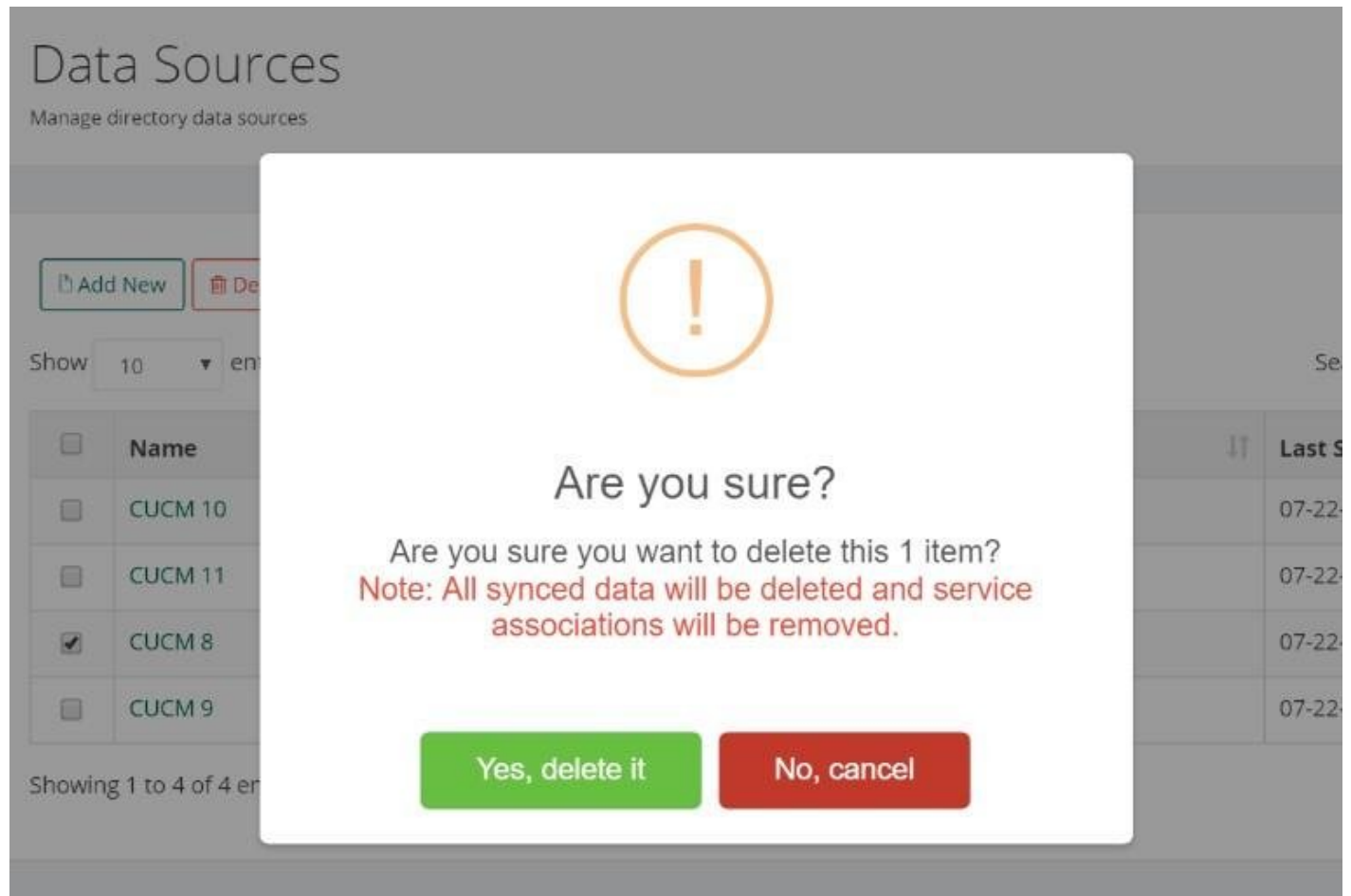


Show 10 ▼ entries

<input type="checkbox"/>	Name		Type
<input type="checkbox"/>	CUCM 10		uds
<input checked="" type="checkbox"/>	CUCM 11		uds
<input checked="" type="checkbox"/>	CUCM 8		uds
<input type="checkbox"/>	CUCM 9		uds

Showing 1 to 4 of 4 entries

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

Contacts Listing
Search All Contacts Contained in Data Sources

Global Search:

Data Source: **Show All** 

Show: 10 entries

Local Data	Name	Main Number	Mobile Number	Other Number	Location	Title	Username	Directory URI	Source
	John Adams	1234567891	986543211	9638527411	Massachusetts	2nd President	JAdams		The Presidents
	John Quincy Adams	1234567895	986543215	9638527415	Massachusetts	6th President	JAdams		The Presidents
	Chester Alan Arthur	1234567910	986543230	9638527430	Vermont	21st President	CArthur		The Presidents
	James Buchanan	1234567904	986543224	9638527424	Pennsylvania	15th President	JBuchanan		The Presidents
	George Herbert Walker Bush	1234567930	986543250	9638527450	Massachusetts	41st President	GHWBush		The Presidents
	George Walker Bush	1234567932	986543252	9638527452	Connecticut	43rd President	GWBush		The Presidents
	Jimmy Carter	1234567928	986543248	9638527448	Georgia	39th President	JCarter		The Presidents
	Grover Cleveland	1234567913	986543233	9638527433	New Jersey	24th President	GCleveland		The Presidents
	Grover Cleveland	1234567911	986543231	9638527431	New Jersey	22nd President	GCleveland		The Presidents
	Bill Clinton	1234567931	986543251	9638527451	Arkansas	42nd President	BClinton		The Presidents

Showing 1 to 10 of 43 entries

First Previous **1** 2 3 4 5 Last Next

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

Main Number	Title
1234567891	2nd Pres
1234567895	6th Pres
1234567910	21st Pres
1234567904	15th Pres
1234567930	41st Pres
1234567932	43rd Pres
1234567928	39th Pres
1234567913	24th Pres
1234567911	22nd Pres
1234567931	42nd Pres

Directory Entry Details

Last Name:	Arthur
First Name:	Chester Alan
Location:	Vermont
Title:	21st President
Main Number:	1234567910
Mobile Number:	986543230
Other Number:	9636527430
Username:	C.Arthur
Photo URL:	https://upload.wikimedia.org/wikipedia/commons/thumb/7/79/Chester_A_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

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

Add NewDelete

Phone Number:

Show entries

<input type="checkbox"/>	Cluster	Number Begins With	Phone Number Length	Extension Length	Prefix
<input type="checkbox"/>	Default	0		0	
<input type="checkbox"/>	mobility	*		4	646234
<input type="checkbox"/>	US	52		5	75
<input type="checkbox"/>	NYC	212		4	212

3. Fill New Dial Rule form and click submit

New Dial Rule

* Cluster :

Enabled Regex Filter : ☐

* Number Begins With :

Phone Number Length :

Extension Length :

Prefix :

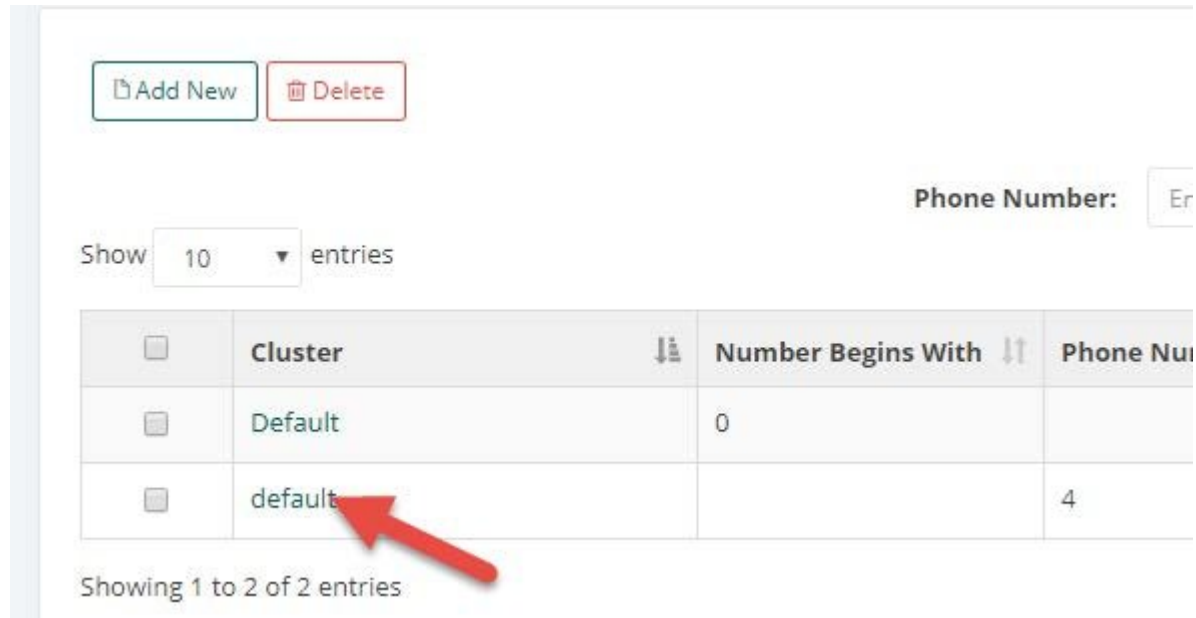
Notes :

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**



Buttons: [Add New](#) [Delete](#)

Phone Number:

Show entries

<input type="checkbox"/>	Cluster	Number Begins With	Phone Number
<input type="checkbox"/>	Default	0	
<input type="checkbox"/>	default		4

Showing 1 to 2 of 2 entries

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**



Buttons:

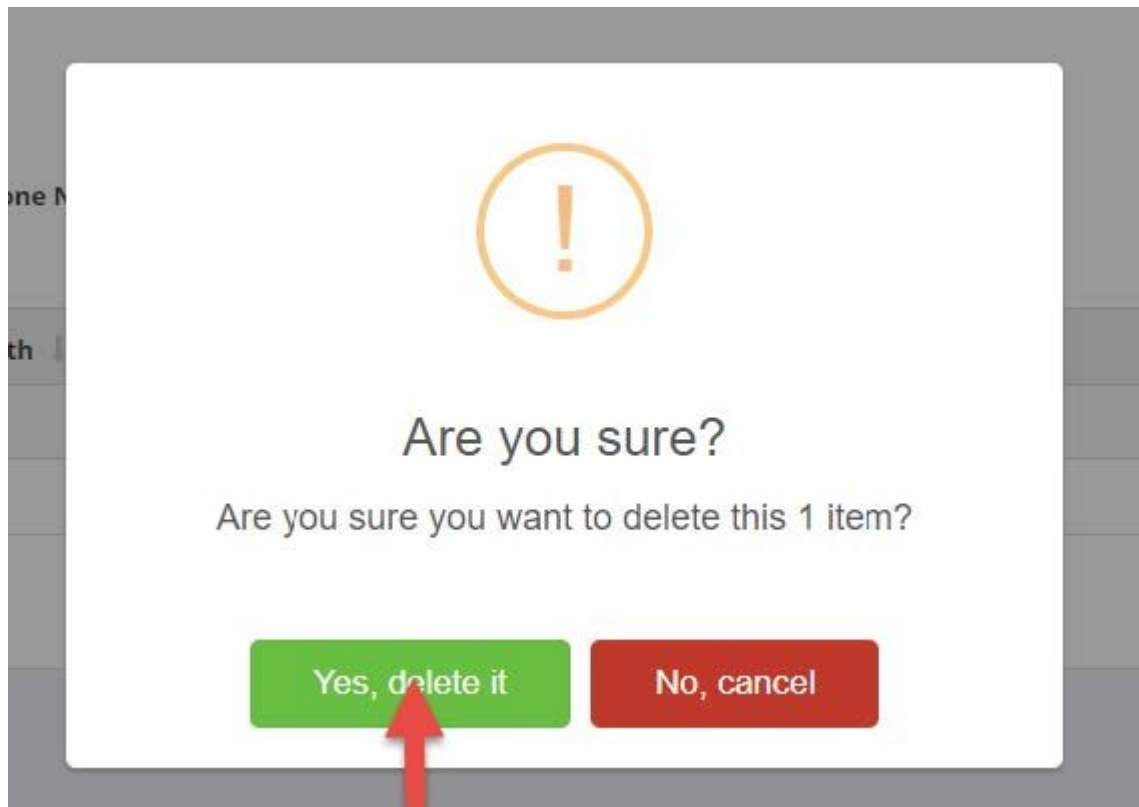
Phone Number:

Show entries

<input type="checkbox"/>	Cluster	Number Begins With	Phone N
<input type="checkbox"/>	Default	0	
<input checked="" type="checkbox"/>	default		4

Showing 1 to 2 of 2 entries

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



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

Dial Rules

Manage number dial rules

Contact Manager / Dial Rules

Add NewDelete

Phone Number: Find Matching Rules

Show entries

Global Search:

<input type="checkbox"/>	Cluster	Number Begins With	Phone Number Length	Extension Length	Prefix	Regex Enabled	Regex Match	Notes
<input type="checkbox"/>	1Test	2		8	912	0		Test
<input type="checkbox"/>	Akkadian	8		4	+212	0		Akkadian Test Dial Rule
<input type="checkbox"/>	Akkadian	646	9	6	91	0		New Rule
<input type="checkbox"/>	Default	0		0		0		tttttestestest
<input type="checkbox"/>	Default	*	10	5	91	0		
<input type="checkbox"/>	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: [Find Matching Rules](#)

Show entries

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.

Phone Directory Display

Interface Name: Save

Akkadian Labs, LLC

Global Directory

First Name [edit]

Main Number [edit]

Last Name [edit]

Search ◀ Help Exit

Available Fields

Mobile Number <small>[edit]</small>	county <small>[edit]</small>
Other Number <small>[edit]</small>	zip <small>[edit]</small>
Location <small>[edit]</small>	Test1 <small>[edit]</small>
Title <small>[edit]</small>	Test2 <small>[edit]</small>
	Test3 <small>[edit]</small>
Email <small>[edit]</small>	Test4 <small>[edit]</small>
Department <small>[edit]</small>	Test5 <small>[edit]</small>
Middle Name <small>[edit]</small>	Test6 <small>[edit]</small>
Display Name <small>[edit]</small>	Test7 <small>[edit]</small>
City <small>[edit]</small>	Test8 <small>[edit]</small>
State <small>[edit]</small>	Test9 <small>[edit]</small>
Country <small>[edit]</small>	Test10 <small>[edit]</small>

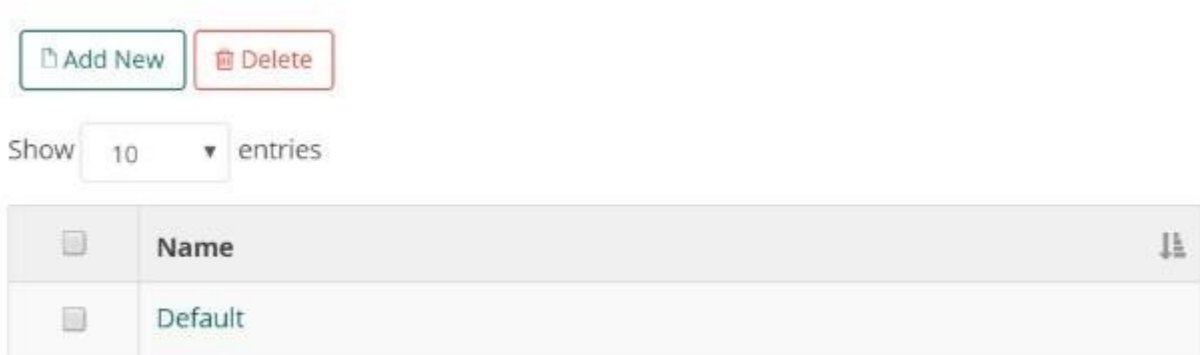
Customize field label:

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.

- Click **Save** after completing changes

5.7.2. 4.7.2. Add New Default Directory Interface

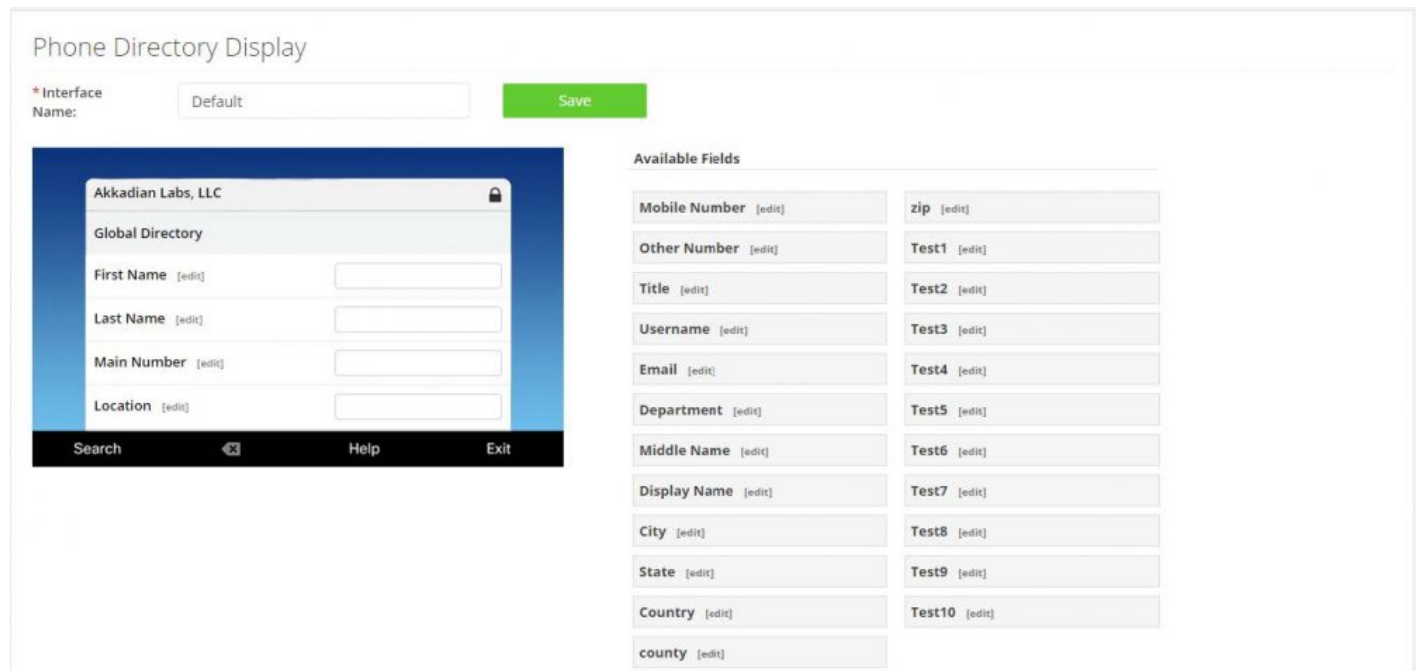
1. Select **Interface** from the **Directory** menu
2. Click **Add New**



The screenshot shows a button labeled 'Add New' and a button labeled 'Delete'. Below these is a 'Show' dropdown menu set to '10' and the text 'entries'. Below that is a table with one row labeled 'Default'.

Name
Default

3. Drag and drop field names and edit as needed



The screenshot shows the 'Phone Directory Display' interface. It includes a 'Name' field with the value 'Default' and a 'Save' button. Below this is a preview of a directory card for 'Akkadian Labs, LLC' with fields for 'First Name', 'Last Name', 'Main Number', and 'Location'. To the right is a list of 'Available Fields' that can be dragged and dropped into the card.

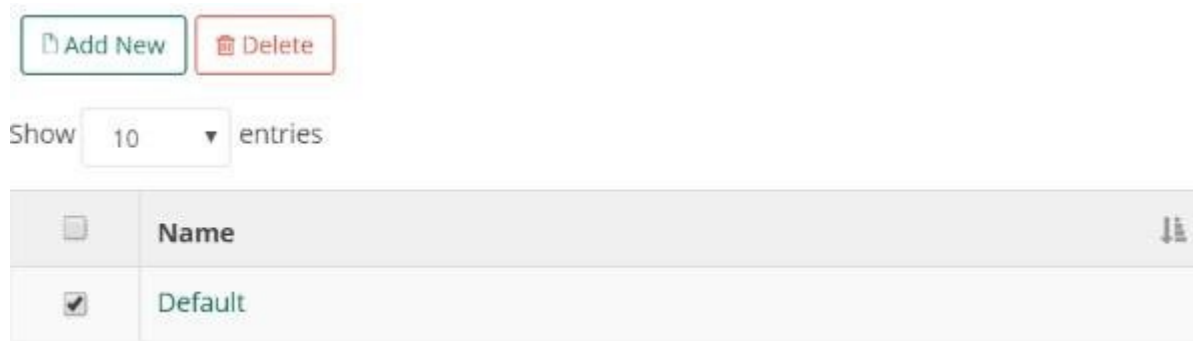
Available Fields

Mobile Number [edit]	zip [edit]
Other Number [edit]	Test1 [edit]
Title [edit]	Test2 [edit]
Username [edit]	Test3 [edit]
Email [edit]	Test4 [edit]
Department [edit]	Test5 [edit]
Middle Name [edit]	Test6 [edit]
Display Name [edit]	Test7 [edit]
City [edit]	Test8 [edit]
State [edit]	Test9 [edit]
Country [edit]	Test10 [edit]
county [edit]	

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**



The screenshot shows a web interface for deleting a directory. At the top, there are two buttons: 'Add New' (green) and 'Delete' (red). Below these buttons is a 'Show' label followed by a dropdown menu set to '10' and the text 'entries'. Below this is a table with two columns: a checkbox column and a 'Name' column. The table has one row with a checked checkbox and the name 'Default'. A small icon is visible in the top right corner of the table header.

	Name
<input checked="" type="checkbox"/>	Default

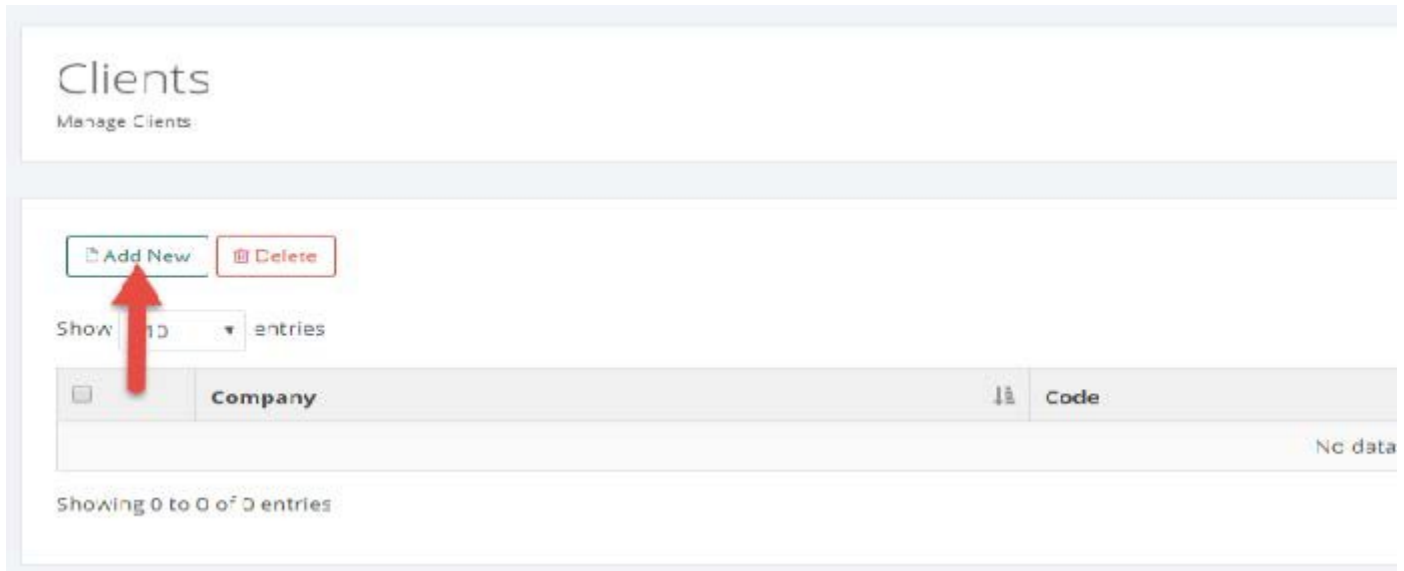
3. Confirm deletion

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.

Client Information ×

* Company	<input type="text" value="Akkadian Labs"/>
* Company Code	<input type="text" value="AL001"/>
Status	<input type="text" value="Enabled"/>
Notes	<div></div>

- Click **Save** to add client

5.8.2. 4.8.2. Edit a Client

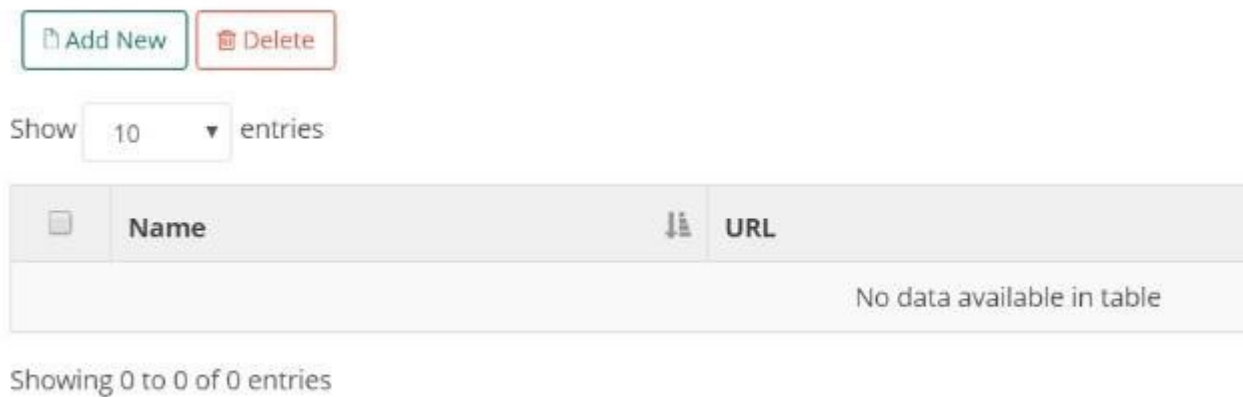
1. Select **Clients** from the Directory menu
2. Click on the Name of Company to be edited
3. Make desired changes and click **Save**

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**



Buttons: **Add New** (green), **Delete** (red)

Show entries

	Name	URL
No data available in table		

Showing 0 to 0 of 0 entries

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 available 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

Directory Service Options

* Phone Service
Name:

Directory No Client

Cluster:

default ▼

Client:

Please Select Item ▼

Service Type:

User Data Service ▼

* Interface Name:

Default ▼

* Data Source:

✕ The Presidents

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

Directory Service Options

* Phone Service Name:	Directory With Client
Cluster:	default ▼
Client:	Akkadian Labs - AL001 × ▼
Service Type:	User Data Service ▼
* Interface Name:	Default ▼
* Data Source:	× The Presidents

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.

Directory Service Options

* Phone Service Name:

Cluster:

Client:

Service Type:

* Interface Name:

* Data Source:

Edit Dial: ☐

Display all numbers: ☐ Require list of available numbers to display in order for the end user to select a number to dial.

CUCM Service Provisioning Information

Service Name:	The Presidents
ASCII Service Name:	The Presidents
Service Description:	Akkadian Labs, LLC Global Directory
Service URL:	http://192.168.110.26/agd/index.php/directory?service=3
Secure-Service URL:	https://192.168.110.26/agd/index.php/directory?service=3
Service Category:	XML Service
Service Type:	Standard IP Phone Service
Service Vendor:	Akkadian Labs, LLC
Service Version:	3.5.0

Web Directory Information

Browser Directory URL: https://192.168.110.26/agd/mobile?service=3

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**

The screenshot shows the Cisco Unified CM Administration web interface. The top navigation bar includes the Cisco logo and the title 'Cisco Unified CM Administration For Cisco Unified Communications Solutions'. Below this is a navigation menu with links like 'System', 'Call Routing', 'Media Resources', 'Advanced Features', 'Device', 'Application', 'User Management', 'Bulk Administration', and 'Help'. The main content area is titled 'Find and List IP Phone Services' and features a search bar with the text 'Find IP Phone Service where IP Phone Service begins with'. Below the search bar, there is a message: 'No active query. Please enter your search criteria using the options above.' At the bottom left of the main content area, the 'Add New' button is highlighted with a red rectangular box.

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

The screenshot shows the 'IP Phone Services Configuration' form. At the top, there is a 'Save' button with a floppy disk icon. Below this is a 'Status' section with an information icon and the text 'Status: Ready'. The main section is 'Service Information', which contains several fields: 'Service Name*' (highlighted with a yellow border), 'ASCII Service Name*', 'Service Description', 'Service URL*', 'Secure-Service URL', 'Service Category*' (a dropdown menu showing 'XML Service'), 'Service Type*' (a dropdown menu showing 'Standard IP Phone Service'), 'Service Vendor', and 'Service Version'. At the bottom of the form, there are two checkboxes: 'Enable' and 'Enterprise Subscription'. A 'Save' button is located at the bottom left of the form.

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.

- 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>cupsl</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.

Directory Service Options

* Phone Service Name:	<input type="text" value="The Presidents"/>
Cluster:	<input type="text" value="default"/>
Client:	<input type="text" value="Please Select Item"/>
Service Type:	<input type="text" value="Standard IP Phone Service"/>
* Interface Name:	<input type="text" value="presidents"/>
* Data Source:	<input type="text" value="x The Presidents"/>
Edit Dial:	<input type="checkbox"/>
Display all numbers:	<input type="checkbox"/> Require list of available numbers to display in order for the end user to select a number to dial.
<input type="button" value="Save"/>	

CUCM Service Provisioning Information


Service Name:	The Presidents
ASCII Service Name:	The Presidents
Service Description:	Akkadian Labs, LLC Global Directory
Service URL:	http://192.168.110.26/agd/index.php/directory?service=3
Secure-Service URL:	https://192.168.110.26/agd/index.php/directory?service=3
Service Category:	XML Service
Service Type:	Standard IP Phone Service
Service Vendor:	Akkadian Labs, LLC
Service Version:	3.5.0

Web Directory Information

Browser Directory URL:	https://192.168.110.26/agd/mobile?service=3
------------------------	---

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:

Service ID:

Akkadian Contact Manager™



CONTACT MANAGER

Username

Password

Login

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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.



CONTACT MANAGER



John Adams

2nd President

Massachusetts



John Quincy Adams

6th President

Massachusetts



Chester Alan Arthur

21st President



CONTACT MANAGER

 BACK



James Madison

4th President

Virginia

Main Number
1234567893



Mobile Number

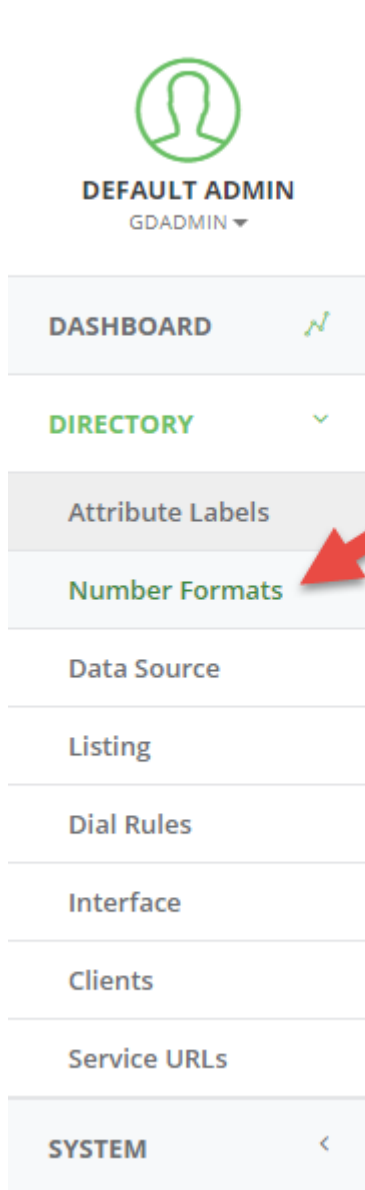
5.11. 4.11 Number Format

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.

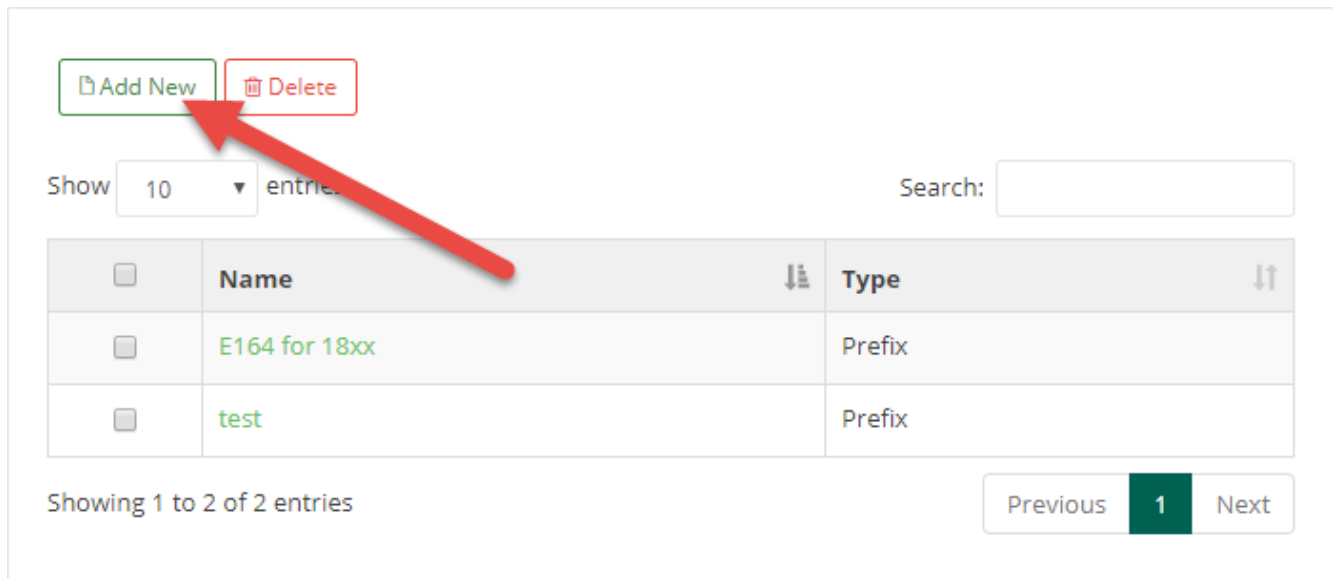
5.11.1. 4.11.1. Adding a Number Format

To add a Number Format:

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



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



The screenshot displays the Akkadian Contact Manager interface. At the top, there are two buttons: 'Add New' (green) and 'Delete' (red). A red arrow points to the 'Add New' button. Below the buttons, there is a 'Show' dropdown menu set to '10' and a 'Search:' input field. A table with two columns, 'Name' and 'Type', contains two entries: 'E164 for 18xx' (Prefix) and 'test' (Prefix). At the bottom, there is a pagination bar showing 'Showing 1 to 2 of 2 entries' and buttons for 'Previous', '1' (selected), and 'Next'.

	Name	Type
<input type="checkbox"/>	E164 for 18xx	Prefix
<input type="checkbox"/>	test	Prefix

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 Format Details

* Name:



* Type:



Prefix



Extract



Extract & Prefix

* Use regex:



Yes



No

Number begins with:

Number length:

Extract number
length:

Notes:

Save

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 Format Details

* Name:



* Type:

☐

Prefix

☐

Extract

☒

Extract & Prefix

* Use regex:

☐

Yes

☒

No

Number begins with:

Number length:

Extract number
length:

Number Prefix:

Notes:

Save

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.

Number Format Details

* Name:



* Type:



Prefix



Extract



Extract & Prefix

* Use regex:



Yes



No

Regex:

Number Prefix:

Notes:

Save

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.

[Add New](#) [Delete](#)

Show entries Search:

<input type="checkbox"/>	Name 	Type 
<input type="checkbox"/>	E164 for 18xx	Prefix
<input type="checkbox"/>	test	Prefix

Showing 1 to 2 of 2 entries Previous **1** Next

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**

Add New

Delete

Show

10

 entries

Search:

<input type="checkbox"/>	Name	Type
<input type="checkbox"/>	E164 for 18xx	Prefix
<input type="checkbox"/>	test	Prefix

Showing 1 to 2 of 2 entries

Previous

1

Next



Are you sure?

Are you sure you want to delete this 1 item?

Yes, delete it

No, cancel

Success
Selected number formats have been successfully deleted.

Add New

Delete

Show 10 entries

Search:

<input type="checkbox"/>	Name	Type
<input type="checkbox"/>	E164 for 18xx	Prefix

Showing 1 to 1 of 1 entries

Previous1Next

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



Account Executive - Software Sales


London



Coleman Hollowell

Account Executive - Software Sales

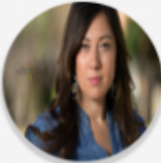
New York



Will Irwin

Human Resources


New York



Lindsay Jones

Procurement specialist


New York



Breann Kea

Account Executive - Software Sales

London



Chad Klein

Product Analyst

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2. Select the contact that you wish to call.



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



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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

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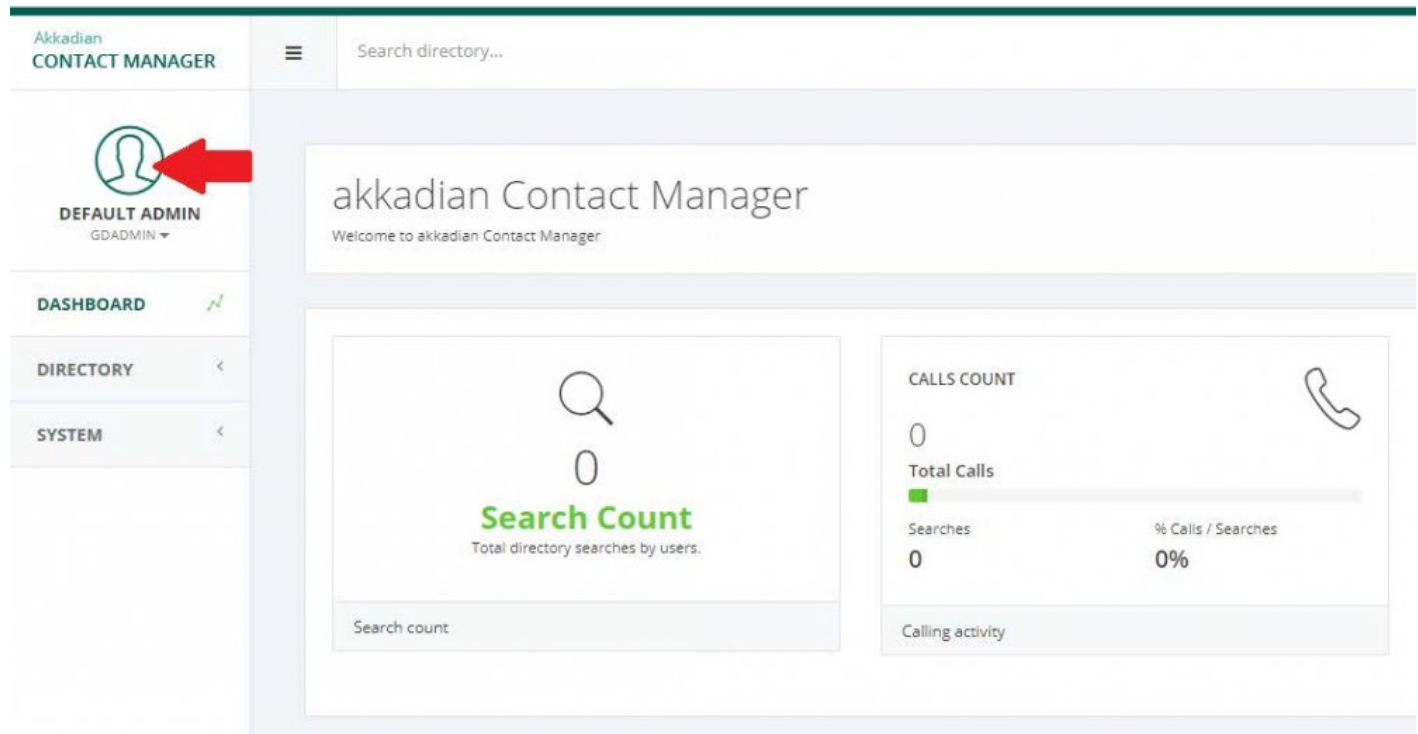
Note: *Different clients approach this differently. See below for details.*

- 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

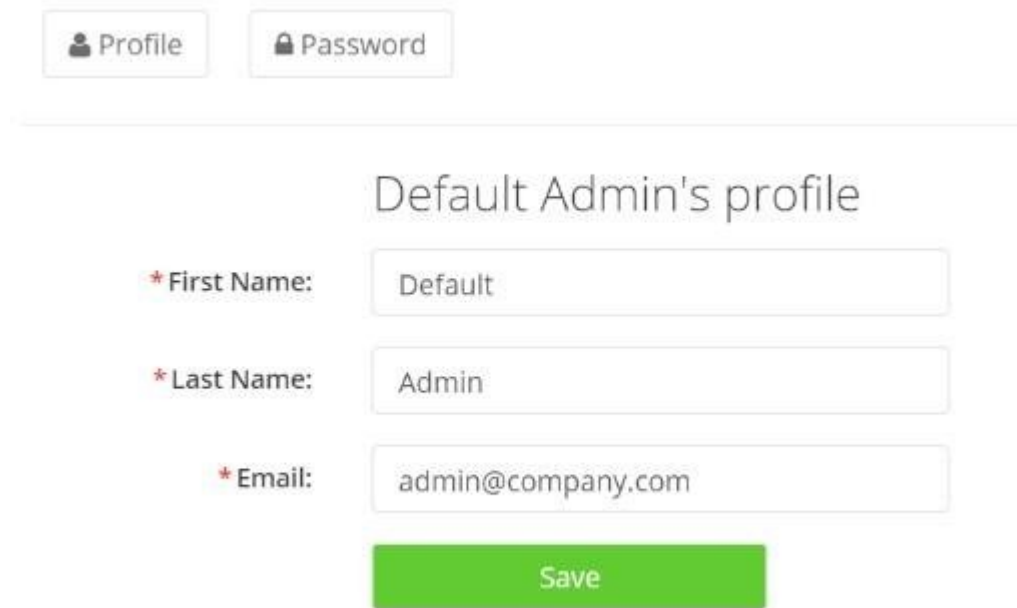
6.1. 5.1. Edit Administrator User Profile

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



Profile Password

Default Admin's profile

* First Name: Default

* Last Name: Admin

* Email: admin@company.com

Save

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.