Esna Cloudlink is a software solution that generates communication and collaboration revenue for organizations that want to migrate core business solutions, such as email and SalesForce automation, to the cloud.

The Esna Cloudlink platform offers new integrated services for corporate unified communications management solutions. Esna Cloudlink seamlessly integrates corporate UC applications with cloud based programs providing integrated unified messaging and communication services. Esna Cloudlink also provides integrated voice and fax services with these market leading platforms that are becoming essential alternatives for organizations looking to leverage the cloud to reduce costs and increase efficiencies with email and collaboration.

This guide provides instructions on the installation and configuration of the Esna Cloudlink program.

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Esna Cloudlink bridges Cisco’s Unified Call Manager and Unity Connection servers with a Cloud-based messaging application, providing enhanced and globalized connectivity to users. Access your corporate emailbox, read messages, and compose new ones to send to contacts. Update your contacts list and calendar through a supported application, and Esna Cloudlink will mirror those changes on the Unity Connection Server.
Esna Cloudlink is housed on-site, providing with the ability to instantly maintain and manage all aspects of the service for the corporation, as well as offering better data security. On-site hosting provides immediate access to the system so that any problems can be dealt with swiftly. Any required changes can be made as needed. All data for the system is kept on the corporation's own computers, providing the benefit of added security for sensitive information.
Enabling SSL from the IIS

Introduction

Ensure that SSL is properly configured on the Esna Cloudlink server IIS site.

**Note:** Digital certificates encrypt data using Secure Sockets Layer (SSL) technology, the industry-standard method for protecting web communications. The SSL security protocol provides data encryption, server authentication, message integrity, and optional client authentication for a TCP/IP connection.

**Caution:** Installing the Esna Cloudlink server on Windows 8 is not supported.

SSL is built into all major browsers and web servers. By installing a digital certificate, you enable your browser’s SSL capabilities.

Procedure

SSL configuration is done on the Microsoft Windows platform hosting the site. This guide is provided as a courtesy for those who wish to configure SSL with Esna Cloudlink. For further assistance, consult the professionals at Microsoft and its affiliates.

This example shows Windows Server 2008 with IIS 7.

1. From the Windows desktop, click **Start > All Programs > Administrative Tools > Server Manager**.
2. In the left hand-pane, open **Roles**, then **Web Server (IIS)**, and select **Internet Information Services (IIS) Manager**.
3. Under **Connections**, choose the web site. In the **Home** pane for the site, scroll down to the **IIS** section and double-click **Server Certificates**.

![Server Manager interface with roles and connections highlighted]

![Internet Information Services (IIS) Manager interface with server certificates highlighted]
4. In the right-hand Actions pane, click **Create Certificate Request**.

5. Fill in the information for **Distinguished Name Properties**.
   - **Common name**: Enter the publicly accessible URL for the site.
   - **Organization**: Type the corporation name.
   - **Organizational unit**: Define the department for this certificate.
   - **City/locality**: Enter the location information.
   - **State/province**: Enter the location information.
   - **Country/region**: Enter the location information.

   Click **Next** when ready.

6. Choose the **Cryptographic service provider** and **Bit length** (2048 or better is recommended) required by the certifying agency.

   Click **Next**.

7. Enter the filename and path for the certificate request file.

   Click **Finish**.

8. Pass this file to the authority providing the certificate. Make sure that it has the correct file extension specified by the authority.

9. The certifying authority will return the certificate in another file.

   Save the certificate file on the computer's hard drive in a known location.
10. In the right-hand **Actions** pane, click **Complete Certificate Request**.

11. To **Specify Certificate Authority Response**, enter the path to and the filename of the certifying authority's response from step 9. Click the ellipsis button ... to browse for the file.

   Enter a user **Friendly name** to use when referring to this certificate.

   Click **OK** when finished. The certificate will be installed for the site.

Double-clicking on the **Server Certificates** icon brings up a list of the certificates installed on the server. The new certificate is listed using its **Friendly name**.
Cisco Environment Setup

1. Navigate to CUCM Web interface.

   ![Image of CUCM Web interface]

2. Log into CUCM.

   ![Image of CUCM login interface]
3. Navigate to **User Management > Application Users**. Add a new user for the Esna Cloudlink TAPI connection.

4. Ensure that the user has enabled control of all devices on the system.

   ![User Management Interface](image)

   Also ensure that the user is added to all relevant CTI permission groups.

   ![Permission Information](image)

   Click **Save**.

5. Download Cisco TAPI client (32 or 64-bit depending on your Esna Cloudlink Server OS).
Esna Cloudlink Cisco Server Setup

1. Download and run the installer. After installing the prerequisites, you are presented with the following screen. Enter the number of CUCM TAPI Service Providers (TSP) to install. Specify the location where the program will be installed on the hard drive. Click Next.

![Install Screen](image)

2. Enter the previously configured user information and IP of your CTI Manager (CUCM). Click Next.

![User Configuration](image)

Note: There is a limit of 2500 monitored devices for CUCM per server in a cluster. Esna Cloudlink can only enable iLink functionality for this many users/devices concurrently on a single Esna Cloudlink server.

Note: If secure configuration is required, refer to the relevant Cisco documentation for additional setup information.
3. Accept the defaults. Click **Next**.

Once installation completes, you may be prompted to restart. Click **Yes**.
Setting Up the Unity Connection Administrator

Make the following changes to Unity Connection Administrator.

1. From the Administrator, go to **Advanced > API Settings**.

2. Enable the *Allow Access to Secure Message Recording through CUMI*, *Display Message Header Information of Secure Messages through CUMI* and *Allow Message Attachments through CUMI* checkboxes.

3. Click **Save** to continue.

4. In the left-hand pane, locate the **Users** menu item. At least one of the users must have the **Mailbox Access Delegate Account** selected under **Assigned Roles**.

**Hint:** This can be a separate Administrator account if required.
Click **Save**.

Ensure that the **Corporate E-mail Address** field of the Unity Connection user is the same as for the Google Apps account. This is required for all users who are to be synchronized with Google Apps.
Installing Esna Cloudlink

All pre-requisites must be completed before installing Esna Cloudlink.

**Caution:** Installing the Esna Cloudlink server on Windows 8 is not supported.

**Note:** Make sure that all of the necessary Services for your operating system have been installed before proceeding with the installation. Refer to the appropriate section of the Server Installation Guide for further details. Also make sure that Windows Firewall is disabled, and that Windows Automatic Update is turned off.

**Note:** If you have Autorun disabled on your system, please browse into the DVD and double-click the `InstallUC.bat` file to begin the installation process.

1. Insert the Esna Cloudlink 5.1 installation DVD into the DVD drive. The following screens will appear.

![Image of Windows Installer preparing to install Esna Cloudlink]

2. Once the Windows components have been verified, the following screen will appear.

   Click **Next** to begin the installation procedure.

![Image of Windows Installer's Installation Wizard]

**Note:** The installer will automatically install the necessary packages at the beginning of the installation if they do not already exist on the system. These packages may include **Sentinel Protection**, **Microsoft Visual C++ Redistributable** and **Microsoft .Net Framework 4.5**. This process may take a while depending on the required components.

**Note:** Clicking on the **Documentation** button will provide you with the default set of PDF documents which comprehensively cover most aspects of Esna Cloudlink.

3. When prompted, click **Run** to confirm the installation. The necessary files will begin to be installed.

![Image of Sentinel Protection installer running]

![Image of PDF Documents provided by the installer]
4. Once the process is complete the licensing screen will appear. It is recommended that you use Online Activation whenever possible. To do so, simply enter the Serial Number and Site ID which has been provided to you.

   Click Request Online Activation when finished.

   **Warning:** It is essential that the system/PC clock be properly set before activating the license. Any subsequent changes to the clock can adversely affect or terminate the license.

5. Most of the fields in the Customer Site Registration window should already be filled in based upon the license and site numbers entered. Complete the form where necessary (all fields are required).

   Enter the security code into the space provided, then click Submit.

6. Confirm the contents of your license then click on the Set as Active License button.

   **Note:** Whenever your license is updated (e.g. through the addition of new features, extensions, etc.) please restart the server after activating the license so that the new parameters can become active.
7. If the process was successful the following confirmation screen will appear. Click OK.

8. Click Exit to close the license window and continue with the installation.

9. Enter the DCOM settings (local machine administrator login information). This is required by services which use local administrator rights. Click OK after entering the necessary credentials.

10. Review all the license agreements and select the I accept button for all entries to continue. Click Next when ready.

11. You will be asked to select the destination of the installation. You may change the hard drive destination through the drop down menu. By default, the installation will be made on the C drive. Click Next to continue.
12. Select the **Components** required at your site.

   Click **Next**.

13. If any required **Windows services** have not been installed on the system, or if the server has not yet been setup with the **Country** and **Area Code** dialing information, a reminder will appear here.

   ![Image of the Esna Cloudlink Installation Guide](image)

   Install the missing Windows services and information, then click **Next** to continue with the installation.

   **Note**: These warnings will only appear if the required components and information have not yet been added to the server.

14. The preliminary information required for installation is now complete.

   Click **Next**.
15. The selected components will now be installed. This process may take a while.

16. If you are warned about components being in use, either use the automatic option or manually close the process which is interfering with the installation.

   Click **OK** when ready.

17. After all the components are copied, you may be asked to provide the settings for the **PBX** that you have chosen. Since this process varies greatly from system to system, please ensure that you configure your site’s PBX exactly as required.

18. The Esna Cloudlink Manager starts automatically once all components have been installed.

   Click **Add** to create a new Endpoint connection.

19. Enter the required information.

   **Name**: Give the connection a descriptive name (required for all installations).

   **Cisco Unity Connection** (required for all installations):
   - **Server**: Enter the URL/IP Address of the Unity Connection server.
   - **Account**: Enter the user account login name.
   - **Password**: Enter the password for the login account.

   **Important**: You must ensure that the specified account possesses the **Mailbox Access Delegate Account Role** on the Unity Connection server.
**Message Delivery** - There are three Delivery Methods available. Select from:

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synchronized (IMAP superuser)</strong></td>
<td>For connections to Gmail and MS Exchange</td>
</tr>
<tr>
<td><strong>Synchronized (IMAP user)</strong></td>
<td>Used for all other connections (i.e. Lotus, Zimbra). Individual user account login. Provides Message Light indicator synchronization</td>
</tr>
<tr>
<td><strong>E-mail forward (SMTP)</strong></td>
<td>Included as an option for sites where IMAP is not available</td>
</tr>
</tbody>
</table>

**Synchronized (IMAP superuser):**
**Delivery method:** Select **Synchronized (IMAP superuser)** from the dropdown list.
**Server:** If this field is not populated for you, enter the address of the IMAP server (i.e. Gmail, Exchange).
**Port:** This should also be filled in by the system. Enter **993** as the port number if required.
**Account:** Enter the OAuth Consumer key account name.
**Password:** Enter the password for the OAuth Consumer secret.
**E-mail forward (SMTP):**

**Delivery Method:** Select **E-mail forward (SMTP)** from the dropdown list. The remaining options under this section will be disabled.

![Endpoint Configuration](image1.png)

**Synchronized (IMAP user):**

**Note:** It is recommended for sites upgrading from an earlier version to 10.1 that all mailboxes in Esna Cloudlink be deleted. They will be recreated with the first synchronization, and there may be difficulties receiving new messages if the mailboxes are not removed.

**Delivery method:** Select **Synchronized (IMAP user)** from the dropdown list.

**Server:** If this field is not populated for you, enter the address of the IMAP server (i.e. Lotus, Zimbra).

**Port:** This should also be filled in by the system. Enter **143** as the port number (or any port specified by your site administrator) if required.

![Endpoint Configuration](image2.png)

The individual account login credentials are known only to the user and cannot be entered here. When Esna Cloudlink attempts to synch and finds no credentials, or fails to successfully login after several retries, it will send an email to the user with a link requesting the password.
Click the link, then enter and confirm the user’s **current** IMAP server password at the prompt. Esna Cloudlink will use this during future login attempts. This does not change the password, but gives Esna Cloudlink access to the account.

**Note:** The default number of attempts to login before failing is **3**. This is controlled through the **UC Admin > Feature Group**. Double-click the Feature Group of the user to open the properties, and go to the **Synchronization Options** tab. Change **Max No Of Logons** to the preferred value.
On the Esna Cloudlink server, go to **Start > Officelinx > IMAPSE - Diagnostics and Configuration Tool**. Login using the administrator credentials. Select the company, and click the **IMAP Synchronization Settings** icon.

For Lotus users **ONLY**: Open the Performance/Tuning tab and disable the **High Performance Pack** checkbox.

On the GUI/Other tab, ensure that the **Only OfficeLinx originated messages** checkbox is disabled. Click **Apply**, then close the Tool. For all other platforms, leave this option enabled.

On the Esna Cloudlink server, open the **eeam.ini** file using any text editor (e.g. NotePad). Find the entry for **TNM** and set its value equal to **7**. Save the file and close the editor.

On the Esna Cloudlink server, open the **UC Admin** program. Go to **Configuration > HTTP**. Double-click **URL - Data** in the right-hand pane to open its properties. Under **Value Data**, change the portion of the address **www.yourcompany.com** to the IP address of the Esna Cloudlink server (i.e. 192.168.0.0). Leave the rest of the
string unchanged.
For Lotus users ONLY: On the Lotus server, go to the properties page for each user account. Ensure that the Short name/UserID is the same as the username (without the domain) that appears under Internet Address.

Provisioning Options (optional for all installations):

Admin Mailbox: Enter an administrator's mailbox number. This extension will receive warnings from the system regarding license expiration. If this field is left blank, these messages will be sent to a mailbox at random, so it is strongly recommended that an address be provided.

Enable only for COS: This allows the administrator to specify one or more (separated by commas) Class of Service names. Only users within those Classes of Service will be synchronized.

Message Options (required for E-mail forward, optional for Synchronized installations):

Enable WebLinks Message Content: Check this box to enable the WebLinks feature.

Attach original files: By default, WebLinks will only deliver the links to voice messages in the email notification. Enable this option to have the audio files included as attachments.

WebLinks Host Address (required for E-mail forward [SMTP]): Enter the address of the Esna Cloudlink server.

Run WebLinks Host Configuration: This button uploads the chosen settings to the program to enable synchronization between the mail server and Gmail. This button must be used whenever there is a change to the host address.

Note: When in a Synchronized (IMAP ...) environment, the Enable WebLinks Message Content button changes the way voice messages are offered to a user. When disabled, voice messages are sent with an email as an attachment. This can represent a security risk for some sites. Enabling WebLinks Message Content will have the email provide only a link to the voice message. Clicking the link will stream the message to the recipient, but it will never be stored anywhere but the UC Server.

Synchronization Settings (only available for Gmail and Exchange connections):

Calendar Synchronization: Check this box to enable synchronization of calendar entries.

Call History Synchronization: Check this box to enable synchronization of call history data.

20. Click Save when ready.
21. The new connection has been created. The service is currently stopped. Highlight the connection, then click **Start**.

**Note:** Additional endpoints can be added by clicking **Add**. Make sure that the service is not running (click **Stop**) when attempting to add new endpoints.

22. The connection is now running.

23. Click **Finish** to restart the server.

If you wish to restart your computer at a later time, disable the **Restart** check box then click **Finish**.
Esna Cloudlink and a Lotus Domino server are able to integrate through the IMAP/PTSE services, providing a truly unified messaging experience. Once the configuration is complete the servers communicate and synchronize all data among themselves, eliminating the need for you to constantly manage multiple locations.

Visual Guide

Data is synchronized between the UC Server and the Mail Server. Message status and deletion are synchronized almost instantly between the two, creating a single message store for easier management by both administrators and end users.

In a typical situation, voice messages will be synchronized from the Voice Server to the eMail Server, and email messages will be synchronized from the eMail Server to the Voice Server.

Since status is synchronized, message lights on integrated telephone systems will also be accurate no matter where the message is read or received.

When a voice server integrates with an email server, the data between the two is synchronized, allowing for accurate information regardless of the point of access. Receiving messages, and any actions performed by the users is synchronized between the two servers constantly, ensuring that your content is always up-to-date.

Administrators can also customize what will be synchronized. A full synch includes contact and calendar entries along with messages. If the system has telephone and message light integration, MWI (message waiting lights) will also remain accurate since the status of messages are synchronized between the servers.
Requirements

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>License</td>
<td>IMAP TSE License</td>
</tr>
<tr>
<td>Software</td>
<td>Esna Cloudlink version 4.0 or higher</td>
</tr>
</tbody>
</table>

Server Configuration

This document provides instructions to integrate a Lotus Domino server and the Esna Cloudlink server to synchronize messages between the mailboxes on both systems. While specific variables regarding settings will differ from site to site, this guide provides a general guideline for integrating Lotus Domino with Esna Cloudlink.

Setting up IMAP TSE Synchronization

To configure Lotus Notes for Esna Cloudlink users:

1. Access the Lotus Notes Administrator.
2. Under the Domain/People directory, double click User and enter a nickname, a user name and an Internet password.
3. On the Lotus Domino Console, run the following command:
   Load Convert -m mail\username.nsf * ucmail.ntf.

   **Note:** In the above command, "username" is the Lotus mail file, and "ucmail.ntf" is the template into which the forms were installed.

   **Note:** Once the forms have been installed and distributed to the users, their inbox will need to be closed and reopened in order for the templates to be refreshed. This needs to be done every time the Master Template is updated.

The following procedure is optional:

To prevent the Window from scrolling while logging in and out under IMAP:

1. On the Lotus Notes Server, open the notes.ini file.
2. Set the Log_Session=1 to 0.
3. Click Save, then click Close.
Esna Cloudlink Configuration: Single User

**Note:** Configuring Esna Cloudlink for use with Superuser credentials is no longer supported.

Esna Cloudlink connects to the Lotus Domino server on a mailbox-by-mailbox basis, using each individual client's account credentials for each connection. It is necessary to establish IMAP TSE connections before setting up Unified Messaging.

To begin the setup of your unified messaging you need to create a TSE IMAP connection. The purpose of this connection is to tell the voicemail what IP address it is supposed to connect to in order to connect to your Lotus Domino server.

To create TSE IMAP connections

1. Login to OL Admin. The following screen appears:

2. Locate TSE IMAP Server in the left-hand pane. Right-click and select **New > TSE IMAP Server**. This screen appears.

3. Complete the following fields:
   - In the **IMAP Server Name** text field, enter a descriptive name of the server.
   - In the **IMAP Server Address** text field, enter the Domino server’s IP address.

   **Note:** If you are using an SSL connection, you should use the **server’s domain name (DNS)** instead of the IP address so that the certificate can be authenticated properly. SSL connections should **always use port 993**.

   - Accept the default value in the **IMAP Server Port** field or enter the server port field provided to you by your network Admin.
   - Select the **Voice Format** that your servers will use to handle voice messages.
   - In the **IMAP Server Domain** field, enter the domain name of the mail server to avoid looping messages during synchronization. This server address will be cross referenced with the Reply To address of each mailbox.
Setting Up Unified Messaging (UM)

Mailbox integration is a configuration where each individual user on your Domino server is given their own mailbox on the Esna Cloudlink system.

1. Obtain the list of the users you are going to integrate. It is advised that you contact your system administrator to verify that the usernames and passwords are correct before proceeding.
2. On the voice server machine, open OL Admin.
3. Open the Mailbox properties.
4. On the Addresses tab, verify that the Reply To email address is the address of the user's Lotus Domino account. If you made any changes, click Save.
5. Click on the Advanced tab.
6. From the Desktop Capabilities dropdown list, select Unified Communications.
7. Click the Save Mailbox toolbar button.

**Warning:** The following steps must be completed in the specified order.

8. Click on the Synchronization Options tab.
9. In the User Name field, enter the details of the user's Lotus Domino email account. Change all forward slashes / to pipes |, such as:

   Firstname Lastname|Organizationname

**Note:** Organizationname may include the domain and other information. Separate all fields by a pipe instead of a slash.

   any body|ERB|Music|Sales

10. From the Storage Mode dropdown list, select IMAP.
11. Enter the mailbox Internet password in the User Password and Confirm Password fields.
12. For IMAP Server, select the Domino server.
13. Disable the Use Feature Group setting for IMAP checkbox.
14. In the IMAP Language field, choose the language of the mailbox. You must make a choice in this field.
15. Do not use the Message Status feature. Make sure that the Update Message Status From checkbox is not checked.
16. Click on the Save Mailbox toolbar button.
17. On the voice server machine, open IMAP Tester.
18. Click on IMAP Synchronization Settings.
19. Click on the **Performance/Tuning** tab.
20. Disable the **High Performance Pack** checkbox.
21. Click **Apply** to save the changes. Exit the utility.
22. Restart the UC TSE Cache Manager service.