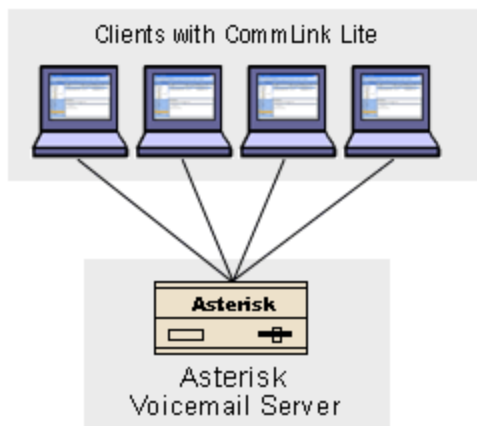


CommLink® Lite SPECIFICATIONS

Introduction

CommLink® Lite works in conjunction with Asterisk PBX and is loaded with easy to use features and operations to make your communication's management a snap. Point-and-click to handle your calls, messages, and mailbox setup. Manage your Asterisk voicemail messages, mailbox settings, incoming calls, and outdial contacts from Outlook or Standalone application for one-stop efficiency and higher-level business communication productivity. The CommLink® Lite synchronizes directly with Asterisk voicemail server and allows for simple and quick voicemail review and management.

How it works...



Clients or End-Users download the CommLink® Lite installation package and install on a PC running Microsoft Office 2000 or better with Outlook. Runs on Windows 2000/XP/2003/Vista. The CommLink® Lite allows users to view and manage Asterisk voicemail messages, set their Asterisk voicemail properties, receive Screen Pop and perform Call Control functions. Each installation works with one Asterisk voicemail account.

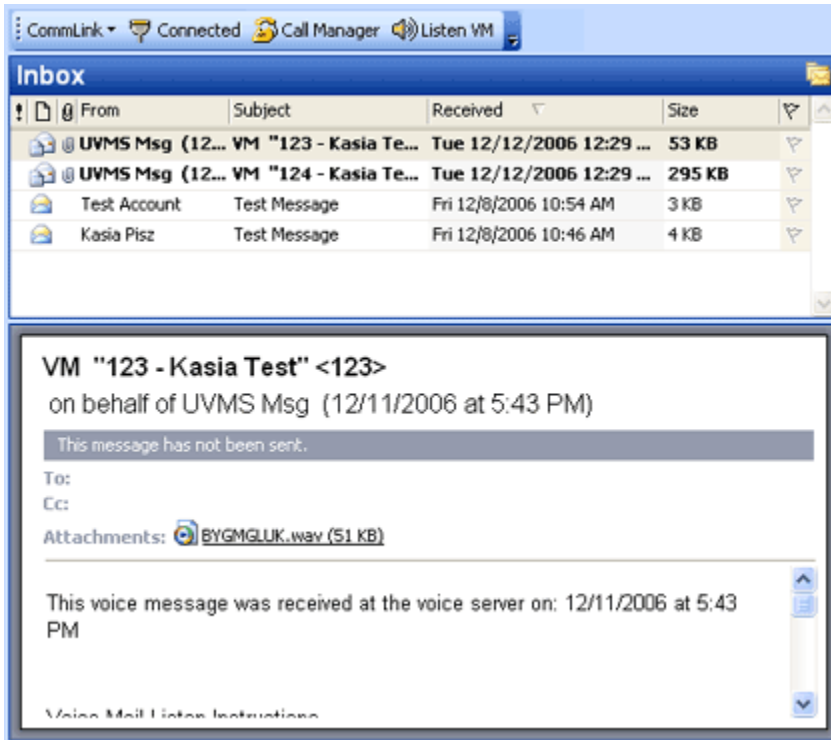
The Asterisk System Administrators need to download the Server Package and deploy on a Linux based OS running Asterisk and Apache with PHP. This package includes PHP scripts for Asterisk voicemail which communicates with all

CommLink® Lite Outlook installations. This is a one-time install per Asterisk voicemail system.

The CommLink® Lite Outlook Add-in achieves synchronization of voice messages directly between the Asterisk server and the Outlook folders using HTTP via Apache with PHP. The voicemail properties are retrieved and set also using HTTP. Screen Pops, Call Control and Outdialing are performed through an Asterisk Manager Interface (AMI) connection using events, commands and responses.

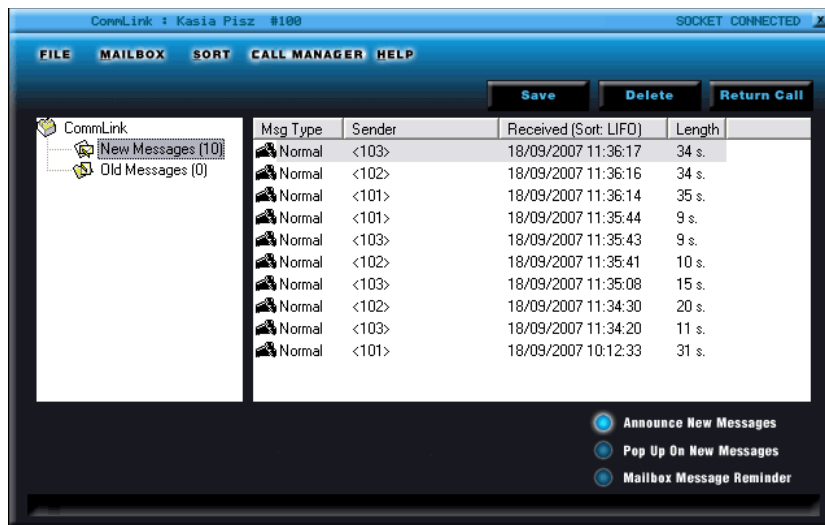
CommLink® Lite Versions

Outlook Add-in



CommLink® Lite Outlook Add-in installs into Outlook and will have an additional CommLink® toolbar and a new folder under the Inbox called “Saved Voice Messages” which stores saved messages.

Standalone Application

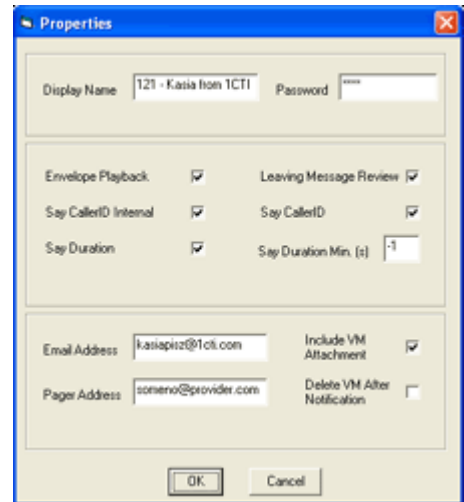


CommLink® Lite Standalone version synchronizes directly with voicemail server and allows for simple and quick voicemail review and management. It allows you to manage your voicemail messages as well as mailbox settings. Additional features include call and message notification, incoming call management, and outdialing capabilities.

CommLink® Lite Features

Voicemail Properties

- Manage voicemail settings directly from Outlook.
- Manage email and pager notification.
- Change display name.
- Change password.
- Option to play the message envelope (date/time) before playing voicemail messages.
- Option to review message before committing it to a mailbox.
- Option to read back caller's telephone number prior to playing a message.
- Option to specify Duration information before a message and the minimum duration to say.

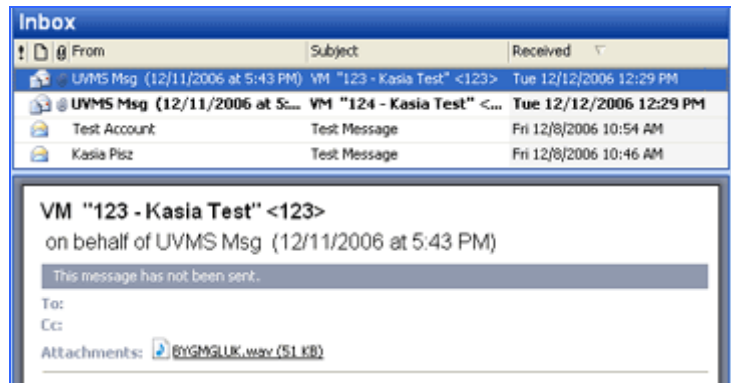


Message Management

- Receive new and saved voice messages from Asterisk into Outlook.
- Listen to voice messages on your PC.
- View voice message caller id and date/time received.
- Save and delete voice messages from

the Outlook Explorer.

- Integrated message player with save and delete capabilities.
- Synchronize voice messages between Asterisk and Outlook.
- Forward received voice messages to anybody as an email attachment.
- Create an email with a voice message attachment.
- Forward and reply to an email with a voice message attachment.



Screen Pops and Call Control

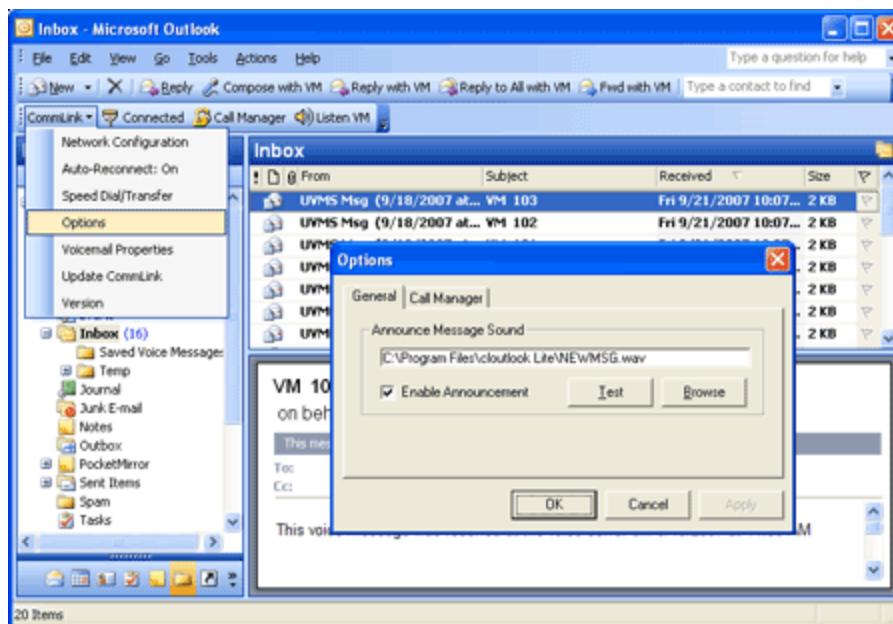
- CommLink® Lite Call Manager screen pop displays incoming calls on your desktop with CallerID number and Name when it is sent from the switch.
- By the click of a mouse you make the choice whether to ignore the call or route the caller to an extension from a list or one of two favorites.
- “Show Contact” button integrates with your Outlook’s address book for on the fly contact management.
- Outdial from extension list created by Speed Dial/Transfer.
- Outdial from Outlook Contacts Explorer.

- MSN Messenger integration allows you to see the MSN status of your Outlook contacts and allows you to outdial to their phone number.
- Call Manager keeps track of incoming calls to your extension.
- Press the Reply button to outdial to the captured phone number.
- Call logs allow you to see a list of who called and give you options to show/add.



Preferences and Options

- Network Configuration lets you setup your mailbox and sip extension login information need for message management and screen pops and call control.
- Speed Dial/Transfer is a tool to setup the different extensions you want available for quick call routing and to outdial.
- Options lets you set what audio file you wish to hear on new voice messages and a choice of screen pop of Call Manager or Toast styles.
- From Outlook shortcuts get latest updates with update program.
- From Outlook shortcuts you can see the Step-by-step tutorial in PowerPoint presentation.
- Version information of client and server as well as licensing information.



Private Label

- Label for Product Name and Company in installation packages, Outlook Toolbar and Version Information Screen.
- Label for Web pages, Powerpoint presentation and Flash presentations.

Server Side Licensing

- CommLink® Lite Server-side package will utilize a license file, generated by a unique hardware identifier (host-id), that will allow a predetermined number of concurrent users to access all available features.

```
[root@asterisk1 ~]# /usr/local/Zend/bin/zendid  
M:SNCF3-9MSCE-Q3B2N-ZAXTT
```

CommLink® Lite REQUIREMENTS

CommLink® Lite for Outlook Add-in

- End Users download the CommLink® Lite installation package.
- Install on a PC running Microsoft Outlook 2000 or better.
- Runs on Windows 2000/XP/2003/Vista.
- Each installation works with one Asterisk voicemail account.
- For multi-user systems and/or domain controllers the installation, uninstallation, and updates must be performed by a user with local administrative privileges.

Server Side Package

- Asterisk System Administrators need to download Server Package and deploy on a Linux based OS running Asterisk.
- One-time install per Asterisk voicemail system.
- Package includes PHP scripts for Asterisk voicemail which communicates with all CommLink® Lite for Outlook Add-in installations.
- Three types of integration available:
 - commlink.php/inc are for use with Asterisk configuration files
 - commlink-mysql.php/inc are for use with Asterisk Real Time for MySQL.
 - commlink-pgsql.php/inc are for use with Asterisk Real Time for PostgreSQL.
 - commlink-odbc.php/inc are for use with Asterisk Real Time via ODBC.
- Server-side license is required to run the php scripts which have been encoded and locked by hardware id and concurrent usage. See Server Setup Guides to obtain license.
- Due to limitations of the app_voicemail of Asterisk 1.2.x, the httpd process must be able to access voicemail folders and message files with user permission set. See Server Setup Guides for different configuration options.

Asterisk Manager Interface (AMI) Connection

- Need to configure AMI manager account(s) to enable screen pops and call control for CommLink® Lite for Outlook.
- Depending on the environment it may be desirable to have one AMI manager account per CommLink® Lite user or have one shared for all users. Place each AMI manager entry in a manager conf file, like /etc/asterisk/manager_additional.conf, with values for username, secret, deny, permit, read, and write. Set the username and secret which required in the Network Configuration screen on CommLink® Lite for Outlook. Set deny for all IP ranges (if desired).
- Set permit for the IP range for the users that can have access to the AMI manager. Set the read and write for "system,call,log,verbose,command,agent,user".

```
[root@asterisk1 asterisk]# vi manager_additional.conf
[manager]
secret = password
deny=0.0.0.0/0.0.0.0
permit=192.168.0.0/255.255.0.0
read = system,call,log,verbose,command,agent,user
write = system,call,log,verbose,command,agent,user
```

Prerequisites for commlink.php/inc, commlink-mysql.php/inc, commlink-pgsql.php/inc, and commlink-odbc.php/inc

- Apache – Full-featured HTTP web server software. Used by CommLink® Lite to communicate between CommLink® Lite for Outlook Add-in and the server as well as view Asterisk web based management tools – <http://www.apache.org>.
- Asterisk – Linux based PBX (private branch exchange) software that provides all the features of high-end telephone systems, many of which are not yet available in proprietary phone systems – <http://www.asterisk.org>.
- PHP – server-side scripting language used for creating dynamic web Pages; recommended to be run as an Apache module. Used by both Asterisk and CommLink® Lite to execute specific functions to control Asterisk – <http://www.php.net>.
- Zend Optimizer 3.3.0 (may work with higher versions - Zend Optimizer is required to runs the php files encoded by the Zend Guard. A zend guard license is required to run the encoded files and is restricted by hardward id and concurrent connections. <http://www.zend.com/store/products/zend-optimizer.php>.
- SoX 12.x – Sound processing program. In CommLink® php file it is used to convert voicemail audio files between gsm (raw gsm), wav (MS wav format, 16 bit linear) and WAV (MS wav format, gsm encoded - wav49) – <http://sox.sourceforge.net>.
- Perl – Programming language. In CommLink® php files it is used to move and rename voicemail files; as voicemails are marked as viewed or new, their files need to be moved between different directories – <http://www.perl.org>.
- Sed – Streams editor used to filter text. In CommLink® php files it is used to modify specific lines in voicemail.conf and voicemail txt files; in Asterisk's static configuration, voicemail information is stored in configuration files, which CommLink.php needs to modify as voicemail settings and options are changed. It is also used to update information in voicemail

txt files – <http://sed.sourceforge.net>.

Prerequisites for commlink-mysql.php/inc only

- MySQL – multithreaded, multi-user SQL database management system – <http://www.mysql.com>.
- php-mysql module to support mysql functions in php.

Prerequisites for commlink-pgsql.php/inc only

- PostgreSQL – multithreaded, multi-user SQL database management system – <http://www.postgresql.org/>.
- php-pgsql module to support pgsql functions in php.

Prerequisites for commlink-odbc.php/inc only

- unixODBC 2.2.x (other versions may work) - unixODBC provides Open Database Connectivity (ODBC), a standard API which access SQL databases or any database with an ODBC driver, for linux. unixODBC drivers are available for following databases (not all listed): Microsoft SQL Server, Microsoft Access, Oracle, DB2, Sybase, Postgresql, MySQL, InterBase/Firebird, SAP DB, and SQL Lite. <http://www.unixodbc.org/>.
- php-odbc module to support odbc functions in php.