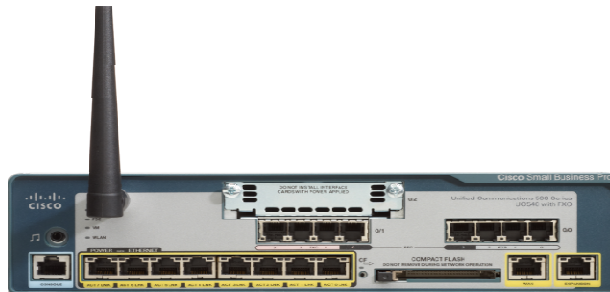


Cisco Small Business

SBCS

Technical Enablement Lab (TEL)



Lab 21

SMTP Notification of UC500 Voice Mail to EMAIL

| | |
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Introduction

The roadmap for CCA 2.x includes the implementation of adding an SMTP Notification to an external mail server for voice mails left on the UC500 phones. This can include sending the attachment in the EMAIL, which seems to be a very frequently used feature.

This is in addition to IMAP integration of the Voice Mail box of the UC500 phone to the user's PC Mail Client, which is configurable as a Smart Application in CCA.

Until we offer the SMTP capability, this lab will help you configure this feature using the CUE GUI. This configuration will not affect CCA and it can still be used to manage everything else on the system.

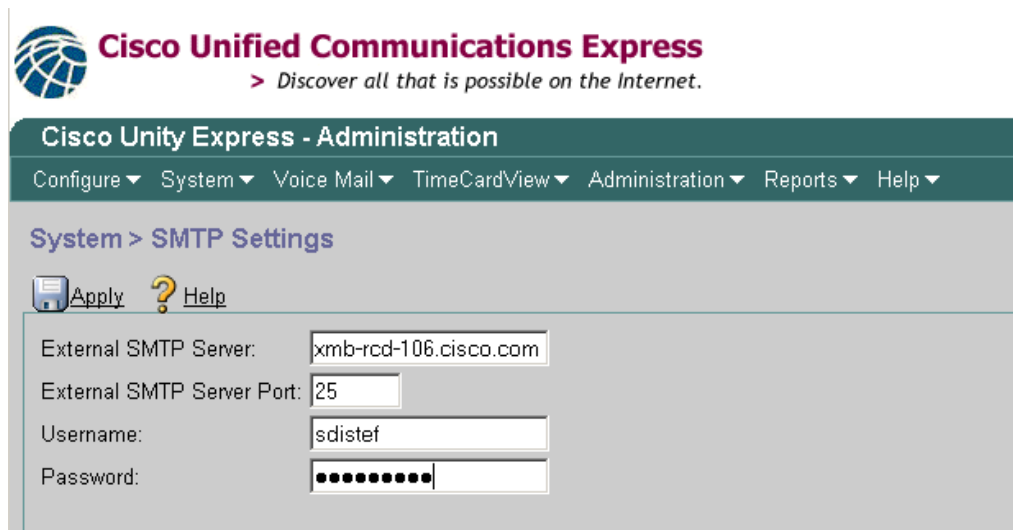
Prerequisites

Make sure you have your mail server and credentials ready and the UC500 connected so it can ping the mail server from within CUE (As long as you are connected to the WAN, this routing will work with the default configuration).

I do not have a specific firmware tied to this document, but I performed this on CUE 7.1.3, which is included in the UC500 8.0.2 bundle zip, just so you have a point of reference. I recommend 7.1.3 or later for this lab.

Mail Server

I created this lab on an internal Lab network, which has an Exchange Server for Cisco EMAIL and I used that server and my own email credentials. Make sure when you first try this, you check your junk mail folder, because the mail may end up there until you specify it as a trusted domain and sender 😊



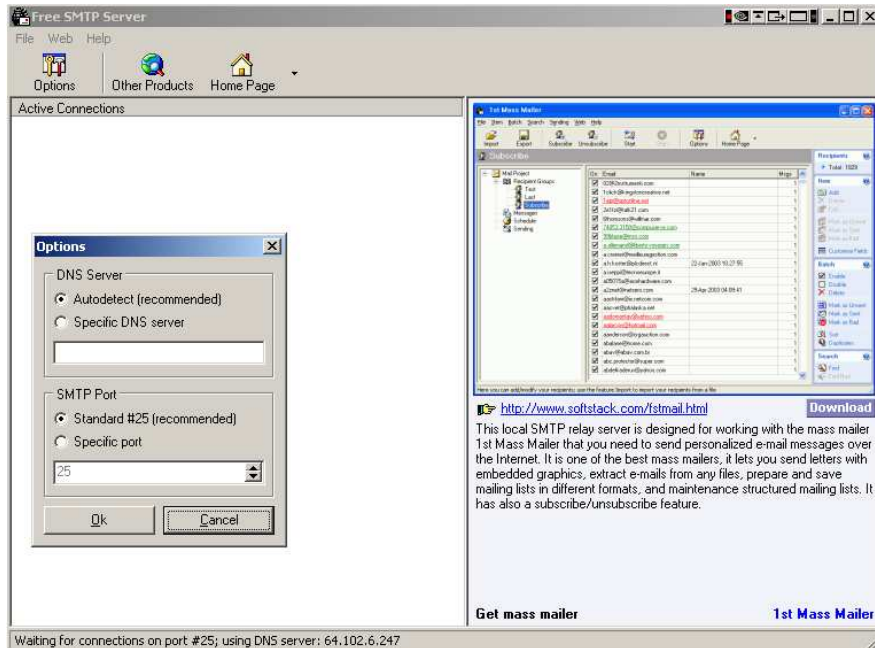
The screenshot shows the Cisco Unified Communications Express Administration web interface. At the top is the Cisco logo and the text "Cisco Unified Communications Express" with the tagline "> Discover all that is possible on the Internet." Below this is a navigation bar with tabs: "Cisco Unity Express - Administration", "Configure", "System", "Voice Mail", "TimeCardView", "Administration", "Reports", and "Help". The "System" tab is selected, and the breadcrumb "System > SMTP Settings" is displayed. Below the breadcrumb are "Apply" and "Help" buttons. The main configuration area contains four fields: "External SMTP Server" with the value "xmb-rcd-106.cisco.com", "External SMTP Server Port" with the value "25", "Username" with the value "sdistef", and "Password" with a masked field (dots).

An alternative shown below is a way to circumvent the hassle of testing CUE connection to the actual mail server if you are practicing in a lab, and perhaps didn't yet have WAN connectivity. This freeware

can run on your PC connected to the UC500 and you just use your PCs IP address as the SMTP server address inside CUE to confirm this operation.

<http://www.softstack.com/freesmtp.html>

After installation, we have Free SMTP server running on my PC with IP Address from UC560 Data VLAN (192.168.10.12):



In the case you are using the freeware, you can confirm binding with DOS command 'netstat -a' (shows the PC Listening for SMTP traffic (port 25)):

```
c:\ Command Prompt
^C
C:\>netstat -a

Active Connections

Proto Local Address           Foreign Address         State
TCP    sdistef-wxp:smtp        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:epmap       sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:microsoft-ds sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:990         sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:1043        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:1044        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:1240        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:1311        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:1680        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:3389        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:3689        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:8081        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:8088        sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:12346       sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:12347       sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:12351       sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:31038       sdistef-wxp.cisco.com:0 LISTENING
TCP    sdistef-wxp:54500       sdistef-wxp.cisco.com:0 LISTENING
```

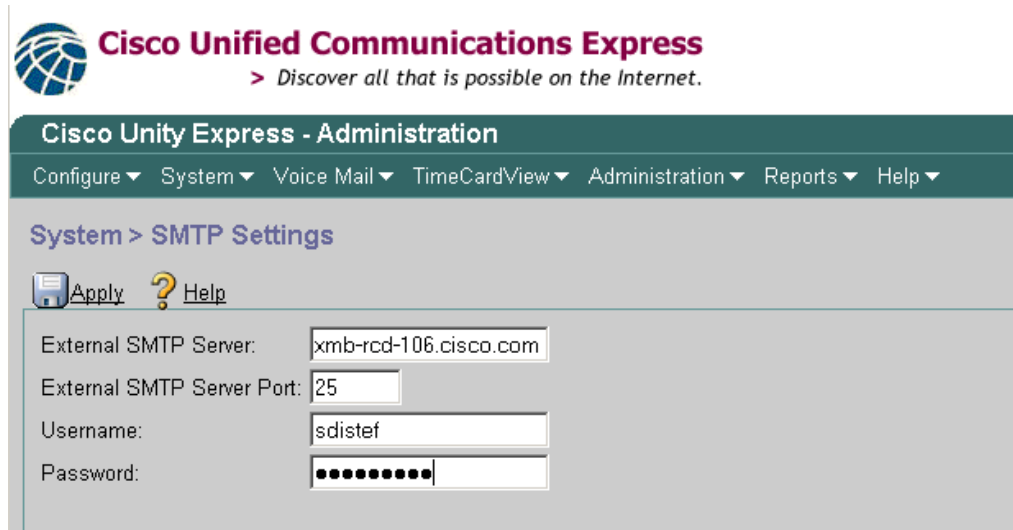
Cisco Unity Express

Now we are ready to configure Voice mail to email notification on CUE. As mentioned in the introduction, a future release of CCA will include this, but for now, we use the CUE GUI (browser to 10.1.10.1) to configure this. No CLI is required.

SYSTEM: SMTP Settings

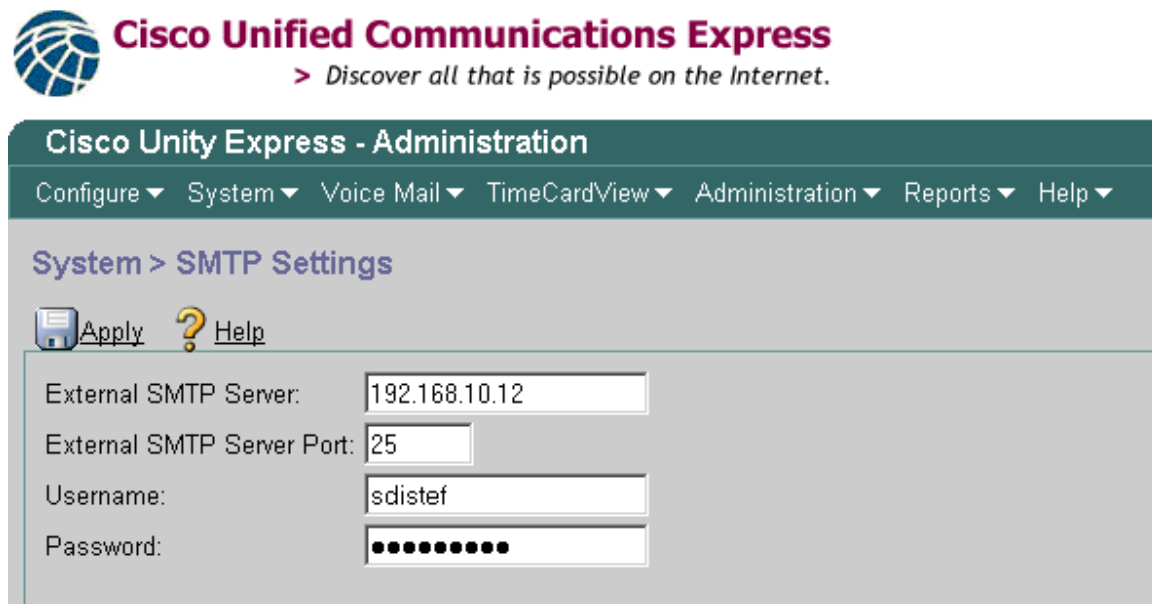
(authentication can be left out if not required by your mail server)

The EMAIL Server configuration:



The screenshot shows the Cisco Unity Express Administration interface. At the top is the Cisco logo and the text "Cisco Unified Communications Express" with the tagline "> Discover all that is possible on the Internet." Below this is a dark green navigation bar with the title "Cisco Unity Express - Administration" and a menu with items: Configure, System, Voice Mail, TimeCardView, Administration, Reports, and Help. The main content area has a breadcrumb "System > SMTP Settings". Below the breadcrumb are "Apply" and "Help" links. The configuration fields are: "External SMTP Server:" with the value "xmb-rcd-106.cisco.com", "External SMTP Server Port:" with the value "25", "Username:" with the value "sdistef", and "Password:" with a masked password represented by ten dots.

Or the Freeware screen shot:



This screenshot is similar to the one above, showing the same Cisco Unity Express Administration interface. The navigation bar and breadcrumb are identical. However, the "External SMTP Server:" field now contains the IP address "192.168.10.12". The other fields remain the same: "External SMTP Server Port:" is "25", "Username:" is "sdistef", and "Password:" is masked with ten dots.

Voice Mail > Message Notification > Notification Administration



Cisco Unified Communications Express

> Discover all that is possible on the Internet.

Cisco Unity Express - Administration

Configure ▾ System ▾ Voice Mail ▾ TimeCardView ▾ Administration ▾ Reports ▾ Help ▾

Voice Mail > Message Notification > Notification Administration

Apply Help

Notification Configuration

- ☒ Enable system-wide notification for All Messages ▾
- ☒ Allow user to login to voicemail box to retrieve voicemail when phone notification device is notified.
- ☒ Attach message to outgoing email notification.
- ☐ Enable Cascading Notifications
- ☐ Enable system-wide notification for live recordings.

If phone is not answered, hang up after 48 seconds. (Range: 12 - 96)

Restriction Table Name: msg-notification ▾

Voice Mail > Message Notification > Subscriber Notification Management

We will use phone named Fivea with extension 208



Cisco Unified Communications Express

> Discover all that is possible on the Internet.

Cisco Unity Express - Administration

Configure ▾ System ▾ Voice Mail ▾ TimeCardView ▾ Administration ▾ Reports ▾ Help ▾

Voice Mail > Message Notification > Subscriber Notification Management

Enable Notification Disable Notification Find Help

1 - 10 of 13 result(s)

| <input type="checkbox"/> | <u>△ User/Group ID</u> | <u>Primary Extension</u> | <u>Mailbox Type</u> | <u>Notification Status</u> |
|--------------------------|----------------------------|--------------------------|---------------------|----------------------------|
| <input type="checkbox"/> | Fivea | 208 | Personal | Enabled |
| <input type="checkbox"/> | Fiveb | 209 | Personal | Disabled |
| <input type="checkbox"/> | Fortyfive | 202 | Personal | Disabled |
| <input type="checkbox"/> | fourfive | 205 | Personal | Disabled |
| <input type="checkbox"/> | fourtyfive | 206 | Personal | Disabled |

Specify the notification email for this voice mail user.

User Profile - System Administration - Mozilla Firefox

http://10.1.10.1/Web/NotificationDeviceList.do?type=0&Id=Fivea

User Profile - Fivea

Apply Cancel Help

Profile Groups Mailboxes Notification

Cascading Settings

After min(s), notify

After min(s), notify

Notification Devices

| Enabled | Device Type | Destination |
|-------------------------------------|---------------------------------|-------------------|
| <input type="checkbox"/> | Home Phone | |
| <input type="checkbox"/> | Work Phone | 208 |
| <input type="checkbox"/> | Cell Phone | |
| <input type="checkbox"/> | Pager (Numeric) | |
| <input type="checkbox"/> | Text Pager | |
| <input checked="" type="checkbox"/> | Email Inbox | sdistef@cisco.com |

Done

Set the schedule when you want this to work. Make sure your CUE time is the correct day and time of day, because if its not, you may not see the notifications, since its not the time you think it is ;-)

User Profile - System Administration - Mozilla Firefox

http://10.1.10.1/Web/NotificationDevice.do?WIDE=640&HIGH=950&SCROLL=YES&deviceType=Email_Inbox&Id=Fivea&type=

User Profile - Fivea

Apply Cancel Help

Profile Groups Mailboxes Notification

Configure Notification Device - Email Inbox

[Back To List](#)

☒ Enable notification to this device

To: (Email Address)

Text for Email:

Notification Preference

☒ Attach message to outgoing email notification.

Notification Schedule

| | S | M | T | W | T | F | S |
|----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 03:00 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 04:30 PM | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 05:00 PM | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 05:30 PM | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 06:00 PM | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 06:30 PM | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 07:00 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Quick Add

Day:

Start Time:

End Time:

Add

Copy Day's Schedule >> Copy

Done

User Profile - System Administration - Mozilla Firefox

http://10.1.1.10.1/Web/SA/UserProfile.do?submitType=RECONFIGURE

User Profile - Five Zeroeight

Apply

Forward CFNA/CFB

Cancel

Help

Profile

Groups

Mailboxes

Notification

User ID:

Fivea

First Name *:

Five

Last Name *:

Zeroeight

Nick Name *:

Fivea

Display Name*:

Five Zeroeight

Associated Phone:

8843.E155.132F

Add/Edit Remove

Primary Extension:

208

Other:

Primary E.164 Number:

Fax Number:

Language:

System Default

Password Login:

Enabled

Password options:

Password specified below

Password :

.....

Confirm Password :

.....

PIN Login:

Enabled

PIN options:

PIN specified below

PIN :

.....

Confirm PIN :

.....

* indicates a mandatory field

☒ Enable notification for this user/group

☐ TimeCardView User

Done

User Profile - System Administration - Mozilla Firefox

http://10.1.1.10.1/Web/SA/UserProfileMailboxes.do?submitType=RECONFIGURE&userId=Fivea

User Profile - Five Zeroeight

Apply

Cancel

Help

Profile

Groups

Mailboxes

Notification

Personal Mailbox

Delete

Description:

Announcement Only:

☐

Mailbox Size *:

3600

seconds

Maximum Caller Message Size *:

240

seconds

Message Expiry Time *:

30

days

Play Tutorial:

No

Allow Login Without PIN:

No

Enabled:

☒

Fax enabled:

☒

Created/Last accessed:

Jun 03 2010 10:16:25 PDT

Total Time used (secs):

9

Mailbox Usage:

0%

Total messages:

2

Broadcast messages:

0

New messages:

2

Future messages:

0

Saved messages:

0

Fax messages:

0

Deleted messages:

0

In use:

No

* indicates a mandatory field

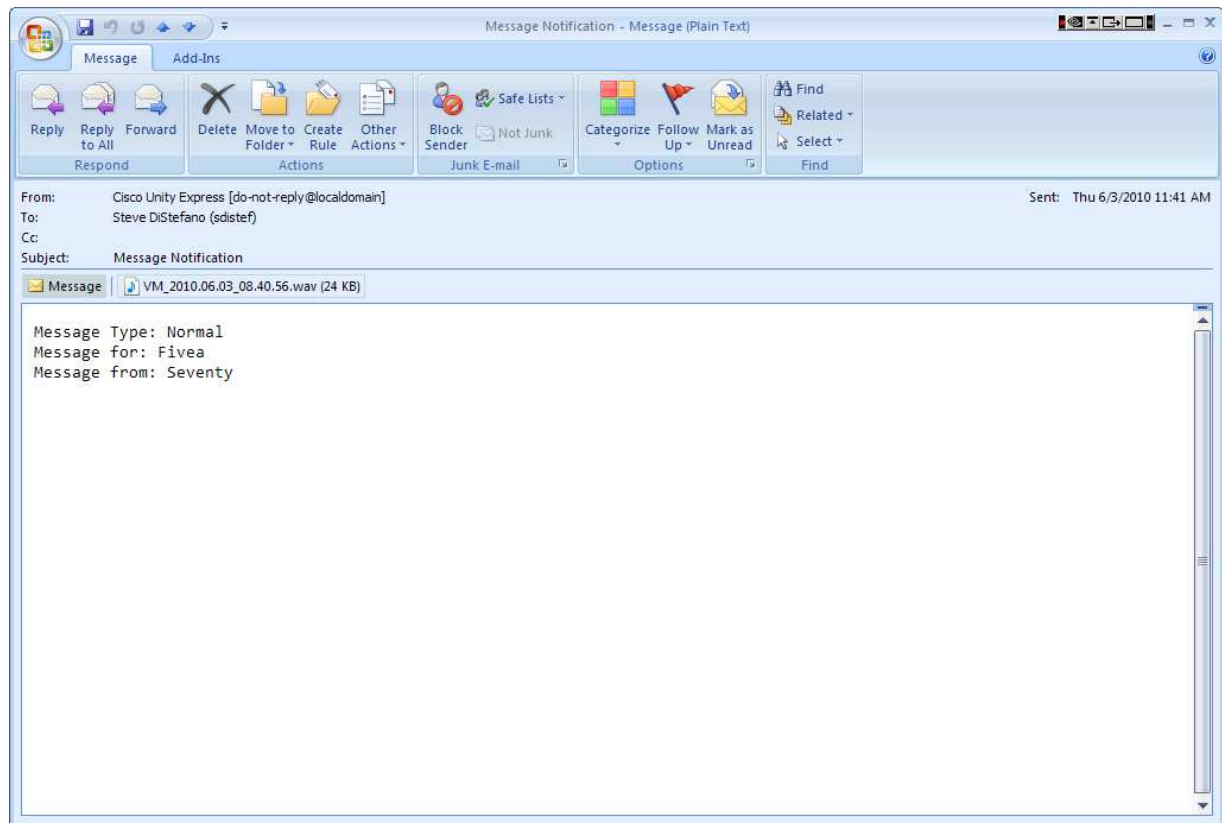
General Delivery Mailbox(es)

This user is not subscribed to any General Delivery Mailboxes.

Done

Verify Operation

Leave a voice message for Fivea check for email.



In the case you are using just the PC program, the mail may not get out beyond the PC, but you can still confirm the operation since you will see the connection in the Free SMTP window.

Debugging

If you have any problems and are not sure why the email is not working, there are some very good CUE debugs you can perform in CLI mode that are not too verbose, and I will show them here so you can use them.

Open a Session to the CUE in Command Line (CLI):

```
UC560#service-module integrated-Service-Engine 0/0 session
```

```
Trying 10.1.10.2, 2002 ... Open
```

```
<hit Enter>
```

```
se-10-1-10-1#
```

```
se-10-1-10-1# no trace all
```

```
se-10-1-10-1# trace voicemail msgnotif all
```

se-10-1-10-1# trace configapi smtp all

se-10-1-10-1# trace entitymanager notifdevice all

Now do this when you are ready to leave the voice mail (do it first)

se-10-1-10-1# show trace buffer tail

Press <CTRL-C> to exit...

Now leave the voice mail for Fivea and hang up...

```
31023 06/04 06:56:10.418 entm dvce 0 Device::Entering constructorfor deviceId: 66,
profile: com.cisco.aesop.entity.notification.NotificationProfile@1b82af9
3475 06/04 07:08:41.675 ACCN STGN 0 Task: 18000000038GetListMember: output
string:outcall
31023 06/04 07:08:41.686 VMSS mnot 0 MessageNotification: Enter
insertIntoMsgNotifQueue(): msg recipient: Fiveanotif target: Fivea
31023 06/04 07:08:41.715 capi smtp 0 SmtplibServer: getSysdb(): Attribute: address
2270 06/04 07:08:41.715 capi smtp 0 SmtplibSysdbNode: get(): address
31023 06/04 07:08:41.716 VMSS mnot 0 MessageNotification: query: INSERT INTO
outcall_email_job VALUES ('Fivea', 66, 1275660521686, 14, 0, 'Fivea');
31023 06/04 07:08:41.738 VMSS mnot 0 MessageNotification: Notifying sender threads
31023 06/04 07:08:41.738 VMSS mnot 0 MessageNotification: Exit
insertIntoMsgNotifQueue(): notifyEmailThread=true, notifyPhoneThread=false
2975 06/04 07:08:41.751 VMSS mnot 0 EmailSender: Processing job: 1
2975 06/04 07:08:41.757 VMSS mnot 0 EmailSender: Got a job: Owner=Fivea,
Contact=sdistef@cisco.com, UID=14
2975 06/04 07:08:41.762 VMSS mnot 0 EmailSender: sendEmailNotification:
checkSendPreConditions passed
2975 06/04 07:08:41.762 capi smtp 0 SmtplibServer: getSysdb(): Attribute: address
2274 06/04 07:08:41.763 capi smtp 0 SmtplibSysdbNode: get(): address
2975 06/04 07:08:41.763 capi smtp 0 SmtplibServer: getSysdb(): Attribute: port
2254 06/04 07:08:41.764 capi smtp 0 SmtplibSysdbNode: get(): port
2975 06/04 07:08:41.768 capi smtp 0 SmtplibServer: getSysdb(): Attribute: userid
2255 06/04 07:08:41.769 capi smtp 0 SmtplibSysdbNode: get(): userid
2975 06/04 07:08:41.769 capi smtp 0 SmtplibServer: getSysdb(): Attribute: password
2270 06/04 07:08:41.769 capi smtp 0 SmtplibSysdbNode: get(): password
2975 06/04 07:08:41.769 capi smtp 0 SmtplibServer: getSysdb(): Attribute: authRequired
2274 06/04 07:08:41.769 capi smtp 0 SmtplibSysdbNode: get(): authRequired
2975 06/04 07:08:41.770 VMSS mnot 0 EmailSender: Begin processing email job, UID=14
2975 06/04 07:08:41.781 VMSS mnot 0 EmailSender: Attachment body part added, UID=14
2975 06/04 07:08:43.014 VMSS mnot 0 EmailSender: Sent successfully, UID=14
2975 06/04 07:08:43.014 VMSS mnot 0 EmailSender: Send email rc=1
2975 06/04 07:08:43.014 VMSS mnot 0 EmailSender: Deleting email job: Device ID=66,
UID=14
2975 06/04 07:08:43.033 VMSS mnot 0 EmailSender: calculateWaitTime(): current time:
1275660523032, job time: 0
2975 06/04 07:08:43.033 VMSS mnot 0 EmailSender: Wait time=0
```

Control-C

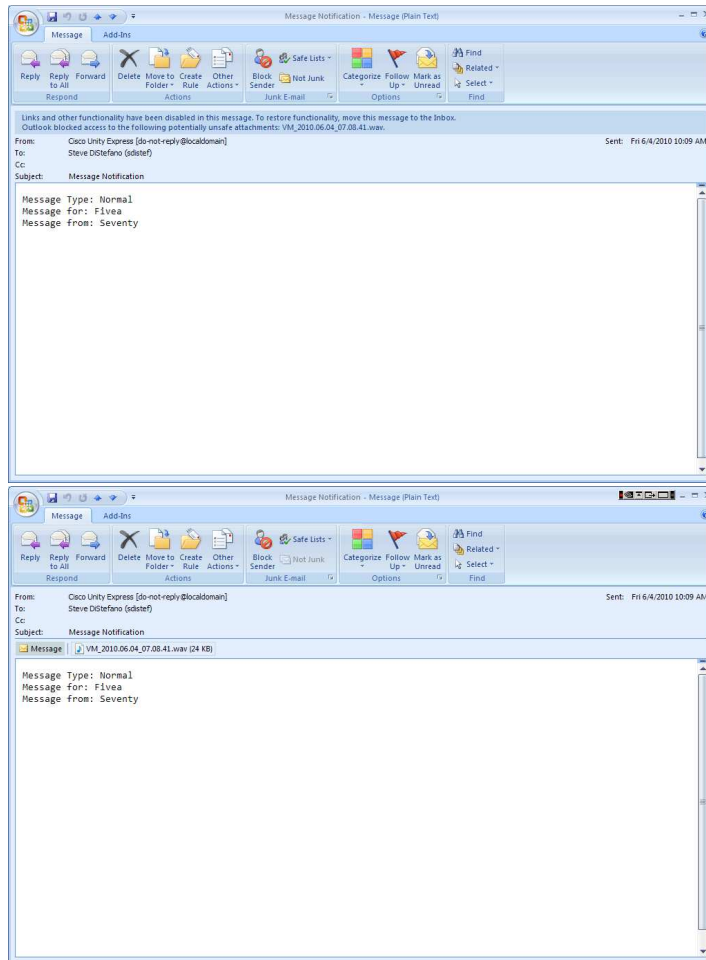
And Turn Off the trace

se-10-1-10-1#

se-10-1-10-1# no trace all

se-10-1-10-1#

here is this email (again, the unsafe attachment forced mine to junk folder until I allow)



If you are running the Free SMTP, this is a positive verification, even though the PC cant relay the email...

```
3475 06/03 12:41:45.447 ACCN STGN 0 Task: 18000000034GetListMember: output
string:outcall
31022 06/03 12:41:45.459 VMSS mnot 0 MessageNotification: Enter
insertIntoMsgNotifQueue(): msg recipient: Fiveanotif target: Fivea
31022 06/03 12:41:45.478 capi smtp 0 SmtplibServer: getSysdb(): Attribute: address
2254 06/03 12:41:45.478 capi smtp 0 SmtplibSysdbNode: get(): address
31022 06/03 12:41:45.478 VMSS mnot 0 MessageNotification: query: INSERT INTO
outcall_email_job VALUES ('Fivea', 66, 1275594105459, 12, 0, 'Fivea');
31022 06/03 12:41:45.500 VMSS mnot 0 MessageNotification: Notifying sender threads
31022 06/03 12:41:45.500 VMSS mnot 0 MessageNotification: Exit
insertIntoMsgNotifQueue(): notifyEmailThread=true, notifyPhoneThread=false
2975 06/03 12:41:45.518 VMSS mnot 0 EmailSender: Processing job: 1
```

```
2975 06/03 12:41:45.523 VMSS mnot 0 EmailSender: Got a job: Owner=Fivea,
Contact=sdistef@cisco.com, UID=12
2975 06/03 12:41:45.525 VMSS mnot 0 EmailSender: sendEmailNotification:
checkSendPreConditions passed
2975 06/03 12:41:45.525 capi smtp 0 SmtplibServer: getSysdb(): Attribute: address
2274 06/03 12:41:45.525 capi smtp 0 SmtplibSysdbNode: get(): address
2975 06/03 12:41:45.525 capi smtp 0 SmtplibServer: getSysdb(): Attribute: port
2270 06/03 12:41:45.526 capi smtp 0 SmtplibSysdbNode: get(): port
2975 06/03 12:41:45.526 capi smtp 0 SmtplibServer: getSysdb(): Attribute: userid
2255 06/03 12:41:45.526 capi smtp 0 SmtplibSysdbNode: get(): userid
2975 06/03 12:41:45.526 capi smtp 0 SmtplibServer: getSysdb(): Attribute: password
2254 06/03 12:41:45.526 capi smtp 0 SmtplibSysdbNode: get(): password
2975 06/03 12:41:45.526 capi smtp 0 SmtplibServer: getSysdb(): Attribute: authRequired
2274 06/03 12:41:45.527 capi smtp 0 SmtplibSysdbNode: get(): authRequired
2975 06/03 12:41:45.527 VMSS mnot 0 EmailSender: Begin processing email job, UID=12
2975 06/03 12:41:45.537 VMSS mnot 0 EmailSender: Attachment body part added, UID=12
2975 06/03 12:41:46.109 VMSS mnot 0 EmailSender: Error sending email, UID= 12
:javax.mail.SendFailedException: Sending failed;
  nested exception is:
    class javax.mail.MessagingException: 550 Invalid recipient: sdistef@cisco.com

2975 06/03 12:41:46.110 VMSS mnot 0 EmailSender: Send email rc=2
2975 06/03 12:41:46.110 VMSS mnot 0 EmailSender: Deleting email job: Device ID=66,
UID=12
2975 06/03 12:41:46.130 VMSS mnot 0 EmailSender: calculateWaitTime(): current time:
1275594106129, job time: 0
2975 06/03 12:41:46.130 VMSS mnot 0 EmailSender: Wait time=0
```