



AlertDispatcher v5.0

How-To Guide

Last update: June 27, 2017

Copyright

This publication is protected by copyright and distributed under licenses restricting its use, copying and distribution. No part of this publication may be reproduced in any form by any means without prior written authorization of Click And Deploy Pte Ltd.

Disclaimer

This publication is provided "AS IS", without a warranty of any kind. All express or implied representations and warranties, including any implied warranty of merchantability, fitness for a particular purpose or non-infringement, are hereby excluded. Click And Deploy Pte Ltd may make any improvements or changes in the product(s) or the program(s) described in this publication at any time. This document is subject to change without notice.

Table of Contents

1. For End User	4
1). How to Launch AlertDispatcher Client	4
2). How to Send Test Message	5
3). How to use the Addressbook and setup Escalation	7
a). Adding Group and Recipient	7
b). Setting up Basic Escalation	10
i. Overview.....	10
ii. Acknowledging by SMS reply.....	11
iii. Acknowledging by Email reply	12
iv. Acknowledging via AlertDispatcher Client Console.....	14
v. Acknowledging via link embedded in email	15
c). Send Test Message.....	18
5). How to Delete Pending Messages	20
6). How to Retrieve Logs for Troubleshooting.....	21
2. For Administrator.....	22
1). How to register AlertDispatcher license using Activation Code.....	22
a). Register via SMS	22
b). Register via Internet.....	23
2). How to setup AlertDispatcher to send Email/Alert Emails	25
3). How to setup Master/Slave Cluster Redundancy	28
a). Active Master/Active Slave Operation Mode.....	29
b). Active Master/Passive Slave Operation Mode	31

1. For End User

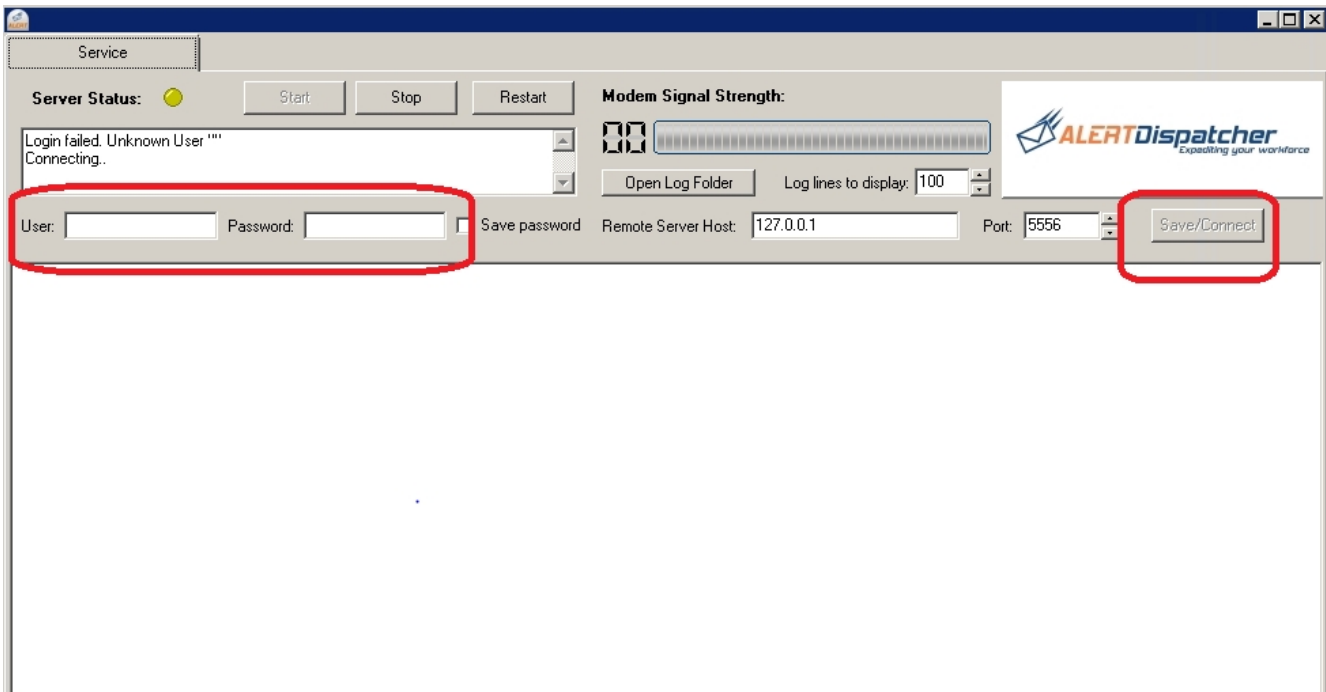
1). How to Launch AlertDispatcher Client

Launch AlertDispatcher Client from Windows Desktop.

Note: You do not need to launch the client to ensure it starts, AlertDispatcher works as a background service.



If login is not saved previously, you may need to login. It may take sometime for the Client to connect to the server.



2). How to Send Test Message

Navigate to the “Send SMS/Email” tab. Click “Send” button to send the message.

Note: You only need to add the + country code sign unless you’re sending to a foreign number.

AlertDispatcher Corporate v5.0.0.0.458 (Authorized User: 1))

Modem Setup | Instant Messaging (IM) Setup | System Setup | Servers Setup (SMTP/HTTP/SNMP) | Receive SMS Setup

Templates | Help/Registration | **Send SMS/Email** | Addressbook | Users and Departments

Service | Messages

Recipients: 123456789

Subject (Required for e-mail):

Priority: Normal | Type: All | Modem port: auto | Department: Main | Custom Field1: | Insert

Send a message at: 3/27/2015 4:33:47 PM | Select Template: | Use Template

Message Body (Required):
Testing

Characters: 7

Navigate to the “Messages” Tab to check the status of your sent message.

Note: If there is a pending queue, your message will not be sent until the queue has cleared.

AlertDispatcher Corporate v5.0.0.0.458 (Authorized User: 1))

Modem Setup | Instant Messaging (IM) Setup | System Setup | Servers Setup (SMTP/HTTP/SNMP) | Receive SMS Setup

Templates | **Messages** | Send SMS/Email | Addressbook | Users and Departments

Service | Help/Registration

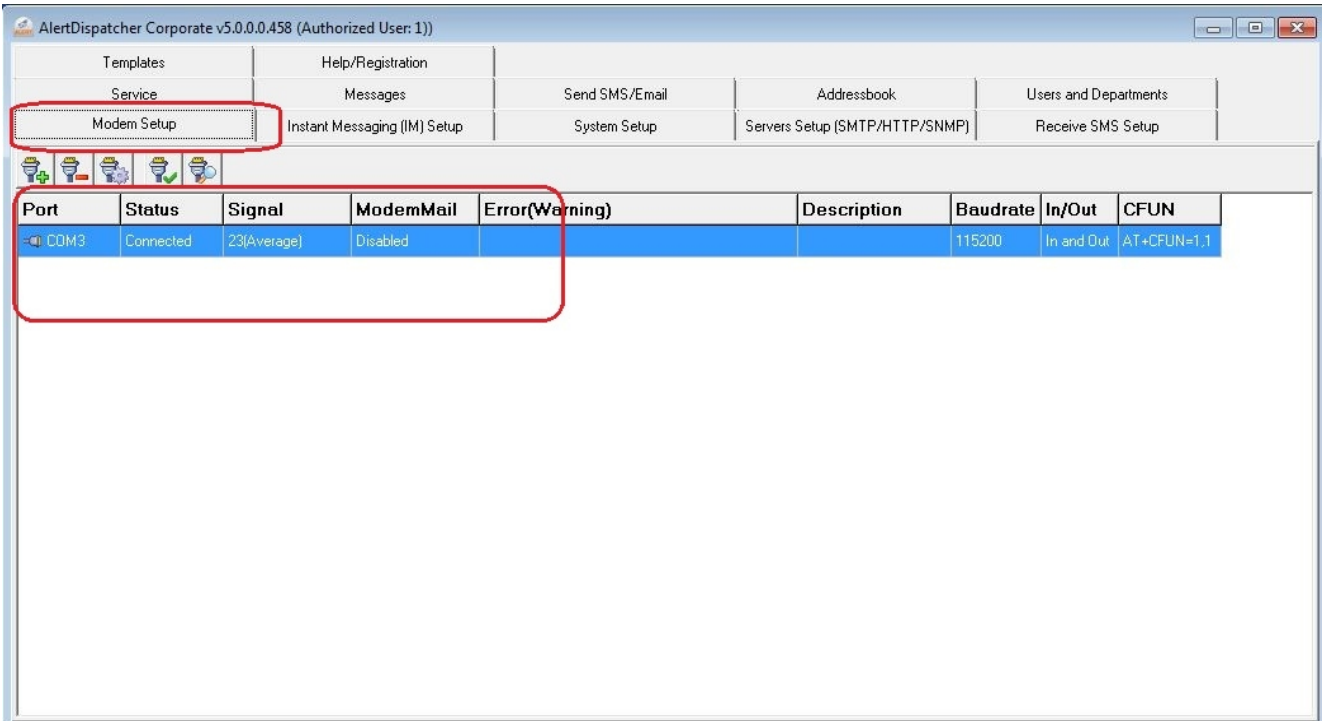
1 from 1. Today sent: 1. Today received: 0

Word wrap Limit: 500 Apply

StartDateTime	Type	IN/OUT	Recipient	Text	Subject	MessageStatus	Priority	FinishDateTime
3/27/2015 4:36:43 PM	SMS	Out	123456789	Testing		Processing	2	

If the message still can't be sent out, go to "Modem Setup" to check if the modem is connected and there is signal. The light on the modem must be blinking and the SIM card properly inserted.

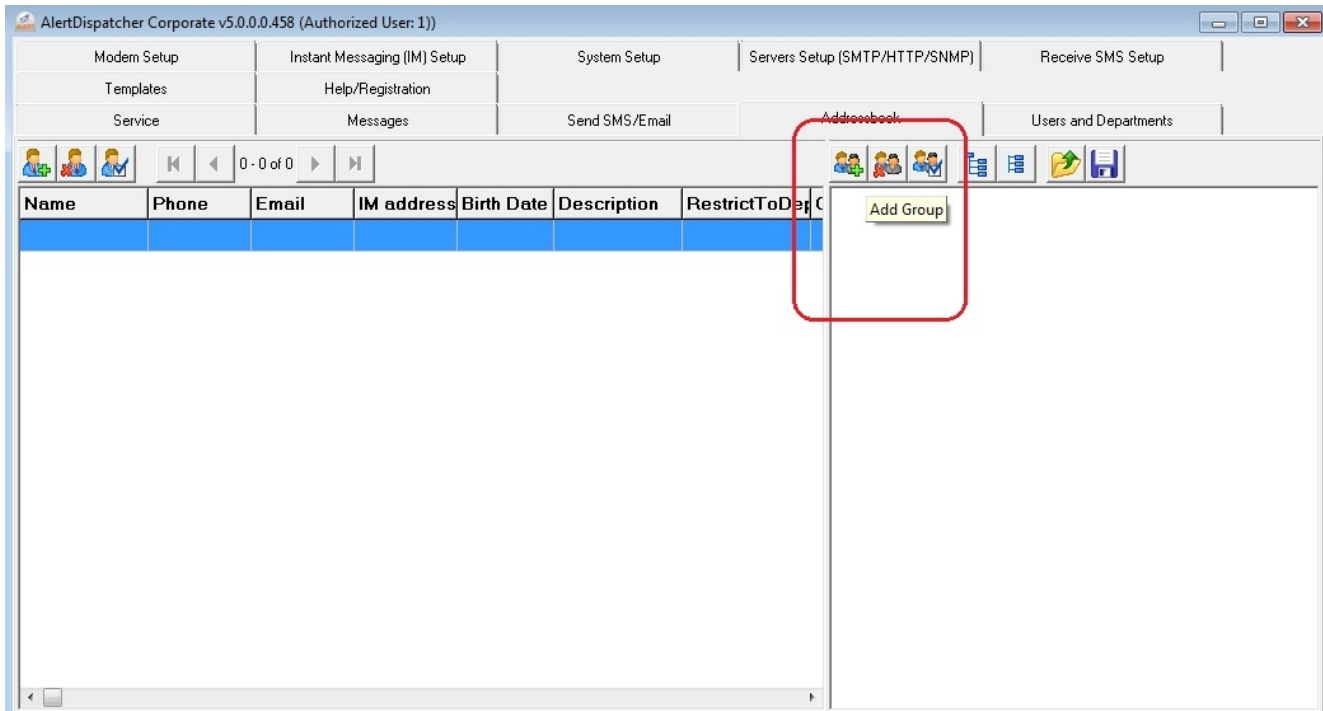
Contact your telco to find out if the SIM card is working. Often, users can't send because there is no credit left in their SIM card account.



3). How to use the Addressbook and setup Escalation

a). Adding Group and Recipient

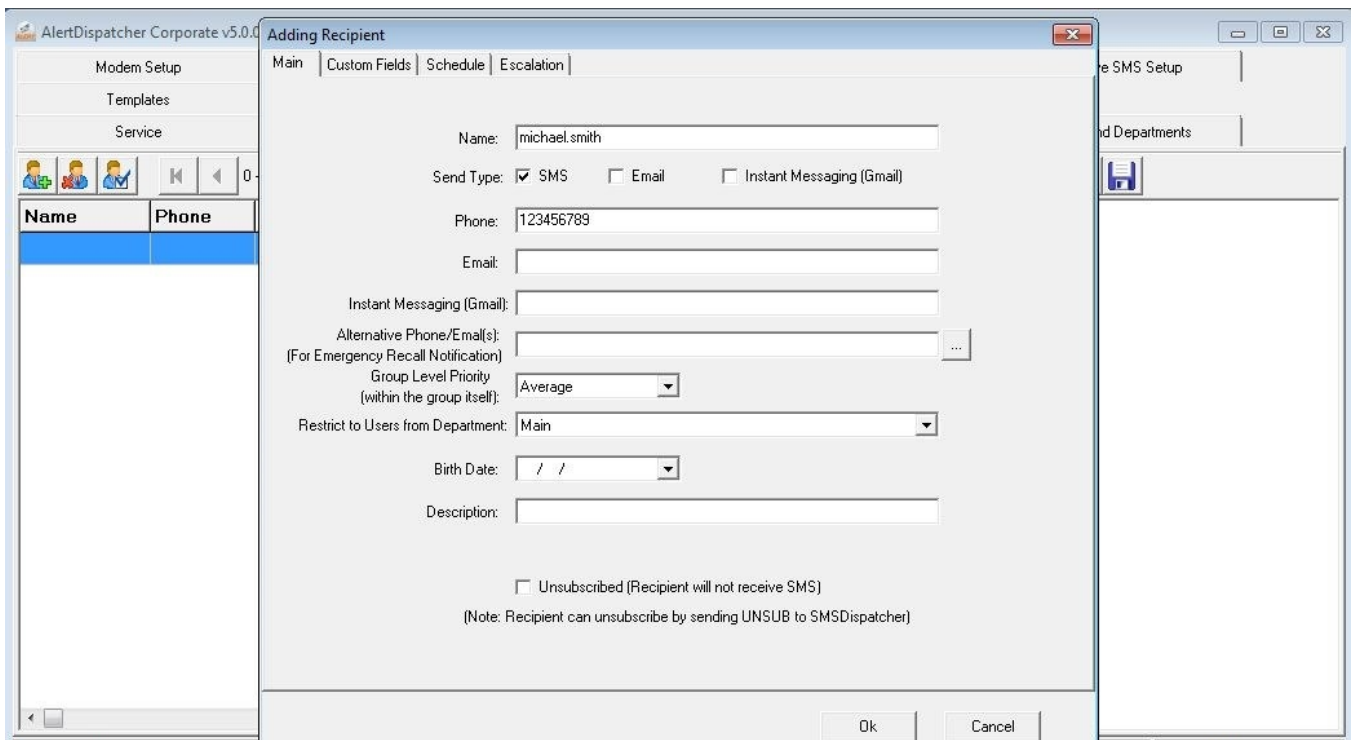
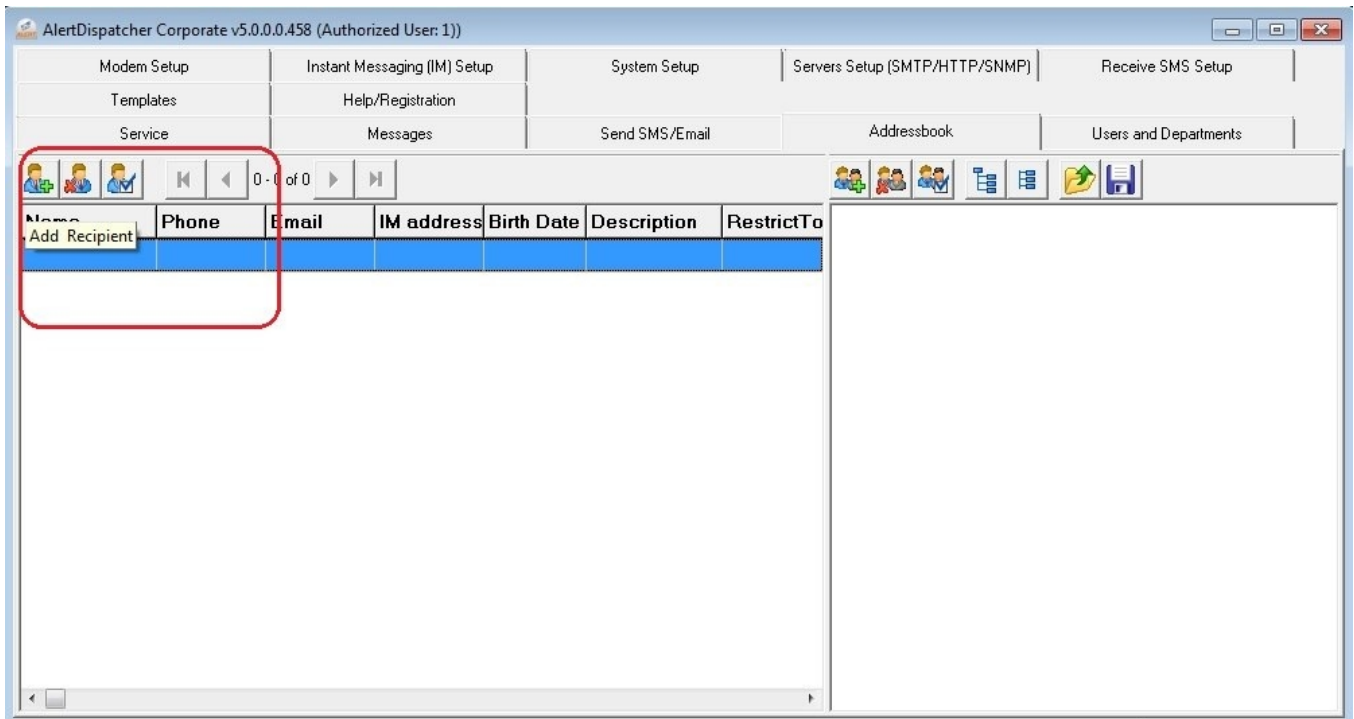
Navigate to the “Addressbook” tab, and then click on the “Add Group” icon.

The 'New Group' dialog box is shown with the 'Main' tab selected. It contains the following fields and controls:

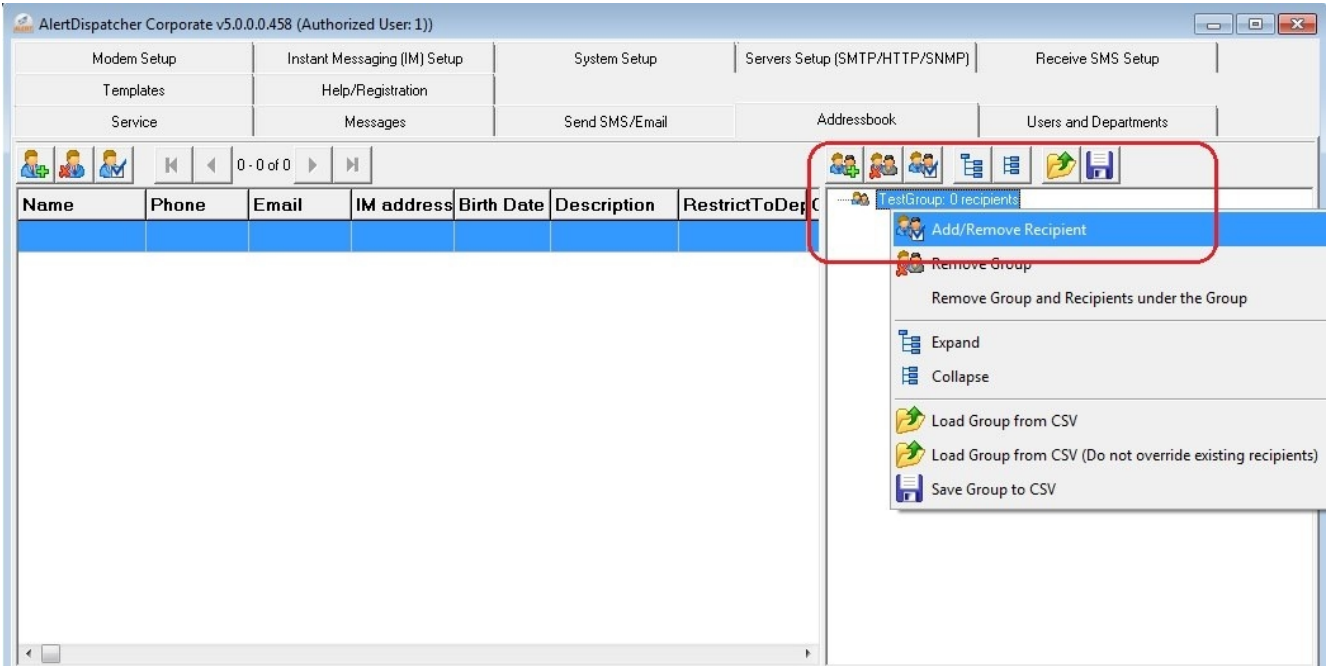
- Name: Text box containing 'Test Group'
- Priority: Dropdown menu set to 'Normal'
- Restrict to Users from Department: Dropdown menu set to 'Main'
- Email: Empty text box
- Description: Empty text box

At the bottom right, there are 'Ok' and 'Cancel' buttons.

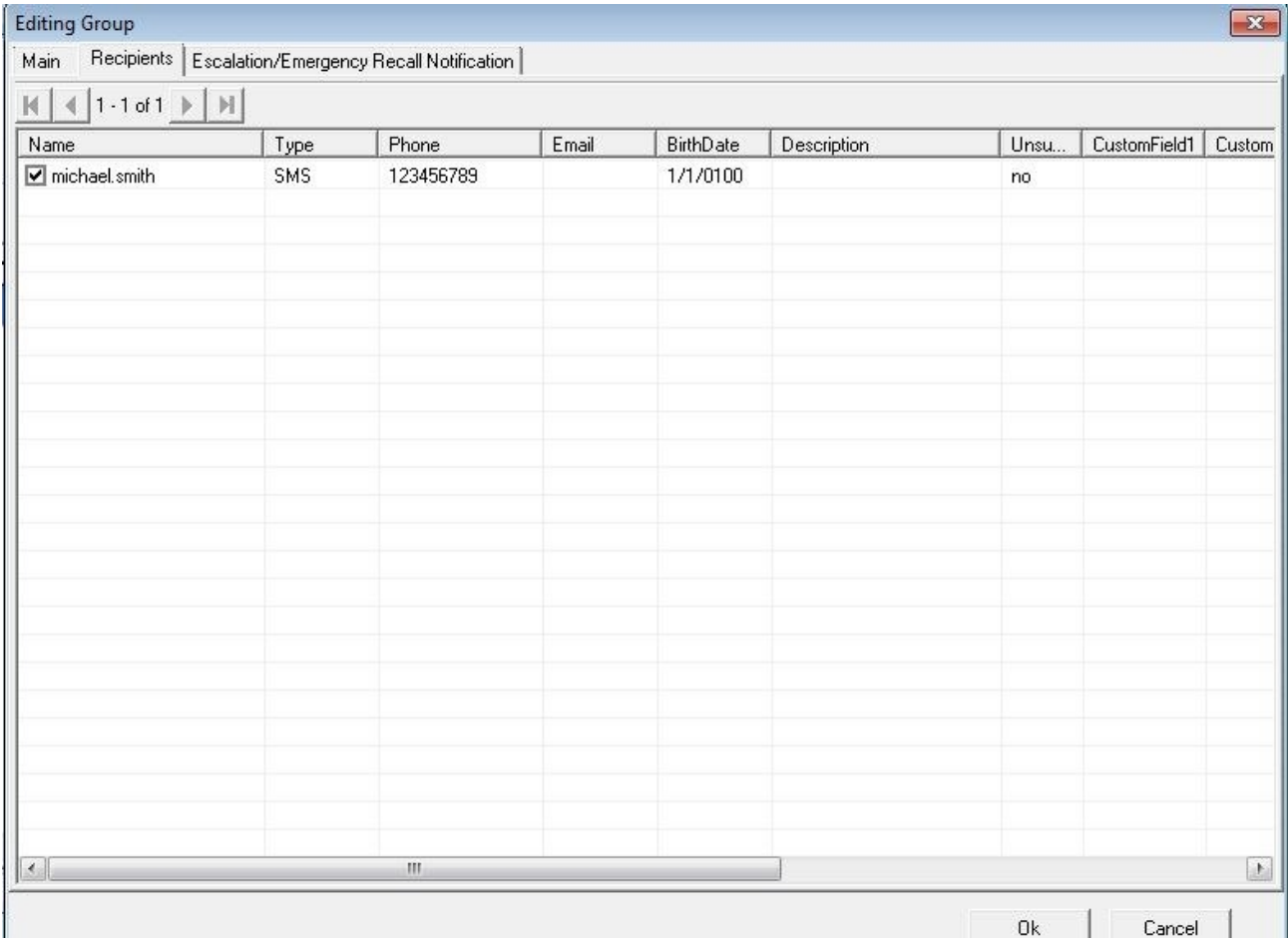
Next, click on “Add Recipient” button to create recipients.



To assign recipients to the group you have just created, right click on the group, select “Add/Remove recipient”.



Use the checkboxes to add users to the group.



b). Setting up Basic Escalation

i. Overview

To create escalation for this group, under “*Escalation/Emergency Mobilization*” Tab, select “Basic Escalation” and assign an escalation recipient.

If Basic escalation is enabled for a group, all messages sent to the group must be acknowledged. Any one of the recipients can acknowledge on behalf of the entire recipient group. This is done by sending an SMS or Email reply or by clicking on an acknowledgement link embedded in email.

If no one acknowledges, you can configure AlertDispatcher to escalate the message to another recipient, resend to the same recipient or call a recipient phone (cellular/fixed line). Up to 10 escalation levels can be configured.

Editing Group

Main | Recipients | Escalation/Emergency Recall Notification

☒ Enable Escalation/Emergency Recall Notification

☒ Basic Escalation: If none of the recipients have acknowledged within:

☐ Emergency Recall Notification: If there is ANY recipient that has not acknowledged within:

Next	15	mins.	escalate to:	michael.smith
Next	15	mins.	escalate to:	
Next	15	mins.	ring phone (for 6 seconds):	
Next	15	mins.	call phone till pickup:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	

☐ Append acknowledgement link to SMS sent to recipients

☒ Append acknowledgement link to Email sent to recipients

☐ Acknowledging any message will acknowledge all messages sent to recipient

Acknowledgement footnote: ACK: Reply {CODE} + msg

☐ Do NOT escalate message if message contains ANY of the following keywords:

return to normal, back to normal, recovered, normal

☒ Notify everyone that has been contacted whenever anyone makes an acknowledgement or makes a subsequent comment

☒ Continue sending unsent Dispatch messages after receipt of acknowledgment

Ok Cancel

Recipients can also add personal comments which would be forwarded by AlertDispatcher to other recipients. The acknowledgment footnote is configurable and can be disabled.

If “*Acknowledging any message will acknowledge all messages sent to the recipient*” setting is enable, a recipient can acknowledge all messages by acknowledging anyone of the escalation messages received. This makes it more convenient for the recipient but the downside is we can't ensure that the recipient has actually received or read all the messages.

You can exempt specific messages bearing certain keywords from the acknowledgement requirement by indicating them under the *"Do NOT escalate messages if message contains ANY of the following keywords"*.

Editing Group

Main | Recipients | Escalation/Emergency Recall Notification

☒ Enable Escalation/Emergency Recall Notification

☒ Basic Escalation: If none of the recipients have acknowledged within:

☐ Emergency Recall Notification: If there is ANY recipient that has not acknowledged within:

Next	5	mins.	escalate to:	
Next	15	mins.	escalate to:	... Groups ---
Next	15	mins.	escalate to:	CriticalAlarmsGroup
Next	15	mins.	escalate to:	... Recipients ---
Next	15	mins.	escalate to:	Adam
Next	15	mins.	escalate to:	Jane
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	
Next	15	mins.	escalate to:	

☒ Allow recipient to acknowledge/comment by replying to email. Setup Escalation Ack POP3 Server

☐ Append acknowledgement link to Email sent to recipients

☐ Acknowledging any message will acknowledge all messages sent to recipient

Acknowledgement footnote: ACK: Reply {CODE} + msg

☐ Do NOT escalate message if message contains ANY of the following keywords:

return to normal, back to normal, recovered, normal

☒ Notify everyone that has been contacted whenever anyone makes an acknowledgement or makes a subsequent comment

☒ Continue sending unsent Dispatch messages after receipt of acknowledgment

Ok Cancel

ii. Acknowledging by SMS reply

Recipients can acknowledge escalation messages sent via SMS by replying to the SMS. The recipient can acknowledge multiple messages (comma separated) in one SMS, e.g. A123, A456, A678.



iii. Acknowledging by Email reply

Recipients can acknowledge escalation messages sent through email by replying to email if "Allow recipients to acknowledge/comment by replying to email" setting is enabled, and the POP3 Server credential is correctly configured using the "Setup Escalation Ack POP3 Server" button.

Editing Group

MainRecipientsEscalation/E

☒ Enable Escalation/Emerge

☒ Basic Escalation: If r

☐ Emergency Recall N

5

Next

5

Next

15

Next

15

Next

15

Next

15

Next

15

Next

15

Next

15

Next

15

Next

15

mins.

escalate to:

☒ Allow recipient to acknowledge/comment by replying to email.

☒ Append acknowledgement link to Email sent to recipients

☒ Acknowledging any message will acknowledge all messages sent to recipient

Acknowledgement footnote:

ACK: Reply Ok

☐ Do NOT escalate message if message contains ANY of the following keywords:

return to normal, back to normal, recovered, normal

☒ Notify everyone that has been contacted whenever anyone makes an acknowledgement or makes a subsequent comment

☒ Continue sending unsent Dispatch messages after receipt of acknowledgment

Ok

Cancel

Setup Escalation Ack POP3 Server

POP3 Server:

pop.gmail.com

POP3 Port:

995

POP3 Email address(Sender):

pop3@clickndeploy.com

POP3 Username:

pop3@clickndeploy.com

POP3 Password:

XXXXXXXXXX

Check Interval:

5

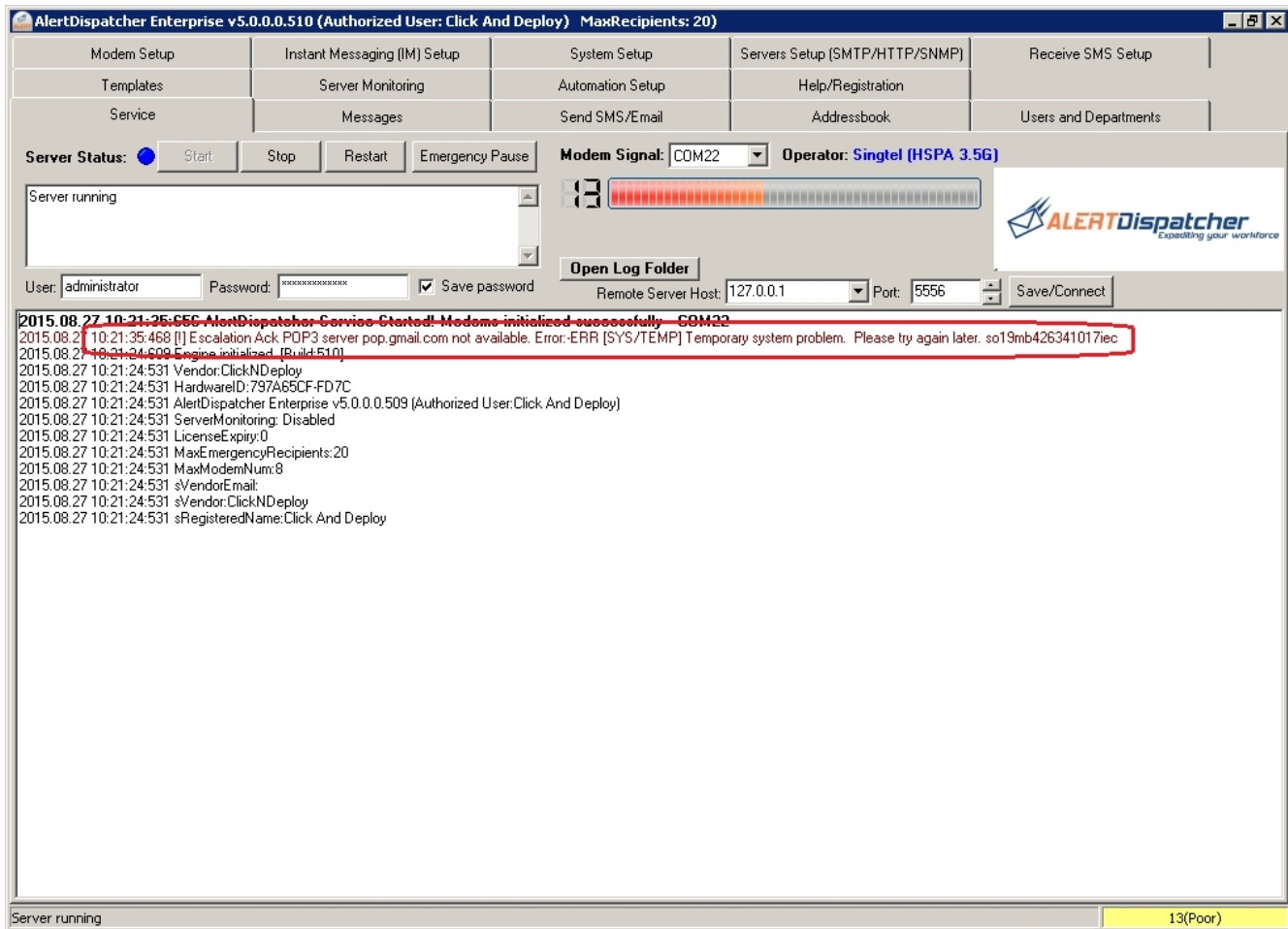
Ok

Cancel

Setup Escalation Ack POP3 Server

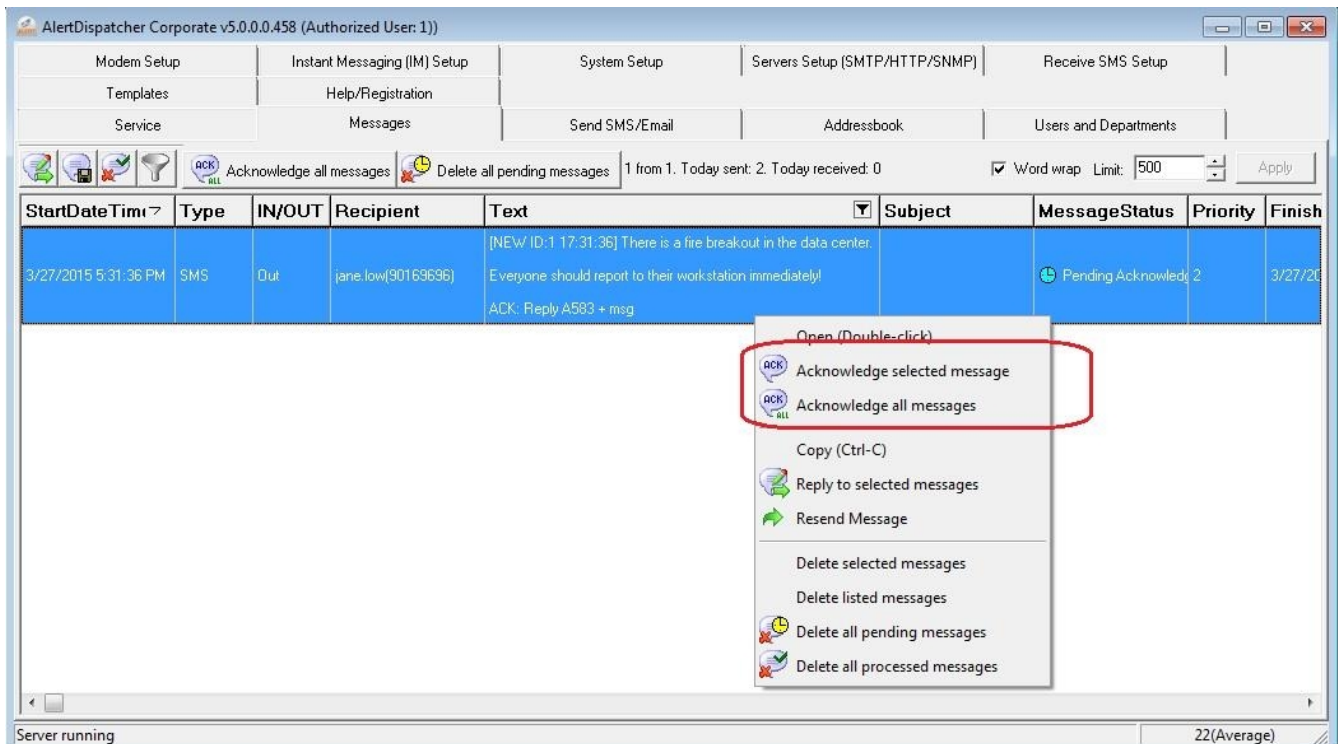
If the POP3 Server credential is incorrectly, the following error will be shown:

13



iv. Acknowledging via AlertDispatcher Client Console

A PC operator can acknowledge any or all escalation messages on behalf of recipients on the AlertDispatcher client interface as shown in the next screen capture. This is useful if the recipient is in front of a PC.



As previously mentioned, up to 10 levels of escalation recipients can be assigned for each group or recipient. You can escalate the message to another recipient, back to the same recipient or call a recipient phone (cellular/fixed line).

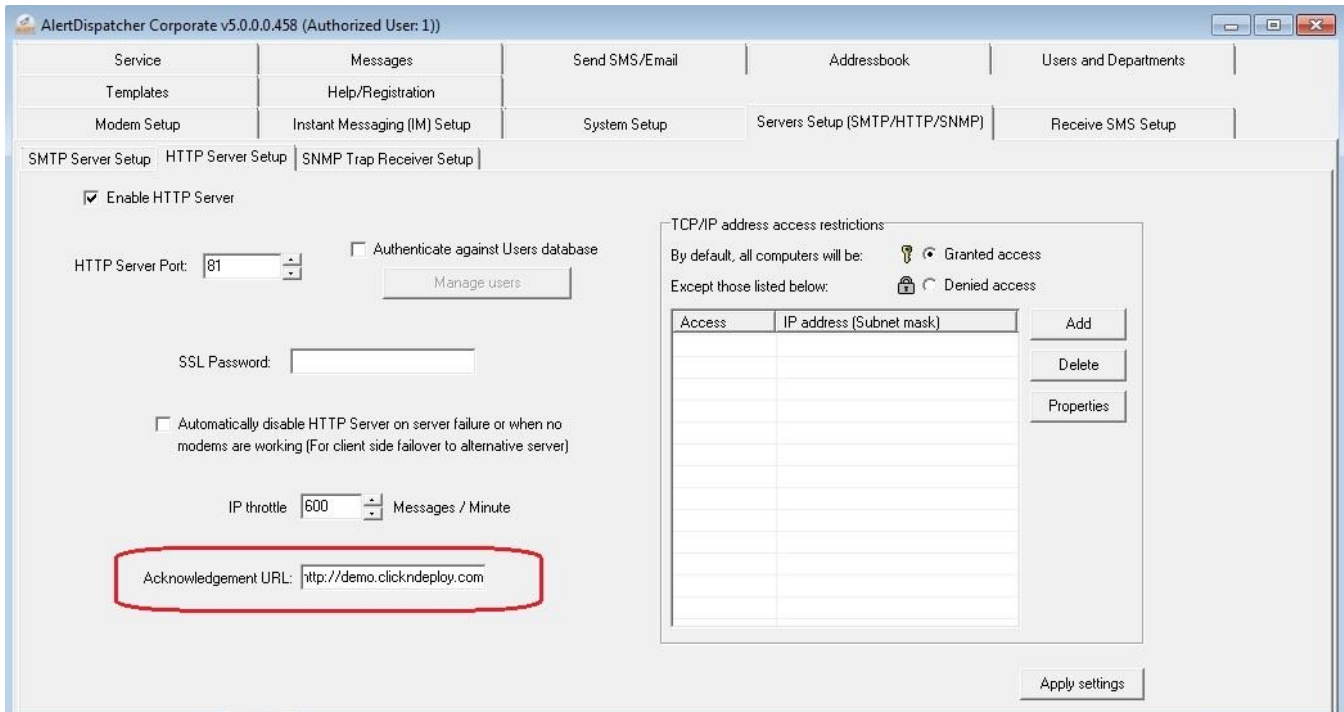
v. Acknowledging via link embedded in email

Recipients can acknowledge escalation messages by clicking on the acknowledgement link embedded in the email. Before the acknowledgement link can work, you will need to setup the acknowledgement link URL and ensure that the URL can resolve to AlertDispatcher HTTP Server (port 80 by default).

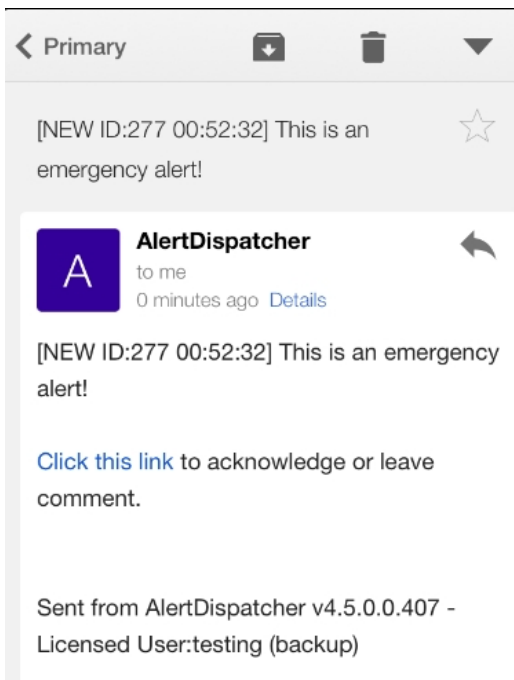
The default URL is "http://localhost" which is useful only for testing purpose as it will only work on the AlertDispatcher machine and won't work if you are connecting over the Internet, e.g. from your Smartphone. For actual usage, you will need to configure an Internet accessible URL, usually a domain or sub-domain or fixed IP address that resolves to your AlertDispatcher server.

If you're using a broadband router that has Dynamic DNS feature, you can use it to create a hostname for your URL and use port forwarding (or virtual server) feature to direct HTTP traffic to your AlertDispatcher machine.

For our demo, we set Acknowledgement URL to "http://demo.clickndeploy.com".



The URL "http://demo.clickndeploy.com" resolves to AlertDispatcher server as shown in the next 2 screen captures.





The screenshot shows a Gmail interface with a header bar containing a 'Gmail' button, the address 'no.clickndeploy.com', a menu icon, and a notification icon with the number '9'. The email content is as follows:

Escalation ID:277 00:52:32

From: administrator

To: testgroup

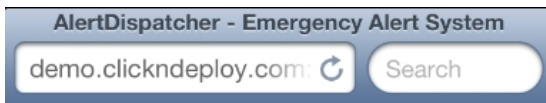
Time: 2014-12-25 00:52:32

Message: -a
[NEW ID:277 00:52:32] This is an emergency alert!
href=_http://demo.clickndeploy.com:88/ack.htm?did=277&code=298&oid=126&rid=126_-Click this link-/a- to acknowledge or leave comment.

Below the email content is a button labeled 'Acknowledge Escalation Now!'. Underneath this button is a text input field with the placeholder text 'Send Comment to Sender (Please do not include comments unless necessary):'.

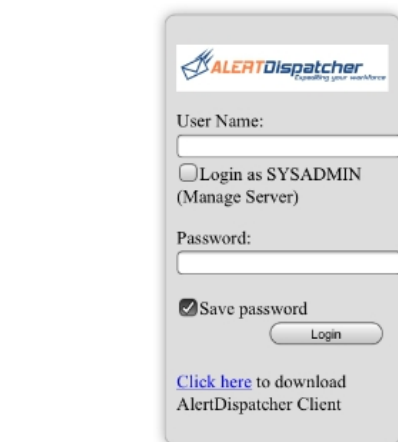
Note: If your AlertDispatcher is located on a LAN behind your Internet router, you will need to setup your Internet router to forward requests to port 80 (or whichever port you have configured) to your AlertDispatcher Server. If you don't have a static IP address, you will need to use a Dynamic IP address service. For more information on how to setup, please contact your company network administrator.

To know if you have configured your router correctly, you should be able to access the following page by accessing your Acknowledgement URL.



The screenshot shows the 'AlertDispatcher - Emergency Alert System' login page. It features a header bar with the title and a search bar containing the text 'demo.clickndeploy.com' and a 'Search' button. Below the header is a login form with the following fields and options:

- User Name: [text input field]
- ☐ Login as SYSADMIN (Manage Server)
- Password: [text input field]
- ☒ Save password
- Login button
- [Click here](#) to download AlertDispatcher Client



The screenshot shows the AlertDispatcher login form. It features the AlertDispatcher logo at the top, followed by the following fields and options:

- User Name: [text input field]
- ☐ Login as SYSADMIN (Manage Server)
- Password: [text input field]
- ☒ Save password
- Login button
- [Click here](#) to download AlertDispatcher Client



c). Send Test Message

To test your newly created addressbook group, navigate to the “Send SMS/Email” tab, click on the ‘...’ button and select the group.

AlertDispatcher Corporate v5.0.0.0.458 (Authorized User: 1)

Templates | Help/Registration | System Setup | Servers Setup (SMTP/HTTP/SNMP) | Receive SMS Setup

Modem Setup | Instant Messaging (IM) Setup | Send SMS/Email | Addressbook | Users and Departments

Service | Messages

Recipients: [Red Box] ... Send

Subject (Required for e-mail):

Priority: Normal Type: All Modem port: auto Department: Main Custom Field1 Insert

Message Body (Required): [] Send a message at: 3/27/2015 5:37:33 PM Select Template: Use Template

Test Message

Characters: 12

Server running 21(Below Average)

AlertDispatcher Corporate v5.0.0.0.458 (Authorized User: 1)

Templates | Help/Registration | System Setup | Servers Setup (SMTP/HTTP/SNMP) | Receive SMS Setup

Modem Setup | Instant Messaging (IM) Setup | Send SMS/Email | Addressbook | Users and Departments

Service | Messages

Recipients: [Red Box] ... Send

Subject (Required for e-mail):

Priority: Normal Type: All Modem port: auto Department: Main Custom Field1 Insert

Message Body (Required): [] Send a message at: 3/27/2015 5:37:33 PM Select Template: Use Template

Test Message

Characters: 12

Server running 20(Below Average)

Select Recipients

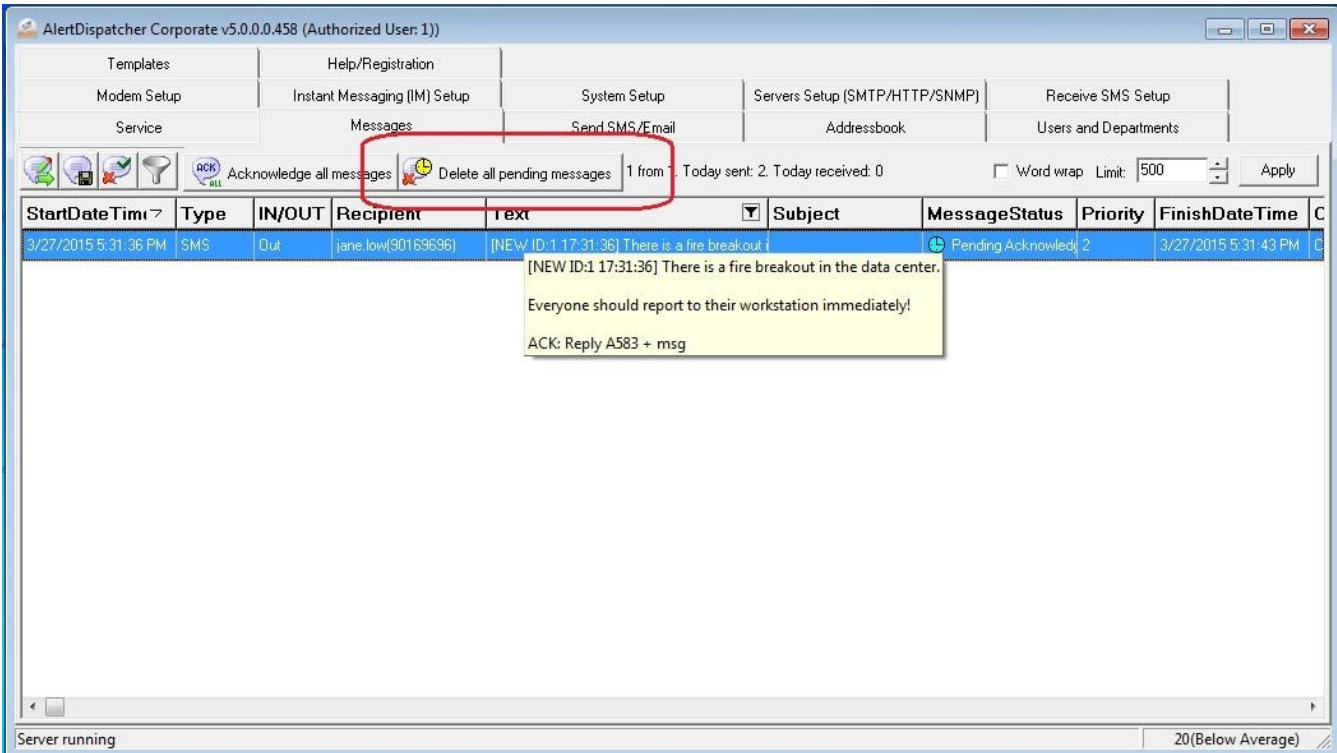
Name	Phone	Description
<input type="checkbox"/> TestGroup		
<input type="checkbox"/> jane.low	90169696	
<input type="checkbox"/> michael.smith	123456789	

Ok Cancel

Click “Send” button to send the message.

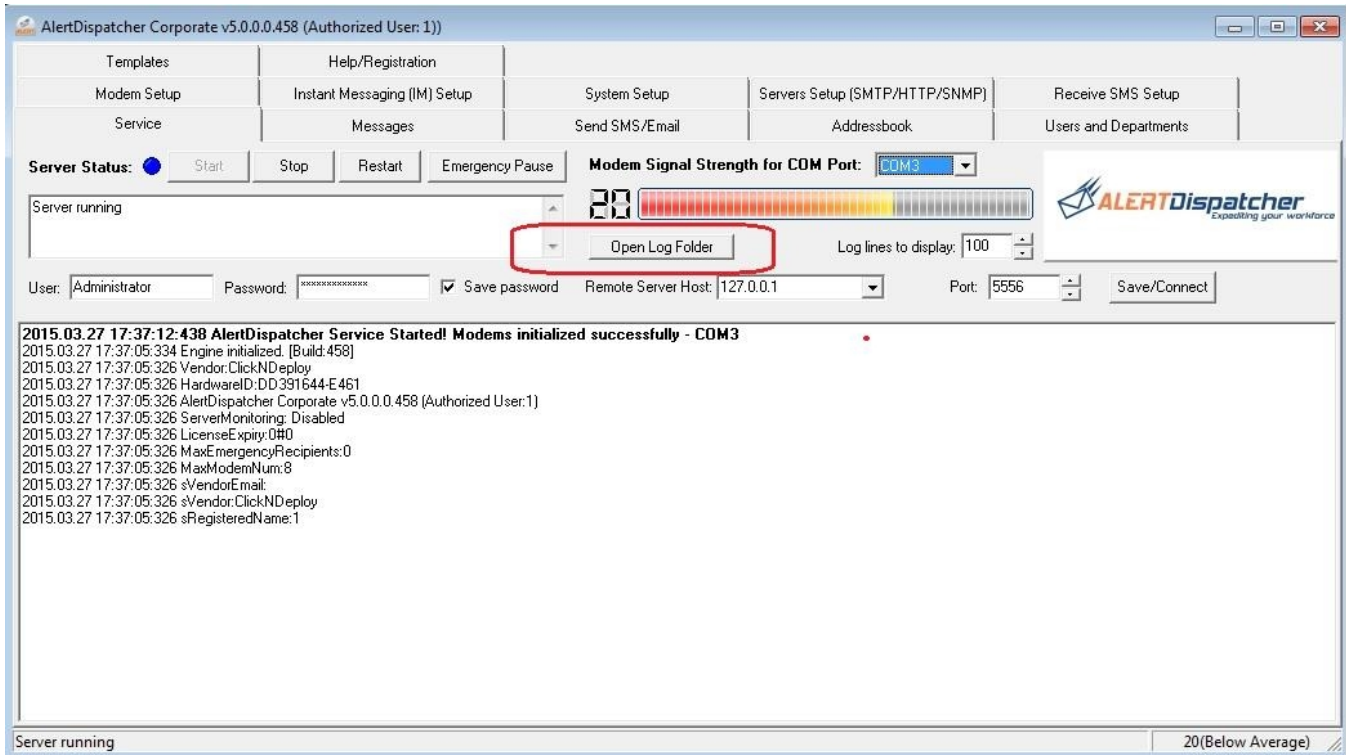
5). How to Delete Pending Messages

You can all delete pending messages (have not been sent out by the system) by right clicking on the message grid and select “Delete all pending messages”.



6). How to Retrieve Logs for Troubleshooting

You can retrieve your logs by clicking on the “Open Log Folder” button.



2. For Administrator

1). How to register AlertDispatcher license using Activation Code

Once you have successfully setup and configured your AlertDispatcher installation, the software will work fully for 60 days until you registered your software.

To register, run AlertDispatcher Client, and click on the '*Register Software*' button on the splash screen. Alternatively, you can launch AlertDispatcher Client and navigate to the "*Help/Registration*" Tab on the main page.

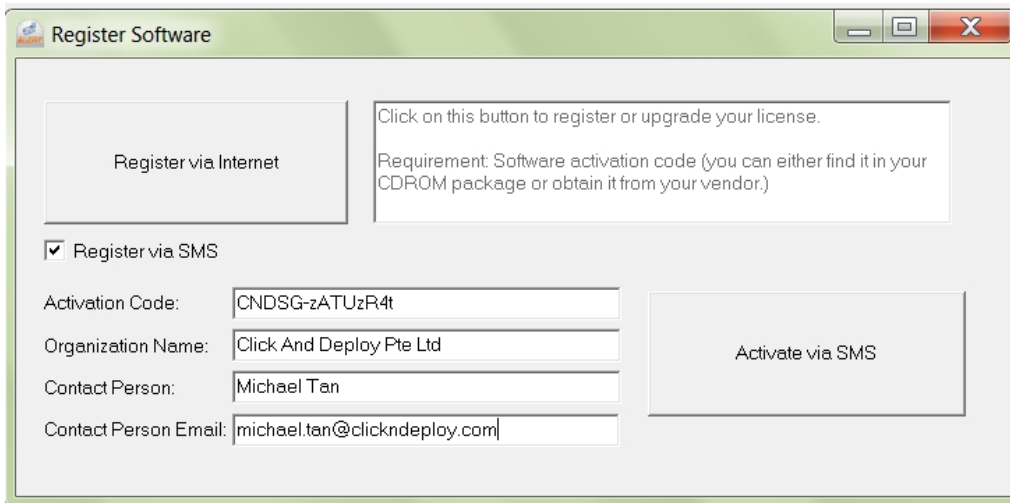


You may register **via Internet** or **via SMS**.

a). Register via SMS

If you do not have access to Internet connection, you may try to register **via SMS** by ticking the checkbox "Register via SMS". If you are not able to tick "Register via SMS", please ensure you have configured a modem and inserted a working SIM card and restart AlertDispatcher service. You may send a test SMS to verify your configuration is correct.

Alternatively, you can perform Internet activation by copying the registration link generated on the AlertDispatcher server (which does not have Internet) to another machine with Internet connection (for example your laptop). **Warning:** You must not generate the registration link on your laptop as the key will fail to work as it is for your laptop and not for AlertDispatcher server.



Register Software

Register via Internet

Click on this button to register or upgrade your license.
Requirement: Software activation code (you can either find it in your CDROM package or obtain it from your vendor.)

☒ Register via SMS

Activation Code: CNDSG-zATUzR4t

Organization Name: Click And Deploy Pte Ltd

Contact Person: Michael Tan

Contact Person Email: michael.tan@clickndeploy.com

Activate via SMS

b). Register via Internet

After clicking "Register via Internet", the following website will load. Enter your license Activation Code which is in the format "*CNDSG-zATUzR4t*". Note: "*CNDSG-zATUzR4t*" is only an example, please do not use this code.

The Activation Code can be found on your CDROM or the Email sent to you after you have made your order. If you do not have this code, please contact your software vendor. The software code will be sent to you by Email. Please check your spam folder if you cannot find your activation Email.

The Activation Code is unique to your machine; please do not use it to register multiple machines as it may cause the Activation Code to be voided.

Online Registration

Please enter the Activation Code which you received after you made your purchase. If you have previously registered, but lost your activation code, you can request for your activation code by e-mail - [click here](#)

***Note:

Your software is licensed on a per installation basis - you must use a Unique Activation Code for each installation you wish to register. As all registered machines are recorded inside our registration database, please do not activate the software if you intend to deploy on another machine subsequently.

Activation key

After you have applied downloaded the registration key (for case of Internet registration), please restart AlertDispatcher Service to confirm that your software has been registered.

Modem Setup Instant Messaging (IM) Setup System Setup Servers Setup (SMTP)

Templates Server/Network Monitoring Help/Registration

Service Messages Send SMS/Email Addressbook

Server Status ☒ Start ☐ Stop ☐ Restart ☐ Emergency Pause

Modem Sign: COM7 Operate Start

Server running

User: administrator Password: [masked] ☒ Save password Open Log Folder Remote Server IP: 127.0.0.1

2016.05.03 10:58:39:817 Modem connected to COM7 recovered
 2016.05.03 10:58:32:234 AlertDispatcher Service Started with all modems offline!
 2016.05.03 10:58:32:234 [!!!] No working modem found. Refer to Modem Setup for error message. Open log - file:\Log\
 2016.05.03 10:58:23:103 Engine initialized. [Build:556]
 2016.05.03 10:58:23:098 Vendor:ClickNDeploy
 2016.05.03 10:58:23:098 HardwareID:CE314F1E-6013
 2016.05.03 10:58:23:098 AlertDispatcher Enterprise v5.0.0.0.556 (Authorized User:1)
 2016.05.03 10:58:23:098 MaxServerMonitorings: 20000
 2016.05.03 10:58:23:098 LicenseExpiry:2020-02-12
 2016.05.03 10:58:23:098 MaxEmergencyRecipients:10000

2). How to setup AlertDispatcher to send Email/Alert Emails

In order for AlertDispatcher to send out Emails, you must configure an SMTP user account under “*System Alerts/Email Setup*”.

AlertDispatcher can be configured to send a system alert message (Email/SMS) on encountering a modem or system error. You can configure the system alert recipient under “*Send System Alert to:*”. This is highly recommended if you are using AlertDispatcher for critical purpose.

Click "Test Alert" to test send an email and check the Messages tab for the send status.

AlertDispatcher v6.0.0.0.618.21 (Evaluation - Trial Days Left:6)

Servers Setup (SMTP/POP3/HTTP/SQL) | Receive SMS Setup | Templates | Users and Departments

Help/Registration | Service | Messages | Send SMS/Email | Addressbook

Server/Network Monitoring | Modem Setup | Instant Messaging (IM) Setup | System Setup

General | **System Alerts/Email Setup** | Master/Slave Replication | Server Monitoring | Escalation Setup | Modems | Outgoing Message Filter | AlertGateway Setup | Reporting | Others

☒ Send System Alert to Recipients: [redacted] ... Test Alert

Primary SMTP Server

SMTP server: smtp.gmail.com SMTP user: clickndeploytest@gmail.com

SMTP port: 587 SMTP password: [redacted]

Sender Email Address: alertdispatcher@alertdispatcher.com

Sender Display Name: [redacted]

☐ Enable Secondary SMTP Server (failover)

Secondary SMTP Server

SMTP server: [redacted] SMTP user: [redacted]

SMTP port: 25 SMTP password: [redacted]

Sender Email Address: alertdispatcher@alertdispatcher.com

Sender Display Name: [redacted]

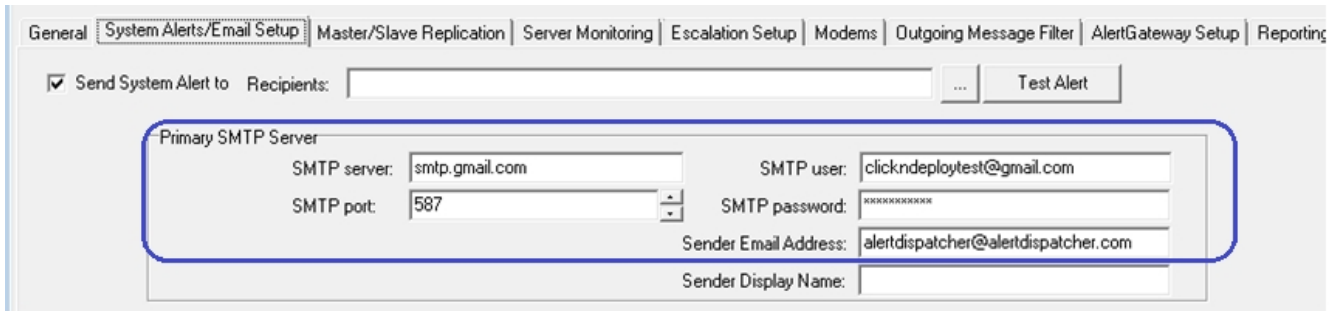
☐ Enable ModemMail (GPRS) (Email will be sent using modem only if Internet mail is not available)

☒ Send Email using ModemMail only

No working modem found. Refer to Modem Setup for error message. Unknown

Obtain the SMTP Server address and SMTP username and password from your company email administrator, e.g. Exchange administrator. As far as possible, do not use your email account or an existing email account in case you change your password and forget to update the password set on AlertDispatcher. Create a new email account, e.g. alertdispatcher@yourcompanydomain.

If you do not have a company SMTP Server, you can use your ISP SMTP Server or register a free GMAIL account (GMAIL SMTP Server uses port 587 instead of the standard port 25). Take note that GMAIL has a daily send limit of between 100 to 500 messages, so you must not send to too many recipients to avoid exceeding the limit.



General | **System Alerts/Email Setup** | Master/Slave Replication | Server Monitoring | Escalation Setup | Modems | Outgoing Message Filter | AlertGateway Setup | Reporting

☒ Send System Alert to Recipients: ...

Primary SMTP Server

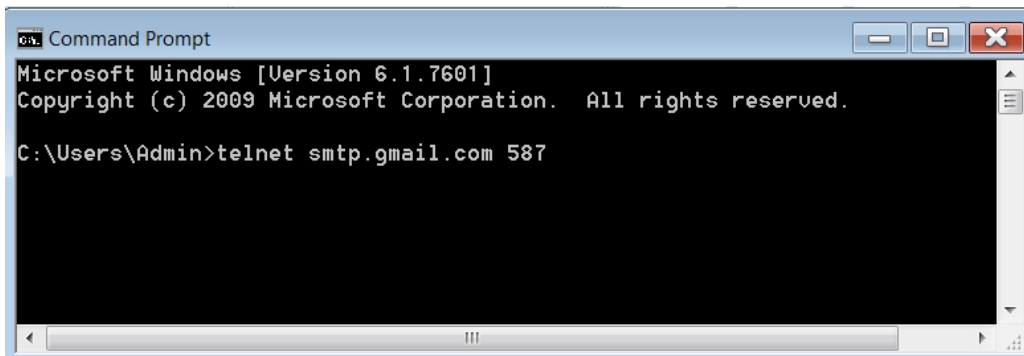
SMTP server: SMTP user:

SMTP port: SMTP password:

Sender Email Address:

Sender Display Name:


You can use Telnet client to verify that you are able to connect to the SMTP Server from your AlertDispatcher installation. The following example tries to connect to GMAIL SMTP Server at port 587. Your corporate email server may use port 25.



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Admin>telnet smtp.gmail.com 587
```

On successful connection, it will return the code "220".



```
Telnet smtp.gmail.com
220 smtp.gmail.com ESMTP n86sm1291331pfb.45 - gsmtp
```

To send email through the Addressbook, you can add the recipient email address as shown below.

AlertDispatcher v5.0.0.0

Modem Setup

Templates

Service

Name

Phone

No working modem found. Refer

Adding Recipient

Main

Custom Fields

Schedule

Escalation

Name:

michael.smith

Send Type:

☐ SMS

☒ Email

☐ Instant Messaging (Gmail)

Phone:

Email:

michael.smith@clickndeploy.com

Instant Messaging (Gmail):

Alternative Phone/Email(s):

...

(For Emergency Recall Notification)

Group Level Priority

(within the group itself):

Average

Restrict to Users from Department:

Main

Birth Date:

/ /

Description:

☐ Unsubscribed (Recipient will not receive SMS)

(Note: Recipient can unsubscribe by sending UNSUB to SMSDispatcher)

Ok

Cancel

Receive SMS Setup

Users and Departments

Unknown

3). How to setup Master/Slave Cluster Redundancy

If you are using the Enterprise License, you can setup Master/Slave cluster redundancy on 2 AlertDispatcher installations using 2 different *"Operation Modes"*: a). *Active Master/Active Slave* (default), b). *Active Master/Passive Slave*. Note: For both operation modes, changes to Users, Addressbook, Template, System Alert Recipient and Daily Heartbeat setting can only be done on the Master node and will be replicated to the Slave node.

When configured as *"Active Master/Active Slave cluster"* (the default setting), both Master and Slave nodes will process messages sent to them concurrently (by interfacing application) and act as backup for each other (2-way message replication) in the event of failover of either node. To ensure that there is no duplicate messages, the interfacing application should only send to one node and failover to the other node.

When configured as *"Active Master/Passive Slave cluster"*, messages sent to Slave node will be ignored until the Master node is offline. If the interfacing application can send the same message to both nodes, this setup confers an additional level of high availability. The message sent to Slave node (passive) will be ignored as long as the Master node is online. In the event of failure of the Active Master, the message sent to the Passive Slave node will be processed and sent out.

a). Active Master/Active Slave Operation Mode

To configure your AlertDispatcher as Active Master/Active Slave, first enable the setting *"Enable Replication and Message Failover (Users, Addressbook and Templates will be replicated from Master to Slave)"* to enable automatic message failover (both ways) across the Master and the Slave node.

The *"Enable Replication and Message Failover"* setting does not ensure message persistency, so messages already queued on a node that failed will be lost. To ensure message persistency, you need to enable an additional setting *"Mirror pending messages from Master to Slave and vice versa"*.

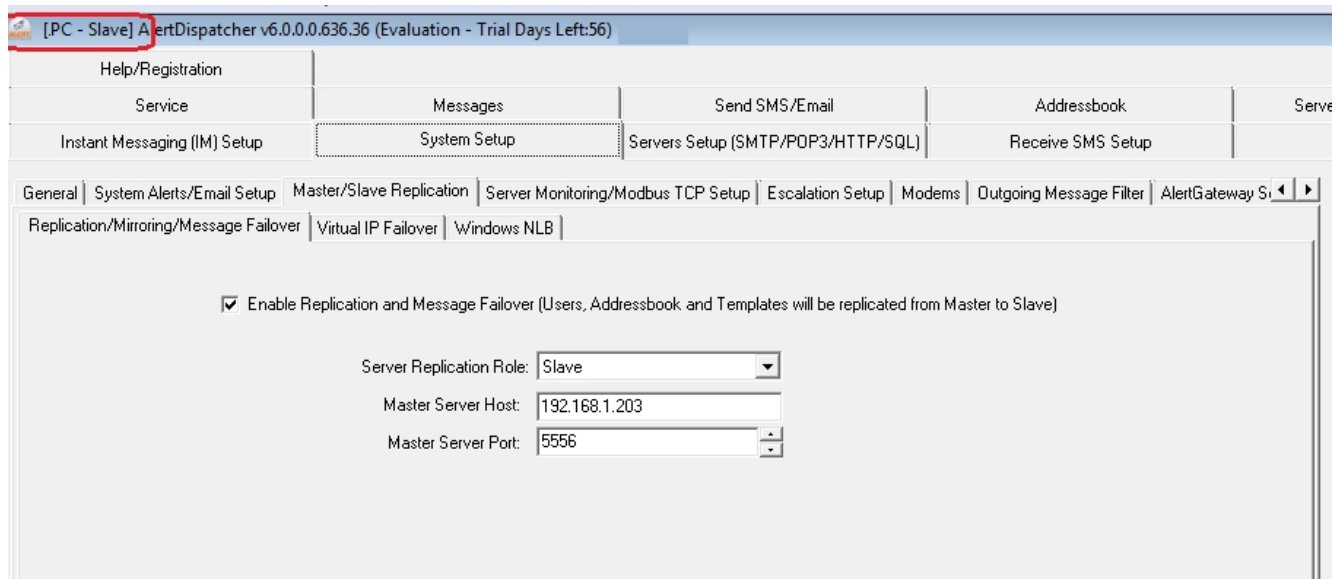
This setting provides additional high availability by replicating messages queued on either Slave or Master node on the other node. If a particular node fails or crashes, pending messages that are in queue in the failed node will be sent using the other node automatically. This is possible because all queued messages will be replicated on the other node.

In the following example, the Active Master node IP address is 192.168.1.203 and the Active Slave node IP address is 192.168.1.74.

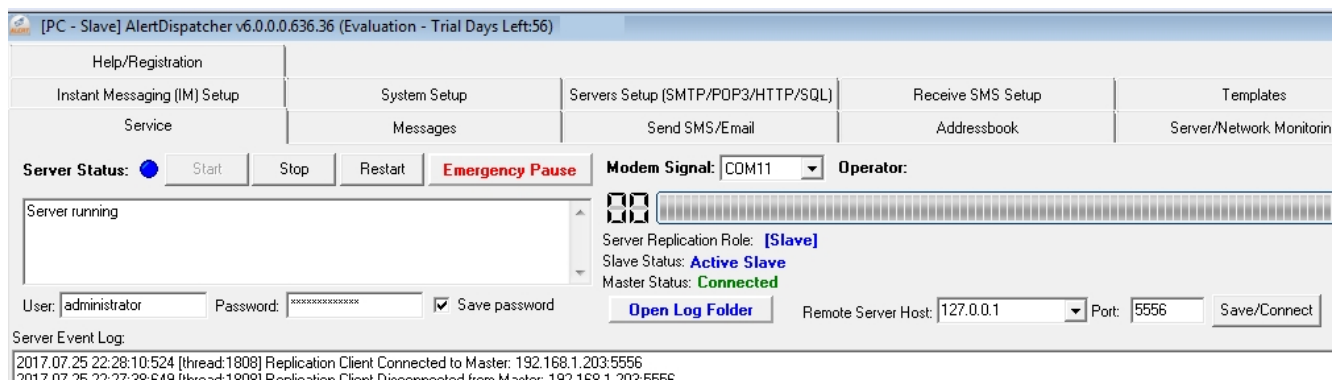
Active Master Node:

The screenshot shows the configuration window for AlertDispatcher Enterprise v6.0.0.0.636.36. The title bar indicates the user is 'Click And Deploy' with a maximum of 1000 recipients and 9999 server monitorings. The 'System Setup' tab is selected under the 'Messages' category. The 'Master/Slave Replication' sub-tab is active, showing the following settings:

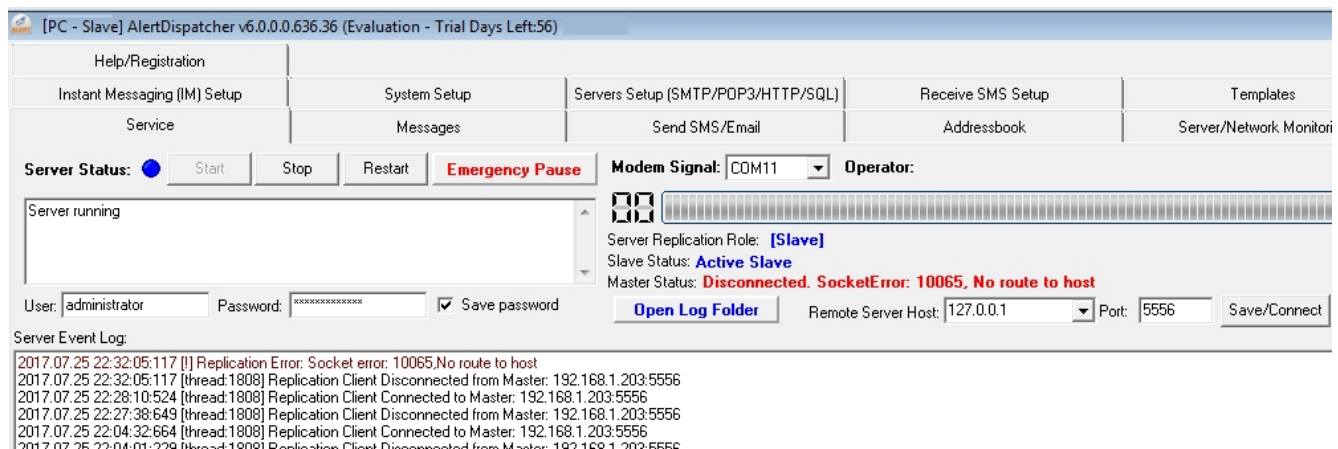
- ☒ Enable Replication and Message Failover (Users, Addressbook and Templates will be replicated from Master to Slave)
- Server Replication Role: Master (dropdown)
- Slave Server Host: 192.168.1.74 (text field)
- Slave Server Port: 5556 (spin box)
- Operation Mode: Active Master/Active Slave (dropdown)
- ☒ Mirror pending messages from Master to Slave and vice versa.

Active Slave Node:

The connection status to the Active Master is displayed on the Active Slave. In the following screenshot, the Active Slave is shown as connected to the Active Master.



In the following screenshot, the Active Slave is shown as disconnected from the Active Master.



The disconnected status is also displayed on the Active Master.

[PC - Master] AlertDispatcher Enterprise v6.0.0.0.636.36 (Authorized User: Click And Deploy - MaxRecipients: 1000, MaxServerMonitorings: 9999, Modbus TCP: Disabled)

Instant Messaging (IM) Setup | System Setup | Servers Setup (SMTP/POP3/HTTP/SQL) | Receive SMS Setup | Templates

Help/Registration

Service | Messages | Send SMS/Email | Addressbook | Server/Network Monitorin

Server Status: ● Start Stop Restart **Emergency Pause** Modem Signal: COM10 Operator:

Server running

User: Administrator Password: Save password Open Log Folder Remote Server Host: 127.0.0.1 Port: 5556 Save/Connect

Server Event Log:

```

2017.07.25 22:36:59:538 [!!!!] Replication Slave not available. Please check if Slave Server Host is correct. If firewall is enabled, please allow port 5556. SocketError: 10060, Connection timed out Open log - file: \L
2017.07.25 22:31:43:308 [thread:1652] Failover Client Disconnected from Slave: 192.168.1.74:5556
2017.07.25 22:31:43:308 [!] Failover Error: Socket error: 10054, Connection reset by peer
2017.07.25 22:28:28:452 AlertDispatcher Service Started with no modems enabled!
  
```

b). Active Master/Passive Slave Operation Mode

To configure your AlertDispatcher as Active Master/Passive Slave, first enable the setting *"Enable Replication and Message Failover (Users, Addressbook and Templates will be replicated from Master to Slave)"* to enable automatic message failover (both ways) across the Master and the Slave node.

The *"Enable Replication and Message Failover"* setting does not ensure message persistency, so messages already queued on a node that failed will be lost. To ensure message persistency, you need to enable an additional setting *"Mirror pending messages from Master to Slave and vice versa"*.

This setting provides additional high availability by replicating messages queued on either Slave or Master node on the other node. If a particular node fails or crashes, pending messages that are in queue in the failed node will be sent using the other node automatically. This is possible because all queued messages will be replicated on the other node.

In the following example, the Active Master node IP address is 192.168.1.203 and the Passive Slave node IP address is 192.168.1.74.

Active Master Node:

[PC - Master] AlertDispatcher Enterprise v6.0.0.0.636.36 (Authorized User: Click And Deploy - MaxRecipients: 1000, MaxServerMonitorings: 9999, Modbus TCP: Disabled)

Help/Registration

Service | Messages | Send SMS/Email | Addressbook | Serv

Instant Messaging (IM) Setup | System Setup | Servers Setup (SMTP/POP3/HTTP/SQL) | Receive SMS Setup

General | System Alerts/Email Setup | Master/Slave Replication | Server Monitoring/Modbus TCP Setup | Escalation Setup | Modems | Outgoing Message Filter | AlertGateway Si

Replication/Mirroring/Message Failover | Virtual IP Failover | Windows NLB

☒ Enable Replication and Message Failover (Users, Addressbook and Templates will be replicated from Master to Slave)

Server Replication Role: Master

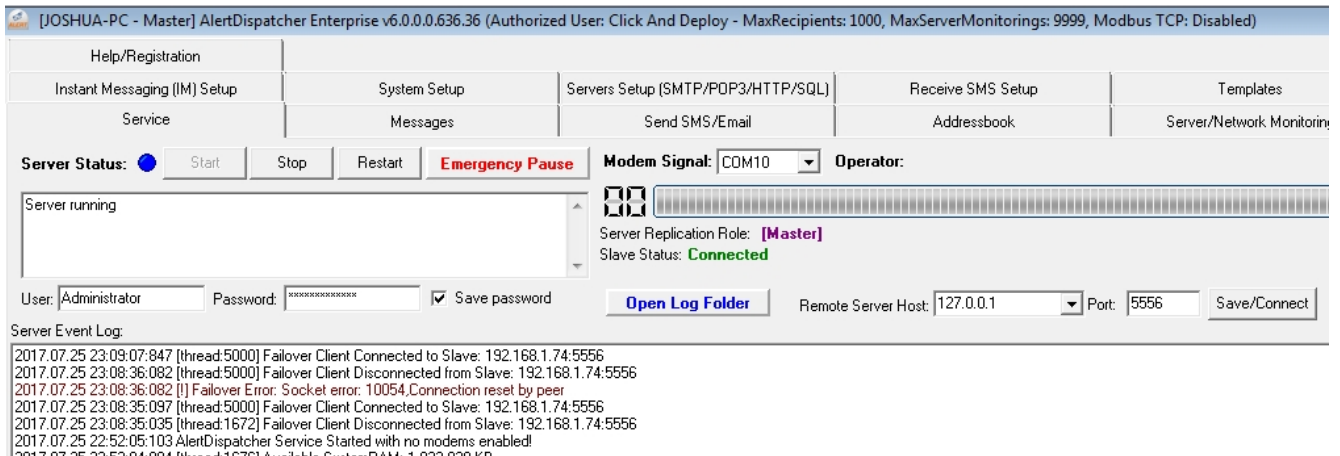
Slave Server Host: 192.168.1.74

Slave Server Port: 5556

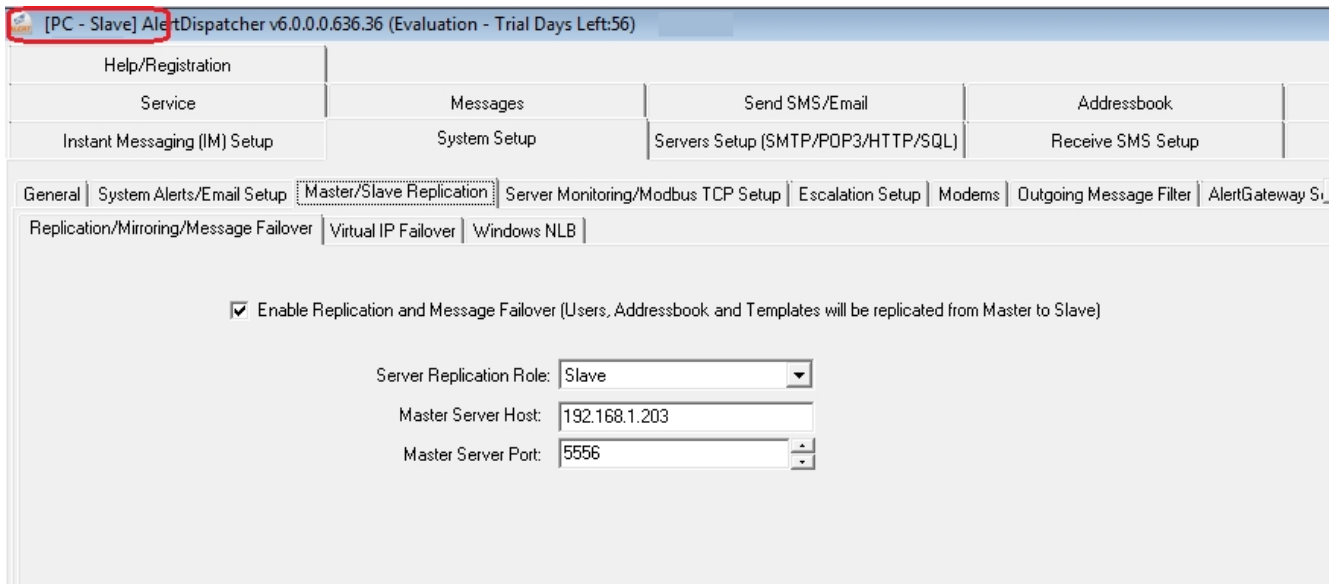
Operation Mode: Active Master/Passive Slave

☒ Mirror pending messages from Master to Slave and vice versa.

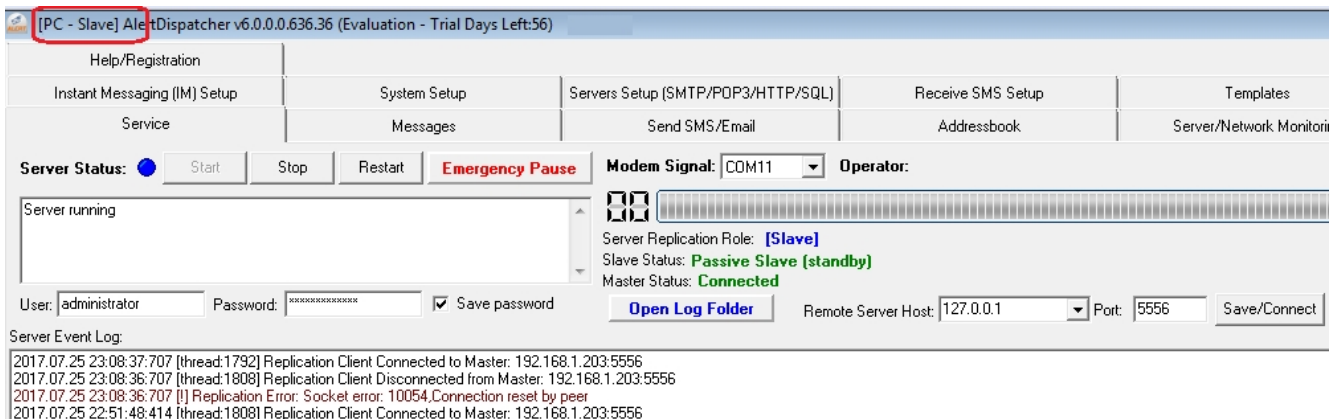
In the following screenshot, the Active Master is shown as connected to the Passive Slave.



Passive Slave Node:



In the following screenshot, the Passive Slave is shown as connected to the Active Master and the Passive Slave status is "Standby" which means it doesn't process any messages until the Active Master is down or becomes disconnected from the Passive Slave.



The following screen will be shown if the Passive Slave is disconnected from the Active Master. The Passive Slave status will change to "failover" which means all messages sent to it will be processed.

The screenshot displays the AlertDispatcher v6.0.0.0.636.36 (Evaluation - Trial Days Left:56) interface. The top navigation bar includes tabs for Instant Messaging (IM) Setup, System Setup, Servers Setup (SMTP/POP3/HTTP/SQL), Receive SMS Setup, and Templates. Below this, there are tabs for Service, Messages, Send SMS/Email, Addressbook, and Server/Network Monitoring. The main area shows the 'Server Status' section with buttons for Start, Stop, Restart, and Emergency Pause. A warning message states: 'Warning: Replication Error.' The 'Modem Signal' is set to COM11, and the 'Operator' field is empty. The 'Server Replication Role' is [Slave]. The 'Slave Status' is 'Passive Slave (failover)'. The 'Master Status' is 'Disconnected. SocketError: 10065, No route to host'. Below this, there are fields for User (administrator), Password (masked), and a checkbox for 'Save password'. There is also an 'Open Log Folder' button, a 'Remote Server Host' field (127.0.0.1), a 'Port' field (5556), and a 'Save/Connect' button. At the bottom, the 'Server Event Log' shows several error messages related to replication and socket errors.

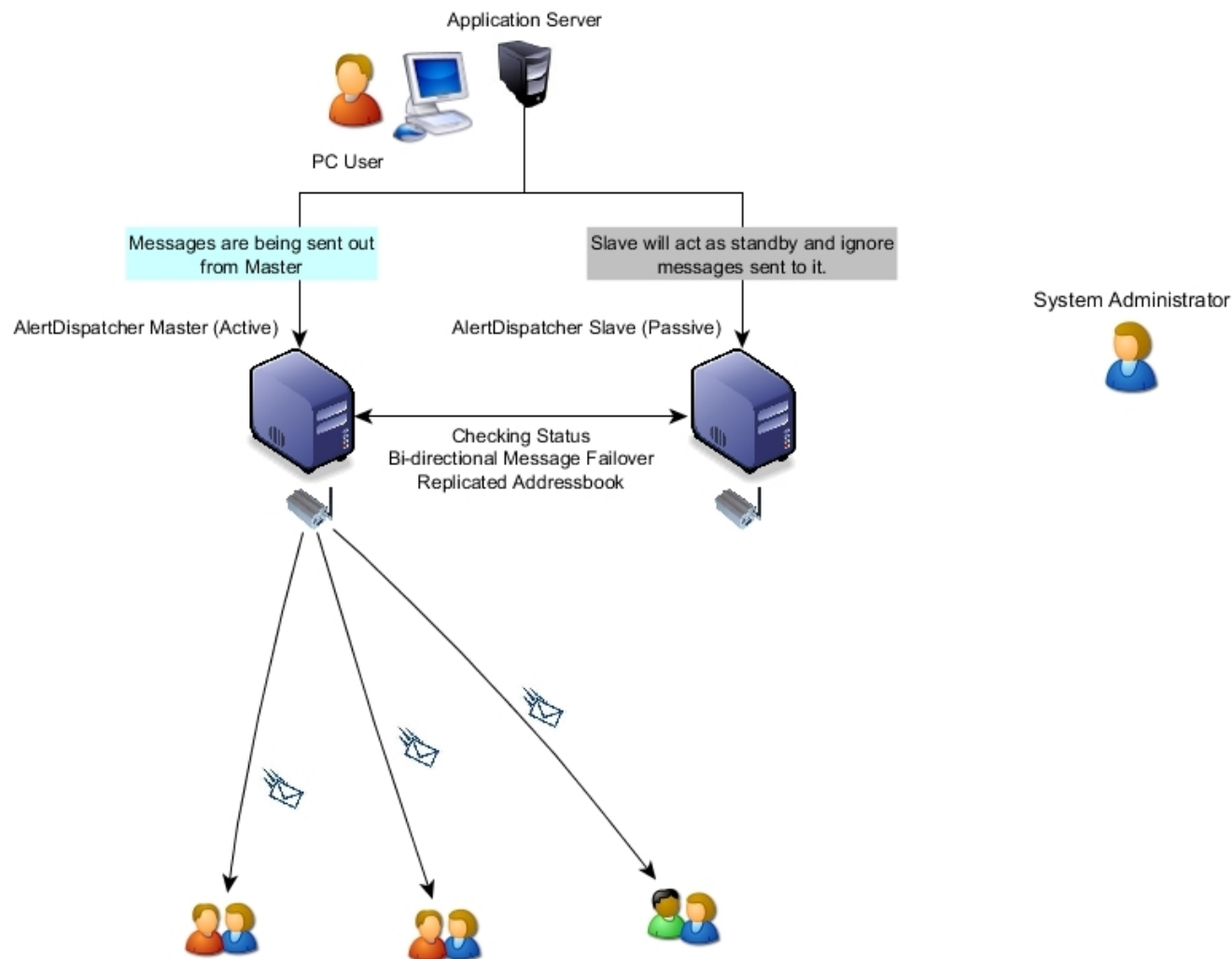
Server Event Log:

```

2017.07.25 23:25:53:606 [!!!] Replication Master not available. Please check if Slave Server Host is correct. If firewall is enabled, please allow port 5556. SocketError: 10065, No route to host Open log - file:\Log\
2017.07.25 23:20:58:497 [!] Replication Error: Socket error: 10065, No route to host
2017.07.25 23:20:58:497 [thread:1792] Replication Client Disconnected from Master: 192.168.1.203:5556
2017.07.25 23:20:58:497 [!] Replication Error: Socket error: 10054, Connection reset by peer
2017.07.25 23:15:44:106 [thread:1792] Replication Client Connected to Master: 192.168.1.203:5556
2017.07.25 23:15:13:463 [!] Replication Error: Socket error: 10061, Connection refused

```

The following diagram shows normal operation for an Active Master/Passive Slave cluster.



Upon failure of the Active Master node, the Passive Slave takes over.

