



# AlertDispatcher v7.0

## How-To Guide

Last update: January 12, 2018

### **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

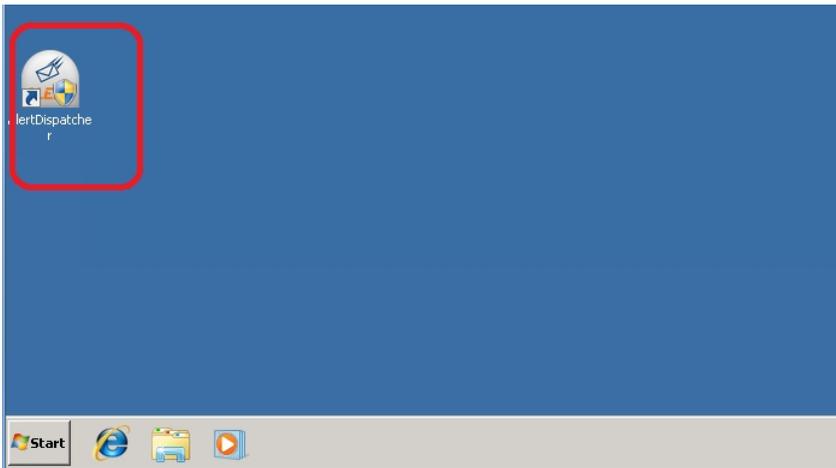
1. For End User .....	4
1). How to Launch AlertDispatcher Client .....	4
2). How to Send Test Message .....	7
3). How to use the Addressbook and setup Escalation .....	9
a). Adding Group and Recipient .....	9
b). Setting up Basic Escalation .....	13
i. Overview.....	13
ii. How to configure Basic Escalation for Addressbook Groups.....	14
iii. Acknowledging by SMS reply .....	15
iv. Acknowledging by Email reply .....	16
v. Acknowledging via AlertDispatcher Client Console.....	18
c). Setting up Emergency Recall Notification .....	19
i. Overview.....	19
ii. How to configure Emergency Recall for Addressbook Groups.....	20
iii. Initiating Emergency Recall via AlertDispatcher Web Login.....	23
iv. Initiating Emergency Recall via SMS .....	27
d). Send Test Message .....	29
4). How to Delete Pending Messages .....	30
5). How to Retrieve Logs for Troubleshooting.....	31
2. For Administrator.....	32
1). How to activate AlertDispatcher license using Activation Code .....	32
a). Register via SMS (Modem and SIM Card required) .....	33
b). Register via Internet.....	34
2). How to setup AlertDispatcher to send Email/Alert Emails.....	37
a). Configure Primary SMTP Server and credentials .....	37
b). How to verify your SMTP Server credentials using Windows Telnet Client and Blat.....	39
c). Configure email recipients in the Addressbook.....	42
3). How to setup AlertDispatcher High Availability (Master/Slave Cluster Redundancy).....	44
a). Active Master/Active Slave Operation Mode.....	45
b). Active Master/Passive Slave Operation Mode .....	48
4). How to configure Moxa NPort to allow AlertDispatcher to connect a modem via network ...	53
3. Appendix.....	59
A. How to Add (allow) server ports to Firewall.....	59

# 1. For End User

## 1). How to Launch AlertDispatcher Client

After you have installed AlertDispatcher, launch the Client from Windows Desktop.

**Note:** AlertDispatcher Client is only used to configure and manage AlertDispatcher Server. AlertDispatcher Server works as a background service and starts automatically when you boot up your server. You do not need to keep the Client open after you have finished using it.

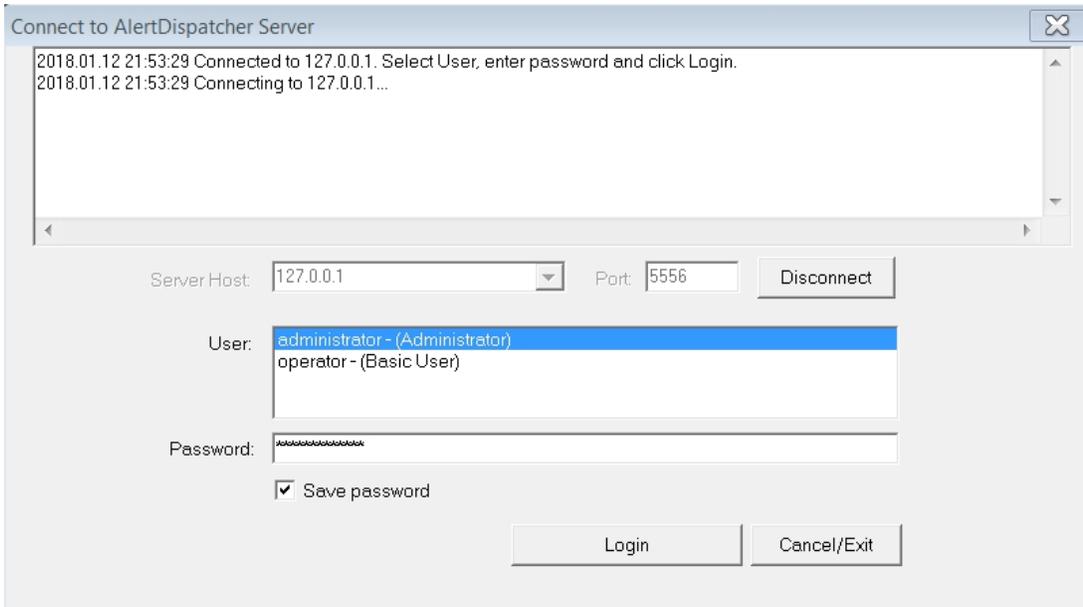


Select User and enter Password to login. The following users are created by default,

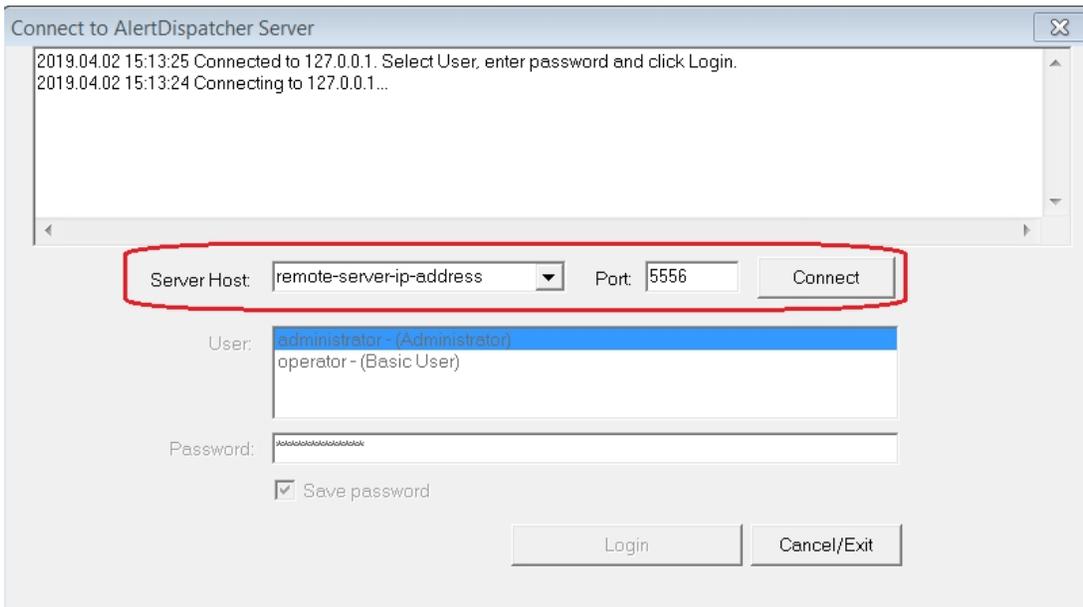
1. administrator user: *'administrator'*, password: *'alert123'*
2. basic user: *'operator'*, password: *'operator'*

An administrator user has full rights while a basic user can only view, send messages and can't delete any message or manage the address book. You are advised to change the administrator user password as soon as possible. The default password for *'operator'* is *'operator'*.

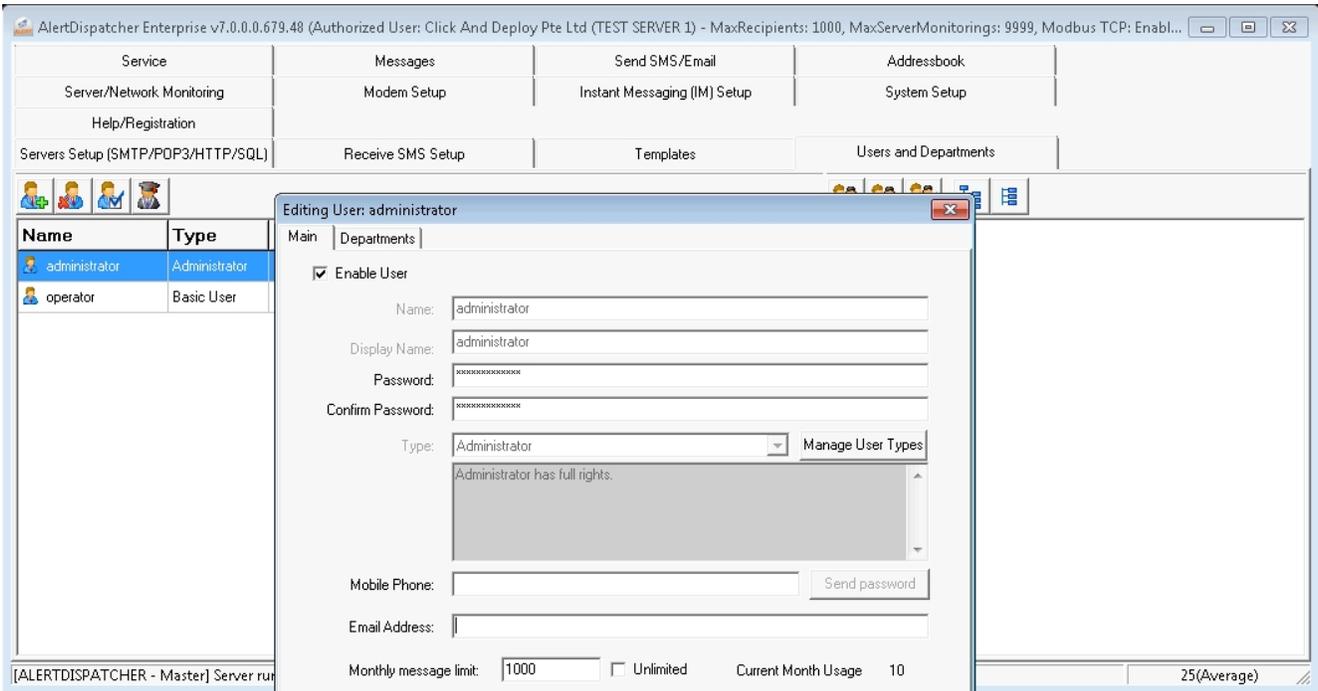
For better security, uncheck "Save password" so that the next user will have to enter password to login.



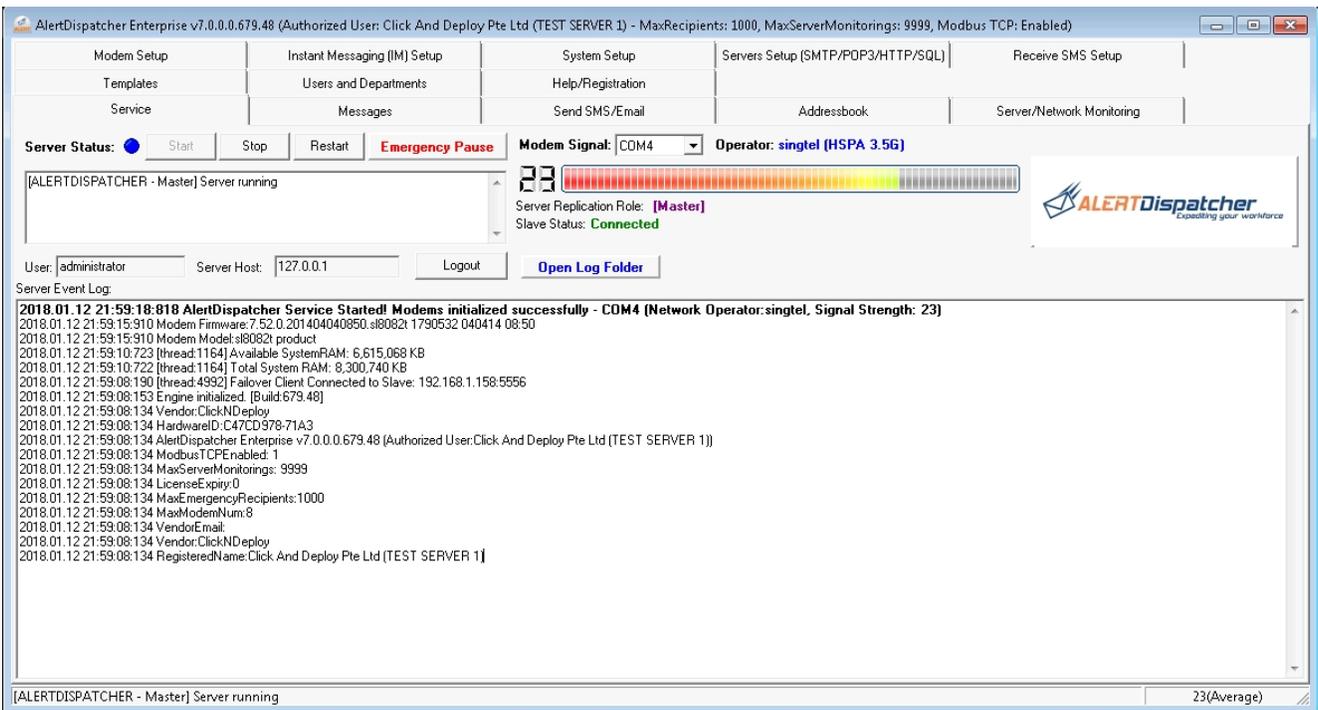
Note: If you're using Corporate or Enterprise License, you can install and connect AlertDispatcher Client to a remote AlertDispatcher Server. If the remote AlertDispatcher server has firewall enabled, then you may need to configure the firewall to "allow" incoming requests to AlertDispatcher TCP port 5556. Refer to Appendix A - How to Add (allow) server ports to Firewall.



Note: You can create new users and change passwords under "Users and Departments" tab.



After successfully login, you will see the following screen.



## 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 Enterprise v7.0.0.0.679.48 (Authorized User: Click And Deploy Pte Ltd (TEST SERVER 1) - MaxRecipients: 1000, MaxServerMonitorings: 9999, Modbus TCP: Enabl...)

Server/Network Monitoring	Modem Setup	Instant Messaging (IM) Setup	System Setup
Servers Setup (SMTP/POP3/HTTP/SQL)	Receive SMS Setup	Templates	Users and Departments
Help/Registration		<b>Send SMS/Email</b>	Addressbook
Service	Messages		

Recipients: 90621305, 90169696

Subject (Required for e-mail):

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

Send a message at: 12/1/2018 10:34:19 PM Select Template: Use Template

Message Body (Required): test sms!

Characters: 9

[ALERTDISPATCHER - Master] Server running 26(Good)

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

AlertDispatcher Enterprise v7.0.0.0.679.48 (Authorized User: Click And Deploy Pte Ltd (TEST SERVER 1) - MaxRecipients: 1000, MaxServerMonitorings: 9999, Modbus TCP: Enabled)

Modem Setup	Instant Messaging (IM) Setup	System Setup	Servers Setup (SMTP/POP3/HTTP/SQL)	Receive SMS Setup
Templates	Users and Departments	Help/Registration		
Service	<b>Messages</b>	Send SMS/Email	Addressbook	Server/Network Monitoring

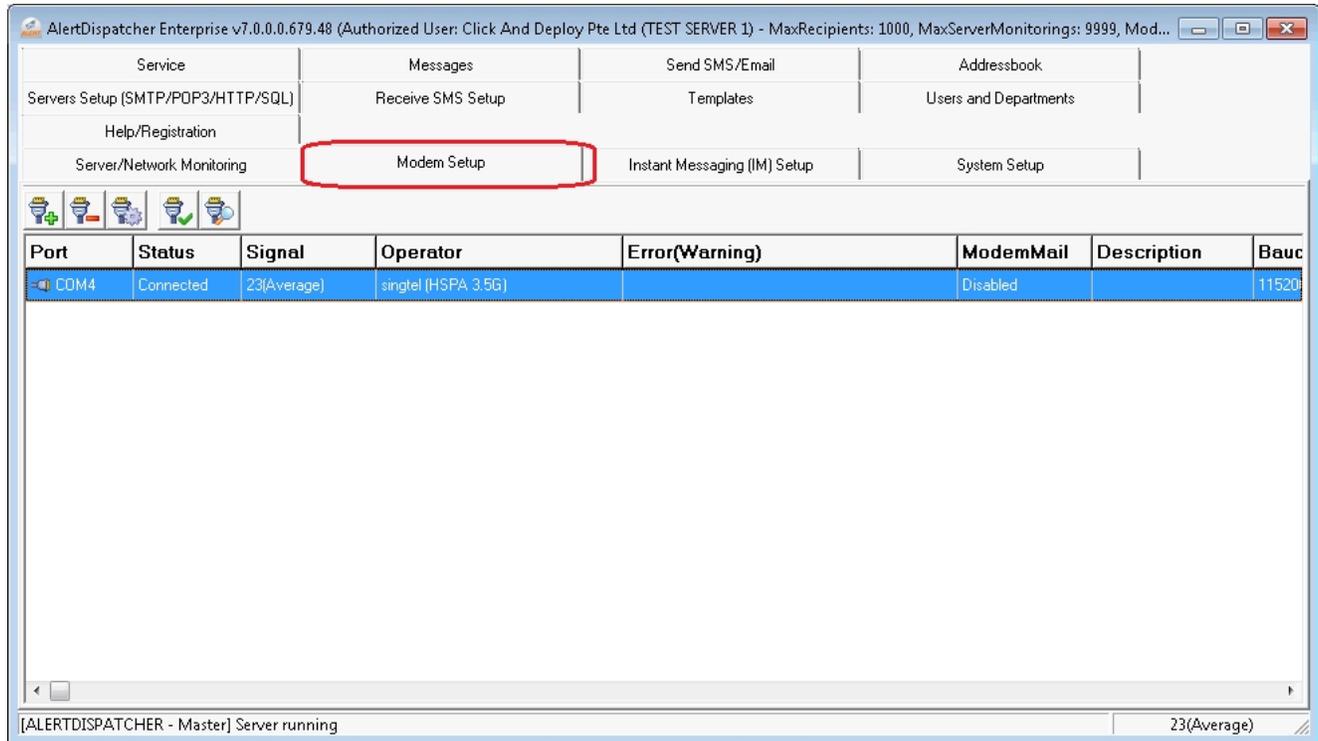
Acknowledge all messages Delete all pending messages 2 from 2. Today sent: 9. Today received: 3 Max. number of messages to display: 500 Word wrap Apply

StartDateTime	Type	IN/OUT	Recipient	Text	Subje	MessageStatus	Pr
12/1/2018 10:44:57 PM	SMS	Out	John(90621305)	test sms!		Processing	2
12/1/2018 10:44:57 PM	SMS	Out	90169696	test sms!		Pending	2

[ALERTDISPATCHER - Master] Server running 23(Average)

If the SMS message can't be sent out, go to "Modem Setup" and check if the modem is connected, and there is a signal and operator. The LED light on the modem must be on and the SIM card properly and correctly inserted. Note that some SIM card adapters may not fit well so you may try changing to another SIM card to try out.

If you're still not able to send your message, contact your telco for assistance.



Weak GSM signal may cause SMS to fail to send. The GSM signal strength and quality at your deployment location is dependent on the presence of GSM repeaters in the vicinity. Generally speaking, GSM signal will be better in offices than in industrial buildings and data centers, and is especially poor in basements and server rooms enclosed by reinforced concrete walls with fire-rated doors and no windows. If your deployment site has very poor signal, please refer to point 2 and 3.

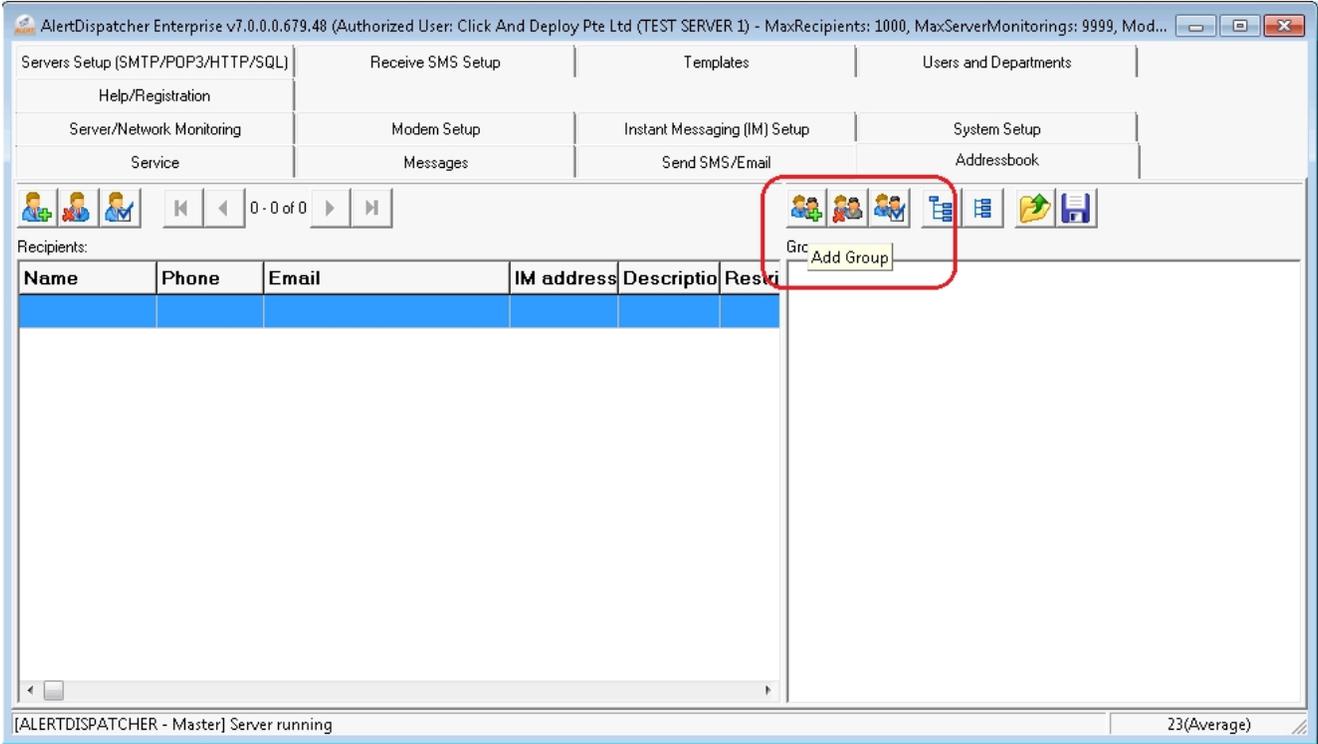
You can use your cellphone to gauge the signal strength. There should at least be 2 bars. Alternatively, you can also compare the signal strength for various SIM card providers using the software – signal strength will be displayed under Modem Setup and the signal reading will refresh every 20 seconds.

If the signal is very poor at your selected location (1 bar on your cellphone), please consider shifting the entire setup to another location. If you're installing the modem in an enclosed rack, extend the antenna out of the rack. You also may use an "active" USB extender to extend the modem to a location with better signal - click here for an example.

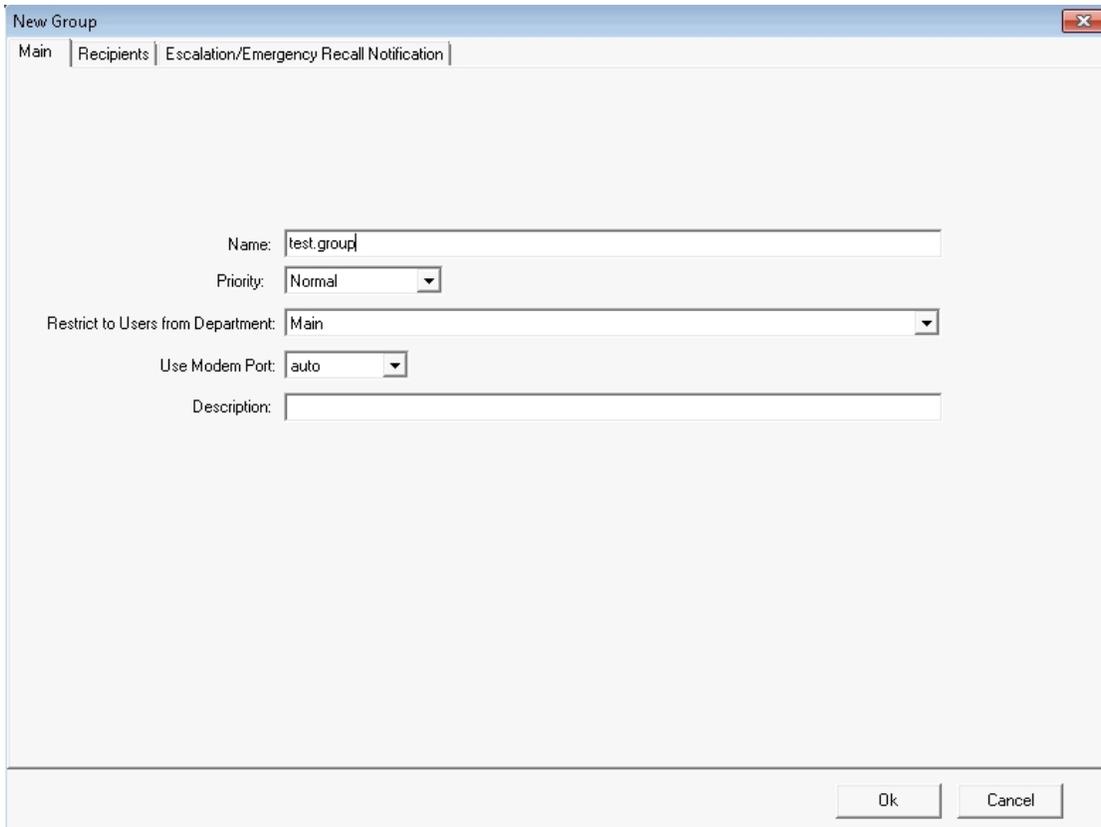
### 3). How to use the Addressbook and setup Escalation

#### a). Adding Group and Recipient

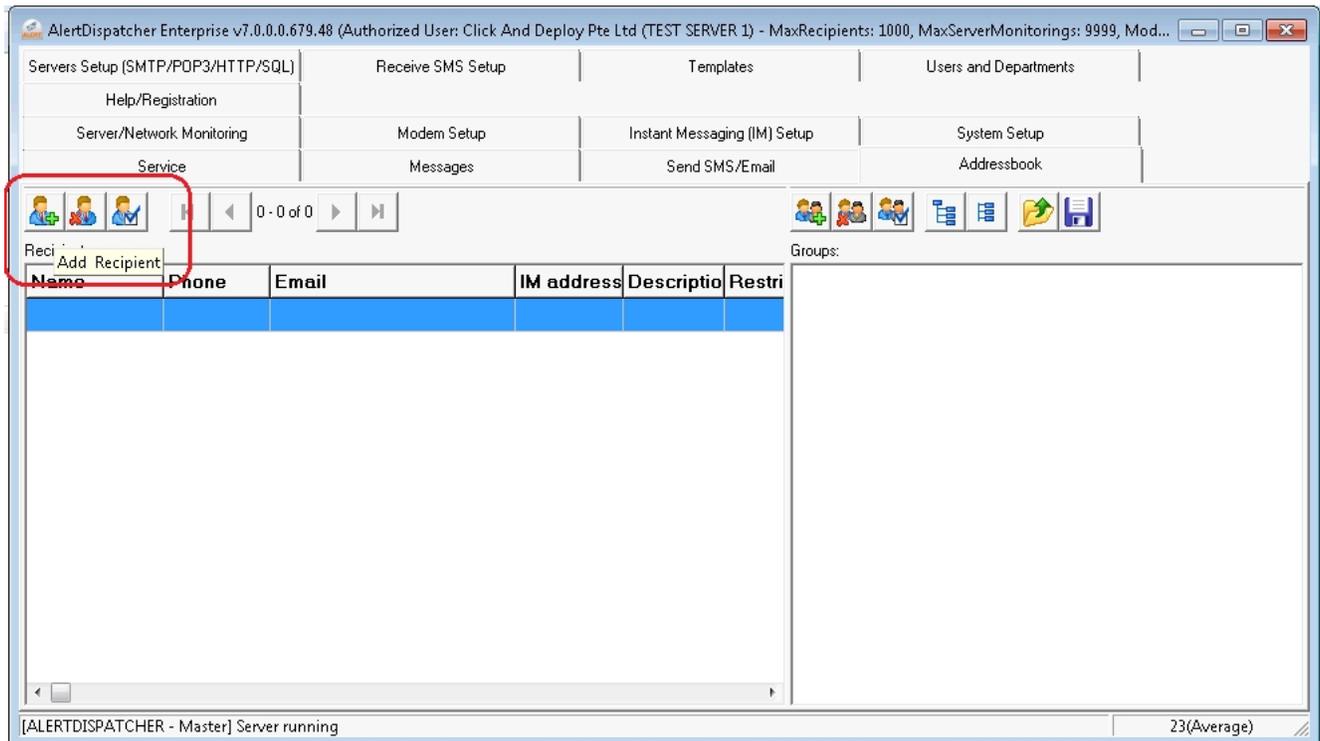
Navigate to the “Addressbook” tab, and then click on the “Add Group” icon.

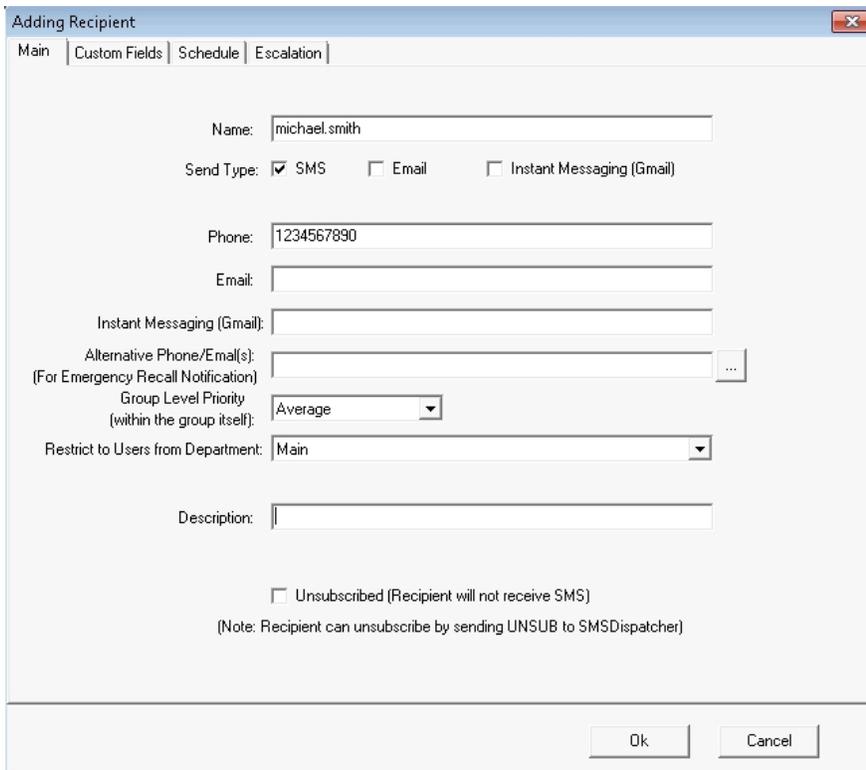


You can assign priority to your group. Messages sent to groups with higher priority will be sent out first.

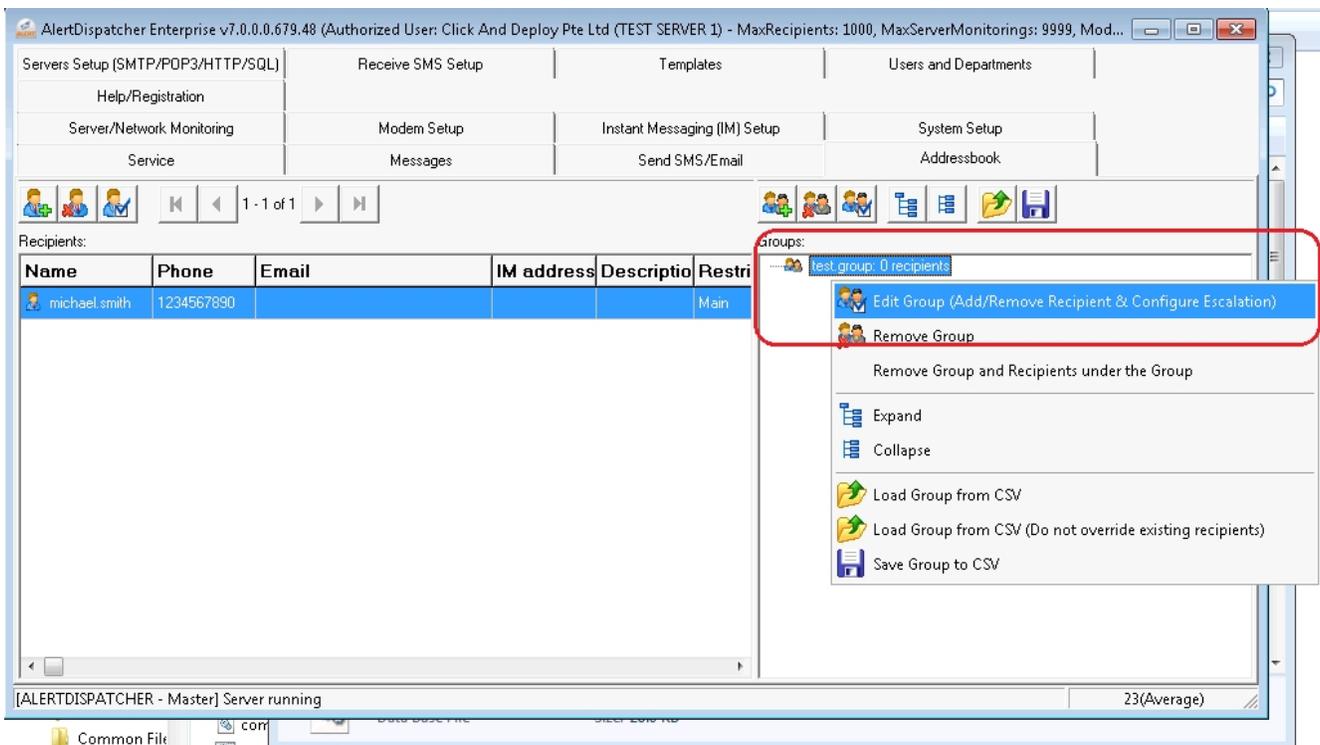


Next, click on “Add Recipient” button to create recipients.





To assign recipients to the group you have just created, right click on the group, select “Edit Group (Add/Remove recipient & Configure Escalation)”. Alternatively, you can just double click on the group itself.



Use the checkboxes to add recipients to the group.

The screenshot shows a software window titled "Editing Group" with a close button in the top right corner. Below the title bar, there are tabs for "Main", "Recipients", and "Escalation/Emergency Recall Notification". The "Recipients" tab is active. Above the table, there are navigation arrows and the text "1 - 1 of 1". The table has the following columns: Name, Type, Phone, Email, Description, Unsu..., CustomField1, CustomField2, and Custom... The first row contains the following data:  michael.smith, SMS, 1234567890, (empty), (empty), no, (empty), (empty), (empty). At the bottom of the window, there are "Ok" and "Cancel" buttons.

Name	Type	Phone	Email	Description	Unsu...	CustomField1	CustomField2	Custom...
<input checked="" type="checkbox"/> michael.smith	SMS	1234567890			no			

## b). Setting up Basic Escalation

### *i. Overview*

To ensure that critical messages are received and acted upon by recipients, you can define an escalation sequence for an addressbook group so that messages sent to the group need to be acknowledged by recipients within a defined time interval, failing which they will be escalated to the next level of recipients or resent to the same group.

There are two types of escalation that can be enabled for groups : a). *Basic Escalation*, and b). *Emergency Recall Notification*.

For Basic Escalation, any of the recipients from the group may acknowledge the message on behalf of the entire group. However, for Emergency Recall Notification, all recipients must personally acknowledge the escalation messages sent to them. Any recipient that has not acknowledged will receive escalation messages as configured.

Any Basic Escalation message that is not acknowledged by any of the recipients that received the message can be escalated up to 10 times:

1. Escalate (resend) message to a recipient or group (or back to the original escalation group).
2. Ring phone (for 6 seconds) of a recipient or group of recipients (fixed line phone supported).
3. Call phone till pickup of a recipient or group of recipients (fixed line phone supported).

There are 2 ways to configure Basic Escalation. The most popular way is to send to a group of recipients and hope that any of the recipient will acknowledge. If no acknowledgement is received after a defined time interval, the message is escalated to another group of recipients, e.g. the managers. This method is useful in reaching a group of recipients as quickly as possible, which is useful in case not everyone is able to receive or read the message in time. For example, some recipients might have turned off their phones or maybe asleep.

The other way is to send to just 1 recipient (you can add only 1 recipient to the group), and then escalate to a 2nd recipient if that single recipient does not acknowledge, and then if the 2nd recipient also does not acknowledge, escalate to 3rd recipient and so on.

**Note:** For discussion purpose, 'escalation messages' refers to messages that require recipient acknowledgement, and 'escalation groups' refers to groups with either basic escalation or emergency recall notification configured.

## *ii. How to configure Basic Escalation for Addressbook Groups*

To setup Basic Escalation for an addressbook group, under “*Escalation/Emergency Recall Notification*” tab, select “*Basic Escalation*”. If Basic Escalation is enabled, escalation messages sent to the group must be acknowledged by any recipient in the group by SMS or Email reply.

You can configure AlertDispatcher to escalate the message to another recipient or group if no one acknowledges within the defined time interval, resend to the same group, or ring/call recipient phones (cellular/fixed line). Up to 10 levels of escalations can be configured.

The screenshot shows the "Editing Group" dialog box with the "Escalation/Emergency Recall Notification" tab selected. A red box highlights the "Enable Escalation/Emergency Recall Notification" checkbox and the "Basic Escalation" radio button. Below this, there are 10 rows for configuring escalation levels. Each row has a "Next" label, a "15 mins" interval, and an "escalate to:" dropdown menu. The first dropdown is set to "test.group". The second dropdown has "ring phone (for 6 econds):" selected. At the bottom, there are checkboxes for "Allow recipient to acknowledge/comment by replying to email", "Acknowledging any message will acknowledge all messages sent to recipient", and "Do NOT escalate message if message contains ANY of the following keywords:". There is also a text field for "Acknowledgement footnote" and a "Setup Escalation Ack POP3 Server" button.

Recipients can include comments in their acknowledgement SMS/Email and these comments will be forwarded to other recipients. The acknowledgment footnote is configurable.

If you want to allow recipients to acknowledge all escalation messages received using a single reply, you can enable “*Acknowledging any message will acknowledge all messages sent to the recipient*”. 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 using the “*Do NOT escalate messages if message contains ANY of the following keywords*” setting.

*iii. Acknowledging by SMS reply*

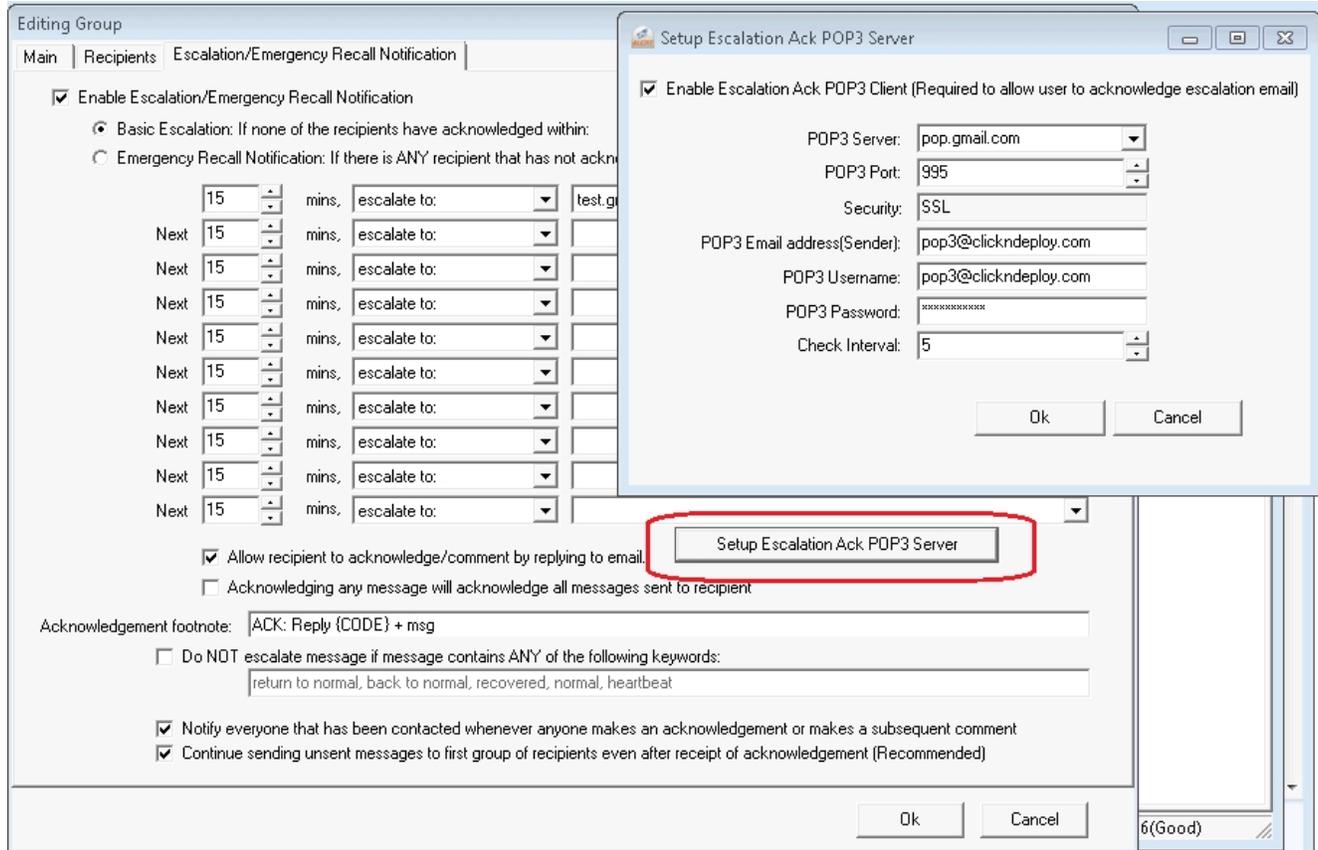
Recipients can acknowledge escalation messages received via SMS by replying a code. Multiple messages can be acknowledged in a single reply by including all the acknowledgement codes (comma separated), e.g. A123, A456, A678.

Alternatively, if "Acknowledging any message will acknowledge all messages sent to the recipient" setting is enabled, a recipient can acknowledge all messages by acknowledging any of the escalation messages received.



*iv. Acknowledging by Email reply*

In order to allow recipients to acknowledge by email reply, you must enable "Allow recipients to acknowledge/comment by replying to email" setting and configure the POP3 Server and User credentials using the "Setup Escalation Ack POP3 Server" button.

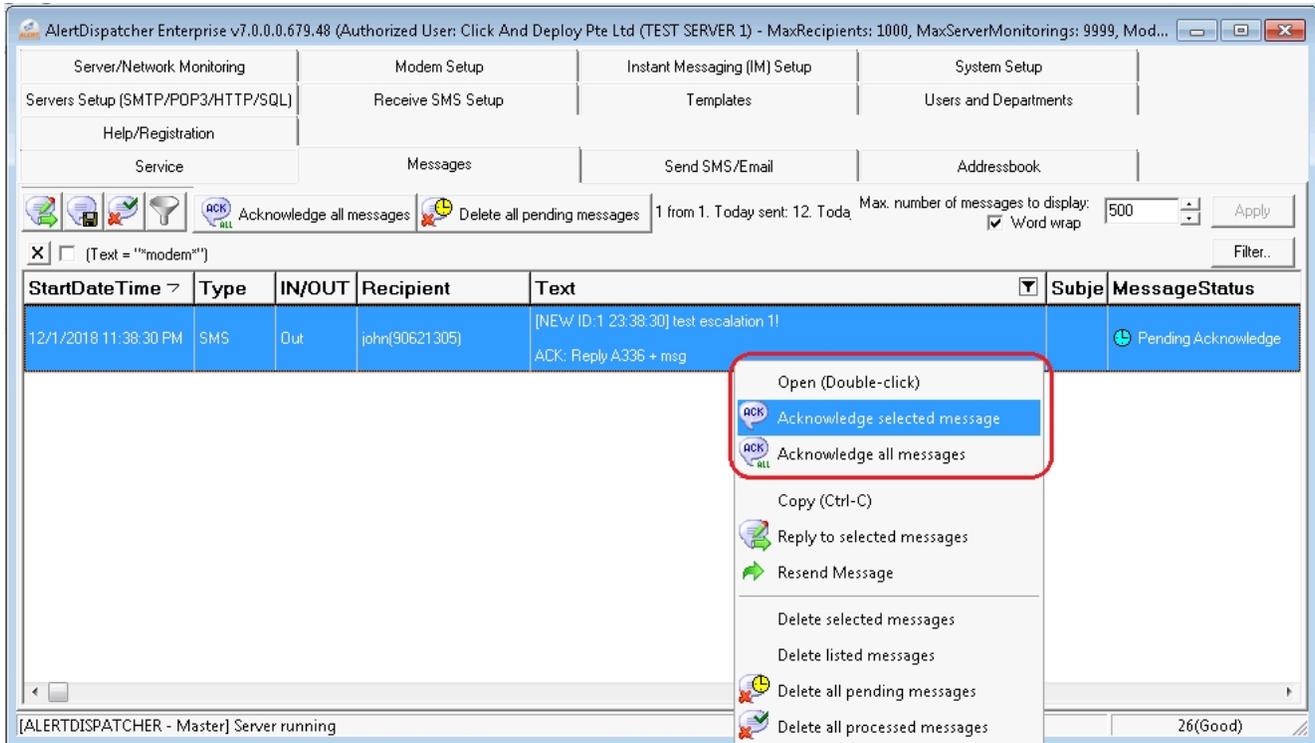


If the POP3 Server and User credential is incorrect, the following error will be shown:

The screenshot displays the AlertDispatcher Enterprise v7.0.0.0.679.48 interface. At the top, there are navigation tabs for Server/Network Monitoring, Modem Setup, Instant Messaging (IM) Setup, System Setup, Servers Setup (SMTP/POP3/HTTP/SQL), Receive SMS Setup, Templates, Users and Departments, Help/Registration, Service, Messages, Send SMS/Email, and Addressbook. Below these is a 'Server Status' section with buttons for Start, Stop, Restart, and Emergency Pause. The status shows 'Server running' and 'Modem Signal: COM4' with a signal strength indicator at 26. The operator is 'singtel (HSPA 3.5G)'. A 'Server Event Log' is visible at the bottom, with a red box highlighting the following entry: '2018.01.12 23:30:14:337 AlertDispatcher Service Started! Modems initialized successfully - COM4 (Network Operator:singtel, Signal Strength: 26)'. Other log entries include database recovery, system RAM status, and hardware information.

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

c). Setting up Emergency Recall Notification

*i. Overview*

While Basic Escalation allows any recipient in the group to acknowledge on behalf of the group, Emergency Recall Notification requires that every recipient in the addressbook group personally acknowledge the message sent to them. Any recipient that has not acknowledged will receive escalation messages as configured.

The Emergency Recall feature is especially useful in emergency or disaster scenarios where you would want reach out a group of recipients and can be initiated by a user via SMS or AlertDispatcher Web Login.

*ii. How to configure Emergency Recall for Addressbook Groups*

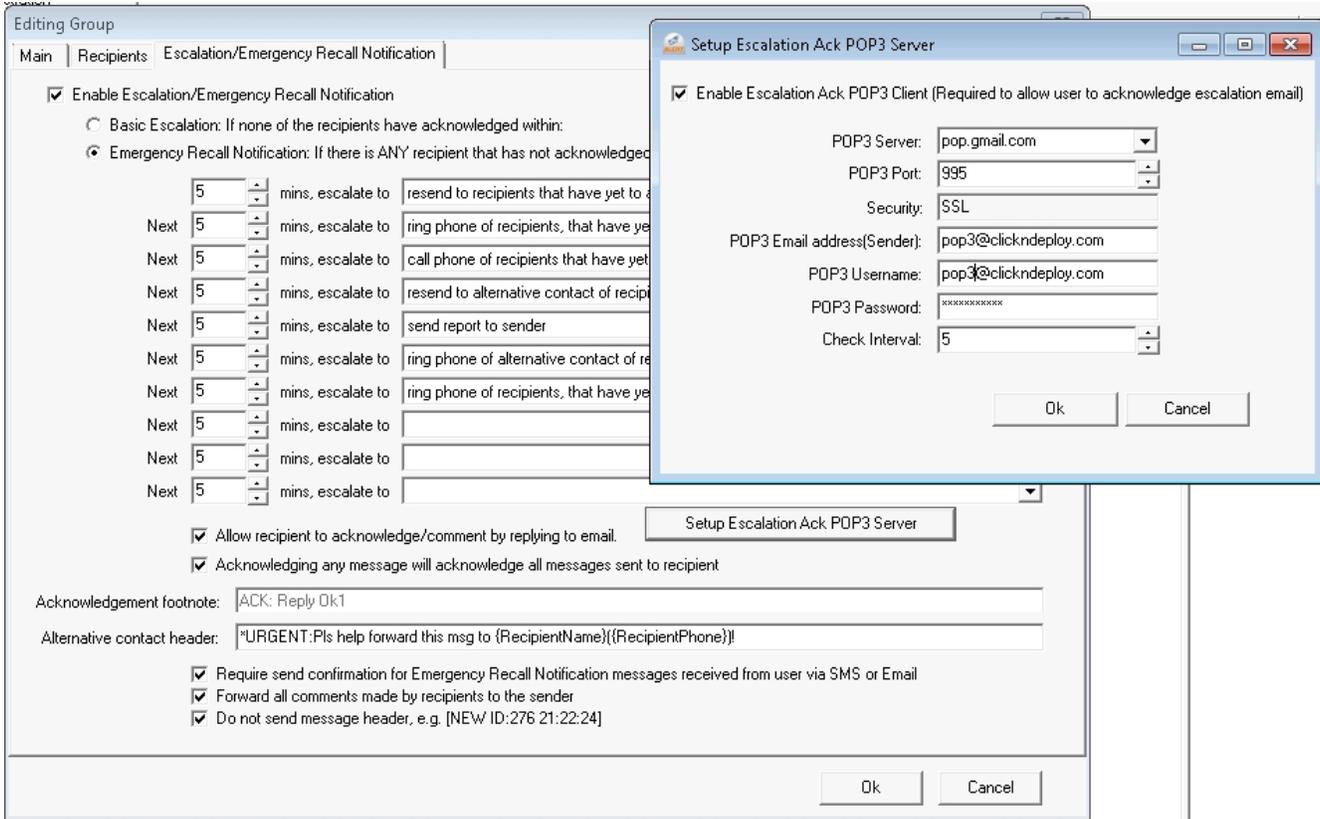
To setup Emergency Recall Notification an addressbook group, under “Escalation/Emergency Recall Notification” tab, select “Emergency Recall Notification”. Up to 10 levels of escalations can be configured.

The screenshot shows the 'Editing Group' dialog box with the 'Escalation/Emergency Recall Notification' tab selected. The 'Enable Escalation/Emergency Recall Notification' checkbox is checked. Under this, the 'Emergency Recall Notification' radio button is selected. There are ten 'Next' escalation levels, each with a '5' minute interval and a specific action: 'resend to recipients that have yet to acknowledge', 'ring phone of recipients, that have yet to acknowledge, for 6 seconds', 'call phone of recipients that have yet to acknowledged', 'resend to alternative contact of recipients that have yet to acknowledge', 'send report to sender', 'ring phone of alternative contact of recipients that have yet to acknowledge, for 6 seconds', 'ring phone of recipients, that have yet to acknowledge, for 6 seconds', and three empty fields. There are checkboxes for 'Allow recipient to acknowledge/comment by replying to email' (checked), 'Acknowledging any message will acknowledge all messages sent to recipient' (checked), 'Require send confirmation for Emergency Recall Notification messages received from user via SMS or Email' (checked), 'Forward all comments made by recipients to the sender' (checked), and 'Do not send message header, e.g. [NEW ID:276 21:22:24]' (checked). The 'Acknowledgement footnote' is 'ACK: Reply Ok1' and the 'Alternative contact header' is '\*URGENT:Pls help forward this msg to {RecipientName}({RecipientPhone})!'. A 'Setup Escalation Ack POP3 Server' button is present. 'Ok' and 'Cancel' buttons are at the bottom.

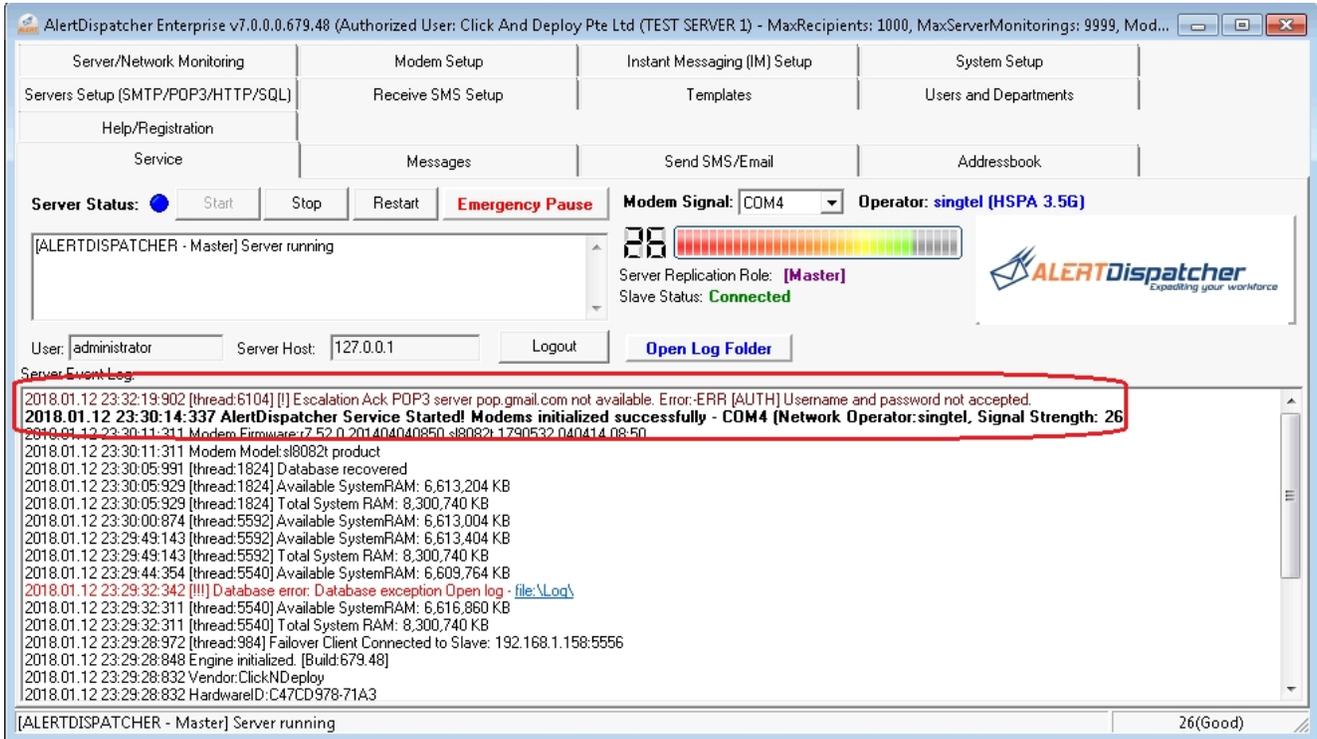
If you want to allow recipients to acknowledge all Emergency Recall messages received using a single reply, you can enable "*Acknowledging any message will acknowledge all messages sent to the recipient*". This makes it more convenient for the recipient but the downside is we can't ensure that the recipient has actually received or read all the messages.

If "*Require send confirmation for Emergency Recall Notification messages received from user via SMS or Email*" setting is enabled, users can review and then choose to confirm the message.

If you want to allow recipients to acknowledge by email reply, you must enable "*Allow recipients to acknowledge/comment by replying to email*" setting and configure the POP3 Server and User credentials using the "Setup Escalation Ack POP3 Server" button.



If the POP3 Server and User credentials is incorrect, the following error will be shown:

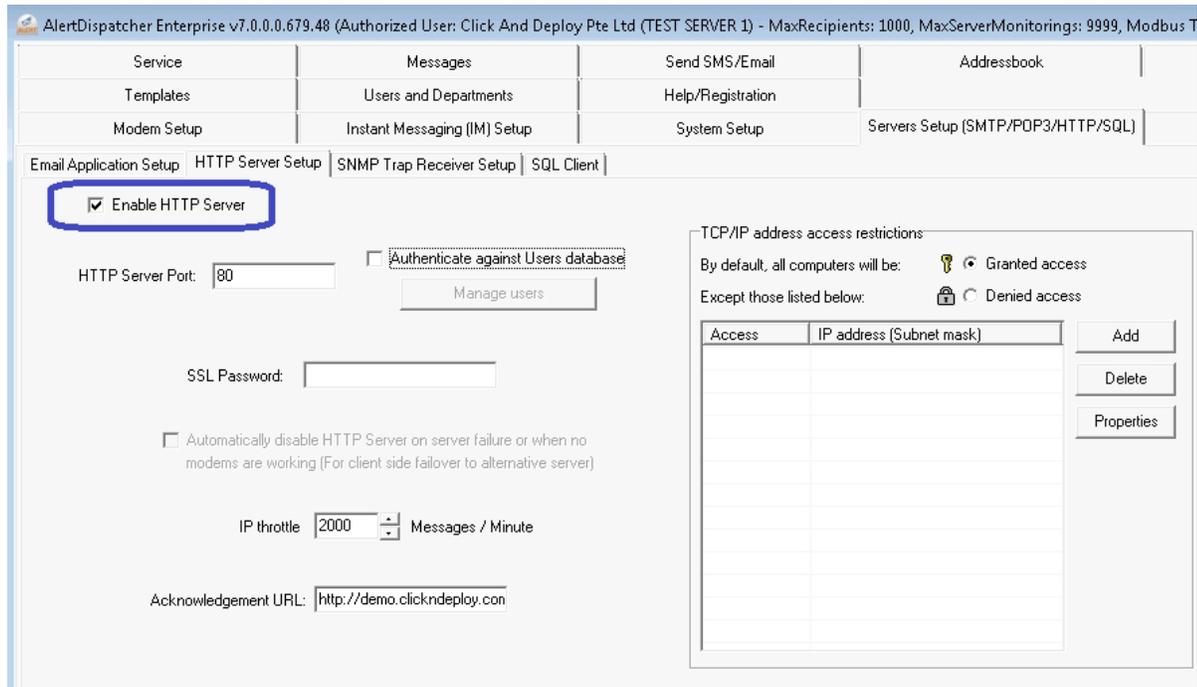


*iii. Initiating Emergency Recall via AlertDispatcher Web Login*

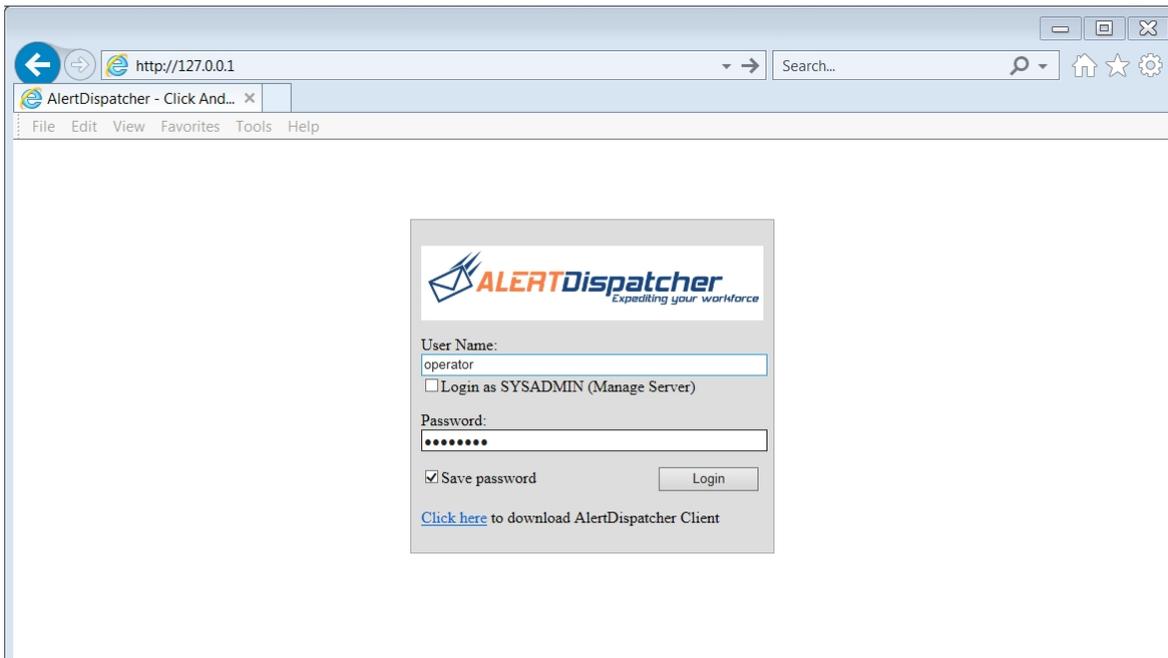
The best way to initiate an Emergency Recall is through the AlertDispatcher Web Login as you can monitor the progress of the recall real-time on your browser.

For Web Login to work, AlertDispatcher HTTP Server must be enabled. If you need to allow users to access the Web Login remotely from another workstation on the network, please ensure that Windows firewall does not block the configured HTTP Server Port (by default port 80).

Note: If there's another conflicting web server using the default port 80, you should change the AlertDispatcher HTTP Server Port, e.g. to port 8000.

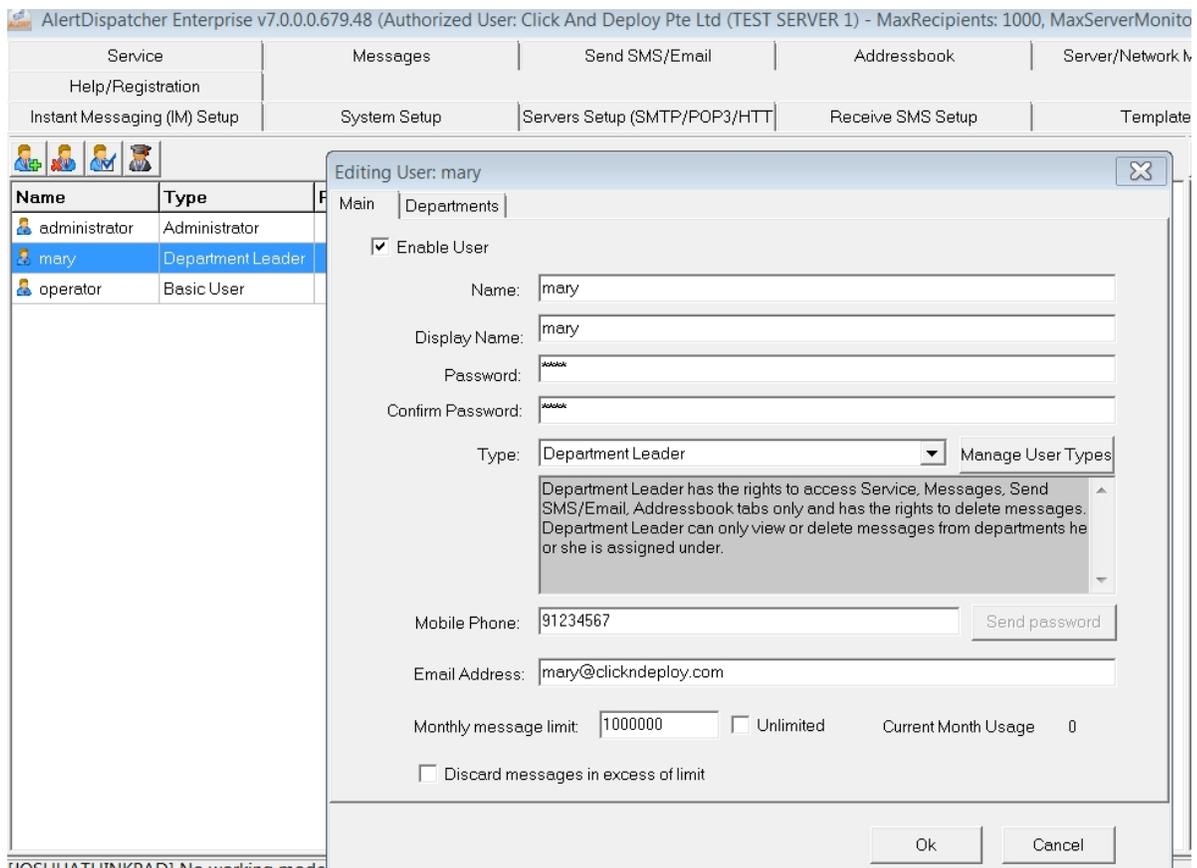


To test, access AlertDispatcher Web Login page on AlertDispatcher Server locally through your web browser, e.g. <http://127.0.0.1/>

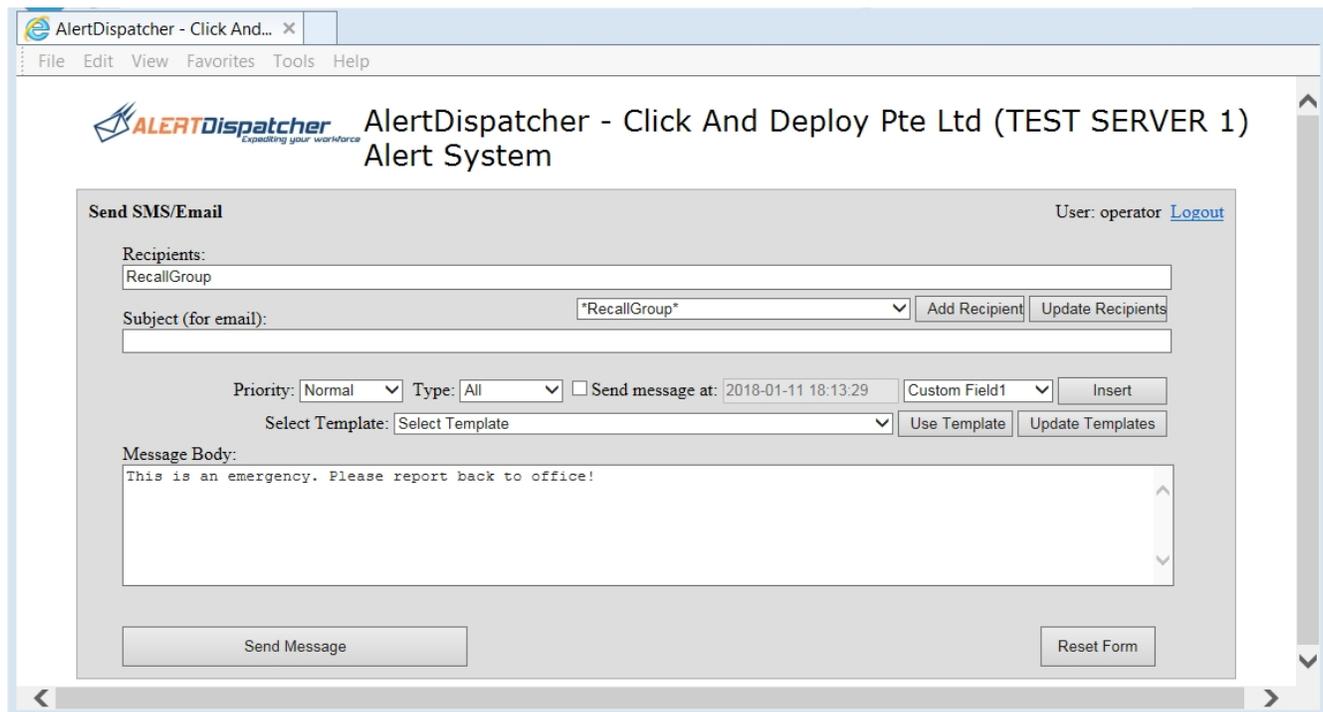


For login user, you can create a new user under "*Users and Departments*" tab, or you can use the automatically created "operator" user to login (default password: "operator").

Note: Please change this password as soon as possible using the "Users and Departments" tab to prevent unauthorized usage.



After you have successfully login, select the group that is configured for Emergency Recall Notification, compose your message, and click "Send Message".



**Send SMS/Email**

Recipients:  
RecallGroup

Subject (for email):

Message Body:  
This is an emergency

SMS888ID:wE8CM

Send

**ACK report for Emergency Recall Notification ID:18 21:37:34**

**From:** operator()  
**To:** RecallGroup  
**Time:** 2018-01-11 21:37:34  
**Message:** This is an emergency. Please report back to office!

SENT: 2/2 (ACKED: 1/2 ~ NACK 1/2) QUEUED: 0/2 FAILED: 0/2

NACK(Sent but not yet acknowledged):	Recipient Contact	Comments	Description	Alternative Contact
mary	84987668			starhubnew2 (82045273)

FAILED(Failed to send):	Recipient Contact	Comments	Description	Alternative Contact
N.A.				

QUEUED(Pending in send queue):	Recipient Contact	Comments	Description	Alternative Contact
N.A.				

ACKED(Recipient acknowledged):	Recipient Contact	Comments	Description	Alternative Contact
John	90621305	21:52:54: ok roger!		mary(84987668)

Print Refresh Now

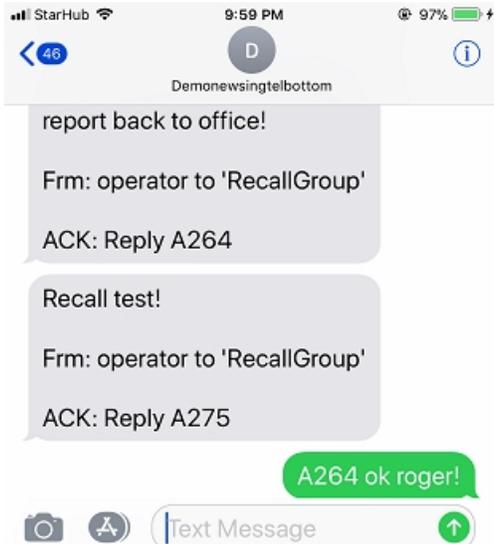
User: operator [Logout](#)

Add Recipient Update Recipients

018-01-11 18:13:29 Custom Field1 Insert

Use Template Update Templates

Reset Form



*iv. Initiating Emergency Recall via SMS*

A user can also initiate an Emergency Recall remotely by sending an SMS to the server.

SMS Format:

*"Send {GroupName} {Message}"*

The requirement is that *"Enable Receive SMS"* and *"Enable forward to Addressbook"* settings under *"Receive SMS Setup"* tab must be enabled. For security, the user's mobile phone number must be found in the addressbook (recipient) or inside one of the login users (setup under *"Users and Departments"* tab).

**Note:** You can restrict this capability to login users only by enabling the *"Restrict function to Users only"* setting under *"Receive SMS Setup"*, *"Forward to Addressbook"* tab.

AlertDispatcher Enterprise v7.0.0.0.679.48 (Authorized User: Click And Deploy Pte Ltd (TEST SERVER 1) - MaxRecipients: 1000, MaxServerMonitorings: 9999, Modbi

Help/Registration	Service	Messages	Send SMS/Email	Addressbook
Instant Messaging (IM) Setup	System Setup	Servers Setup (SMTP/POP3/HTTP/SQL)	Receive SMS Setup	

Enable Receive SMS

Forward to Addressbook | Forward to Email | Execute SQL | Execute HTTP GET | Execute DOS Command | Alert Users (Buzzer/Balloon)

Enable forward to Addressbook (Restricted to Users and Addressbook Recipients)

Forward received messages with the keyword  to Addressbook recipient that follows the keyword  
(use comma delimiter if more than one recipient)

Example:

User Admin sends to Server:  
"send operations, sales, technical All staff to report to work in 1 hour's time"

Server send to Operations, Sales, Technical :  
"All staff to report to work in 1 hour's time  
Frm: Admin (96612345) at 2012-01-20 16:20:11"

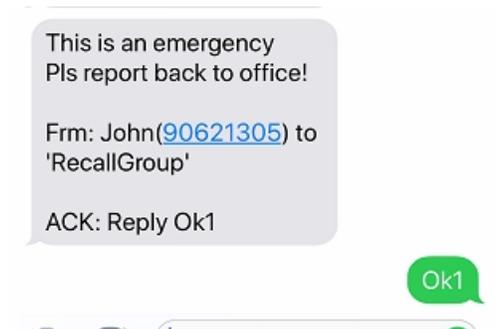
Restrict function to Users only

Append original sender to forwarded message

In the following example, a user initiates an Emergency Recall to "RecallGroup" group by sending an SMS "Send recallgroup This is an emergency. Pls report back to office!".

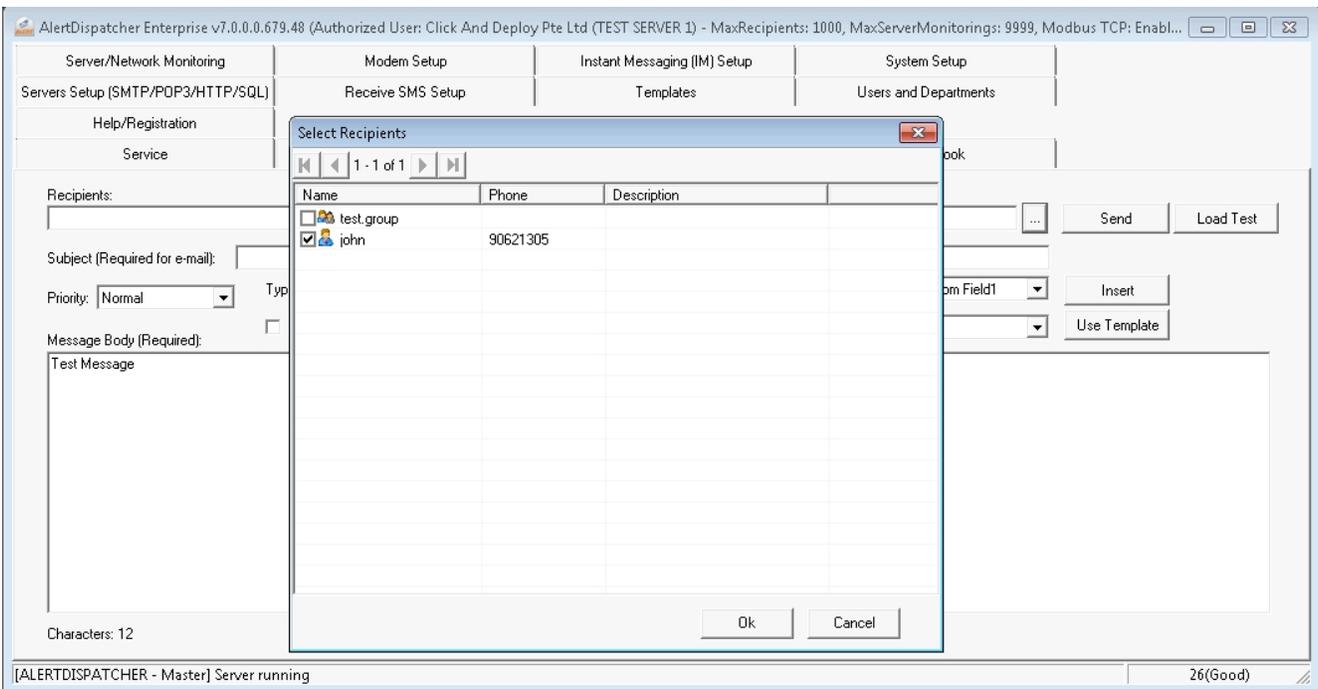
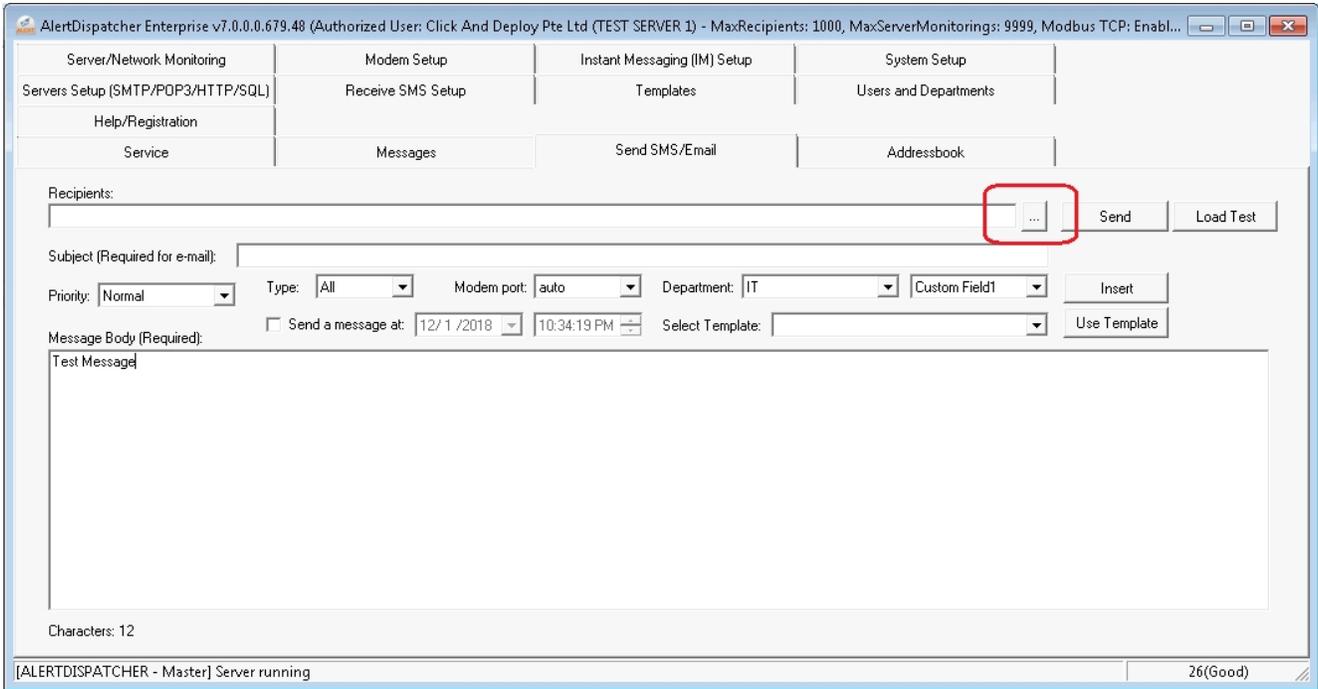


A recipient receives the SMS and sends Ok1 to acknowledge.



d). Send Test Message

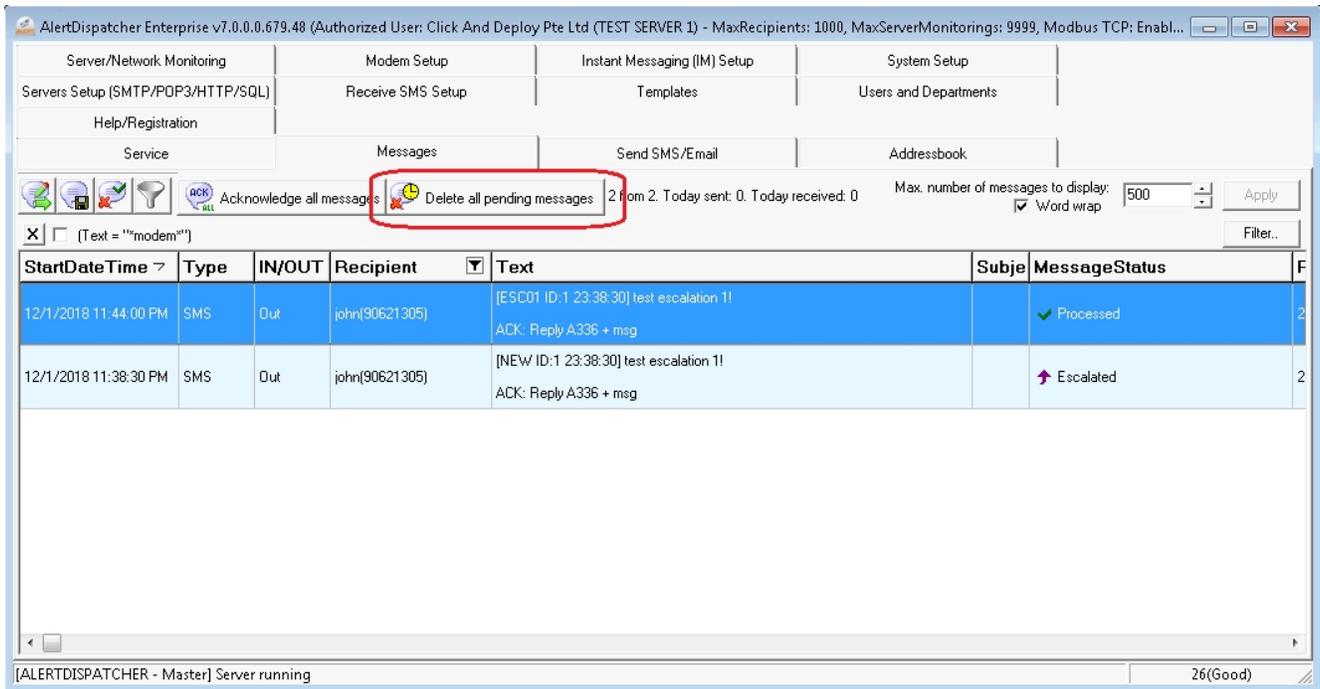
To test your newly created addressbook group, navigate to the “Send SMS/Email” tab, click on the ‘...’ button and select the group.



Click “Send” button to send the message.

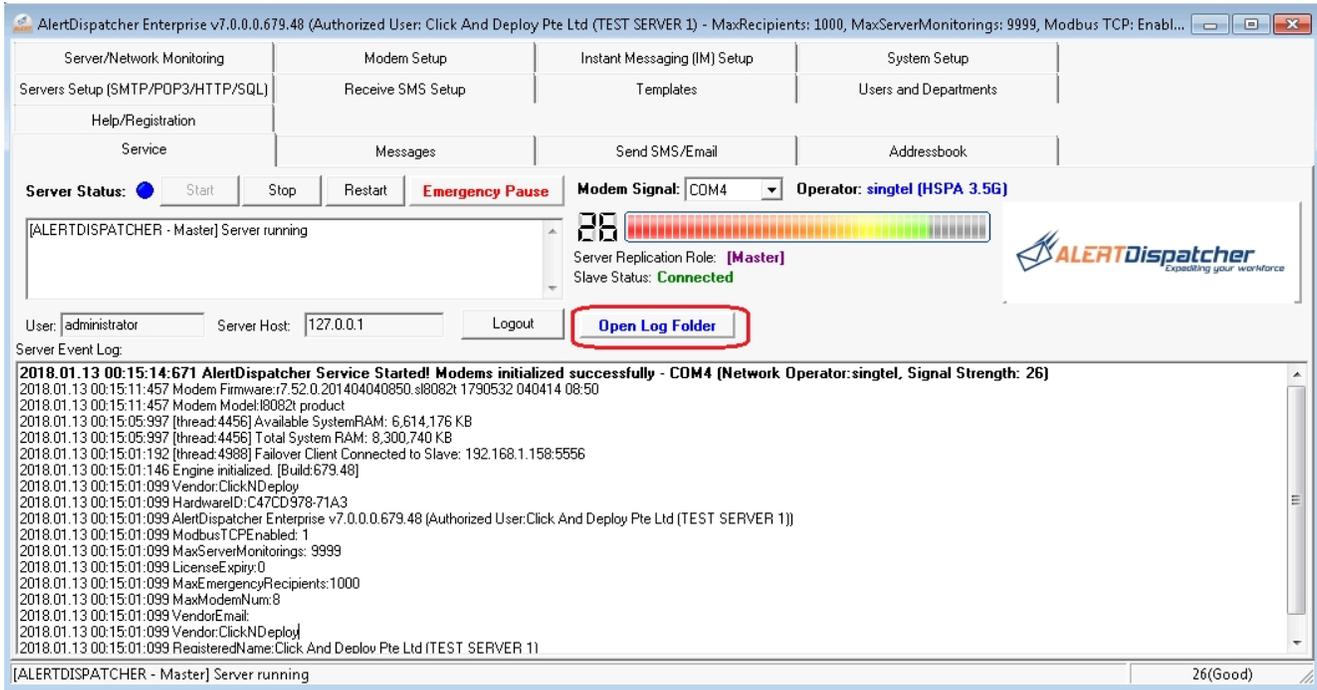
### 4). How to Delete Pending Messages

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



### 5). How to Retrieve Logs for Troubleshooting

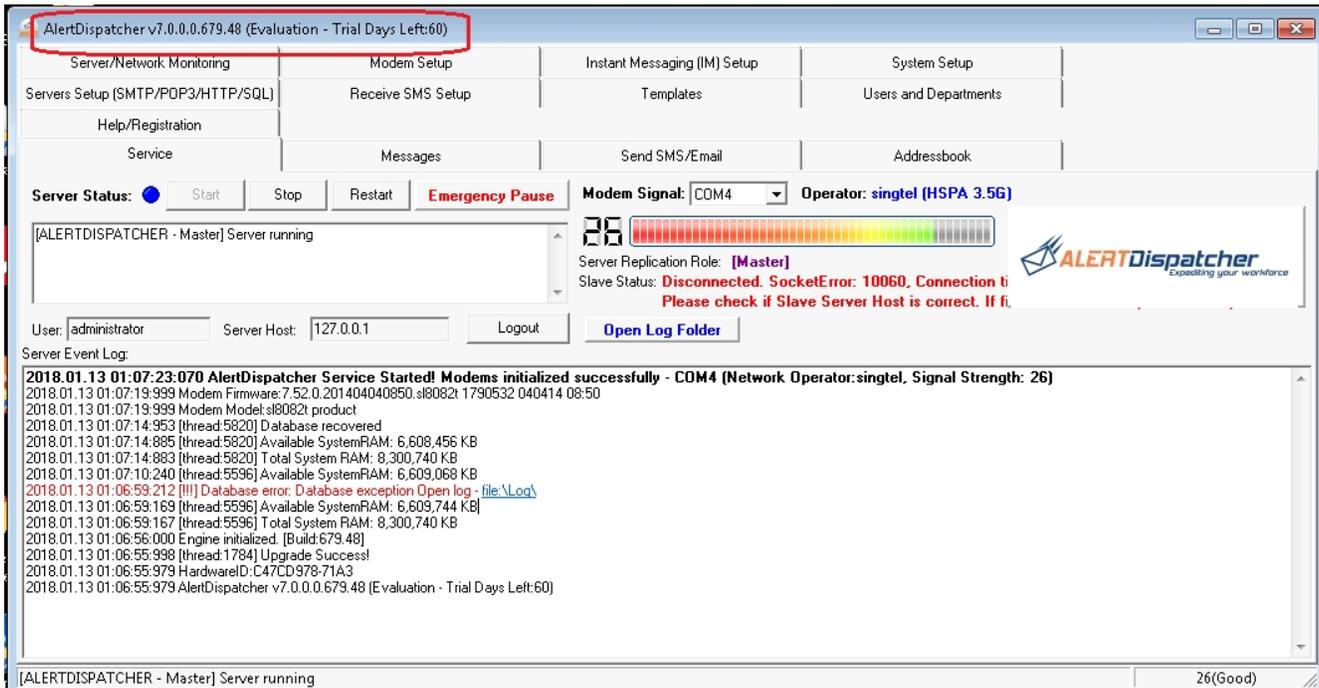
You can retrieve your logs by clicking on the “Open Log Folder” button.



## 2. For Administrator

### 1). How to activate AlertDispatcher license using Activation Code

Once you have successfully setup and configured your AlertDispatcher installation, the software will work for 60 days without license activation. To use beyond 60 days, please activate your license by SMS or Internet.



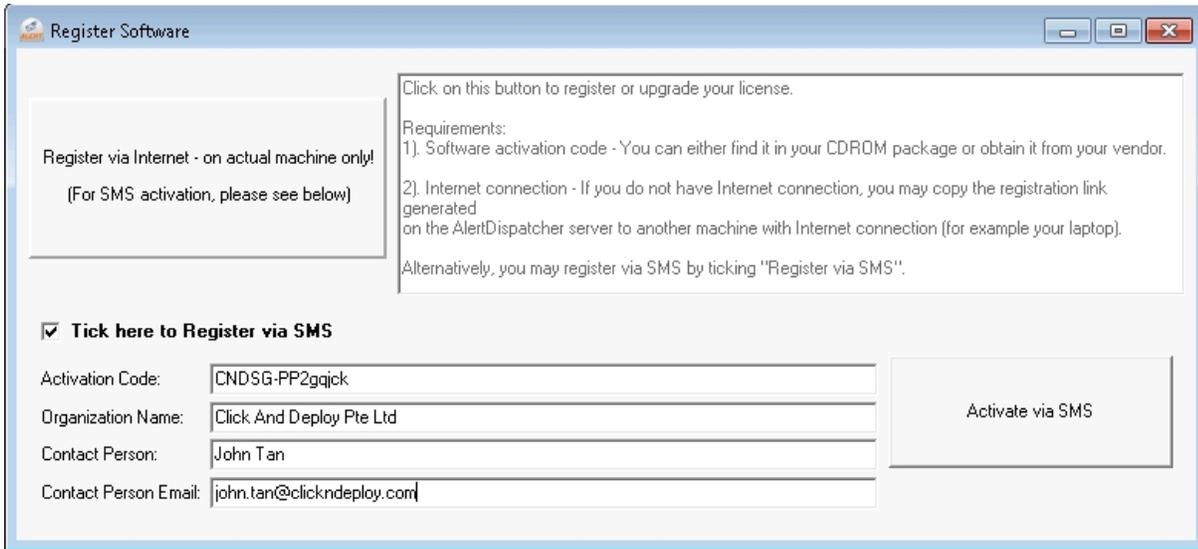
To register, run AlertDispatcher Client, and click on the 'Register Software' button on the splash screen. Alternatively, you can launch AlertDispatcher Client and navigate to the "Help/Registration" Tab on the main page.



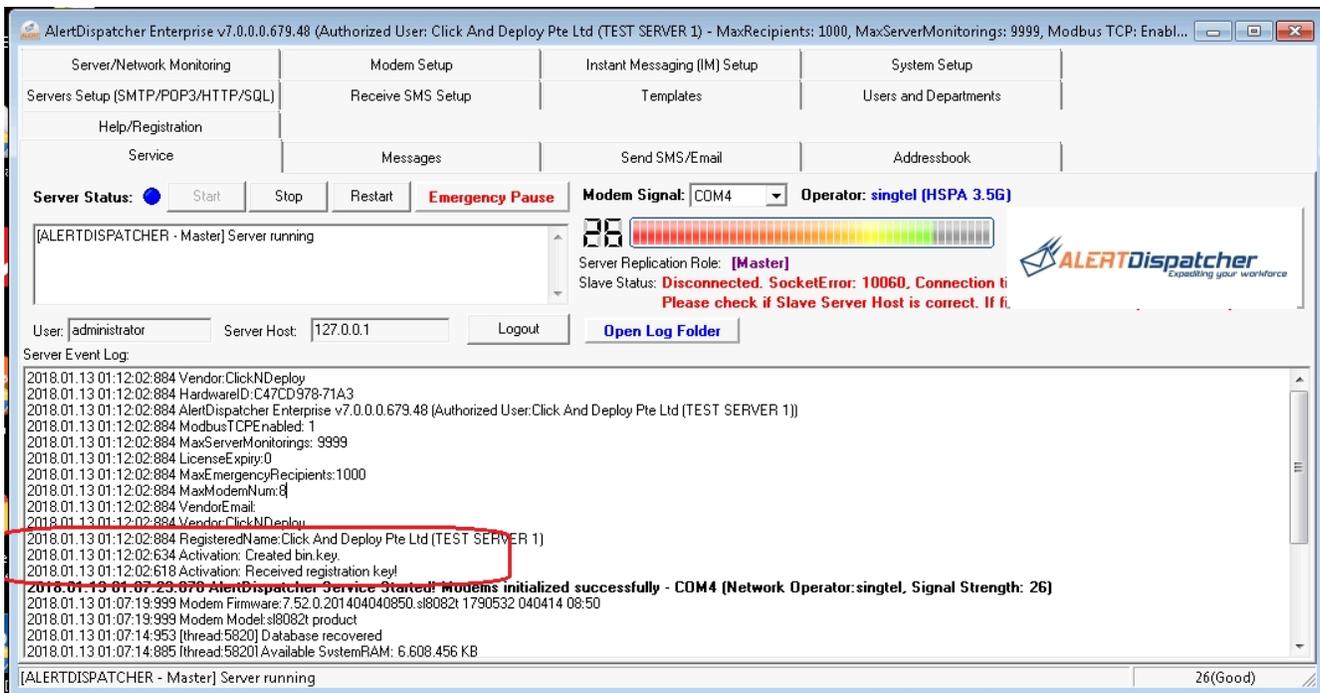
You may register via Internet or via SMS.

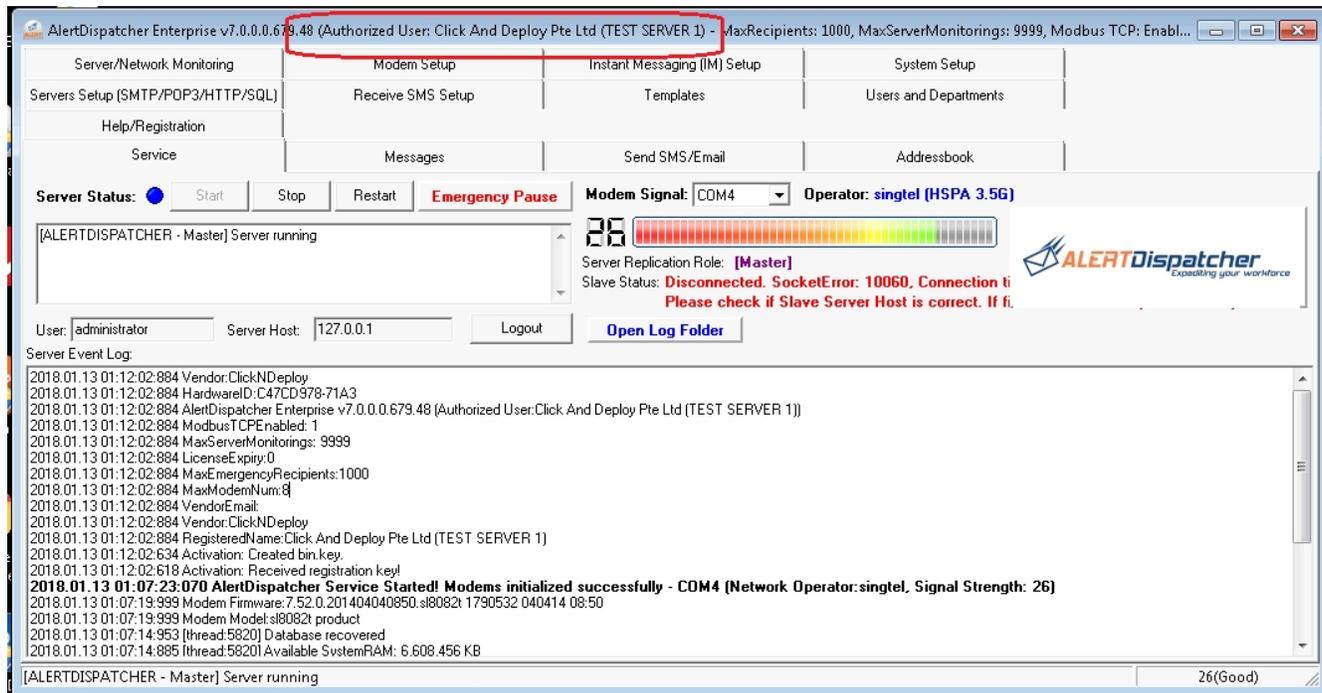
a). Register via SMS (Modem and SIM Card required)

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.



Upon receiving the license key via SMS, the "Evaluation - Trial Day Left" should be replaced by "Authorized User" as shown below. You may need to manually restart AlertDispatcher Service to see the new license.





If SMS activation don't work for you, you can activate via Internet 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 using AlertDispatcher installed on your laptop as the key generated using your laptop will work for your laptop but will fail to work on the server.

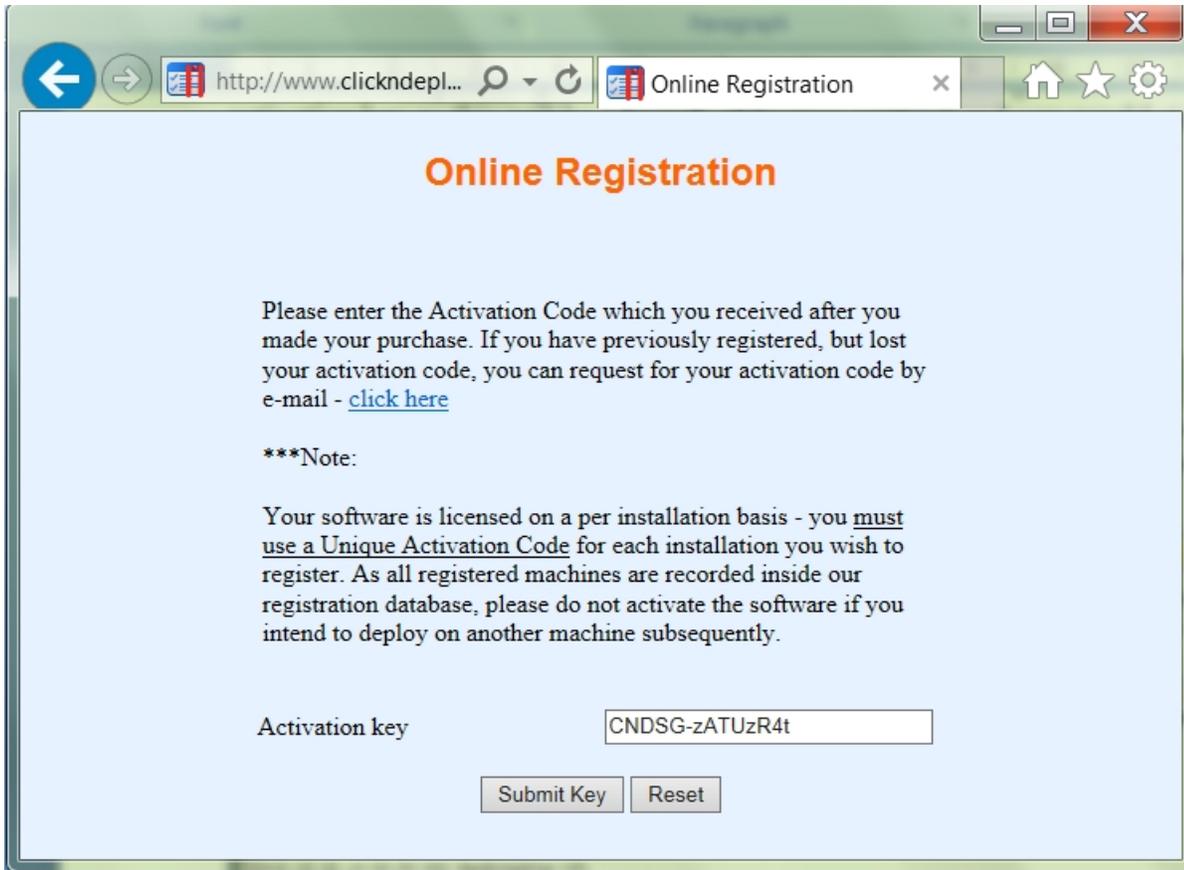
#### b). Register via Internet

After clicking "Register via Internet", enter your license Activation Code, e.g. "CNDSG-zATUzR4t".

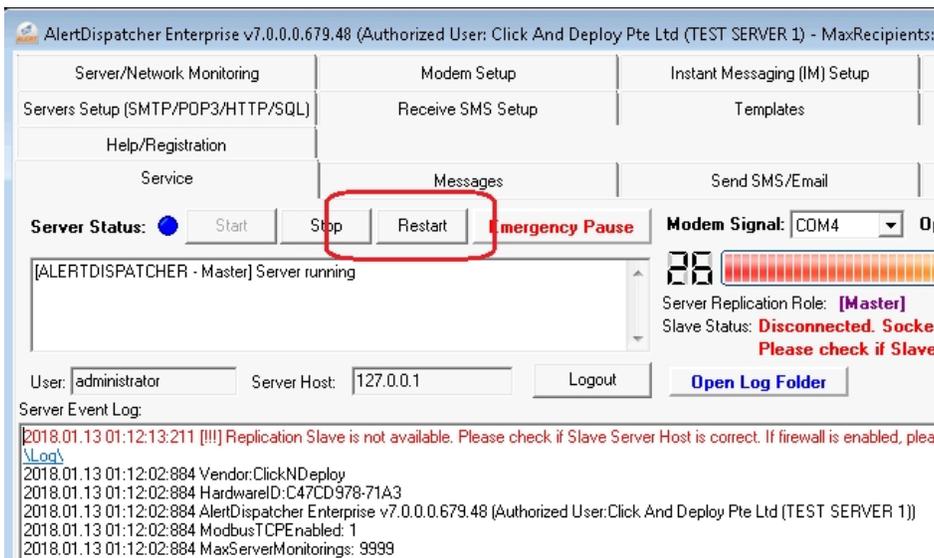
Note: If you do not have Internet access on your AlertDispatcher PC, you can copy the browser link generated on AlertDispatcher PC to a laptop or office PC with Internet access to continue with the registration. Please do not attempt to install AlertDispatcher on your laptop and try to perform the activation as the key won't work on the actual PC.

You can find the Activation Code 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.



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.



Upon successful activation, the "Evaluation - Trial Day Left" should be replaced by "Authorized User" as shown below.

AlertDispatcher Enterprise v7.0.0.0.679.48 (Authorized User: Click And Deploy Pte Ltd (TEST SERVER 1) - MaxRecipients: 1000, MaxServerMonitorings: 9999, Modbus TCP: Enabl...

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

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

Help/Registration

Service    Messages    Send SMS/Email    Addressbook

Server Status:  Start     Stop     Restart        Modem Signal: COM4    Operator: singtel (HSPA 3.5G)

[ALERTDISPATCHER - Master] Server running

26

Server Replication Role: **[Master]**  
Slave Status: **Disconnected. SocketError: 10060. Connection ti**  
**Please check if Slave Server Host is correct. If fi**

User: administrator    Server Host: 127.0.0.1       

Server Event Log:

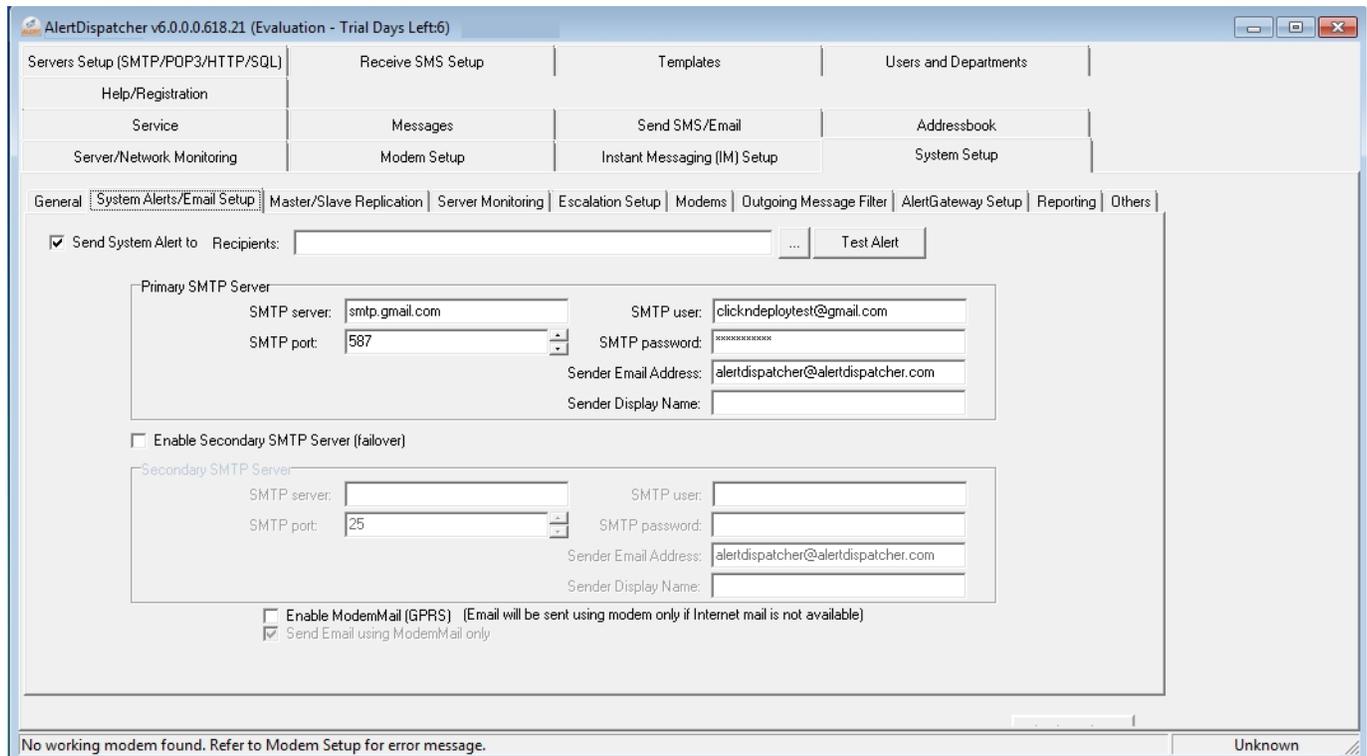
```
2018.01.13 01:12:02:884 Vendor:ClickNDeploy
2018.01.13 01:12:02:884 HardwareID:C47CD979-71A3
2018.01.13 01:12:02:884 AlertDispatcher Enterprise v7.0.0.0.679.48 (Authorized User:Click And Deploy Pte Ltd (TEST SERVER 1))
2018.01.13 01:12:02:884 ModbusTCPEabled: 1
2018.01.13 01:12:02:884 MaxServerMonitorings: 9999
2018.01.13 01:12:02:884 LicenseExpiry: 0
2018.01.13 01:12:02:884 MaxEmergencyRecipients:1000
2018.01.13 01:12:02:884 MaxModemNum:8
2018.01.13 01:12:02:884 VendorEmail:
2018.01.13 01:12:02:884 Vendor:ClickNDeploy
2018.01.13 01:12:02:884 RegisteredName:Click And Deploy Pte Ltd (TEST SERVER 1)
2018.01.13 01:12:02:634 Activation: Created bin.key.
2018.01.13 01:12:02:618 Activation: Received registration key!
2018.01.13 01:07:23:070 AlertDispatcher Service Started! Modems initialized successfully - COM4 (Network Operator:singtel, Signal Strength: 26)
2018.01.13 01:07:19:999 Modem Firmware:7.52.0.201404040850.sl8082t 1790532 040414 08:50
2018.01.13 01:07:19:999 Modem Model:sl8082t product
2018.01.13 01:07:14:953 [thread:5820] Database recovered
2018.01.13 01:07:14:885 [thread:5820] Available SystemRAM: 6.608.456 KB
```

[ALERTDISPATCHER - Master] Server running    26(Good)

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

In order for AlertDispatcher to send out Emails, you must configure the Primary SMTP Server 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 a critical purpose.



### a). Configure Primary SMTP Server and credentials

Obtain the following SMTP Server settings from your company email administrator and ensure the firewalls are opened for the SMTP Server port and AlertDispatcher Server IP address. Note that username and password is not always required.

1. SMTP Server address (IP address or hostname).
2. SMTP Server port, e.g. port 25.
3. SMTP username (if authentication is required).
4. SMTP password (if authentication is required).
5. Sender Email address (required for some email servers).

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

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

Send System Alert to Recipients: [ ] ... 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: [ ]

**Note:**

1). As far as possible, do not use your email account or an existing email account just in case you need to change your password in the future, and forget to update the password set on AlertDispatcher. Create a new email account, e.g. alertdispatcher@yourcompanydomain.

2). If you do not have a company email or 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.

The following screen shows a successful test.

AlertDispatcher Enterprise v7.0.0.0.686.48 (Authorized User: Click And Deploy Pte Ltd (TEST SERVER 1) - MaxRecipients: 1000, MaxServerMonitorings: 999...)

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

Help/Registration

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

Service | Messages | Send SMS/Email | Addressbook

Acknowledge all messages  Delete all pending messages 1 from 664. Today sent: 6. T Max. number of messages to display: 500  Word wrap Apply

X  (PhoneNumber = "support@clickndeploy.com") Filter..

StartDateTime	Type	IN/OUT	Recipient	Text	Su	MessageStatus	Pri	FinishDateTime
5/2/2018 7:39:58 PM	EMAIL	Out	support@clickndeploy.com	test email	test email	Email Processed	2	5/2/2018 7:40:01 PM

If the SMTP Server setup is not correctly configured or if your AlertDispatcher hasn't been authorized to send email to the SMTP Server, the error will be shown under MessageStatus column. Please show this error to your company email server administrator.

AlertDispatcher Enterprise v7.0.0.0.686.48 (Authorized User: Click And Deploy Pte Ltd (TEST SERVER 1) - MaxRecipients: 1000, MaxServerMonitorings: 999...)

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

Help/Registration

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

Service | Messages | Send SMS/Email | Addressbook

Acknowledge all messages 
  Delete all pending messages 
 1 from 664. Today sent: 7. T 
 Max. number of messages to display: 500 
  Word wrap 
 Apply

(PhoneNumber = "support@clickndeploy.com") Filter..

StartDateTime	Type	IN/OUT	Recipient	Text	Su	MessageStatus	Pri	FinishD
5/2/2018 7:45:30 PM	EMAIL	Out	support@clickndeploy.com	[ALERTDISPATCHER - Master]: Test alert [Created: 19:45:30 2018-02-05]	[ALERTD	<input checked="" type="checkbox"/> Email Error: "535 5.7.8	5	5/2/2018

Error: "11004,Valid name, no data record of requested type" is a socket error, and indicates that AlertDispatcher is unable to connect to the SMTP Server. Please check if the configured Primary SMTP Server and Port are correct, and there is no firewall blocking the connection.

AlertDispatcher Enterprise v7.0.0.0.686.48 (Authorized User: Click And Deploy Pte Ltd (TEST SERVER 1) - MaxRecipients: 1000, MaxServerMonitorings: 999...)

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

Help/Registration

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

Service | Messages | Send SMS/Email | Addressbook

Acknowledge all messages 
  Delete all pending messages 
 1 from 664. Today sent: 7. T 
 Max. number of messages to display: 500 
  Word wrap 
 Apply

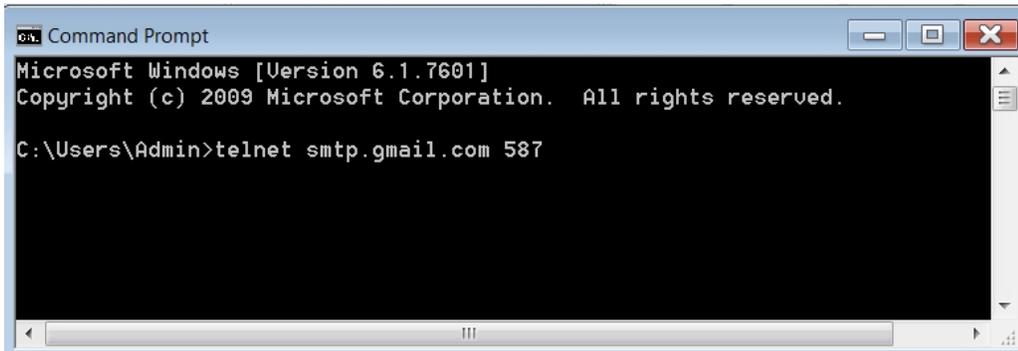
(PhoneNumber = "support@clickndeploy.com") Filter..

StartDateTime	Type	IN/OUT	Recipient	Text	Subje	MessageStatus
5/2/2018 7:58:44 PM	EMAIL	Out	support@clickndeploy.com	[ALERTDISPATCHER - Master]: Test alert [Created: 19:58:44 2018-02-05]	[ALERTD	<input checked="" type="checkbox"/> Email Error: "11004,Valid name, no data record

b). How to verify your SMTP Server credentials using Windows Telnet Client and Blat.

You can use Windows Telnet Client to check network connectivity and open port access to the SMTP Server. To determine if your SMTP Server credentials are correct, you will need to use an SMTP client such as Blat - Blat is a free command-line based SMTP client.

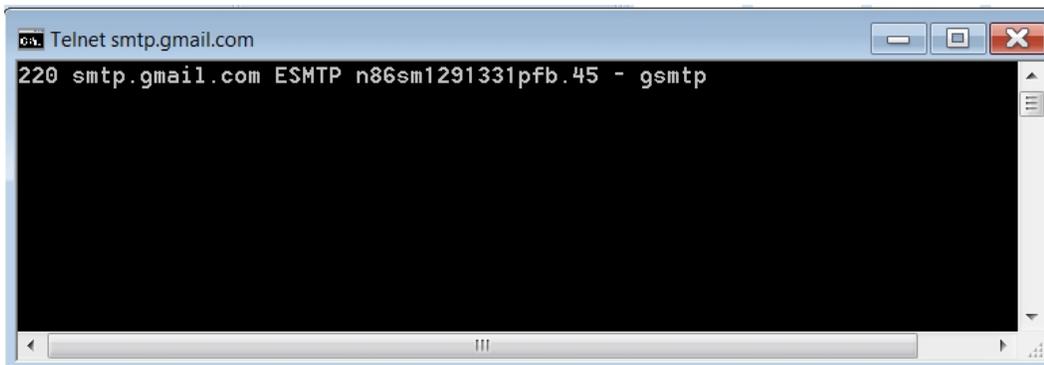
On your AlertDispatcher installation, launch Telnet client to verify that you are able to connect to the SMTP Server. The following example tries to connect to GMAIL SMTP Server at port 587. Note: Your corporate email server may use port 25 instead,



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

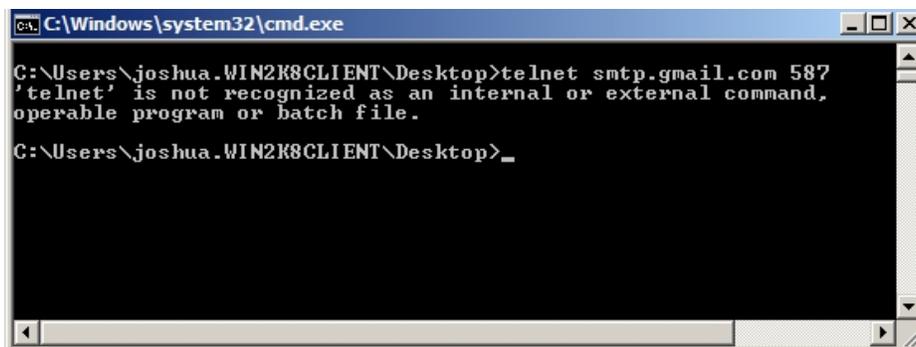
C:\Users\Admin>telnet smtp.gmail.com 587
```

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



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

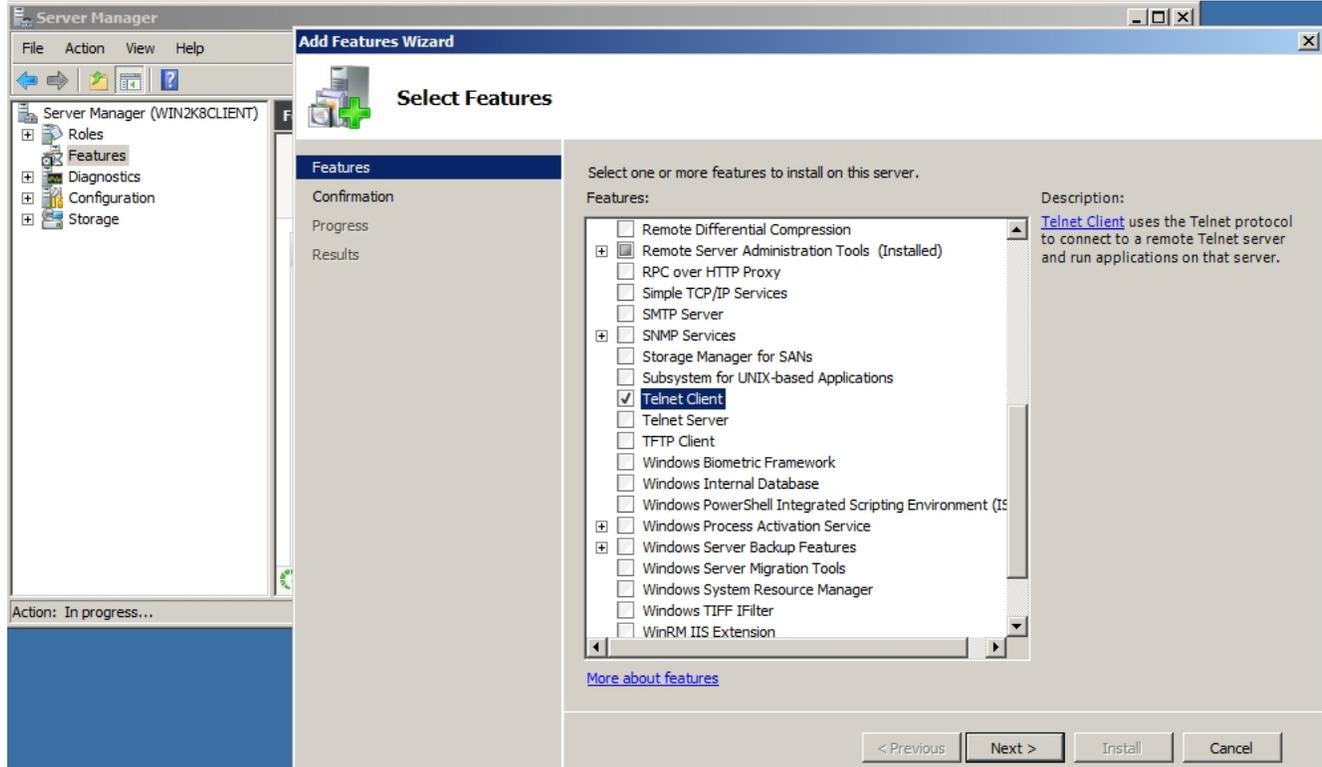
If you're getting the error "'telnet' is not recognized as an internal or external command", this means Telnet Client is not installed on your Windows machine.



```
C:\Windows\system32\cmd.exe
C:\Users\joshua.WIN2K8CLIENT\Desktop>telnet smtp.gmail.com 587
'telnet' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\joshua.WIN2K8CLIENT\Desktop>_
```

To install Telnet Client, go to *Windows Control panel -> Programs and Features -> Turn Windows features on or off -> Server Manager -> Features -> Add Feature*, and then add Telnet Client.



If Telnet works, but you're still not able to send email successfully, you can test using the free command line SMTP client Blat which you can download from <http://www.clickndeploy.com/downloads/blat-smtp.zip>.

For testing with SMTP Server without authentication:

```
blat -server {smtp-server-hostname} -port {smtp-port} -t {to-recipient} -f {sender-email} -subject {email-subject} -body {email-body}
```

Example:

```
blat -server localhost -port 25 -t 12345@clickndeploy.com -f test@clickndeploy.com -subject "test subject" -body "test body"
```

 The image shows a screenshot of a Windows Command Prompt window. The command entered is:
 

```
D:\Data\ClickAndDeploy\Testing Tools\smtp\blat262.full\blat-smtp>blat -server localhost -port 25 -t 12345@clickndeploy.com -f test@clickndeploy.com -subject "test subject" -body "test body"
```

 The output of the command is:
 

```
Blat v2.6.2 w/GSS encryption (build : Feb 25 2007 12:06:19)

Sending stdin.txt to 12345@clickndeploy.com
Subject: test subject
Login name is test@clickndeploy.com

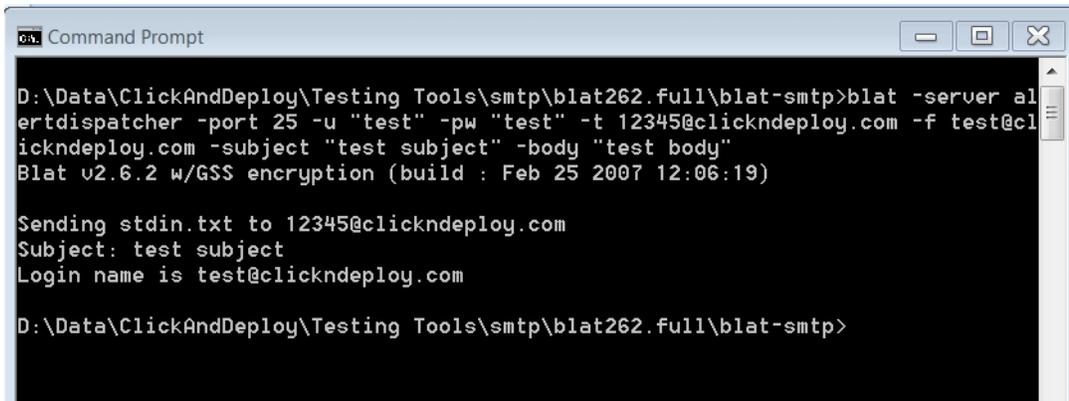
D:\Data\ClickAndDeploy\Testing Tools\smtp\blat262.full\blat-smtp>
```

For testing with SMTP Server with authentication:

```
blat -server {smtp-server-hostname} -port {smtp-port} -u {username} -pw {password} -t {to-recipient} -f {sender-email} -subject {email-subject} -body {email-body}
```

Example:

```
blat -server localhost -port 25 -u "test" -pw "test" -t 12345@clickndeploy.com -f test@clickndeploy.com -subject "test subject" -body "test body"
```

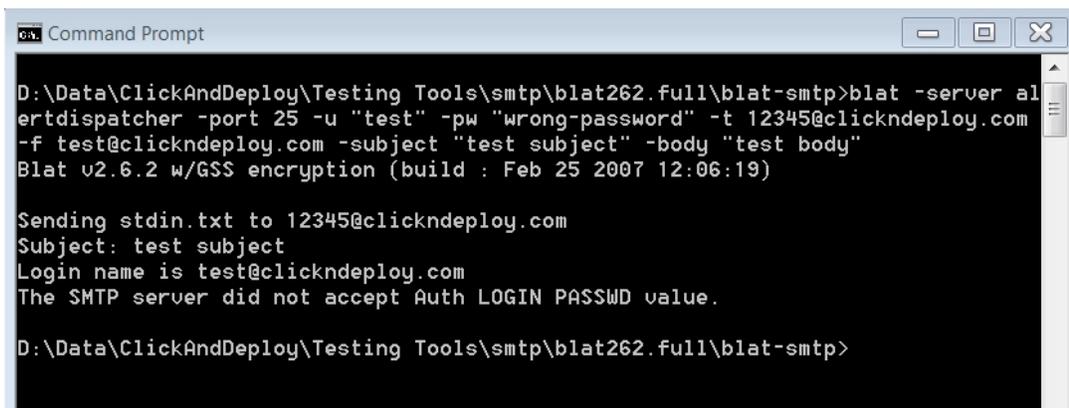


```
Command Prompt
D:\Data\ClickAndDeploy\Testing Tools\smtp\blat262.full\blat-smtp>blat -server al
ertdispatcher -port 25 -u "test" -pw "test" -t 12345@clickndeploy.com -f test@cl
ickndeploy.com -subject "test subject" -body "test body"
Blat v2.6.2 w/GSS encryption (build : Feb 25 2007 12:06:19)

Sending stdin.txt to 12345@clickndeploy.com
Subject: test subject
Login name is test@clickndeploy.com

D:\Data\ClickAndDeploy\Testing Tools\smtp\blat262.full\blat-smtp>
```

If password is wrong:



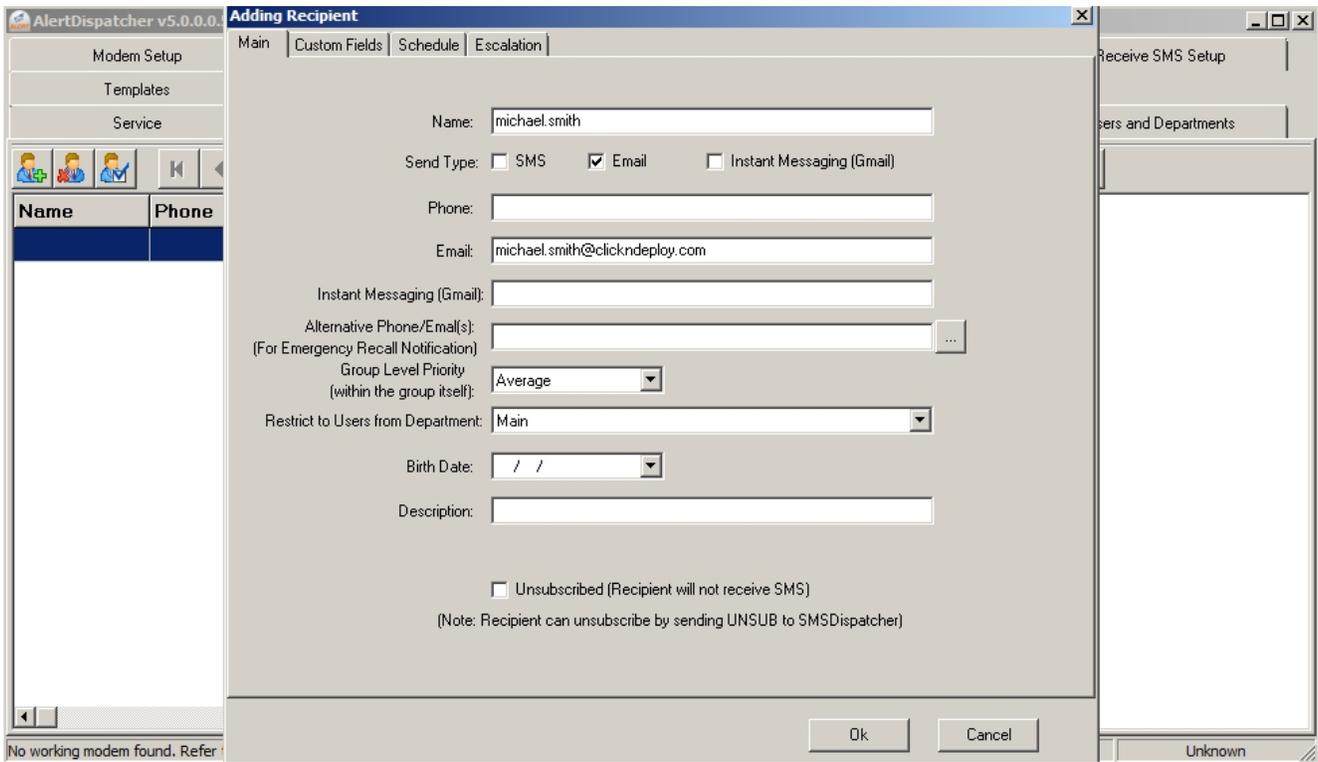
```
Command Prompt
D:\Data\ClickAndDeploy\Testing Tools\smtp\blat262.full\blat-smtp>blat -server al
ertdispatcher -port 25 -u "test" -pw "wrong-password" -t 12345@clickndeploy.com
-f test@clickndeploy.com -subject "test subject" -body "test body"
Blat v2.6.2 w/GSS encryption (build : Feb 25 2007 12:06:19)

Sending stdin.txt to 12345@clickndeploy.com
Subject: test subject
Login name is test@clickndeploy.com
The SMTP server did not accept Auth LOGIN PASSWD value.

D:\Data\ClickAndDeploy\Testing Tools\smtp\blat262.full\blat-smtp>
```

c). Configure email recipients in the Addressbook

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



### 3). How to setup AlertDispatcher High Availability (Master/Slave Cluster Redundancy)

If you are using the Enterprise License, you can setup Master/Slave cluster redundancy on 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. Refer to**

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 at any one time and be able to enact a failover to the other node.

When configured as "*Active Master/Passive Slave cluster*", messages sent by the interfacing application to the 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.

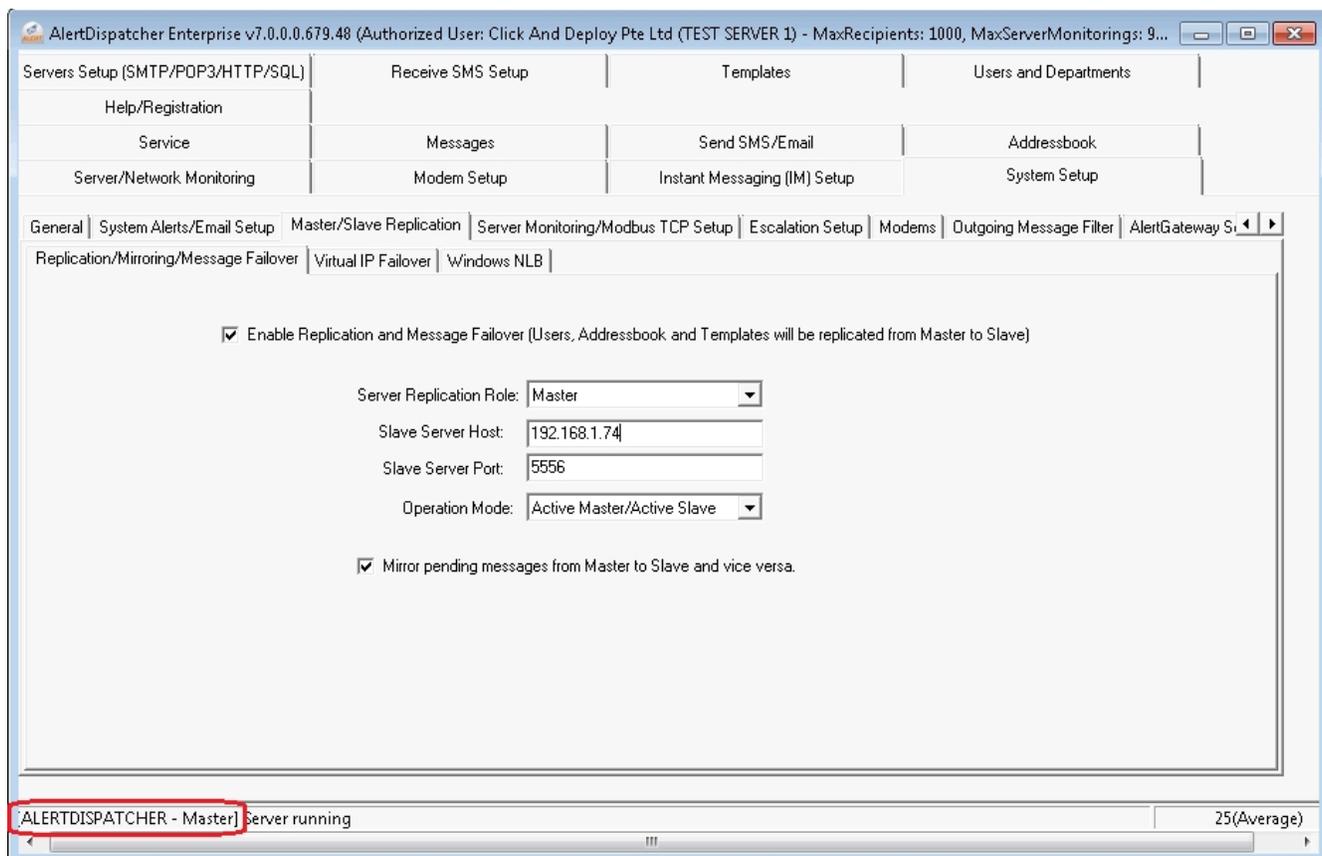
## a). Active Master/Active Slave Operation Mode

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.

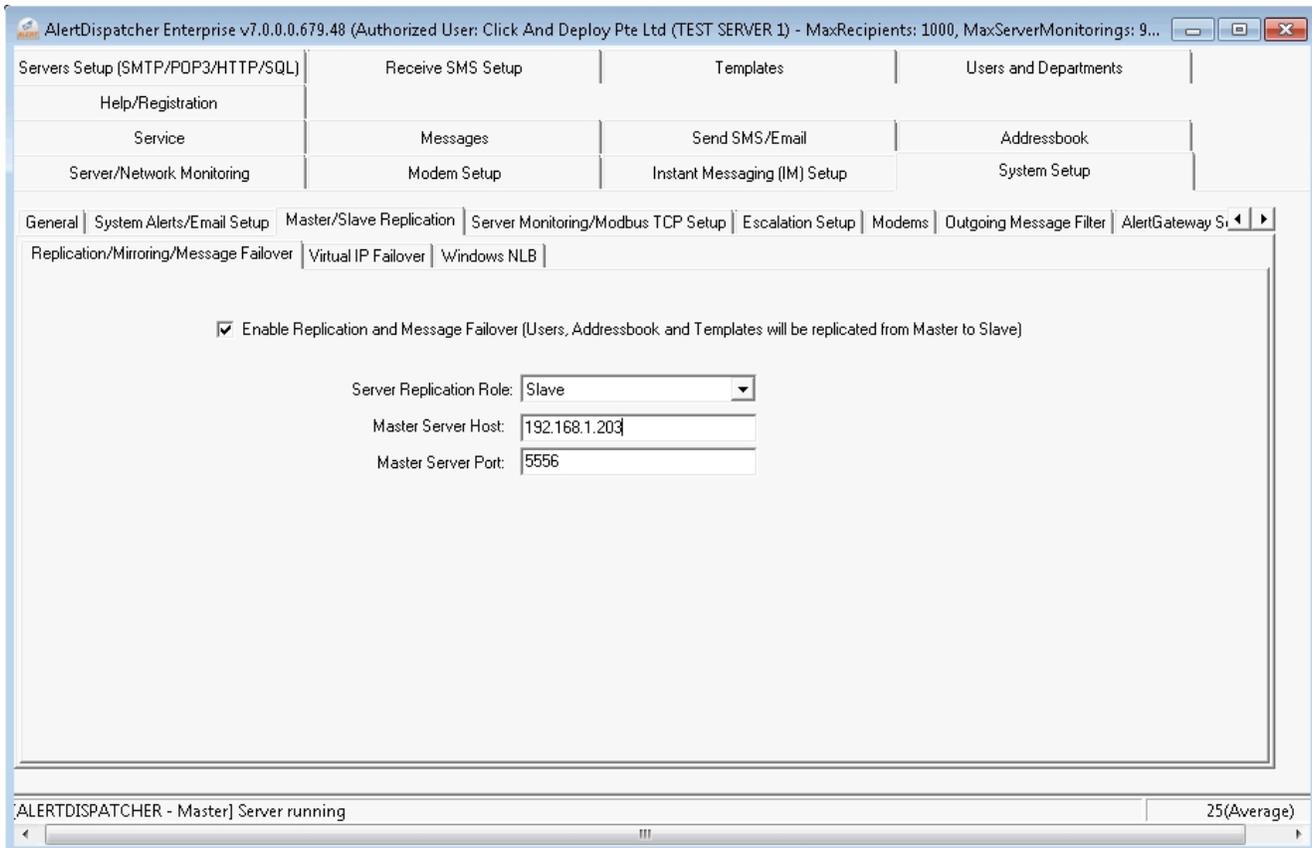
The *"Enable Replication and Message Failover"* setting does not ensure message persistency, so messages already queued on a node that failed will be lost. To ensure message persistency, you need to enable an additional setting *"Mirror pending messages from Master to Slave and vice versa"*. This setting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

**Note:** Firewall may prevent Master and Server from connecting to each other so if you have firewall enabled on either or both servers, please add firewall rule to "allow" AlertDispatcher TCP port 5556. Refer to [Appendix A - How to Add \(allow\) server ports to Firewall](#).

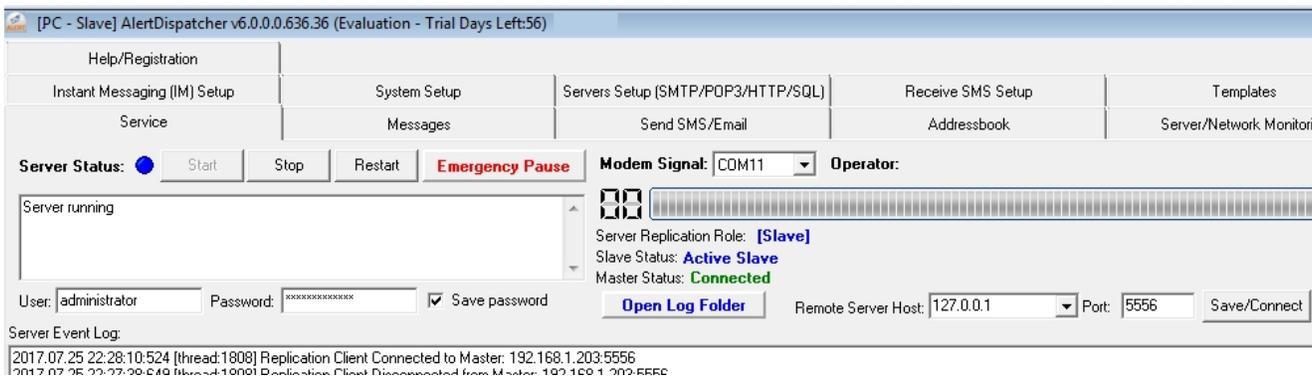
In the following example, the Active Master node IP address is 192.168.1.203 and the Active Slave node IP address is 192.168.1.74.

Active Master Node:

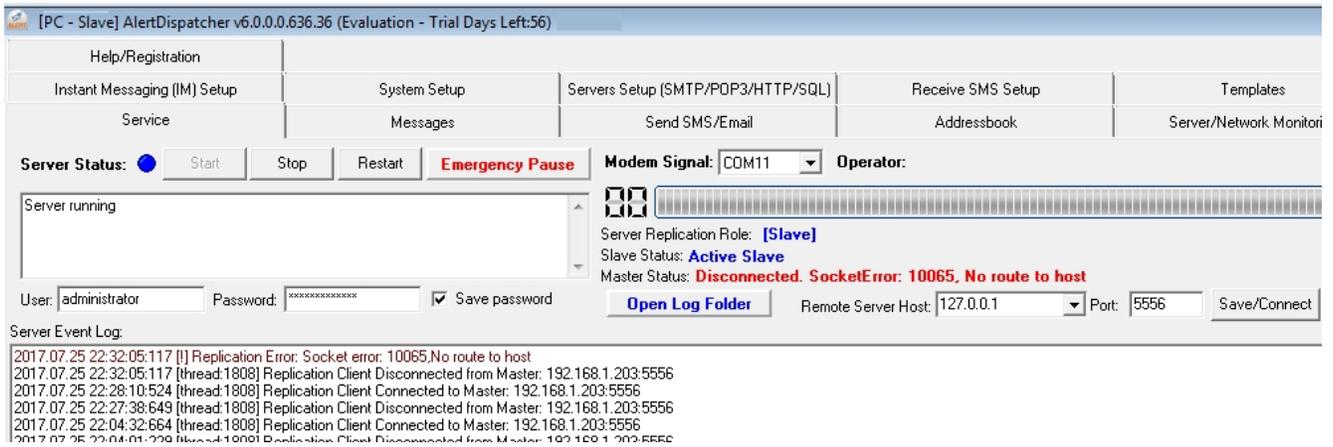
Active Slave Node:



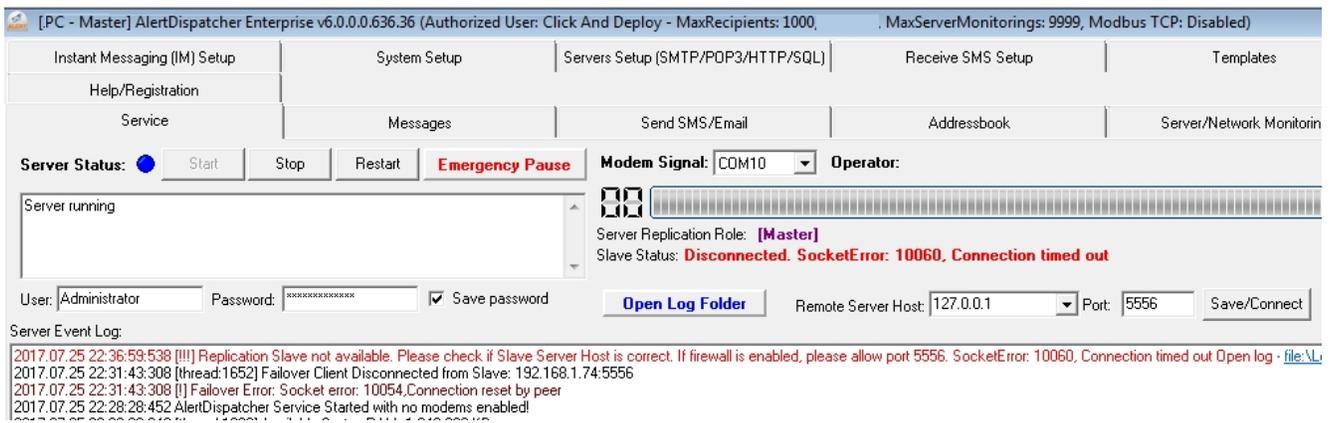
The connection status to the Active Master is displayed on the Active Slave. The following screen shows Active Slave as connected to the Active Master.



The following shows Active Slave as disconnected from the Active Master.



The disconnected status is also displayed on the Active Master.



## 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.

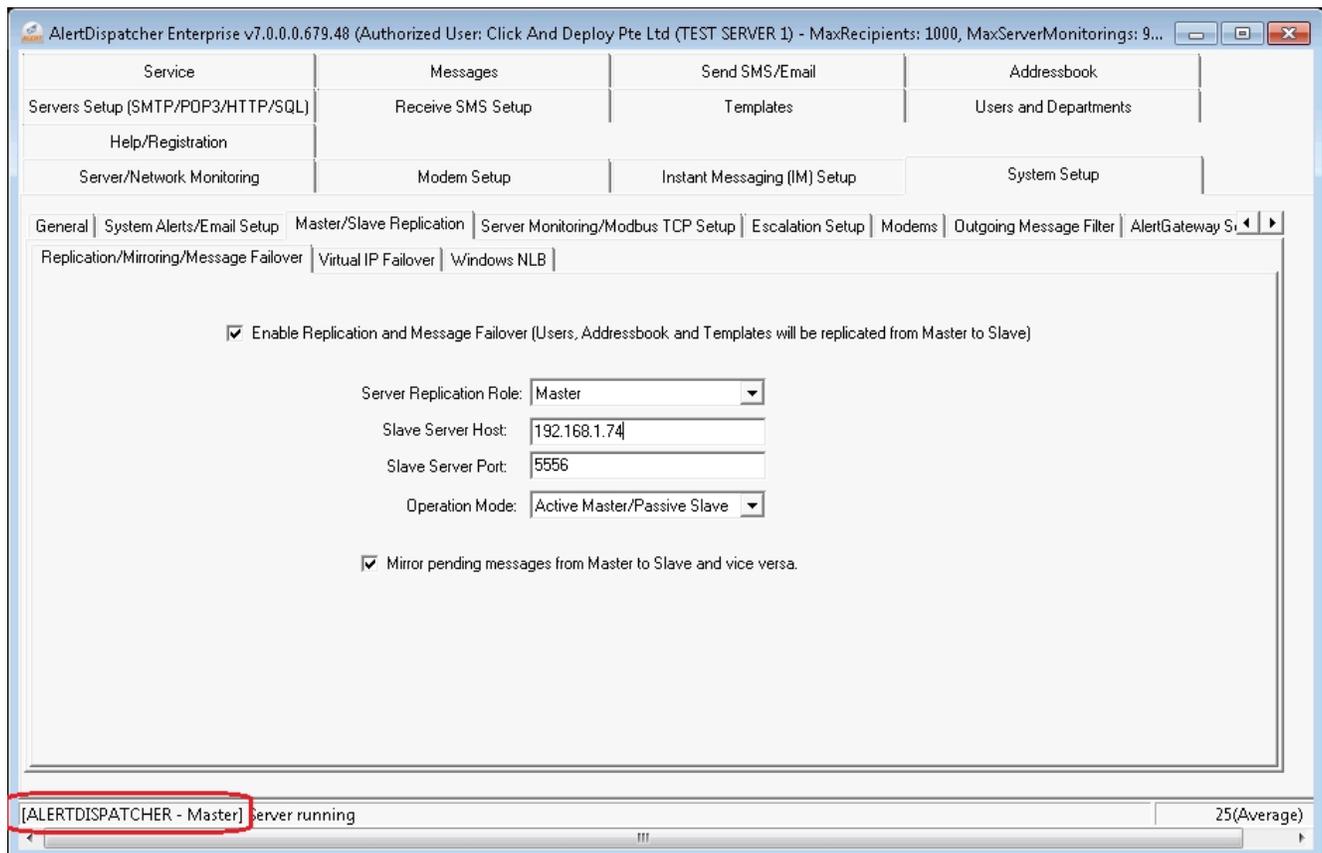
The *"Enable Replication and Message Failover"* setting does not ensure message persistency, so messages already queued on a node that failed will be lost. To ensure message persistency, you need to enable an additional setting *"Mirror pending messages from Master to Slave and vice versa"*.

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.

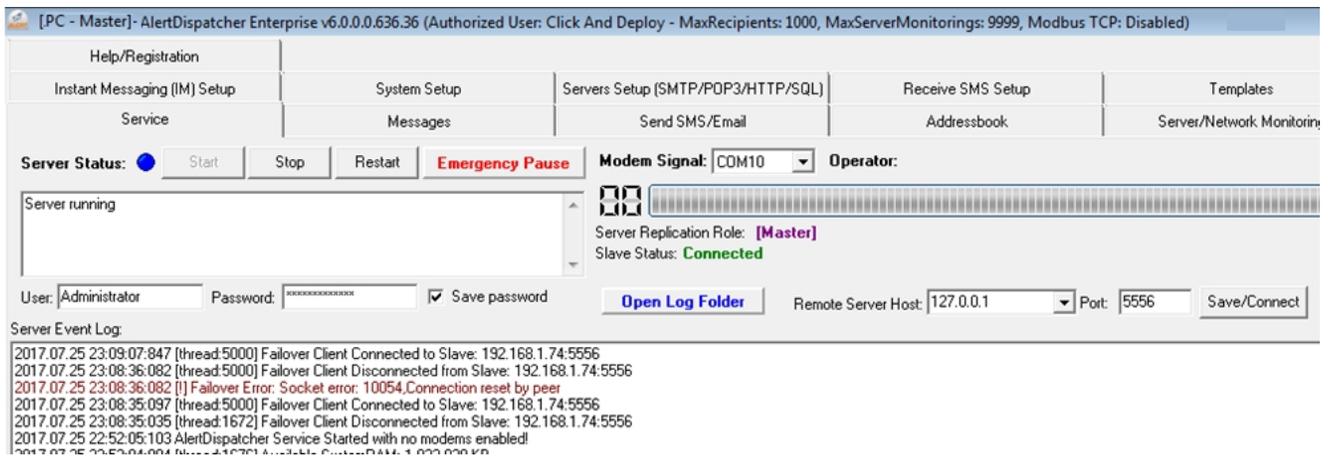
**Note:** Firewall may prevent Master and Server from connecting to each other so if you have firewall enabled on either or both servers, please add firewall rule to "allow" AlertDispatcher TCP port 5556. Refer to [Appendix A - How to Add \(allow\) server ports to Firewall](#).

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.

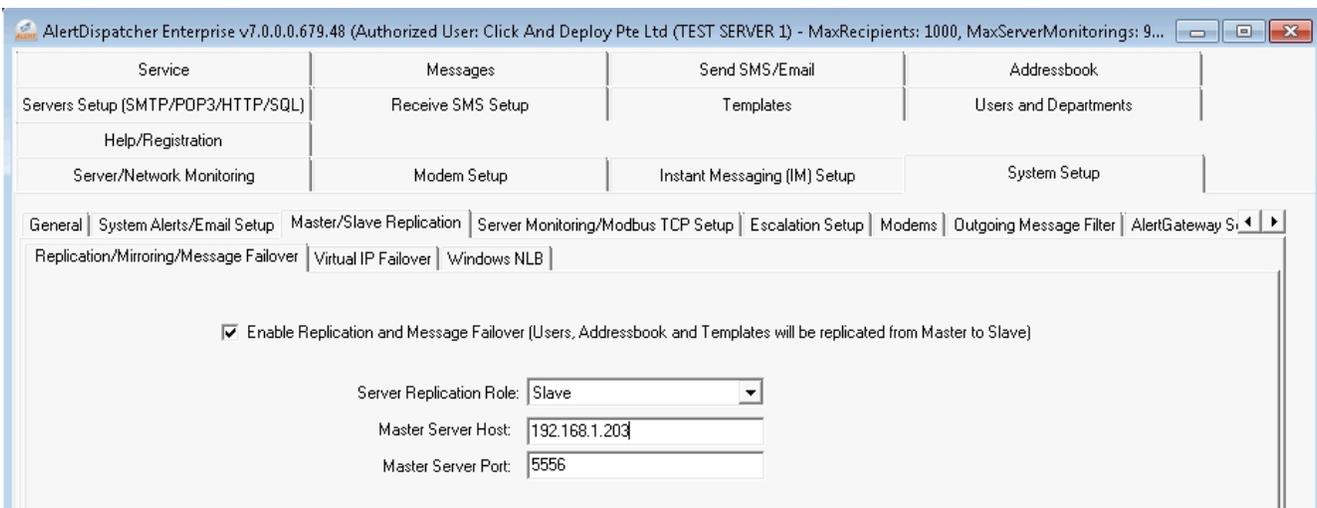
### Active Master Node:



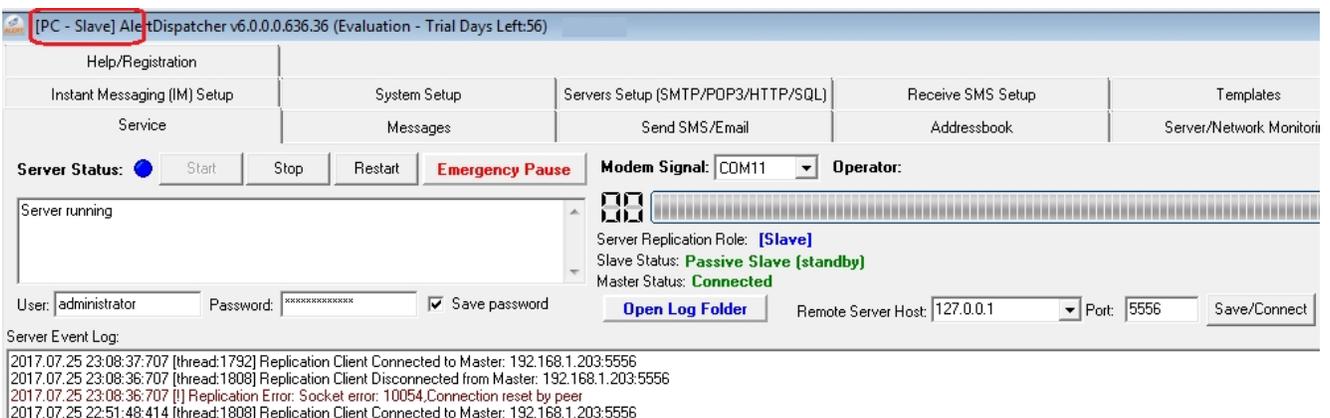
In the following screen, the Active Master is shown as connected to the Passive Slave.



### Passive Slave Node:



In the following screen, the Passive Slave is shown as connected to the Active Master. 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 then 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 Help/Registration, Service, Messages, Send SMS/Email, Addressbook, and Server/Network Monitoring.

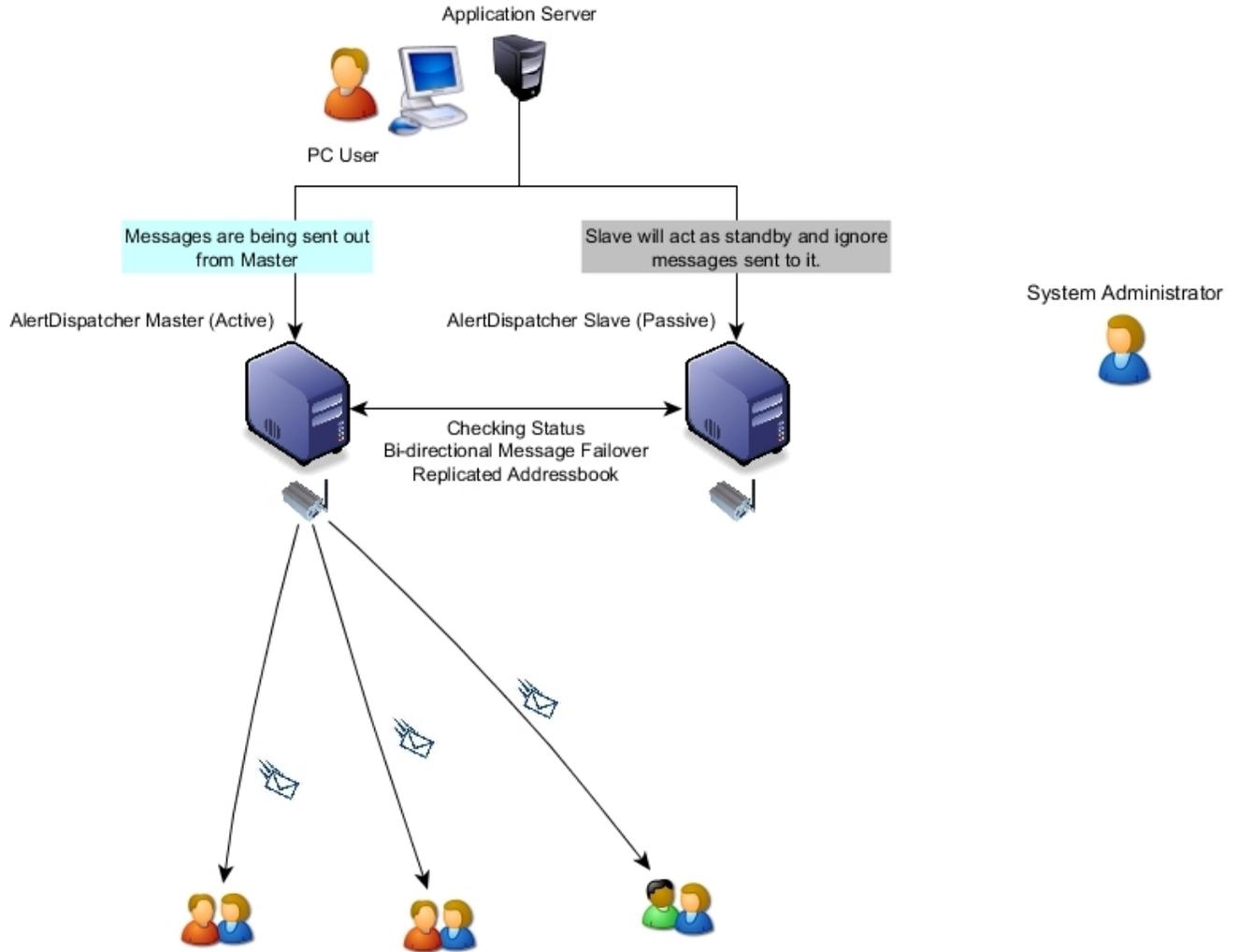
The main section shows the **Server Status** with buttons for Start, Stop, Restart, and Emergency Pause. The **Modem Signal** is set to COM11 and the **Operator** field is empty. A warning message states: "Warning: Replication Error." To the right, a progress bar is shown, and the **Server Replication Role** is [Slave]. The **Slave Status** is **Passive Slave (failover)** and the **Master Status** is **Disconnected. SocketError: 10065, No route to host**.

Below the status, there are input fields for **User** (administrator) and **Password** (masked with asterisks), with a **Save password** checkbox. An **Open Log Folder** button is present. The **Remote Server Host** is 127.0.0.1 and the **Port** is 5556. A **Save/Connect** button is also visible.

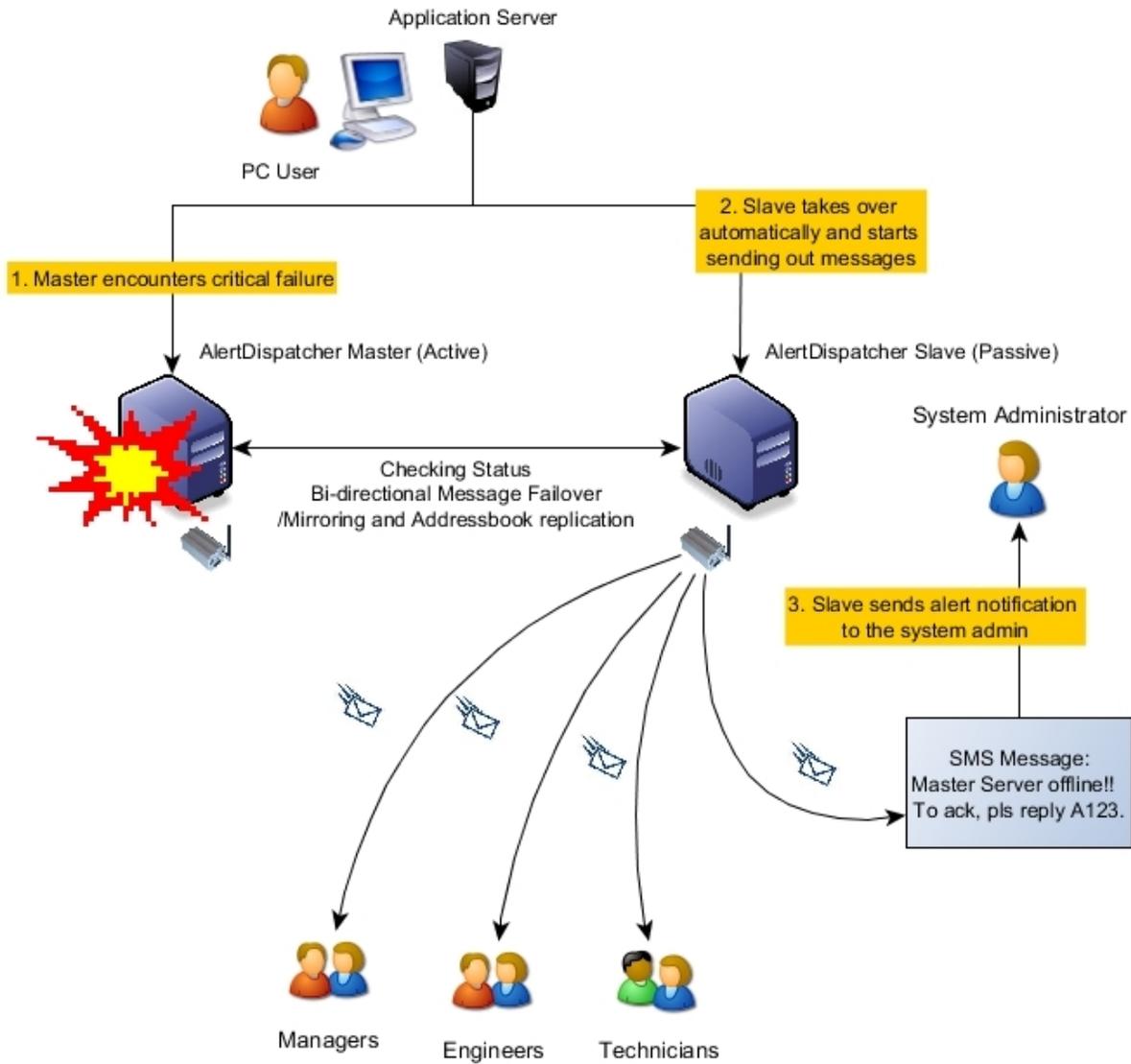
The **Server Event Log** at the bottom contains the following entries:

```
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  
2017.07.25 23:15:13:521 [!] 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 and starts processing messages.



#### 4). How to configure Moxa NPort to allow AlertDispatcher to connect a modem via network

Directly connecting a modem to the server using USB or Serial cable is the most reliable way of deploying a modem, but this may not be possible for the following scenarios, 1). AlertDispatcher is installed on a virtual machine, 2). There is no network in the server room and the modem needs to be relocated to another room.

You can connect an RS232 serial modem to your computer network using a serial device server such as the Moxa NPort - [https://www.moxa.com/product/NPort\\_5110.htm](https://www.moxa.com/product/NPort_5110.htm).

Due to the greater risk of failure for such a deployment as compared to a deployment in which the modem is directly connected to the server, we will recommend using 2 sets of modems and device servers for redundancy.

##### **Procedure:**

1). Connect the serial cable of your modem to the NPort device. Connect the NPort device to your switch using an RJ45 cable. Your switch must support 10/100 Mbps.

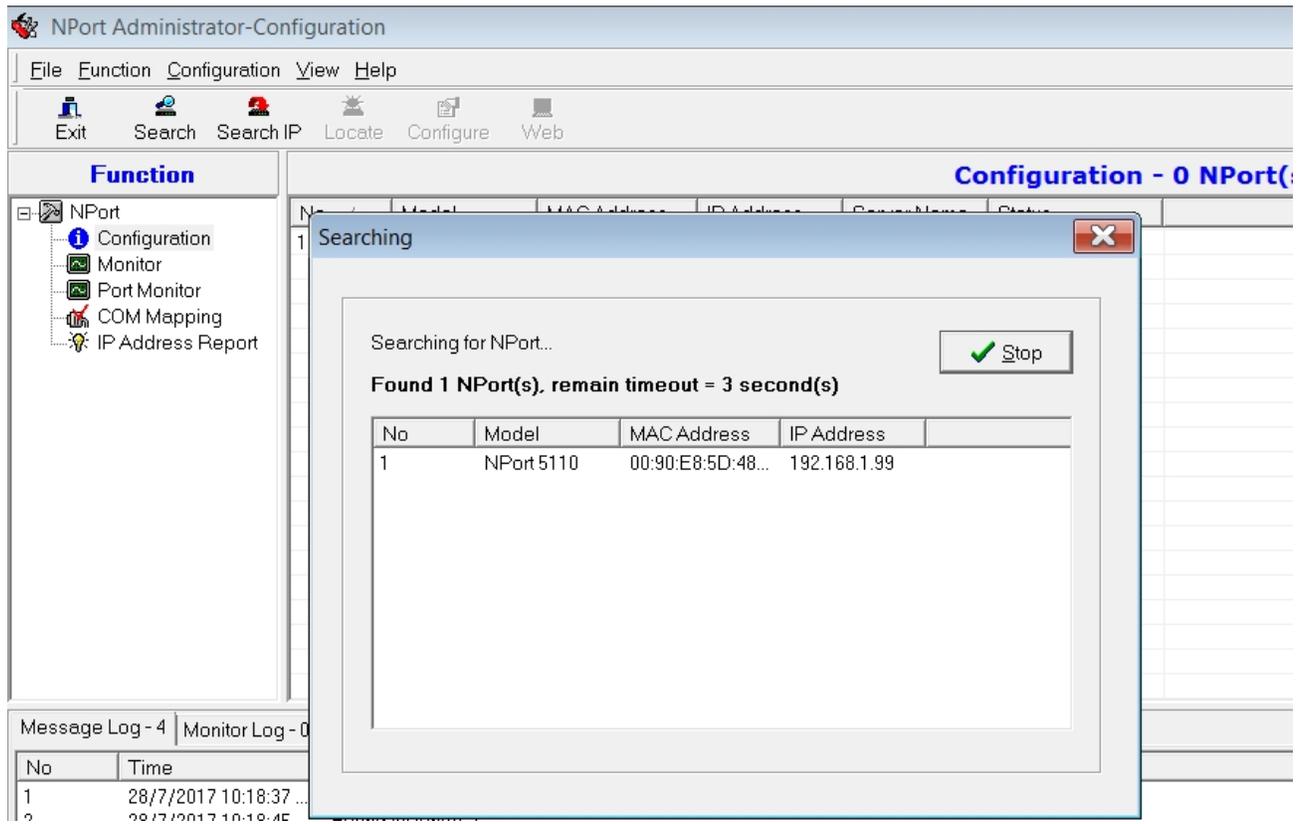
2). Install the latest version of Moxa NPort Administrator on your AlertDispatcher server (or VM guest instance).

If there is a firewall between your Server and the NPort device (both Windows and Network firewall), please ensure that the following ports are opened.

**[For NPort 5000 Series; NPort 5000A, NPort IA5000A, NPort P5150A, NPort W2x50, NE-4100 and MiiNePort Series] – Device Servers**

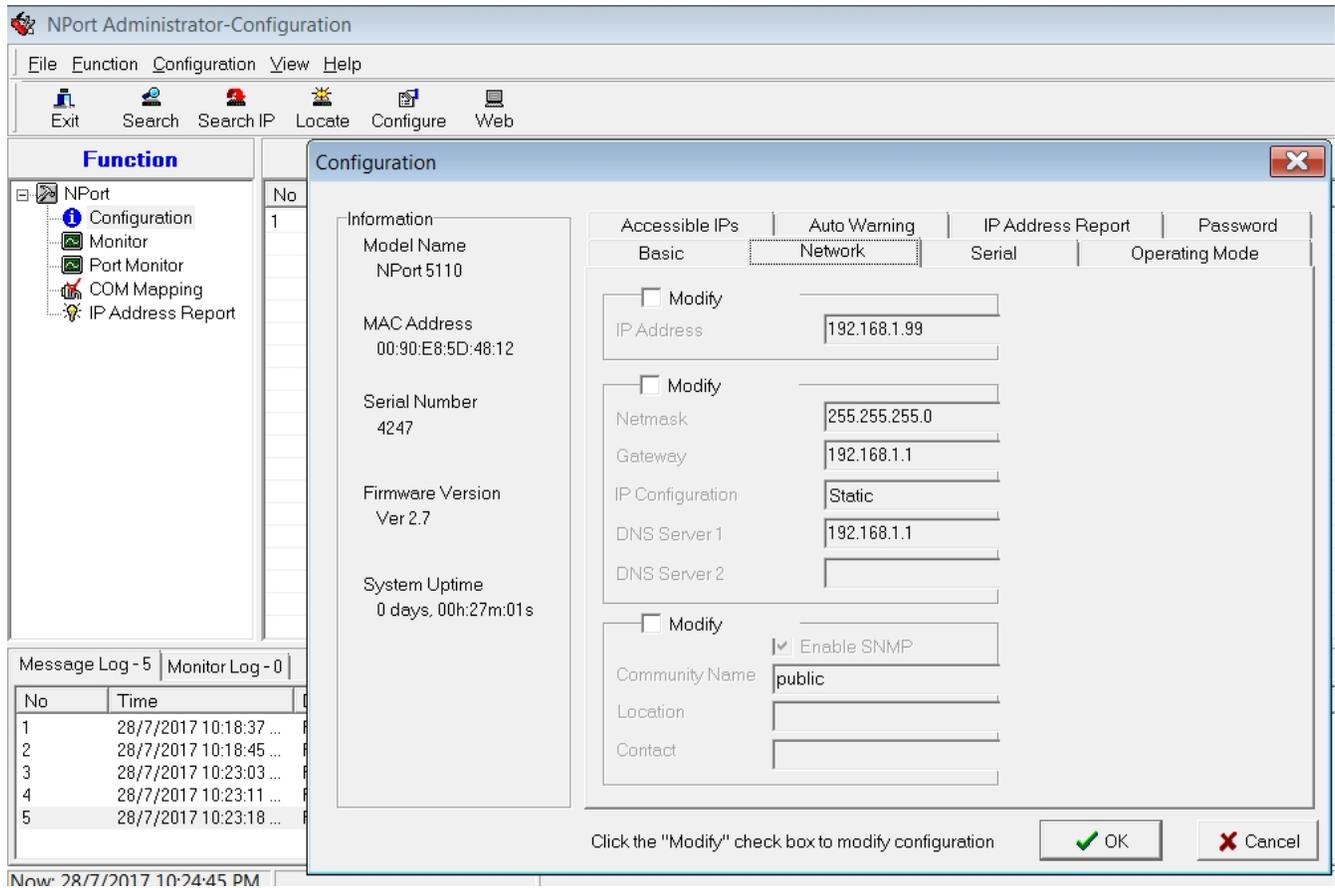
<u>Protocol</u>	<u>Port No.</u>	<u>Purpose</u>
TCP	80	Web Console
TCP	950(~965)	Data Port
TCP	966(~981 )	Command Port
UDP	4800	Broadcast, Monitor, Get current settings, RealCOM Port mapping

3). Run NPort Administrator and click "Search". If the broadcast port is opened and the NPort is connected to the same network or VLAN, you should be able to locate your modem (or modems) as shown below.

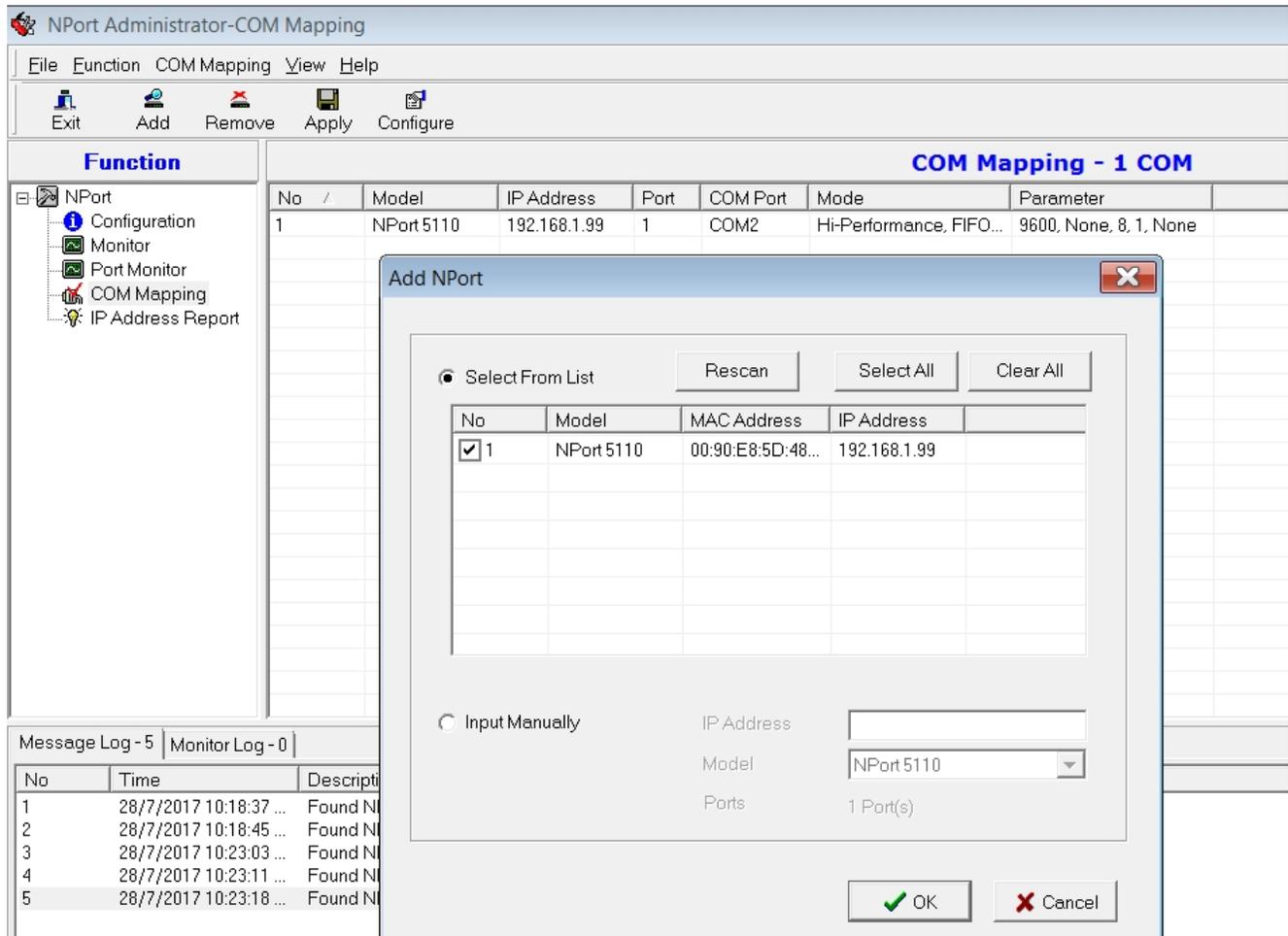


4). Configure the network for your NPort device.

Note: Please double check your configuration and ensure that the IP address assigned is free as you may not be able to connect to the device again if the configuration is wrong.



5). Right click on "COM Mapping", select "Add Target" and add the modem for this server. Take note of the COM Port for the newly added modem as you will use this COM Port when you configure AlertDispatcher. Click "Apply" to save the configuration.



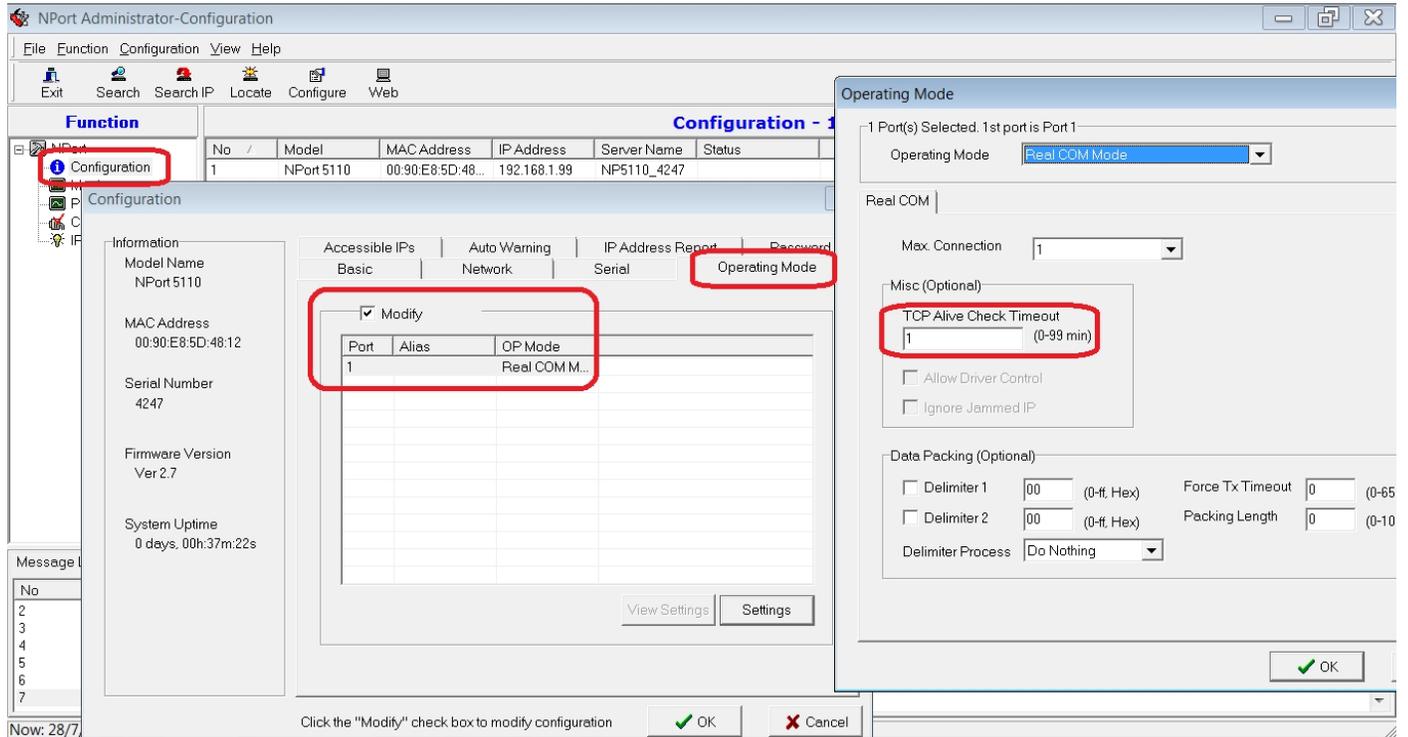
Note: If AlertDispatcher fails to detect the added COM port, remove all the COM ports added under COM Mapping, click "Apply" and then reboot your server. Launch NPort administrator again, and then select "Add Target" under COM Mapping. If the COM ports have changed, update the COM ports configured under AlertDispatcher, "Modem Setup".

The screenshot shows the AlertDispatcher Enterprise v6.0.0.0.633.28 interface. At the top, there is a navigation menu with categories: Service, Messages, Send SMS/Email, and Addressbook. Below this are sub-menus: Servers Setup (SMTP/POP3/HTTP), Receive SMS Setup, Templates, Users and Departments, Help/Registration, Modem Setup, Instant Messaging (IM) Setup, System Setup, and Server/Network Monitoring. A toolbar with several icons is located below the menu. The main area contains a table with the following data:

Port	Status	Signal	Operator	Error(Warning)	ModemMail	Des
COM2	Error	Unknown		COM Port Not Found. The system cannot find the COM port sp	Disabled	

At the bottom of the window, a status bar displays the message: "No working modem found. Refer to "Modem Setup Tab" for error message." and "Unknown".

6). Click on Configuration, double click on your NPort Device. Modify the TCP Alive Check Timeout of your Modem Port or Ports from 7 min (default) to 1 min. This setting is necessary to ensure that the NPort Device can be redetected within 1 minute of any network disruption.



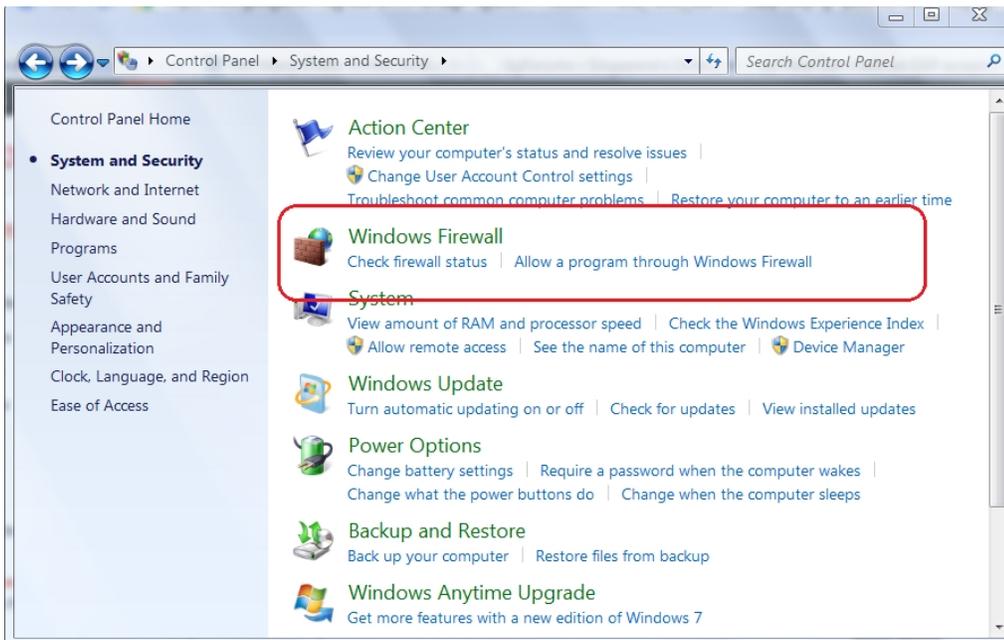
## 3. Appendix

### A. How to Add (allow) server ports to Firewall

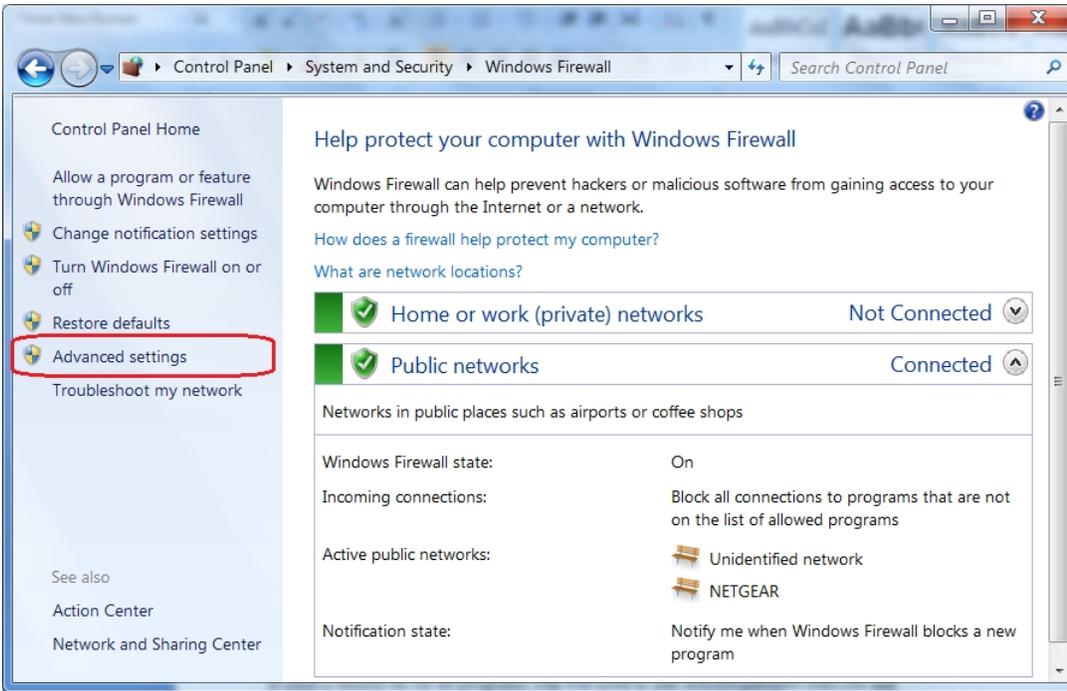
If you need to be able to access AlertDispatcher Server from the network, you must add the ports used by the services you require to your firewall list of “allowed ports” if firewall is active.

To add port exceptions to Windows Firewall exception list:

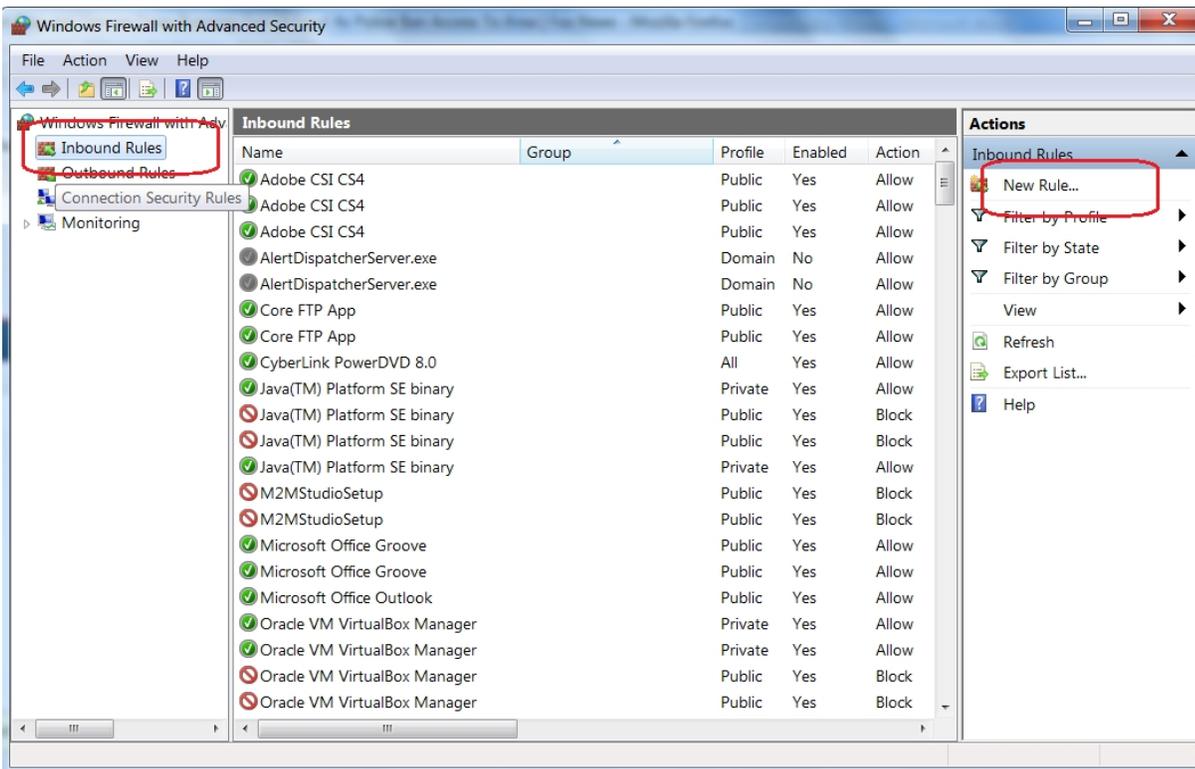
Go to *Start* → *Control Panel* → *Windows Firewall*.



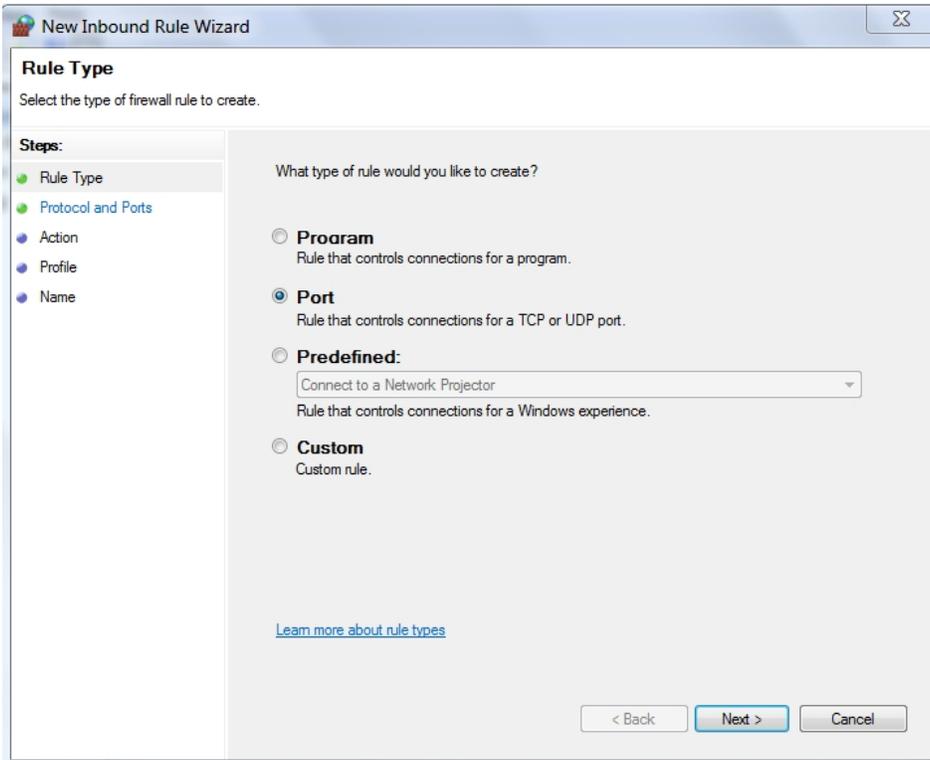
Click “Advanced settings”.



Click Inbound Rules, followed by “New Rule”.



Toggle “Port”, click Next.



Under “Specific local”, enter “25, 80, 162, 5556” or any other ports you wish to use.

If you are using a 3<sup>rd</sup> party firewall, check with your IT administrator or the firewall vendor.

<i>Server Protocol</i>	<i>Default Port</i>	<i>Remarks</i>
HTTP Server	80	<i>Used by AlertDispatcher Client, DLL API and AlertDispatcher High Availability (Master/Slave Cluster Redundancy)</i>
SMTP Server	25	
SNMP Trap Receiver	162	
AlertDispatcher Server	5556	