Technical Bulletin
Using TNCS E-Mail feature
Enhanced Security Feature – Plain Authentication

Overview

This document describes changes to the TNCS email feature which are available in TNCS 1.6.1 Service Pack 5. This enhancement to TNCS allows the email function to work with an enhanced security feature that has been added to many e-mail servers called "Plain Authentication." It is important to note that TNCS has not implemented all possible Email Server Authentication methods and if the e-mail server has implemented any authentication method other than "Plain Authentication", TNCS will not be able to send e-mails through that server.

Introduction

This addendum is a supplement of the TNCS Software User's Guide. (P/N 730201)
This addendum provides TNCS administrators with the following information:

1. How to determine if email authentication is required for TNCS to send e-mails.
2. How to set the e-mail server authentication.

Requirements

1. TNCS Version 1.6.1 Service Pack 5 or greater with TNCS server license.
2. E-mail option enabled. See appendix G of the TNCS 1.6.1 manual.
3. Debug option enabled, See appendix G of the TNCS 1.6.1 manual.
4. IP connectivity from the TNCS server to the e-mail server.

Setup

1. Determine is E-mail Authentication is required.

To determine if TNCS can send e-mails on your mail server, set up the Email parameters in the E-mail section of the System Details. For this procedure only set one email name for messages to be sent to.
Leave "Email Server Authentication" set to none. Next go to the Debug section of the System Details and set the Email Debug Mode to ON.
Create a major alarm in TNCS (There are numerous ways to do this. One method to create an alarm is to adjust the limits on a monitored device parameter to a value that creates an alarm.)
Next open the TNCS software log. The log will record the messages between the TNCS server and the email server.
Note: if any other debug modes are enabled, disable them while performing this procedure. It will make reading the e-mail debug messages easier.
The following messages indicate a successful message. **If the message was successful, you will not need to turn on "Plain Authentication".** The successful message will include the information similar to the last 4 line of the example below.

Example 1 Successful email message from the TNCS Software Log

29Oct2003 09:26:27 Sending Email addressed to tncsuser@mailserver.net - Alarm-Major TNCSserver mod1 "Communication Status" Alarm
29Oct2003 09:26:28 Message Sent: HELO TNCSserver1.
29Oct2003 09:26:28 Email Server Response: 250 mta02-srv.mailserver.net.
29Oct2003 09:26:28 Message Sent: MAIL FROM: <tncsaccount@mailserver.net>.
29Oct2003 09:26:28 Email Server Response: 250 Sender <tncsaccount@mailserver.net> Ok.
29Oct2003 09:26:28 Message Sent: RCPT To: <tncsuser@mailserver.net>.
29Oct2003 09:26:28 Email Server Response: 250 Recipient <tncsuser@mailserver.net>Ok.
29Oct2003 09:26:28 Message Sent: DATA.
29Oct2003 09:26:28 Email Server Response: 354 Ok Send data ending with <CRLF>.<CRLF>.
29Oct2003 09:26:28 Message Sent: To: tncsuser@mailserver.net
From: tncsaccount@mailserver.net
Subject: Alarm-Major TNCSserver mod1 "Communication Status" Alarm
Alarm-Major TNCSserver mod1 "Communication Status" Alarm

Note:
tncsuser@mailserver.net – is the email address the alarm information is being sent to.
tncsaccount@mailserver.net – is the Email account being used by the TNCS server.
TNCSserver - is the system name of the TNCS server
mod1 - is the name of the module in alarm

If the message is unsuccessful, you will see debug messages similar to the example 2.
You will notice a line in the statement “Recipient address rejected: Relaying Denied”.

Example 2 Unsuccessful email message from the TNCS Software Log

29Oct2003 15:55:14 Sending Email addressed to tncsuser@mailserver.net - Alarm-Major TNCSserver Mod1 "Communication Status" Alarm
29Oct2003 15:55:14 Message Sent: HELO TNCSserver1.
29Oct2003 15:55:14 Email Server Response: 250 mta02-srv.mailserver.net.
29Oct2003 15:55:14 Message Sent: MAIL FROM: < tncsaccount@mailserver.net >.
29Oct2003 15:55:14 Email Server Response: 250 Ok.
29Oct2003 15:55:14 Message Sent: RCPT To: < tncsaccount@mailserver.net >.
29Oct2003 15:56:00 Email Server Response: 550 < tncsaccount@mailserver.net >: **Recipient address rejected: Relaying Denied**:
29Oct2003 15:56:00 Message Sent: QUIT.
29Oct2003 15:56:00 Email Server Response: 221 Bye

If the message "**Relaying Denied**" is returned, perform the following steps to determine if the e-mail server supports "Plain Authentication"

A. Open a DOS window and type <telnet> <enter email server address here> <space> <25>.
Example: "telnet mailserver.net 25"
The session should show some text welcoming you to the server.
Example: 220 mailserver.net ESMTP Sendmail 8.12.9/8.11.6; Fri, 8 Aug 2003 16:11:20 -0400

Note that some email servers do not return a message. Even if there is no message, continue to step B.

B. Type <EHLO> <your computer name>
Example: "EHLO TNCSserver1"
The server will respond with a list of options it supports.
Example:

250- mailserver.net Hello TNCSserver1, pleased to meet you
250-ENHANCEDSTATUSCODES
250-PIPELINING
250-8BITMIME
250-SIZE 5242880
250-DSN
250-ETRN
250-**AUTH LOGIN PLAIN**
250-DELIVERBY
250 HELP

C. If **AUTH LOGIN PLAIN** is returned as one of the options (3rd line from the bottom in the above example), go the Email section of the Local System Details window and enable Plain Authentication.

Note than when using Plain Authentication, a valid Email User ID and Email User Password which are authorized on the Email Server are required.

D. If the options do not list AUTH LOGIN PLAIN then TNCS cannot send emails to this server.

Example 3 shows a sample email debug messages from a system using "Plain Authentication"

<u>Example 3</u> Successful message using Plain Authentication from the TNCS Software Log

30Oct2003 14:10:08 Sending Email addressed to tncsuser@mailserver.net - Alarm-Major TNCSserver Mod1 "Communication Status" Alarm
30Oct2003 14:10:09 Message Sent: EHLO TNCSserver1.
30Oct2003 14:10:09 Email Server Response: 250-smtp-3. mailserver.net
250-PIPELINING
250-SIZE 3000000
250-VRFY
250-ETRN
250-AUTH LOGIN PLAIN
250 8BITMIME.
30Oct2003 14:10:09 Message Sent: AUTH LOGIN.
30Oct2003 14:10:09 Email Server Response: 334 VXNlcm5hbWU6.
30Oct2003 14:10:09 Message Sent: VE5DU1dBWU5FQGhvdHBvcC5jb20=.
30Oct2003 14:10:09 Email Server Response: 334 UGFzc3dvcmQ6.
30Oct2003 14:10:09 Message Sent: ZG9nNzc3Nw==.
30Oct2003 14:10:10 Email Server Response: 235 Authentication successful.
30Oct2003 14:10:10 Message Sent: MAIL FROM: < tncsaccount@mailserver.net >.
30Oct2003 14:10:10 Email Server Response: 250 Ok.
30Oct2003 14:10:10 Message Sent: RCPT To: < tncsuser@mailserver.net >.
30Oct2003 14:10:10 Email Server Response: 250 Ok.
30Oct2003 14:10:10 Message Sent: DATA.
30Oct2003 14:10:10 Email Server Response: 354 End data with <CR><LF>.<CR><LF>.
30Oct2003 14:10:10 Message Sent: To: tncsuser@mailserver.net
From: tncsaccount@mailserver.net
Subject: Alarm-Major TNCSserver Mod1 "Communication Status" Alarm
Alarm-Major TNCSserver Mod1 "Communication Status" Alarm.
.
30Oct2003 14:10:11 Email Server Response: 250 Ok: queued as 3B1F095D82A.
30Oct2003 14:10:11 Message Sent: QUIT .
30Oct2003 14:10:11 Email Server Response: 221 Bye

Note that alarm message will appear in the debug log if it was successfully transmitted.

Contact the Scientific Atlanta Telephone Assistance Center at (800) 722-2009 for additional assistance in resolving Email problems.