
E-Mail Gateway Application

Table of Contents

1	<u>Goal</u>	<u>3</u>
	<u>Sample Microsoft Outlook Inbox</u>	<u>4</u>
2	<u>Functionality</u>	<u>5</u>
3	<u>Formula to Calculate the Size of an E-Mail Message for a Voice Message of a Given Length</u>	<u>6</u>
4	<u>What happens to the original Voice Messages?</u>	<u>8</u>
5	<u>Benefits</u>	<u>9</u>
	<u>Sample Displays of Subject Field Data that may appear in the Inbox</u>	<u>9</u>
6	<u>How to Get Started</u>	<u>10</u>
	<u>SVMi LAN Connector</u>	<u>13</u>
	<u>Default Socket.cfg File</u>	<u>10</u>
	<u>Mail Server Information for System Wide Parameters</u>	<u>10</u>
	<u>Mail Server Information for MClass</u>	<u>10</u>
	<u>Subscriber Information</u>	<u>11</u>
7	<u>Screens and Parameters Associated with the E-Mail Gateway Functionality</u>	<u>13</u>
	<u>System Parameters—Page 1</u>	<u>13</u>
	<u>MAC Address</u>	<u>13</u>
	<u>Maximum E-Mail Subscribers</u>	<u>13</u>
	<u>System Wide Parameters—Page 4</u>	<u>14</u>
	<u>SMTP Server</u>	<u>14</u>
	■ <u>Host ID</u>	<u>14</u>
	■ <u>Port</u>	<u>14</u>
	■ <u>SMTP User ID</u>	<u>14</u>

■ Password	14
■ Domain	14
Addressing	15
■ Report	15
■ Reply To	15
■ Time Zone	15
■ Daylight Savings	15
■ License Key	15
Mailbox Block—Page 4	16
E-Mail Addressing	16
■ Enable E-Mail Gateway Support	16
■ From	16
■ Deliver MSG	16
■ Notify Only	16
■ E-Mail Address Syntax	16
MClass Block—Page 4	17
SMTP Server	17
■ Host ID	17
■ Port	17
■ SMTP User ID (Optional)	17
■ Password (Optional)	17
■ Domain (Optional)	17
Delivery Controls	17
■ Attempts	17
■ Retry Interval	17
Message Retention Controls	18
■ Adjust Message Retention	18
■ Message Retention to Use	18
Port Activity Command	18
"MAC"	18
"NET"	19
"STAT" (Status)	21

Goal

The goal and scope of this project is very simple:

- Forward Voice and Fax Mail messages to any E-Mail Inbox.
- Apply E-Mail Gateway functionality to the SVMi-20E.
- Have NO additional Hardware or Hardware upgrade requirements.
- Minimal interaction with the Customer's Network:
 - The only interaction to the Customer LAN is to connect the SVMi LAN port to their Network via customer provided Hub, Switch, and/or Router.
 - Mail Server "May" require that a user name and password be created for the SVMi.
 - NO software to be added to the Customer's Network Servers.
 - NO software or modification to the Client's PC, Laptop, and/or mobile device.

IMPORTANT NOTE: There may also be other limitations set by their Mail Servers that may need to be addressed with their IT department.

There are two small qualifications:

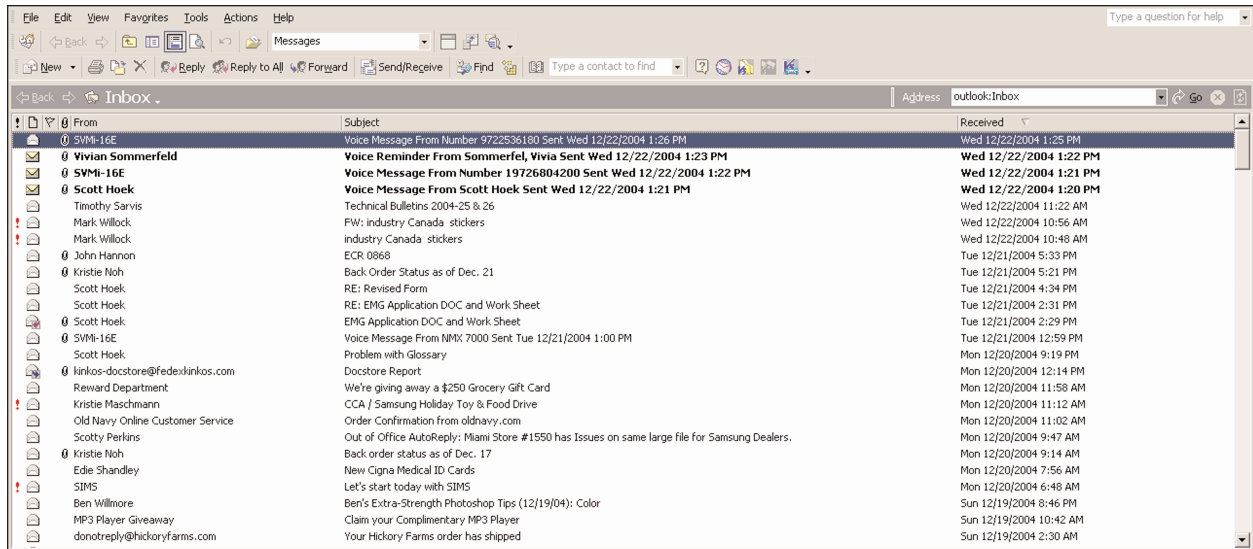
1. The subscriber's Mail Server MUST support SMTP.
2. The subscriber's PC must offer them some means to listen to '.WAV' files.

What makes this so simple is its implementation. There is NO software to add to the Network servers. There is also NO software to add to the clients PC. Voice and/or FaxMail messages will simply be forwarded to the Subscriber's Inbox as an e-mail message with a WAV and/or TIFF file attachment.

IMPORTANT NOTE: The clients PC must be equipped with a .Wav player and/or TIFF viewer. Most current versions of Windows and other OS have default players and viewers built in. If on an installation a Client PC is not equipped with some type of player or viewer, one must first be obtained and installed. Samsung will not provide these software or hardware options.

The SVMi with the E-Mail Gateway functionality acts as another client on the network. Though we consider the SVMi to be a Voice Processing or Communications Server it is NOT a Mail Server. It attaches or logs onto the mail server as a "client"

Sample Microsoft Outlook Inbox



The above sample is of a Microsoft Outlook Inbox containing E-Mail Gateway Delivery Messages. The E-Mail Gateway samples are easy to spot. The Subject begins with either, Voice Message, Voice Reminder, or Fax Message.

Functionality

There are two parts to the E-Mail Gateway; E-Message Delivery and E-Message Notification.

1. E-Message Delivery: Voice (.wav) and/or Fax (.tiff) Mail Messages are "delivered" to your Inbox with the appropriate attached file.
2. E-Message Notification: You will receive an e-mail, with NO attachments, notifying you that you have a Voice and/or Fax Mail Message in your Voice Mail Box.
 - Subscriber can use either E-Message Delivery and/or E-Message Notification.
 - Subscriber can have multiple e-mail addresses.
 - E-Message Notification can be set to one address while E-Message Delivery is set to another.

With either type, if Caller ID (CID) is enabled and received, then the callers Phone number will appear in the subject field along with the Date and Time stamp of the Voice Message originally recorded in the SVMi Voice Mail Box.

- If the caller is also a subscriber on the system and the E-Mail Gateway was set up with a valid "Reply To" address, the Subscriber's name will also appear in the "From" field. Otherwise, the "From" field will display SVMi-20E.
- Client will use their PC's Multi-Media kit (equipped with either speakers and/or a headset) to listen to messages delivered to their Inbox.

IMPORTANT NOTE: If the PC/Laptop/PDA/Cell Phone/etc... are not equipped with hardware and software capable of playing a '.WAV' file then the E-Mail Gateway will not work for them until they add some method to listen to '.WAV' files delivered to their Inbox.

The same applies to Fax Mail messages, if the device the subscriber is using does not support the viewing of '.TIFF' files, then the E-Mail Gateway for Fax Mail will not work for them until they add some method to view .tiff files delivered to their inbox.

- No Synchronization between message activities performed on the SVMi and the SMTP Server.
 - Messages listened to, forwarded, deleted, and/or saved within an e-mail inbox will NOT effect the status of that same new message in the SVMi or the MWI (Message Waiting Indicator) associated with that message on the phone.
 - Also messages listened to in the SVMi, from a phone, will not change the Unread/Read status of the same message in an e-mail inbox.
 - However, the SVMi Administrator can adjust parameters per subscriber or group of subscribers that decide how, when, or if to delete the original Voice message after it is SENT to the SMTP Server.

3

Formula to Calculate the Size of an E-Mail Message for a Voice Message of a Given Length

E-Mails with voice attachments are sent as MIME formatted messages with Base64 encoded WAV files.

SVMi voice messages are recorded with either 8000 (32kbps) or 6000 (24kbps) samples per second. This is based on the Field in System Wide Parameters that says; "Use 32 K/Bit(s) Prompts"....."Y/N"

WAV file format uses	8 bits (1 byte) per sample.
WAV file header is	56 bytes.
WAV file trailer is	32 bytes.
Base64 encoding uses	4 bytes for every 3 bytes of WAV file, plus 2 bytes for every line (54 bytes).
MIME formatting	adds approximately an additional 1000 bytes.

32k bps Formula:

WAV File Size = ((Number of seconds) * (8000 samples per second) * (1 byte per sample)) + (56 bytes header) + (32 bytes trailer)

24k bps Formula:

WAV File Size = ((Number of seconds) * (6000 samples per second) * (1 byte per sample)) + (56 bytes header) + (32 bytes trailer)

Base64 Encode Formula:

Attachment Size = ((WAV File Size) * (4/3)) + ((WAV File Size / 54) * 2)

MIME Format:

Base64 + 1000 bytes

Length of Message (in seconds)	Size of WAV File		Base64 Attachment		MIME Formatted	
	32kbps	24kbps	32kbps	24kbps	32kbps	24kbps
2	16,088	12,088	22,047	16,565	23,047	17,565
5	40,088	30,088	54,935	41,232	55,935	42,232
10	80,088	60,088	109,750	82,343	110,750	83,343
15	120,088	90,088	164,565	123,454	165,565	124,454
20	160,088	120,088	219,380	164,565	220,380	165,565
30	240,088	180,088	329,009	246,787	330,009	247,787
60 (1 min)	480,088	360,088	657,898	493,454	658,898	494,454
120 (2 min)	960,088	720,088	1,315,676	986,787	1,316,676	987,787
180 (3 min)	1,440,088	1,080,088	1,973,454	1,480,121	1,974,454	1,481,121
300 (5 min)	2,400,088	1,800,088	3,289,009	2,466,787	3,290,009	2,467,787
600 (10 min)	4,800,088	3,600,088	6,577,898	4,933,454	6,578,898	4,934,454

4

What happens to the original Voice Messages?

Though there are no controls that can be set by the individual subscribers, there are parameters that can be set for an individual or group of subscribers by the Voice Mail administrator.

The most important of these is what do you want to do with the original Voice Message after it is SENT via e-mail to your Inbox?

Your Choices are:

1. Adjust Message Retention Yes or No.
 - NO: means follow the Message Retention timer that is set on page one of the MClass. The default setting for the Message Retention timer is set at 9999 Days. Subscribers using this setting would have to manually listen to, delete, and/or save the voice message in their Voice Mail Box from a phone.
 - YES: means that messages left for subscribers using this MClass will not follow the Message Retention Timer on Page one of the MClass but will now follow the "Message Retention to Use" timer on Page 4 of the MClass.
2. Message Retention to Use: If adjust Message Retention (mentioned above) is Yes, then how long do they want the Message Retention Set for.
 - 0 is: Automatically delete immediately after successfully sending the e-mailed message to the Mail Server. The subscriber would NOT have the ability to go and listen to their Voice Messages from their phone with this option.
 - x is: Automatically delete after "x" number of days (where "x" = 1 - 999 Days) after successfully sending the e-mailed message to the Mail Server. Subscribers using this setting could manually listen to, delete, and/or save the voice message in their Voice Mail Box from a phone prior to when the "Message Retention to Use" timer expires.

With options (1a), (1b), & (2b) listed above, Messages listened to via a telephone logged into their Voice Mailbox will not effect the UnRead/Read status of that same message in their Inbox.

Also, with the options (1a), (1b), & (2b) listed above messages listened to from their inbox, will not alter the New Status or MWI light status of that same message still in their Voice Mailbox.

Important Note: Due to Spam filters and other actions of some Mail Servers used by some IT Facilities, it has been decided to set option (1a) as the default. If practical, the option to Delete Immediately (2a) would likely be the most desired option.

Benefits

- Store and Archive Voice and Fax Mail Messages in visible folders.
 - Voice and Fax Mail Messages can now easily be dragged and dropped into folders the same way e-mail messages are organized and saved.
 - Voice and Fax Mail Messages are now essentially the same as any other e-mail message.
 - Backups and Message Archives can be made when they are made for all other types of e-mail messages.
- Add text Notes and Comments to use for reference later.
 - Some (if not all) e-mail clients will allow you to edit the body of the e-mail to add comments.
 - Some will allow you to edit the subject field to help you find a particular message quickly in a large archive of messages.
- Call Back Numbers and Date & Time Stamp are easily displayed in the Subject field.
- Easily forward Voice messages received, to others even if they are not a Voice Mail Subscriber on your system.

Sample Displays of Subject Field Data that may appear in the Inbox

Voice Message From 972-761-7000 Sent Mon 11/17/2004 11:58 PM
or
Voice Reminder From Scott Hoek Sent Mon 11/17/2004 11:58 PM
or
Fax Message From 972-761-7000 Sent Mon 11/17/2004 11:58 PM
or
Voice Message From John Hannon Sent Mon 11/17/2004 11:58 PM

6

How to Get Started

To install and deploy the E-Mail Gateway you will need to get a small amount of information from the IT Administrator about the Mail Server and the LAN environment.

SVMi LAN Connector

A Static IP address, the Subnet Mask, and Default Gateway Address will be required for the SVMi's LAN connector.

Static IP Address: _____ . _____ . _____ . _____
Subnet Mask: _____ . _____ . _____ . _____
Default Gateway: _____ . _____ . _____ . _____

This information gets loaded into the Socket.CFG file in the Sockets Directory of the SVMi. For instructions on how to edit this file see the SVMi-20E documentation.

Default Socket.cfg File

(This file is found in the C:\SOCKETS Directory on every SVMi-20E)

```
# Set the IP address and number of subnet mask bits
# To use DHCP, replace this line with:
# ip address 0.0.0.1
ip address 10.10.108.6/24

# Set the IP time to live value
ip ttl 64

# Define an interface type 'packet driver' called 'if0'
# Class is 'dix', MTU = 1500, interrupt 60h, IRQ=10
interface pdr if0 dix 1500 05 0x60 10

# Define the default gateway used by interface 'if0'
route add default if0 10.10.108.5

# Define a host to use as a DNS server
domain server 10.10.108.5

# Set the Maximum Segment Size and Window size
tcp mss 1460
tcp window 2920
```

```
# Set the initial round trip time and retry counts
tcp irtt 500ms
tcp retry 6
```

The BOLD Line is where you enter the Static IP address and Subnet Mask. The Subnet Mask is represented above as '/24'. Where 24 is the number of consecutive ones from the left in the subnet mask address.

The UNDERLINE Line is where you enter the Default Gateway Address

Mail Server Information for System Wide Parameters

This information will be used for sending an error report to the System or IT Administrator. The Mail Server information can be the same or different than the Mail Server information used by the individual MClass Blocks.

Mail Server IP Address: _____ . _____ . _____ . _____
SVMi Username: _____
SVMi Password: _____
Domain: _____
Report to Address: _____
Reply To Address: _____

Mail Server Information for the MClass

This information will be used for distributing Mail to subscribers assigned this MClass. MClass Blocks can be assigned per subscriber or group of subscribers.

Mail Server IP Address: _____ . _____ . _____ . _____
SVMi Username: _____
SVMi Password: _____
Domain: _____

Subscriber Information

Because of the simplicity factor there is no User Interface. The functionality is either made available to a subscriber or it is not. It is controlled completely by the Voice Mail Administrator(s).

Subscriber Name: _____
Subscriber Mailbox Number: _____
E-mail Address(es) for E-Message Delivery:
1. _____
2. _____
3. _____
4. _____
5. _____
And/or
E-mail Address(es) for E-Message Notification:
1. _____
2. _____
3. _____
4. _____
5. _____

Important Note: If you did not previously have access to your e-mails remotely by devices other than your PC, then this functionality will NOT alter your Business authorizations. This functionality will only be made available to subscribers that already have Business authorizations to the required services.

How many days to retain new messages in your Voice Mail Box?

- ☐ Do Not Delete
(Follow Standard Message Retention timer (default at 9999 days))
- ☐ Delete Immediately
- ☐ Delete after 1 Day
- ☐ Delete after 2 Days
- ☐ Other (specify number of days up to 999) _____

How many attempts do you want the SVMi to try to deliver to or notify the Mail Server of the message before giving up? _____

If (when) the attempts timer expires the SVMi will notify the Administrator (if set) that there was a delivery failure. How much time between attempts should the SVMi wait before attempting again? _____

Important Note: Message Retention, Delivery Attempts, and Delivery Retry Interval are actually entered in the MClass. Either the individual subscriber's or an organization's business rules will decide the number or retention days.

Screens and Parameters Associated with E-Mail Gateway Functionality

System Wide Parameters—Page 1

SVMi-20E	System Wide Parameters	Page 1 of 4
The SVMi-20E Release 4.1 V1: May 17, 2005 12:57.22		
Serial No.....	000002-N0001	
Startup.....	2/22/07 15:22.15	
MAC Address.....	00 00 F0 E8 05 42	
Voice ports installed.....	12	
Maximum subscribers.....	No Limit	
Maximum E-Mail subscribers....	5	
Total run time.....	165.3	
Run time remaining.....	No Limit	
Default Volume Level.....	Normal	
Default Volume used for all ports.		

System Wide Parameters

Page 1 of 4

MAC Address

This field is populated with the MAC Address from the LAN adaptor built into the SVMi. The MAC Address is required for ordering a License Key to unlock a number of E-Mail Gateway Subscriber Mailboxes.

Maximum E-Mail Subscribers

Displays the number of licensed E-Mail Gateway Subscriber Mailboxes.

Five (5) E-Mail Gateway Subscriber Mailboxes are licensed from the Factory.

There is only one License Key that can be purchased to upgrade the number of Licensed E-Mail Gateway Subscriber Mailboxes:

- Unlimited E-Mail Gateway Subscriber Mailboxes.

Important Note: Unlimited is a reference to the number of E-Mail Gateway Subscriber Mailboxes allowed on a system.

E-Mail Gateway Subscribers are also limited to the maximum number of allowable Mailboxes on the SVMi. A SVMi-20E has no limit to the maximum number of mailboxes, so the Unlimited E-Mail Gateway license will also have NO limit when applied on a SVMi-20E.

System Performance is not dictated by number of E-Mail Gateway Subscriber Mailboxes, but is subject to network bandwidth, size of Voice message, and total number of messages left. The actual number of e-mail messages processed will vary from installation to installation.

System Wide Parameters—Page 4

The screenshot shows a web interface for 'SVMi-20E' with the title 'System Wide Parameters' and 'Page 4 of 4'. The interface is divided into two main sections: 'SMTP Server' and 'Addressing'. The 'SMTP Server' section contains fields for 'Host ID', 'Port' (set to 25), 'SMTP User ID', 'Password', and 'Domain'. The 'Addressing' section contains fields for 'Report', 'Reply To', 'Time Zone' (set to 'Eastern Standard Time'), 'Daylight Savings' (checked), and 'License Key'. Below the 'License Key' field, there is a label 'SMTP server host address'.

System Wide Parameters

Page 4 of 4

The Parameters set in the SMTP Server section on this page, are used for sending mail to the address set in the "Report:" field. The REPORT is used for sending error reporting to the ON or OFF site system administrator. These SMTP Server parameters are NOT used for Subscriber E-Message Delivery and/or Notification. [See MCLASS SMTP Server settings for use with individual or groups of subscribers.](#)

SMTP Server

HOST ID Enter the IP address of the Host Mail Server that the SVMi will use to send the E-mail error report to the ON/OFF site System Administrator.

PORT The default (recommended) port to use is: 25. Most Mail Servers look at port 25 for receiving and send Mail.

SMTP USER ID This is the User ID the SVMi will use to log on to the Mail Server and Identify itself as a Client associated with sending Mail.

PASSWORD This is the password associated with the SVMi's User ID for logging into the Mail Server verifying it is the Client it said it was.

DOMAIN The Domain is used as part of the authentication process between the SVMi and the Mail server. Based on the Local Domain Name and Domain ID the mail server can validate that it is accepting mail from this Client.

Addressing

REPORT If an E-Mail fails or is rejected by the Mail server (a Failure is generated after the total number of Attempts parameter in the MCLASS has been exceeded) a Failure Message is generated and sent to the recipient entered in this field. This is usually the ON Site Systems or IT Administrator. The Recipient could be an OFF Site Administrator as well.

Important Note: If the LAN is down, if the SMTP Server is Down, or for numerous other Network failures, it may not be possible for the SVMi to notify the Administrator of a failure.

REPLY TO Many Mail Servers will require a Valid 'Reply To:' address. E-Mails with a Blank or Non-Formatted 'Reply To:' could be considered SPAM and blocked by the Server. This parameter only applies to E-Mails sent that do not have a valid or known 'From:' address, as in a Public Caller. [See the Mailbox Block 'From:' parameter of an individual subscriber for creating Valid 'From:' addresses for subscribers sending voice messages to other subscribers.](#)

Important Note: Mail sent with this 'Reply To:' address should be blocked by the IT administrator or sent to a inbox that dumps it's data at during preventative maintenance. Keep in mind that Voice Messages sent by public callers can not be replied to via e-mail. The only purpose for this parameter is because of the requirements dictated by some Mail Servers or IT department policies.

TIME ZONE Select the Time Zone, from the list, associated with where the SVMi will be installed. The default Time Zone is: "Eastern Standard Time".

DAYLIGHT SAVINGS Honor Daylight Savings in E-Mail Date stamp. The Default is: "Y"

LICENSE KEY Enter the 53 character License Key. The License Key is made up of 5 eight character segments separated by a hyphen. This field is case sensitive and you must enter the hyphens between segments. With no License Key entered the system is authorized for a maximum of 5 E-Mail Gateway enabled mailboxes.

Mailbox Block—Page 4

Mailbox Block
Page 4 of 6

E-Mail Addressing

ENABLE E-MAIL GATEWAY SUPPORT This is a 'Y' or 'N' setting. 'Y' enables the E-Mail Gateway for that subscriber's Mailbox, and 'N' disables the functionality.

FROM Put in the E-Mail address the Subscriber would like to receive Replies to if a recipient of a Voice Message from him is replied to via e-mail.

DELIVER MSG Enter the e-mail address or addresses that the subscriber wishes to have E-Message Delivery sent to.

NOTIFY ONLY Enter the e-mail address or addresses that the subscriber wishes to have E-Message Notification sent to.

E-MAIL ADDRESS SYNTAX An e-mail address can be entered a couple of ways.

The traditional e-mail syntax is: *username@mailserverdomain.domainsuffix* (domain suffix = .com, .net, .org, etc...) in this case the name entered as the Mailbox label name will be displayed in the Inbox "From" field if the voice message was sent subscriber to subscriber.

In some cases the number of characters in a persons name is longer than the label name length in a Mailbox Block. Until now no-one saw that name so it didn't matter. If you do not want the Recipient to see the label name as it is typed you can use the following syntax:

Firstname Lastname <username@mailserverdomain.domainsuffix>
OR
Departmentname <username@mailserverdomain.domainsuffix>

This applies to all fields that accept an e-mail address:

System Wide Parameters: "Report" & "Reply To"
Mailbox Block: "From", "Delivery", & "Header Only"

MClass Block—Page 4

SVMi-20E	MCLASS - 01 Standard	Page 4 of 5
SMTP Server		
Host ID: <input type="text"/>		
Port.... 25		
SMTP User ID: <input type="text"/>		
Password..... <input type="text"/>		
Domain.. <input type="text"/>		
Delivery Controls		Message Retention Controls
Attempts..... 3		Adjust message retention: N
Retry Interval: 10		Message retention to use: 0
SMTP server host address		

MClass Block

Page 4 of 5

SMTP Server

HOST ID Enter the IP address of the Host Mail Server used by the subscribers assigned this MClass.

PORT The default (recommended) port to use is: 25. Most Mail Servers look at port 25 for receiving and sending Mail.

SMTP USER ID (Optional†) This is the User ID the SVMi will use to log on to the Mail Server and Identify itself as a Client associated with sending Mail.

PASSWORD (Optional†) This is the password associated with the SVMi's User ID for logging into the Mail Server verifying it is the Client it said it was.

DOMAIN (Optional†) The Domain is used as part of the authentication process between the SVMi and the Mail server. Based on the Local Domain Name and Domain ID the mail server can validate that it is accepting mail from this Client.

† Optional parameters are associated with Authentication to the Mail Server. Mail Servers that are on a Local (non-Public) IP, often do not require authentication.

Delivery Controls

ATTEMPTS How many times to do you want the SVMi to attempt to deliver the E-Mail Message if it fails? The Default value is: 3. After the last attempt fails the SVMi will generate a Failure report e-mail and attempt to deliver it to the 'Report' address assigned in System Wide Parameters.

RETRY INTERVAL This is how long the SVMi will wait between failure attempts before trying to deliver the e-mail message again.

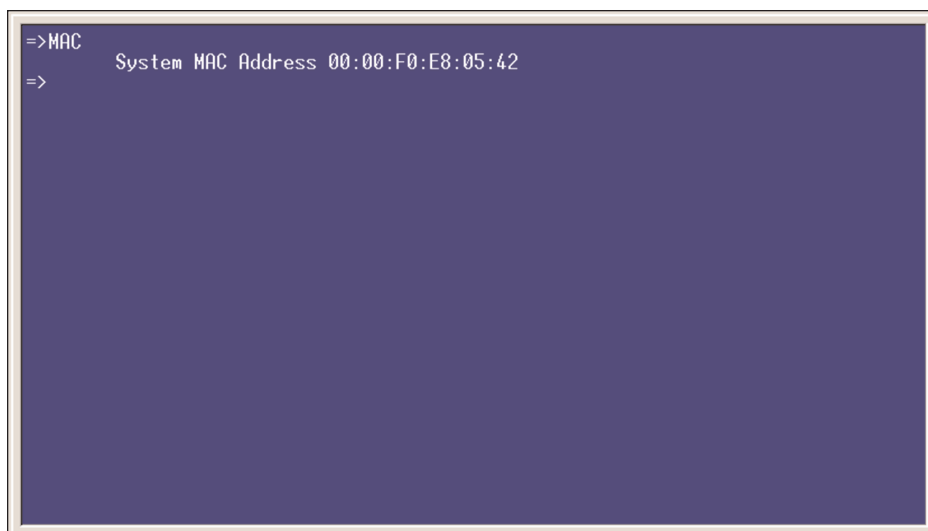
Message Retention Controls

ADJUST MESSAGE RETENTION 'N' is the default setting. This means the SVMi will leave the original Voice Message as New. The Subscriber can then go in and Delete or Save the Voice Message via the telephone interface at any time up to the number of days specified in the Message Retention timer set on page one of the MClass. 'Y' means the SVMi will follow the "Message Retention to use:" value set below in place of the Message Retention set on page one.

MESSAGE RETENTION TO USE Sets the number of days† to retain the Voice Message as New after it sends it to the Mail server. A value of '0' means delete the original voice message immediately after it is packed up and sent to the Mail Server. "Adjust Message Retention:" must be set to 'Y' for this parameter to take effect. The selected range is from 0 to 999.

† **Important Note:** As in many references in the SVMi, "number of Days" is calculated at Daily Maintenance time not a 24 clock. Also, to allow for messages that come in after hours, the first running of Daily Maintenance is skipped. So, a retention of 1 means the original voice message will be deleted after the 2nd time daily maintenance runs. For Example: You leave the office at 5:10PM. A new message is left for you at 6:30PM. If you are using the EMG, your MWI is immediately turned on and the message is also sent to your INBOX. If we did NOT skip the 1st Daily Maintenance Time, when you came in in the morning, you would not have any indication on your phone to let you know that messages came in after you had gone home for the evening.

Port Activity Command



"MAC"

From Port Activity you can type "mac" to have the system's MAC Address temporarily displayed on the screen. The MAC Address is also always displayed on Page one of System Wide Parameters.

The MAC Address is required for ordering a License Key to unlock a number of E-Mail Gateway Subscriber Mailboxes.

"NET"

The net command is used in two ways.

1. To show the current status of the SVMi network connection at the very moment you typed NET and hit the [enter] key.

```
=> Telnet - Active 1
    Connected 1
    Admin descriptor (64) local address: 192.168.1.101
    Admin descriptor (64) peer is 192.168.1.167:4134
    Admin descriptor (64) Listening on port 23
    Smtplib Status
    Flags - DoSmtplib 1
    Stats - Rcvd 167
        Sent 127
        Failed 0
        Retries 42
    Packets on SendQueue 0
    Packets on RetryList 0
    SmtplibClient Status
    Flags - Enabled 1
        Connected 0
        InSession 0
    Stats - Connections 96 Failed 0
        Authorizations 96 Failed 0
        Messages Sent 127 Failed 0
        Recipients 156 Failed 0
        Timeouts 19
        Bytes Sent 28504287 Received 116762
```

2. Typing 'net ON' or 'net OFF' will toggle the state of Network traffic reporting as it pertains to the SVMi. Below is an example of Port Activity after the NET filter has been turned on. To keep the data clear and easy to see, all other monitors (MONIT, CP, DEBUG, IPC, etc...) were turned OFF for this example.

```
NET 9:04.32.97 SmtplibMain Got Packet MClassSN:3263 MsgFile(C:\TEMP\000001D1.EML) Flags:x0 RetryCount:3
=>NET 9:04.32.97 SmtplibBeginSession> Host(192.168.1.150) Cur(192.168.1.150) InSess?0
=>NET 9:04.32.97 SmtplibBeginSession Connecting to Server 192.168.1.150:24
=>NET 9:04.32.97 SmtplibOpen Remote Host End Point: 192.168.1.150:25
```

```
=>NET 9:04.33.14 SmtOpen Connection open
=>NET 9:04.33.14 SmtBeginSession Connected to Server 192.168.1.150:24
=>NET 9:04.33.14 SmtBeginSession Got Conn ReplyCode:220 mailserver.domain.com Microsoft ESMT
MAIL Service,Version:6.0.3790.211 ready at Fri, 12 Nov 2004 09:03:36 -0600

=>NET 9:04.33.14 SmtBeginSession conn successful
=>NET 9:04.33.14 SmtSendCmd Sent (EHLO nodefsvmi.telecom.sna.samsung.com)
=>NET 9:04.33.25 SmtBeginSession Success. EHLO ReplyCode:250 mailserver.domain.com Hello
[105.52.21.66]
TURN
SIZE
ETRN
PIPELINING
DSN
ENHANCEDSTATUSCODES
8bitmime
BINARYMIME
CHUNKING
VRFY
X-EXPS
=>NET 9:04.33.25 SmtSendCmd Sent (AUTH LOGIN)
=>NET 9:04.33.25 SmtSendCmd Sent (Tm9kZUZTVk1p)
=>NET 9:04.33.25 SmtSendCmd Sent (fnN2bWkhMw==)
=>NET 9:04.33.25 SmtSetupAuth Authenticated with LOGIN
=>NET 9:04.33.25 SmtMain Sending MsgFile(C:\TEMP\000001D1.EML) FromAddr(username@domain.com)
=>NET 9:04.33.25 SmtSendMessage File(C:\TEMP\000001D1.EML) From(username@domain.com) Flags:x0
=>NET 9:04.33.25 SmtSendCmd Sent (MAIL FROM:< username@domain.com >)
=>NET 9:04.33.25 SmtSendMessage Got MAIL ReplyCode:250 2.1.0 username@domain.com.....Sender OK

=>NET 9:04.33.30 SmtSendCmd Sent (RCPT TO:< username@pdamailserverdomain.com >)
=>NET 9:04.33.30 SmtAddRecipient RCPT ReplyCode:250 2.1.5 username@pdamailserverdomain.com

=>NET 9:04.33.30 SmtSendCmd Sent (DATA)
=>NET 9:04.33.30 SmtSendMessage DATA ReplyCode:354 Start mail input; end with <CRLF>.<CRLF>

=>NET 9:04.33.52 SmtSendCmd Sent (.)
=>NET 9:04.33.63 SmtSendMessage EOD ReplyCode:250 2.6.0 <00001A05> Queued mail for delivery
```

“STAT” (Status)

The STAT command is used to display the status of the ports as well as give a real time statistic of the memory and drive states.

The status condition that is now displayed includes the number of Mailboxes that have been E-Mail Gateway Enabled. This value is not reflective of the License. But reflects the actual number of Mailbox Blocks that have a "Y" value for the Enable E-Mail Gateway Support field.

Port:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mode:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Status:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Number of Blocks: 1011
Memory Available: 61886004 Total, 61841404 Largest
Fax Channels: 2
Activated E-Mail Users: 5
Message Space Available: 8101 Minutes
Current Message Partition: C:\MSG\
Telnet connection: Active
RMATS Terminal: Idle
=>

=>NET 9:04.33.63 SmtplibMain Sent MsgFile(C:\TEMP\000001D1.EML) FromAddr(username@domain.com)
=>NET 9:04.33.63 SmtplibNotifySendStatus MsgStatus:1 MbxSN:1659 MbrStatus:0 TimeSpent:0 secs
=>NET 9:04.33.63 SmtplibMain Destroying Packet
=>NET 9:04.33.63 SmtplibMain Got Packet MClassSN:3263 MsgFile(C:\TEMP\000001D2.EML) Flags:x1
RetryCount:3
=>NET 9:04.33.63 SmtplibBeginSession> Host(192.168.1.150) Cur(192.168.1.150) InSess?1
=>NET 9:04.33.69 SmtplibBeginSession Already in session with Host - OK
=>NET 9:04.33.69 SmtplibMain Sending MsgFile(C:\TEMP\000001D2.EML) FromAddr(username@domain.com)

=>NET 9:04.33.69 SmtplibSendMessage File(C:\TEMP\000001D2.EML) From(username@domain.com) Flags:x1
=>NET 9:04.33.69 SmtplibSendCmd Sent (MAIL FROM:< username@domain.com >)
=>NET 9:04.33.69 SmtplibSendMessage Got MAIL ReplyCode:250 2.1.0 username@domain.com....Sender OK

=>NET 9:04.33.69 SmtplibSendCmd Sent (RCPT TO:< username@domain.com >)
=>NET 9:04.33.69 SmtplibAddRecipient RCPT ReplyCode:250 2.1.5 username@domain.com

=>NET 9:04.33.69 SmtplibSendCmd Sent (DATA)
=>NET 9:04.33.69 SmtplibSendMessage DATA ReplyCode:354 Start mail input; end with <CRLF>.<CRLF>

=>NET 9:04.37.70 SmtplibSendCmd Sent (.)
=>NET 9:04.37.86 SmtplibSendMessage EOD ReplyCode:250 2.6.0 <00001A05> Queued mail for delivery

=>NET 9:04.37.86 SmtplibMain Sent MsgFile(C:\TEMP\000001D2.EML) FromAddr(username@domain.com)
=>NET 9:04.37.86 SmtplibNotifySendStatus MsgStatus:1 MbxSN:1659 MbrStatus:0 TimeSpent:4 secs
=>NET 9:04.38.19 SmtplibMain Destroying Packet
=>NET 9:04.43.19 SmtplibMain No Packet ready. Ending session
=>NET 9:04.43.19 SmtplibEndSession> CurSessionHost(192.168.1.150) InSess?1
=>NET 9:04.43.19 SmtplibSendCmd Sent (QUIT)
=>NET 9:04.43.19 SmtplibClose Connection released
=>NET 9:04.43.19 SmtplibEndSession: Closed
=>NET 9:04.43.19 SmtplibMain Session ended.
=>