

What Are the SMTP Configuration Options in TCPIP\$SMTP.CONF?

Table of contents

1. What Are the SMTP Configuration Options in TCPIP\$SMTP.CONF?	3
1.1 SMTP Configuration Parameters	3

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Applies to: TCP/IP Services 5.7 and higher

Starting with TCP/IP Services V5.7, the SMTP client and server use the text-based configuration file TCPIP\$SMTP.CONF. The table explains how the file can be used to control SMTP behavior, including security, routing, logging, and delivery settings.

Configuration file location: TCPIP\$SMTP_COMMON:TCPIP\$SMTP.CONF

On some systems, TCPIP\$SMTP.CONF is stored in the TCP/IP Services text library rather than as a regular file. To view or modify the configuration, extract the module using the following command:

```
$ LIBRARY/EXTRACT=TCPIP$SMTP.CONF library-name
```

Information

After making any changes, SMTP must be restarted with the following commands:

```
$ @SYS$MANAGER:TCPIP$SMTP_SHUTDOWN.COM
$ @SYS$MANAGER:TCPIP$SMTP_STARTUP.COM
```

1.1 SMTP Configuration Parameters

Parameter	Description	Example / Default
Good-Clients	Specifies which clients are permitted to relay mail through this SMTP server.	relay.example.com 192.168.1.0/24 (Default: allow all)
Bad-Clients	Defines clients that are explicitly denied relay access.	10.0.0.1 172.16.0.0/16 (Default: none)
Bad-Clients-Text	Custom message returned to clients that are denied access.	"Access denied" "Relay blocked" (Default: none)
Relay-Zones	Lists the destination domains that the SMTP server is allowed to relay mail to.	example.com corp.example.com (Default: allow all)
SPAM-Relay-Text	Message returned when a relay attempt is blocked due to policy restrictions.	"Relay not permitted" (Default: none)

Parameter	Description	Example / Default
RBLs	Defines external DNS-based blacklists used to identify and block known spam sources.	dnsbl.example.org zen.spamhaus.org (Default: none)
Client-In-RBL-Text	Message shown to clients whose IP address is found in an RBL.	"Host listed in blacklist" "Access refused (RBL)" (Default: none)
Relay-Based-On-Mx	If TRUE the SMTP server allows relay from unknown clients when the recipient's domain has an MX record that points to the local host.	TRUE FALSE (Default)
Unbacktranslatable-IP-Text	Message for a reverse lookup failure	"IP cannot be resolved" (Default: none)
Reject-Unbacktranslatable-IP	Rejects connections from hosts that cannot be resolved via reverse DNS lookup.	TRUE FALSE (Default)
Accept-Unqualified-Senders	Allows email from hosts that do not have fully qualified domain names (FQDN).	TRUE FALSE (Default)
Unqualified-Sender-Text	Message shown when rejecting senders that do not provide a valid FQDN.	"Invalid sender hostname" "Hostname required" (Default: none)
Accept-Unresolvable-Domains	Allows messages from domains that cannot be resolved via DNS.	TRUE (Default) FALSE
Unresolvable-Domain-Text	Message displayed when rejecting messages from unresolved domains.	"Domain does not exist" "Invalid domain" (Default: none)
Reject-Mail-From	Defines patterns of sender addresses that should always be rejected. Supports wildcard matching.	*@spam.com baduser@* (Default: none)
Reject-Mail-From-Text	Message shown to senders whose email is rejected.	"Your message has been blocked." (Default: none)
Accept-Mail-From	Defines sender patterns that are explicitly allowed, overriding rejects if needed.	*@trusted.com (Default: all)

Parameter	Description	Example / Default
SPAM-Action	Specifies how detected spam events are reported or logged on the system.	OPCOM ACCOUNTING (Default: none)
Security	Determines how rejection messages are handled. FRIENDLY provides feedback, SECURE suppresses details for security.	FRIENDLY (Default) SECURE
Allow-EXPN	Controls whether the SMTP EXPN command (expand mailing lists) is permitted. Legal values NEVER, ALWAYS or LOCALLY.	NEVER ALWAYS (Default) LOCALLY
EXPN-Used-Text	Message shown when an EXPN command is attempted.	"Command not permitted." (Default: none)
Allow-VRFY	Controls whether the SMTP VRFY command (verify users) is permitted.	NEVER ALWAYS (Default) LOCALLY
VRFY-Used-Text	Message shown when a VRFY command is attempted.	"User verification is disabled." (Default: none)
Symbiont-Checks-Deliverability	If Symbiont-Checks-Deliverability is set to TRUE, the SMTP receiver does not perform deliverability checks itself and instead passes incoming email to the symbiont for validation.	TRUE FALSE (Default)

Parameter	Description	Example / Default
Try-A-Records	The symbiont always uses MX records first to route outbound mail through the configured SMTP gateways. It can also optionally attempt delivery using A records as a fallback. This setting controls when A records are used: always, never, or only if no MX records are found for the recipient's domain. By default, it is set to ALWAYS for compatibility with previous behavior, although IFNOMX is recommended for new installations.	ALWAYS (Default) NEVER IFNOMX
Initial-Interval	Defines the delay before a second delivery attempt is made after initial failure.	0 00:30:00.00
Retry-Interval	Specifies the time between retry attempts after the first retry.	Recommended time is twice the initial interval. 0 01:00:00.00
Retry-Maximum	Defines the maximum total time allowed for retry attempts before giving up.	3 00:00:00.00
Zone	Specifies the domain namespace the server considers local for routing decisions. With no value, defaults to one level higher than your local domain.	example.com corp.example.com
Receive-Timeout	Defines the maximum time (in minutes) allowed between receiving parts of a message during a connection. If no data is received within this interval, the connection is terminated and the associated mail control file is deleted.	5
Retry-Address	Maximum number of recipient addresses attempted for delivery before marking undeliverable.	16

Parameter	Description	Example / Default
Hop-Count	Maximum number of relay hops allowed before determining mail is undeliverable.	16
Send-Timeout-Init	Timeout (minutes) for establishing the initial SMTP connection. For the following timeouts, the system keeps retrying delivery until the allowed retry time expires.	5
Send-Timeout-Mail	Timeout for MAIL command responses.	5
Send-Timeout-Rcpt	Timeout for RCPT command responses.	5
Send-Timeout-Data	Timeout for sending message data.	3
Send-Timeout-Term	Timeout for session termination.	10
Header-Placement	Controls placement of email headers in messages.	TOP (Default) BOTTOM NONE
Eightbit	Enables transmission of 8-bit data in emails instead of 7-bit ASCII only.	TRUE FALSE
Relay	Enables or disables the ability to relay mail for external hosts.	TRUE FALSE
Alternate-Gateway	Specifies a fallback SMTP server for message delivery if the primary route fails.	mail.backup.example.com
General-Gateway	Defines a gateway for handling non-SMTP mail protocols.	uucp.example.com
Substitute-Domain	Overrides the sender's domain with a specified domain for outgoing mail.	example.com

Parameter	Description	Example / Default
Queue-Name	SMTP in TCP/IP Services for OpenVMS is cluster-aware. It takes advantage of the cluster's high availability and load balancing features. The generic SMTP queue is shared across all nodes in the cluster and is named TCPIP\$SMTP.	TCPIP\$SMTP
Number-Of-Queues-Per-Node	Specifies how many SMTP processing queues are created per node of a cluster. The execution queue will have the following name format: TCPIP\$SMTP_nodename_n	1 (Default)
Postmaster-Alias	Component: Symbiont. Enables mail bounced by the local host to appear to be from a user name other than TCPIP\$SMTP@node.domain. Specify only the user name (no host). Ensure a forwarding entry exists for the specified user.	Postmaster-Alias : Postmaster Example outcome: Postmaster@node.domain instead of TCPIP\$SMTP@node.domain
Receiver-Debug	Component: Receiver. Logs full diagnostics, similar to Log-Level.	Receiver-Debug : 0
Receiver-Trace	Component: Receiver. Logs all messages sent to and received from remote SMTP clients. Used to trace SMTP protocol activity. The same conventions for logging non-printing characters or control characters are used.	Receiver-Trace : 0
Symbiont-Debug	Component: Symbiont. Logs full diagnostics, similar to Log-Level.	Symbiont-Debug: 0

Parameter	Description	Example / Default
Symbiont-Trace	Component: Symbiont. Logs all messages exchanged with remote SMTP servers. Displays non-printing/control characters as \n (hex value).	Example CR/LF is shown as \d\a: <pre>send buf=MAIL FROM:<jones@acme.com> recv buf=250 <jones@acme.com>... Sender OK\d\a</pre>
Utilities-Debug	Component: Utilities. Logs full diagnostics similar to Log-Level.	Utilities-Debug: 0
Utilities-Trace	Component: Utilities	Utilities-Trace: 0
Log-Level	Component: Symbiont. Controls logging detail level. 2 = Enables detailed logging at startup, including each control file processed, as well as all associated mail headers and recipients. 3 = Enables additional processing details 5 = Enables full diagnostics (use with support guidance only)	Values: 0, 2, 3, 5 Log-Level : 5
EF-Debug-Level		EF-Debug-Level : 0
Channel-Debug-Level		Channel-Debug-Level : 0
Symbiont-Snapshot-Blocks	Component: Symbiont. Enables snapshot logging. Specifies buffer size in OpenVMS blocks (1 block = 512 bytes). Must be used with Log-Level. Larger values increase shutdown delay. Enabling snapshot buffering can delay symbiont shutdown, with the duration depending on buffer size and system performance.	The following example sets the SMTP symbiont log level to 5 and enables snapshot logging with a 200-block buffer: <pre>Log-Level : 5 Symbiont-Snapshot- Blocks : 200</pre>

Parameter	Description	Example / Default
Receiver-Snapshot-Blocks	Component: Receiver. Enables snapshot logging. The value you assign to this parameter specifies the size of the snapshot buffer in OpenVMS blocks (1 block = 512 bytes). Requires Receiver-Debug and Receiver-Trace.	For example, the following command line sets all of the receiver diagnostics on and enables snapshot logging for the receiver with a snapshot buffer of 200 blocks: Receiver-Debug : 1 Receiver-Trace : 1 Receiver-Snapshot-Blocks : 200
Utilities-Snapshot-Blocks		Utilities-Snapshot-Blocks : 0
Log-Line-Numbers	Component: Symbiont, Receiver, MAIL\$PROTOCOL. Adds line numbers to SMTP logs.	TRUE FALSE
Memory-Debug		TRUE
Mail\$Protocol-Debug		TRUE
CF-Debug		TRUE
Parse-Debug		TRUE
Altgate-Always	Component: Symbiont. Sends all outbound (nonlocal) mail to the alternate gateway, bypassing zone checks.	TRUE FALSE
Mx-If-Noaltgate	Component: Symbiont. Uses MX records if the alternate gateway is unavailable.	TRUE FALSE
No-Mx	Component: Symbiont. Disables MX usage. Attempts direct host resolution using domain name. If unresolved → mail returned; if unreachable → mail requeued.	TRUE FALSE

Parameter	Description	Example / Default
No-Subs-Domain-Inbound	Component: Symbiont, Receiver, MAIL\$PROTOCOL. Prevents mail to substitute domain from being treated as local. Default behavior (FALSE) treats it as local.	TRUE FALSE (Default)
Smtplib-Jacket-Local	Component: Symbiont. Adds SMTP headers to local mail to support POP server requirements.	TRUE FALSE
Cent-Sign-Hack	Replaces double quotes with cent sign (¢) in SMTP addresses to avoid OpenVMS Mail limitations with nested quotes.	TRUE FALSE
Nosey	Component: Symbiont. Enables logging of full RFC header information. If disabled, headers appear as SUBJECT:<omitted>.	TRUE FALSE
Deliver-NoXVMS	Component: Symbiont. Disables X-VMS-To and X-VMS-CC headers. Uses standard RFC To and CC headers instead. If the Deliver-NoXVMS option is not defined (or set to FALSE), the X-VMS-To and X-VMS-CC headers (if present) are used for the mail header lines.	TRUE FALSE
Deliver-VMS-Def-To	Component: Symbiont. Uses default OpenVMS To field (username). Overrides Deliver-NoXVMS for To field.	TRUE FALSE
MTS-From-Hack		TRUE

Parameter	Description	Example / Default
Rewrite-MTS-From	Component: Symbiont. Simplifies MTS addresses for Internet mail by extracting username and appending local host. As a result, only a simple address is sent to the Internet and any replies are relayed correctly to MTS.	TRUE FALSE
Local-Alias-Only	Component: Symbiont. Determines local mail status using only the local alias file.	TRUE FALSE
SFF-Requires-Priv	Component: MAIL\$PROTOCOL. Requires SYSPRV, BYPASS, or OPER privileges to use Send From File (SFF).	TRUE FALSE
8BitMIME-Hack	Component: Receiver. Enables 8BITMIME support to prevent conversion to 7-bit format before sending the mail message to the SMTP server. On some displays, such as that used by OpenVMS Mail, certain 8-bit strings, such as accented characters, are converted and displayed in coded sequences. To prevent this behavior, set this parameter to TRUE.	TRUE FALSE
Suppress-Version-Info	Component: Symbiont, Receiver. Prevents disclosure of TCP/IP Services version information.	TRUE FALSE
Foreign-Transport-Synonyms		FALSE
Postmaster-Forwards-To		FALSE
Persistent-Server	Enables persistent SMTP receiver if set to ON.	ON OFF (Default)

Parameter	Description	Example / Default
Idle-Timeout	Specifies how long the SMTP receiver waits for a connection. OpenVMS delta time format. Requires Persistent-Server option be specified.	0 00:05:00.00 (Default)
Loop-Max	Maximum number of retry attempts for SMTP receiver connections. 0 = no limit. Requires Persistent-Server option to be specified.	10 0 = (no limit)