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第二版
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sendmail



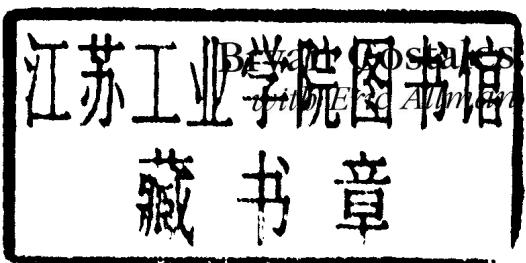
O'REILLY®
中国电力出版社

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with Eric Allman

sendmail

Second Edition

下卷



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27

The Configuration File

In this chapter:

- Overall Syntax
- Comments
- V8 Comments
- Continuation Lines
- The V Configuration Command
- Pitfalls

The *sendmail* configuration file is usually called *sendmail.cf*. It provides all the central information that controls the *sendmail* program's behavior. Among the key pieces of information provided are the following:

- The location of all the other files that *sendmail* needs to access and the location of all the directories in which *sendmail* needs to create and remove files.
- The definitions that *sendmail* uses in rewriting addresses. Some of those definitions can come from files, which are also specified.
- The mail header lines that *sendmail* should modify, pass through, and/or augment.
- The rules and sets of rules that *sendmail* uses for transforming mail addresses (and aliases for those addresses) into usable information, such as which delivery agent to use and the correct form of the address to use with that delivery agent.

The location of the *sendmail.cf* file is compiled into *sendmail*. It is usually found in one of the directories */etc*, */usr/lib*, or */etc/mail*. If you are compiling *sendmail*, you may specify the location of that file yourself by defining *_PATH_SENDMAILCF* in your *Makefile* (see §18.8.34). V8.7 recommends that the *sendmail.cf* file be located in */etc* for consistency.* Some vendors, however, prefer other locations. We recommend that one of the standard locations be used unless you have a compelling reason to do otherwise. Nonstandard locations may, for example, make operating system upgrades difficult if you need to revert to prior or vendor versions of *sendmail*.

* Scripts that may be distributed in the future will need the location of the *sendmail.cf* file to locate other files. If you move the *sendmail.cf* from its recommended standard location, you will have to modify all such scripts before they can be used.

The configuration file is read and parsed by *sendmail* every time it starts up. Because *sendmail* is run every time electronic mail is sent, its configuration file is designed to be easy for *sendmail* to parse rather than easy for humans to read.

27.1 Overall Syntax

The *sendmail.cf* file is line-oriented, with one configuration command per line. Each configuration command consists of a single letter* that must begin a line. Each letter is followed by other information as required by the purpose of the particular command.

In addition to commands, the configuration file may also have lines that begin with a # to form a comment line or with a tab or space character to form a continuation line. A list of all legal characters that may begin a line in the configuration file is shown in Table 27-1.

Table 27-1: sendmail.cf Configuration Commands

Command	\$	Version	Description
#	27.2	All	A comment line, ignored
space	27.4	All	Continue the previous line
tab	27.4	All	Continue the previous line
C	32.1	All	Define a class macro
D	31.3	All	Define a macro
E	22.2.1	8.7 and above	Environment for agents
F	32.1	All	Define a class macro from a file or a pipe
H	35.1	All	Define a header
K	33.3	V8.1 and above	Create a keyed map entry
M	30.1	All	Define a mail delivery agent
O	34.2	All	Define an option
P	35.8	All	Define delivery priorities
R	28.1	All	Define a transformation rule
S	29.1	All	Declare a rule-set start
T	22.8.1.1	All	Declare trusted users (ignored V8.1–V8.6)
V	27.5	V8.1 and above	Version of configuration file

Most configuration commands are so complex that each requires a chapter or two of its own. A few, however, are simple. In this chapter we will describe the simple ones: comments, continuation lines, and the V (version) command.

* A quick bit of history: Initially, there was almost nothing in the configuration file except R rules (and there was only one rule set). Eric recalls adding M and O fairly quickly. Commands such as K and V came quite late.

27.2 Comments

Comments provide you with the documentation necessary to maintain the configuration file. Because comments slow *sendmail* down by only a small amount, it is better to overcomment than to undercomment.

Blank lines and lines that begin with a # character are considered comments and are ignored. A blank line is one that contains no characters at all (except for its terminating newline). Indentation characters (spaces and tabs) are invisible and can turn an apparently blank line into an *empty-looking line*, which is not ignored:

# text	← a comment
tabtext	← a continuation line
	← a blank line
tab	← an "empty-looking line"

Except for V8 *sendmail* and two special cases, comments occupy the entire line. The two special cases are the R and S configuration commands. The R command is composed of three tab-separated fields, the third field being a comment that does not require a leading # character:

Rlhs	rhs	comment
------	-----	---------

The pre-V8.7 S command looks only for a number following it and ignores everything else, so it may also be followed by a comment:

s3	this is a comment
----	-------------------

No other commands allow comments to follow on the same line:

CWlocalhost mailhost	# This won't work prior to V8
----------------------	-------------------------------

27.3 V8 Comments

Beginning with V8 *sendmail*, for configuration files version 3 and above (see §27.5), all lines of the configuration file may have optional trailing comments. That is, all text from the first # character to the end of the line is ignored. Any whitespace (space or tab characters) leading up to the # is also ignored:

CWlocalhost mailhost	# This is a comment
	↑
	<i>from here to end of line ignored</i>

To include a # character in a line under V8 *sendmail*, precede it with a backslash:

DM16\#megs

Note that you do not need to escape the # in the \$# operator. The \$ has a higher precedence, and \$# is interpreted correctly.