Rocky Enterprise Linux 9.2 Manual Pages on command 'lvm.conf.5'

$ man lvm.conf.5

LVM.CONF(5) File Formats Manual LVM.CONF(5)

NAME

lvm.conf ? Configuration file for LVM2

SYNOPSIS

/etc/lvm/lvm.conf

DESCRIPTION

lvm.conf is loaded during the initialisation phase of lvm(8). This file can in turn lead to other files being loaded - settings read in later override earlier settings. File timestamps are checked between commands and if any have changed, all the files are reloaded.

For a description of each lvm.conf(5) setting, run:

lvmconfig --typeconfig default --withcomments --withspaces

The settings defined in lvm.conf can be overridden by any of these ex? tended configuration methods:

direct config override on command line

The --config ConfigurationString command line option takes the ConfigurationString as direct string representation of the con? figuration to override the existing configuration. The Configu?

rationString is of exactly the same format as used in any LVM configuration file.

profile config

A profile is a set of selected customizable configuration set? tings that are aimed to achieve a certain characteristics in various environments or uses. It's used to override existing configuration. Normally, the name of the profile should reflect that environment or use.

There are two groups of profiles recognised: command profiles and meta? data profiles.

The command profile is used to override selected configuration settings at global LVM command level - it is applied at the very beginning of LVM command execution and it is used throughout the whole time of LVM command execution. The command profile is applied by using the --com? mandprofile ProfileName command line option that is recognised by all LVM2 commands.

The metadata profile is used to override selected configuration set? tings at Volume Group/Logical Volume level - it is applied indepen? dently for each Volume Group/Logical Volume that is being processed. As such, each Volume Group/Logical Volume can store the profile name used in its metadata so next time the Volume Group/Logical Volume is pro? cessed, the profile is applied automatically. If Volume Group and any of its Logical Volumes have different profiles defined, the profile de? fined for the Logical Volume is preferred. The metadata profile can be attached/detached by using the lvchange and vgchange commands and their --metadataprofile ProfileName and --detachprofile options or the --metadataprofile option during creation when using vgcreate or lvcre? ate command. The vgs and lvs reporting commands provide -o vg_profile and -o lv_profile output options to show the metadata profile currently attached to a Volume Group or a Logical Volume.

The set of options allowed for command profiles is mutually exclusive when compared to the set of options allowed for metadata profiles. The settings that belong to either of these two sets can't be mixed to?

gether and LVM tools will reject such profiles.

LVM itself provides a few predefined configuration profiles. Users are allowed to add more profiles with different values if needed. For this purpose, there's the command_profile_template.profile (for command pro? files) and metadata_profile_template.profile (for metadata profiles) which contain all settings that are customizable by profiles of certain type. Users are encouraged to copy these template profiles and edit them as needed. Alternatively, the lvmconfig --file <ProfileName.pro? file> --type profilable-command <section> or lvmconfig --file <Profile? Name.profile> --type profilable-metadata <section> can be used to gen? erate a configuration with profilable settings in either of the type for given section and save it to new ProfileName.profile (if the sec? tion is not specified, all profilable settings are reported).

The profiles are stored in /etc/lvm/profile directory by default. This location can be changed by using the config/profile_dir setting. Each profile configuration is stored in ProfileName.profile file in the pro? file directory. When referencing the profile, the .profile suffix is left out.

tag config

See tags configuration setting description below.

When several configuration methods are used at the same time and when LVM looks for the value of a particular setting, it traverses this con? fig cascade from left to right:

direct config override on command line ? command profile config ? meta? data profile config ? tag config ? lvmlocal.conf ? lvm.conf

No part of this cascade is compulsory. If there's no setting value found at the end of the cascade, a default value is used for that set? ting. Use lvmconfig to check what settings are in use and what the de? fault values are.

SYNTAX

This section describes the configuration file syntax.

Whitespace is not significant unless it is within quotes. This pro? vides a wide choice of acceptable indentation styles. Comments begin

with # and continue to the end of the line. They are treated as white?

space.

Here is an informal grammar:

file = value*

A configuration file consists of a set of values.

value = section | assignment

A value can either be a new section, or an assignment.

section = identifier '{' value* '}'

A section groups associated values together. If the same section is encountered multiple times, the contents of all instances are concatenated together in the order of appearance.

It is denoted by a name and delimited by curly brackets.

e.g. backup {

...

}

assignment = identifier '=' (array | type)

An assignment associates a type with an identifier. If the iden?

tifier contains forward slashes, those are interpreted as path delimiters. The statement section/key = value is equivalent to section { key = value }. If multiple instances of the same key are encountered, only the last value is used (and a warning is issued).

e.g. level = 7

array = '[' (type ',')* type ']' | '[' ']'

Inhomogeneous arrays are supported.

Elements must be separated by commas.

An empty array is acceptable.

type = integer|float|string

integer = [0-9]*

float = [0-9]*'.'[0-9]*

string = "" .* ""

Strings with spaces must be enclosed in double quotes, single words that start with a letter can be left unquoted.

SETTINGS

The lvmconfig command prints the LVM configuration settings in various ways. See the man page lvmconfig(8).

Command to print a list of all possible config settings, with their de? fault values:

lvmconfig --type default

Command to print a list of all possible config settings, with their de? fault values, and a full description of each as a comment:

lvmconfig --type default --withcomments

Command to print a list of all possible config settings, with their current values (configured, non-default values are shown):

lvmconfig --type current

Command to print all config settings that have been configured with a different value than the default (configured, non-default values are shown):

lvmconfig --type diff

Command to print a single config setting, with its default value, and a full description, where "Section" refers to the config section, e.g. global, and "Setting" refers to the name of the specific setting, e.g. umask:

lvmconfig --type default --withcomments Section/Setting

FILES

/etc/lvm/lvm.conf

/etc/lvm/lvmlocal.conf

/etc/lvm/archive

/etc/lvm/backup

/etc/lvm/cache/.cache

/etc/lvm/profile

/run/lock/lvm

SEE ALSO

lvm(8), lvmconfig(8)