



Customer: Juniper Networks

Project: LoggingLevel Usage Notes

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Document Version Control

Version Number	Author	Date	Reason for Change
0.1 (draft)	Deepti B	17/11/2014	Initial draft

1. Introduction

Existing Approach for Logging:

- When verbose is on, STDERR and STDOUT is redirected to console and log file.
- When verbose is off, STDERR and STDOUT redirected to log file only.
- echo_summary messages will be displayed on console and redirect only to summary log file irrespective of verbose setting.

Refined Approach for Logging:

Divide the logging STDERR and STDOUT which can be enabled/disabled separately using different logging levels. Classify the combinations of enabling/disabling Xtrace, STDERR, STDOUT.

- LOG_LEVEL needs to be set in localrc file. The default setting is set to 3 in localrc file . And LOG_LEVEL=3 is to reflect the current VERBOSE mode.
- Redirect the current echo error messages to STDERR instead of STDOUT.
- Keep the echo summary of logging as it is. And use it when required to add the summary log and to display the phase\status on the console . And also append the summary log messages to log file as well.

2. Document Purpose

The purpose of this document is to describe the different approaches implemented to control the contrail logger based on the log levels.

3. Feature Overview

The objective of the feature is to generate logs based on the user selection of LOG_LEVEL (1/2/3).

Below is the list of LOG_LEVEL and the different combinations

LOG_LEVEL	STDERR	STDOUT	XTRACE
1	Console,Log	Log	X
2	Console,Log	Log	Enabled(Commands display on Console)
3	Console,Log	Console,Log	Console,Log
X-nothing			

Advantages:

1. Differentiate the logging based on user selection
2. Provision of displaying only errors on the console to identify/errors easily to get the attention of the user. And easily identify the errors without debugging the entire log.
3. Provisioning of Enabling Xtrace for advanced user and for further debugging level by changing the settings in localrc.
4. Use echo_summary messages at each phase to depict the installation stage in detail to display them on console.

4. Description:

To control the logger with different log levels classify the combinations of enabling/disabling Xtrace,STDERR,STDOUT.

Note: Always stderr into logfile, console.

1--> For LOG_LEVEL = 1 redirect stdout into logfile

i.e., Displays only errors on to the console and maintains the output and errors into the logfile

2--> For LOG_LEVEL = 2 redirect stdout into logfile and xtrace commands into console

i.e., Enable the xtrace Displays xtrace commands, errors, output on to the console and maintains the entire output into the log file.

3--> For LOG_LEVEL = 3 redirect stdout and xtrace into logfile, console

i.e., Enable the xtrace. Displays the errors and output on to the console in detail and maintains the same into the log file.

Functions used to redirect the STDERR/STDOUT to generate logs in detail:

- echo_summary
- echo_msg
- echo_nolog

➤ echo_summary function used to display messages to log file ,summary log file and console. It opens a new file descriptor '6' for redirection.

➤ echo_msg function used to redirects the current echo error messages to STDERR instead of STDOUT

➤ echo_nolog function redirects the test to output. Nothing is stored to a log file

5. Review inputs

S. No.	Juniper Comments	Date Received	TCS Updates	Status
1				
2				

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