Onboard Failure Logging

Onboard Failure Logging (OBFL) gathers boot, environmental, and critical hardware data for field-replaceable units (FRUs), and stores the information in the nonvolatile memory of the FRU. This information is used for troubleshooting, testing, and diagnosis if a failure or other error occurs, providing improved accuracy in hardware troubleshooting and root cause isolation analysis. Stored OBFL data can be retrieved in the event of a failure and is accessible even if the card does not boot.

Because OBFL is on by default, data is collected and stored as soon as the card is installed. If a problem occurs, the data can provide information about historical environmental conditions, uptime, downtime, errors, and other operating conditions.

Caution OBFL is activated by default in FRUs. Do not deactivate OBFL without specific reasons, because the OBFL data is used to diagnose and resolve problems in FRUs.

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Prerequisites

You must be in a user group associated with a task group that includes the proper task IDs. The command reference guides include the task IDs required for each command. If you suspect user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Information About OBFL

OBFL feature is enabled by default. OBFL collects and stores both baseline and event- driven information in the nonvolatile memory of each supported card where OBFL is enabled. The data collected includes the following:

- FRU part serial number
- OS version
- Boot time
- Total run time

- Temperature and voltage at boot
- Temperature and voltage history

This data is collected in two different ways as baseline data and event- driven data.

Baseline Data Collection

Baseline data is stored independent of hardware or software failures and includes the information given in the following table.

Table 1: Data Types

Data Type	Details
Installation	Chassis serial number and slot number are stored at initial boot.
Temperature	Information on temperature sensors is recorded after boot. The subsequent recordings are specific to variations based on preset thresholds.
Run-time	Total run-time is limited to the size of the history buffer used for logging. This is based on the local router clock with logging granularity of 30 minutes.

Supported Cards and Platform

FRUs that have sufficient nonvolatile memory available for OBFL data storage support OBFL. The following table shows the card type and OBFL support.

Table 2: OBFL Support on Cisco NCS 5000 Series Router

Card Type	Cisco NCS 5000 Series Router
Route Processor (RP)	Supported
Power supply cards	Not Supported
Fan controller cards	Supported