

Troubleshooting

- Troubleshooting, on page 1

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Troubleshoot using system reports

System reports

System reports or crashinfo files save information that helps Cisco technical support representatives to debug problems that caused the Cisco IOS image to crash. It is necessary to collect critical crash information quickly and reliably and bundle it in a way that it can be identified with a specific crash occurrence. System reports are generated and saved into the '/core' directory, either on harddisk: or flash: filesystem. The system does not generate reports in case of a reload.

In case of a system crash, the following details are collected:

1. Full process core
2. IOSd core file and IOS crashinfo file if there was an IOSd process crash
3. Tracelogs
4. System process information
5. Bootup logs
6. Certain types of /proc information

This report is generated before the router goes down to rommon/bootloader. The information is stored in separate files which are then archived and compressed into the tar.gz bundle. This bundling makes it convenient to get a crash snapshot in one place. The file can also be moved off the box for analysis.

The device hostname, the ID of the module that generated the system report, and its creation timestamp are embedded in the file name:

<hostname>_<moduleID>-system-report_<timestamp>.tar.gz

Sample system report

See this sample report with the file name `Router1_RP_0-system-report_20210204-163559-UTC`

Here, a device with hostname Router1 experienced an unexpected reload of RP0 module and the system-report was generated on 4th February 2021 at 4:39:59 PM UTC.

```
├── bootflash/
│   └── pd_info/
│       ├── dmesg_output-20210204-163538-UTC.log
│       ├── filesystems-20210204-163538-UTC.log
│       ├── memaudit-20210204-163538-UTC.log
│       ├── proc_cpuinfo-20210204-163538-UTC.log
│       ├── proc_diskstats-20210204-163538-UTC.log
│       ├── proc_interrupts-20210204-163538-UTC.log
│       ├── proc_oom_stats-20210204-163538-UTC.log
│       ├── proc_softirqs-20210204-163538-UTC.log
│       ├── system_report_trigger.log
│       └── top_output-20210204-163538-UTC.log
├── harddisk/
│   ├── core/
│   │   └── Router1_RP_0_hman_17716_20210212-123836-UTC.core.gz
│   └── tracelogs/
├── tmp/
│   ├── fp/
│   │   └── trace/
│   ├── maroon_stats/
│   ├── rp/
│   │   └── trace/
│   └── Router1_RP_0-bootuplog-20210204-163559-UTC.log
└── var/
    └── log/
        └── audit/
            └── audit.log
```