



CTA-Taped overview and future

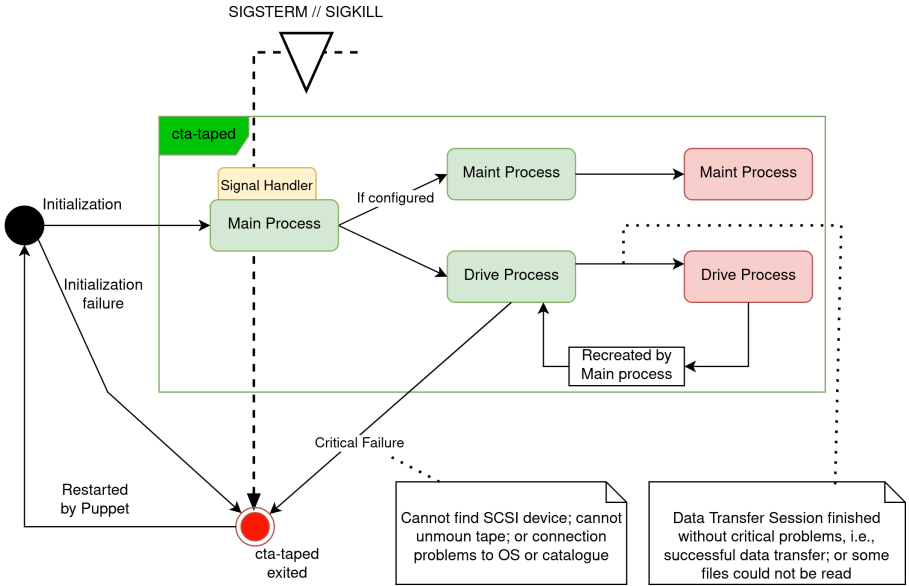
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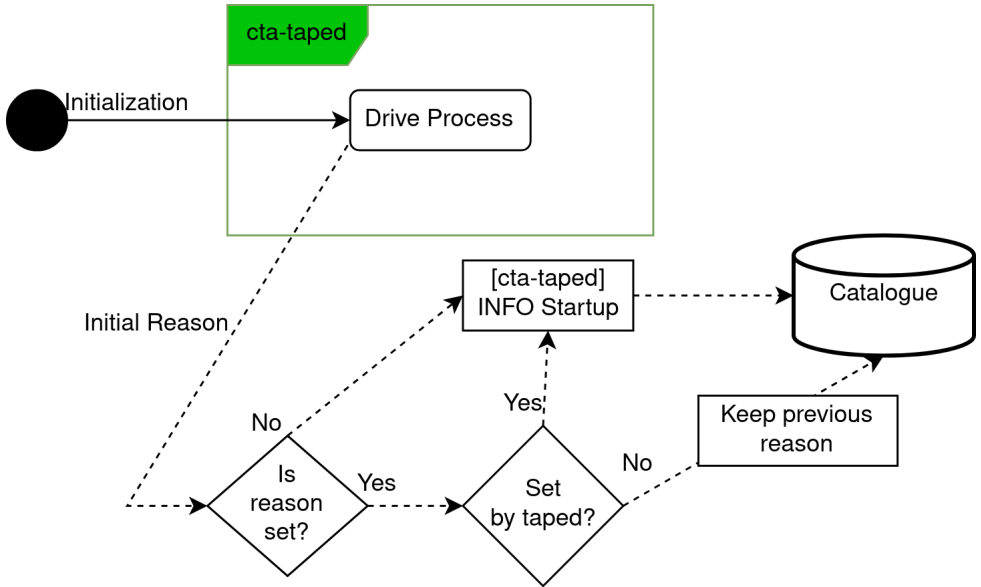
Exordium

From time to time cta-taped's architecture and behaviour is a source of confusion for CTA operators and the community.

- Daemon Overview: understand and propose a fix for the drive status reason overwrite.
- Daemon Overhaul: architectural changes to the daemon.

Daemon Overview





Daemon Exit Behaviour - Current Situation

Scenarios for daemon exit:

- Hardware problems, i.e. tape stuck in drive.
- Connectivity problems to Catalogue or SchedulerDB.
- Shutdown signal.

In any of these cases, the daemon will be restarted some time after it exits. The new drive process will be set to down until the drive status in the Catalogue is changed.

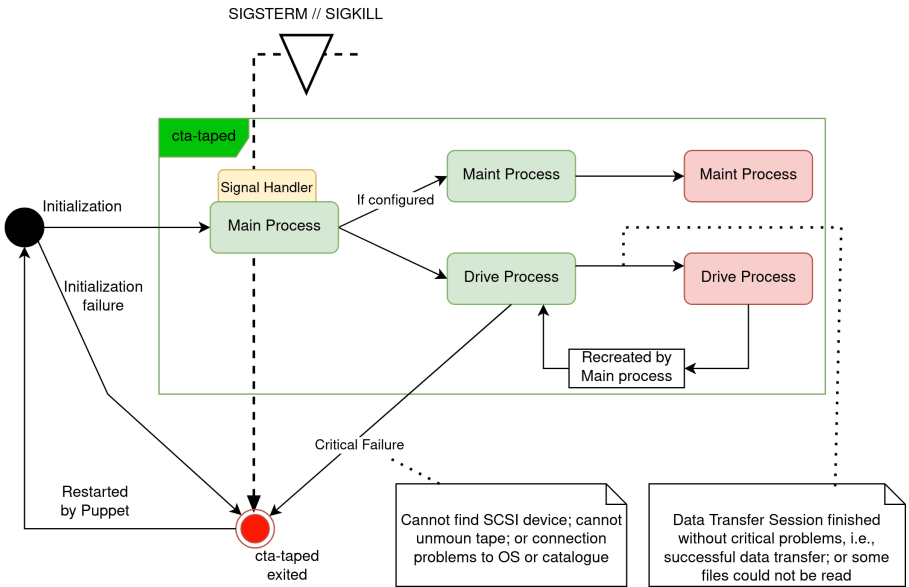
Daemon Exit Behaviour - Proposed Changes

- **Daemon Problems:** anything that prevents the daemon initialization and requires manual intervention.
- **Connectivity Problems:** We should keep retrying instead of exiting the daemon. !
- **Drive Problems:** log error and put drive down in Catalogue. Drive process should wait until it is set to up again.

This proposal greatly simplifies the next topic.

Daemon Exit Behaviour - Proposed Changes II

Extra idea: maybe for monitoring it is easier to have error codes and not have TAS or any other system depend of specific text messages meant for humans.



Puppet/systemd Integration - Current Situation

The systemd service configuration is set to not restart after exit. BUT, whenever Puppet runs, it will see the service is down and it will restart it, triggering the overwrite of the failure reason.

Puppet/systemd Integration - Proposed Changes

Daemon exit should rarely occur, and if it does, it would require some sort of manual intervention. Drive process and daemon exit should remain decoupled.

In this scenario, it would make sense to automatically restart the daemon when Puppet runs.

Daemon Overhaul

Problems

- Confusion on what is going on. Community and CTA operators. [1] [2]
- Logs are not easy to read + some log lines contain mixed info. [3]
- Interprocess communications cannot be trivially handled [4] [5].
Do we really need them?

Why do we have this problems?

The 'cta-taped' daemon is a mix of things. The status of the daemon, the status of the drive process and the status of the physical drive are interleaved. This should be simplified.

Proposal

- Split maintenance and drive processes. They are independent, it is ok to have both processes on the same machine but as different services.
- Remove 'process manager'. The drive process or maintenance processes should be self-contained, I see no reason to have an extra process.