We consider a cluster with three-nodes named A, B, and C.
(0) Initialize (and see `HistoryRecords`)

$$\begin{aligned}
A &: [\,] \\
B &: [\,] \\
C &: [\,]
\end{aligned}$$

(1) Choose A as the leader node.

$$\begin{aligned}
\underline{A} &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), \\
B &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), \\
C &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)),
\end{aligned}$$

(2) We isolate A by shutting $A \nleftrightarrow B$ and $A \nleftrightarrow C$.
(3) Propose 10-commands to A.

$$\begin{aligned}
A &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), \\
&\quad \mathrm{log} = (\mathit{curT}(2), \mathrm{c}_1), (\mathit{curT}(2), \mathrm{c}_2), \dots, (\mathit{curT}(2), \mathrm{c}_{10}) \\
B &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), \\
C &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)).
\end{aligned}$$

(4) Choose B as the new leader.

$$\begin{aligned}
A &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), \\
&\quad \mathrm{log} = \mathrm{c}_1, \mathrm{c}_2, \dots, \mathrm{c}_{10} \\
\underline{B} &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), (\mathit{prevT}(4), \mathit{idx}(2)) \\
C &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)).(\mathit{prevT}(4), \mathit{idx}(2))
\end{aligned}$$

(5) Take a snapshot in B.

$$\begin{aligned}
A &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), \\
&\quad \mathrm{log} = \mathrm{c}_1, \mathrm{c}_2, \dots, \mathrm{c}_{10} \\
\underline{B} &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1))(\mathit{prevT}(4), \mathit{idx}(2)) \\
&\quad \mathrm{snapshot} = (\mathit{prevT}(4), \mathit{idx}(2)) \\
C &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1))(\mathit{prevT}(4), \mathit{idx}(2))
\end{aligned}$$

(6) We make A alive ($A \leftrightarrow B$ and $A \leftrightarrow C$).
(7) Send a heartbeat from B to A.

$$\begin{aligned}
A &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1)), \\
&\quad \mathrm{snapshot} = (\mathit{prevT}(4), \mathit{idx}(2)) \| \mathrm{log} = \mathrm{c}_1, \mathrm{c}_2, \dots, \mathrm{c}_{10} \\
\underline{B} &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1))(\mathit{prevT}(4), \mathit{idx}(2)) \| \\
&\quad \mathrm{snapshot} = (\mathit{prevT}(4), \mathit{idx}(2)) \\
C &: (\mathit{prevT}(0), \mathit{idx}(0))(\mathit{prevT}(2), \mathit{idx}(1))(\mathit{prevT}(4), \mathit{idx}(2))
\end{aligned}$$

(8) Reboot A

```
thread 'main' panicked at 'called `Result::unwrap()`
on an `Err` value: Error(TrackableError {
kind: Other, cause: Some(Cause("assertion failed:
`self.last_record().head.prev_term < tail.prev_term`;
last_record.head=LogPosition { prev_term: Term(4), index: LogIndex(2) },
tail=LogPosition { prev_term: Term(2), index: LogIndex(3) }")),

history: History([
Location { module_path: "raftlog::log::history", file: "src/log/history.rs",line: 189, mo
Location { module_path: "raftlog::node_state::common", file: "src/node_state/common/mod.r
Location { module_path: "raftlog::node_state::loader", file: "src/node_state/loader.rs",
Location { module_path: "raftlog::node_state", file: "src/node_state/mod.rs", line: 153,
Location { module_path: "raftlog::replicated_log", file: "src/replicated_log.rs", line: 3
src/main.rs:542:55
note: run with `RUST_BACKTRACE=1` environment variable to display a backtrace
```