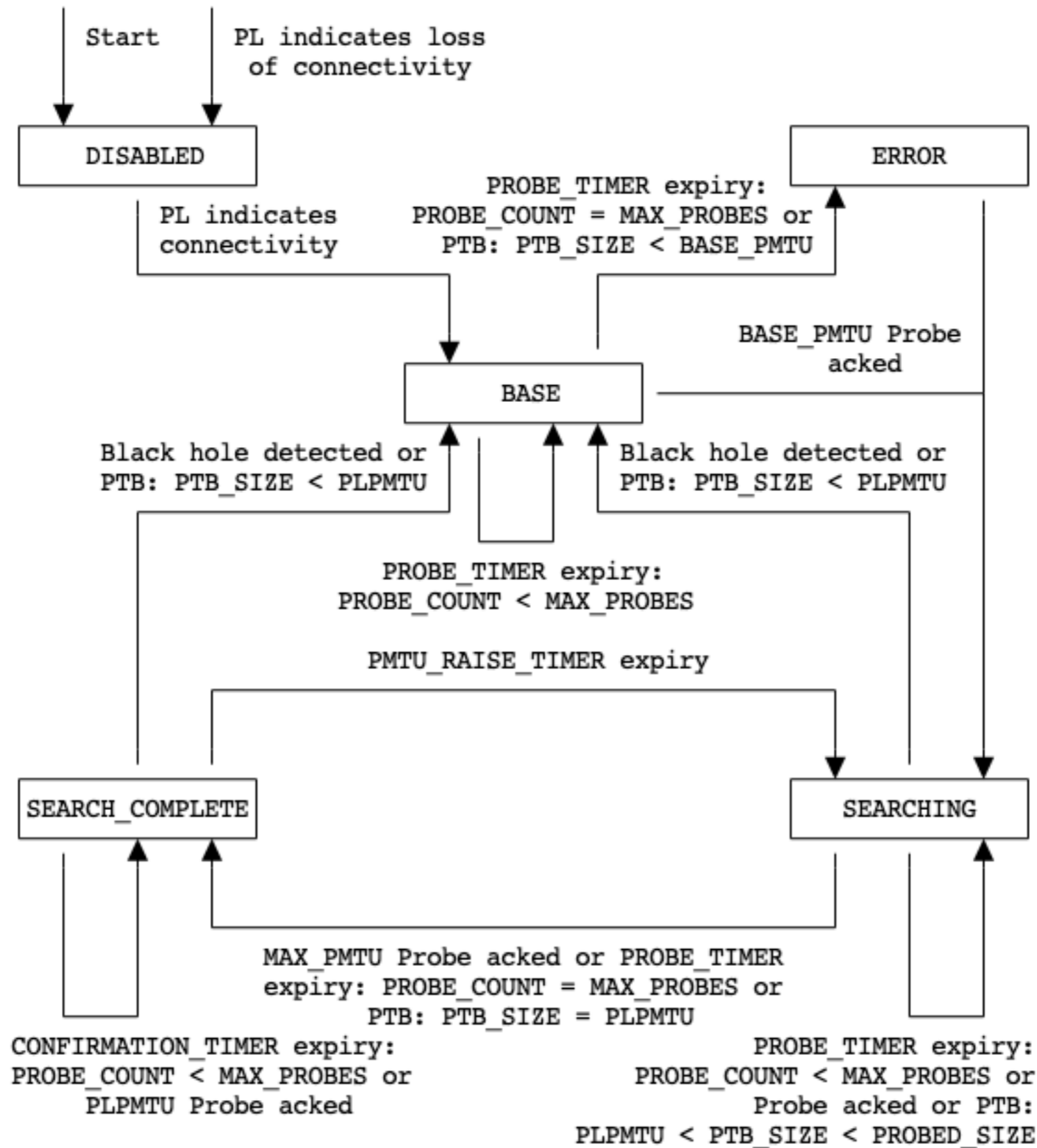


DPLPMTUD for SCTP on FreeBSD

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What Implementation is this?

- One codebase for FreeBSD kernel and user space SCTP (usrstcp)
- In most WebRTC implementations
- supports
 - SCTP IPv4 / IPv6
 - SCTP/UDP (not yet tested)
 - SCTP/DTLS (not yet tested)

Where we started

- Initial DPLPMTUD implementation for usersctpd / FreeBSD by Irene Rüngeler
- Done for usersctpd 1.5 years ago
- Based on first version of draft

What did we do

- Merged with current version and got it working in FreeBSD kernel
- Updated to -09 draft version
 - Tracking updates to draft
- Fixed some bugs

Considerations for Implementors

- Semantics of MTU changes
 - in PMTUD it can only shrink
- Impact of DPLPMTUD probes on Congestion Control
 - Probes are rate limited, not congestion controlled
- Impact on RTT measurements
 - Possible bug, interactions with when to measure

Things still to do

- Fix some variable names to be fully draft compliant
- Test with IPv6
- Fix usrsctp on all platforms supported
- automated MTU tests required

- Get code at:
 - usrsctp: <https://github.com/juliusf/usrsctp>
 - freebsd: <https://github.com/juliusf/freebsd/tree/jwf/sctpmtud>