PCEP over QUIC

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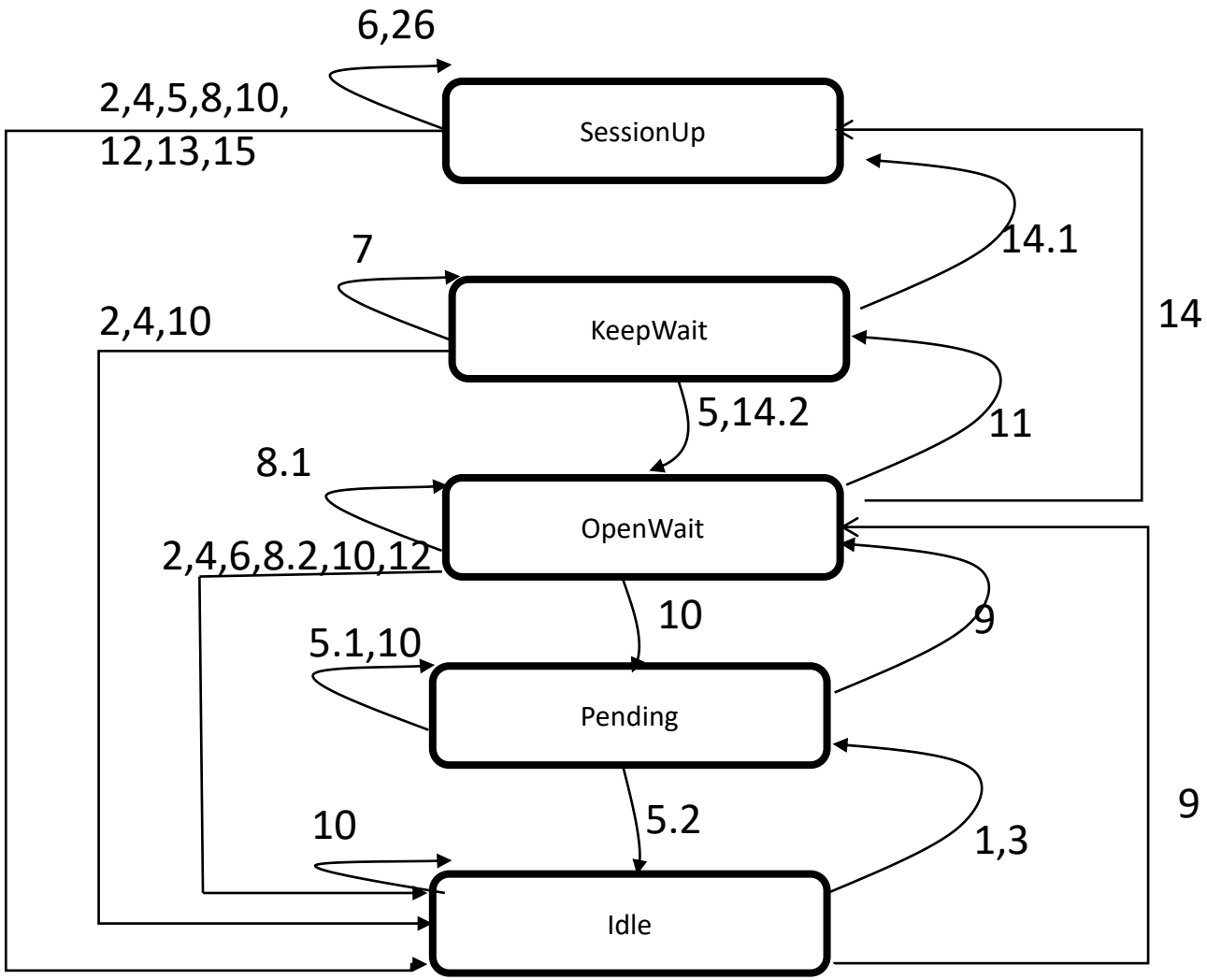
Why PCEP over QUIC

- **Improve security**: QUIC integrates TLS, providing improved security and privacy for PCEP transmissions.
- **Service migration:** smoothly enable new type of capability, e.g. enable SRv6 in an existing MPLS network will not tear down the PCEP.
- **Eliminate cross-talk**: Dedicated channel for control messages (open and keepalive) and tunnel (SRv6, RSVP, SR-MPLS) state synchronization.
- **“Duplex” rcv/snd:** Simultaneously perform receive and send.

Draft update

- Revise the document according to IETF-121 recommendations.
- Updated the QUIC stream splitting mechanism to distinguish between control and data channels. Keepalive and open messages are in control channel.
- Data channels are further distinguished by PCC-send、 PCE-send、PCC-Receive、PCE-Receive.
- Channels are split further based on the type of tunnel, differentiating streams by RSVN/SR-MPLS/SRv6.

PCEPoQ FSM



Administrative Events:

Event 1: ManualStart
Event 2: ManualStop
Event 3: AutomaticStart
Event 4: AutomaticStop

Timer Events:

Event 5: ConnectRetryTimer_Expires
Event 6: KeepAliveTimer_Expires
Event 7: KeepWaitTimer_Expires
Event 8: OpenWaitTimer_Expires

QUIC Connection-Based Events:

Event 9: QuicEstablishment
Event 10: QuicConnectionFails

PCEPoQ Message-Based Events:

Event 11: PCEPOpen
Event 12: PCEPOpenMsgErr
Event 13: NotifMsg
Event 14: KeepAliveMsg
Event 15: PcErrMsg

Next Steps

- Any questions or comments are Welcomed
- Seeking for feedback

THANKS