

SessionDescription accessors



Previous situation

- **pc.localDescription** returns the
 - *current description* for the stable state
 - *pending description* once setLocal has been called (the have-local-offer state)
- **pc.remoteDescription** returns the
 - *current description* for the stable state
 - *pending description* once setRemote has been called (the have-remote-offer state)
- No way to see current/pending simultaneously
 - e.g. to understand the impact of a rollback

Recent changes (PR #225)

Add

- `.currentLocalDescription` // current (stable) local desc
- `.pendingLocalDescription` // proposed local desc (offer)
- `.currentRemoteDescription` // current (stable) remote desc
- `.pendingRemoteDescription` // proposed remote desc (offer)

`.localDescription/.remoteDescription` remain, but are now superfluous:

```
.localDescription = (.pending) ? .pending : .current;
```

Full details

- *offerer*: `setLocal(desc)` updates `.pendingLocalDesc` to be `(desc)`.
- *offerer*: `setLocal(rollback)` updates `.pendingLocalDesc` to be `NULL`.
- *answerer*: `setRemote(desc)` updates `.pendingRemoteDesc` to be `(desc)`.
- *answerer*: `setRemote(rollback)` updates `.pendingRemoteDesc` to `NULL`.
- *answerer*: `setLocal(desc)` updates `.currentLocalDesc` to `(desc)`,
`.currentRemoteDesc` to `.pendingRemoteDesc`, `.pendingRemoteDesc` to `NULL`.
- *offerer*: `setRemote(desc)` updates `.currentRemoteDesc` to `(desc)`,
`.currentLocalDesc` to `.pendingLocalDesc`, `.pendingLocalDesc` to `NULL`.

Alternative proposal

Add

- `.stableLocalDescription` // current local desc
- `.stableRemoteDescription` // current remote desc

`.localDescription` and `.remoteDescription` stay as "last-set" description, but may be either 'current' or 'pending'.

In stable state, `.xXXXDescription` `===` `.stableXXXDescription`

Pros/Cons

- PR #225 has
 - Clear separation of current vs pending states
 - No redundant data (.pending is NULL during stable state)
 - but, 4 new methods (pending/current/local/remote)
- Alternative approach
 - only 2 new methods (stable local/remote)
 - local/remoteDesc represent 'last-set'; sometimes pending, sometimes current
 - Redundant data (.localDesc === .stableLocalDesc during stable state)