

# 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` === `.stableXXXXDescription`

# 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)