TURN Changes

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Summary of Changes

- Changes based on "TURN major issues" email

- Other changes
  - Reorganized flow / outline of document
  - Made error messages sane. Added capacity/quota errors
  - Defined the connect-stat attribute (mentioned in text)
  - Added specific port to requested-port-props attribute
  - Pad DATA attribute to 4 octet boundary

Terminology, What opens Permissions (1,2)

- "Binding" term used only for bindings on real NATs

- Allocations have zero or more "permissions"

- Permissions can be created by:
  - Send over UDP
  - Connect over TCP or TLS
  - SetActiveDestination over any transport

- Realized that SetActiveDestination should create permission if one does not exist. Over UDP, can't tell if Send created a permission because there is no response to Send.

Changing Active Destination (3)

- Changing the active destination from one source to another over UDP causes a race condition

- Removed state machine and server timer. Responsibility is entirely on client

- Client has to clear the active destination, wait several secs, then set

TCP and simultaneous open (4)

- Clarify that when TURN server receives a Connect Request it needs to also listen on same port.

- Mention that implementer can use SO-REUSEADDR if using Berkeley sockets.

Need to Fix

- Clarify that TURN server acts like an address restricted NAT, not port restricted
- Expansion of "STUN" acronym is wrong
- TURN indications numbers need to be 0x4,0x5,0x6
- Lots of small text changes
- Cleanup of Security Considerations