TURN Changes

Rohan Mahy

rohan@ekabal.com
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