P2PSIP Concepts and Terminology

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Changes This Rev

- New Abstract
- Cleanup of language and examples.
- Show Peer Protocol in Ref. Model
- Narrowing scope to track consensus.
- Making the unresolved more apparent.
- Got stuck on the Peer/Client divide.

Function vs Service

- Function is something done by the overlay as a whole, such as “a distributed registrar function”.
- Service is a capability provided by a peer to the overlay such as “STUN”
- Changed definitions throughout to match

Potential Services?

1. STUN
2. STUN Relay
3. P2P Message Relay
4. Contact/Route Storage
5. SIP Proxy Service
6. VoiceMail Storage
7. Arbitrary Object Storage
8. MSRP Relay
9. HTTP Caching
10. Searching

Failed to Soften the Client/Peer Divide

- Classify peers by how "contributory" they are.
- Some peers would contribute more, some less.
- Some peers might vary their contribution based on current conditions.
- Peers that contribute minimally are essentially the same thing as "clients".

Things I've Heard

- DHTs require all peers act to maintain the DHT, including storing stuff on behalf of DHT
- We assume peers never run out of storage capacity. It just can't happen.
- We need something that isn't a peer and isn't a plain SIP UA.
- The government is your friend, and income tax rates will never exceed 3% APR.

Peer Review

1. What, if any, services MUST a peer provide to the overlay in order to be a real peer and not some kind of "client"?
2. Is there a fundamental difference between storing contact info for a client and storing anything else?
3. What happens when a peer (perhaps one supporting only the minimal set of services in #1 above) gets overloaded? Does it cease to be a peer? Does it crash? Does it break the overlay?

Peer Services

1. Can a peer offer services that it isn't required to offer?
2. What non-required services might a peer offer?
3. If we have non-required services how do we go about finding out which services a peer offers, or what peers offer a given service?
4. How do we find the peer most efficiently positioned to provide a service we're looking for? Do we even need to do this, or can we assume all peers are equiefficient in service delivery?

Client Quirks

- If a Server with No Services is Different than a Client, and a Client is different from a SIP UA, WHAT IS A CLIENT?
- Do Clients offer Services?
- Maybe we're dividing the two on the wrong axis -- perhaps should have "overlay routing nodes" and "non-overlay-routing nodes".