hi Matt,
I'm not sure if you have other agenda topics for the P1722.1 phone call Monday, but I'm glad to talk over the attached proposal for DNS-SD records if that would help. I've incorporated Girault's suggestion for a bit-map of Talker/Listener capabilities. While that's admirably compact, it would be good to understand how the browser knows the secret decoder chart for the bit-map.
Let me know if there are comments,
/guy

The SRV Record simply identifies the host name of a device that can serve 1722. We'd change tcp to udp should the enumeration protocol use udp, and insert the appropriate port number:

```
_p1722._tcp.example.com 86400 IN SRV 0 5 xxxx example.com
```

The TXT record would give information that would either enable access to the enumeration service (which is not DNS-SD itself, of course) or information that would be helpful in a DNS-SD browser, assisting a person in understanding what's on the network.
Since we're not managing streams through DNS-SD, there is not any useful stream-specific information that can go into the TXT record.

Here's a guess of what we might put in a TXT Record.

We should note that the TXT record is more-or-less static, that is, it doesn't represent current status of the device, it indicates device capability. So the TXT record may indicate a device that is capable of Talking at three different bit rates, but that doesn't mean it's currently talking at all.

I'm including three version-numbers...
- the Text Record version number (as Stuart Cheshire suggests),
- the version of the enumeration protocol that would be used to learn about streams (I have that down as 1722.1 version)
- and the version of 1722 streaming. This could be learned through the enumeration protocol, but it might save steps to know in advance.

- I've added a “UserName” field, which displays the user-provided name for the device (discussion on what happens with this name is not unique would be helpful)

Then I'm including records to identify the capabilities of the device/service.
- Talker and Listener Capabilities. Each key may have an associated bit field that
gives summary capabilities (see note later).
- then some kind of functional designation, ie, speaker, amp, mixer, effects-box, video camera, etc. I'd assume this key would be helpful in organizing the list of AVB-capable devices in a browser, but probably does not have an impact on the way a call is set up.
- and we probably want a Make and Model designation, again for browsing what's on the network. We could also use some kind of formal organizational identifier number in addition to the human-readable Maker's name so that manufacturers could reliably find their own devices.

In the example below, only one of the names listed in braces would actually be present.

```
TxTVers=1.1
1722Vers=1.0
1722.1Vers=1.0
UserName=Front-Left-14

ListenerCap=0x31
TalkerCap=0x31
Maker={Adamson, Avid, Apple, Harman, …} [and a thousand others]
MakerOUI={a number unique to each manufacturer}
Device={Mixer, Speaker, FX, Preamp, Amplifier, MediaPlayer, Camera, Display} [and a thousand other choices]
Model={Crown-MA-9000i, …}
```

Listener and Talker capabilities are coded as bit-maps to save space. If the field is zero, or not present, the device cannot function as talker or listener, while a non-zero value indicates that the device has some capability as either talker or listener.

- 0x01 in TalkerCap indicates the device can be a talker, in ListenerCap, indicates the device can listen
- 0x02 supports audio AM824 with coding rate of 44.1
- 0x04 supports audio AM824 with coding rate of 48 khz
- 0x08 supports audio AM824 with coding rate of 96 khz
- 0x10 supports audio AM824 with coding rate of 192 khz
- 0x20 supports xx video

... etc ..