Constraints draft-burnett-rtcweb-constraints-registry-02

Dan Burnett IETF-85

First, some background on constraints

Constraints are

- A cross between preferences and settings
- Useful for selection/configuration when
 - Settings not appropriate, e.g.,
 - Privacy reasons
 - Authors "just want something good enough"
 - Preferences are insufficient because
 - Some criteria are crucial, or
 - Certain criteria are more important than others

Constraints are

- Used in WebRTC by
 - getUserMedia() for selection of MediaStreamTracks
 - RTCPeerConnection.addStream() for configuring streams about to be sent over a PeerConnection
 - Possibly a new runtime config API
- Defined in
 - Media Capture and Streams spec
 - WebRTC spec

Example

```
{video:{
    mandatory:{
      minAspectRatio:1.3333,
      maxAspectRatio:1.3333},
    optional:{
      [{minWidth:1024},
      {maxHeight:1440}]}},
   audio:true}
```

Constraints are

- Media type specific (possibly also non-media)
- Mandatory or prioritized optional

- (video) minWidth, maxWidth, minAspectRatio
- (PeerConnection) enumOfferToReceiveVideo

And now, the registry

Proposed registry: "RTCWeb Media Constraints"

- Policy: Spec. req'd with expert review
- Each entry consists of
 - Name
 - Prefix of "min", "max", "enum"
 - Then camel case alphadigits
 - Media Type
 - One of "audio", "video", or "RTCPeerConnection"
 - Reference (or list of references)
- Draft defines min, max, enum

Known open issues

- May need to change/enlarge list of "media types"
- May decide to pull min/max/enum out of name
- May decide to remove "RTCWeb" from registry name
- May decide to remove "Media" from registry name

Now what?/Discussion

- How should this progress?
 - Individual draft
 - Working Group draft
- Any Other Comments?