SDPng Update

draft-ietf-mmusic-sdpng-08.txt

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Recap: SDPng Objectives (1)

- **Extensible description language for multimedia sessions**
  - **IETF session model**
  - **Different application scenarios**
    - **Broadcast (SAP, IMG)**
    - **Bi-directional session initiation (SIP)**
    - **Streaming (RTSP)**
    - **Others**
  - **Application independence**
    - **Application semantics and vocabulary not fixed in base spec.**
    - **SDPng defines base types and fundamental processing model**

Recap: SDPng Objectives (2)

- **Better support for capability negotiation**
  - **Feature independent processing**
  - **Well-defined data model**
  - **Separation of capabilities from configuration specifications**
    - **Facilitate feature matching**

SDPng Structure

Capabilities	List of capabilities as XML elements. Only these are are processed by capability negotiation.
Definitions	Define commonly used parameters for later referencing.
Session Configurations	Actual configurations as alternatives for each component.
Constraints	Reference configurations and express constraints on combinations
Session-Level Info	Elements for meta information on individual applications (i.e., streams, sessions), referencing configuration definitions.

Sample Fragment

```
<cap>
  <audio:codec name="avp:pcmu"> […] </audio:codec>
  <rtp:udp name="rtpudpip6"> […] </rtp:udp>
</cap>

<def>
 <rtp:udp name="rtp-cfg1">
   <rtp:ip-addr>::1</rtp:ip-addr>
   <rtp:rtp-port>9456</rtp:rtp-port>
 </rtp:udp>
</def>

<cfg>
  <component name="interactive-audio" media="audio">
    <alt name"alt1">
      <audio:codec ref="avp:pcmu"/>
      <rtp:udp ref="rtp-cfg1"/>
    </alt>
  </component>
</cfg>
```

Things not in SDPng

- **Application-specific vocabulary**
  - **Codecs, transport protocols**
- **Application semantics**
  - **Semantics of descriptions, combinations of descriptions MUST be specified outside of SDPng**
- **Vocabulary for expressing constraints across multiple configurations**
  - **Too specific for base spec.**
- **Vocabulary for meta information**
  - **Again, application specific**

Changes in sdpng-08 (1)

- **Clarified scope**
  - **More focus on broadcast application (SAP, IMG)**
  - **Capability negotiation OPTIONAL**
    - **Element `cap` OPTIONAL**
    - **Negotiation process not specified in base spec (not needed for many applications)**
  - **Description of usage in different scenarios**
    - **Broadcast/announcement**
    - **Streaming**
    - **Two-way session setup**
    - **Multi-party conferencing with negotiation**

Changes in sdpng-08 (2)

- **Attribute `status` for `component` Elements**
  - `active/inactive` for (de)-activating specific application sessions
- **Child Element `part` for `info` element**
  - Allows for encapsulating arbitrary meta description formats

```
<info>
  <part type="application/sdp">
      o=jdoe 2890844526 2890842807 IN IP4 10.47.16.5
      s=SDP Seminar
      i=A Seminar on the session description protocol
      u=http://www.example.com/seminars/sdp.pdf
      e=j.doe@example.com (Jane Doe)
      t=2873397496 2873404696
  </part>
</info>
```

Open Issues

- **Attribute `status` for `component` Elements currently overloaded (`active/inactive` and directionality)**
  - Directionality attribute to be moved to RTP package
- **IANA considerations**
  - Registry for package definitions
- **Finalize XML-Schema and DTD definitions**
- **Fix examples**
- **Clean up model descriptions**
- **The name…?**

Next steps

- **Fix remaining bugs**

- **Next rev in April**

- **Review now**

- **WGLC before IETF-63**

- **Package definitions**
  - **RTP**
  - **Security (key management)**
  - **Meta description**