

SDPng Update

draft-ietf-mmusic-sdpng-05.txt

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Overview

- **Changes in -05**
- **Open Issues**
- **Next steps**

Overview of Changes in -05

- **Consolidation and simplification**
 - Removed introductory and motivation sections
 - Moved examples to appendix
 - Moved profile definitions to appendices
- **Simplification**
 - Unification of reference mechanisms
 - Only one reference scheme
 - Easier to process by applications
- **SDPng XML-Schema updates**

Internal References

- **Used to have different mechanisms for referencing**
 - `sdpng`: use element type for referencing definitions
 - **Profile-specific attribute for referencing**
 - `ref` attribute of element type `audio:codec`
 - `format` attribute of element type `rtp:pt`
- **New solution:**
 - **General attribute `ref` for elements that should be referenced**

Reference Example (1)

Audio codec definition inline:

```
<rtp:pt name="rtp-avp-0" pt="0" >  
  <audio:codec name="audio-basic" encoding="PCMU"  
    sampling="8000" channels="1"/>  
</rtp:pt>
```

Audio codec definition by reference:

```
<rtp:pt name="rtp-avp-0" pt="0" >  
  <audio:codec ref="audio-basic"/>  
</rtp:pt>
```

Reference Example (2)

Adding/overwriting properties:

```
<rtp:pt name="stereo" pt="98" >  
  <audio:codec ref="audio-basic"  
    name="audio-basic-stereo" channels="2" />  
</rtp:pt>
```

Internal References

- **Formal definition**
 - `ref` is optional attribute of the base type `Definition`
 - All element types that are derived from `Definition` provide the referencing feature
- **Removed features**
 - Grouping definitions with the `group` element
 - Adding properties with the `prop` element
 - Most of the functionality can be achieved with the `ref` attribute.

Issue for References

- **Augmenting and changing referenced definitions**
 - **Currently we can provide new values for attributes only**
 - **Changing of element content also required?**
 - **More demanding for implementations**
 - **Unclear semantics for overwriting a (partially) existing element tree**
 - **Proposal: Restrict extension to attributes**

SDPng XML Schema

- **Changes**
 - Adopted to the new referencing mechanism
 - Bug fixes, changed some GIs
- **XML Schema vs. other schema definition mechanisms**
 - XML Schema not the most popular example of the KISS paradigm...
 - Other alternatives have been considered
 - **Proposal: stick to XML Schema**

Profiles

- **Previous draft version contained sample definitions of two profiles**
 - **Audio codec profile**
 - **With definitions of the RTP AVP codecs**
 - **RTP profile**
 - **Used to define RTP payload types and to specify transport parameters**
- **Will be published as separate documents**
 - **Moved to appendix in –05**
 - **Not yet complete**

Future Work on Profiles

- **Probably need guidelines document for profile writers**
 - Will provide text
 - Could also be integrated into base spec
- **Contributions on other profiles solicited**
 - Complete RTP profile
 - Video codec profile(s)
 - Meta-Information
 - SDPng base spec currently covers SDP's data model
 - QoS (user perceived QoS) profiles are under construction

Remaining Issues

- **Capability negotiation**
 - **Work in progress**
- **Requirements for using external definitions**
 - **More implementation experience required!**

Next Steps

- **Provide guidelines for profile authors**
- **Re-submit SDPng base spec**
 - **Remove profiles etc.**
- **Submit individual profile drafts**