

Mbus Update

draft-ietf-mmusic-mbus-transport-02.txt

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<http://www.dmn.tzi.org/ietf/mmusic/mbus/>

Quick Reminder

- Local coordination mechanism
- Specification split into three pieces
 - Requirements overview
 - Definition of the “transport protocol”
 - message syntax, addressing, local multicast, reliability, authentication, ...
 - Definition of the message semantics
 - call-control, media tools related commands

Overview of Changes in draft-ietf-mmusic-mbus-transport-02

- Bug-fixes
 - message syntax ABNF
 - minor corrections and clarifications
- new section „Awareness of other Entities“
 - explicit specification of requirements for implementations
 - new algorithm for **mbus. hello** timer calculation
deploying timer reconsideration

Mbus Entity Awareness

- General idea:
 - Each Mbus entity sends periodic heartbeat messages (`mbus.hello`)
 - Received hello-messages are used
 - to learn of the existence of other entities on startup (bootstrapping)
 - to track the aliveness of entities

mbus.hello

- Fixed timer interval changed to dynamically adapted intervals
 - Scales according to number of entities
 - Number of `mbus.hello` received by an entity per time unit remains ~constant.
 - Deploys RTCP-like timer reconsideration mechanism to adapt to rapidly changing group size
 - Simpler than RTCP's interval calculation because bandwidth fraction and sender vs. receiver is less important.
 - Uses randomization in order to avoid synchronization.

mbus.ping

- Problem:
 - Increased timer intervals in larger groups can prolong bootstrapping phase.
- Solution:
 - New command **mbus. ping**
 - query for the existence of other entities
 - learn their fully qualified Mbus addresses.
- Example:
 - “Where’s the audio engine (if any)?”:
 - Send a **mbus. ping** to (**media: audio**).
 - Entities with matching addresses respond with **mbus. hello**.
 - Entity learns requested Mbus addresses

Next steps

- Mbus-transport considered virtually stable
 - No further features/changes planned
 - Specification of behavior in the absence of Multicast could be useful.
 - Support for simple devices
- One more draft submission before WG-last-call?

Semantic specifications

- Specify the usage of Mbus transport services in specific application areas
 - Definition of address classes, commands and semantics
- Intended as Informational RFCs
- Currently:
 - [draft-ott-mmusic-mbus-semantics-00.txt](#)
 - Commands for media engines and call-control
 - Has not been re-submitted yet

Semantic specifications

- Plan:
 - Split-up specification into individual parts
 - Provide informational guidelines document for writing semantic specifications (work in progress)
- Issue:
 - Which other command classes to go for?

Other Issues

- Connecting physically separated Mbus domains
 - Independent of base spec.?
- Simple devices
 - Mbus bootstrapping
 - How to obtain Mbus configuration parameters?
 - Allowing for Broadcast instead of Multicast?

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