

# Mbus Update

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

Jörg Ott

Colin Perkins

Dirk Kutscher

jo@tzi.uni-bremen.de

csp@east.isi.edu

dku@tzi.uni-bremen.de

<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-semantic-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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