RTCP Implications for MMUSIC

RTP spec says that RTCP is separable and may be replaced by a higher-layer control protocol. What would be required for a protocol produced by MMUSIC to replace RTCP?

- Functions of RTCP
- Functions attributed in spec to higher-layer protocol
- More sophisticated functions

Functions of RTCP

- Define mapping of “format” values to encodings (FMT)
- Report reception quality (packet loss & delay) (QOS)
- Provide mapping between locally unique source identifiers and participant information (SDES)
  - QOS reports return the globally unique ID
  - Activity indication depends upon text names
- Indicate when a participant leaves (BYE)

Functions Attributed to Control Protocol

- Distribute multicast addresses, ports, channel IDs, TTLs
- Negotiate media encodings and parameters
- Arrange a table specifying keys and the selected encryption and digest algorithms, in common for all sources within one channel
- Profile or control protocol may specify:
  - grouping of channels to be covered by same SDES
  - requirement for timestamps to be synchronized (NTP)

More Sophisticated Functions

- Arrange for bridges and translators to be set up and configured where needed for a particular session
  - Communicate local identifier mapping
  - Set up keys as appropriate
- *It may make sense to still use some parts of RTCP in conjunction with a higher-level control protocol — for example, use SDES to map local identifiers, but use a different kind of unique handle belonging to control protocol*