RFC 2833 bis

draft-ietf-avt-rfc2833bis-08.txt
draft-ietf-avt-rfc2833bisdata-01.txt
draft-ietf-avt-rfc2833biscas-00.txt

Tom Taylor
taylor@nortel.com

Overview of Changes From RFC 2833

- **Split into three documents**
  - **core specification of telephone-event and tone payloads plus DTMF event codes (rfc2833bis)**
  - **modem-related event codes (rfc2833bisdata)**
  - **CAS-related event codes (rfc2833biscas)**

- **New core provisions**
  - **long-duration events**
  - **multiple events per packet**
  - **state events**

- **Many additions to fill in missing details**
  - **for example, mapping of ABCD bits to event codes**

- **Some changes to RFC 2833 procedures**
  - **no longer required to support DTMF**
  - **receiver MUST indicate what events are supported**
  - **volume applicable to tone events other than DTMF**

- **IANA registry established for event codes**

Changes for Modem-Related Events

- **Reorganized by source standard**
  - **added more description to put events into context**

- **Added event codes**
  - **53 = CI**
  - **54 = T.30 preamble flag**
  - **52 = ANS2225 for text telephony**
  - **55-61 provide a set of indicators for text telephony or general VBD**

Changes for CAS-related events

- **Added signalling systems**
  - **SS No. 5**
  - **R2**

- **Revoked a number of event code assignments**
  - **143 = MF S3**
  - **160 = Wink**
  - **161 = Wink off**
  - **162 = Incoming seizure**
  - **163 = Seizure**
  - **164 = Unseize circuit**
  - **165 = Continuity test**
  - **166 = Default continuity tone**
  - **170 = Continuity verified**
  - **171 = Loopback**
  - **172 = Old milliwatt tone (1000 Hz)**
  - **173 = New milliwatt tone (1004 Hz)**

- **All line signalling now mapped to ABCD event codes**
  - **different mapping for each signalling system**

Changes for CAS-Related Events (cont'd)

- **Changed some event code assignments**
  - **138-142 (MF start and stop codes)**
  - **continuity test tones were spread over five codes, now just 167 for check and 168 for verify**

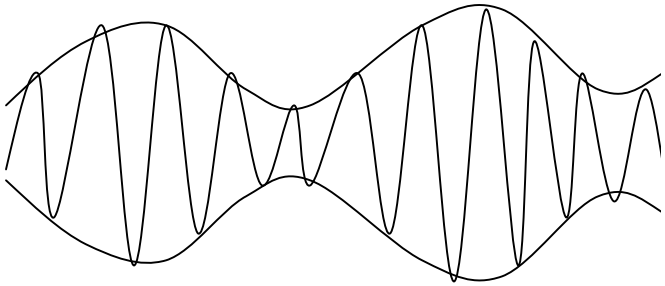
- **New event codes**
  - **174 = metering pulse**
  - **175 = trunk unavailable**
  - **176-205 for R2 register signals (15 forward, 15 backward)**

Open Issues

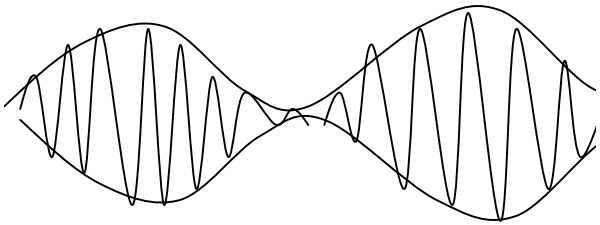
- **Suitability of RFC 2193 for simultaneous transport of VBD as G.711 (e.g.) and modem events (Colin).**
- **Whether tone payload requires at least one frequency, or zero frequencies allowed with interpretation of silence. (Latter recommended.)**
- **How to express amplitude of modulation in tone payload (discussion on next chart).**
- **Assignment of MF start and stop code events 138-142 to match ordering by lower frequency (proposed).**
- **Mapping of A and AB events into full ABCD set. (Recommended that used bits be propagated to unused ones.)**

Specification of Amplitude of Modulation

Currently applies only to ANSam, /ANSam. In RFC 2833, also applied to some subscriber line signals.



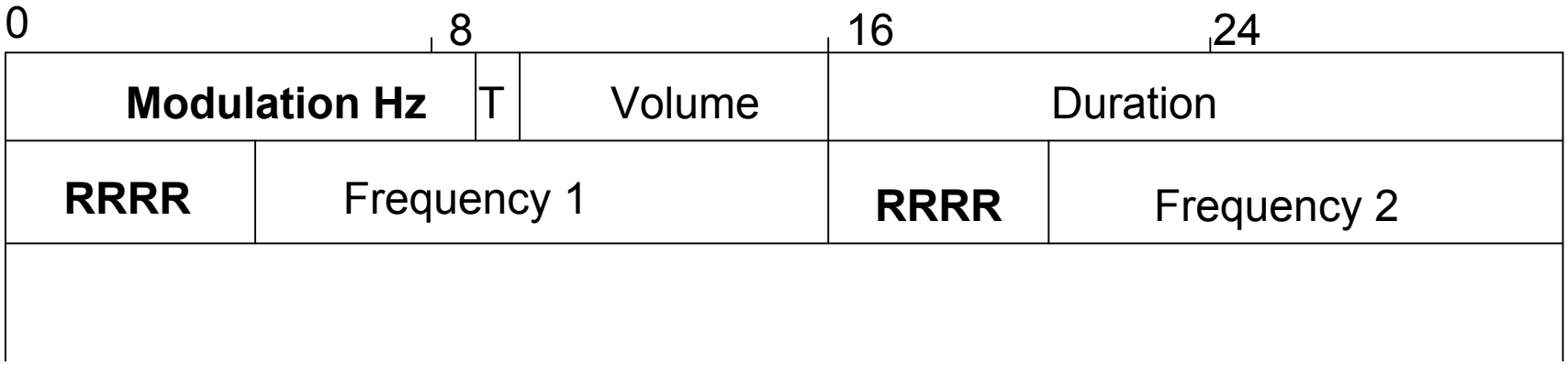
50%



100%

"Modified answer tone ANSam consists of a sinewave signal at 2100 ± 1 Hz with phase reversals at an interval of 450 ± 25 ms, amplitude-modulated by a sinewave at 15 ± 0.1 Hz. The modulated envelope shall range in amplitude between (0.8 ± 0.01) and (1.2 ± 0.01) times its average amplitude." (ITU-T Rec. V.8)

Where Do 7 Bits (for +/- 1%) Come From?



Using R bits is ugly. Maybe we just admit that modulation is not a working part of the payload specification.