

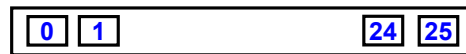
e2.1

Frames, multi-frames and super-frames

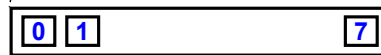
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From frame to multiframe *the traffic channel case*



26-frame multi-frame
120 ms



frame 4.6 ms

- The TCH slot is *stolen* once every multi-frame (in the 12th frame) for the associated channel SACCH
- The TCH slot in the 25th frame is left idle (or is bearing the second SACCH in case of half rate channel)

The traffic channel (TCH) is accommodated according to a multiframe logic composed of 26 frames.

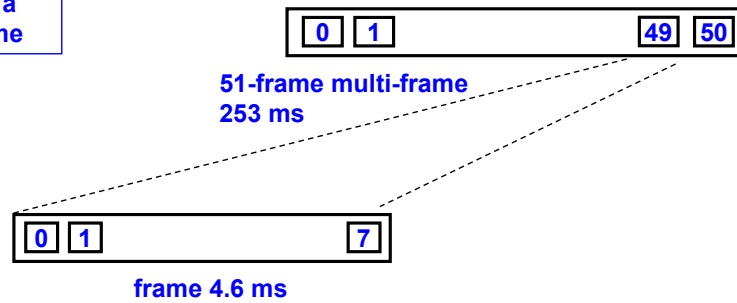
If the channel is dedicated to a full rate voice communication, the slot of the 12th frame is assigned to the communication as associated channel; the slot of the 26th frame is kept free.

If the channel is dedicated to a half rate voice communication, the two communications sharing the same slot use that slot respectively in the 12th frame and in the 26th frame as associated channel.

From frame to multiframe

the signaling channel case

- The multi-frame for signaling channels is a 51 – frames multi-frame



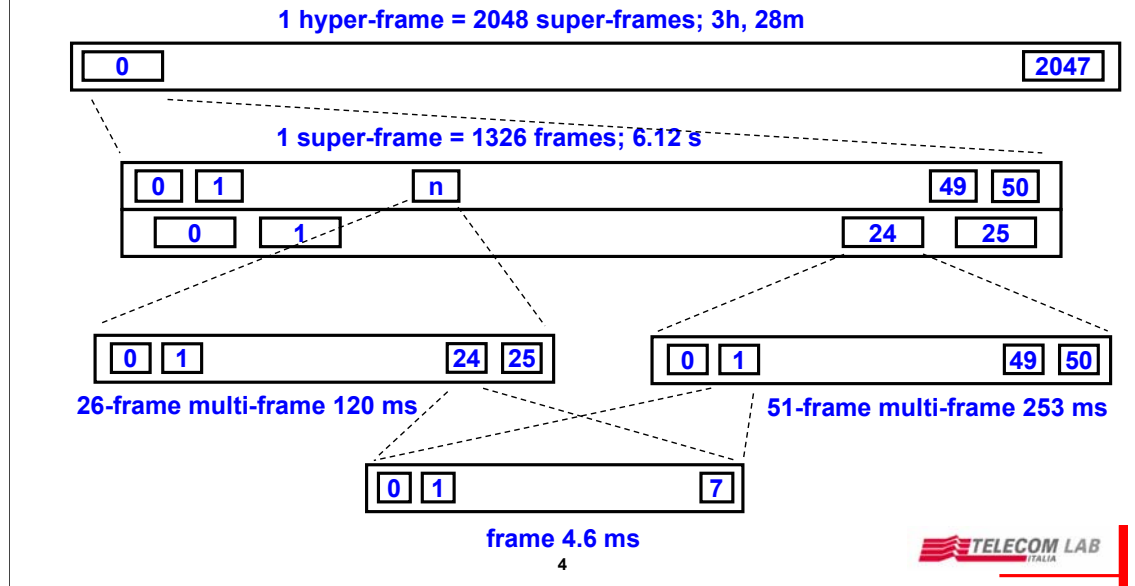
The (logical) channel devoted to signalling are extracted through a multi frame arrangement based on a 51 frame period.

FCCH and SCH channels (always in sequence) are allocate in slots 10-11; 20-21; 30-31 of the multi frame.

The signalling slot of the 51st frame is left free.

From frame to multiframe

recovering the cycle between voice and signaling super-frames



The cyclic order of repetition of the two multi frames composed of 26 and 51 frames respectively is 26x51 frames that means 1326 frames.

The network is following the evolution of frames and multi frames. The number of the current frame is sent to terminals through the Synchronisation Channel (SCH).

Accordingly, the MS is able to understand where the signalling channel are located.