Reliability pitfalls of real-time switching telecommunication software platforms

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Abstract: Reliability has become critical quality attribute in modern software systems. Typically these systems are complex large scale systems involving numerous protocol interactions along its path through the telecommunication network, simultaneously satisfying numerous users and its needs. During decades, telecommunication software developers have struggled with reliability issues and numerous approaches have been proposed to deal with this problem domain. However, most of the knowledge and experiences are still locked within these closed communities. In this talk, we will reminiscence about the software evolution of typical telecommunication switching software platform and lessons learned in evolving this platform into next generation network. We will give an overview of the switching platform, present some use cases along with issues. Moreover, we will present some approaches and standards available for this particular problem domain.