

Chapter 24

Protocol Interactions among User Agents, Application Servers, and Media Servers: Standardization Efforts and Open Issues

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ABSTRACT

In this chapter, the authors focus on the complex interactions involving the various actors participating in a multimedia session over the Internet. More precisely, bearing in mind the current standard proposals coming from both the 3GPP and the IETF, they investigate some of the issues that have to be faced when separation of responsibilities comes to the fore. The scenario the authors analyze is one in which one or more user agents are put into communication with a media server through the mediation of an application server. In such scenario, the application server does play the role of a middlebox for all that concerns signaling, since it is responsible for the transparent negotiation of a session among the entities (the user agents on one side and the media server on the other) that will be exchanging media during the communication phase. In this chapter, the authors highlight that protocol interactions become really complex under the depicted circumstances. They provide a survey of the current standardization efforts related to media control, together with a discussion of open issues and potential solutions.

INTRODUCTION

Recently, advanced services have massively entered the Internet arena pushed by the revolutionary “global” approach envisaging the coexistence of a variegated portfolio of applications on top of an integrated IP-based network. Consequently,

the Internet has become a place where an ever-increasing number of “dependent” or “correlated” transactions take place every day. This unexpected growth of complexity unavoidably unveils a number of less or more subtle issues that have to be faced when looking at the interactions among the various entities involved in the service deliv-

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