

INSE 7110/4
Value Added Services in Next Generation Networks
(Semester long project):
Dial-out Conferencing in Next Generation Networks

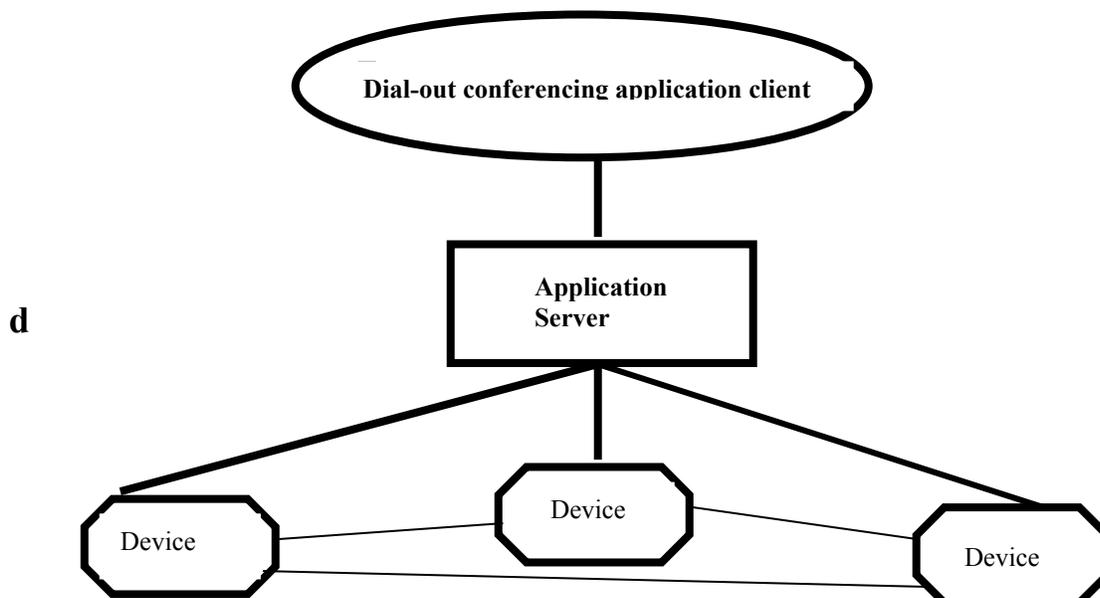
1. Introduction

The main goal of the project is to help the students get a deeper and hands-on understanding of the concepts, principles, and interfaces discussed in the course. covers the three parts of the course (i.e. background, standards architectures or 3G, and emerging/futuristic architectures). It is a team work, and at the end, the students are expected to run a demo and submit a project report.

2. Logistics

- **Teams:** The recommended size is 2 students per team. This corresponds to the scope as per this specification. However, it is possible to have teams of more than 2 students. In that case, depending on the team's size, the lecturer will specify the additional work which needs to be done (e.g. dial-in conferencing in addition to the dial-out conferencing, use of two service provisioning paradigm instead of one)
- **Demo and report:** The demo should be run in one of Concordia's lab. However, it is possible to agree with the lecturer on running in another lab (e.g. LARIM - Polytechnique). The report should have a very maximum of 20 pages and should include the overall architecture, the software architecture and the list of tool kits used in the project.
- **Tool kits:** The tool kits that can be used for this project are all freely available on Internet. No specific tool kit is recommended. It is up to each team to select its own tools.

3. Scope



A dial-out conference is a conference where the participants are called by the conferencing application. The main components of this project are:

- **The client application:** It takes as input the list of participants, interacts with the application server to initiate the conference from both signaling and media handling standpoints.
- **The application server:** It is based on either standard paradigm for next generation networks (e.g. SIP servlet) or an emerging paradigm (e.g. Web services). On one hand it interacts with the application via the interface of the selected paradigm and on the other hand, it interacts with the end-user devices, via the basic signaling protocol. The session initiation protocol (SIP) is recommended as signaling protocol.
- **The end-user devices:** They are the devices used by the end-users to participate in the conference. They support SIP for signaling and RTP/RTCP for media handling.