

draft-miniero-mediactrl-escs-02

Alessandro Amirante
Tobia Castaldi
Lorenzo Miniero
Simon Pietro Romano
(University of Napoli Federico II)

Implementation Details

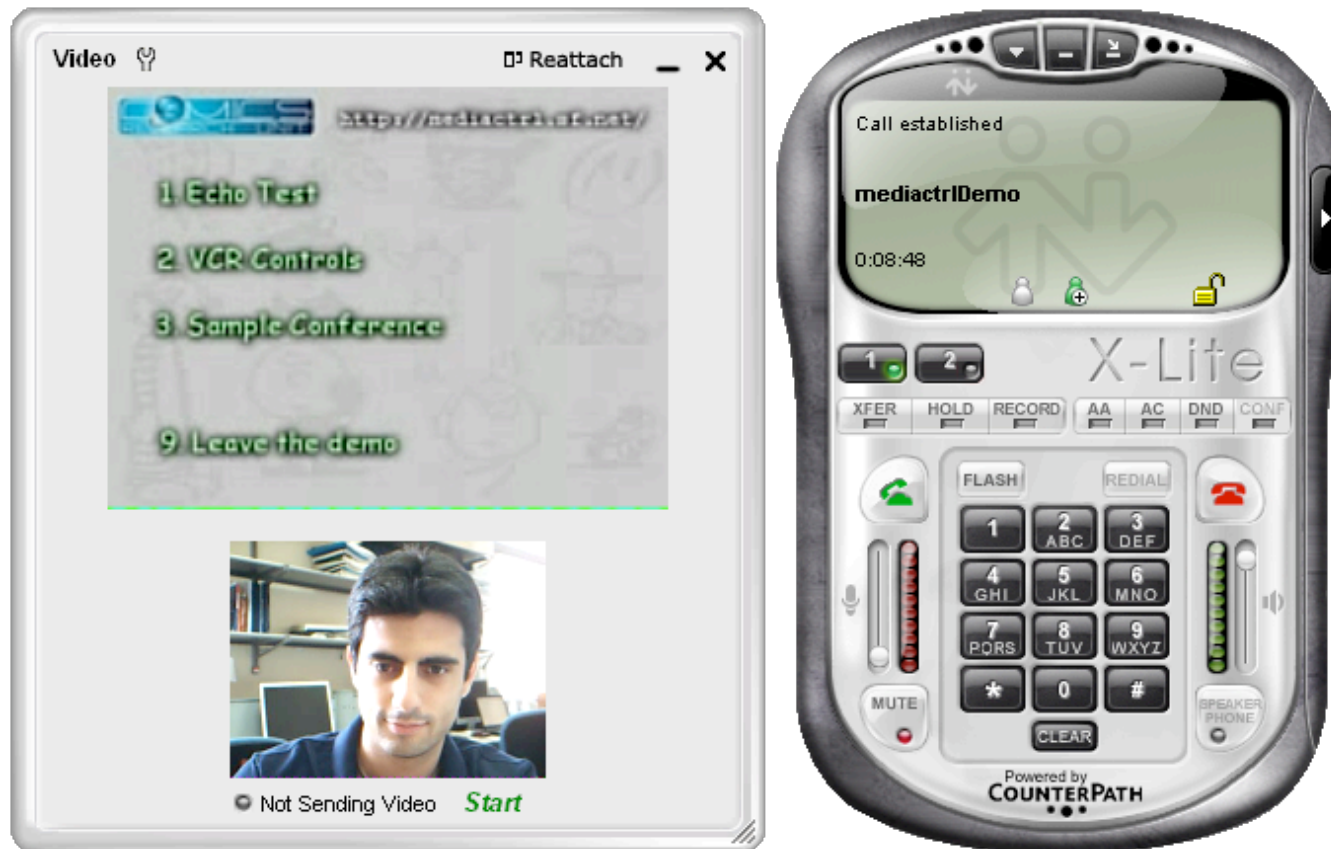
Application Server

- SIP Servlet implementing application logic
 - Successfully deployed in both WeSIP and Sailfin
- C/C++ event-driven application (the latest demo)

Media Server

- C/C++ application written from scratch
- Use of existing open source components to deal with well-known protocols, languages and features
 - reSIProcate (SIP)
 - oRTP (RTP/RTCP)
 - Expat (XML)
 - libCURL (HTTP/FTP)
 - Boost libraries as helpers
 - ffmpeg for video transcoding, etc.

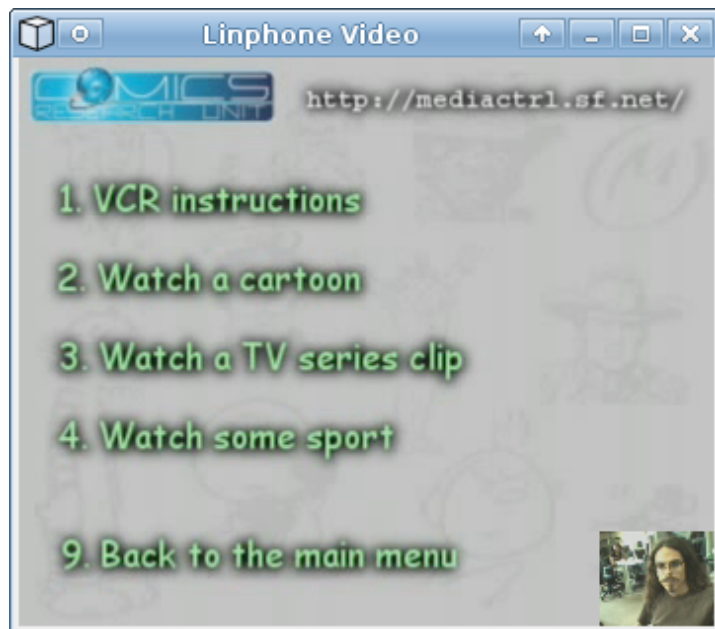
The demo in action



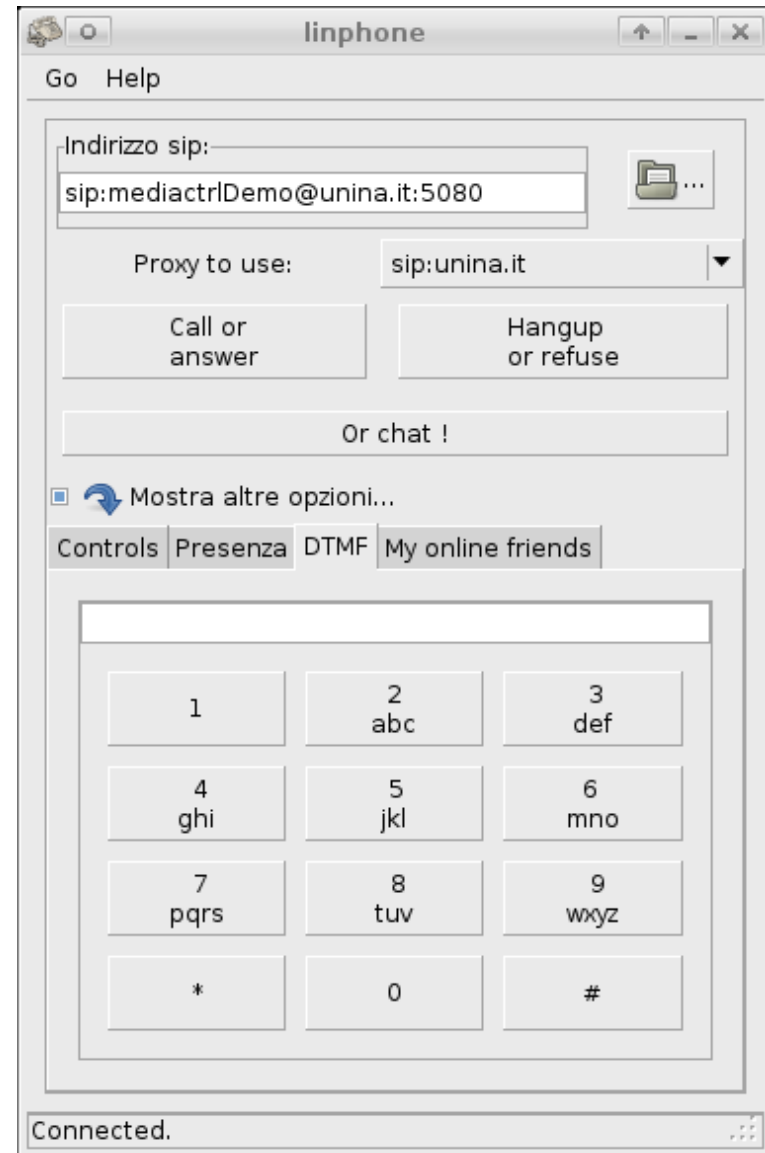
The demo in action



The demo in action



The demo in action



Changes from -01 to -02

- All scenarios and flows have been updated to the latest specifications
 - Reflects changes in the core framework
 - Updated all flows involving IVR
 - Mixer flows will be updated in the next version
- Implementation has been updated
 - All drafts except VoiceXML are implemented
 - Several scenarios can be accomplished
 - ... but something still needs to be fixed

Framework

- Use of error codes is still unclear at times
 - e.g. when is 400 to be used?
 - What should be done with bodyless CONTROL messages? (payload is a MAY in the draft)
- from~to tags to address connections still remain a problem
 - cfw-id issue has been solved (SDP attribute)
- Crash recovery has not been dealt with yet
 - What happens if the AS crashes?
 - And what if it's the MS to crash?

IVR

- repeatCount allows multiple iterations
 - Should the results of each iteration be notified, or only the last?
 - If each, where? All in dialogexit, or mid-dialog events?
 - If repeatCount involves a recording, is the recording overwritten or appended?
 - If appended, should silence be generated during other operations?
- Where and how to place recordings when “dest” is involved is still ambiguous
 - How to deal with file formats with headers? (e.g. wav)
 - What if uploading authorization is requested?
- The dialog model needs clarification
 - Schema says ordering is important
 - Is it also for operations in a requested dialog?

Mixer

- Some potential problems with join/unjoin
 - a~b~c and d~e~f already disconnected
 - Should an unjoin with id1=a~b and id2=d~e fail?
 - An “already unjoined” exception for labels c and f would appear
- XCON Data Model allows custom video layouts per user
 - Mixer draft instead doesn't, is this desired?
 - Custom layout would allow simple “mirror on/off” (unavailable now)
 - Nevertheless, custom layouts eat more resources
- Video layouts envisage a static region mechanism
 - Collisions may happen
 - Rallocation of regions could be hard (e.g. moving all participants to the following region)
 - What about a simpler priority mechanism?
 - Region automatically chosen by the MS
 - But region may also be forced with the current mechanism...
- Voice Activated Switching needs clarification

Discussion

- Framework is improving and is almost done
- Both packages are evolving well
 - Many scenarios achievable
 - Currently, just a few issues
 - Implementation work to verify this is currently in full swing
 - Still some ambiguities in the specification for implementors
- Related to our draft:
 - Please read it and send us comments!
 - We do believe it contains a bunch of useful information
 - Ready to become a WG item? (yeah, again!)

Work in progress in Naples



- Check out our mediactrl site on sourceforge:
 - <http://mediactrl.sourceforge.net/>
- A summary of all our efforts related to mediactrl
 - Media Server implementation & docs
 - Application Server implementation & docs
- Download it, install it and play with it!
 - You won't find the latest stuff yet though...
- Looking for other implementations to come:
 - Interoperability tests @ next IETF?