

MobiCon - Integrated Capture, Annotation and Sharing of Video Clips with Mobile Phones

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VTT promotes the realisation of innovative solutions and new businesses by foreseeing the future needs of its customers already in strategic research.

With its 2,700 employees, VTT is the largest research organization in Northern Europe. VTT's Ventures operation creates profitable and growing technology and wellbeing as well as more effective use of VTT produced Intellectual Property Rights.

PROBLEM

The current generation of mobile phones is equipped with cameras and use high-speed cellular networks, such as WCDMA 3G/UMTS, making mobile video production and sharing available and attractive from the end-user perspective. However, the increasing amount of video clips created and consumed in mobile devices leads to new problems related with a) video organisation, i.e., finding a specific video from vast collection of clips; b) video storage on a mobile device, because of its limited memory capacity; and c) video distribution and sharing without losing control of the content's lifecycle, redistribution and ownership.

INVENTION

VTT has developed a mobile phone-based context-aware video management application, MobiCon, which enhances and eases the management of user created mobile videos.

SOLUTION

User can capture digital video clips using a mobile device, describe clip content with free text entries, previously entered entries, fixed entries and by exploiting capture time data from mobile phone. The user can send the video clip to be stored into a video server along with the metadata descriptions. User can search and play the video clips from server using different terminals. User can also share captured video clips with his friends by choosing them from mobile phone contact list and send notifications to deliver the DRM-protected video clip via video server. The source code is owned by VTT.

BENEFITS

This technology, and the underlying storage and retrieval service, enable the users to manage their mobile created videos more efficiently. The videos are stored on a networked system with high storage capacity. The retrieval process is enhanced with the use of metadata in MPEG7 format describing video content. The technology exploits specific characteristics of mobile phones - in particular the ability to run applications and record video clips, the availability of context data, and access to the Internet from almost anywhere - to integrate traditionally separated home video production and management tasks at the point of video capture. MobiCon assists mobile phone users in capturing home video clips, uses context data after capture to suggest reasonable annotations, supports personalized manual annotations with user-specific home video ontologies and keyword lists, uploads video clips to the users' video collections in a central multimedia database, and facilitates the controlled sharing of clips using OMA.

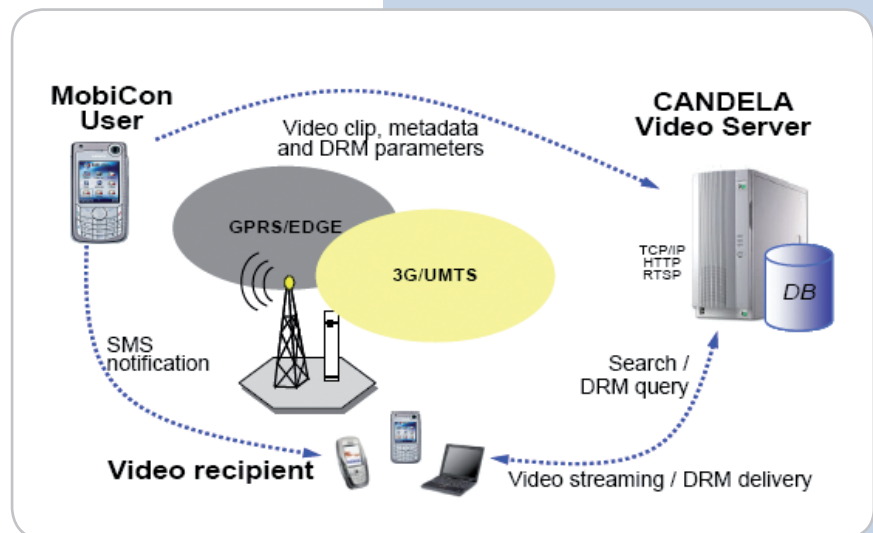
APPLICATIONS

The primary target market for MobiCon is the home video segment, where the user uses MobiCon to capture home video clips and pays e.g. monthly fee for operator or SME, which provides the server side functionalities.

With small modifications MobiCon can be used in different application domains. For example in professional use cases the created data can be any type of multimedia data: voice, still images, video and/or text. Mobicon can be used to create this content and store it to a centralized server for later analysis and use. MobiCon is independent of the underlying server structure and can be integrated to existing networked applications and database solutions.

COMPETITIVE ADVANTAGE

There appears to be no similar solution available combining all the MobiCon features into a single package.



DEPLOYMENT

MobiCon consists of two different software components: the mobile component which is a mobile Java (J2ME) application running on a mobile phone and server component, which is implemented as a Java servlet in a Unix server. The mobile component can be easily delivered and installed to user's device using Over-The-Air (OTA) installation method.

MobiCon can be used with most modern Symbian Series 60 and Series 40 mobile phones (requires camera capability).

VTT is looking for an industrial partner to commercialize the invention.

Contact

Mika Valkeapää
Business Development Manager
P.O.Box 1000
FI-02044 VTT, FINLAND
Tel. +358 20 722 6174
GSM: +358 40 187 9062
Fax: +358 20 722 7090
mika.valkeapaa@vtt.fi

