



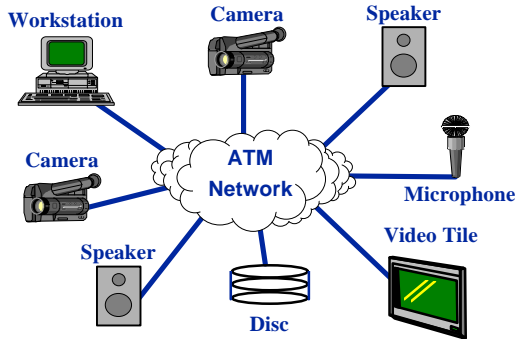
1

The Video Mail Retrieval Project (VMR) is a joint development between Cambridge University Engineering Dept., Cambridge University Computer Lab. and Olivetti Research Limited.

The ORL Medusa system allows recording, storage, and playback of tens of gigabytes of multimedia data. VMR is a step towards retrieval of arbitrary audio/video documents in this environment, where the information content is determined from speech recognition of the soundtrack.

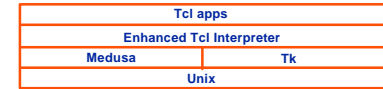
VMR has developed unrestricted word spotting algorithms for use in audio and video document retrieval. Existing text-based information retrieval techniques have been adapted to work effectively on voice data. A practical system has been demonstrated providing video document retrieval using voice.

2

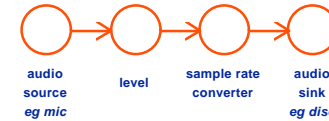


The exploded workstation: connection of Medusa Endpoints to an ATM network

3



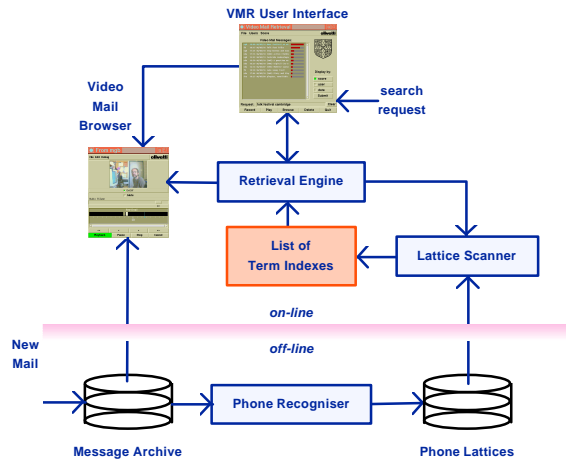
Medusa applications software



Piping multimedia through software modules distributed across the ATM network

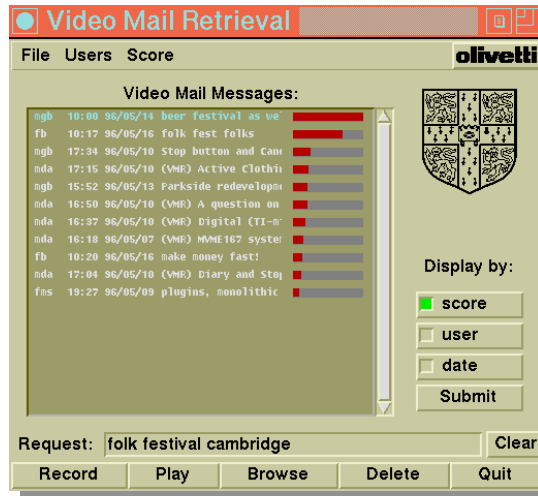
Medusa Architecture

4



Video Mail Storage and Retrieval System

5



Statistical Information Retrieval methods are used to rank potentially relevant video mail for a given request.

6



In the browser the horizontal timeline shows potential word hits, highlighting each word. Random access playback can be initiated by clicking anywhere in the timeline.



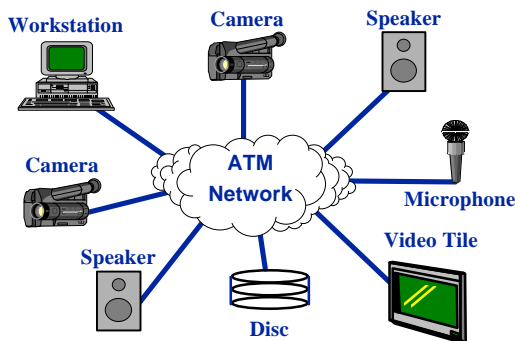
1

The Video Mail Retrieval Project (VMR) is a joint development between Cambridge University Engineering Dept. , Cambridge University Computer Lab. and Olivetti Research Limited.

The ORL Medusa system allows recording, storage, and playback of tens of gigabytes of multimedia data. VMR is a step towards retrieval of arbitrary audio/video documents in this environment, where the information content is determined from speech recognition of the soundtrack.

In our Broadcast News Retrieval work we show that statistical methods developed for text retrieval can allow rapid location of news items using the teletext subtitles. We are working on large vocabulary speech recognition of the news soundtrack. This will allow retrieval from any archive of video/audio documents.

2



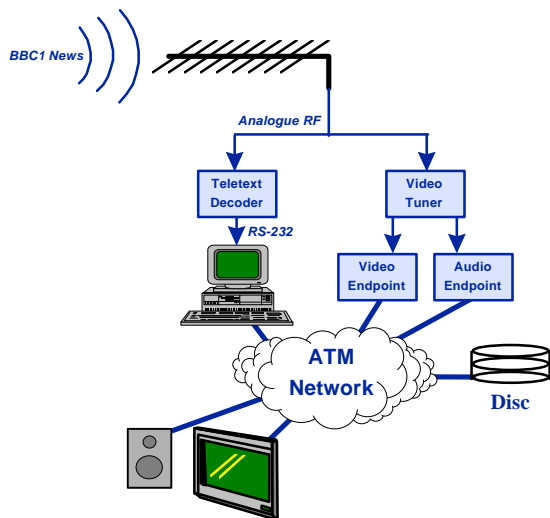
Connection of Medusa Endpoints to an ATM network

3



Medusa simultaneous media application

4



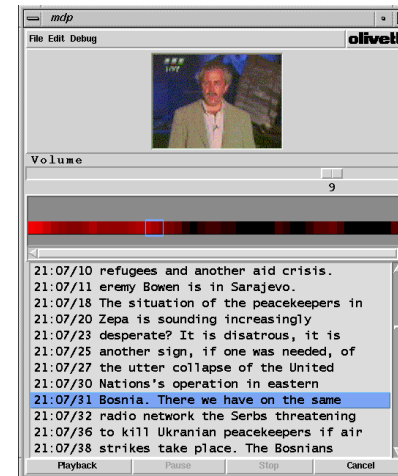
News Storage and Retrieval System hardware

5



Statistical Information Retrieval methods are used to rank potentially relevant news broadcasts for a given request.

6



A dynamic audio/video stream is represented by a static display that can be taken in at a glance. On the horizontal timeline the brightness of a region is proportional to its potential relevance to the query.