Handover Prediction-based Seamless Media Streaming for Wireless Packet Networks

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Scenario

1. Buffering in parallel caching buffers while playing the stream
2. Read from caching buffers during network selection

Connection lost
Play the buffered video

Handover is imminent
Start buffering video while playing from network1
Demo targets

- Seamless video streaming during handover between WLAN cells.
- Maximizing the cache size subject to the remaining time before handoff.
- Optimisation of the cache buffers number according to the played video bit rate, the nodes’ speed and available bandwidth on the streaming server.
Implementations
Buffering scheme

Mobile client

Streaming Buffer (Fifo)

Future network selection!! start buffering before disconnecting

Network sélection!! start playing cached streams

Caching Buffer 1

Buffering socket 1

Caching Buffer 2

Buffering socket 2

VLC Server

Video file