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Type: **Demonstration**

Using gLibrary with mobile devices: a proof of concept with Apple iPhone

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gLibrary mobile is a native application for the Apple touchscreen devices that allows to access digital libraries, deployed over grid infrastructures, from mobile devices such as the iPhone and the iPod touch. gLibrary mobile is our attempt to offer a mobile client to interact with digital libraries created with the INFN grid digital library solution. It allows to easily browse libraries contents, inspect library items metadata and finally download and view in the device high resolution screen the closest replica of the selected object.

Detailed analysis

gLibrary is the INFN digital library solution to create digital libraries on gLite grid: it allows to create, organize, populate, browse, search and access libraries of digital objects saved and replicated on storage systems of grid infrastructures with a certificate-enabled intuitive and easy-to-use web 2.0 interface from any computer browser. The goal of gLibrary mobile is to offer access to digital libraries created with gLibrary from anywhere. The iPhone and iPod touch devices, with their high-resolution touchscreen, multimedia capabilities and intuitive interface are the perfect devices to provide a mobile front-end to gLibrary. As the desktop counterpart, authentication and authorization on metadata and stored files are handled through X.509 certificate, loaded on the devices. The iPhone UIKit components fits perfectly to implement a cascading filter browsing system on digital objects metadata. Once the user has found the digital object he was looking for, with a simple tap on the screen he will start the download of the closer replica, selecting the location from a storage map and retrieving the current user position with the built-in GPS.

Conclusions and Future Work

We plan to offer an upload features that will add the possibility to push digital contents generated from the iphone (like pictures, voice recordings, videos) to grid storage elements including the editing of the associated metadata.

Impact

Being an advanced multimedia device, the iphone/ipod touch is suitable to access, on the road, different kinds of multimedia types such as videos, audio files and images. For example, the media player on the device is able to handle streams of movies and/or music files from a DPM HTTP/HTTPs enable storage elements. Moreover, those Apple devices are able to handle natively a lot of office formats such as .doc, .xls, .ppt, .pdf, .pages, .key, and .numbers. All these features provide the mobile platform to download and view such kind of documents with a few taps. During the demonstration we will show how to search and stream movies trailers, music files as well as view some images and PDFs. In particular, we will demonstrate the access to the ancient manuscript repository of Federico De Roberto. Thanks to the built-in GPS, all downloads can happen from the physical closest location to the user.

Keywords

iphone, digital libraries ,data grid

URL for further information

<https://glibrary.ct.infn.it>

Justification for delivering demo and/or technical requirements (for demos)

demo + oral presentation

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