A Design of a VOD DB

Jaegeol Yim, Gyeyoung Lee, Thanh Le

Dept. of Computer Engineering,
Dongguk University at Gyeongju, Korea
{yim, lky, le}@dongguk.ac.kr

Abstract. A number of VOD database systems have been developed. This paper comprehensively surveys the existing VOD database systems and derives a standard one. The database provides directory, videos, search, recommendation, database management, history, rating, user, and file upload services. Our design of the database system is discussed in detail.

Keywords: VOD, Database system.

1 Introduction

An interactive VOD service, which supports VCR-like functions, is described in [1]. To manage the database system they developed a client application that can be used to create or drop a table and insert, modify or delete video records and their associated information.

There are so many web service providers. Sabre[2], Datalex[3], and Galileo[4] provide web services for traveling and tourism businesses. Amazon web service provides web services for commerce [5]. [6] introduced a Web-based Geo-spatial Service Platform using GML (Geography Markup Language) and Microsoft .NET.

The next generation database management systems (DBMS) should be a federation of distributed, heterogeneous and autonomous components. Such components constitute web database services. In [7], they presented the full spectrum of possible DBMSs based on such a Service-Oriented Database Architecture (SODA).

SOAP-based services are heavy-weighted services which are not applicable for mobile services in comparison to light weight RESTful services[8]. Therefore, we develop RESTful web services for VOD DB systems.

2 Survey

A presentation plan is a sequence of steps that the local server must perform in order to present the requested movie to the customer. In [9], they present different types of presentation plans that a local server can construct in order to satisfy a customer request. A VOD system for elementary schools has been introduced in [10].
A new schema for online VOD system, which is developed with ASP.NET and SQL Server 2005, based on Flash Video and Flash Media Server is proposed in [11]. A distributed storage VOD system for delivering generated video content is proposed in [12, 13]. In [14], they proposed a unique VOD architecture and implementation for efficient QoS. A new proactive data replication mechanism is proposed and implemented in existing P2P on-demand system [15].

In [16], they developed a new way of viewing TV, CurioView, which uses metadata and retrieval technology to satisfy viewers’ curiosity by recommending wide-ranging video content related to the content the viewer is currently watching. Series of technologies, such as P2P [17], CDN [18] and CSMS [19] have been proposed and developed to enhance the performance of VoD systems. In [20], they present the design and implementation of a performance monitoring tool for clustered streaming media server systems.

In [6], they analyze the Geo-spatial information Web Service architecture of OGC (OpenGIS Consortium), and then they design and implement a Web-based Geo-spatial Service Platform using GML (Geography Markup Language) and Microsoft .NET. Geospatial data and services sharing framework based on Web portal technologies, Web services, OGC, and W3C Standards are proposed in [21].

3  Our Design

Considering the user’s requirements of the existing database systems, we propose a standard VOD database system. A database server should provide directory, videos, search, recommender, database management, history, rating, users, file upload RESTful web services.

4  Conclusion

It is well known that SOAP-based web services are too heavy to be used in mobile applications. This paper introduces a database system based on RESTful web services.

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