

# Content Management System

## Client Background

The Client is a popular European web portal with about 3 million visitors daily. Our Client delivers news and online content as well as provides valuable services for consumers, publishers and advertisers. Recently, the company has received additional investments that significantly accelerated their business growth.

## Business Challenge

The Client was planning to implement a portal management system for adding and editing business-critical information easily, quickly and effectively. With an enormous amount of dynamic content, the Client needed a reliable and robust solution.

Our challenge was to bring together the following essential features of the portal:

- Create abilities to create/edit content on the huge site/portal easily, without any specialized knowledge of DHTML/HTML
- Support user management, administration, content creation, editing, approval and publishing
- Create a tool for gathering portal statistics with the ability to view them in PMT
- Create a flexible integrated PMT solution for managing advertisements on the Portal
- Create a high-performance advertisement engine, based on a clustered solution with two versions implemented for the .NET and Java platforms

## Project Description

All content has a strong structured skeleton, in other words, it is categorized and transformed into XML files, which serve as the information storage. All XML files are subject to version control, which allows tracking content modifications. The XML of course can be described using the DTD/XSD schema. Validation by XSD helps to optimize the content creation process.

XML can be decorated and transformed to HTML or JSP/ASP/Portlets using XSLT. XSLTs are categorized as well, and applying different categories of those enables enhancing the portal with new skins.

A history of content modifications throughout PMT is stored in the database. A PMT user can be granted a set of permissions to view or control each step of HTML/active content creation. A flexible user role system simplifies administration.

## Value Delivered

The portal developed by iTechArt combines usability, a user friendly interface and compelling functionality for managing, administering and adding/editing different types of content (HTML/JSP/ASP). iTechArt has delivered a highly scalable system that answers the Client's needs and business goals. We were able to meet the requirement for flexibility by means of big extension libraries, an integrated index page generator, and other features developed by our professional development team.

### Overview

#### Client

Founded: 2001;  
Popular Web Portal, about 3 million visitors daily

#### Industry:

Digital Media

#### Country:

UK

#### Business Value:

Achieved business-critical goals

#### Technical Value:

Highly scalable and effective portal management tool

#### Development Model:

Agile

#### Services:

Development, Design

#### Tools and Technologies:

- Java EE 6
- XML/XSLT/XPath /XSD/DTD
- Apache Lucene 3.0 – Full Text Search Engine
- MSSQL
- .NET
- Spring 2.0
- Apache Cocoon 2.2
- Apache Lenya

# Content Management System

iTechArt has also implemented several additional modules that can be integrated with the main product.

The **Advertisement Engine Server (AES)** allows managing banner advertisements.

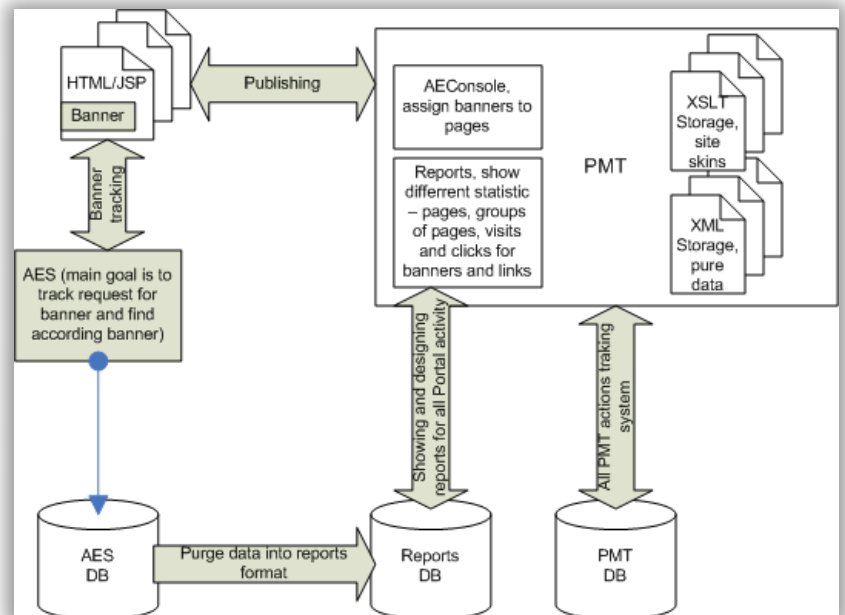
Feature highlights:

- AES is high performance application that can serve more than 200 requests per second in cluster mode with 2 P4 1GB RAM, which is the approximate load of a large popular site with more than 30,000 HTML pages with banner advertisements, for example, a website of a large airline company.
- The module has two independent applications with shares sources, implemented using .NET J# and Java. The performance of the .NET application is twice as high as that of the Java version.
- The module is fully integrated with the PMT system.
- Module statistics are automatically collected from the AES database and imported into the PMT reports module.

The **Reporting system** tracks various activities throughout the portal, such as newsletters, advertisement views and clicks, deals, and more.

Feature highlights:

- An XML-XSLT driven engine to easily build (and upload to the PMT reporting system) new reports, based on arbitrary databases
- A powerful Java-based QueryBuilder
- A Backup-Restore procedure for large volumes of data (more than 40GB, for example, in case of a monthly backup).
- Integration with the content management system.



iTechArt provides in-depth, high-quality and cost effective software development and consulting solutions to corporations across Europe and North America using both onsite and offsite service delivery models. iTechArt was founded in 2003 and has developed substantial strengths Application Development, Project Management and Outsourcing areas. iTechArt possesses deep domain knowledge through its proven research and implementation strategies across many industries including, Financial Services, Marketing & Digital Media, Security, Healthcare & Life Sciences, Retail and many more. We deliver the most effective and competitive solutions to our clients to achieve mutual business growth and success.

## Quick Facts

Founded: 2003  
Headquarters:  
Iselin, New Jersey, USA  
Development Centers:  
Minsk, Belarus; Kiev, Ukraine  
Team: 400+ employees

## Industries

Financial Services  
Marketing & Digital Media  
Security  
Healthcare & Life Sciences  
Retail  
and others

## Services

Application Modernization  
Enterprise Mobile Development  
Custom Software Development  
IT Staff Augmentation  
Software Testing & QA  
Software Maintenance

## Technologies

Enterprise Platforms  
RIA  
Mobile  
Web & Intranet Portals  
Middleware  
Business Intelligence