AXMEDIS Annual Report

(November 2005, V1.1)

www.axmedis.org

Automating Production of Cross Media Content for Multi-channel Distribution

The AXMEDIS project aims to meet the challenges of the market demand by: (i) reducing costs for content production and management for content composition, representation (format), protection and workflow; (ii) reducing distribution and aggregation costs in order to increase accessibility with a P2P at B2B level, which can integrate content management systems and workflows; (iii) providing new methods and tools for innovative and flexible Digital Rights Management (DRM), including the exploitation of MPEG-21 and overcoming its limitations, and supporting different business and transactions models and multichannel distribution. The AXMEDIS consortium consists of leading European digital content producers, integrators, aggregators, distributors, and information technology companies and research groups. AXMEDIS will create a framework to realise a set of demonstrators for content production, protection and sharing, and content distribution to end-users via different channels including interactive TV (i-TV), personal computer (PC), kiosk, mobile phone, PDA and others. AXMEDIS has closed the first year of work producing the first release of the AXMEDIS Framework and its specification that is accessible on the AXMEDIS portal. In addition, AXMEDIS results are going to be presented at the first AXMEDIS conference in the next December please see http://www.axmedis.org At the conference the AXMEDIS consortium will announce the call for take up actions. Funding for 1 Meuro will be assigned to the best proposals.

Objectives

The main objectives in support of this aim are:

- Study and refine integrated processes for "automatic" cross-media production and distribution, supporting interoperability on content, composition, protection (DRM, Digital Rights Management), etc., to make possible the realisation of solutions for content on demand;
- Creation of a common model for interchanging cross media content and components among Content Providers and Content Distributors, supporting copyright law, interoperability for Content Formats and DRM models. Safeguarding the owner's rights during the content production process and considering the value chain;
- Establishing modalities and tools for managing, distributing and sharing cross media content and components among producers, publishers, distributors to reach the final users via a multi-channel architecture: i-TV, PC, PDA, Cellular phones, Kiosk, etc.;
- Realisation of a set of demonstrators: (i) integration of Content Management Systems
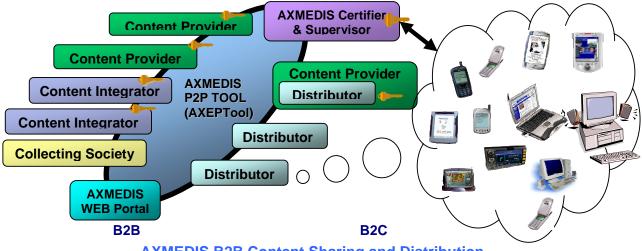
with AXMEDIS solutions including P2P framework, (ii) accelerating content production, composition and formatting, and P2P sharing at B2B level, (iii) content production and distribution on-demand for i-TV, (iv) content production and distribution for PC, (v) content production and distribution on-demand for Mobile phones, (vi) content production and distribution to kiosks and local PDAs, (vii) realisation of three/four "take-up" actions for demonstrating the exploitability of the AXMEDIS solution;

- Research and develop tools and technologies to make large content collections more accessible to (i) the business market of content integration/aggregation and for (ii) the mass market over several distribution channels. Most of these collections are in the archives of the project partners such as ANSC, ILABS, SEJER (VIVENDI), or are distributed by them, such as those distributed by OD2 (with content provided by UNIVERSAL, SONY, EMI, WEA, WARNER, The Orchard, Loudeye, etc.);

Summary of Activities

The project started by the production of requirements and use cases, to identify the real needs, and to integrate the requirements of several demonstrators that will be realised by the AXMEDIS project. After this phase, the activities of research on basic technologies and the creation of the AXMEDIS framework started. They are supported by the activities of management, assessment, content production, etc. With the first year, the project started the realisation of the demonstrators and the production and publication of a competitive Call for Proposal for SMEs and institutions that would like to be AXMEDIS compliant, to extend the architecture and demonstrating the capabilities of AXMEDIS solutions. A budget of about 1M euro is available to the selected smaller consortiums and proposals (with SMEs and institutions) to support and finance these activities.

In the meantime, the Consortium will continue to produce innovative tools for those companies and for the project-partners that will realise specific demonstrators for cross-media content production and multi-channel distribution.
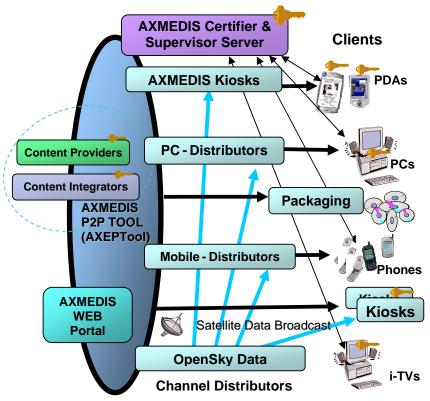

AXMEDIS B2B Content Sharing and Distribution

The project started the 1st September 2004. In the 2006 the take up project will join the AXMEDIS consortium and activities exploiting the infrastructure of the AXMEDIS Framework. The core partners of the AXMEDIS consortium will continue to work on basic enabling technology to improve and complete the AXMEDIS framework. In the

fall of the next year (2006), the second conference will be organised, while the first conference will be in Florence from the 30 November to the 2nd of December 2005, please see http://www.axmedis.org .
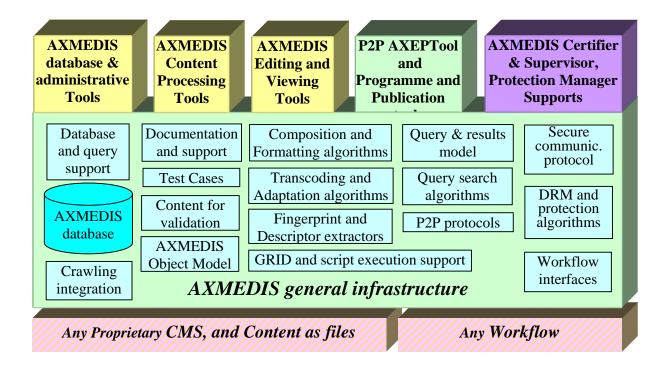
Potential Market

The market of cross media content production and distribution is very large. For AXMEDIS, the market segments for the production of content for delivering include PC, I-TV (satellite data broadcast, which is satellite distribution toward PC), Mobiles, PDA, and kiosks. AXMEDIS will create a set of tools for optimising the time required for the production of content and thus for reducing the production and distribution costs at B2B level. The market analysis has been performed with the support of leading European industries.

AXMEDIS Multi-channel Distribution Architecture

- AXMEDIS Certifier & Supervisor Server
- Clients
- AXMEDIS Kiosks
- PDAs
- Content Providers
- PC - Distributors
- PCs
- Content Integrators
- AXMEDIS P2P TOOL (AXEPTool)
- Packaging
- Mobile - Distributors
- Phones
- AXMEDIS WEB Portal
- Kiosks
- Satellite Data Broadcast
- OpenSky Data
- Channel Distributors
- i-TVs

The Consortium intends to maintain a high level of innovation for all the AXMEDIS solutions according to the needs and the evolution of content production, aggregation and distribution, over the duration of the project. This activity will be performed with the knowledge and understanding of the market from the partners who are actors in the relevant sectors, and by using direct relationships and reports from various relevant market survey institutions. At the end of the project, several sustainable activities are foreseen for all the partners. All the partners intend to participate in the successful exploitation of the project results. The Consortium believes that the most important streams of revenues that will keep the AXMEDIS as a sustainable activity will be a mix of services and products. Among the services the most promising is the subscription to the AXMEDIS framework that will allow SME and large industries to access at a huge amount of technical information and integrated tool for creating their own distribution solution based on AXMEDIS technology.

| AXMEDIS database & administrative Tools | AXMEDIS Content Processing Tools | AXMEDIS Editing and Viewing Tools | P2P AXEPTool and Programme and Publication | AXMEDIS Certifier & Supervisor, Protection Manager Supports |

Database and query support

Documentation and support

Composition and Formatting algorithms

Query & results model

Secure communic. protocol

AXMEDIS database

Test Cases

Transcoding and Adaptation algorithms

Query search algorithms

DRM and protection algorithms

Content for validation

Fingerprint and Descriptor extractors

P2P protocols

AXMEDIS Object Model

GRID and script execution support

Workflow interfaces

Crawling integration

AXMEDIS general infrastructure

Any Proprietary CMS, and Content as files   *Any Workflow*

User Involvement, Promotion and Awareness

In order to involve the potential users of AXMEDIS results, AXMEDIS has created a User Group to (i) provide expert consultation, information and verification, (ii) maintain continuous update and monitoring on the pathway of the project development and progress, (ii) promote the activities to decision makers and mangers of small and large companies that have potential interests to become AXMEDIS compliant and to join AXMEDIS in the future.

Other tools for promotion to increase awareness of the project include the dissemination and demonstration activities such as participation at conferences, workshop and fairs; organisation of conference, training and tutorial courses; publication of relevant materials, dissemination of materials, advertising and promotion of WWW pages, etc.
The user group and the activities planned for dissemination will cover all aspects addressed by AXMEDIS in terms of value chain and content models and types.
The project will also provide a registration interface for all (public access) to register their interests via the project website. This will allow anyone who are interested in AXMEDIS to receive a newsletter with all the latest news and information about the project.

Presently we have promoted the kick off of the project with a press release for news, radio and television, including an interview at RAI 3 (National Italian Television Channel). The impact of the press release has provoked an interesting result in terms of visibility. This has partly contributed to the 19400 hits on the main page of the project recently, mention of AXMEDIS in more than 800 different new websites, and in newspaper articles . The first public conference of AXMEDIS will take place in the fall of the next year (2005): http://www.axmedis.org/axmedis2005/

Future Work

AXMEDIS is going to work on a number of basic enabling technologies for (i) content production such as: automatic composition and formatting, workflow, protection and Digital Rights Management, fingerprint extraction, authoring tools, etc., including the exploitation of MPEG-21 and to expand its capacities, and to support different business and transaction models; (ii) content distribution, such as P2P models at B2B and B2C levels, client tools, etc.; (iii) addressing specific problems for multichannel distribution such as optimisation of channel for satellite data broadcast, content adaptation for mobiles, P2P tools to certify content for final user level, etc.

The results of the research activities will be capitalised into the AXMEDIS framework to develop demonstrators and to make them available to SMEs and institutions that intend to become AXMEDIS compliant. AXMEDIS has the intention to become a reference infrastructure and technology for content production, integration and distribution in Europe. The first mock-up prototypes will be available at the Conference in Florence Italy, December 2005.

Further Information

Further information can be obtained directly from the WWW site of the project, or by contacting the coordinator at nesi@dsi.unifi.it .
On the project web site, www.axmedis.org, you can download:

- Fact sheet: http://www.axmedis.org/documenti/view_documenti.php?doc_id=240
- Selection of press cuttings:
  http://www.axmedis.org/documenti/view_documenti.php?doc_id=259
- Slide show about the project:
  http://www.axmedis.org/overview.php?PHPSESSID=4e822b8096315cbe17d55f6f7e21cb63
- A short multilingual overview of the AXMEDIS project, extracted from the home page of the project website: www.axmedis.org
- AXMEDIS Framework documents: specification, use cases, requirements, etc,
  o http://www.axmedis.org/area_4/doc.php

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