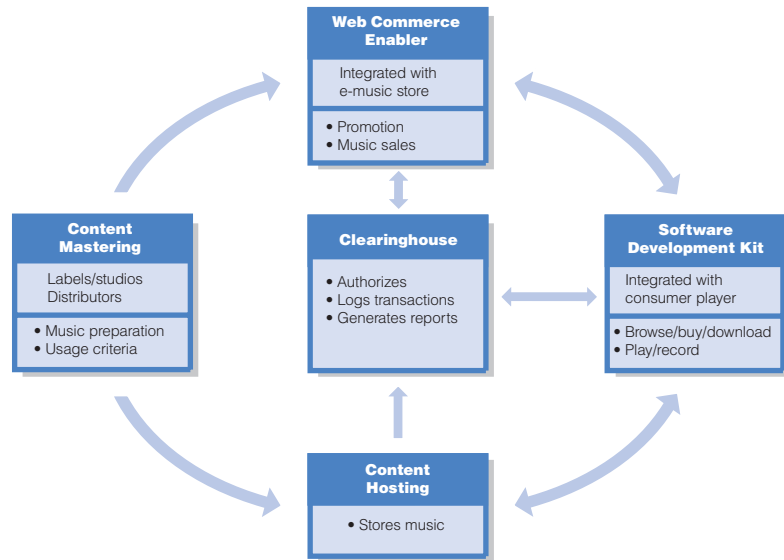




EMMS Software Suite

Highlights

- Provides an end-to-end system for enabling e-commerce of digital assets with comprehensive security and rights-protection features
- Allows a variety of consumer and business-to-business services while supporting different distribution networks, models, data types, consumer devices, portable media and applications
- Protects digital assets from unauthorized use during transmission, storage and use
- Enforces licensing authorization and metering for receipt of EMMS-formatted content
- Provides a durable architecture with industry-standard plug-ins enabling the system to replace existing compression, encryption and watermarking technologies as they evolve over time
- Enables business partners and service providers to create customized and branded applications using EMMS components



Overview

The Electronic Media Management System (EMMS) from IBM delivers a complete, end-to-end solution for digital media distribution and rights-management needs. EMMS is composed of five major components that interact to provide content owners, e-businesses and consumers with the solutions for their digital distribution needs.

EMMS Content Hosting Program

The EMMS Content Hosting Program is the storage facility for EMMS-formatted content that will subsequently be distributed to consumers. Multiple content hosts can be supported and distributed geographically with automatic replication of content across the sites.

EMMS Content Mastering Program

The EMMS Content Mastering Program allows content owners to specify rules of permitted use and to selectively perform automated preprocessing, encoding, watermarking and encryption of their music and promotional material. Creative works are then packaged into secure containers for electronic distribution to storage facilities and retailers.

EMMS Web Commerce Enabler

The EMMS Web Commerce Enabler allows retailers and distributors to integrate EMMS-formatted promotional material into tailored retail offerings and to facilitate consumer downloads of music selections. A variety of business models and distribution methods can be deployed.





EMMS Clearinghouse Program

The EMMS Clearinghouse Program provides digital rights management functions and acts as a central control point for managing, authorizing and reporting transactions. It verifies licensing requests, issues licenses that enable consumers to access content downloaded in EMMS-supported formats and provides information to facilitate royalty payments. It also supports credit card transaction processing.



EMMS Player Software Development Kit (SDK)

The EMMS Player Software Development Kit (SDK) enables business partners to develop consumer applications that download, play back and manage a music library in a tamper-resistant environment according to digital property rights specified by content owners. It also allows control over permitted interaction with CD-R drives and SDMI-compliant devices. The SDK is targeted for widespread deployment in software applications and for use with consumer electronic devices.



Comprehensive digital rights management

EMMS is an extensible and broad-based digital rights management system that can be deployed in a wide variety of consumer and business-to-business services across a distribution value chain. Commerce models such as wholesale or retail purchase, protected transfer to portable devices and portable media, and promotions can all be implemented.



The rights-management functions of EMMS offer dynamic copyright protection and control for content owners over how content is licensed and used. They can enforce content-digital property rights, such as permitted number of copies, availability dates and usage periods. They can provide pricing and packaging information to their authorized retailers. In addition, by using digital watermarking, they can combat piracy by identifying the origin of unauthorized copies of content. These functions are provided through the EMMS Content Mastering Program and can be integrated directly into the mastering process.

The rights-management functions in EMMS rely upon encryption, secure container technology, Clearinghouse software, and a tamper-resistant client environment to provide an end-to-end solution. EMMS uses strong encryption algorithms throughout the system and has obtained U.S. government approvals for export. In addition to encryption, secure container technology further protects digital assets, such as content, usage rules, metadata and other high-value information, against unauthorized interception or modification. The EMMS Clearinghouse Program acts as a trusted custodian that enforces and meters licensing authorization for individual receipt of content. A tamper-resistant client environment enables control for permitted recording, playback, and storage of licensed content. Together, these technologies provide a high level of security and rights protection as content is hosted, distributed over open networks and used on PCs or other devices. They enable a separation of trust where the content owners are not dependent on their business partners other than Clearinghouse partners to provide a secure environment to protect their digital assets.

Flexible components, open interfaces

Retailers or distributors can tap into new sources of revenue when they use EMMS to take advantage of electronic commerce markets. Using the EMMS Web Commerce Enabler and promotional information prepared by the EMMS Content Mastering Program, retailers can develop Web-based retail offerings and promotions based on downloads of high-quality content. Brick and mortar retailers can create hybrid distribution services that combine physical and electronic inventories to better serve their customers.

The EMMS Player SDK gives software developers and consumer electronics manufacturers a set of standardized application programming interfaces (APIs). These APIs enable them to develop new, innovative applications and devices that utilize the security features and tamper-resistant environment of the EMMS system.

Comprehensive architecture

EMMS is based on a durable architecture that is not only flexible, but comprehensive and scalable. The EMMS architecture can be adapted to different distribution networks, business models, data types, and applications. EMMS enhancements may be delivered through new product releases or customized as part of a customer service engagement. For example, content distribution can migrate from point-to-point Internet connections today to broadcast satellite

networks in the future. Consumers who purchase content from online retailers today may be able to purchase content in a disconnected-operations mode, receiving content through prepackaged media or from friends via electronic mail, in the future. Today's PC devices may be supplemented by Web-enabled, low-cost consumer devices, kiosks, or set top boxes. The EMMS architecture can also support advances in various technologies, such as watermarking, compression and encryption.

An industry leader...

EMMS draws on IBM's proven expertise and technology in the areas of electronic commerce systems, secure commercial transactions, digital rights management, online distribution, system security, databases and tamper-resistant software. IBM is committed to developing new applications for the digital music marketplace and supports the goals of the Secure Digital Music Initiative (SDMI).

Key Features

Security

- Utilizes secure containers and strong encryption algorithms to help prevent unauthorized use of content, usage rules, metadata and other high-value information
- Utilizes Clearinghouse technologies to enforce licensing authorization and control, and to authenticate authorized participants in the distribution chain
- Separates distribution of content from the control of its unlocking and use
- Utilizes a tamper-resistant environment to provide digital rights management and copy protection in a PC
- Allows separation of trust among the players in the distribution chain

Flexibility

- Enables business partners and service providers to develop new applications and services that utilize EMMS digital rights management and commerce features
- Enables content owners to manage their distribution value chain dynamically in areas such as business relationships and content packaging, pricing and usage
- Allows a variety of consumer and business-to-business services while supporting different distribution networks, distribution models, data types, consumer devices, portable media and applications
- Can evolve over time to support technology improvements in areas such as compression, encryption, and watermarking

Tracking

Tracks status of content transactions end-to-end from dispersal to consumer receipt and provides information to parties involved in the transactions

Scalability

Allows a distribution system based on EMMS components to grow exponentially as the demand for digital content and the number of participating e-businesses increases worldwide





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Ordering information for the Electronic Media Management System

Description	Part Number
EMMS Content Mastering Program	PRPQ # P91669; 5799-D69
EMMS Content Hosting Program	PRPQ # P91670; 5799-D70
EMMS Web Commerce Enabler	PRPQ # P91671; 5799-D71
EMMS Clearinghouse Program	PRPQ # P91672; 5799-D72
Software Subscription for EMMS	PRPQ # P91673; 5799-D73
EMMS Player SDK	Licensing terms available upon request

e-business services

In the highly competitive area of music distribution and retailing, the flexibility of deployment offered by EMMS will allow e-businesses to customize it for competitive advantage. Content providers can optimize EMMS content mastering and hosting for security and delivery of digital content specifically for their unique environments. Retailers and distributors can leverage EMMS retail and distribution capabilities to customize their offerings and integrate electronic downloads into existing services. Application service providers may provide service differentiation by developing new applications that utilize EMMS capabilities.

IBM Global Services is ready to assist companies (including other systems integrators or solution providers) at every stage in the content life cycle. IBM Global Services offers: assessment of requirements, development of a functional specification for the work, execution of any customization or extensions to EMMS, network configuration and optimization, and management of the

deployment. Whether for content production, supply chain or legacy integration, third-party application integration support, or managed operations and outsourcing, IBM Global Services is prepared to make EMMS an optimized solution for content distribution that meets each company's individual needs.

Software Requirements

All EMMS components require Microsoft Windows. Refer to the ordering information for specific software requirements.

For more information

To learn more about EMMS and how it can be applied in your environment, please contact your local IBM sales representative, or visit our Web site at: ibm.com/software/emms.