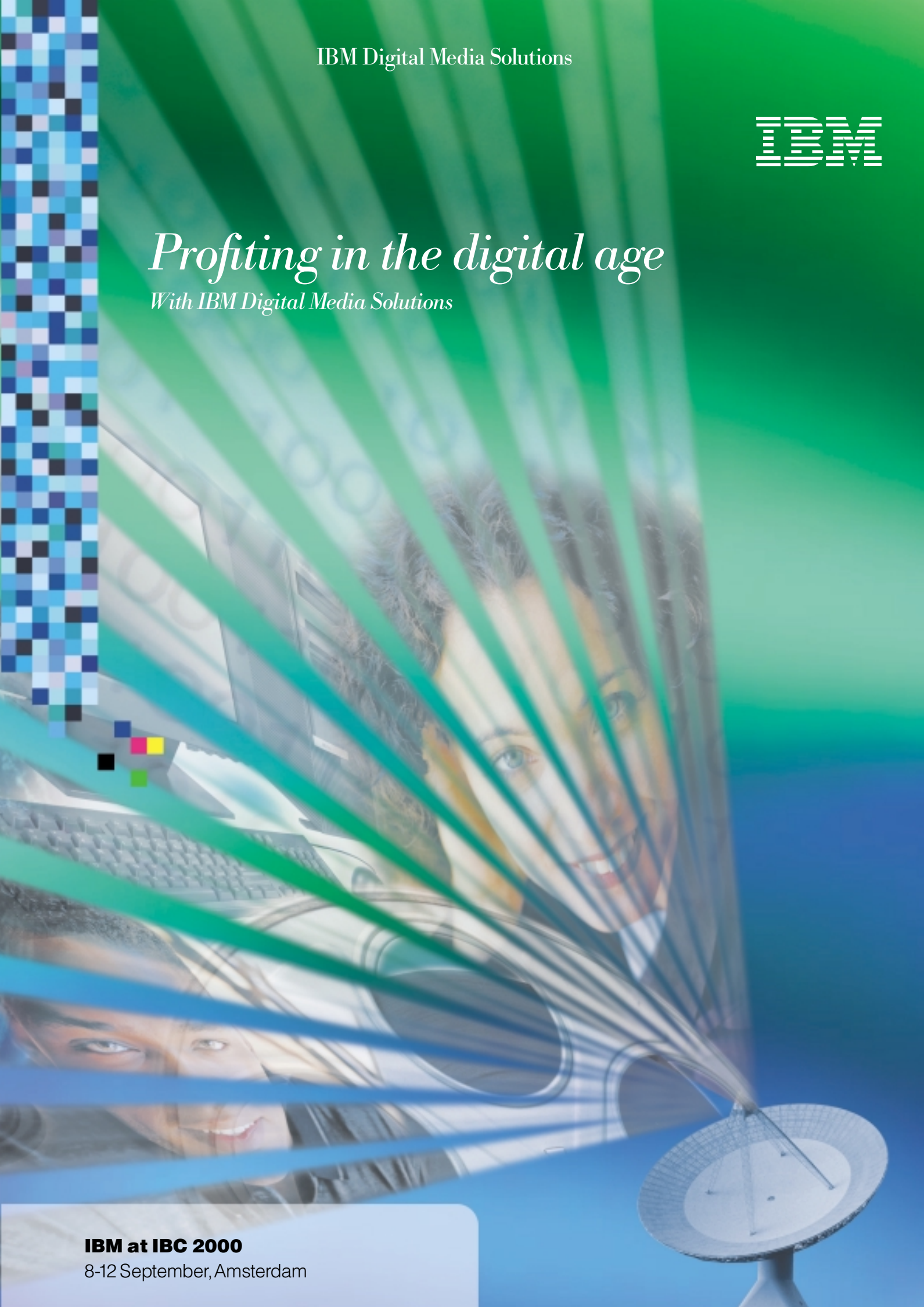IBM Digital Media Solutions

Profiting in the digital age

With IBM Digital Media Solutions

IBM

IBM at IBC 2000
8-12 September, Amsterdam

Val Rahmani
Vice President
Communications Sector
Europe Middle East Africa (EMEA)
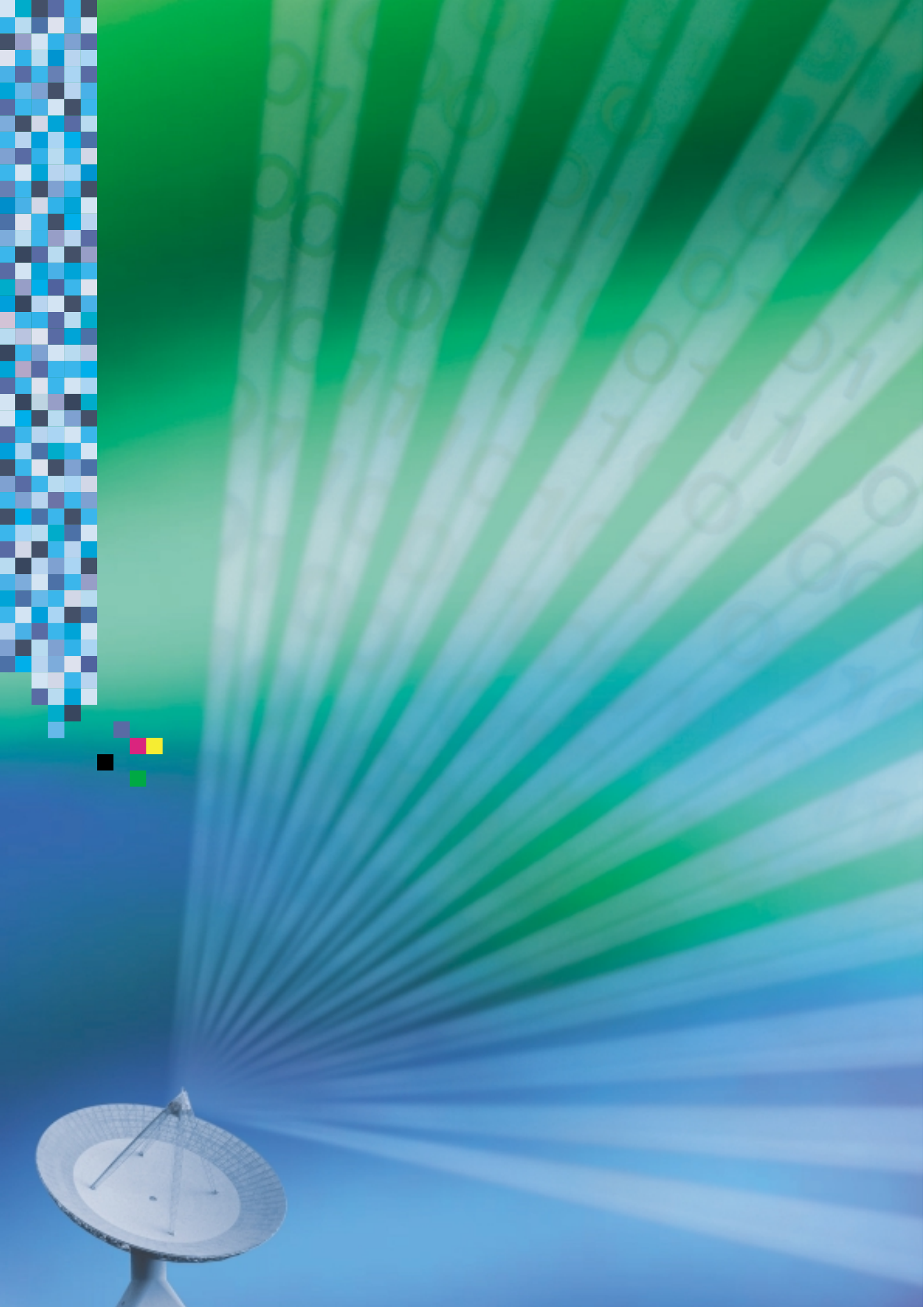IBM Corporation

Dear Visitor,

Profiting in the digital age with IBM Digital Media Solutions

Welcome to the IBM Stand at IBC 2000.

In today's network-driven world, value is to be found in digital form. Transforming your infrastructure into a digital infrastructure enables your business to support consumers who want content at any time, any place, and on any device. New business models are emerging where interactive, one-to-one relationships are the name of the game. At IBM we are at the forefront of this digital technology and we have the capability to create new value for you.

The real winners will be those companies that most effectively focus on three key attributes:

• Embracing the World Wide Web and other emerging digital service opportunities

• Dramatically increasing their focus on customers

• Exploiting their content in digital form over multiple network types to multiple end-user devices.

For example, IBM's Electronic Media Management System (EMMS), a digital distribution platform, is being used by NTT DoCoMo in Japan to distribute digital music on demand over their 'always on' wireless network. At the core of this system is the ability to provide the appropriate digital rights management information, or usage conditions, while at the same time creating an appealing consumer experience.

The radio station management system, RadioMan**, from our partner Jutel Oy, is already in use in European radio stations – installed and supported by IBM. On our stand, you will be able to operate the RadioMan system as if you were going live to air in a full radio production studio. The system supports content production for output to FM, DAB, WEB and 3G mobile phone.

Our digital asset management solutions for video production and broadcast, enable companies to digitise and store large quantities of video tape in an archive library, making them easily accessible for editing or combining with other videos to produce new broadcast quality video segments.

These are just three examples of our eight demonstrations that together focus on transforming your business in the digital age under the banners of Create, Manage and Distribute.

This transformation of your core processes, the building of new digital applications, putting in place new business intelligence and customer relationship systems is what we refer to in IBM when we use the phrase 'e-business for Media & Entertainment'.

It's exciting. It's challenging. It's here today.

Let IBM help you create new value in this digital age.

Thank you

Val Rahmani

IBM at IBC

Every broadcaster in EMEA (Europe, Middle East and Africa) requires new digital management and distribution technologies. And IBM has digital media solutions to match this requirement that are installable today.

Let's review IBM's strengths and why partnering with IBM is the right decision for your company.

IBM is at the forefront of e-business and industry change

IBM is pervasive in the broadcast, media and entertainment industries and has provided e-business consulting services, technology application and systems integration, and operational assistance to leading broadcast and entertainment companies like Warner Bros. BMG Entertainment, DMX Music and the BBC.

IBM offers solutions that enable you to manage and accelerate the transition from analogue to the new digital environment, generate new revenues, reduce costs, improve workflow, strengthen distribution networks and compete more effectively.

IBM Media Asset Management with IBM Digital Media Solutions

IBM's primary mission is to deliver industry-focused e-business solutions for all phases of a project, from creation of content to distribution to the consumer. We deliver content creation and development, including new product integration, streamlined production, and reduced operational costs. Storage management efficiency is achieved through collaboration, archive support and the integration of legacy systems that manage your workflow, access and assets.

IBM is a leader in the broadcasting, media and entertainment industries

IBM has a team of broadcast, entertainment and media industry experts who partner with global media and technology industry leaders. Together, they provide cutting-edge technology and digital media solutions that address new business and the economic realities of the new digital environment. Our consultants monitor and explore the evolution of global industry trends and issues. They identify your future challenges and opportunities and analyse the impact of those changes on your business models and processes.

IBM can convert huge tape libraries into a digital online archive

The IBM Content Manager enables access to a digital online archive, while enhancing growth and new revenue opportunities. IBM's Content Manager enables literally quadrillion amounts of text, images, audio and video to be created or transformed into digital form and distributed over any network, with security to users around the world. IBM Content Manager provides retrieval and distribution capability for virtually all critical content.

At Ogilvy & Mather one of the world's largest advertising agencies, IBM has implemented a digital media archive, based on IBM Content Manager (formerly Digital Library) with VideoCharger, MediaSite Logger and AdVISUAL, Ogilvy & Mather is able to capture, store, search, retrieve and distribute their content within the company, and prepare it for distribution outside the company to current and future clients, broadcast media and others.

2000

IBM and digital music management and distribution

With its Electronic Media Management System (EMMS), IBM is providing a comprehensive electronic media management and distribution capability designed to support a broad range of media types. In the music industry, BMG Music Entertainment, Sony Music Entertainment Japan, Liquid Audio Japan, Handleman Company and Sterling Sound are among the companies using this exciting new IBM technology.

IBM can employ a variety of technologies to help radio broadcasters manage and distribute content

At organisations such as the BBC, RTE and YLE, and in partnership with Jutel OY, IBM has successfully implemented the RadioMan system for the integration and control of the various tasks involved in the management of radio broadcasting.

IBM brings proven technologies to bear on content distribution

Through a tightly integrated distribution and management system, the IBM Digital Media Distributor (DMD) solution can deliver digital broadcast content and advertisements with reliability and efficiency by using a scalable solution – tailored to accommodate diverse work flows while delivering digital content through a variety of distribution channels.

Warner Bros. envisaged an affordable broadcasting solution that would allow them to expand coverage of the Warner Bros. Television Network to new, smaller markets around the country. Using the DMD solution, Warner Bros. fully manages the end-to-end distribution, playback and insertion of localised advertising content for the WB 100+ Television Network.

By employing DMD, DMX Music was able to reduce the operating costs of a new network and opened up business in markets that would have otherwise been unreachable. DMX Music is using DMD to control the distribution of audio content to commercial enterprises over the Internet. Built on DMD, the DMX-Axis digital music delivery system offers customers a new way to receive customised music programming that is hands-free, cost-efficient and centrally-managed.

IBM has developed comprehensive methodologies for transforming businesses into e-businesses

IBM has developed comprehensive methodologies for transforming your business into an e-business, leveraging its vast e-business resources to offer you the best solutions. These solutions include integrated services and strategies to meet your business requirements – improving workflow and growing your top line revenue.

These services include:

- Developing an IT strategy that aligns with your business mission

- Business transformation consultancy to expand your revenue opportunities, improve the quality of your customer service and reduce both costs and production time

- Business intelligence that applies advanced analytical techniques to solve the more complex business systems integration, including the development and implementation of both custom and packaged application software and the provision of project management

- Managed operations and outsourcing that maintains, monitors and protects your applications, networks, data and technical operations.

## IBM will look for the best solution to meet your needs

It's about business first, not just technology. No one company can supply all the components all of the time. If a company wants to maximise benefits from new technology efficiencies, then it requires a blending of solutions from IBM and its partners. These partners at IBC include Virage, Avid, Barco, Jutel Oy, Sagitta and Grass Valley. Together, this combination gives you a distinct competitive advantage.

That's why we are at IBC 2000.

Because we have something important to contribute.

Because when you hear what we have to say, we are confident that you will seriously consider a partnership with us in this new digital age.
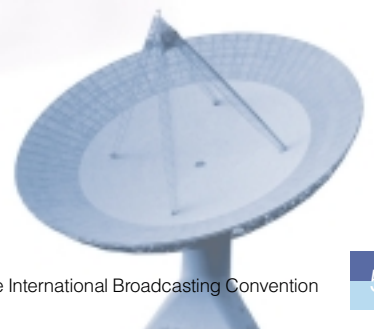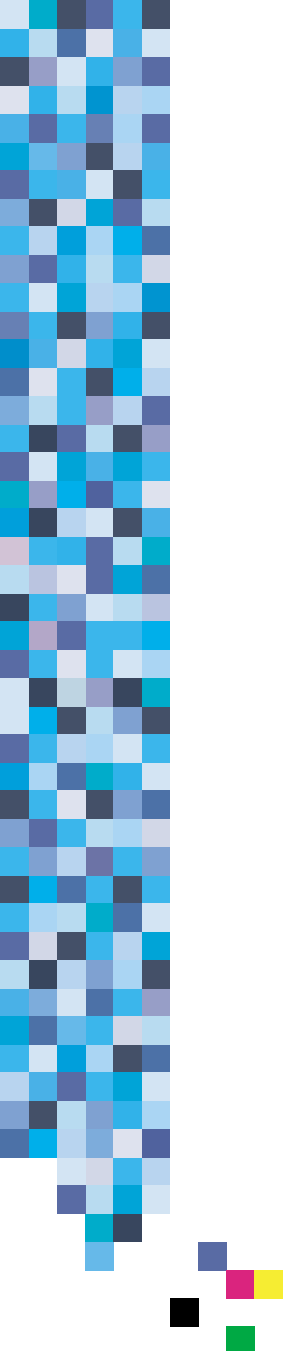
IBM Digital Media Solutions help customers leverage rich-media content (video, audio, image, text, data, etc) so that they can:

Create

Create engaging content to enrich the consumer buying experience and ensure consistent, compelling expression of the brand:

7 HotMedia* Interactive TV

8 Avid Xpress DV on IBM IntelliStation*.

Manage

Manage, reuse, repurpose digital content to improve production processes, target messages, marketing and personalised content:

9 Media Production Suite (MPS)

10 Storage Area Network (SAN).

Distribute

Distribute digital assets securely across multiple channels (physical, print, broadcast, Web, etc.) in order to reach new customers on a global basis and to leverage e-business models to transform their business:

11 Electronic Media Management System (EMMS)

12 Digital Media Distributor (DMD)

13 RadioMan

14 MPEG-2.

HotMedia Interactive TV

HotMedia Interactive TV technology and IBM WebCommerce Suite software tools enable broadcasters, cable companies and their suppliers and advertisers to develop and deliver digital interactive services and electronic stores on digital television networks. HotMedia software is a customised solution integrating IBM products such as WebSphere*.

Features

- HotMedia TV technology makes it possible to enhance television with rich media digital content that enable viewers to experience rich media presentations on their TV for applications such as advertising, e-commerce and interaction information

- TV viewers can interact with TV advertisements to purchase products. This can be accomplished by sending digital video and data to a set-top-box (STB) with a two-way communication return link

- Subscribers/viewers can be guided to make purchases directly from advertisements, infomercials and broadcast programming, using a simple interface and a standard remote infrared device

- IBM's WebSphere Commerce Suite provides the basic functions necessary to conduct e-commerce; shopping cart selection, shopper registration, tax and shipping, discounting, real-time credit authorisation, order submission and notification and customer support.
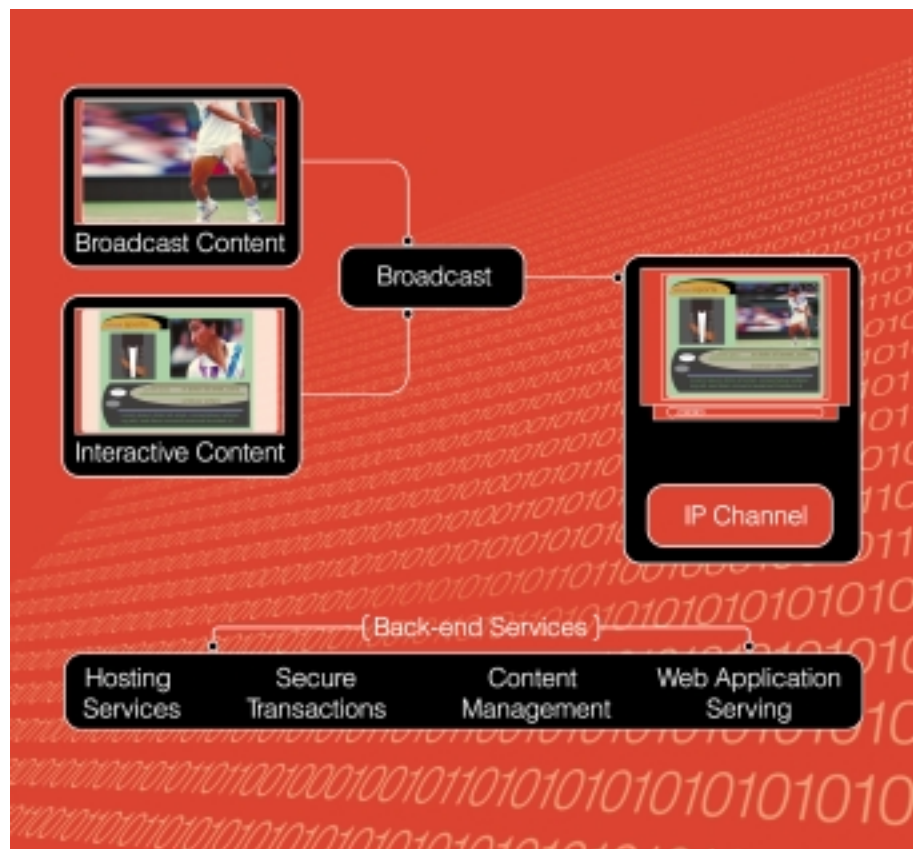
Highlights

- Connect advertisers and merchants directly to TV viewers

- Make impulse buying easy and provide cable/broadcasters with opportunity for additional revenue sources

- Allow merchants and advertisers to take advantage of market data collection and analysis to better attract/target buyers.

Avid Xpress DV on IBM IntelliStation

A complete solution for all your digital video needs. Avid Xpress DV editing software is packaged inside the optimised IBM IntelliStation. PC-based, and built on industry standards, it can mesh with most company networks.

Features

- It provides a turnkey digital video editing system that any organisation can use to create digital videos for marketing material, Web content, training or information exchanges

- The backbone of this digital video editing solution is a high-speed Intel** Pentium** III processor supported by a configuration of super-fast Rambus ECC memory, combined industry-standard editing tools and the capability to create streaming media

- Includes a Canopus DV Raptor adapter and Matrox Millennium G400 with 4X AGP for quick transfer and capturing of images

- Award-winning Avid software interface based on Windows NT** platform.

Highlights

- Fast and intuitive complete video editing.

- Access to industry strength tools, yet easy to master with comprehensively designed software.

- A dependable tool that saves both time and money. Produce high-quality video and multimedia content in-house and maintain creative control over the finished product.

Media Production Suite

Media Production Suite (MPS) is an IBM Content Manager and browser based, fully integrated solution for organisations requiring an editable-quality digital repository and production system. Using MPS companies can manage, archive, reproduce, assemble and distribute video programs in one integrated digital production environment.

MPS includes other built-in capabilities that will allow companies to oversee:

- Workflow management (via MQSeries* Workflow)

- Integration with production systems (i.e., newsroom and distribution)

- Production-quality video objects

- Media archiving, including the management of related physical tape libraries.

Highlights
- Streamline production, trim costs and extend effciencies beyond departmental boundaries

- Enables reuse and repurposing of valuable media assets for new revenue generation

- Create and secure, scalable, non-degradable library of digital media assets that can grow and adapt to future business needs

- Quickly capture, catalogue, store, search, retrieve and share large collections of production-quality video files

- Capture content from analogue or digital forces, access, share and deliver that media content across and beyond the enterprise anywhere, anytime

- Manage all of an organisations critical content from creation to distribution in an open, end-to-end, function-filled environment

- Open architecture and support for industry standards

- Integrate leading media industry partner hardware and software products.
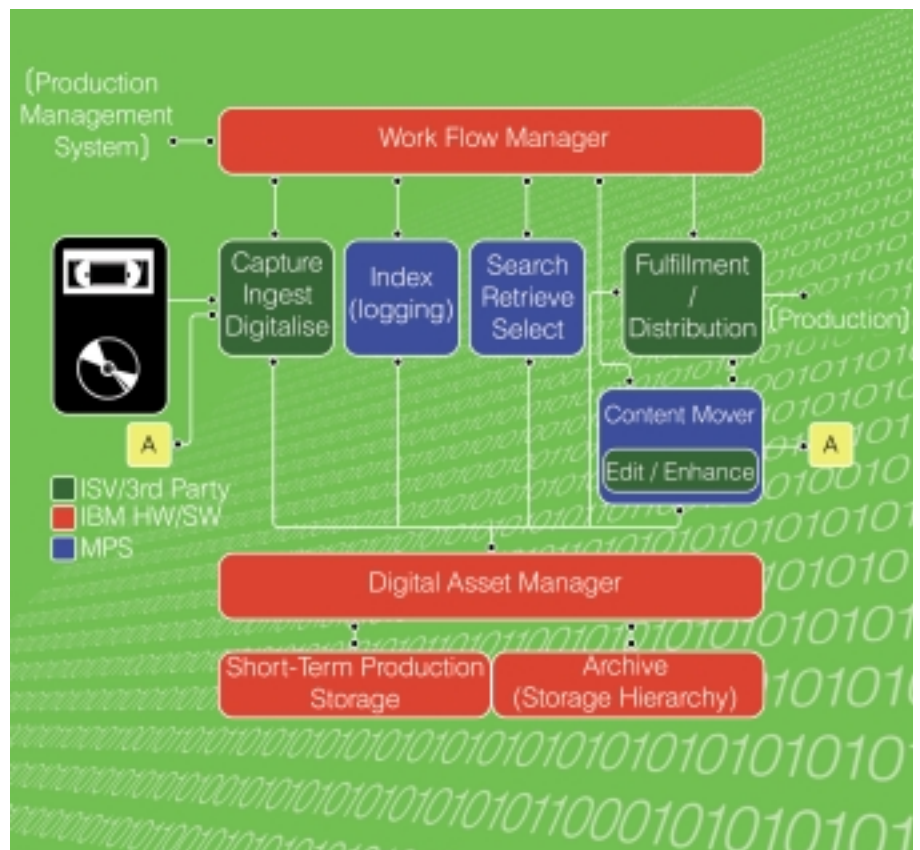
IBM Storage Area Network

The IBM Storage Area Network (SAN) supports 24 hour, 365 day e-commerce network, multiple users and live back-ups. SANs have demonstrated huge potential across a wide range of broadcast, video, DVD and post-production applications. An IT-based backbone infrastructure for post-production is not only increasingly important, but is now also economic and highly effective.

Sagitta Performance Systems, an IBM Business Partner, is hosting a 'SAN City' at IBC. This is a series of SANs in action across several halls, all connected to and centrally managed on the Sagitta stand.

IBM's highly powerful and reliable Enterprise Storage Server* provides the storage network for Sagitta's SAN City.
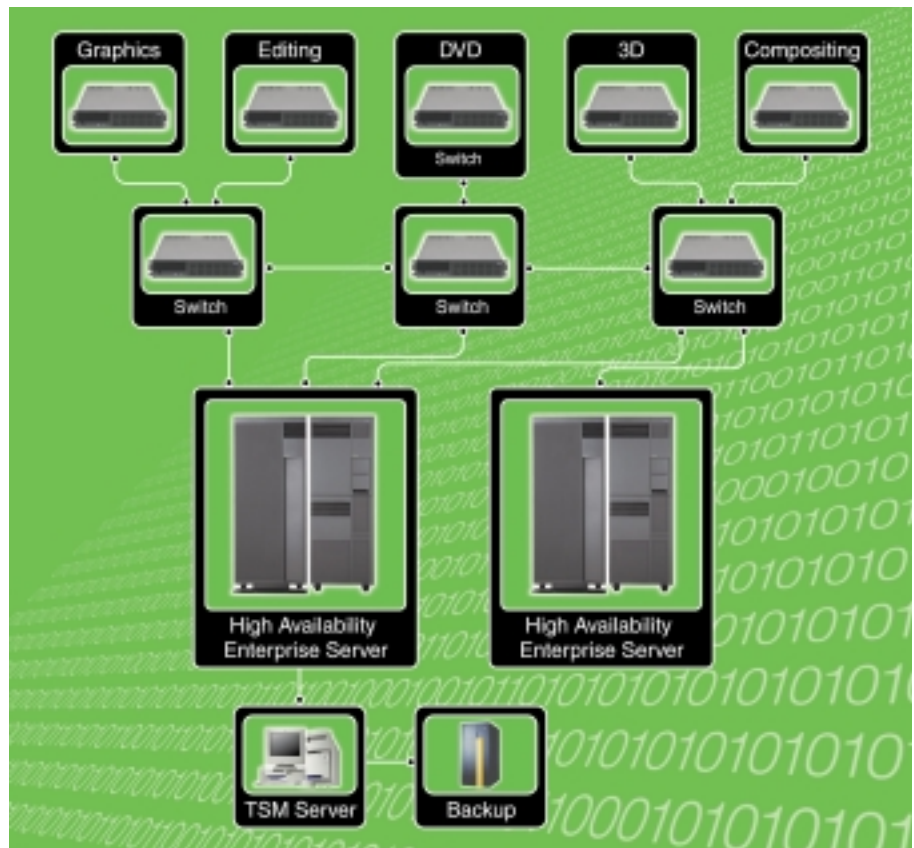
Features
• Anytime, anywhere connectivity

• High availability (fault tolerance)

• LAN-free backup

• Disk and tape pooling

• High scalability (capacity and bandwidth).

Highlights
• Centralised storage management

• Reduced total cost of ownership (TCO) – independent research estimates that SAN infrastructure and storage consolidation saves 30 per cent of total capital and ongoing operating costs against more traditional disk/tape architecture

• With post-production increasingly depending on IT, SANs are the economical, fast, flexible and scalable solution.

IBM Electronic Media Management System

IBM Electronic Media Management System (EMMS) is an electronic distribution and digital rights management (DRM) system designed to support all types of media beginning first with music and audio content. EMMS is composed of five components that interact to provide content owners, e-businesses and consumers with an end-to-end system for enabling e-commerce of digital assets such as music, video, and e-books.

Features

- Utilises secure containers and strong encryption algorithms to help prevent unauthorised use of content, usage rules, metadata and other high-value information

- Utilises clearinghouse technologies to enforce licensing authorisation and control, and to authenticate authorised participants in distribution chain

- Tracks status of content transactions end-to-end from dispersal to consumer receipt

- Allows separation of trust among players in the distribution chain

- Supports technology improvements in compression, encryption and watermarking.
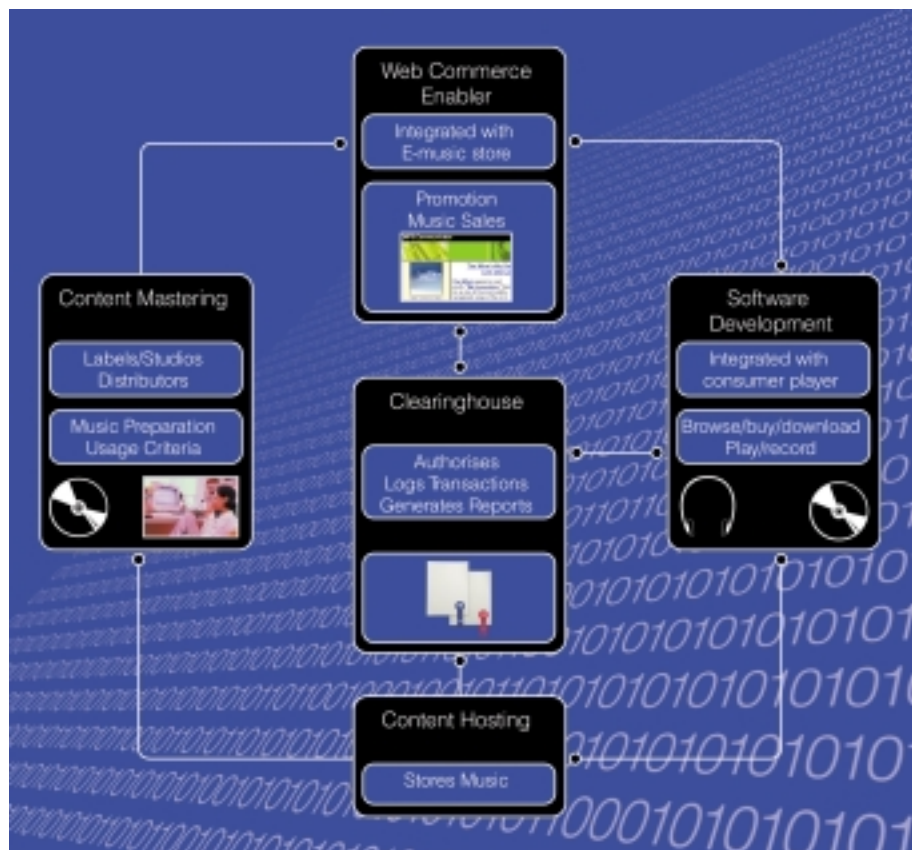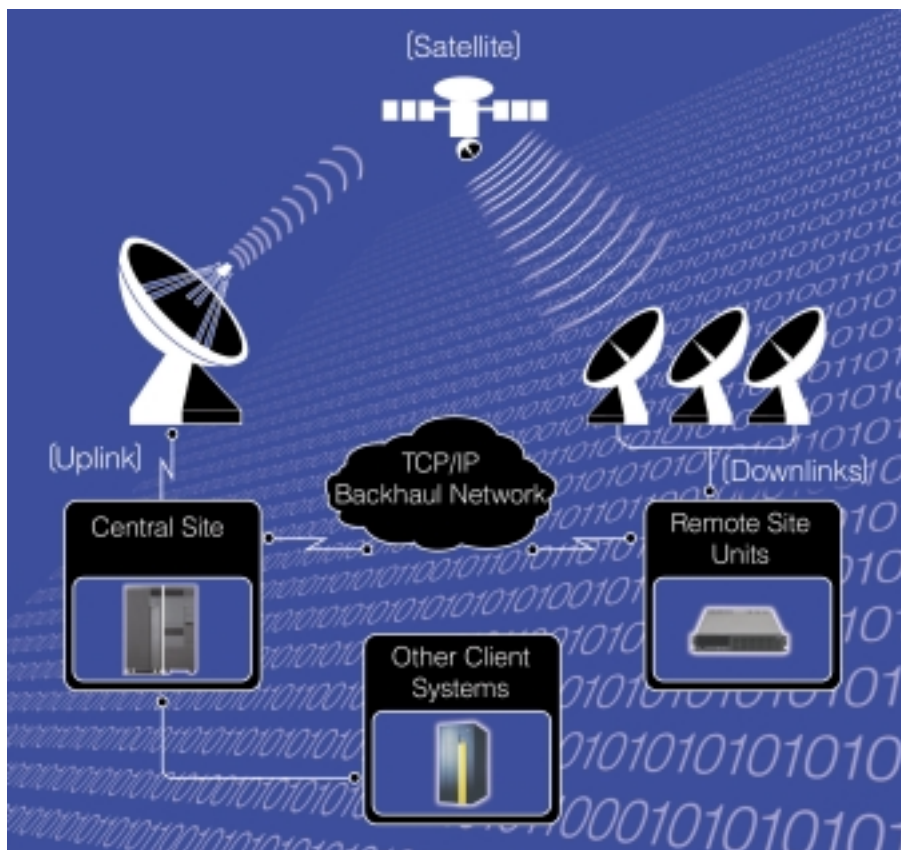

Highlights

- Allows a variety of consumer and business-to-business services while supporting different networks, data types, consumer devices, portable media and applications

- Enables content owners to manage their distribution value chain dynamically; business relationships and content packaging, pricing and usage

- Protects digital assets from unauthorised use during transmission, storage and use.

IBM Digital Media Distributor

The industry-leading Digital Media Distributor (DMD) solution – comprised of a Central Site, a Distribution Application and Remote Sites – enables digital content distribution to large numbers of dispersed sites from a central facility and network. The automated scheduling and centralised management capabilities of DMD allow specific content to be sent to various logical or physical receiver groups.

Features
- DMD is configurable, highly scalable, and embraces open industry standards

- Offers centralised distribution capability to unlike destinations and configurations, such as kiosks, listening stations, servers, and PCs

- Object synchronisation ensures the distribution of right content, to right locations, at the right time

- Content-neutral – text, data, audio and video can be managed, moved, activated and enriched

- Highly automated, DMD reduces the need for manual intervention at remote sites

- Flexible architecture interfaces to multiple networks: satellite, LAN, WAN and IP

- Sensitive information is protected by customisable security and access tools.
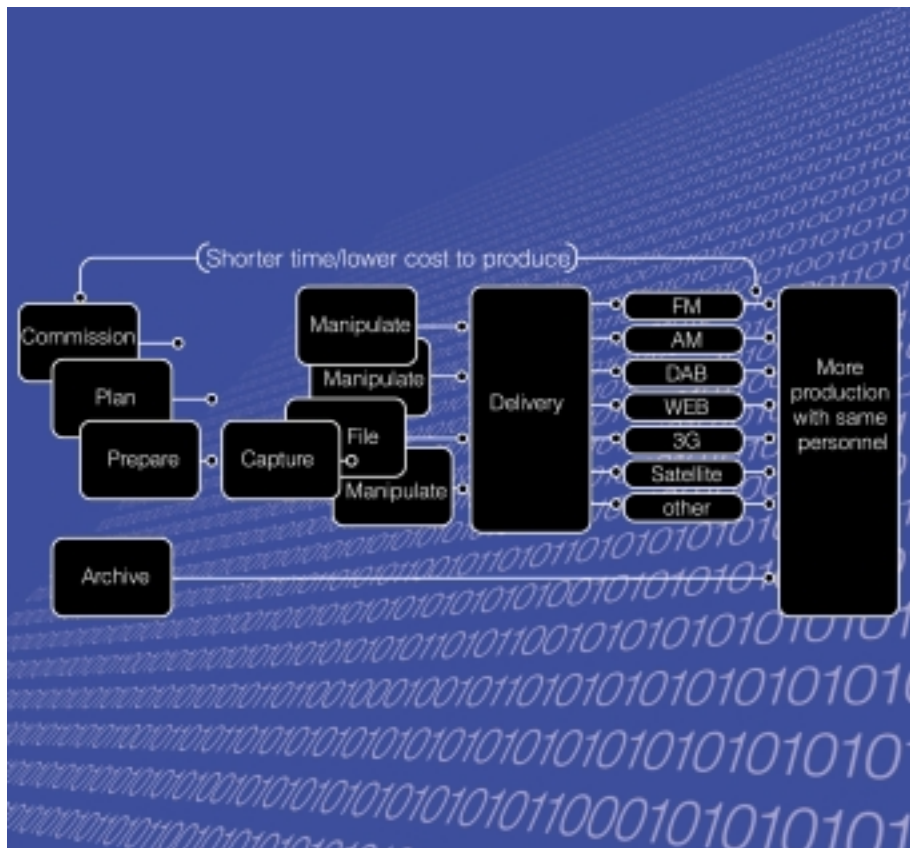

Highlights
- Centralise simplify and reduce the costs of digital content distribution

- Increase advertising and marketing effectiveness with targeting and timely distribution of content

- Improve corporate communications and help motivate and train employees

- Automates workflow saving time, money and manpower.

- Collect and report data from distribution points, providing a framework for e-business transactions and data mining.

RadioMan

RadioMan, from Jutel Oy, is a scalable system that seamlessly integrates and controls the different tasks involved in the management of radio stations including scheduling and program planning, content production, versioning and broadcasting of programs for multiple new media channels. These channels include DAB (Digital Audio Broadcasting), satellite, the Web, WAP (Wireless Application Protocol) and future mobile systems (3G). RadioMan has an open architecture that is highly flexible to adapt to the complex and developing needs of large broadcasters.

Features

- Integrates and controls radio station workflow: scheduling, digital production and program planning, on-air tasks and archiving

- Appropriate for range of radio broadcasting: national channels, regional or local channels, newsroom operations, international services with multiple channels, studios and services

- Scalable system can be installed on PC platform, NT servers, or high-availability UNIX** clusters; scalable storage from one disk to very large archives with tape robots

- Integrated with IBM Content Manager and DB2*

- Quick Edit Pro, a sophisticated editing system with a simple interface

- Designed for large broadcasters but can be adapted to smaller installations.

Highlights

- Enhance productivity and quality of programming

- Adaptation to bi-directional technologies such as WWW, DAB, WAP

- Jutel's expertise in digital broadcasting system software combined with IBM's hardware, local support and maintenance resources provide a complete and proven solution designed to meet the individual needs of large national radio broadcasters in different environments.

www.radioman.fi

MPEG-2 Encoder and Decoder Solutions

IBM is a quality supplier of MPEG-2 compression and decompression technologies and associated firmware. This growing family of MPEG-2 products focus on the needs of the broadcast, server, video conferencing, communications, surveillance, editing, and digital set-top box marketplaces.

IBM's Digital Video Products Group (DVPG) is closely allied and aligned with the IBM Research organisation, historically one of the most productive research organisations in the world. All of our encoder and decoder products conform to international ISO standards for MPEG-2.

Decoder products: the CS24 family

- The CS24 family is a range of high performance/cost-effective, integrated decoder chips for customers who require 4:2:2P@ML video decoding, while also requiring an integrated transport and MPEG audio decoder/ Dolby** digital capability

- The chips, designated MPEGCS24 and MPEGCS24D, are designed for audio/video decoding equipment used by the entertainment industries for a range of applications

- These integrated decoder chips also incorporate dual audio decoders permitting two independent audio streams to be simultaneously decoded, delivering either MPEG and/or Dolby digital audio output.

Digital set-top box integrated controllers

These controllers are single-chip solutions for advanced set-top box applications. Advanced functions, such as Web browsing, e-commerce, e-mail, Java**, and other interactive applications are now being included in set-top boxes.

- All the STB controllers integrate PowerPC* processors, MPEG-2 audio/video decoders and transport demultiplexers, memory controllers, and a variety of peripheral interfaces.

- Some of the products incorporate Dolby Digital audio decode functionality in addition to MPEG audio.

- At the low-end, we have integrated the PowerPC 401 processor, and in the mid-range and high-end, we have integrated our higher performance PowerPC 405 processors.

- All products are based on PowerPC processors. So, software compatibility is maintained from the low-end up through the high-end. Enabling customers to employ one set of software across a broad range of products.

Encoder products

Our current line of encoders, the S-Series, is our first family of single chip MPEG-2 video-only encoders, replacing the ME30 and ME31 chipsets.

- Our new encoder products support the demanding requirements of the communications and broadcast industries for DVD mastering, authoring, and other content-creation applications.

- IBM's MPEG S-Series is also suitable for applications where encoding equipment is used throughout the transmission process, including routers and switches, cable head-ends, and satellite news-gathering and up-link equipment

- We also offer the E-Series Extended Search encoder kits. The E-series are highly integrated MPEG-2 compression engines, designed to meet the most demanding needs of broadcast-quality video, especially where extended search range is required.

IBM at IBC 2000

For more information on what you have just seen at the IBM stand please visit our Web site at **ibm.com**/solutions/media or contact:

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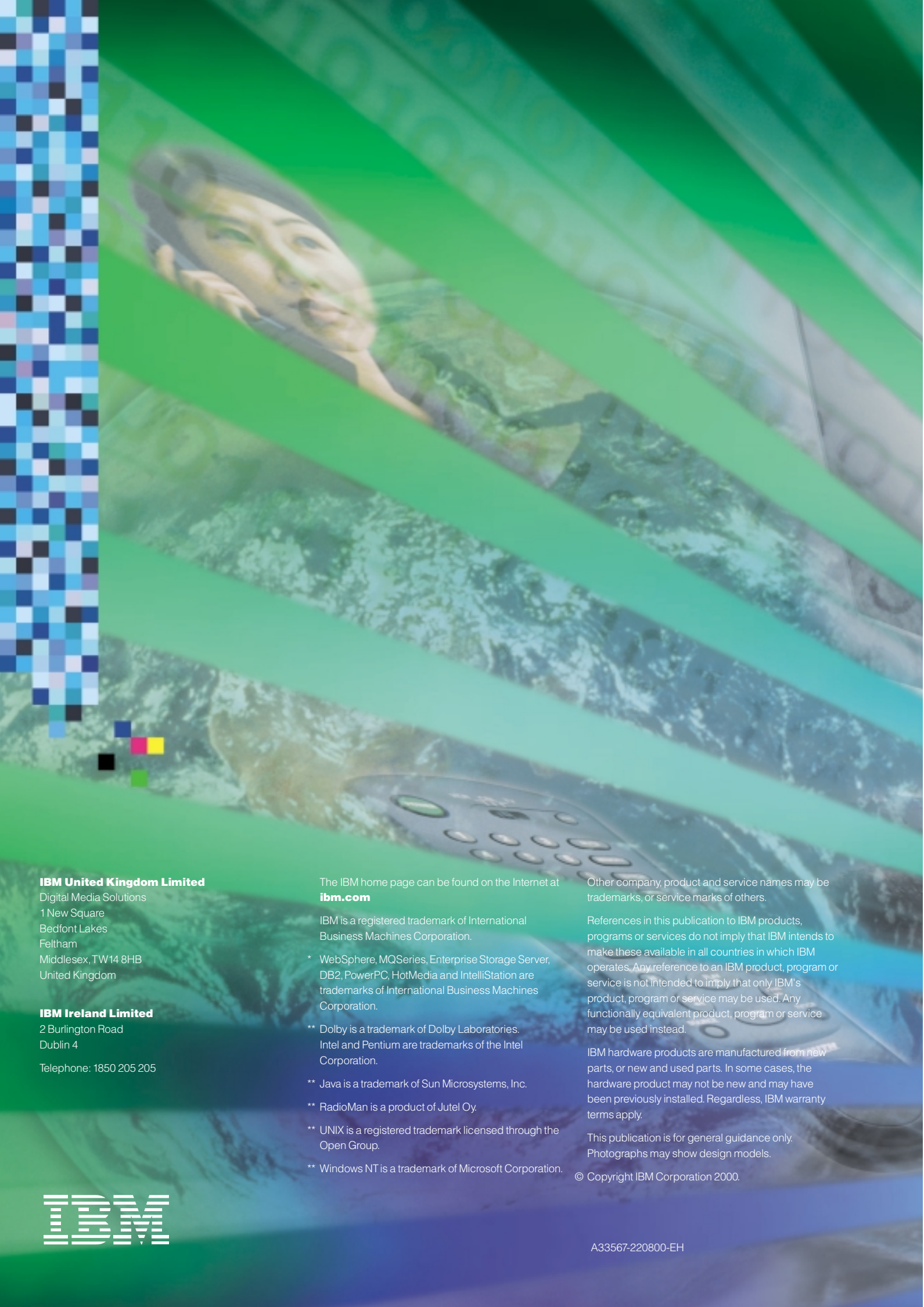
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