



IBM Digital Media

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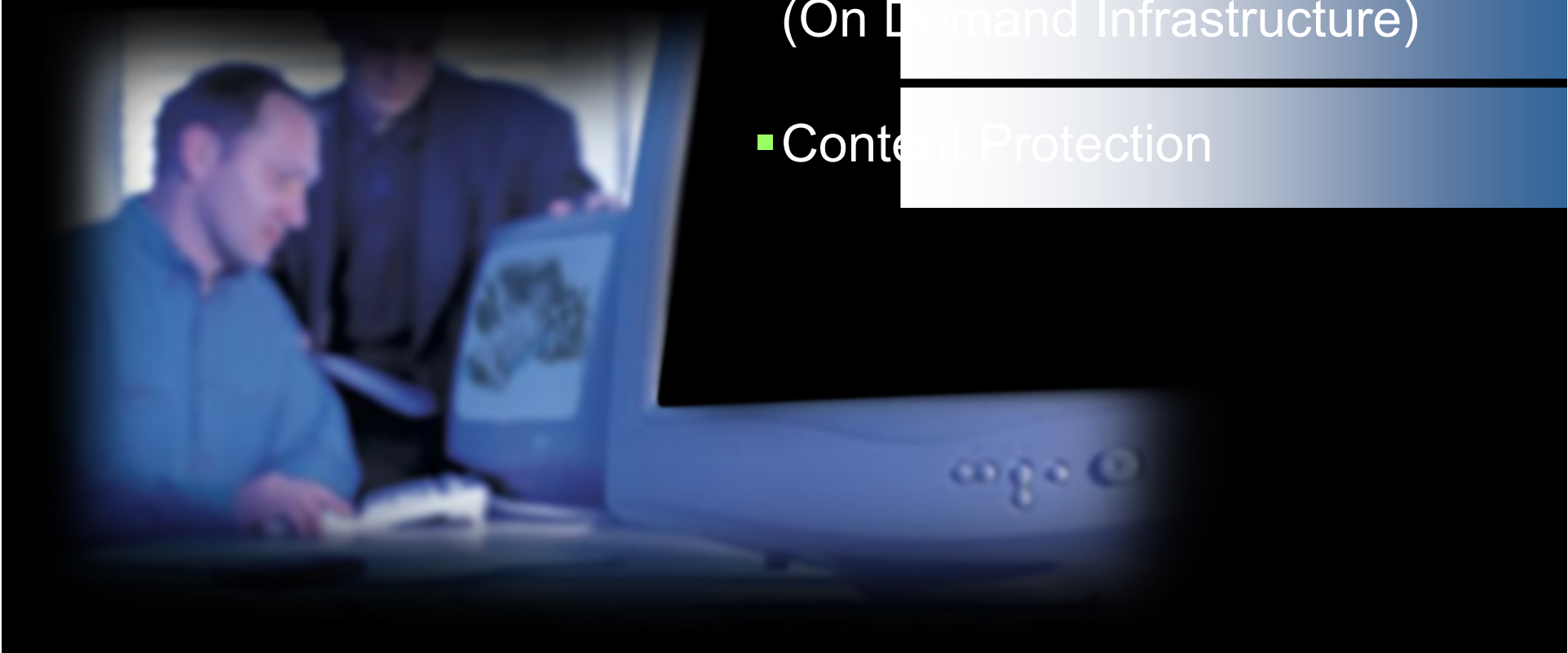
*New Opportunities for Content
and Ensuring Content Protection*

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2 Key Plays

- Flexible Platform
(On Demand Infrastructure)
- Content Protection

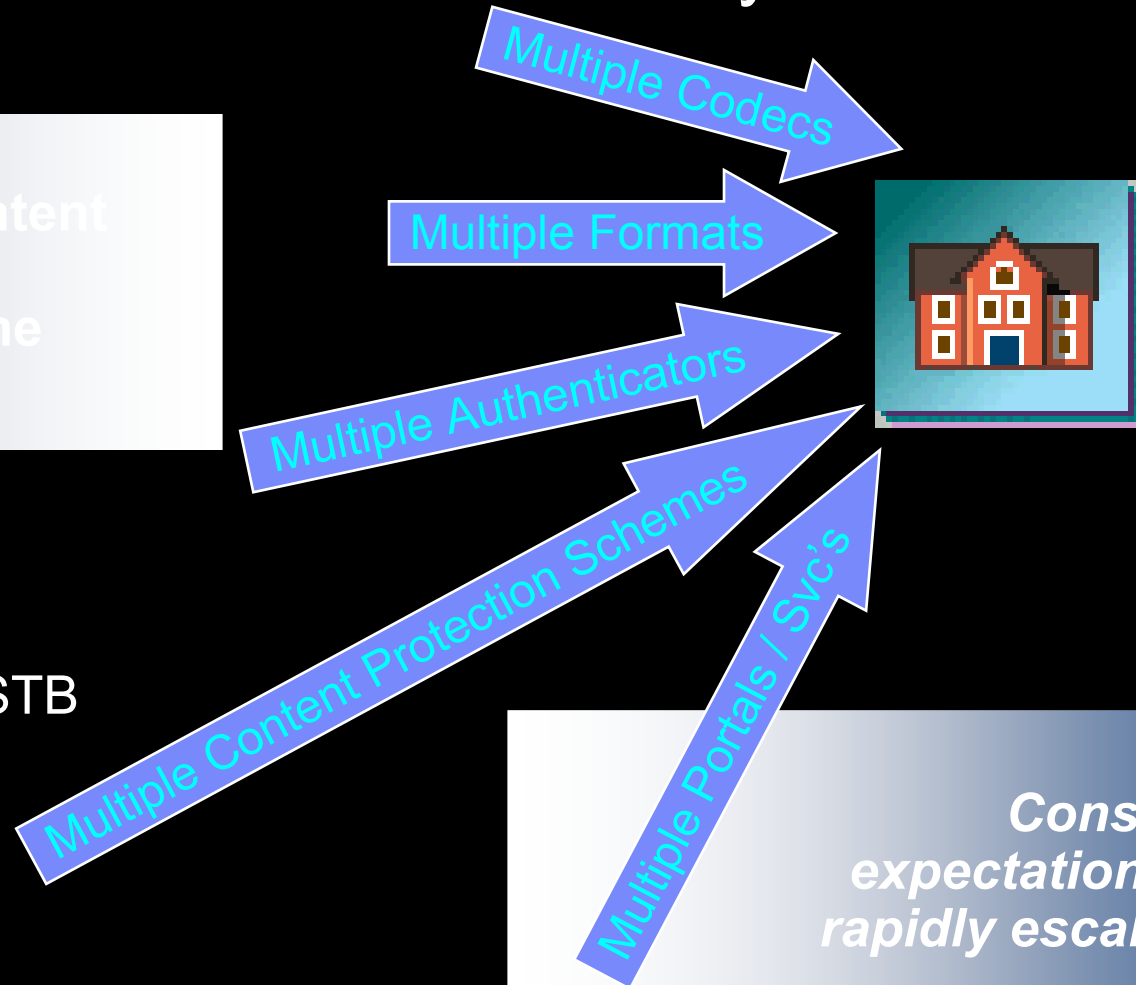


The Problem for Home Networks Today

Delivering secure content from multiple sources to the home

A simple example:

- * Watch movie on DSTB
- * Record with a DVR
- * Copy to a DVD
- * Play on a laptop



Consumer expectations are rapidly escalating

The Two Dominant Content Security Systems Today

➤ **Conditional Access Systems**

Focused on protection and subscriber management of broadcast content

Does not easily support requirements for the today's content distribution environment

- Media
- Devices
- Content

➤ **End-to-end DRM's**

Tend to be proprietary solutions: Microsoft, Real Networks, etc

PKI based so identity required

Significant IP Issues

Designed for PCs as Clients with complex software & lack user friendliness

Approach does not meet the requirements of all business models

- Broadcast, home networks, games, etc

Not well suited for embedded processors and CE devices

A Business Model for Success

Broadcast Encryption

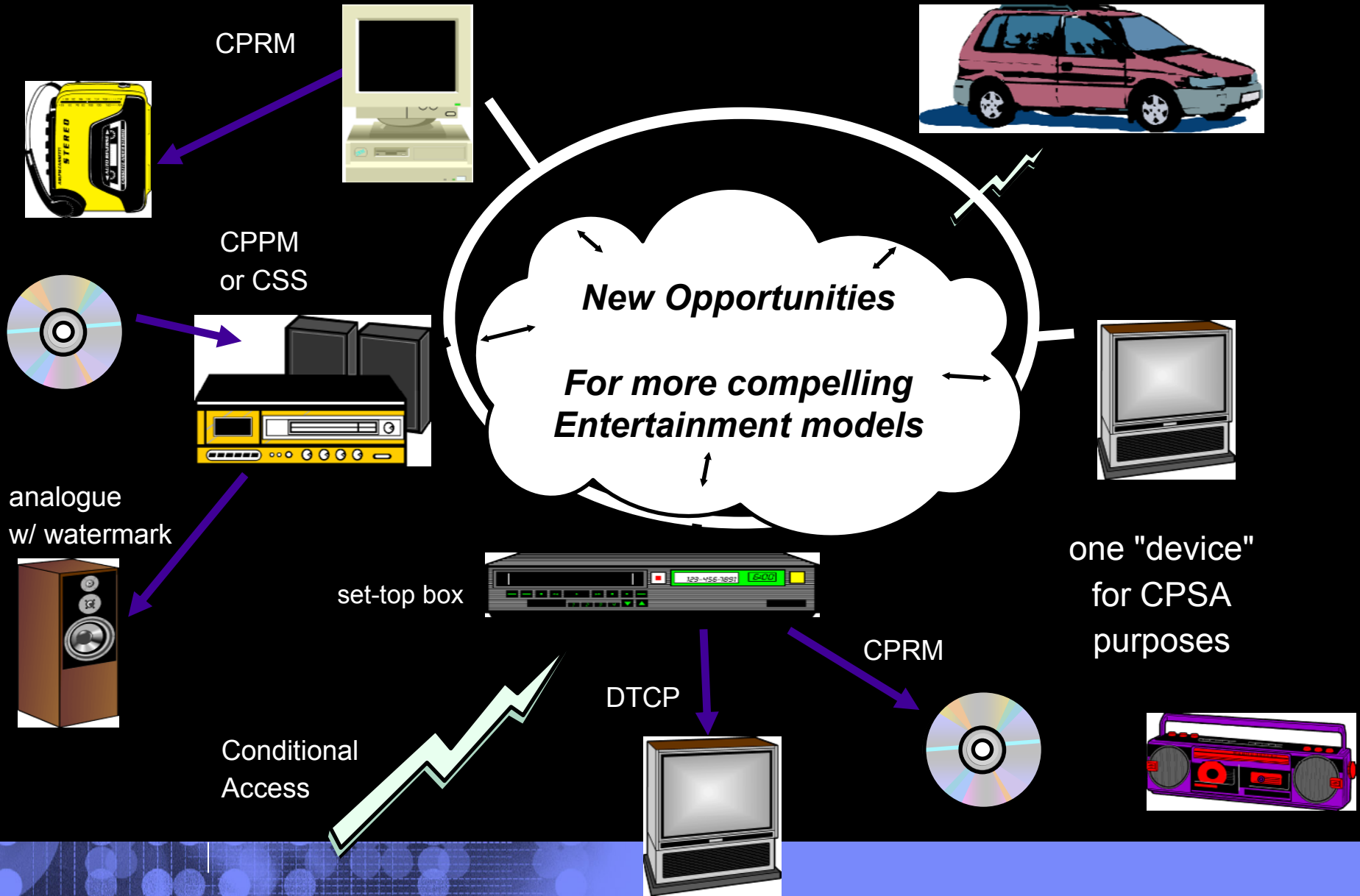
- Small footprint
- Transparency to consumer
- Enable business models that support
- Both physical and electronic distribution

Technology Licensing

- Establishes rules for participants in the eco-system
- Protects participants from IP litigation

Open Standards

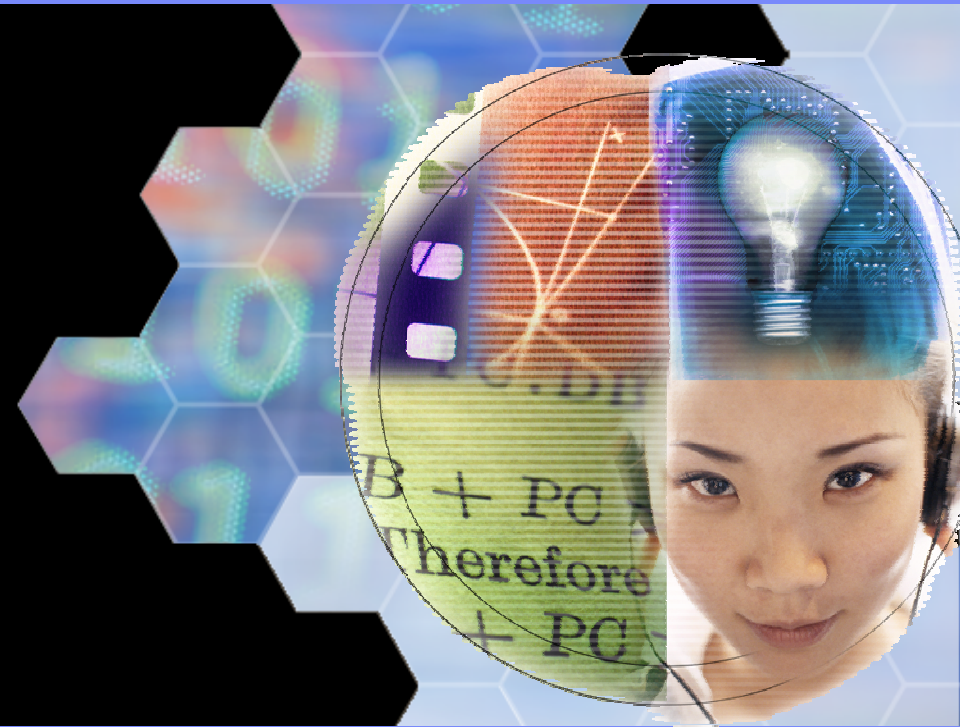
- Market place acceptance across many devices





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Thank You!



Broadcast Encryption is widely used today

Broadcast Encryption used today in two major consortia

4C

- Founded by IBM, Intel, Toshiba and Matsushita
- Licensing CPRM and CPPM technology
- Over 150 adopters and over 200 million devices enabled

AACS-LA

- Founded by IBM, Intel, Sony, Toshiba, Matsushita, Disney, Warner Bros, Microsoft

Will license content management technology for the next generation optical media (high definition DVD) by year end

Both 4C and AACS LA have been enhanced to enable electronic interaction

Broadcast encryption is being extended to home networking

CPRM Download

➤ **The 4C organization recently released the CPRM download spec**

Content is formatted and encrypted with usage information at the server

Content can be securely downloaded on an unsecured link, to an unsecured recorder and recorded on a CRPM compliant media for playback

- SD Card
- Recordable DVD audio

4C Content Protection CPRM download



AACS-LA

- **Designed to protect next generation DVD**
- **Supports both electronic and physical distribution and commerce**

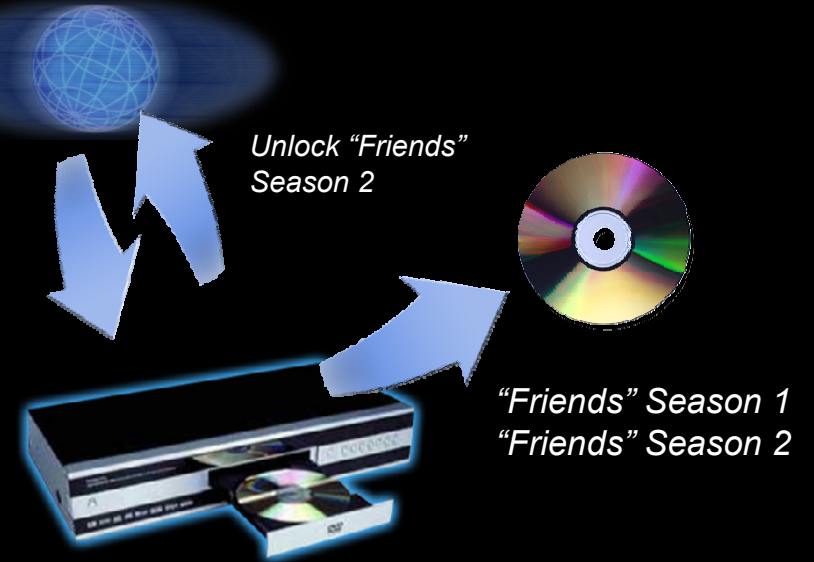
AACS-LA

*Electronic Distribution
with Secure Copy*

*Media Gateway
and STB*

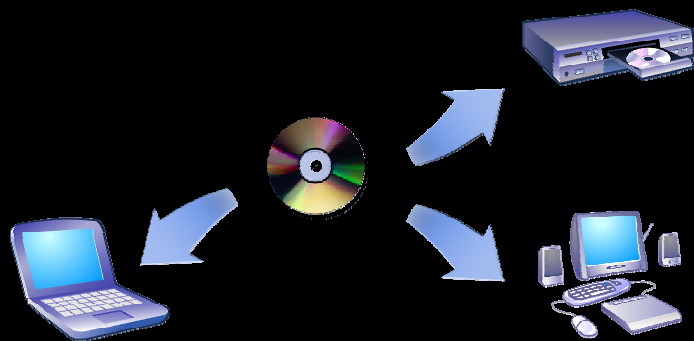


*Unlocking of content
resident on the DVD*

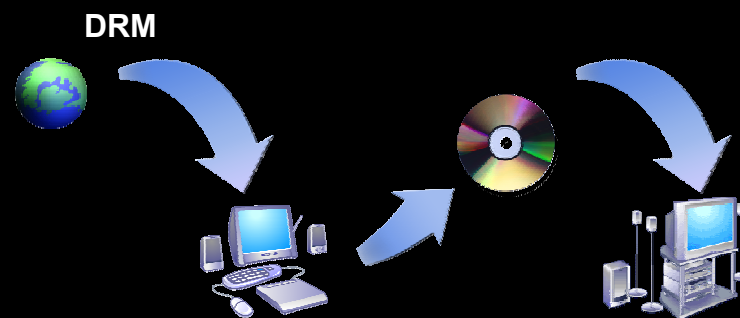


Expanded Usage Scenarios

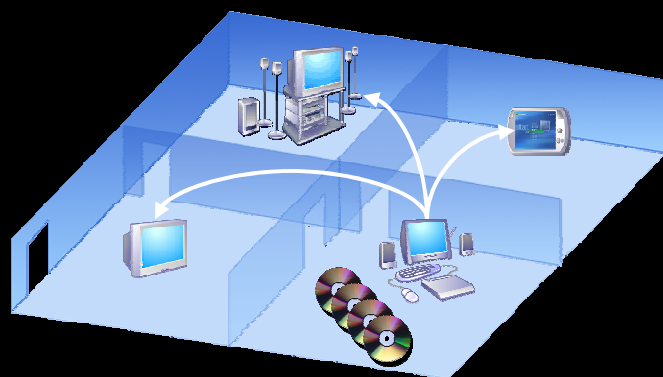
Local Playback



Electronic Distribution with Secure Copy



Home Media Server



Portable Device



Digital Media Summary

Key Areas of Focus

- Flexible Infrastructure
- Content Protection

***PLUS Compelling
Content***



Technology for Digital Media

PlayStation



Nintendo



 NVIDIA.



 XBOX



Digital On Demand *Threshold Entertainment*

Food Fight!

1/2 the Time
1/2 the Cost

Distributed Creative



Digital for the Media Industry

Leveraging Assets Across the Globe

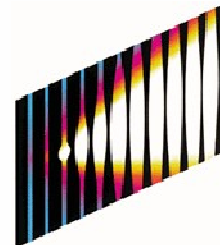


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PICTURES



On Demand Infrastructure

Video On Demand IPTV
VoIP
Streaming Music Music
Downloads

CRM
Billing
Administration
etc.

