

THE RISE OF BROADBAND VIDEO

IP Set-Tops, Entertainment and Media Centers and Alternative Distribution Networks (DSL/Cable/FTTH)

What Does This Report Answer?

- Digital Cable, DBS, Terrestrial and now IP
 What is the future of video distribution?
- Is it time for cable and DBS providers to redefine some of their relationships with the content owners and aggregators?
- What are the present and future opportunities for equipment vendors, content aggregators, and service providers?
- Intel & Microsoft bring video distribution to broadband – How successful are they going to be?
- Leading IC vendors aim for the IP video distribution market Who is heading in the right direction?
- What is the game plan for ILECs, RBOCs, and IOCs, across all the leading regions?
- What challenges exist for DRM, middleware and application layer vendors?

WHO NEEDS THIS REPORT?

- CE vendors offering IP STBs, Media and Entertainment Centers
- IC and component vendors supplying to the IP video distribution market
- Content owners and aggregators
- Cable and DBS set-top vendors
- Cable, DBS and ADSL operators
- PC to TV bridge vendors
- DRM vendors
- Middleware and application layer vendors
- Game console vendors

REPORT INFORMATION

Product Code: BBV
Publication Date: 3Q 2004
Number of Pages: 115
Number of Figures: 47

MAIN TOPICS OF THE REPORT

TECHNOLOGIES

- IP STB
- Media Centers and Broadband Ready Entertainment Hubs
- Microprocessors, Encoders and Decoders
- H.264

- Windows Media Video Codec 9 Series
- DRM
- Middleware and application layer software

END USE MARKETS

- Broadband Households by Region
- Broadband Households by Technology
- Broadband Video Households by Region
- Broadband Video Households by Technology
- IP STB Shipments by Region and by Technology
- Media Center and Entertainment Hub Shipments

KEY MARKET FORECASTS

- Asia-Pacific
- · North America
- Western Europe
- · Rest of the World

RELATED ABI RESEARCH

- Digital Set-Top Box Quarterly Service
- Global Broadband & Video Subscribers Quarterly Service
- Residential Entertainment Technologies Quarterly Service

TABLE OF CONTENTS

Section 1

Strategic Overview

- 1.1 History of Video and Movie Entertainment
- 1.2 Present Packaged Video Distribution Market
 - 1.2.1 In-Store VHS and DVD Rental and Sales
 - 1.2.2 Online DVD Rental and Sales
- 1.3 Cable and Satellite Pay-per-View
- 1.4 Present Online Video Distribution Market
 - 1.4.1 Broadband Download
 - 1.4.2 Broadband Streaming
- 1.5 The Case Against the Future of Online and Store Video/DVD Rentals
- 1.6 State of the Telco Industry
- 1.7 Is the Industry Ready for Online Delivery
- 1.8 Broadband Video Distribution Challenges
- 1.9 PC To TV: The Hand-Off
- 1.10 Capital Expenditures Are High for Delivering DTV
- 1.11 IP Delivery Coming Home

Section 2

Technology and Business Overview

- 2.1 Technology Overview
- 2.1.1 Broadband Paves Way for the Future of Video Distribution
 - 2.1.2 Leading Broadband Technologies
 - 2.1.3 Leading Compression Technologies
 - 2.1.3.1 Video
 - 2.1.3.1.1 MPEG-2
 - 2.1.3.1.2 MPEG-4
 - 2.1.3.1.3 H.263
 - 2.1.3.1.4 H.264/AVC
 - 2.1.3.1.5 Window Media 9 Series Video Codec
 - 2.1.3.1.6 DivX
 - 2.1.3.2 Audio
 - 2.1.3.2.1 MP3
 - 2.1.3.2.2 AC3
 - 2.1.3.2.3 AAC
 - 2.1.3.2.4 On2 VP6
 - 2.1.4 Encryption, Security and Interfaces
 - 2.1.4.1 Content Storage, Content Encryption, and Interface

Technologies

- 2.1.4.1.1 DVI
- 2.1.4.1.2 IEEE 1394/Firewire
- 2.1.4.1.3 USB
- 2.1.4.1.4 HDMI
- 2.1.4.1.5 HDCP
- 2.1.4.1.6 DTCP
- 2.1.4.1.7 HighMAT
- 2.1.4.2 Broadcast/ATSC Flag
- 2.1.4.3 Concerns over Analog Hole
- 2.1.5 DRM Overview
- 2.1.6 Standards, Consortiums, and Alliances
- 2.1.6.1 FSAN and FS-VDSL
 - 2.1.6.2 Internet Streaming Media Alliance
 - 2.1.6.3 MPEG-4 Industry Forum

2.2 Business Overview

- 2.2.1 Content Owners' Concerns
- 2.2.2 Dilemma for Content Aggregators
- 2.2.3 Successful Distribution Models
 - 2.2.3.1 Rental Videos and DVDs

- 2.2.3.1.1 Blockbuster
- 2.2.3.1.1.1 Future of Blockbuster's Business
- 2.2.3.2 Online Rentals
 - 2.2.3.2.1 NetFlix
 - 2.2.3.2.2 WalMart Online DVD Rental Business
 - 2.2.3.2.3 Blockbuster Online DVD Rental Business

2.3 Content Owners Sidestep Middleman

- 2.3.1 CinemaNow
- 2.3.2 MovieLink
- 2.3.3 MovieBeam
- 2.3.4 Akimbo
- 2.3.5 LuxSat
- 2.4 Other Distribution Models
 - 2.4.1 Video Rentals via ATMs

Section 3

Consumer Premises Equipment

- 3.1 Broadband Video Overview
- 3.2 Applications for Broadband Video
 - 3.2.1 Media Streaming
 - 3.2.2 Online Video On Demand
 - 3.2.3 PVR/DVR
 - 3.2.4 Video Chat, Telephony, and Conferencing
 - 3.2.5 Distant Learning and Business **Applications**

3.3 PC and CE-Centric Equipment

- 3.3.1 Entertainment Media Centers
 - 3.3.1.1 Microsoft Media Center
 - 3.3.1.2 Roku
 - 3.3.1.3 Prismiq
 - 3.3.1.4 TiVo
- 3.3.1.5 High-End PCs
- 3.3.2 PCTV Cards and Adapters
- 3.3.3 PC to TV Bridges (Media Adapters)
 - 3.3.3.1 Wired Media Adapters
 - 3.3.3.2 Wi-Fi Media Adapters
 - 3.3.3.3 Key Players
 - 3.3.3.1 Linksys (Cisco)
 - 3.3.3.3.2 TiVo
 - 3.3.3.3 SnapStream
 - 3.3.3.4 Hauppage
 - 3.3.3.5 AITech International Inc
 - 3.3.3.3.6 Intel

3.4 STB-Centric Equipment

- 3.4.1.1 IP STB
 - 3.4.1.1.1 IP STB Overview
 - 3.4.1.1.2 Basic and Advanced IP
 - 3.4.1.1.3 Will the IP STB Market Catch Up with Mainstream
 - DSTBs? 3.4.1.1.4 Worldwide IP STB Forecasts
 - 3.4.1.1.5 Vendors Focus
 - 3.4.1.1.5.1 Kreatel

3.5 Broadband and Other Media Centers

- 3.5.1.1.1 Digeo's Moxi Powerkey
- 3.5.1.1.2 Motorola's BMC 9000
- 3.5.1.2 Game Consoles
 - 3.5.1.2.1 Microsoft Plugs Media Center PC to Xbox

Service Providers and Content Distributors

- 4.1 ADSL Service Providers Are Ready for the Triple Play
 - 4.1.1 Need for the Triple Play
 - 4.1.2 Cable Broadband Users Have High Data Rate: DSL Broadband Providers Are More Proactive
 - 4.1.3 Cable, DSL, and the Other
 - 4.1.4 Technology is Ready
 - 4.1.5 Key Entities In the Broadband Video Distribution Chain
 - 4.1.5.1 Content Encryption
 - 4.1.5.2 Content Storage
 - 4.1.5.3 Delivery-Equipment, Access, Infrastructure
 - 4.1.5.4 CPE Access
 - 4.1.6 Content Owners Are Opening Up
- 4.2 Service Providers Should Team with Content Owners

4.3 US IOCs, CLECs, ILECs, and RBOCs:

Their Game Plan

- 4.3.1 CLECs and IOCs Traditionally Avoid Capital Expenditures
- 4.3.2 US IOCs and RBOCs Have Different Paths in Offering the Triple Play
- 4.3.3 IOCs Find It Easier than RBOCs to Offer Video Services
- 4.3.4 US RBOCs Have Tried and Failed In the Past
- 4.3.5 US RBOCs Are Sleeping with the Enemy's Enemy
- 4.3.6 US CLECs See the End of the Tunnel
- 4.3.7 US ILEC and RBOC Broadband Video Overview

4.4 Some Present and Prospective Broadband Video Service Providers

- 4.4.1 North America Providers
 - 4.4.1.1 Bell Canada

 - 4.4.1.2 Century Tel 4.4.1.3 Aliant Telecom
 - 4.4.1.4 SaskTel
 - 4.4.1.5 SureWest
- 4.4.2 Western Europe Providers
 - 4.4.2.1 FastWeb In Italy
 - 4.4.2.2 Deutsche Telekom
 - 4.4.2.3 France Telecom
- 4.4.3 Asia-Pacific Providers
 - 4.4.3.1 Korea Telecom 4.4.3.2 Yahoo! Broadband in Japan

- 4.5 Innovative Content Packaging 4.5.1 Existing Online Content Finds
 - Revenue Opportunities 4.5.1.1 Sports Leagues Could Cash in
 - **Customized Content** 4.5.1.2 Special Interest Content Finds End of Tunnel
 - 4.5.2 MSN and Yahoo Scale to Video Subscriptions
 - 4.5.2.1 MSN Video Service
 - 4.5.2.2 Yahoo and SBC
- 4.6 Marketing and Advertising: In the New Era
- 4.7 What Kinds of Video Services Can Broadband Providers Offer Today?
- 4.8 Subscription Models
 - 4.8.1 Genre-Based Models

TABLE OF CONTENTS (CONT)

- 4.8.1.1 Movies and Sports
 4.8.1.1.1 Starz and RealNetworks
- 4.8.2 Use-Based Models
 - 4.8.2.1 Number of Downloads per Month
 - 4.8.2.2 Viewing Refills and Download-to-Own
- 4.8.3 A la Carte or Digital TV Service
- 4.8.4 Streaming Versus Download

Section 5

Digital Rights Management

- 5.1 Digital Rights Management Overview
- 5.2 Leading DRM Vendors
 - 5.2.1 Irdeto Access
 - 5.2.2 WiDEVine
 - 5.2.3 Microsoft
 - 5.2.3.1 Windows Media Player 10 is Decked Out
 - 5.2.4 NDS
 - 5.2.5 SecureMedia
 - 5.2.6 Nagra (Kudelski Group)
 - 5.2.7 VeriMatrix

Section 6

Middleware and Application Layer Software

- 6.1 Middleware Overview
- 6.2 Leading Middleware Vendors
 - 6.2.1 Alticast
 - 6.2.2 MediaHighway
 - 6.2.3 Osmosis
 - 6.2.4 Myrio

- 6.2.5 OpenTV
- 6.2.6 Minerva Networks
- 6.2.7 Tandberg TV
- 6.3 Application Layer Software Overview
- 6.4 Leading Application Layer Vendors
 - 6.4.1 Espial
 - 6.4.2 Orca Interactive
 - 6.4.3 GoTuIt
 - 6.4.4 G-Cluster
 - 6.4.5 GooMe Interactive

Section 7

Leading Players in the Regional Ecosystem

- 7.1 Key Entities of Broadband Video Ecosystem
- 7.2 Key US Broadband Video Ecosystem Players
 - 7.2.1 Service Providers and Operators: US
 - 7.2.2 IP STB CPE Equipment Vendors: US
 - 7.2.3 Content Owners and Aggregators: US
 - 7.2.4 DRM, Infrastructure, and Storage Vendors: US
- 7.3 Key Canadian Broadband Video Ecosystem Players
 - 7.3.1 Service Providers and Operators: Canada
 - 7.3.2 IP STB Equipment Vendors: Canada
 - 7.3.3 Content Owners and Aggregators: Canada
 - 7.3.4 DRM, Infrastructure, and Storage Vendors: Canada

- 7.4 Key European Broadband Video Ecosystem Players
 - 7.4.1 Service Providers and Operators: Europe
 - 7.4.2 IP STB Equipment Vendors: Europe7.4.3 DRM, Infrastructure, and StorageVendors: Europe
- 7.5 Key Chinese Broadband Video Ecosystem Players
 - 7.5.1 Service Providers and Operators: China
 - 7.5.2 IP STB Equipment Vendors: China
 - 7.5.3 DRM, Infrastructure, and Storage Vendors: China
- 7.6 Key South Korean, Japanese, and RoW Broadband Video Ecosystem Players
 - 7.6.1 Service Providers and Operators: South Korea, Japan, and RoW
 - 7.6.2 IP STB Equipment Vendors: South Korea, Japan, and RoW
 - 7.6.3 Content Owners and Aggregators: South Korea, Japan, and RoW
 - 7.6.4 DRM, Infrastructure and Storage Vendors: South Korea, Japan, and RoW

Appendix A
Company Directory

Appendix B Acronyms

LIST OF TABLES AND CHARTS

- Market Share of DRM Vendor Deployments in IP STB Models, World Market 2003
- Market Share of Middleware Deployments in IP STB Models, World Market: 2003
- Market Share of Application Layer Deployment in IP STB Models, World Market: 2003
- Historical and Future Video Distribution Leading Revenue Models, World Market: 1930 to 2008 and beyond
- Major Studio DVD Rental Forecast, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- DVD In Store Rental Forecast, World Markets: 2004
- DVD Online Rental Forecast, World Markets: 2005
- DVD Sales (online and store) Forecast, World Markets: 2006
- Entertainment Media Center Shipments, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009

- Entertainment Media Center ASP and Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- PCTV Card Shipments, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- PCTV Card ASPs and Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Wired PC to TV Bridges (Media Adapters) Shipments, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Wired PC to TV Bridges (Media Adapters)
 ASP and Revenue, World Markets, Moderate
 and Aggressive Forecasts: 2002 to 2009
- WiFi PC to TV Bridges (Media Adapters) Shipments, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- WiFi PC to TV Bridges (Media Adapters)
 ASP and Revenue, World Markets, Moderate
 and Aggressive Forecasts: 2002 to 2009
- IP STB Shipments, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009

- IP STB ASP and Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Broadband Media Center Shipments, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Broadband Media Center ASP and Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Broadband Video Subscribers, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Broadband Video and Broadband Subscribers by Region, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Cable Broadband Video Subscribers, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Cable Broadband Video and Cable Broadband Subscribers, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009

continued on back....



LIST OF TABLES AND CHARTS (CONT)

- Broadband Video over Cable Subscriber Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- DSL Broadband Video Subscribers, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- DSL Broadband Video and DSL Broadband Subscribers, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Broadband Video over DSL Subscriber Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Other Broadband Video Subscribers, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Other Broadband Video and Other Broadband Subscribers, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- Other Broadband Video and Other Broadband Subscriber Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009

- Telco TV Deployments and Vendors, US: 2004
- Telco TV /DTV/BB Broadcasting Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- BB VOD (Telco and Non-Telco) Subscriber Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- BB PPV (Telco and Non-Telco) Subscriber Revenue, World Markets, Moderate and Aggressive Forecasts: 2002 to 2009
- DRM Vendors and Their Core Focus, World Markets: 2004
- DRM Vendor Product Feature Comparison, World Markets: 2004
- DRM Vendor Deployments in IP STB Models, World Markets: 2004
- Middleware and DRM Vendor Partnerships, World Markets: 2004
- Microsoft DRM Content and Provider Partners, World Markets: 2004

- Middleware Vendors and Product Names, World Markets: 2004
- Middleware Vendors Deployments in IP STBs, World Markets: 2004
- Application Layer Deployments in IP STBs, World Markets: 2004
- Broadband Video Key Player Ecosystem, US: 2004
- Broadband Video Key Player Ecosystem, Canada: 2004
- Broadband Video Key Player Ecosystem, Europe: 2004
- Broadband Video Key Player Ecosystem, China: 2004
- Broadband Video Key Player Ecosystem, Korea: 2004
- Broadband Video Key Player Ecosystem, Japan: 2004
- Broadband Video Key Player Ecosystem, RoW: 2004

BELOW)

GLOBAL CONTACTS

ABI Research
Corporate Headquarters
69 Hamilton Avenue • Oyster Bay, NY 11771 USA
Phone 516-624-3113 • Fax 516-624-3115
NAsales@abiresearch.com

ABI Research Ltd. | European Office 68 Hardwicke Place • London Colney, St. Albans, Herts AL2 1PX, United Kingdom Phone 44-1727-769-421 • Fax 44.1727.822.319 EUsales@abiresearch.com

■ Send me <i>The Rise of Broadband Video</i> for \$4000 - BASIC License (1 to 4 users) For 5 or more users, please contact your ABI Client Relations Representative Format Options:	Payment: Check Enclosed	Bill My Company* (see
Online Access at abiresearch.com (.pdf format)	AMERICAN BOTALESS	DIC VEN
Printed Version (add \$100)	CARD NUMBER	EXP. D
CD-ROM (.pdf format)	CARDHOLDER'S SIGNATURE	
	NAME ON CARD	
Shipping Options:	NAME	EMAIL
\$25 S&H for non-prepaid orders (US only)	COMPANY	TITLE
\$35 Overnight Delivery (US only)	ADDRESS	
\$75 Expedited Service for international orders		
-	CITY,STATE,ZIP	
Total	COUNTRY	

THE ABI RESEARCH CLIENT SUPPORT GUARANTEE

All ABI Research reports include 30 minutes of support available 60 days from date of purchase. If you have questions about the industry covered, methodology used, or require analyst opinions on matters related to the licensed report, please visit www.abiresearch.com/contactus04.jsp.

- *- Purchase orders accepted from **pre-approved credit clients** only.
- NY State deliveries must add applicable sales tax.
- Non-US orders must be pre-paid by wire or check drawn on a US bank.
- Please contact ABI Research for bank & shipping details.
- Note: Orders placed after 3:30pm EST are shipped the following day.
 ALL SALES FINAL