



# **Connected Life Market Watch**

## **Implications of Online Video on Pay-TV Services**

**Cisco Internet Business Solutions Group**

**September 2010**



# Executive Summary

- Online video: supplemental or disruptive?
  - Depends on customer segmentation: may be disruptive for frequent online TV viewers
- Isolated disruption or trend toward substitution?
  - Online viewers are young early adopters, suggesting future substitution
- Implications for service providers
  - With current trends, 10% of pay-TV revenue could be at risk in 3-5 years
- Winning strategy for service providers
  - SPs are well-positioned to provide integrated service and maintain control



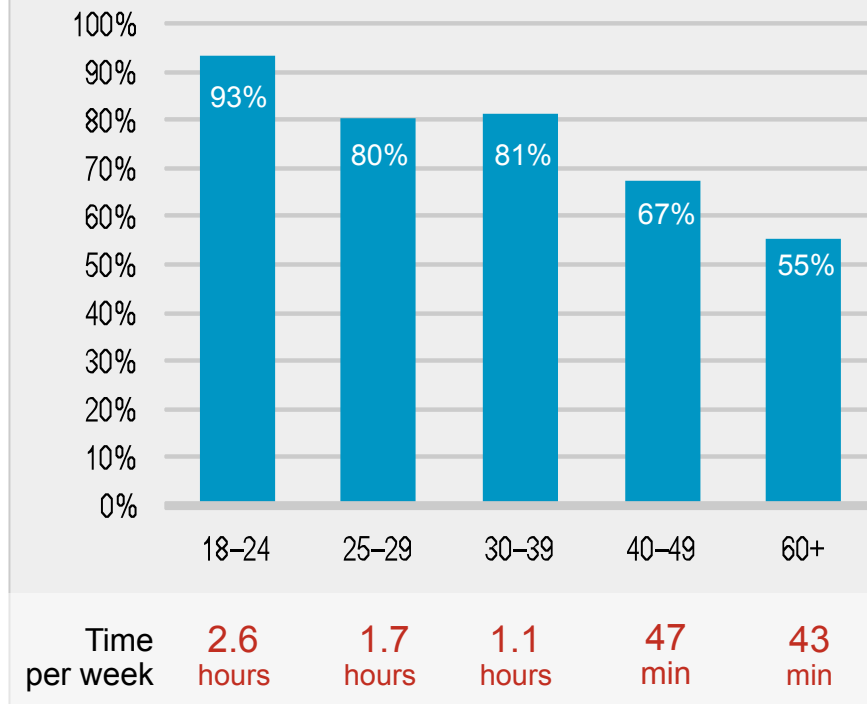
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# Growth of Online Video: Supplemental or Disruptive to Pay TV?

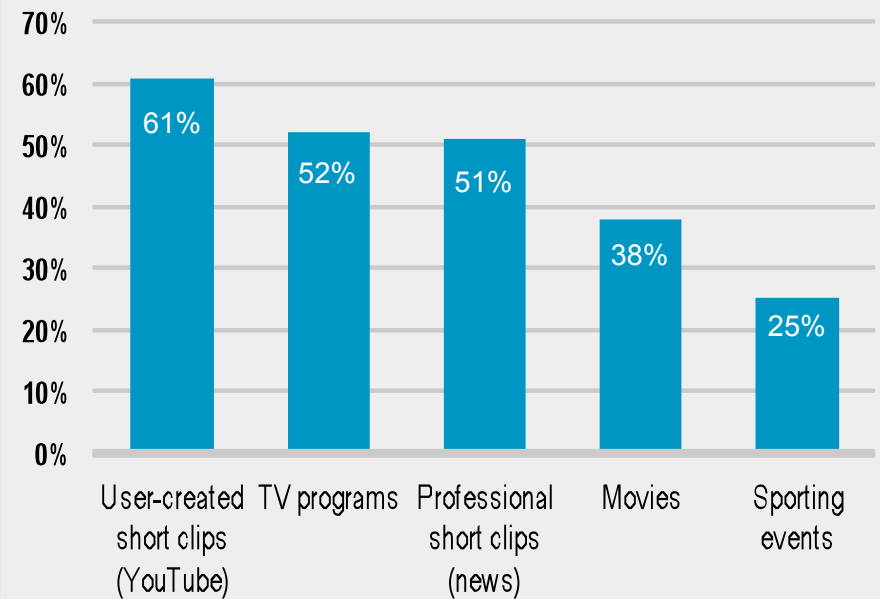
# Video Is Becoming Primary Form of Entertainment on Web

## Consumers of All Ages Watch All Types of Internet Video Content

Watching Internet Video (by Age)



Watching Internet Video (by Content)

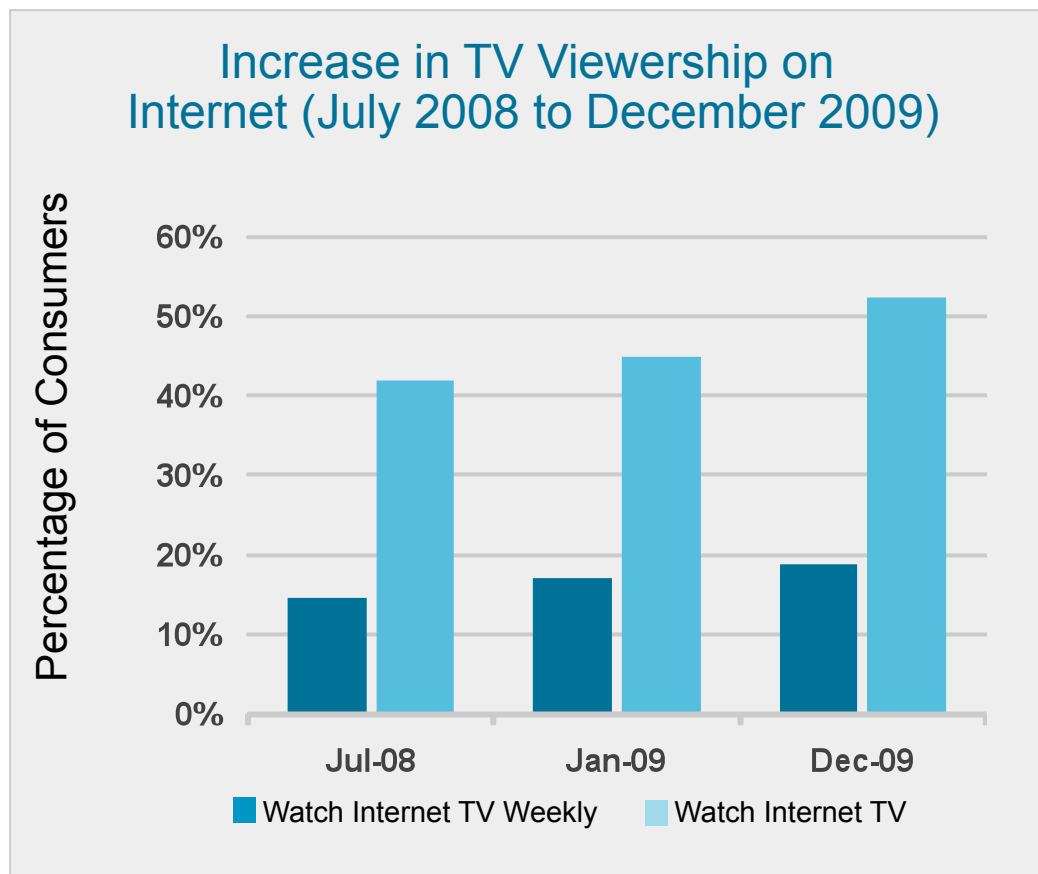


Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.S. Broadband Consumers

# Time Spent Watching Internet Video Is Growing

**Today, More Than Half of Broadband Consumers Watch TV on Internet**



- In 18 months ending December 2009, number of people who watch TV on Internet increased about 10%
- comScore reports even more aggressive growth, with 10% increase in total online video viewers in last 6 months of 2009
- Time spent viewing online video has grown 17% since July 2008

Source: Cisco IBSG Connected Life Market Watch, 2010; comScore, 2010

Base: U.S. Broadband Consumers

# Traditional TV Viewing Is Also Growing

## What Is Impact of Online Video?

In-home TV viewing is at all-time high

5.13 hours  
per person



~4 hours in  
1991

8+ hours per  
household



~7 hours in  
1991

“We seem to have an almost insatiable appetite for media, with online and mobile programming only adding to it.” – **The Nielsen Company**

Online video is growing

Traditional TV viewing  
continues to grow, too



Supplemental?

Even  
Complementary?

Or  
Disruptive?

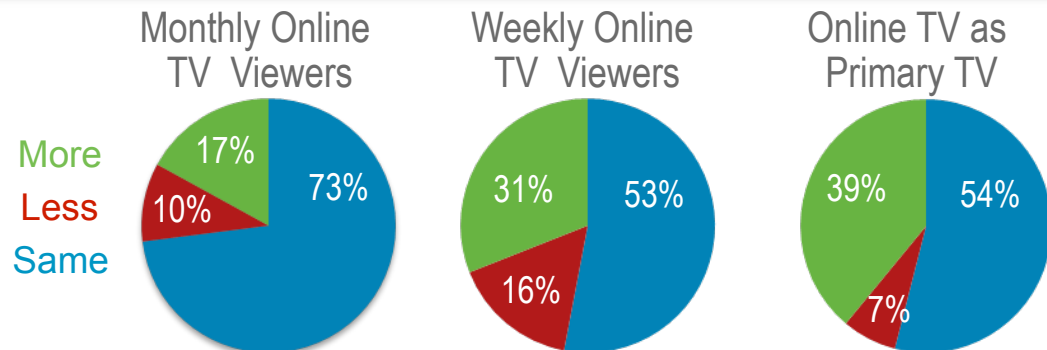
Source: The Nielsen Company, 2010; Cisco IBSG, 2010

# It All Depends on Who You Are

Percentage of Base	All TV Viewers (Broadband Users) 100%	Online Video Viewers 68%	Online TV Viewers 53%	Online TV as Primary TV 10%
Effect on Traditional TV	<b>Supplement</b> “More television sets in the home, more channels and content to choose from, and using their DVRs more than ever.” –Nielsen	<b>Complement</b> “(Online) contents create more interest, more buzz, and more awareness...drive more people to TV.” –NBC.com	<b>Substitution</b> Increase in online TV usage takes some viewership away from traditional TV	<b>Replacement</b> Full adoption of online TV replaces need for traditional TV

Traditional TV viewing since starting to watch online TV

Base: U.S. Online TV Viewers



Source: Cisco IBSG Connected Life Market Watch, 2010; The Nielson Company, 2010; NBC.com, 2010



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## Future Trends: Isolated Disruption or Trend Toward Substitution?

# Different User Experiences Result in Partial Substitution

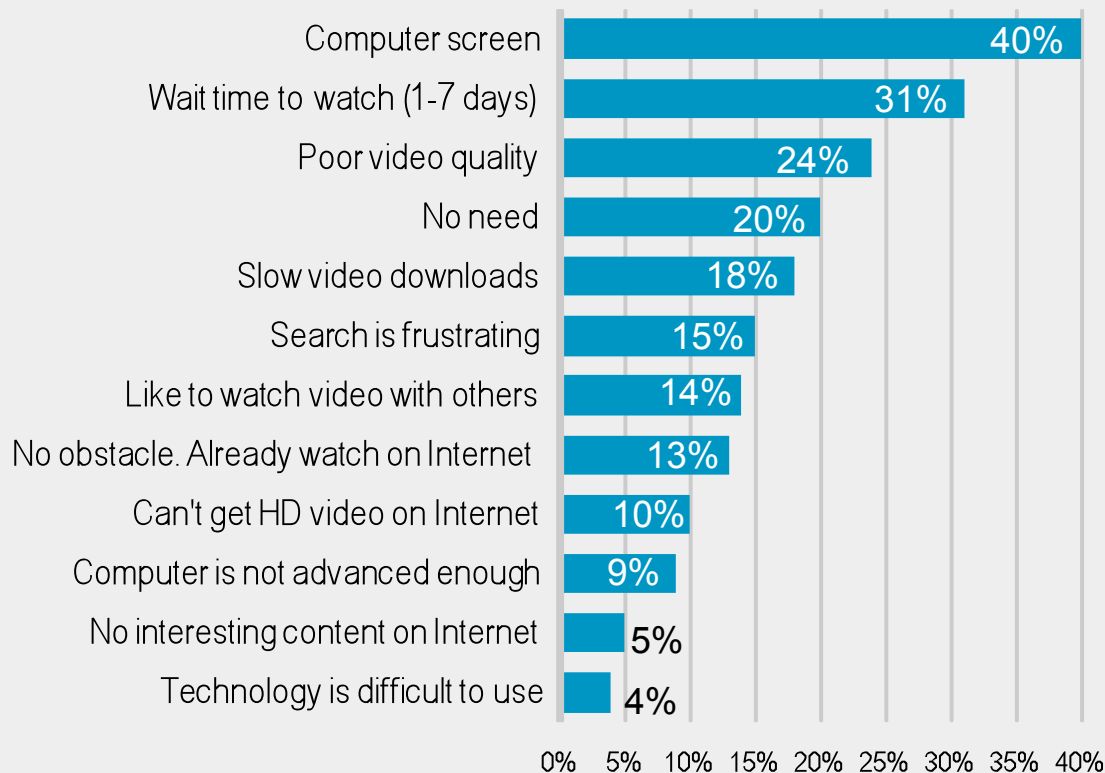
User Experience	Online Video	Connected TV	TV Everywhere	Traditional Pay TV
Device	PC, smartphone (personal, portable)	Connected TV	TV Everywhere	TV (large, sharing)
Contents	Basic TV (delayed), User-generated content (UGC)		Interface with UGC sites	Basic and premium TV (real time) ✓
Control	Time shift ✓		VoD expansion	DVR
Quality	Slow (download, streaming)	Technology upgrades		HD available, real time ✓
Interaction	Keyboard (more functionality)			Remote (easy, channel flipping)
User Interface	Informative, text-based, graphic-intensive ✓		Interactive guide	Basic, text-based, enhanced with video
Price	A la carte, subscription, free ✓			Subscription, pay-per-view

Source: Cisco IBSG, 2010

✓ = Experience Advantage

# Barriers Limit Major Disruption to Pay TV

## Reasons Consumers Don't Watch More Video on Internet



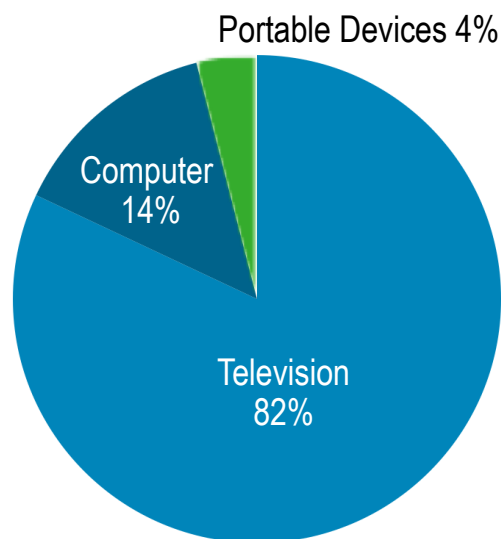
- Major protections for traditional pay TV include **screen preference, business models that enforce time delays, and video quality**
- Challenge: protections are not fully in control of service providers
- Changes in content distribution policy and technology can drastically impact consumers' behavior

Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.S. Internet TV Viewers

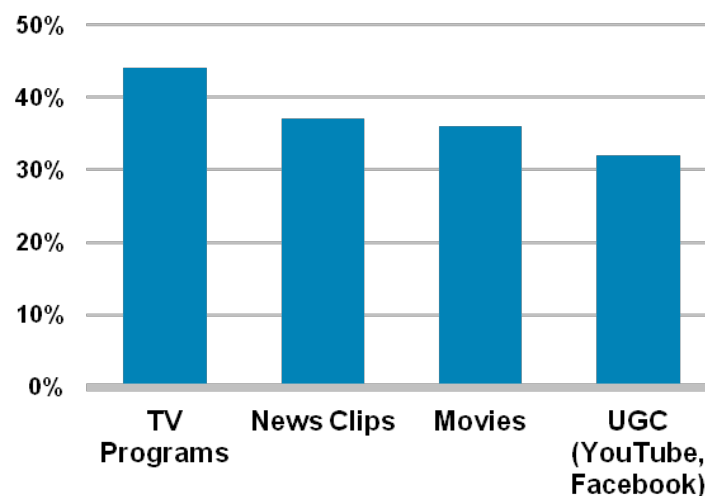
# TV Screen and Traditional Content Still Dominate Viewer Behavior

Device Used To Watch Video Entertainment  
as Portion of Total Time, 18- to 24-year-olds



- Devices are still separate
- Viewing online video on TV requires additional equipment and cost

Interest in Viewing Internet Video on TV  
by Type of Content



- Content still limited to Pay TV
- Relationship with SPs critical, as they still deliver vast majority of viewers and revenue

Source: Cisco IBSG Connected Life Market Watch 2010

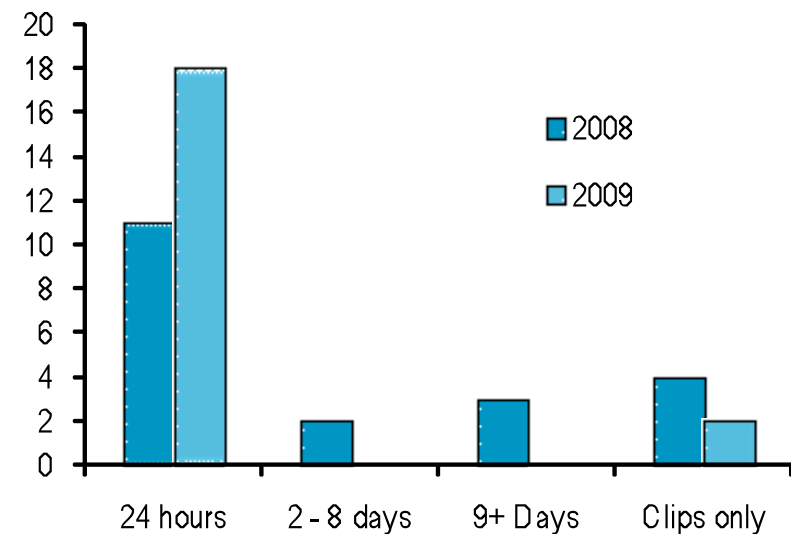
Base: U.S. Broadband Consumers

# Efforts Are Under Way by Non-SPs To Increase Level of Substitution

## Ways To Bring Online Video to TV and Vice Versa



## Top 20 Prime Time Broadcast Network Shows: Full Episodes Available Online



- NFL & NBC offering live streaming of Sunday NFL football games
- Over 70% of top cable network shows have full episodes online

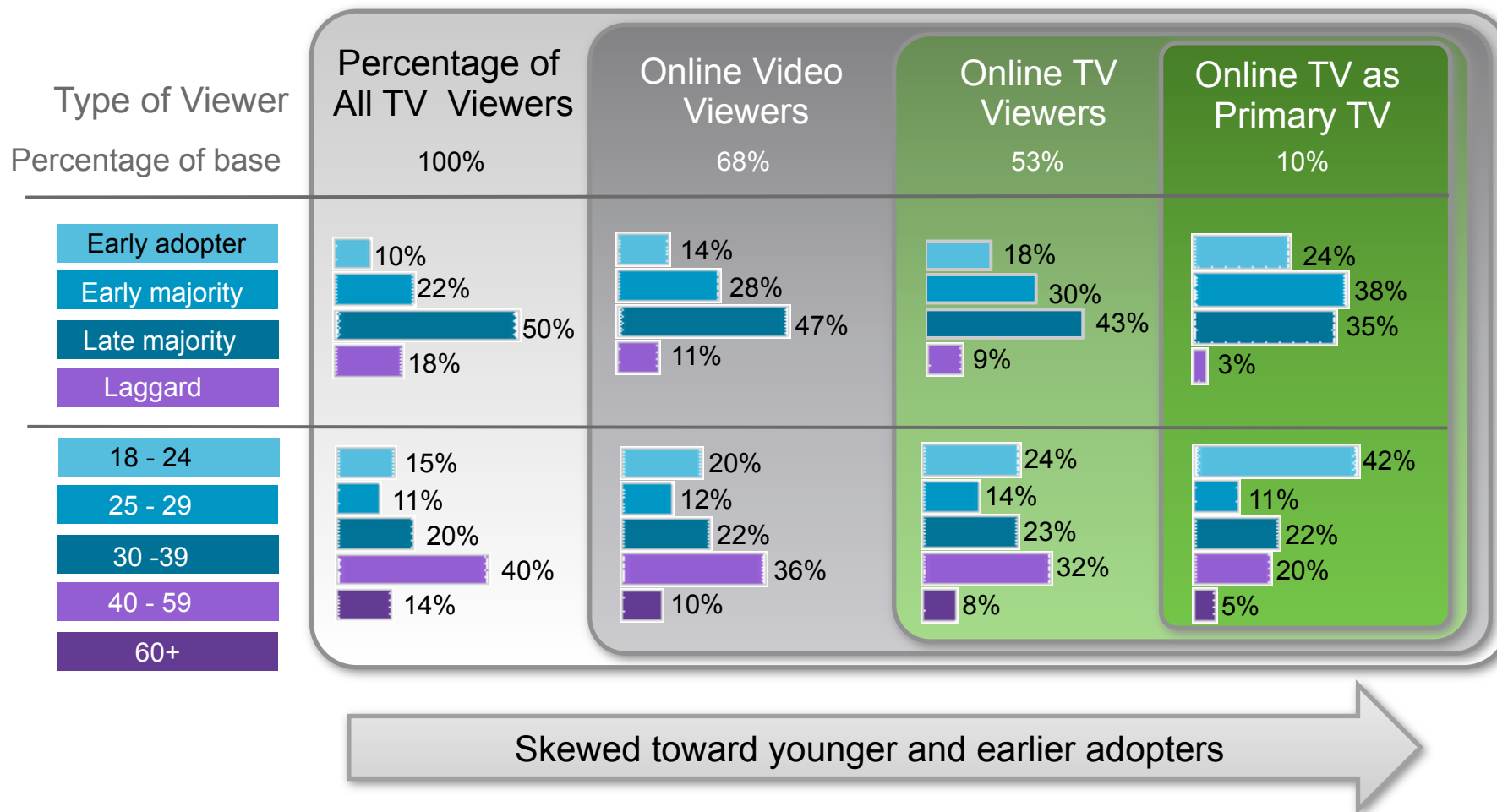
Source: Cisco IBSG, 2010; Nielsen Media, Broadcast and cable network websites, 2010

# Substitution Has Started with Those Who Can Overcome Major Barriers

Percentage of base	All TV Viewers (Broadband Users) 100%	Online Video Viewers 68%	Online TV Viewers 53%	Online TV as Primary TV 10%
Have connected TV to Internet	43%	48%	51%	63%
Connect PC to TV monthly or more	11%	16%	19%	30%
Importance of viewing when show first airs (10 = most important)	5.76	5.65	5.94	4.95

Source: Cisco IBSG Connected Life Market Watch, 2010

# Profiles of Online TV Viewers Suggest Future Trends Toward Substitution

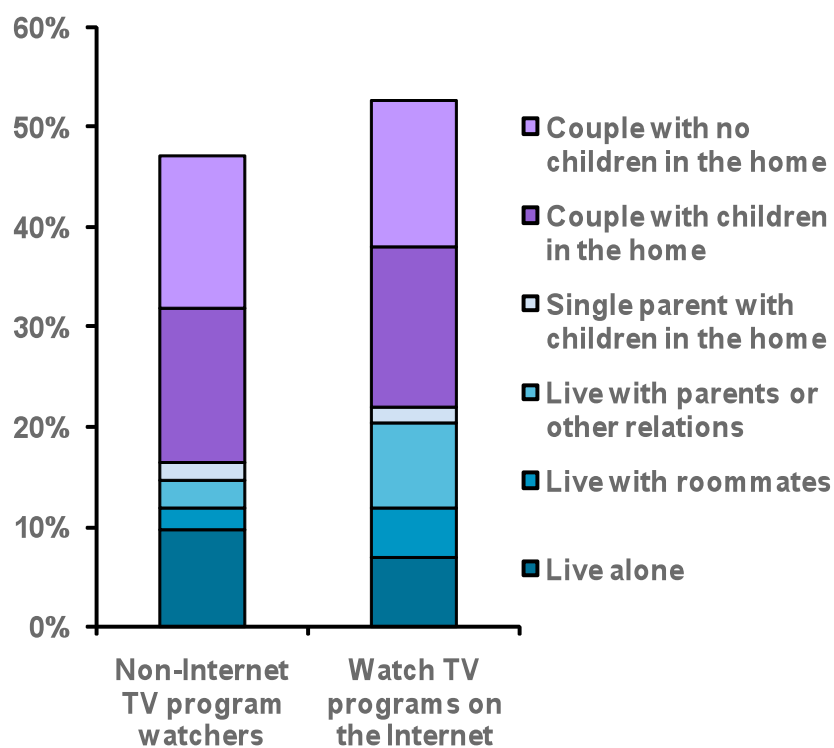


Source: Cisco IBSG Connected Life Market Watch, 2010

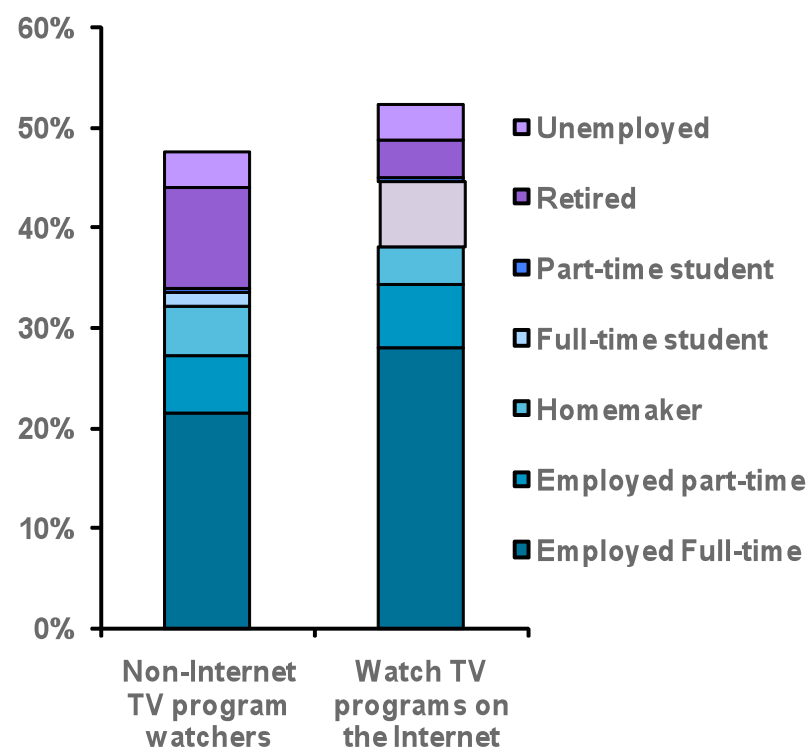
Base: U.S. Broadband Users

# Adoption of Online TV Is Not Isolated to Certain Life Stage or Demographic

## Living Situation



## Employment Status

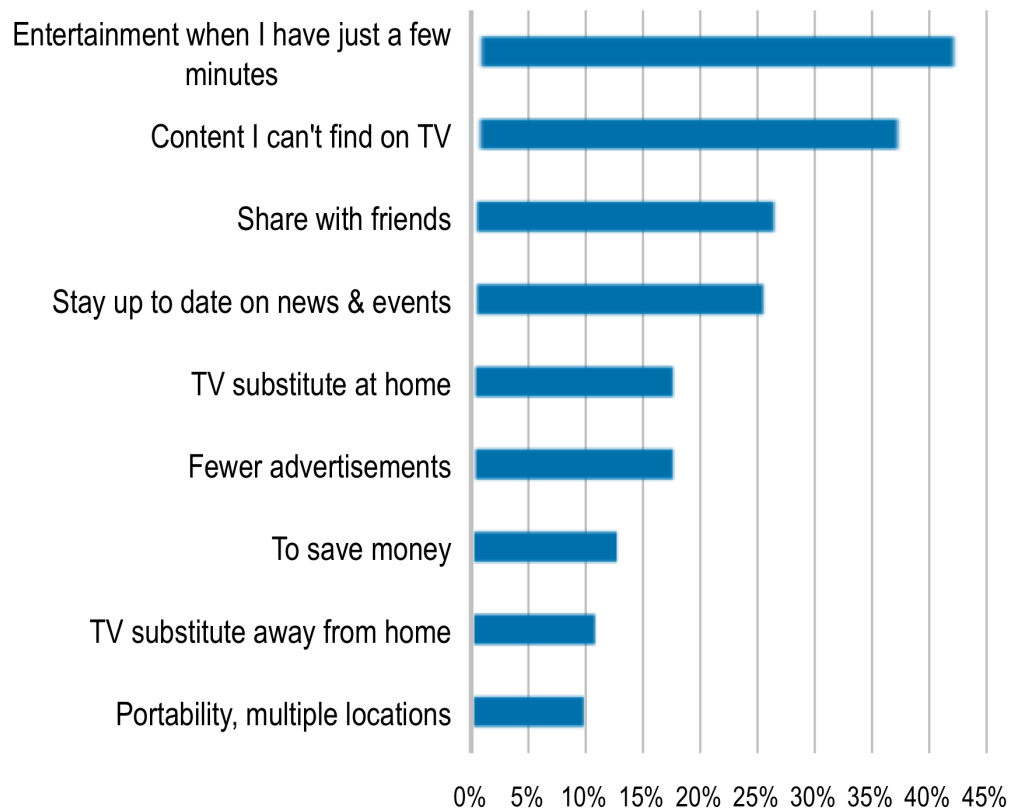


Source: Cisco IBSG U.S. Connected Life Market Watch, 2010

Base: U.S. Broadband Consumers

# Value Proposition of Online Video Is Different from that of Traditional Pay TV

## Reasons for Watching / Downloading Online Video



Choice, control, and convenience are driving Internet TV viewing

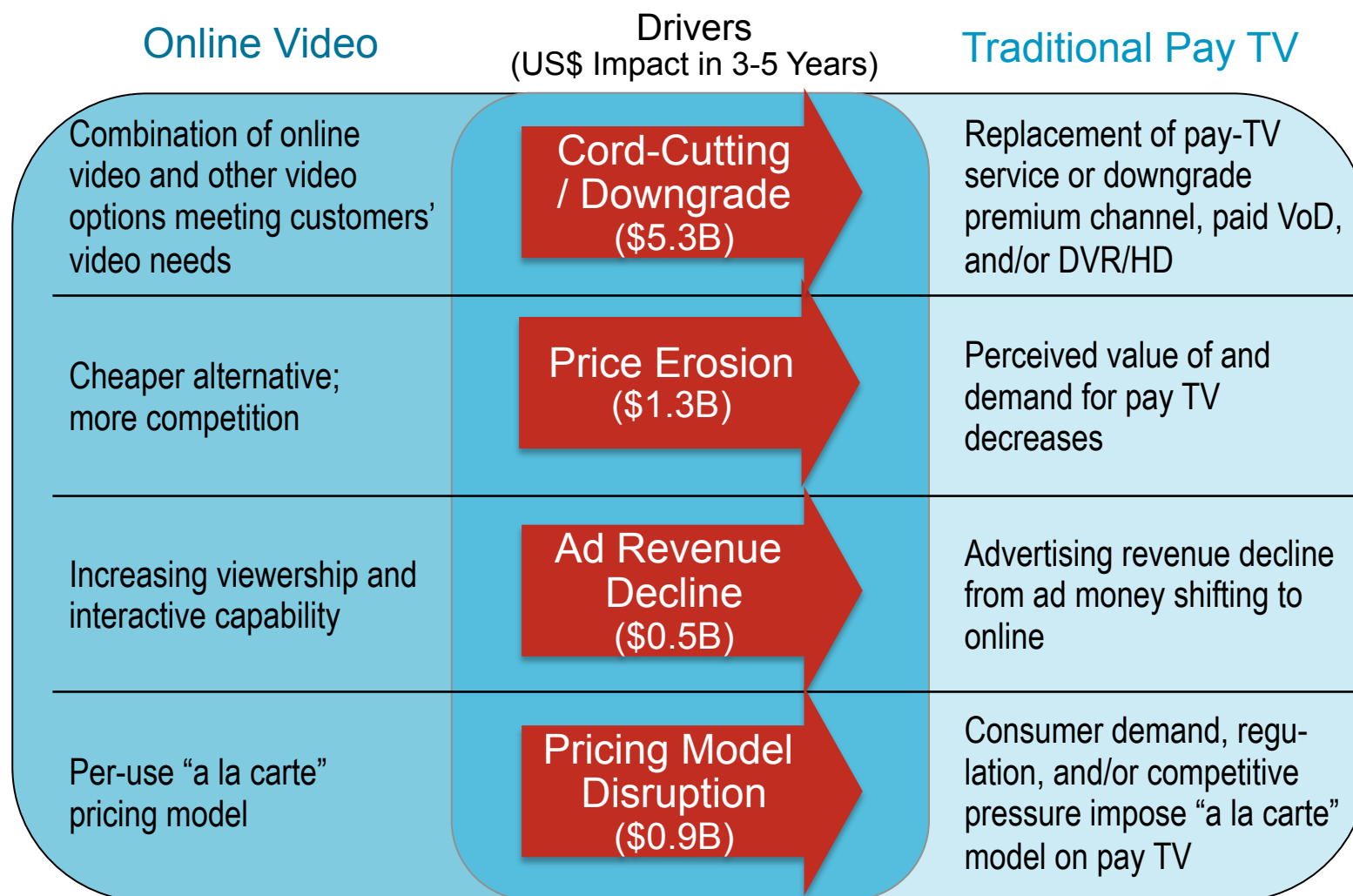
Source: Cisco IBSG U.S. Connected Life Market Watch, 2010

Base: U.S. Internet Video Viewers



## 3 Implications for Service Providers

# With Increasing Substitution, Online Video Could Threaten Pay-TV Business



Source: Cisco IBSG, 2010

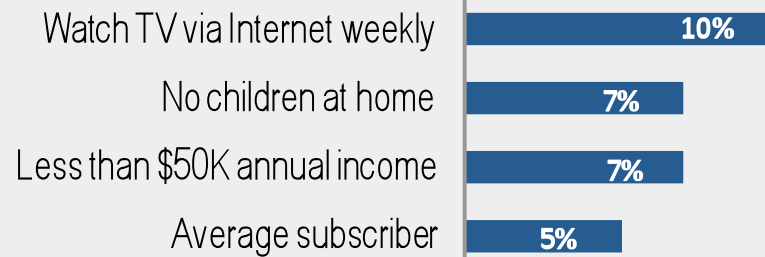
# With Improved Quality, More Viewers Will Likely Replace Pay TV with Online Video

## Traditional Pay TV Cord-Cutting

- 3% of consumers have no TV service at all, using computer and/or portable devices for all video entertainment needs
- 800,000 U.S. households have “cut the cord” over past two years, according to Convergence Consulting
- Parks Associates estimates that less than 8% are thinking about canceling pay TV in favor of online services

## Likely to Cancel/Downgrade (With easy/free online video-to-TV capability)

### Potential To Cancel Pay-TV Service (Percentage of subscribers responding they would cancel)

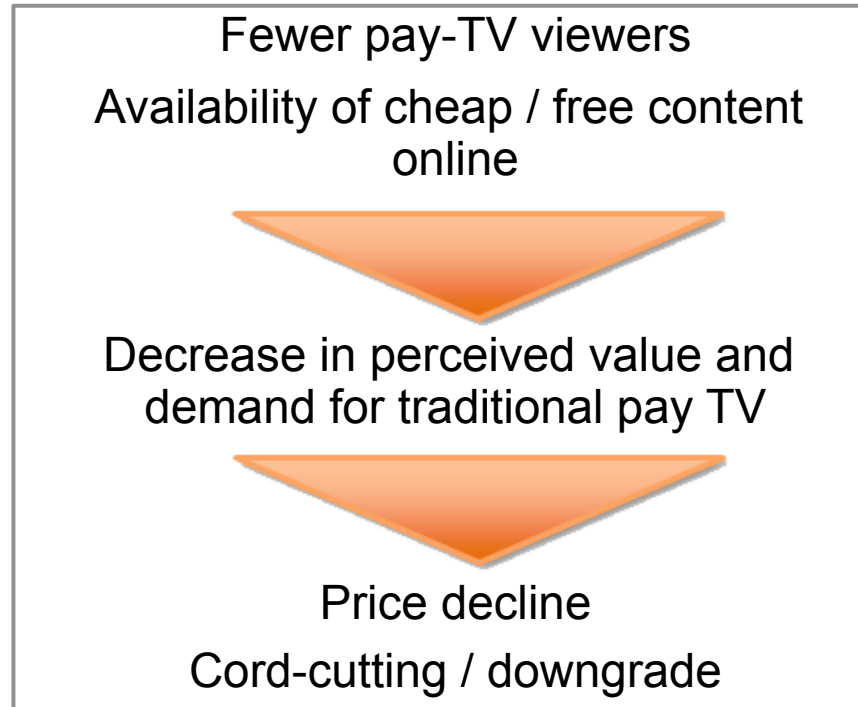
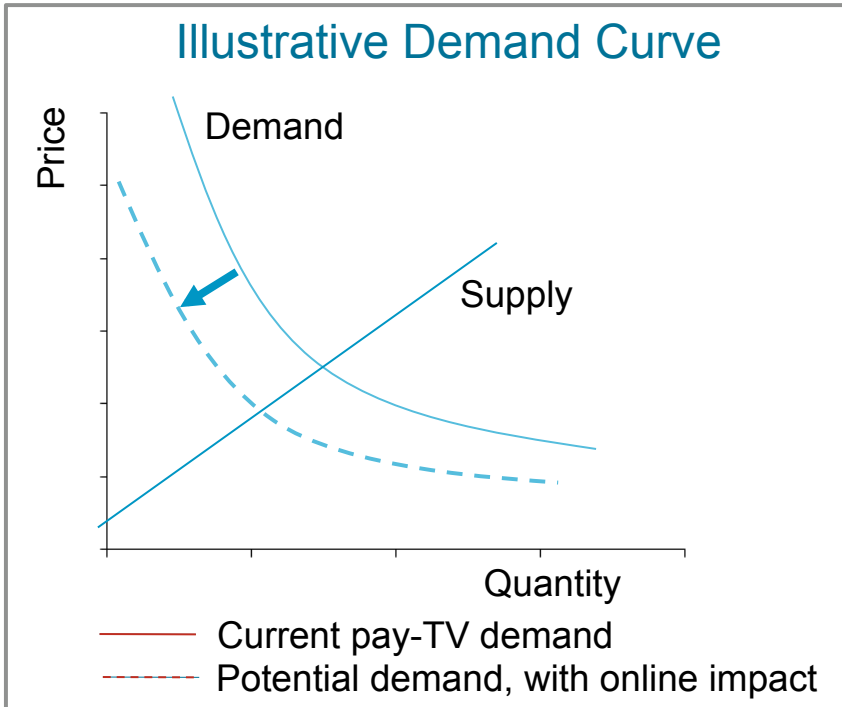


### Potential To Cancel Premium Movie Subscription (Percentage of subscribers responding they would cancel)



Source: Cisco IBSG Connected Life Market Watch, 2010; fierceiptv.com, 2010; newteevee.com, 2010

# Reduced Viewership, Cheaper Online Content Likely To Create Price Erosion



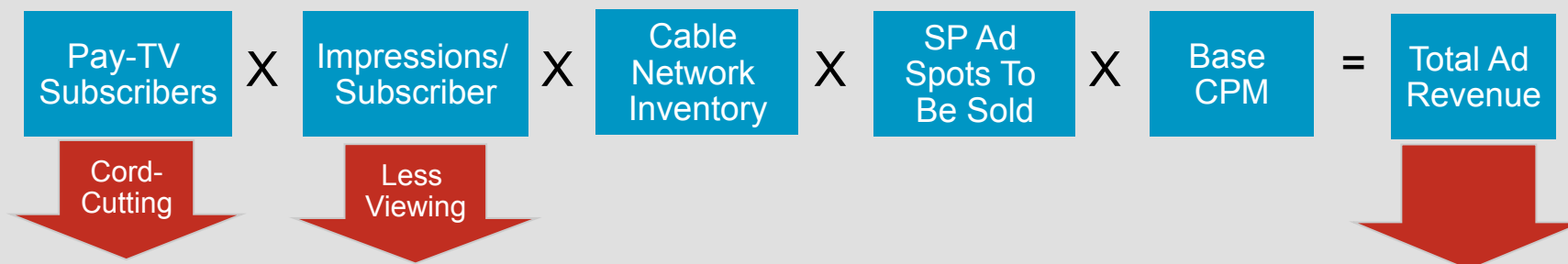
“Less than 22 percent of cable’s customers think they are getting their money’s worth...”

—Strategy Analytics

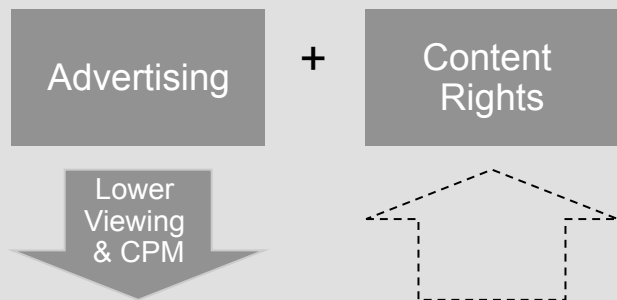
Source: newteevee.com, 2010

# Advertising Viewership May Also Impact SP Revenue and Cost

## SP Advertising Revenue Decline

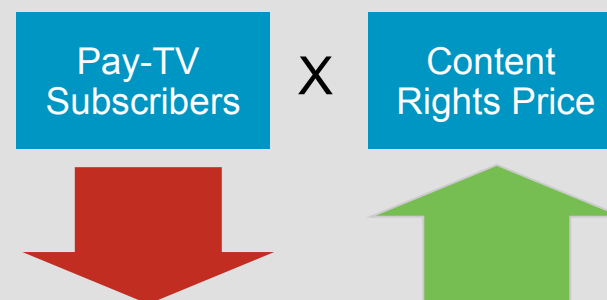


## Broadcasters' / Media Companies' Revenue from Traditional TV



Demand higher price for content rights to make up for ad revenue loss

## SP Programming Cost Increase



Source: Cisco IBSG, 2010

# Pay TV Providers Can Be Pressured To Increase *a la Carte* Pricing Options

~30% of Video Spending Is *a la Carte* To Supplement Subscription

## U.S. Broadband Consumers' Monthly Video Spending

Secondary Video:  
\$22.69

Primary Video  
(Pay-TV subscription):  
\$56.08

- Consumers already control spending
- Most secondary videos (movies) do not overlap with basic pay-TV content, but online video does

Online Video Impacts Service Providers' Core Subscription Model

More consumers become accustomed to online video alternative pricing models

Consumer demand, regulation, and/or competition pressure pay TV to unbundle and increase *a la carte* pricing options

Consumers' spending will be distributed differently among various business models, including online

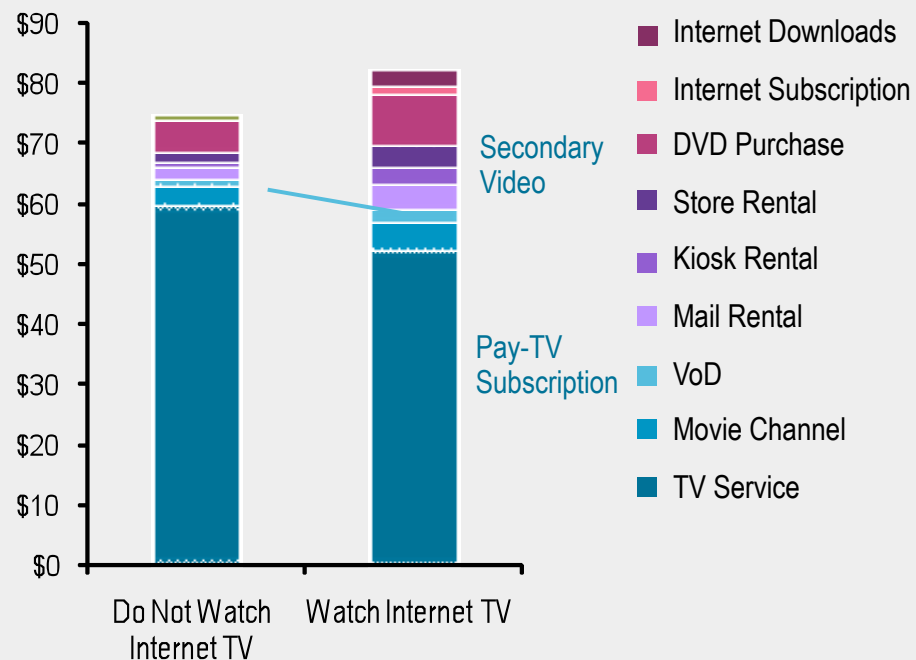
Additionally, more on-demand consumption will increase capacity requirements

Source: Cisco IBSG Connected Life Market Watch, 2010; Bank of America, 2009

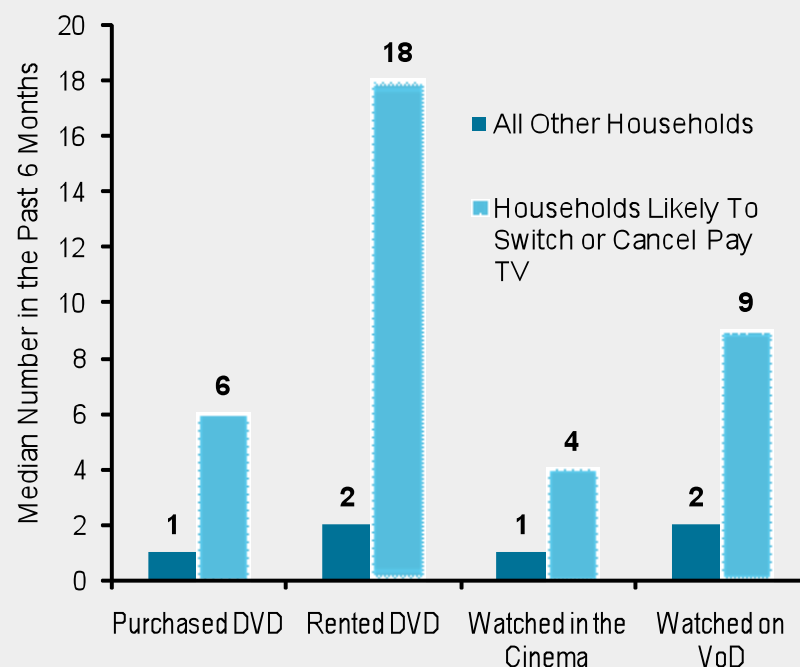
# Online TV Viewers Spend More Overall, But Value Control of Spending Decisions

## Secondary Video Choices Important to Online Viewers

Monthly Video Spending



Offline Video Consumption (Over 6 months)



Source: Cisco IBSG Connected Life Market Watch, 2010; Parks Associates 2010

# With Current Trends, 10% of Pay-TV Market May Be at Risk in Next 3-5 Years

	U.S. Pay-TV TAM 2009 Base (~\$83B)	Impact Assumptions	At-Risk Revenue (~\$8B)
Cord-Cutting	~\$65B <b>pay TV</b> ~100M subscriptions ~\$54 ARPU	5% subscriber loss	<b>\$3.3B</b>
Downgrade	~\$13B <b>premium TV</b> Premium CH: \$4B HD/DVR: \$6B VoD: \$3B	15% premium downgrade	<b>\$2.0B</b>
Price Erosion	~\$54 <b>ARPU</b> at 4% CAGR	2% loss from normal video ARPU growth	<b>\$1.3B</b>
Ad Revenue Decline	~5B <b>ad revenue</b> 7.5% of video revenue	10% viewership loss by 2015	<b>\$0.5B</b>
Selective Spending	<b>Subscription model</b> at ~\$54 ARPU	15% of subscribers down- grade content by 10%	<b>\$0.9B</b>

Source: Cisco IBSG Connected Life Market Watch, 2010; Bank of America, 2009; Comcast Financial Reports, 2008 and 2009; The Diffusion Group, 2010



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## Winning Strategy for Service Providers



# Pay-TV SPs Have Number of Options for Competing with Online Video

	Control / Defend	Collaborate / Enable	Imitate / Become
<b>Action</b>	<ul style="list-style-type: none"> <li>Monitor and control video traffic delivered over SP networks</li> </ul>	<ul style="list-style-type: none"> <li>Jointly deliver select online video experience                             <ul style="list-style-type: none"> <li>Broadband support</li> <li>On-net CDN</li> <li>Content to TV</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Emulate OTT video experience</li> <li>Extend video services beyond walled garden</li> </ul>
<b>Reasoning</b>	<ul style="list-style-type: none"> <li>Need to protect existing pay-TV business</li> <li>Need to monetize consumer traffic</li> </ul>	<ul style="list-style-type: none"> <li>Online video is supplemental</li> <li>Subscription will be maintained and even upgraded</li> </ul>	<ul style="list-style-type: none"> <li>Similar experience will minimize need for online video</li> <li>Opportunities exist with online video</li> </ul>
<b>Example</b>	<ul style="list-style-type: none"> <li>Tiering / quota</li> <li>Fair use policy</li> <li>Traffic management</li> </ul>	<ul style="list-style-type: none"> <li>BBC iPlayer on Virgin Media TV and over broadband service</li> </ul>	<ul style="list-style-type: none"> <li>VoD expansion</li> <li>Comcast Fancast</li> <li>TV Everywhere</li> </ul>

Source: Cisco IBSG "SP-OTT Collaboration," 2009

# Control / Defend Strategy Constrained by U.S. Regulatory Environment

## Goals of Control / Defend Strategy

- Monetize consumer traffic
- Ensure aggregate user experience
- Protect existing video business

## Methods

- Quota as tiering parameter
- Quota in fair use policy
- Application-specific traffic management
- Application-agnostic traffic management

## Considerations

- Regulation
- Can SP exempt its own “@” services?

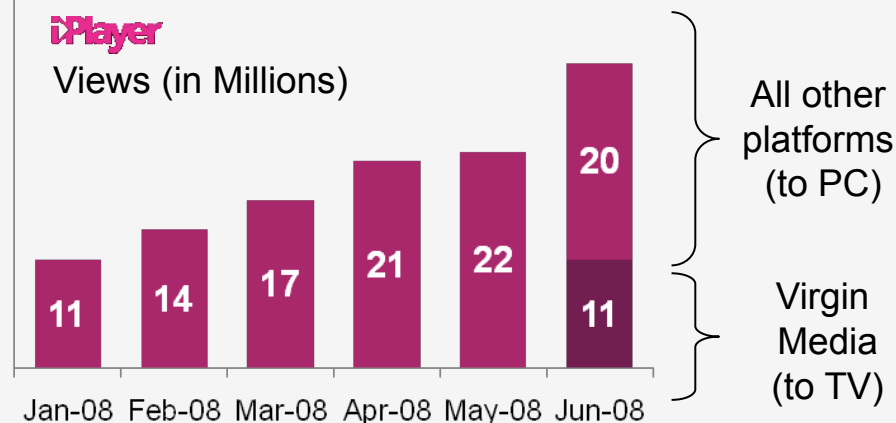
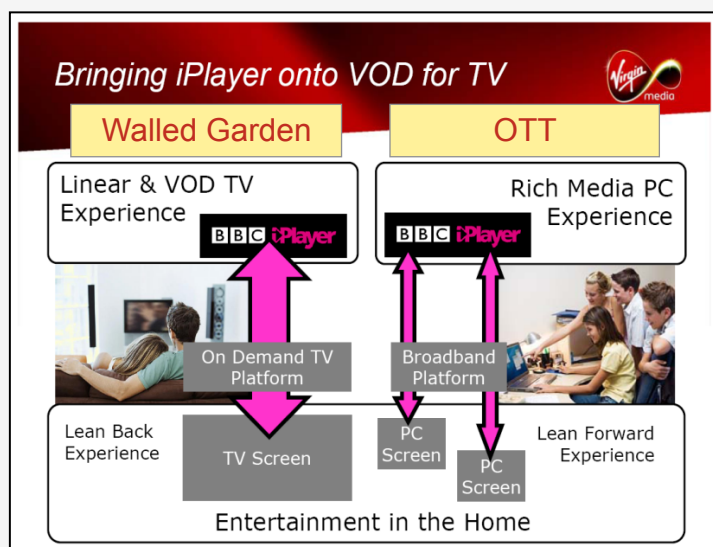
## Net Neutrality “Principles” (FCC)

### *ISPs must...*

- ... Allow users to send or receive **lawful content** over Internet
- ... Allow users to run **lawful applications** and use **lawful services**
- ... Allow users to connect to and employ user’s choice of **lawful devices** that do not harm network
- ... Allow **free competition** among networks, applications, services, and content
- ... Treat lawful content, applications, and services in a **non-discriminatory** manner
- ... **Disclose network management information** that is required for users and content, application, and service providers to enjoy protections in rule-making

Source: Cisco IBSG, “SP-OTT Collaboration,” 2009

# Collaboration with OTT Has Benefits and Risks



Source: Virgin Media, 2008

## Benefits

- Increase in VoD usage: 47% of subscribers use service monthly
- May lead to broadband tier upgrade
- Potential differentiator and churn reducer for SPs

## Limitations

- VoD collaboration: Value is limited to expanding VoD contents
- OTT collaboration / support
  - Potential pay-TV cannibalization for benefit of data service (loss of quality advantage)
  - Most value to OTT players (relationship, revenue opportunity)
- Net neutrality will limit network prioritization of content online
- May increase risk of disintermediation

# “Imitate” Strategy Has Benefits for SPs, But Not Enough To Deter OTTs

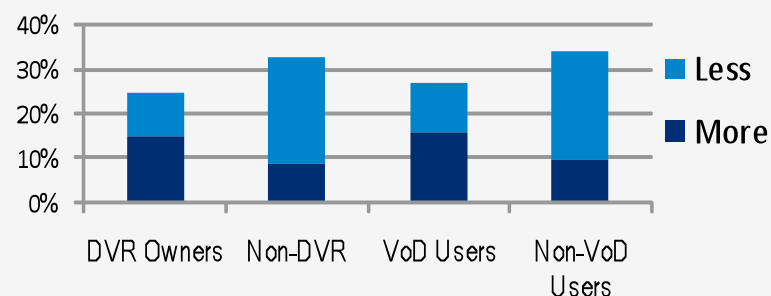
- **Less substitution by DVR owners and VoD users . . .**

- DVR owners and VoD users watch traditional TV more, even after starting to watch online TV
- Level of online substitution is much higher for non-DVR owners and non-VoD users

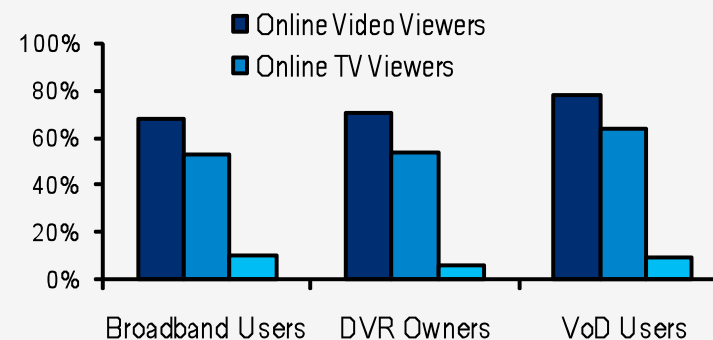
- **. . . But not enough to deter online video use**

- Number of online video & TV viewers does not decline for DVR owners or VoD users
- Online video usage is not just about control (time shifting)
  - User interface, portable device, UGC, etc.

Traditional TV Viewing Since Starting To Watch Online TV



Online Video & TV Viewers

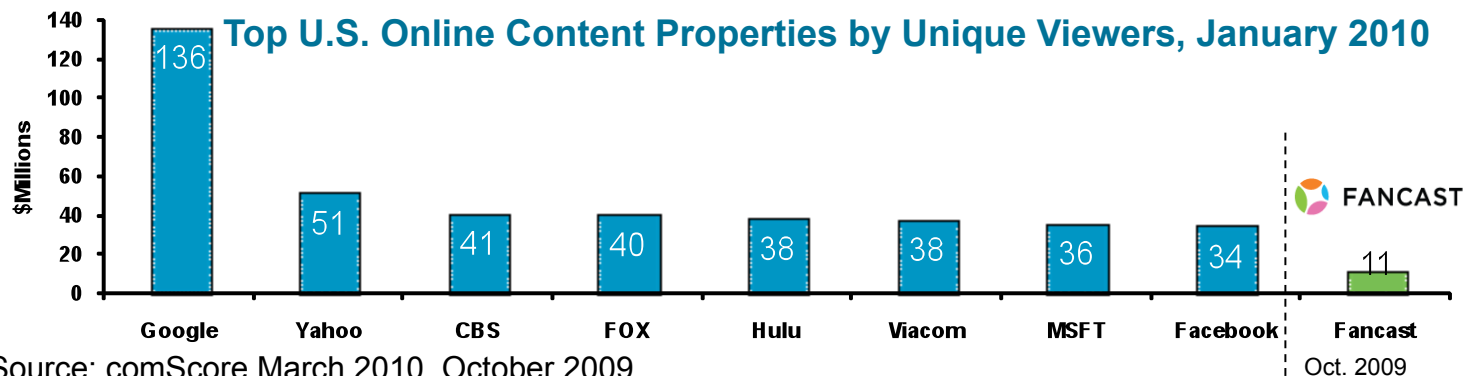


Source: Multichannel News (Data from Rentrak and Magid Associates), 2009;  
Cisco IBSG Connected Life Market Watch, 2010

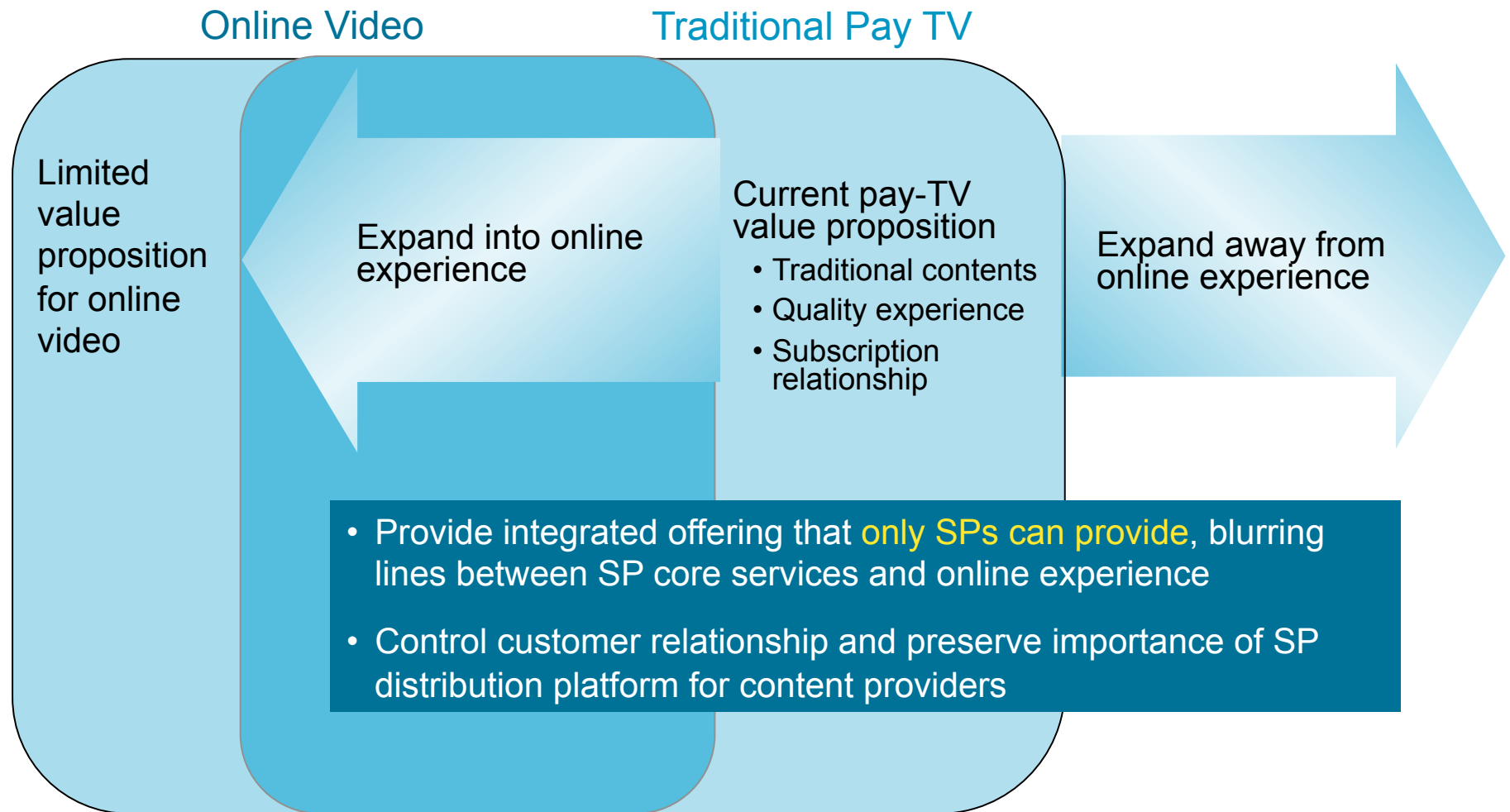
Base: U.S. Online TV Viewers

# Two Strategies Around “Becoming an OTT”; Each Has Benefits and Limitations

	Stand-Alone OTT Service	Integrated Core Service Extension
<b>Action</b>	<ul style="list-style-type: none"> <li>Build own online video services not bundled to core services</li> </ul>	<ul style="list-style-type: none"> <li>Create integrated online/offline extension of core services to include online video</li> </ul>
<b>Reasoning and Benefits</b>	<ul style="list-style-type: none"> <li>Compete and take share of emerging opportunities</li> <li>Create potential market fragmentation?</li> <li>Extend reach out of region</li> </ul>	<ul style="list-style-type: none"> <li>Increased consumer value proposition using core service assets</li> <li>Compete to limit pure OTT success</li> </ul>
<b>Limitation</b>	<ul style="list-style-type: none"> <li>Limited competitive capabilities against OTT incumbents</li> </ul>	<ul style="list-style-type: none"> <li>Monetization is not clear</li> <li>Not “open”</li> <li>Content rights</li> </ul>



# Integrate and Expand User Experience Both *Into* and *Away* from Online Video



Source: Cisco IBSG, 2010

# SPs Have Key Advantages in Providing End-to-End, Integrated Video Experience

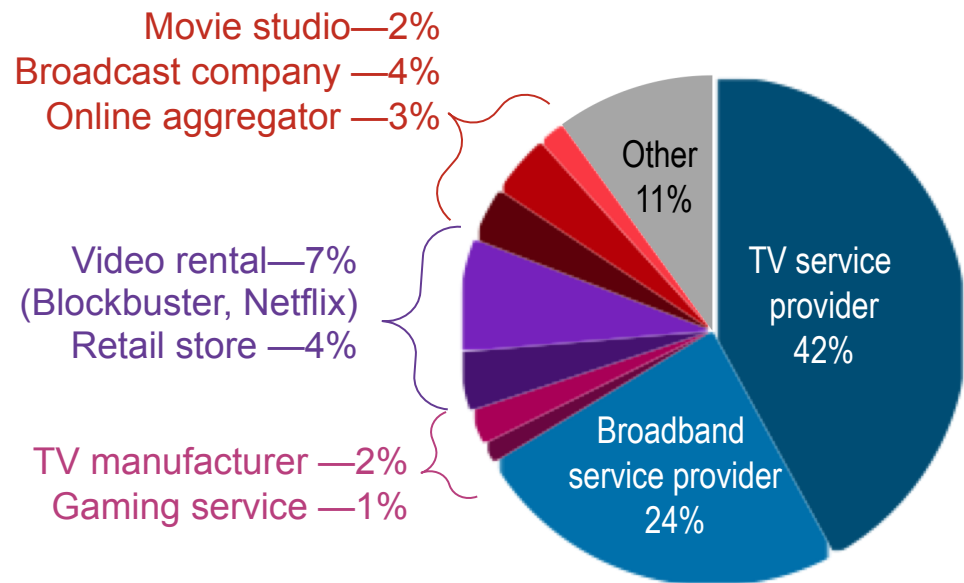
	Pay TV Service Providers	OTT Online Video Providers
<b>Device</b> (cost and installation)	<ul style="list-style-type: none"> <li>STB or cable model/gateway to enable TV-to-web and web-to-TV experience                             <ul style="list-style-type: none"> <li>No up-front cost and installation support</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Require additional device for web-to-TV                             <ul style="list-style-type: none"> <li>Up-front cost &amp; installation complexity</li> </ul> </li> </ul>
<b>Content</b>	<ul style="list-style-type: none"> <li>Can use existing content distribution relationships and level of scale</li> <li>Own networks for some SPs</li> <li>Web-to-TV enables all non-TV content to be viewed</li> </ul>	<ul style="list-style-type: none"> <li>Require new content relationships or own content only</li> </ul>
<b>Subscriber Relationship</b>	<ul style="list-style-type: none"> <li>Relationship with pay TV, data, and voice customers with high level of involvement                             <ul style="list-style-type: none"> <li>Confidence includes future improvements</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Loose relationship with web visitors                             <ul style="list-style-type: none"> <li>Uncertainty about what to buy</li> <li>Less confidence about getting it to work</li> </ul> </li> </ul>
<b>Quality</b>	<ul style="list-style-type: none"> <li>Own network</li> <li>Dedicated bandwidth for video</li> </ul>	<ul style="list-style-type: none"> <li>Over-the-top of other networks</li> <li>Bandwidth limited to broadband</li> </ul>
<b>Service</b>	<ul style="list-style-type: none"> <li>Field force and remote service</li> </ul>	<ul style="list-style-type: none"> <li>Remote services only</li> </ul>
<b>Monetization</b>	<ul style="list-style-type: none"> <li>Existing billing relationship</li> <li>Can use video/data subscription</li> <li>Advanced advertising (subscriber data)</li> </ul>	<ul style="list-style-type: none"> <li>Need to develop more profitable business model</li> </ul>

Source: Cisco IBSG Connected Life Market Watch, 2008

# Consumers Would Prefer SPs To Provide Such Full Video Service

## Service Providers Are Strongly Positioned To Deliver Online Video

### Preferred Provider for Web Video-to-TV (United States)



Base: Interest in *Web Video-to-TV*

- 66% of consumers choose SP to deliver web video-to-TV service
- SPs can address consumers' concerns, including up-front cost and quality
- This preferred position reflects lack of activity in market by any player. It **could change quickly** if any consumer electronics manufacturer, retailer, or aggregator launches aggressively

Source: Cisco IBSG Connected Life Market Watch, 2010

# Service Providers Must Move Promptly, As OTT Providers Will Close Gap

**Given Time, Online Video Will Provide Full Video Experience**

Online Video

Traditional Pay TV



Source: *The Wall Street Journal*, 2009; eWeek.com, 2010; hbbTV.org, 2009; <http://www.projectcanvas.info/index.cfm/>

# Winning Strategies for Service Providers

- Providers of full video experience will capture market, and SPs are well-positioned to provide integrated service and maintain control
- Online video is attempting to close gap
- SPs should act quickly to provide broad video experience by integrating and expanding user experience *into* and *away* from online video



Source: Cisco IBSG Connected Life Market Watch, 2010



**CISCO**