



# Navigating Cloud Solutions:

## *CE and the Future of Video*

PARKS  
ASSOCIATES



# Audio Recording

To replay the webcast, click here:

<https://attendee.gotowebinar.com/recording/3349718610631896321>

# Presented By:



**Naveen Chhangani**  
*Worldwide Director  
Product Marketing/  
Management*  
**Netgear Inc**



**Glenn Hower**  
*Research Analyst*  
**Parks Associates**



**John Driver**  
*Chief Marketing  
Officer*  
**PacketVideo**

# CE's Role in Cloud Content

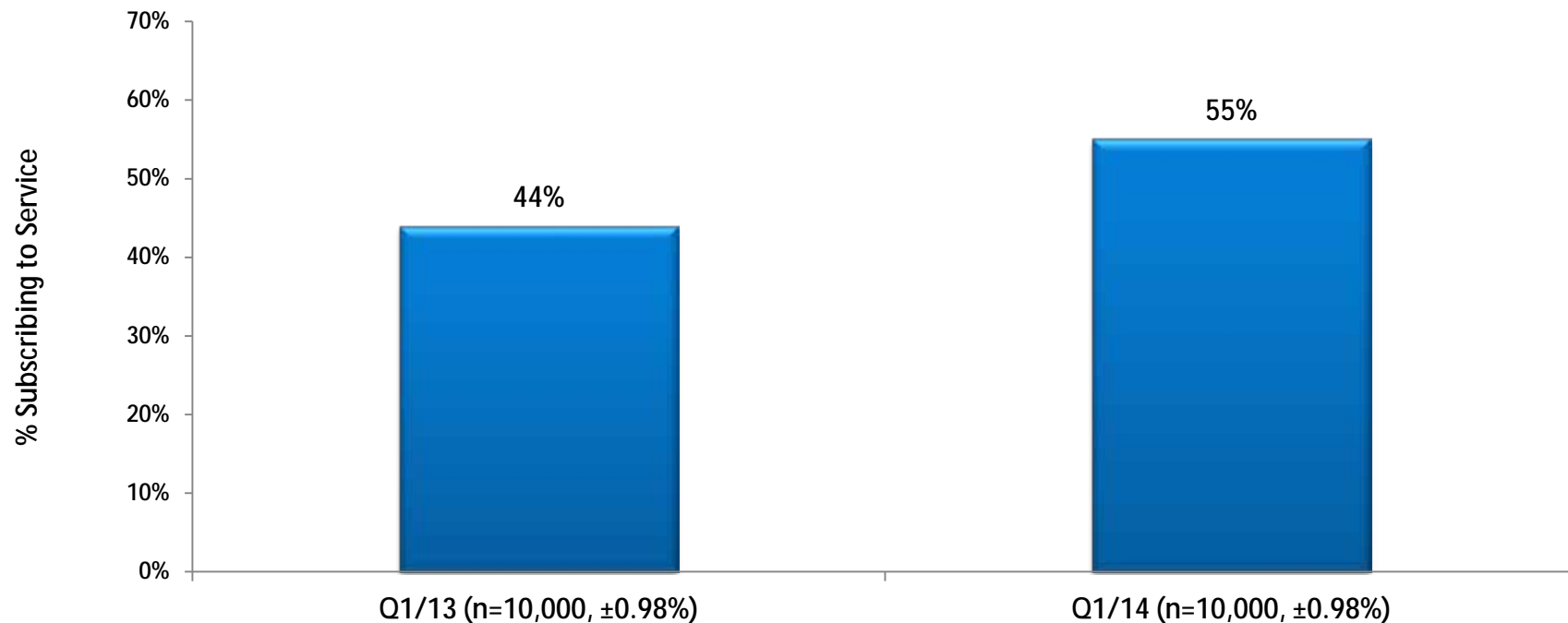
- OTT subscriptions
- Consumer device adoption
- Content and social apps
- Increased reliance on content portability



# Consumer OTT Subscriptions

## OTT Video Service Subscription (2013 - 2014)

(Among All BB HHs)



Source: Multiple Surveys: American Broadband Households and Their Technologies

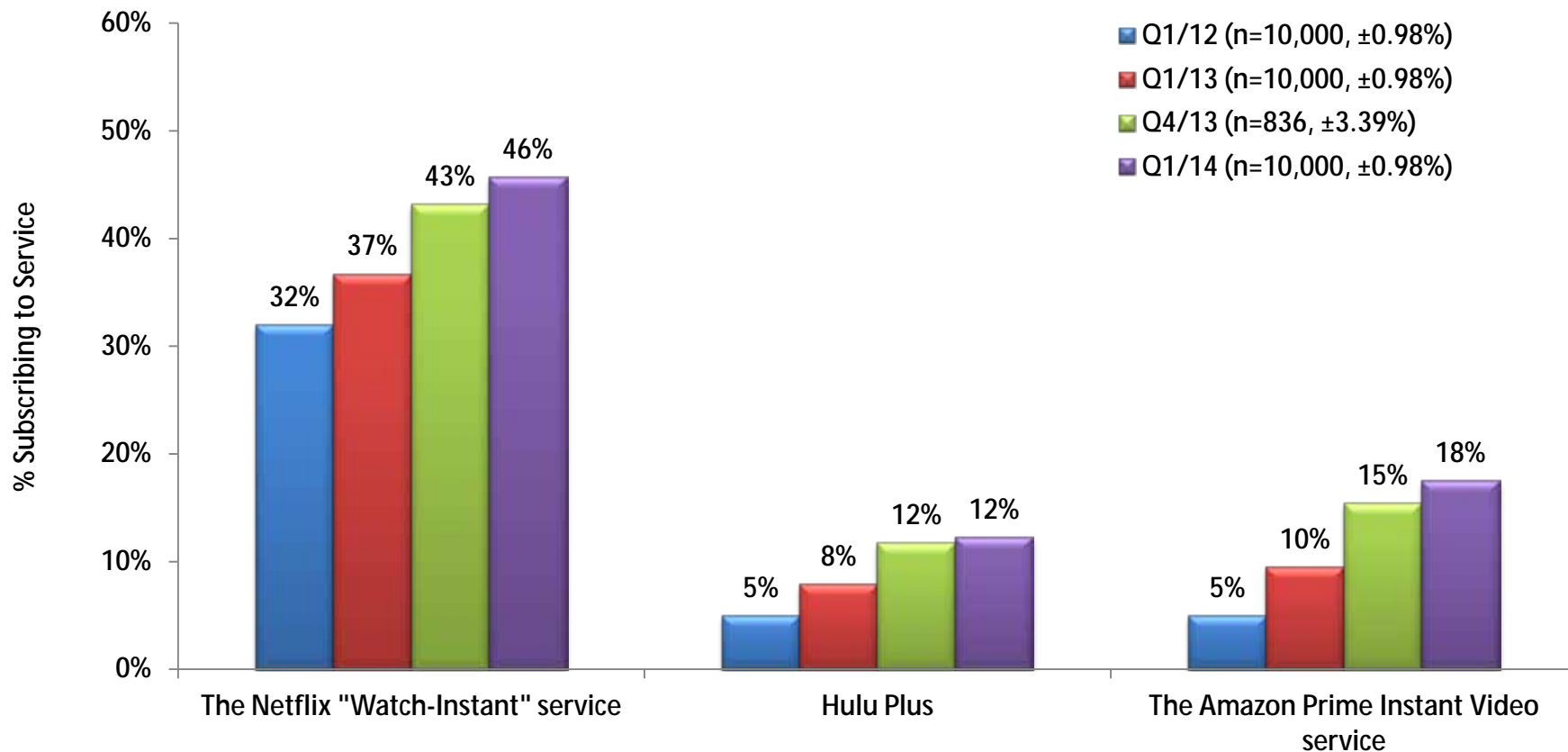
© Parks Associates

Nearly half of U.S. Broadband Households subscribe to Netflix

# OTT Video Service Subscriptions

## OTT Service Subscription (2012 - 2014)

(Among All BB HHs)



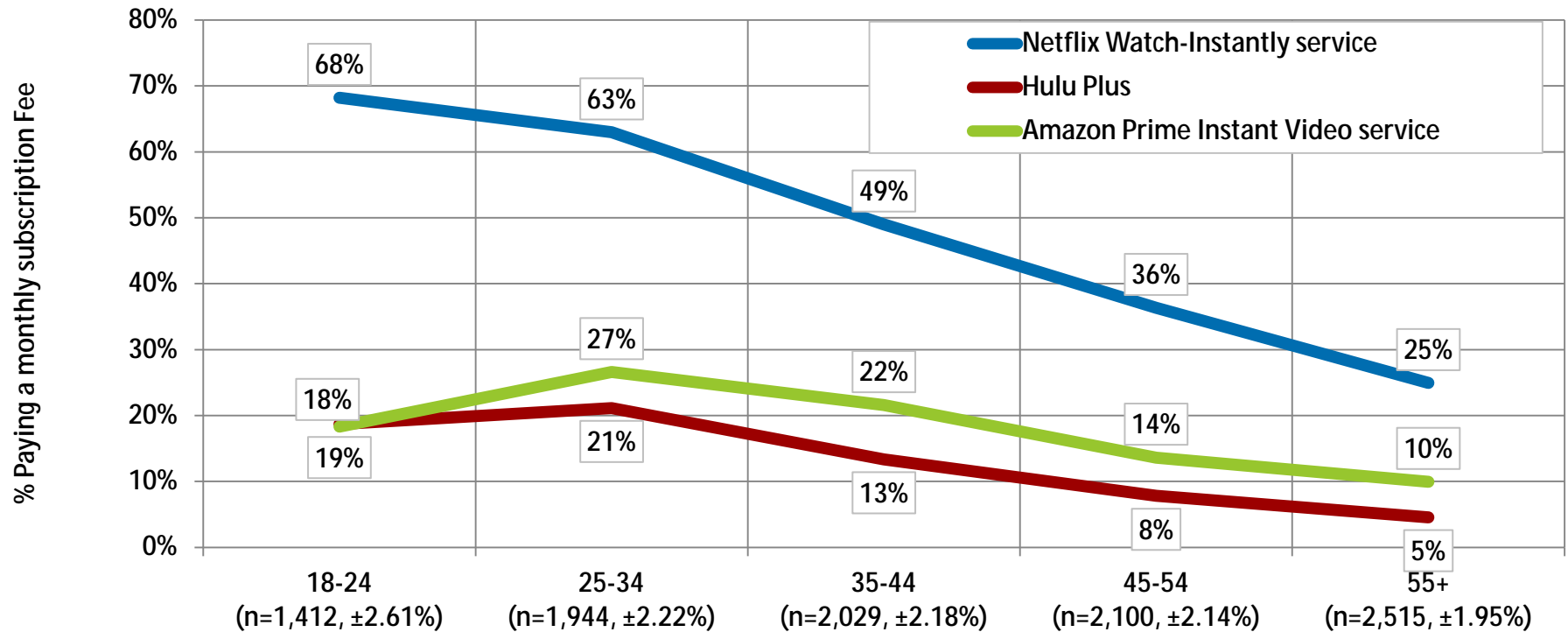
Source: Multiple Surveys: American Broadband Households and Their Technologies

© Parks Associates

# OTT Subscriptions by Age

## OTT Service Subscription by Age (Q1/14)

(Among BB HHs from Specified Age Group)



Source: Multiple Surveys: American Broadband Households and Their Technologies Q1/2014

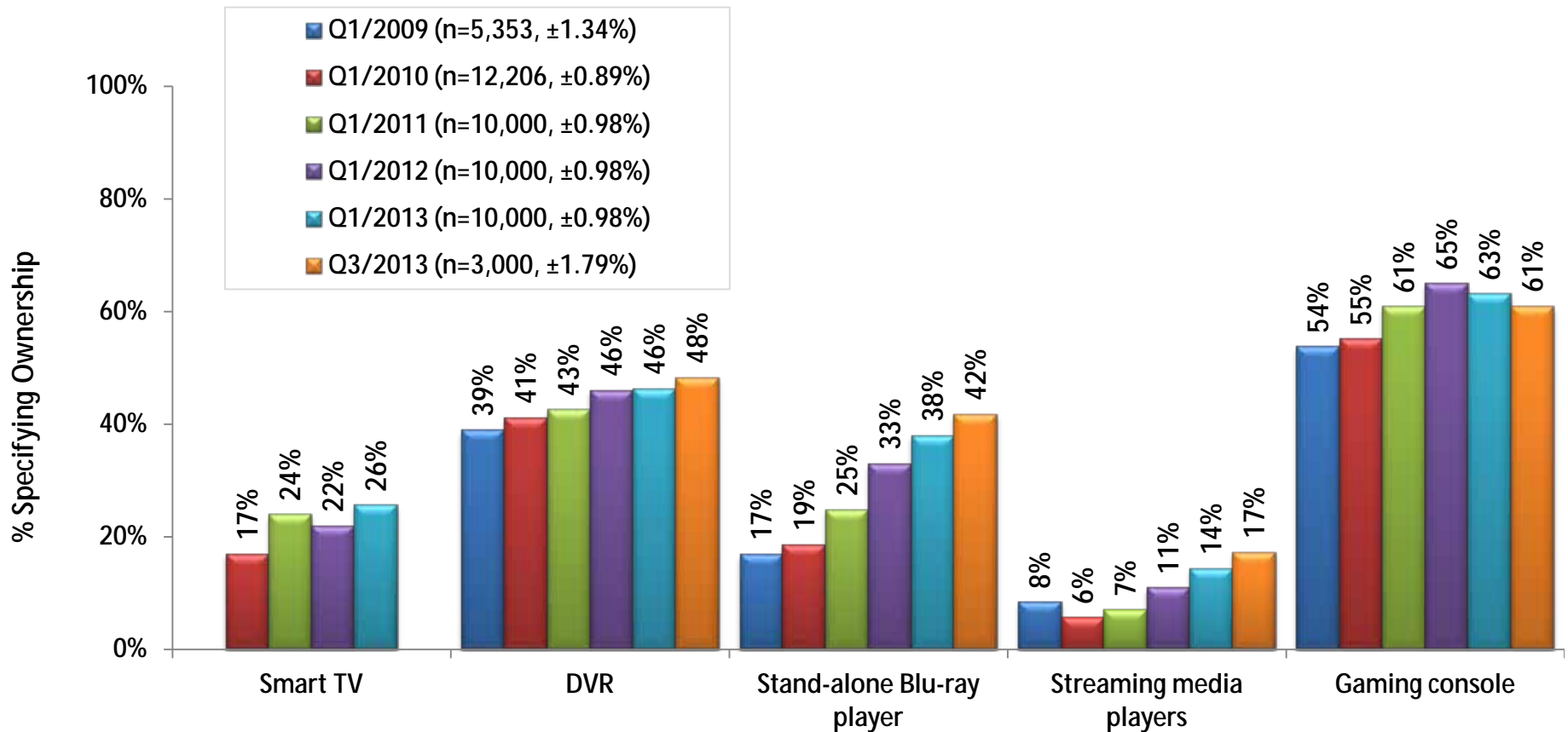
N=10,000 Broadband heads-of-households

© Parks Associates



# Connected CE Ownership

## Consumer Electronic Product Ownership (2009 - 2013) (Among All BB HHs)



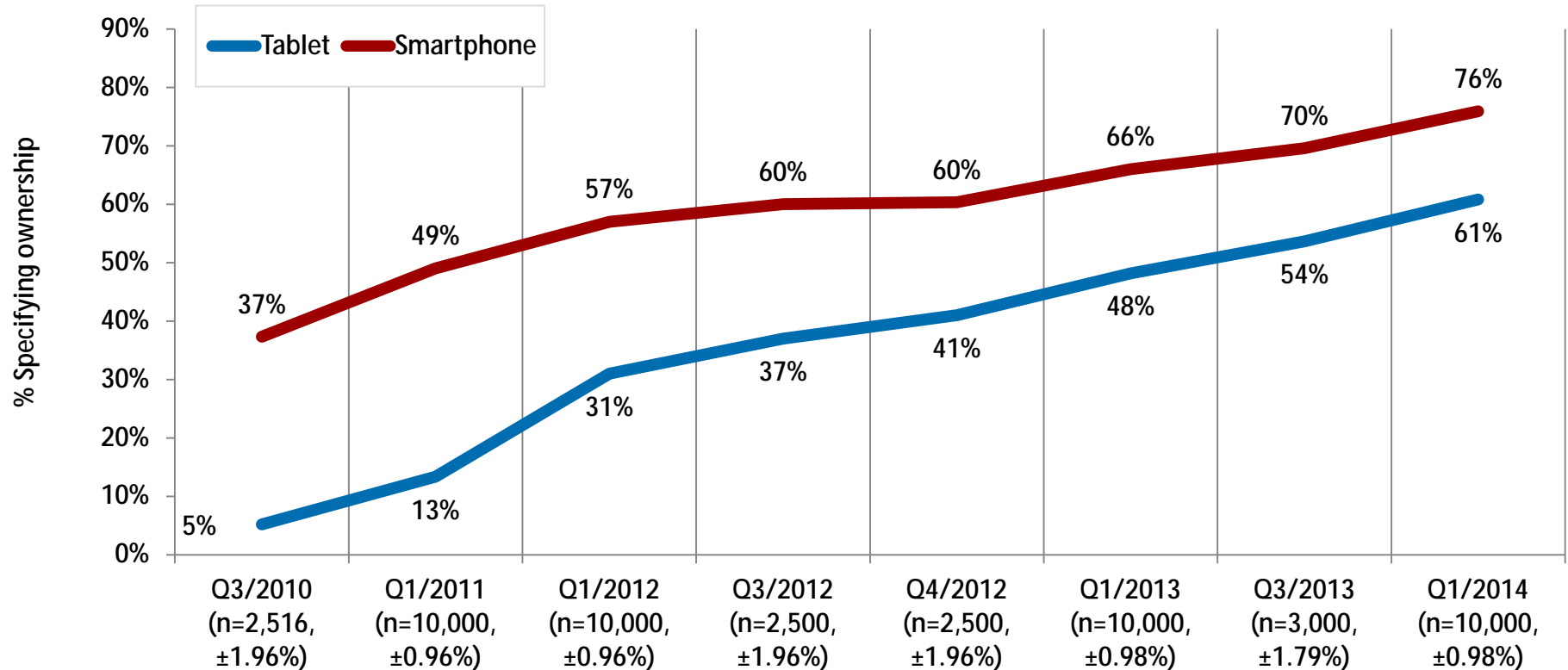
Source: Multiple Surveys: American Broadband Households and Their Technologies

© Parks Associates



# Mobile Device Adoption

## Smartphone and Tablet Adoption (2010 – 2014) (Among All BB HHs)



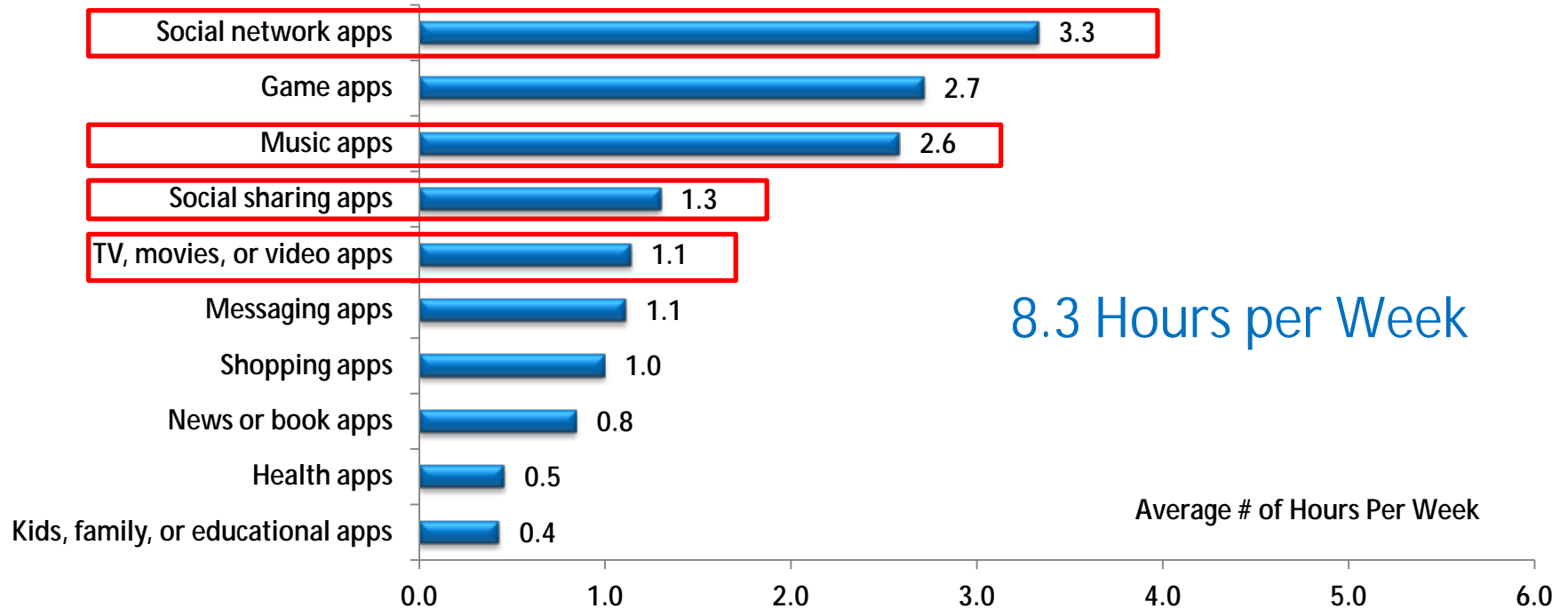
Source: Multiple Surveys: American Broadband Households and Their Technologies

© Parks Associates

# Smartphone App Usage

## Time Spent on Smartphone Apps (Q1/14)

(Among Smartphone Users, n=3,476,  $\pm 1.66\%$ , Outliers Excluded)



Source: American Broadband Households and Their Technologies Q1 2014

N=10,000 Broadband heads-of-households

© Parks Associates

# User Generated Content



100 hours of video uploaded every minute



40 million users in 2013<sup>1</sup>



200 million users in 2013



1 million photos uploaded daily<sup>2</sup>

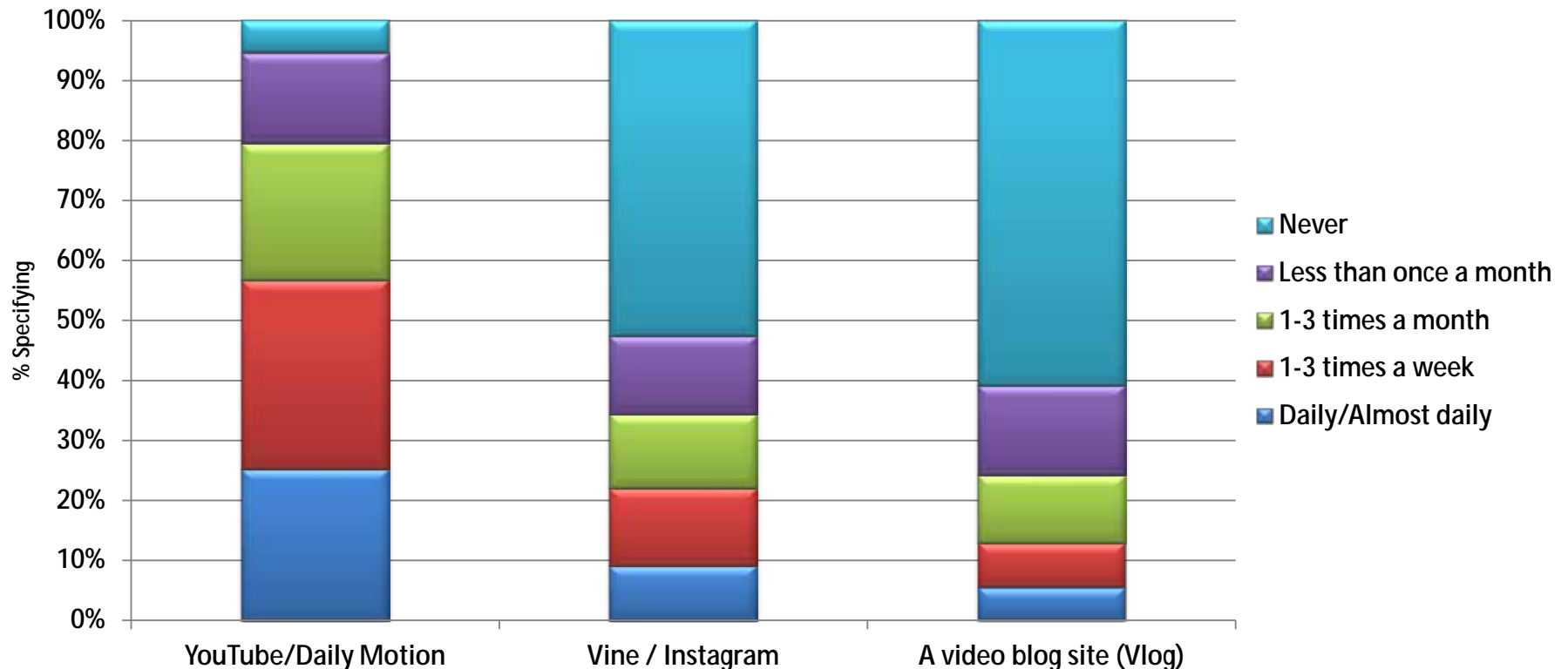
<sup>1</sup>Source: <http://mashable.com/2013/08/20/vine-40-million-registered-users/>

<sup>2</sup>Source: <http://techcrunch.com/2014/02/10/flickr-at-10-1m-photos-shared-per-day-170-increase-since-making-1tb-free/>

# User Generated Content

## Viewing User Generated Video (Q3/14)

"Q6250 How often do you use the following to watch user generated video?"  
(Among respondents who watch user generated video, n=2,622)



Source: *American Broadband Households and Their Technologies Q3 2014*

N=8,452 broadband households

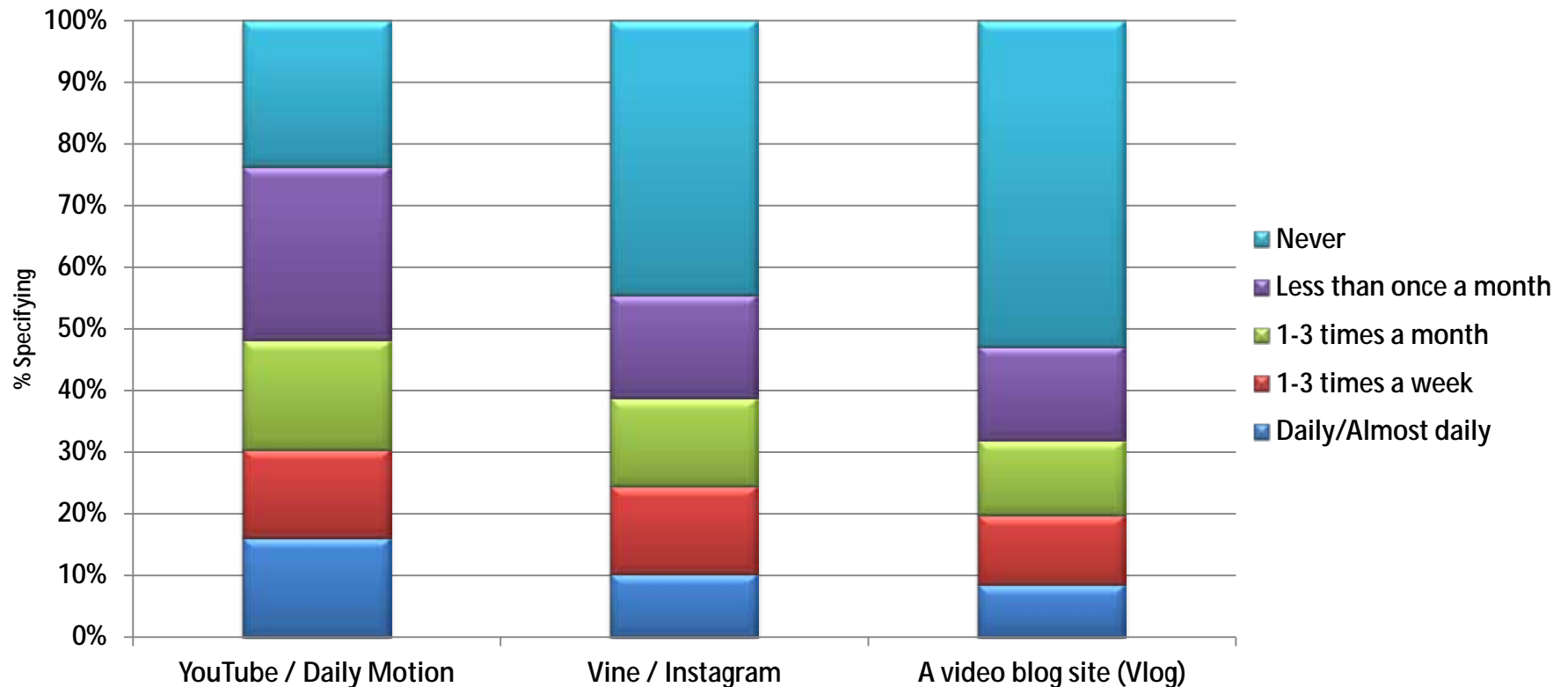
© 2014 Parks Associates

NOTE: Data is preliminary

# User Generated Content

## Submitting User Generated Video(Q3/14)

"Q6250 How often do you use the following to submit user generated video?"  
(Among respondents who submit user generated video, n=1,217)



Source: American Broadband Households and Their Technologies Q2 2014

N=8,452 broadband households

© 2014 Parks Associates

NOTE: Data is preliminary

# Implications



- Devices are the primary content outlets
- Mobility and ubiquitous access require advanced cloud function
- Consumers seeking access both directions
- Variety of apps and interfaces lead to fragmentation of content and experience
- Need for a more unified experience

# Thank You.

**Glenn Hower**

**Research Analyst**

Parks Associates  
15950 N. Dallas Parkway, Suite 575  
Dallas, Texas 75248

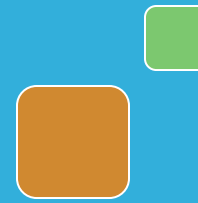
Office: 972.490.1113

Fax: 972.490.1133

**[Glenn.Hower@parksassociates.com](mailto:Glenn.Hower@parksassociates.com)**



# Cloud-Enabled Media Connectivity from PacketVideo



Enabling Rich Media Experiences

We enable rich media experiences for Communications Service Providers (CSPs) and Consumer Electronics (CE) companies to help them:

- Acquire customers
- Increase customer lifetime value
- Increase marketing ROI

We produce measurable value in:

- Device and digital media discovery
- Digital media management
- Digital media consumption

Our digital media solutions are “carrier grade”:

- Large scale media, cloud, and mobile solutions
- Across all media, platform, and device types

*Packet Video:  
experts in all  
things media*

# Media Devices in the Home (a look by the numbers)

## The U.S. Household

- 289 million people own at least 1 TV
- 119 million own 4 or more TVs
- 86% have a DVD player
- 83% have HDTVs
- 80% have internet-connected computers
- 65% have smartphones (Nielsen)
- 55% subscribe to OTT video (Parks)
- 49% have digital video recorders
- 46% have gaming consoles (Nielsen)
- 45% have smart TVs (Parks)

### Average U.S. Household

- 5.7 internet connected devices
- Over 6% own 15+ connected devices

### Multiple Device Ownership

26% of U.S. population owns a smartphone + tablet + laptop

### TV-centric Devices

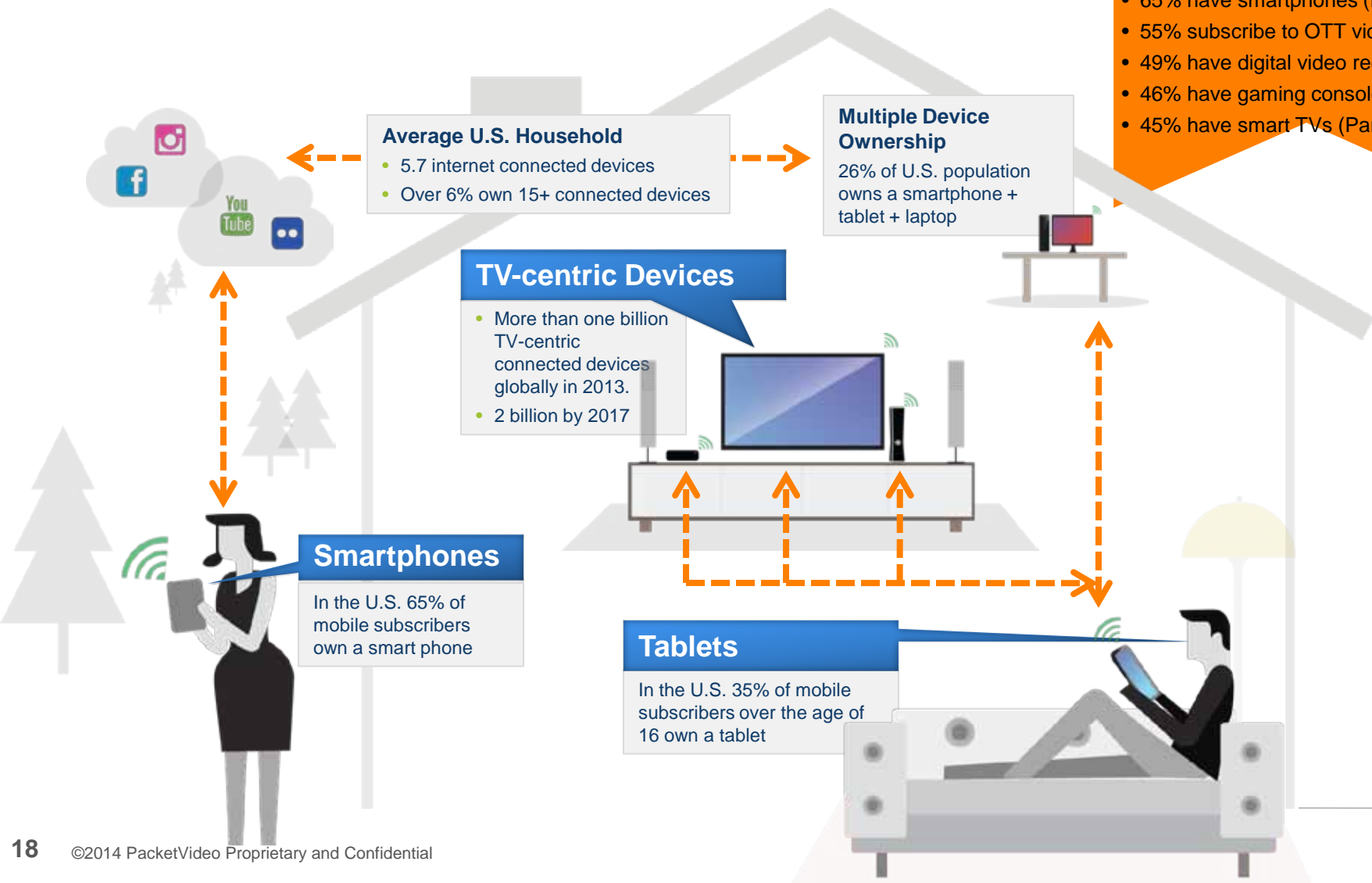
- More than one billion TV-centric connected devices globally in 2013.
- 2 billion by 2017

### Smartphones

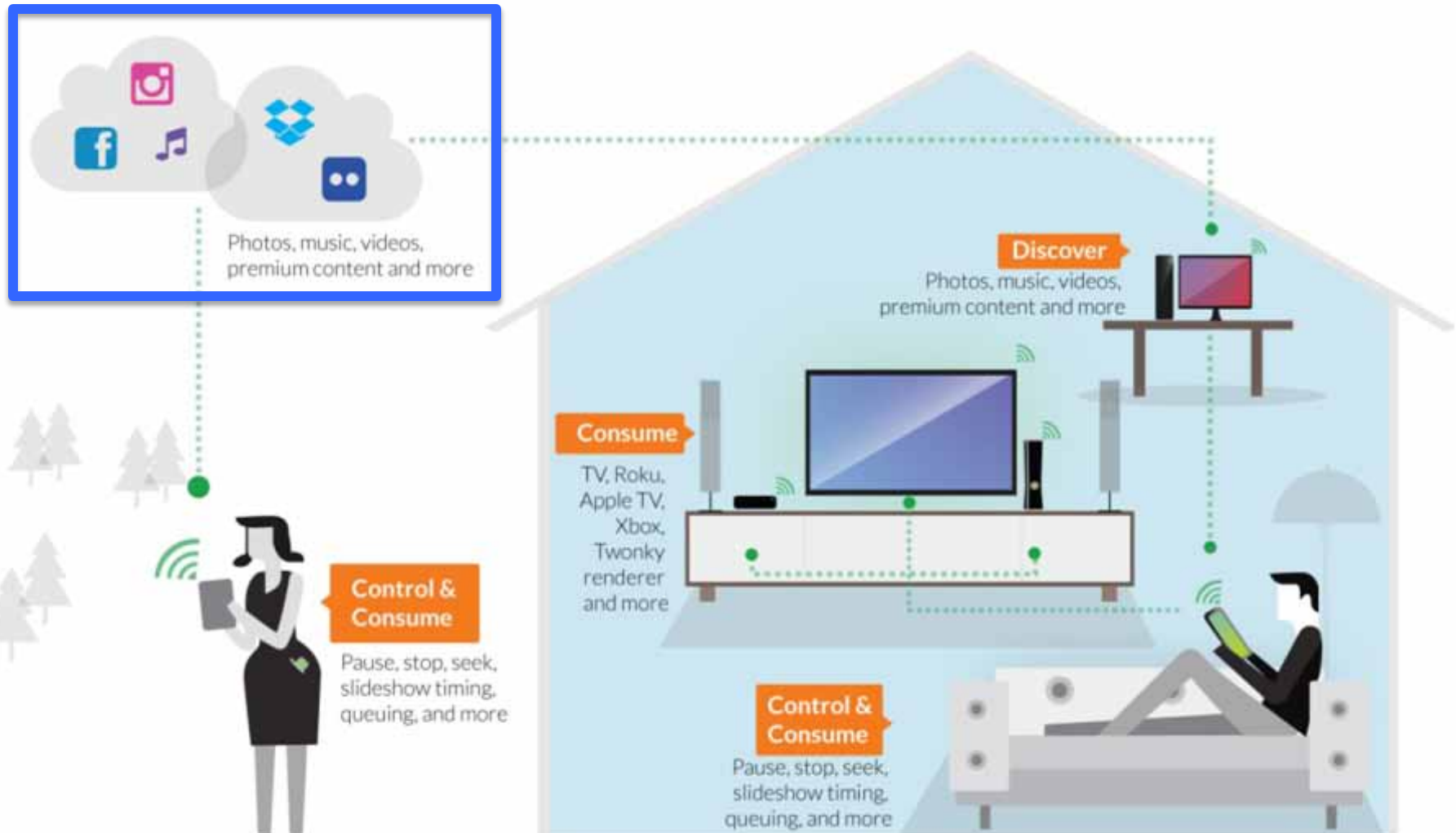
In the U.S. 65% of mobile subscribers own a smart phone

### Tablets

In the U.S. 35% of mobile subscribers over the age of 16 own a tablet



# What Consumers Need (content... anytime, anywhere, anyhow)



# Twonky 8: a more connected digital media user experience for your customers



PacketVideo's Twonky SDK is the market leading media connectivity platform.

Twonky is embedded in millions of products and services for customers in North America, Japan, Europe and Asia:

- NAS devices
- Wireless routers
- Set-Top Box/DVRs
- Laptop/PCs
- Mobile devices



# Capitalize on the growing consumer demand for cloud-based media and services

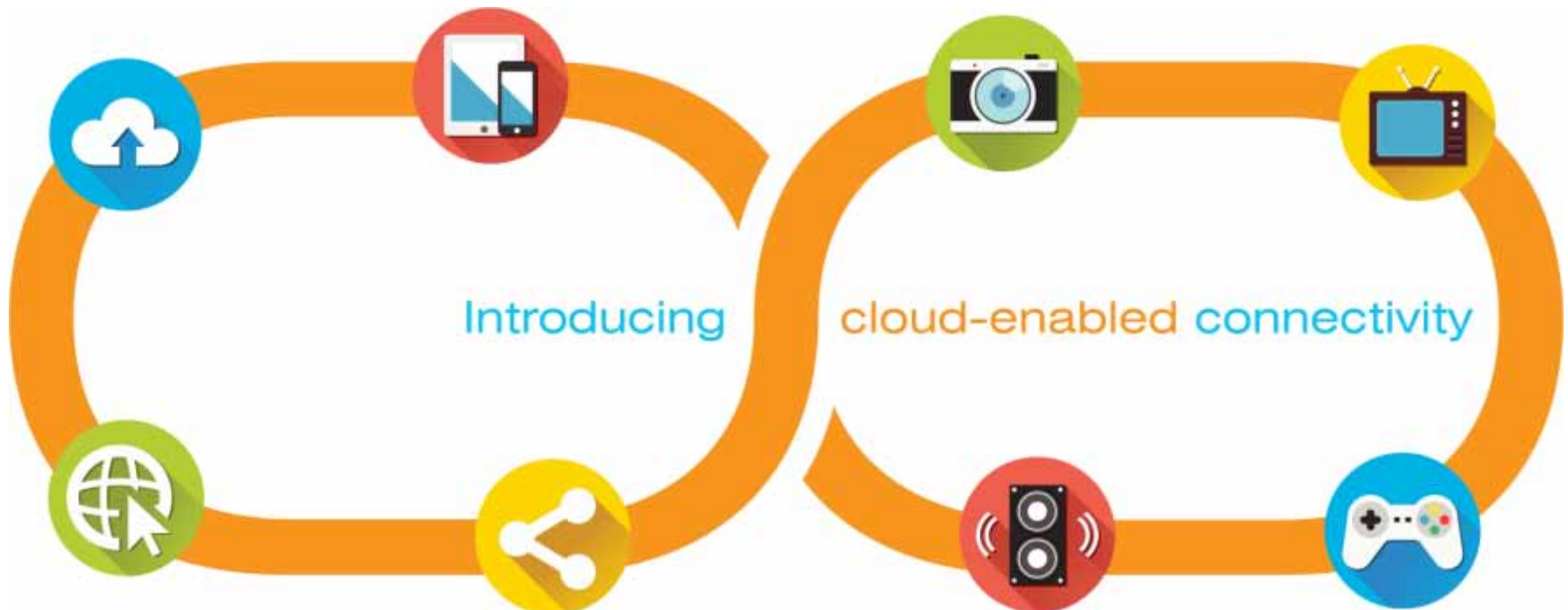


## The *Opportunity* for Consumer Electronics Companies

- Create new revenue streams beyond device sales
- Unify media service offerings across multiple product lines
- Respond to consumer demand for cloud services quickly

## The *Opportunity* for Service Providers

- Capitalize on consumer demand for OTT and personal cloud services
- Become a go-to choice as a trusted media hub
- Engage customers with new services to reduce churn and increase ARPU



# Introducing *Twonky 8* with Cloud-enabled Connectivity



## The *Solution* for Consumer Electronics Companies

- Strengthen current customer relationships, attract new customers
- Unify offerings across multiple product lines
- Provide companion cloud-based apps for your devices
- Quickly introduce and update cloud services

## The *Solution* for Service Providers

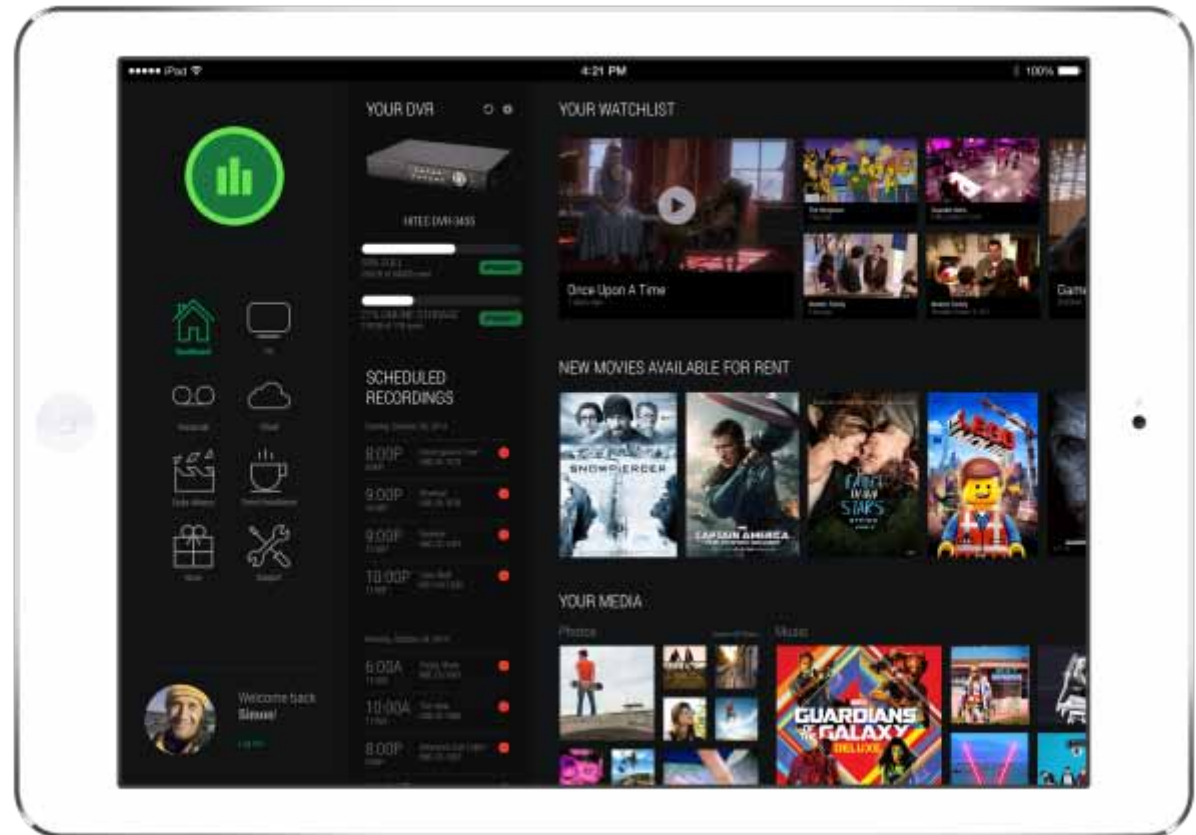
- Leverage OTT and personal cloud services
- Expand footprint beyond the STB ecosystem
- Offer cloud services to engage consumers with the content and options they want
- Become a go-to choice as a trusted media hub across devices and cloud
- Improve customer retention and increase ARPU



# Compelling Cloud-enabled Use Cases



SPs can build and enhance branded mobile apps for subscribers



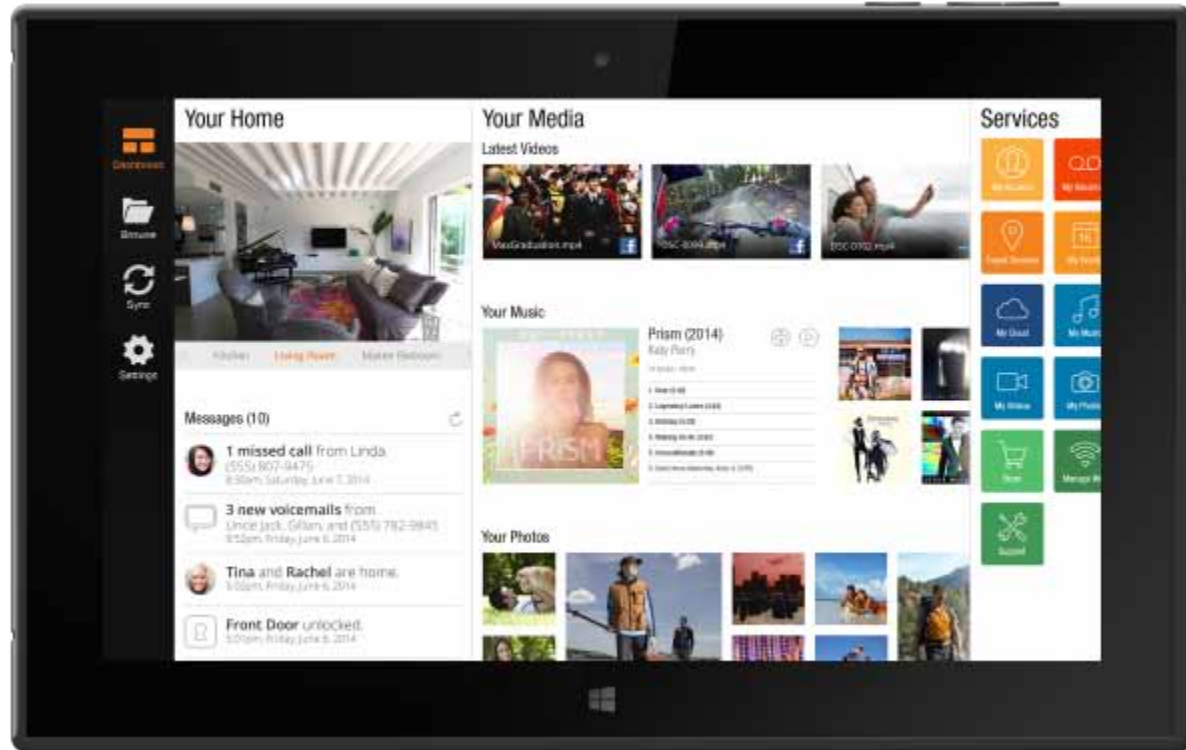
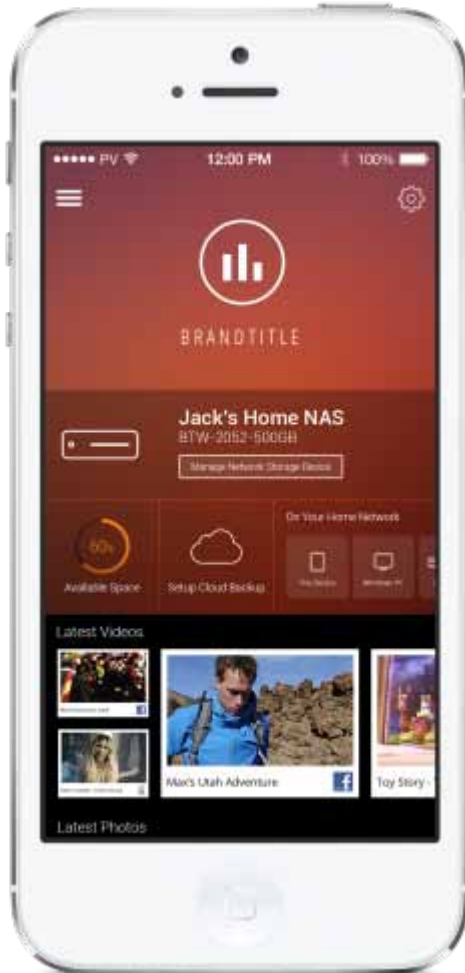
**Offer your subscribers a mobile app or bring cloud services to your app, under your brand**

- Browse and stream media from anywhere
- Access media from Dropbox, Facebook, Flickr
- Single Sign On
- Instant playback of content stored anywhere
- DTCP-IP to beam premium content

# Compelling Cloud-enabled Use Cases



CE companies can build and enhance companion apps for devices



## Accelerate CE device setup with a companion app or enhance apps with cloud services

- Convenient access to local and online content, with single sign on
- DTCP-IP and remote access to premium content
- Beam media to smartphones, tablets, TVs, gaming consoles
- Deliver product release and update messages
- Cross-marketing opportunities with content partners

# Compelling Cloud-enabled Use Cases



Build a TV client such as an  
HDMI dongle  
Beam content anywhere



## Support different beaming scenarios

- Discover, control and consume media easily
- Beam and play videos, photos, music from a variety of sources and services
- Deepen consumer engagement and time spent across multiple devices

# Twonky Extends Beaming Options



Beaming without Twonky...

iOS



Beaming with Twonky...

iOS





# Compelling Cloud-enabled Use Cases



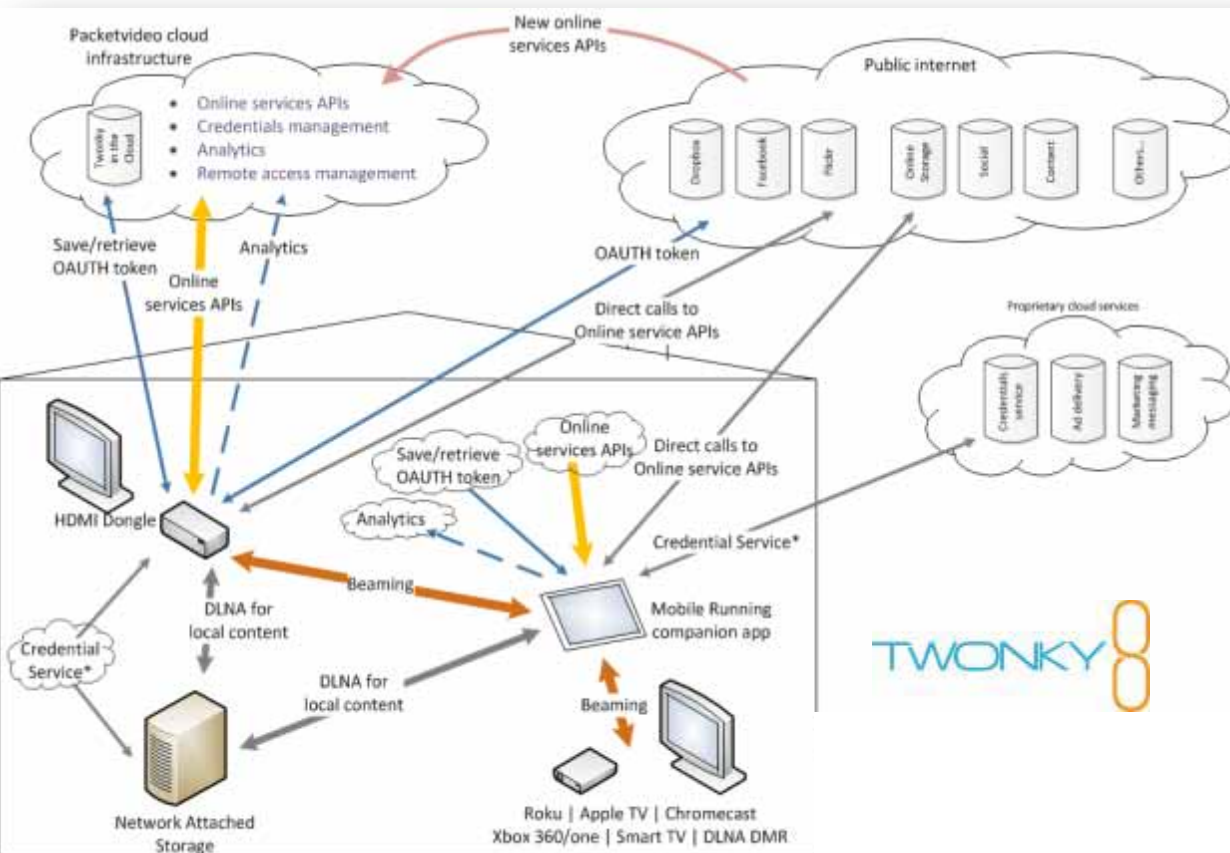
Create single sign on for all  
cloud storage and online  
media



**Provide customers with single sign on to  
access all cloud content**

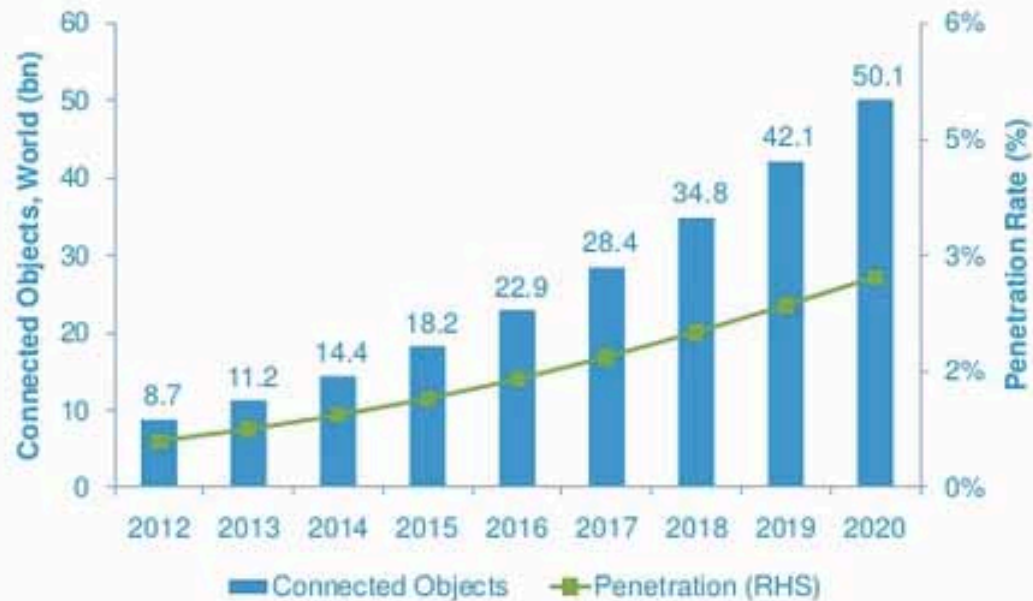
- Increase time consumers spend with services
- Eliminate frustrations from accessing online media

# Twonky 8: Innovative Cloud-Enabled Architecture



Feature	Description
<b>Flexibility and Speed</b>	Cloud enabled architecture accelerates deployment and updates
<b>Built-in cloud service integration</b>	Support for popular cloud services (e.g. DropBox, Facebook, Flickr)
<b>Multi-screen experience</b>	Stream and beam music, photos, & videos between devices regardless of platform
<b>Consolidated access</b>	Single sign-on to preferred cloud services
<b>Customized experiences</b>	Persona management for custom media profiles for personal content
<b>Easy integration with popular devices</b>	AppleTV, Roku, Chromecast, smart TVs, regardless of platform
<b>Prepared for the future</b>	Device adaptation technology for new devices and content sources
<b>Cutting edge security measures</b>	DRM, DTCP-IP support to protect premium content

## Number of Connected Objects Expected to Reach 50bn by 2020



**Penetration of connected objects in total 'things' expected to reach 2.7% in 2020 from 0.6% in 2012**

Source: CCS, 2013



# Thank You



## With Twonky 8

- CE companies can create new revenue streams beyond device sales
- Cable operators can expand their footprint beyond the set top box
- Wireless service providers can deliver and monetize OTT services



Learn more about Twonky 8 at [go.pv.com/twonky-8](http://go.pv.com/twonky-8)

follow us: [Blog](#) | [Linkedin](#) | [Twitter](#) | [Google+](#)

PacketVideo Corporation  
Corporate Headquarters  
10350 Science Ctr Drive, Suite 210  
San Diego, CA  
[contact@pv.com](mailto:contact@pv.com) [www.pv.com](http://www.pv.com)  
Tel: +1 858 731 5300



# Navigating Cloud Solutions: CE and the Future of Video



*Naveen Chhangani*

*Director of Product Management*

# Market Dynamics

## Subscribers want more TV on any device

Any screen (iOS, Android, legacy TV, Smart TV)

Any content (VOD, recorded, catch-up, live)



## Provider revenue is subject to multiple threats

Direct competition (other MSO, DBS, Telco)

OTT alternatives (Netflix, Amazon, iTunes)

Free sources (Bit Torrent, “Mega”, etc.)

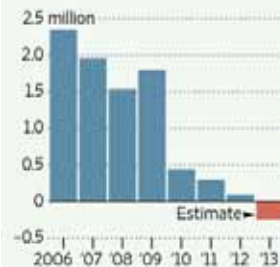


# Market Dynamics - Snippets



## Screened Out

Pay-TV subscriber net additions/losses in the U.S.

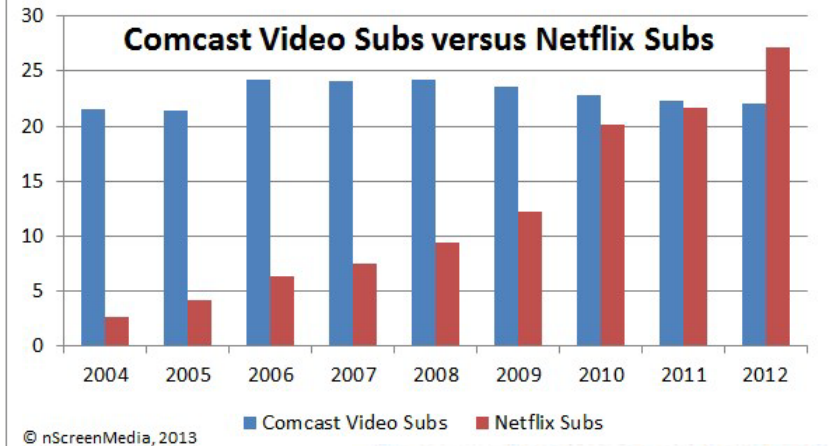


Sources: the companies; UBS  
The Wall Street Journal



Kevin Spacey, in Netflix's original series 'House of Cards'

## Comcast Video Subs versus Netflix Subs



© nScreenMedia, 2013

## Comcast's new set-top box moves DVR to the cloud

The new box, which doesn't have a hard drive for local storage, is part of an upgrade to the cable TV giant's X1 entertainment platform.

## Consumers are Adopting a Multiscreen Lifestyle...

% of viewers who watch TV outside the home on a mobile device **37%**



**20%**

Year-on-year increase in using a smartphone to watch TV

## First Xbox One TV Ad Shows Off TV Integration, Not Games.

## Tablet viewing grows BBC iPlayer

August 22, 2013 10.04 Europe/London By Julian Clover

Bell TV adds live television streaming over WiFi on Android, iOS and BlackBerry 10

**NETGEAR®**

# Connected Home

## *Broadband: Anytime, Anywhere*

+ Information follows the user



Take Your Home TV  
**Everywhere**  
*With Free DISH Remote Access Apps*

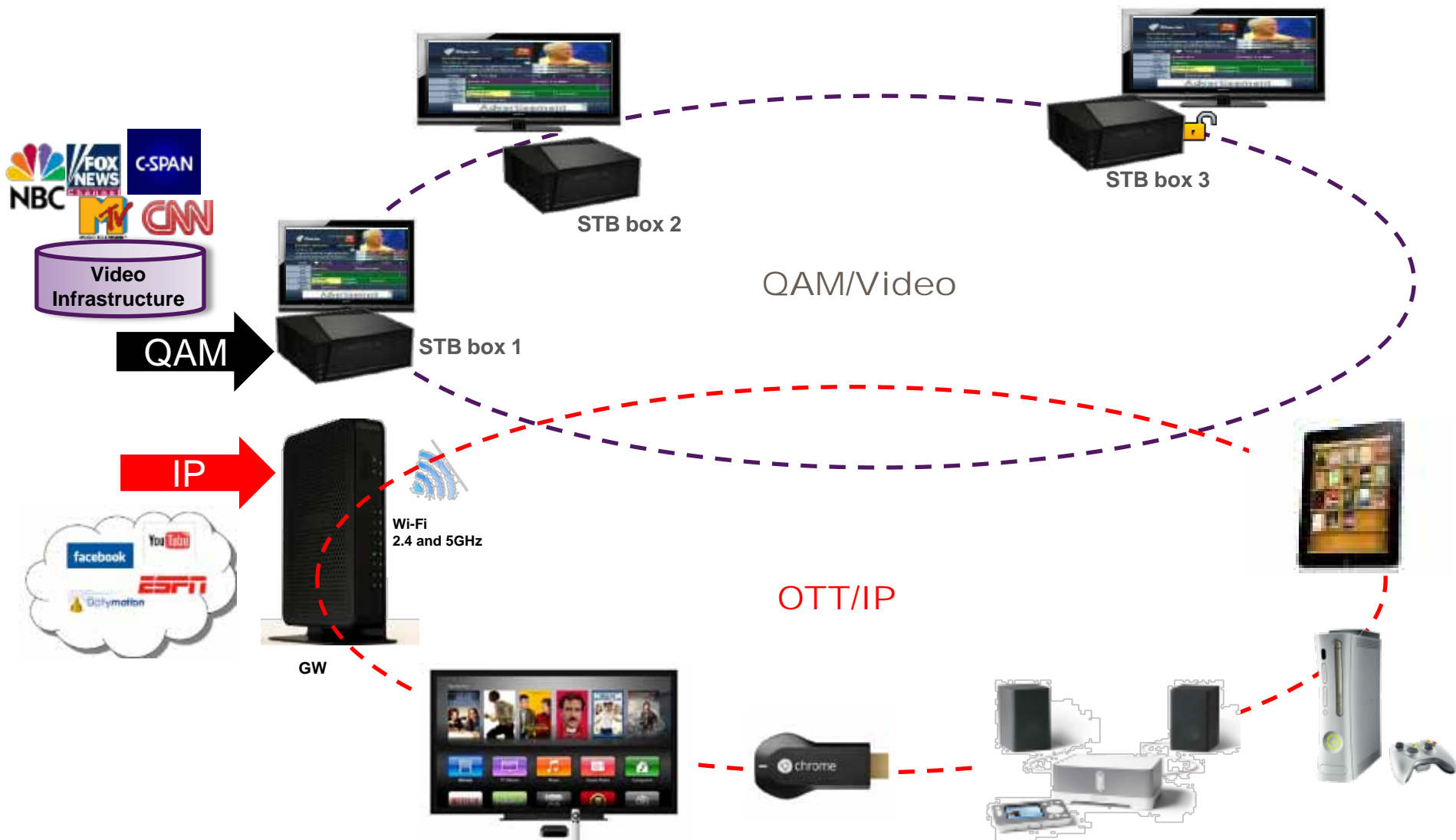


Available for iPad™, iPhone®, iPod touch®, Android™, and BlackBerry®.

iPhone and iPod touch are registered trademarks of Apple Inc. iPad is a trademark of Apple Inc. BlackBerry is a registered trademark of Research In Motion Limited. Android is a trademark of Google Inc.



# Today's Solution



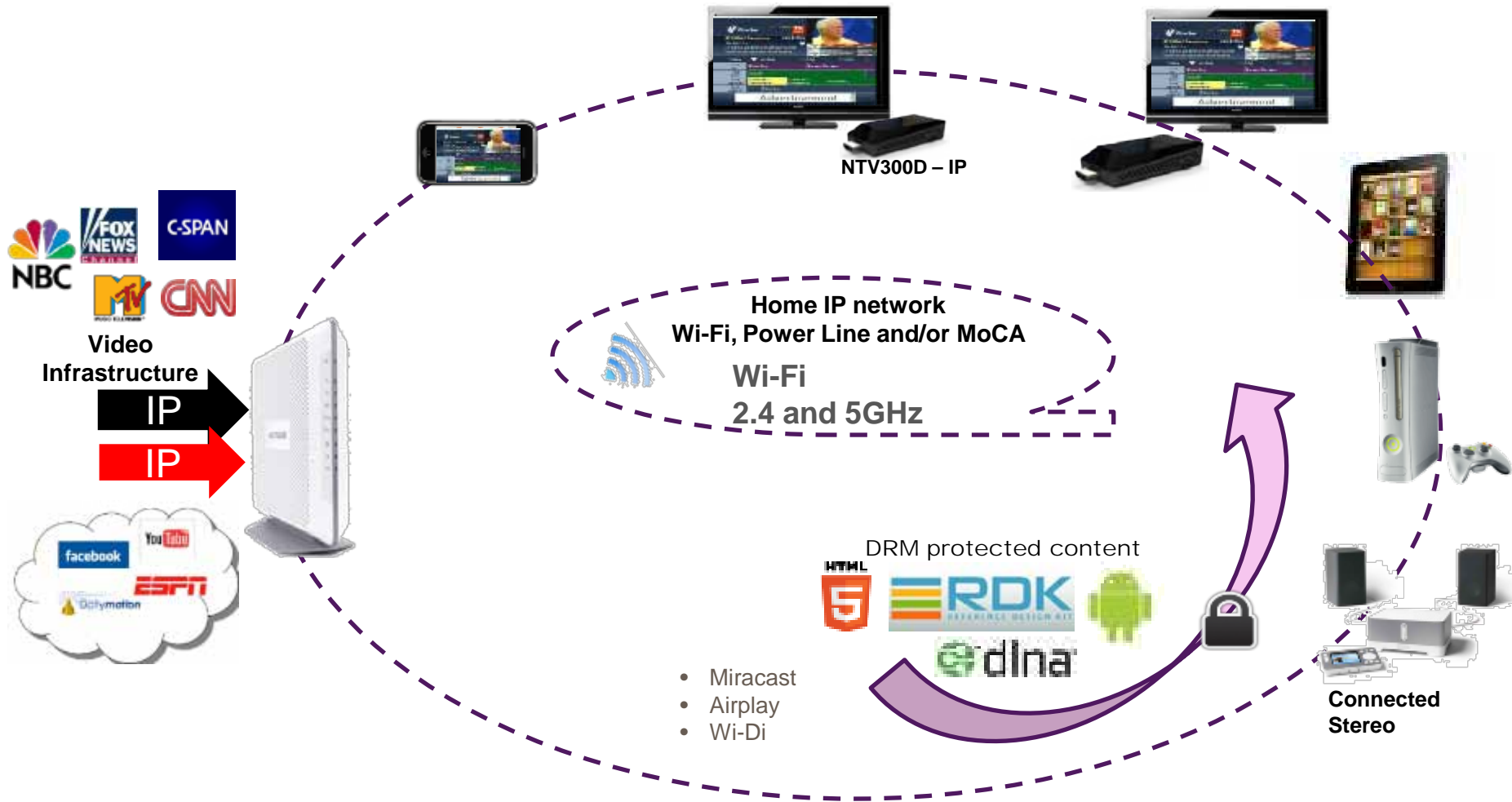
# Set-Top Boxes Evolution –

## *STB as an App (Android, RDK, HTML5 or IOS)*





# Future – All IP or Hybrid



# NTV300D – NeoMediacast HDMI Dongle

**Fully Features IP STB in Dongle**



**Next generation Wi-Fi speeds-11ac**

DRM

**DRM Support Video**



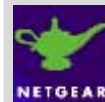
**1080P/60 full HD video support**

Miracast™

**Miracast Support**



**Android 4.2**



**NETGEAR Genie**



**NETGEAR**



---

A large, abstract blue geometric shape, resembling a stylized arrow or a series of overlapping triangles, pointing towards the top right corner of the slide.

# Thank You

# Discussion



**Naveen Chhangani**  
*Worldwide Director  
Product Marketing/  
Management*  
**Netgear Inc**



**Glenn Hower**  
*Research Analyst*  
**Parks Associates**



**John Driver**  
*Chief Marketing  
Officer*  
**PacketVideo**

**CONNECTIONS™ Europe offers high-level analysis and consumer research, networking opportunities, and information on the Internet of Things, specifically focused on emerging connected home services and technologies.**

## 2014 Topics

### Devices & Services

- § Connecting Smart Products and Smart Home Services
- § Implementing the Internet of Things: App Mashups and APIs
- § The Future of the Home Gateway: Entertainment and More
- § The Path to 4K Content and Services
- § Pay TV, Connected CE, and Broadband in 2020
- § Tech Support Solutions for the Connected Home

### Consumer Engagement & Business Strategies

- § Innovations and Interoperability: Competition within the Smart Home
- § The Future for TV Everywhere and OTT Services
- § Tomorrow's Interfaces, Control, and Content Discovery
- § Apps and the Role of Mobile in Engaging the TV Viewer
- § Channel Strategies and Business Models for the Smart Home
- § New Revenues in Advanced Advertising and In-App Offerings
- § Smart Home and IoT: Overcoming Privacy and Security Concerns



# CONNECTIONS Europe 2014 Sponsors

## DINNER



## RECEPTION



## REGISTRATION



## LUNCH



## SPECIAL SESSION



## ADVISORY



## BREAKFAST



## BREAK

