IPTV and the Digital Home

a Parks Associates white paper

Attribution

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1.0 Understanding the Choices Consumers Make Regarding TV Services

As telcos have become much more aggressive with their bundled services and telco/IPTV deployments throughout this decade, the question arises, "Why would consumers choose a telco-based TV service over other, more traditional video-centric offerings such as cable or satellite?" There is an answer, as enough consumers have seen value in telco/IPTV services to cause significant growth worldwide. The number of residential telco/IPTV subscribers has grown from approximately two million households in 2005 to more than 20 million in 2008. The number will exceed 35 million by year-end 2009.

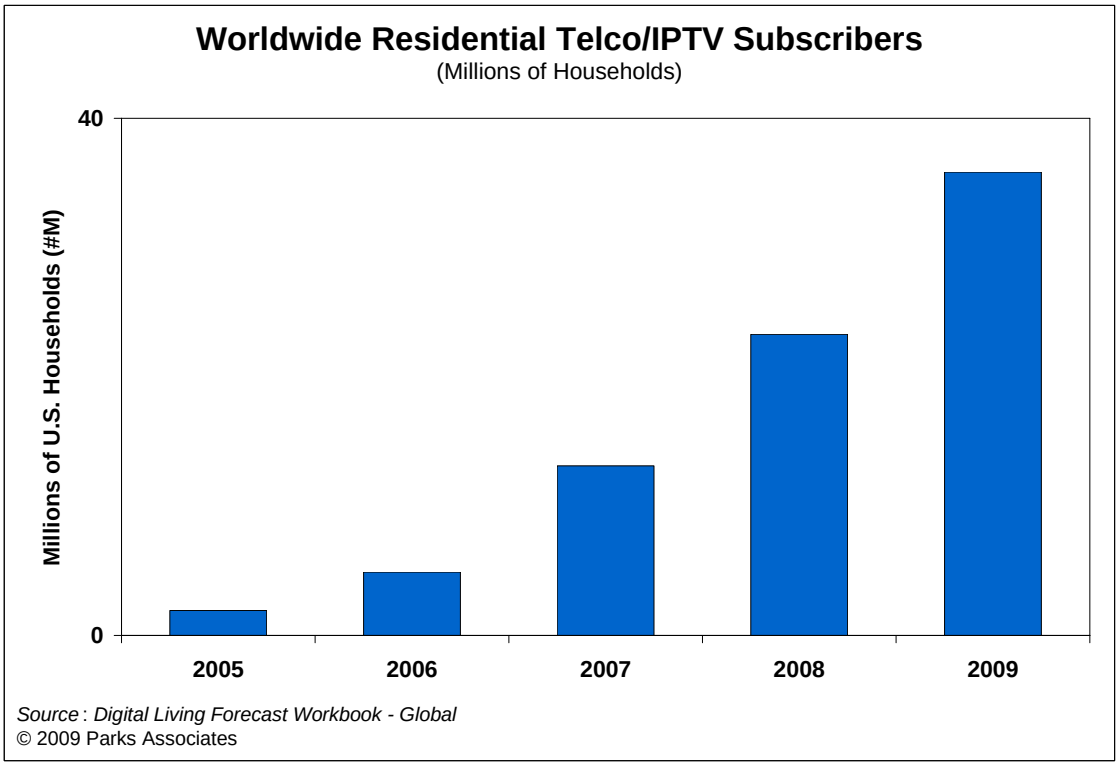

Figure 1 Worldwide Residential Telco/IPTV Subscribers

What has spurred this growth? The lesson from the significant increase in telco/IPTV subscribers over the past few years is that consumers choose to switch service providers for a variety of reasons and not necessarily to get that one "killer application." When asked why they plan to switch providers for television services (among other services), consumers show a variety of churn triggers. They are about as likely to indicate that they've grown disenchanted

with their current provider, that they're expecting a significant up-front pricing deal, or that they expect better customer service as they are to indicate a desire for new features not available from their current provider.

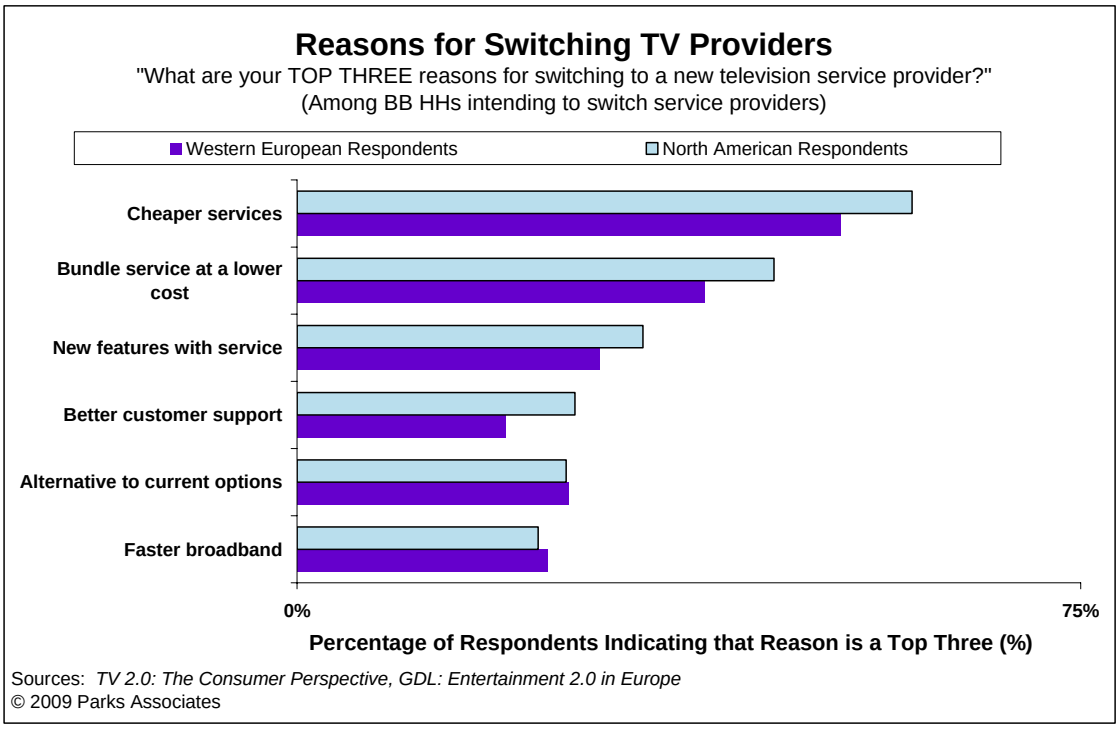

Figure 2 Reasons for Making a TV Provider Switch

Outside of a service provider's ability to offer up-front pricing deals or deliver a higher quality of customer service (which is no insignificant variable in creating higher customer satisfaction and loyalty), what are the essential elements to creating a television service that builds loyalty, retention, and revenue streams? The answer lies in how operators develop advanced television services. Consumer attitudes and behaviors indicate that when crafting their offerings, operators need to supplement their video services with significant enhancements to communications, entertainment, and unique content experiences. The consumer data for this paper were drawn from two Parks Associates consumer studies:

- ***TV 2.0: The Consumer Perspective*** – An online survey in Q3 2008 of 3,881 respondents in North American broadband households, with 2,720 respondents in the U.S. and 1,161 respondents in Canada
- ***Global Digital Living: Entertainment 2.0 in Europe*** – An online survey in Q3 2008 of more than 5,000 respondents in Western European broadband households

2.0 Testing Consumer Receptivity to Advanced Television Services

For about 70 years, the television has held the role of "entertainment hearth." Although the distribution and consumption of TV has changed – first with the addition of more broadcast channels, then with cable and satellite offerings, and most recently with the introduction of features such as video-on-demand – content for the TV stayed within easily defined categories. Television shows were television shows, and movies were movies, and that was about all that TV manufacturers (and television operators) had to worry about.

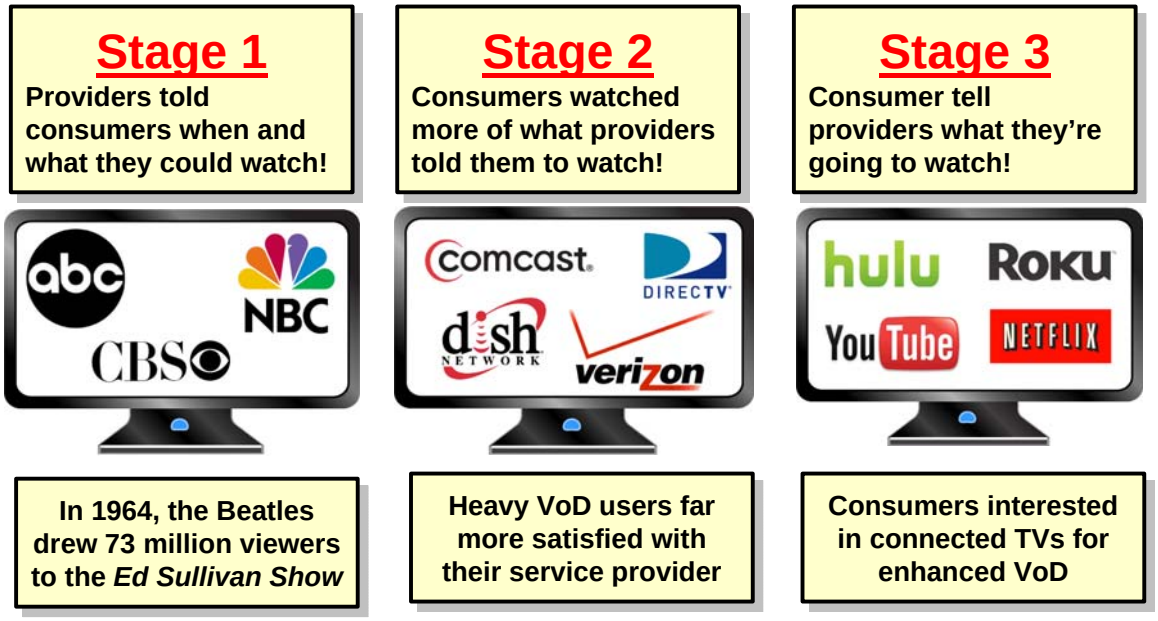

Figure 3 The Evolution of Television

Now, the television's role is expanding from a passive video playback device to incorporate elements of interactivity, convergence, and personalized entertainment experiences. From an anecdotal standpoint, data indicate that consumers are choosing their own ways of enhancing the TV experience. They employ digital video recorders and video-on-demand services to pick the specific times to watch certain programs. They surf the Internet while watching TV to track a fantasy football score. They are texting friends during *Desperate Housewives* or using SMS to vote for their favorite American Idol. The questions are whether consumers are expecting blended television experiences from their operator and which features of convergence matter enough to consumers so that they would switch to a new service provider.

Parks Associates' recent projects *TV 2.0: The Consumer Perspective* and *Global Digital Living: Entertainment 2.0 in Europe* examined consumer demand for a variety of video-centric experiences and services, including pay television, online video content, video services offered through consumer electronics devices (such as game consoles), and video-on-demand. A key component of these studies was a deep dive into specific features that will define advanced television services in the next 3-5 years. We tested 21 advanced television features with a specific eye on:

- Consumer interest in each feature;
- Which five features consumers consider the most important;
- Consumer willingness to pay additional costs (either $4.99 or $2.99 additional per month); and
- Which features – if uniquely offered by a single service provider – could lure consumers away from their existing provider.

3.0 Television Services and the Digital Home: The Sum of the Parts

Our surveys reveal that – although there are some features that are clear must-haves when a service provider develops a pay-TV service – there are a variety of service features that, when implemented, could entice consumers to pick one provider over another. IPTV/telco service providers have a head start in offering some of these elements, which go beyond traditional TV, but the challenge is to be the first one in a service area to incorporate all (or at least a number of) these elements in an offering that is both expansive and flexible, allowing for as much or as little as the individual user desires.

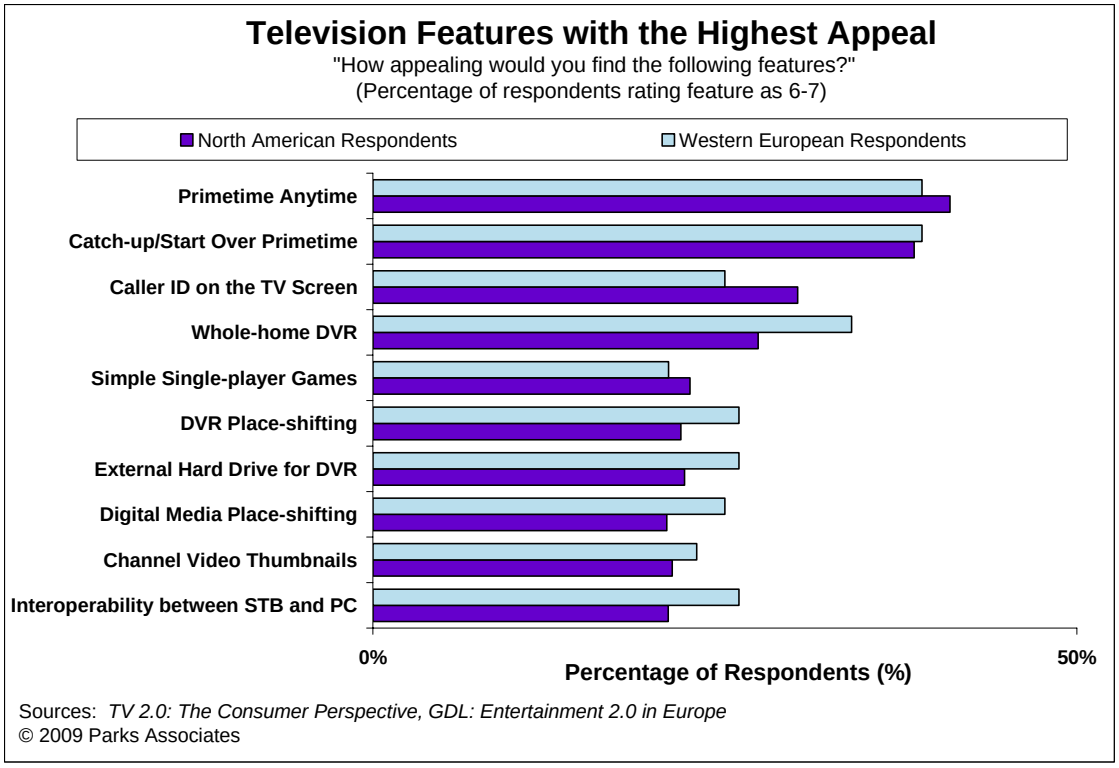

Figure 4 Television Features with the Highest Appeal

3.1 On-demand Features

On-demand television and movie viewing is the defining experience with television services today. VoD use has experienced tremendous gains over the past few years, as service providers enhance their libraries of both free and premium content. Consumers show a clear desire for television programming that conforms to their schedules, and primetime television programming is highly prized. A key challenge for service providers will be in obtaining the on-demand rights for many of today's popular television programs. The way in which on-demand programming is monetized through advertising or sponsorship will greatly impact the degree of reluctance or enthusiasm with which content owners release it.

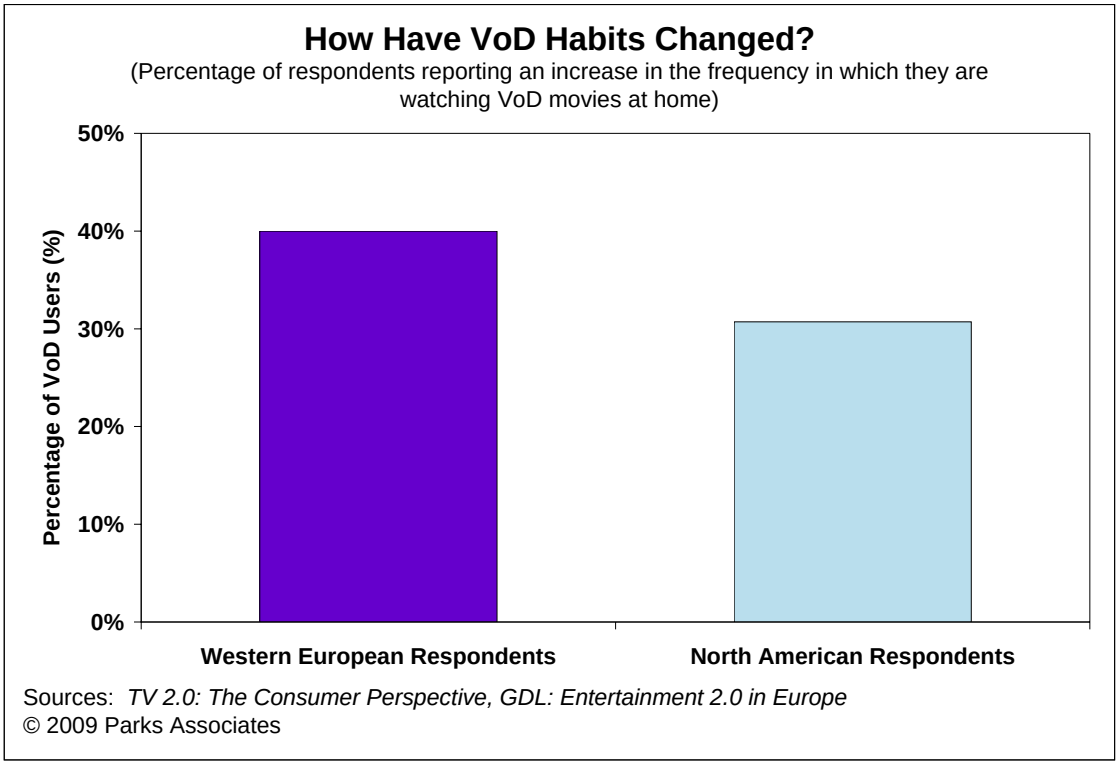

Figure 5 How Have VoD Habits Changed?

3.2 Communications

Although demand for highly advanced communications features (such as video conferencing) is still relatively low, simpler features such as Caller ID on the TV are popular. Both our survey work and the real-world experiences of pay-TV operators indicate that this feature impacts customer satisfaction and builds additional revenue at similar or even greater rates as advanced television offerings such as DVRs and high-definition content. Service providers must consider the necessary integrations between communications and entertainment services to facilitate these basic features while leaving an open path so they will be able to fulfill more advanced services (such as video-based voicemail portals or the aforementioned videoconferencing) as their subscribers begin to demand it.

3.3 Interactive Services

With services such as on-demand games and “widgets” that provide targeted news, sports, traffic, weather, and other information, the television experience is becoming “Internet lite” in many ways. Service providers will need to consider how best to implement advanced interactive

features, balancing the costs of licensing services and technologies versus attempting in-house development. There will also be monetization considerations for such services, as they will allow for experimentation with advertising, subscription, and other revenue models.

3.4 Home Networking

Although consumers don't call it the "digital home," they articulate demand for features that will rely on home networking infrastructure and software elements. Whole-home DVR is fast becoming a popular staple among AT&T's and Verizon's telco/IPTV efforts, and major cable operators are planning deployments in the next year. These services will require upgrades to set-top boxes that support connectivity. Consumers also view the television set as a portal to content stored on home computers, and rollouts today (Verizon's Home Media DVR) allow the set-top box to be linked to the PC to display photos and music. These cross-platform services will define advanced television features, so operators must consider how best to implement these experiences.

3.5 Program Guides and Content Organization

There are several elements that will push the evolution of features such as electronic program guides, search elements, and content organization. First, more graphics-based layouts of channel guides (that include live video in "thumbnails") will be important in helping viewers find desired programming. Second, as video-on-demand becomes a staple of the operator's lineup, displaying richer graphics for titles (using DVD cover art, for example) will be an important feature in helping consumers find the right movie. Finally, as the line dividing operator-provided and viewers' own content (as links between the set-top box and the PC grow), users will want a portal through which to access not only television programming but also their personal music collections, photo slideshows, and home videos. This demand will require advances in electronic program guides and search capabilities.

3.6 Bandwidth

Consumers will soon expect to have content, once locked into one device, available to multiple Internet-enabled platforms outside of the home. EchoStar has introduced a "place-shifting" set-

top box that uses technology from Sling Media. It won't be long before other service providers introduce services that take time-shifted television shows or other content and make them available to online devices. These services will have direct implications on upstream bandwidth, so providers must look at the capacity that their networks will be able to offer both to and from the home.

3.7 Cross-platform Content Services

It's not yet happening today, but there are many conversations taking place about how service providers will allow particular content to move away from the set-top box and to devices like laptops, mobile phones, and portable multimedia platforms (PMPs). Determining the usage rights for such features is one of the thorny issues being worked out today, but as these features get deployed, they will have significant implications on how rights management and content protection schemes get applied from one piece of content or from one device to another. Service providers must take into consideration both the type of equipment that will be necessary to facilitate such services and the potential costs for licensing certain technologies.

3.8 Customer Support Enhancements

Telcos find themselves in the unique position of having a comparatively better reputation than their competitors for their customer support practices. In provisioning high-quality voice, data, and communications services, providers must consider their capabilities in providing a high-quality customer and technical support. Chief among considerations will be elements of:

- **Quality control:** the ability by operators to dynamically measure data and video packets throughout their network in order to proactively solve issues related to quality-of-service delivery.
- **Service delivery:** building IPTV and bundled services that allow for scale and the ability to add value-added features as subscribers desire them. These abilities will require elements of proactive and dynamic service provisioning. As operators tie together subscriber management systems, data regarding service usage, and delivery systems, they will have greater ability to market, deliver, and control the quality of services to individual subscriber homes.
- **Device management:** operators will be required to see deeper into the customer's home as devices beyond the residential gateway and set-top box are added to the home network. The implementation of data models and device discovery and management protocols for both new and existing CPE and consumer electronics will

be important in detecting and automatically fixing issues related to device management and inoperability.

- **Application development and deployment:** advanced television services will be increasingly defined by the development and dynamic deployment of more open applications. Operators will seek ways to leverage their existing delivery systems to provide unique services without exceeding the requirements of customer premise equipment.
- **Consumer-facing technical support:** premium technical support services that include installation and in-home and remote troubleshooting services are one of the biggest value-added service opportunities for operators. A significant consideration in delivering these services is whether operators will build up infrastructure on their own or partner with experts that can roll trucks and/or deliver remote technical support using their own call centers.

4.0 Conclusions

Telecom operators have a significant opportunity to change the landscape of broadband, communications, and entertainment services by thinking well beyond the provisioning of a few pay TV channels. Implementing these advanced features ahead of traditional pay-TV providers will require significant up-front planning and investment, which is no small matter. However, there are technologies that can provide the foundation for advanced services down the road that still have significant value for operators today. Take home networking as an example. For service providers today, putting a router or an advanced residential gateway in the customer's home provides a consumer-facing service (shared broadband among multiple computers and Wi-Fi-enabled devices) and can allow the service provider to implement more advanced customer service features in the future, such as dynamic service provisioning and remote troubleshooting. Going forward, this router/residential gateway can be used to enable whole-home entertainment services (multiroom DVR) and multiplatform content services. It's an investment for tomorrow that can pay dividends for operators today.

Given how accustomed consumers have become to networking, video-on-demand, and interactivity between and among the mobile phone, the laptop, and the television, we can expect so-called "advanced television services" to achieve mainstream status in just a few years. The opportunity is there for operators who can pull together the disparate pieces of the digital lifestyle, put them into a manageable service, deploy unique and desired services, and provide the best customer support when needed.

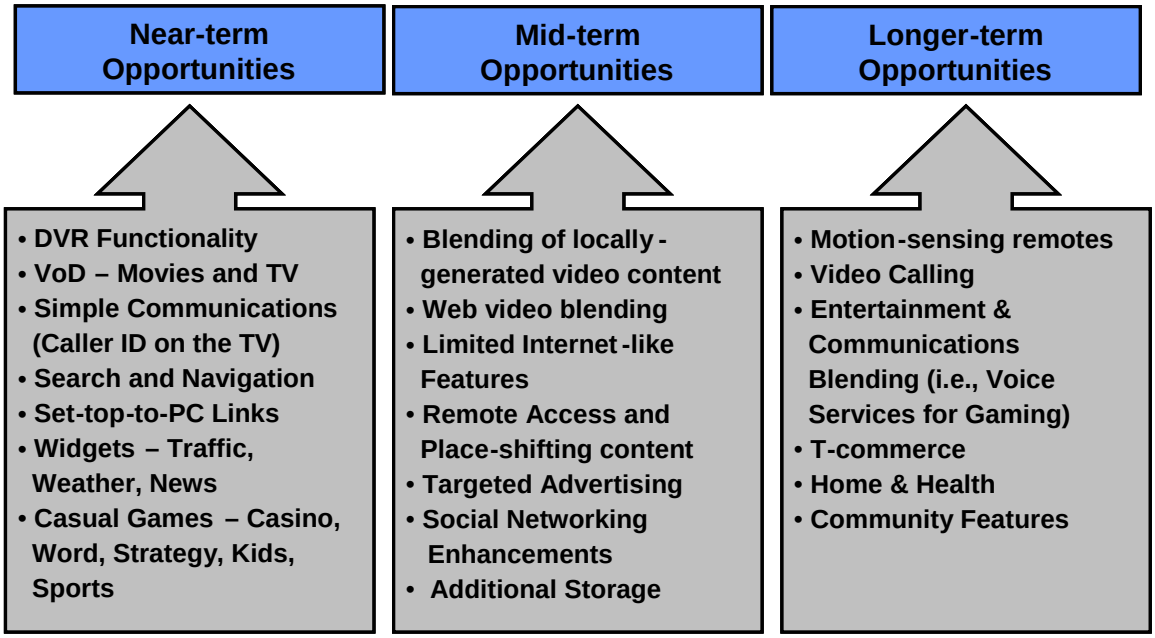

Figure 6 The Evolution of Advanced Television Services

About the Author

Kurt Scherf studies developments in home networks, residential gateways, digital entertainment, technology development in the housing market, and residential and building management and controls. Kurt is the sole author or contributing author/analyst to more than 80 research reports and studies produced by Parks Associates since 1998.

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Industry Expertise: Home Networks & Residential Gateways, Wireless LAN and PAN solutions, Home Networking Media, Media Center PCs, Set-top Boxes & Residential Gateways, Consumer Storage, Consumers and Digital Entertainment, IPTV, and Customer Support for the Digital Home.

About Parks Associates

Parks Associates is an internationally recognized market research and consulting company specializing in emerging consumer technology products and services. Founded in 1986, Parks Associates creates research capital for companies ranging from Fortune 500 to small start-ups through market reports, primary studies, consumer research, custom research, workshops, executive conferences, and annual service subscriptions.

The company's expertise includes new media, digital entertainment and gaming, home networks, Internet and television services, digital health, mobile applications and services, consumer electronics, and home control systems and security.

Each year, Parks Associates hosts executive thought leadership conferences **CONNECTIONS™**, in partnership with the Consumer Electronics Association (CEA®), and **CONNECTIONS™ Europe**. In addition, Parks Associates produces the online publication *Industry Insights* in conjunction with the CONNECTIONS™ Conference series.

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