

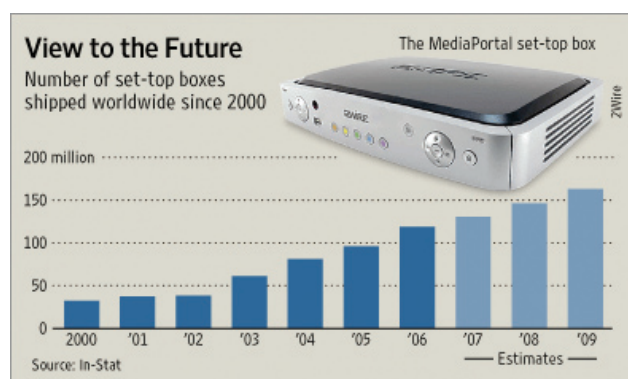
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## Subscription TV Providers Think Out of the (Set-Top) Box

By Bobby White  
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The television set-top box is getting a makeover, courtesy of small companies such as San Jose, Calif., start-up 2Wire Inc.

Until recently, so-called set-tops -- the boxes that cable, satellite and phone companies provide to their television subscribers -- mainly served the basic function of decoding broadcast signals. But that's changing as these companies fight to keep their grip on living rooms amid the rise of Internet video and innovations such as Apple Inc.'s AppleTV, a new device that allows consumers to take movies and other media from their personal computers to their television screens.



Late last year, AT&T Inc. began deploying new set-top boxes made by 2Wire to tens of thousands of households that subscribe to AT&T's Homezone television service. The silver-and-black device, which 2Wire calls the MediaPortal, offers consumers options such as downloading videos from the Internet or viewing digital photos on their TV screens. The set-top box "isn't just about channel changing anymore," says 2Wire's Chief Executive Pasquale Romano. "A lot more services need to be coordinated through the box."

Big set-top box manufacturers such as Motorola Inc. and Cisco Systems Inc.'s Scientific Atlanta unit previously relied on a one-size-fits-all approach to making the devices. Many satellite and cable companies were also reluctant to put sophisticated software onto set-tops because of the costs. But in the face of rising competition, subscription television providers are turning to little-known hardware and software companies such as 2Wire to help make their set-top boxes more attractive to consumers.

Now consumers can play interactive games through some set-top boxes, while others offer ways to craft personalized channels that include statistics on favorite sports teams. Networking firm ICTV Inc., Los Gatos, Calif., is working with Reuters Group PLC and Accuweather Inc. to offer interactive channels that can be accessed through the set-top. Comcast Corp. and AT&T are testing software from start-up ChoiceStream Inc., Cambridge, Mass., that enables the box to track a viewer's activity and use that information to recommend channels and shows.

AT&T last month invested \$26.5 million in ChoiceStream. And in January, Time Warner Inc.'s Time Warner Cable rolled out new software from start-up Biap Systems Inc., Plano, Texas, that allows consumers to bid on eBay auctions and track "fantasy football" statistics using their cable remote, while watching regular programming on TV.

As a result of these new collaborations, cable and satellite subscribers are getting a bigger variety of set-top boxes with more interactive services. New boxes are expected to boost the set-top industry's overall growth, according to research firm In-Stat.



Cable, phone and satellite television providers charge consumers for the additional services that come with some of these new boxes. In the case of AT&T, consumers who order the Homezone service with the 2Wire box are charged \$9.99 a month more than they are for the company's regular satellite television service, which is resold in a partnership with EchoStar Communications Inc.'s Dish Network. Comcast charges consumers \$5 a month more for high-definition service, which can be viewed only using a special high-definition set-top box, which costs an additional \$4.95.

Not all of the innovations are aimed directly at consumers. Earlier this month, the Mountain View, Calif., Internet search giant Google Inc. announced a deal with EchoStar to use set-tops to create an automated system for buying, selling, and measuring the impact of TV ads running on Dish Network. That will potentially allow Google to place more-targeted ads and will provide advertisers with data about whether users changed the channel during a commercial. Google signed a similar deal with U.K. cable operator BSkyB, controlled by News Corp., late last year.



*Time Warner Cable offers a box that allows eBay alerts to appear on TV*

In the late 1990s, TiVo Inc. and ReplayTV Inc. pushed innovation with stand-alone digital video recorders that weren't linked to any particular TV provider, which allowed consumers to in effect pause live television and skip commercials. Makers of set-top boxes for subscription television companies began to add similar digital functions to their devices -- and in the process marginalized TiVo and

ReplayTV. ReplayTV filed for bankruptcy protection in 2003 and got out of the set-top business in late 2005. TiVo, which remains unprofitable 10 years after launch, has sought to negotiate partnerships with providers such as Comcast and Cox Communications Inc.

"In this business, if you want to play, you need to have some sort of relationship with one of the big operators," says Mike Paxton, an analyst with In-Stat. "It's tough being a stand-alone player."

The closely held 2Wire, which was founded in 1998, won't say whether it's profitable. However Mr. Romano says that the AT&T venture is a success and that the company plans to provide new boxes to other cable, satellite and phone companies. "The operators are hungry to differentiate themselves, so we're looking for opportunities there," he says.

2Wire, which was virtually unknown in the set-top industry before the deal with AT&T, is primarily a maker of "gateways," used to create home-networking hubs through connections to PCs and the Internet.

The company got interested in the set-top world in 2003 when Mr. Romano, a Harvard and Massachusetts Institute of Technology graduate who was then 2Wire's chief technology officer, noticed that AT&T had begun offering Dish Network's satellite service as a package with its Internet and phone service.

Mr. Romano realized 2Wire had an opportunity because it had technology to incorporate the Internet, home networking and TV content into one box -- rather than the separate boxes that AT&T was having to provide customers with the package.

In early 2004, 2Wire approached the communications giant to see if it was interested in a new box. AT&T, which had previously invested in 2Wire and counts the 1,100-person firm as an equipment provider, agreed. "We talked with all of the major [set-top] providers and looked at their capabilities, and we felt 2Wire had great strengths," says Ken Tysell, an executive director at AT&T. Since the launch of the new box late last year, Mr. Tysell says it has played an important role in attracting new customers to AT&T, but declined to provide



specifics.

Dan Andrews, an insurance attorney in San Antonio, recently subscribed to AT&T's U-Verse service which comes with upgraded boxes made by Motorola and Scientific Atlanta that allow setting the recorder remotely with a cellphone or PC. Mr. Andrews now often uses his office PC to program his set-top, such as for a recent college football game. "I would've forgotten about it if I'd had to wait until I got home to do that," he says.

Verizon Communications Inc., which like AT&T, entered the TV business relatively recently, says its set-tops, made by Motorola, can be set to record via PCs, and it will later this year extend the capability to cellphones. The company announced in January that by the end of the year software upgrades will allow customers to access Internet radio and user-generated content from the Web through their set-tops.

