

# The Future of Broadcasting

by  
Howard Greenfield

## Word Count:

"We [now] have more flexibility to scale internationally, we have a solution in place that protects our proprietary technology while keeping our partners' content secure."

-- Kay Johansson, MobiTV CTO on MobiTV's  
new satellite mobile video delivery solution

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Further Information contact: [howard@go-associates.com](mailto:howard@go-associates.com)  
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Considering the explosion of technical capabilities and hybrid broadband models that are emerging, no one can foresee exactly what the future of broadcasting holds. But what's clear is that times are changing. A tsunami of content and demand for ever-increasing bandwidth is building to a crescendo with the proliferation of HD, broadband media, and new wireless mobile applications. From the small to the sky high, the Broadcast and Satellite industries continue to reinvent themselves each month. A case in point is MobiTV's recent selection of satellite provider GlobeCast to centralize and secure the content management of their channel ingestion, signal encoding, and through-put over teleport, satellite, and global fiber ring infrastructure.

For a long time, industry thought leaders have waxed poetic about the promise and pay off ahead. We have been headed into a golden age of communications according to global chiefs like Rupert Murdoch. We are now seeing that industry momentum in the form of a new technology wave propelling opportunities where "content is still king – but distribution is key" according to NAB CEO David Rehr, adding that this is exactly "why broadcasters must move quickly to increase the number of distribution channels and platforms for our content."

SES Global has teamed up with former competitor Eutelsat in a venture aimed at creating a new mobile-video-broadcast-over-satellite offering. This move will foster "the development of new, innovative satellite-delivered mobile broadcast services" according to Romain Bausch, President and CEO of SES GLOBAL who believes that Satellite is the key in providing "unique and highly efficient coverage and the joint investment will therefore increase choice and convenience for consumers, content providers and service providers". Bausch sees the mobile play as a critical industry development focus that will benefit from the cost-effective pooling of resources with former adversary Eutelsat.

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CELLULAR PHONE SERVICE MARKET OPENING UP\*

"It's difficult to imagine any kind of scenario where more bandwidth is not greatly valued" says Carmel Group analyst Jimmy Schaeffler who likens the situation to California real estate (you just can't have too much of it). "And it's just about as difficult for me to imagine where satellites do not continue to be a part of that" continues Schaeffler. "Look at EchoStar and DirecTV in the U.S. and SES Astra in Europe. And satellites' broadcasting capability (one to many), is especially relevant going forward."

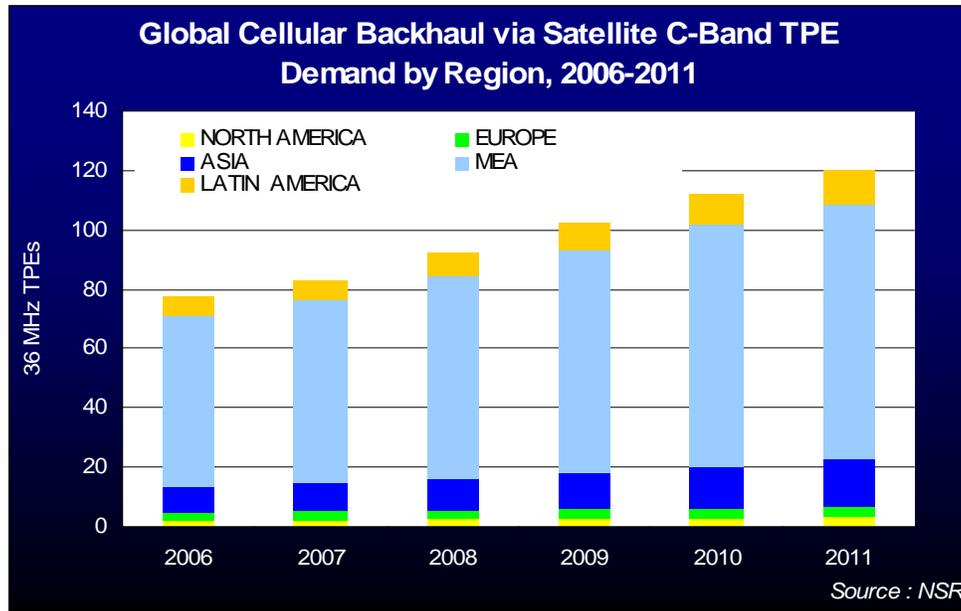
In a new world increasingly driven by bandwidth and capacity, Satellite remains a vital pipe, and a needed alternative to terrestrial and fiber. Whether as a long-haul play or as a foundation for VSAT and smaller regional networks where Internet connectivity would otherwise not be cost-effective, Satellite hybrid networks and value added services fill the gaps of other network configurations.

It's also true, of course, that some see the down side to satellite networks that no longer prove a worthy investment as in the case of St. Louis-based financial services firm Edward Jones. Edward Jones' CIO Vinny Ferrari's has announced a \$54M contract with AT&T this year to converge all their communications from hybrid to a consolidated IP network. However, on balance, consider all the current momentum indicators. Though the fate of a merged \$13B Sirius and XM satellite radio duopoly remains uncertain as this article goes to press, it has been headline news all year because subscribership, impact, and technical model are strong. After many quarters of multi-billion dollar investment and incubation, it is reaching scale, and XM Satellite Radio recently announced it is being bundled with Windows Vista operating system.

A recent Satellite Monitor survey shows that 60 percent of Europe's digital homes (49 million) rely on satellites as their source of digital signals concluding that one third of European households are now digital. Satellite plays a key role in triple play voice, video, and data offerings as companies like Eagle Broadband and ANEW Broadband step up to IPTV delivery of hundreds of channels including a mix of standard definition and high-definition over set-top boxes. Another data point is the BBC which has just announced it will pull out the stops in marketing its "Freesat" service that allows consumers to watch DTH TV via satellite without subscription. According to BBC acting chairman Chitra Bharucha, the subscription-free satellite service provides another option when the public is deciding which platform to choose. And from its Randburg, South African headquarters, MultiChoice has also just announced it will begin uplinking 10 to 12 trial channels of "made for mobile" sports, entertainment, news, music to Intelsat's IS-902 satellite.

Satellite's special niche has also become more popular in servicing global mobile telephony carriers (as a one recent industry article put it: "If You Can't Beat Them, Backhaul Them"). This is another example of satellite coming into its own as mobile means more than just voice, but media communications. More and more mobile phone users (2.5 billion users worldwide) around the world are driving a build-out of mobile telephony networks and nearly 90% of the Earth's population will be covered by mobile networks by 2010 according to Northern Sky Research.

"Cellular operators are looking at fast expansion plans and seek to extend their networks' reach using landlines, cable, fiber, microwave and satellite links to carry (or backhaul) voice and data" says Satellite Communications Analyst Claude Rousseau. "Satellite operators such as Intelsat, SES (New Skies, Astra), Shin Satellite and Eutelsat have a presence in this market but to grab market share must remain cost competitive" according to Rousseau. "Its relatively larger OPEX compared to terrestrial links is such that leased lines or microwave are the default backhaul traffic choice. NSR believes that recent end-to-end satellite backhaul solutions provide satellite an ever more cost-effective offering for mobile telephony backhaul. By increasing the number of megabits by megahertz of bandwidth, the future of cellular backhaul over satellite holds a promising growth potential in niche geographical markets such as the Middle East and Africa, Asia and Latin America."



3G, 3.5G and 4G services, WiFi and WIMAX networks also are promoting “more bandwidth-hungry applications such that backhaul services to end-users and to/from various networks will be significantly more stringent” according to Rousseau who foresees “Satellite as a key support infrastructure in backhauling media applications like digital video broadcast, mobile TV, mapping, positioning and navigation, and video-on-demand”.

The future of broadcasting has been tossed up for grabs as myriad new digital IP technologies, services, and channels arrive on the scene. Moving forward, the key terms that define the future of the industry are *funding*, *technology*, and *innovation* believes Carmel Group’s Jimmy Schaeffler, who adds that they can also be very challenging factors to successfully combine. “That said,” says Schaeffler, “there will still be plenty of astounding developments, such as HughesNet’s forthcoming Spaceway satellite launch, that will invigorate and infuse the space industry, over and over again. Overall, the future remains quite bright. It’s hard not to be optimistic.”

**END ARTICLE**

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**\*Kris Rinne, AT&T Interview Sidebar (See Above Page 1)**  
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Kris Rinne is AT&T Senior Vice President of Architecture & Planning (formerly CTO of Cingular Wireless) with responsibilities for Product Development for AT&T products and services. She now plays a key role in wireless network infrastructure and device technology for new wireless products and services. Prior to joining Cingular, she was vice president-Technology Strategy for SBC Wireless, responsible for new product development and network operations support.

Excerpts that follow are from an interview that took place on March 1, 2007, not long after the introduction of Apple, Inc.'s iPhone which will be offered exclusively over Cingular / AT&T service. Topics include the increasing alignment between Broadcast and Telecommunications as well as recent compelling network and device technology developments.

**Greenfield: What's a telephone company doing in Broadcast, and why mobile broadcast at that?**

**Rinne:**

As we looked at what could happen—at some of the dire scenarios—we felt like broadcast was something we needed to have in our portfolio. We felt that there would be *some* content that hundreds of users would want to have access to simultaneously in specific geographic areas, and if so, broadcast is a much more efficient delivery than Unicast.

**Greenfield: What was the technology decision?**

**Rinne:**

We looked at DVB-H and MediaFlo and after technical analysis, we agreed that MediaFlo [subsidiary of Qualcomm] was the right choice for us in the near term to assure a timely market experience for delivery later in 2007 and yet still have some input and direction in terms of types of content which is delivered.

**Greenfield: What are some of the challenges of the Wireless space?**

**Rinne:**

In my view, wireless space is one of the most challenging because you've got a device with a small screen a limited processor in it that has to be mobile and has to have reasonable battery life...so, we've optimized to deliver in that environment ...I just think it is a huge opportunity and thrilling in terms of what we can be capable of.

**Greenfield: What is the future promise?**

**Rinne:**

We introduced the ability for you to personalize so that you get to the sports scores that you want, or the weather for the city that you want, and you can set that up so that's the top of the menu and you can get there in two clicks instead of six.

**About the Author**

**Howard Greenfield**, Industry Strategist & Columnist, President, Go Associates

Howard Greenfield is a digital media industry strategist, columnist, and co-author of *IPTV & Internet Video* (Elsevier, 2007). He is principal of Go Associates, a leading consultancy that develops and implements high-tech product marketing and global business development strategies. Howard has held senior management and consulting positions with Sun Microsystems, Informix Software, British Telecom, Apple Computer, and other world technology leaders. He is the creator and former manager of Sun's first Media Lab and is now a frequent contributor to industry publications. Howard completed his graduate studies at Stanford University. He may be reached at [howard@go-associates.com](mailto:howard@go-associates.com).

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