

## ORCA on Cable and Broadband Winning New Revenue Models

By Leo B. Willner, Ph.D. and R. Gregory Kalsow

FCC commissioners Powell and Martin appear to be arm-wrestling while broadband company stocks continue to be in the dumps with bankruptcies, further consolidation, reorganization and layoffs still in-train. Surely there is a better way to boost commerce and profit over the broadband pipe. Perhaps an open access ORCA™ system is what is needed.

Much has been said in recent months about the lack of successful new business models for cable, satellite and other broadband providers and related media. Less attention has been paid to the formidable obstacles that these same folks can place in their own way; thereby blocking the creation of the new revenue models they so desperately need. Such trade barriers, can be caused by the actions of the broadband service providers, including the cable companies. While they pay lip service to the idea of an open market — they can also act as gatekeepers blocking the very progress they desire. Without access to an open revenue channel, few new broadband services make much sense, no matter how clever, or timely or well conceived. In this article we argue for greater open market access to all comers so as to increase traffic and

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revenues on the digital highway. We also offer a few pointers on how this can be accomplished using ORCA, the ‘Open Revenue Channel Access’ broadband business model.

This is a good time to focus on the needs of consumers and outside service providers for more direct access and control over the digital highway. We suggest the creation of ORCA, as the foundation upon which more business can be founded. To make it as a success on the information highway, each commercial application or service riding the broadband highway with its content, must be able to complete its mission untethered, unfettered, unencumbered and undisturbed to the maximum degree possible. Nothing less will do, except, as appropriate, the payment of reasonable tolls to broadband providers.

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CMS NewsLine

*“Validating the Middle Ground”*



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## Open Revenue Channel Access

Is an open market for entertainment and communications products and services a threat or a blessing for the media establishment? Open systems, open standards, open access are terms that describe aspects of an open market arrangement wherein access and commonality of standards allow a variety of service providers to seek a profit by gaining the approval of broadband users. For this to work effectively each such service must first have access and control over some ORCA network of its own through the cable or other broadband infrastructure so that it may directly reach the public, its customer.

For example, the many cable MSOs could provide a Disney Studios with direct access to its cable subscribers, by installing the necessary software onto the cable headend and set-top boxes to allow Disney to run a VOD service of its own via the cable. Say, one based on the downloading of movies and TV shows directly onto a PVR of the SONICblue (ReplayTV), Moxi, Ucentric, Scientific-Atlanta or TiVo variety. No need for a fixed TV channel, just enough access to MSO headend servers and the like to get the movies and TV programs over to the PVR, probably during the wee hours. Billing could be by credit card, ITV or through the MSO's own monthly bills to subscribers. Disney would pay the MSOs a broadband usage fee. Disney would control the schedule, the content, the format, the pricing, the marketing and all else. That is a thumbnail of what a Disney ORCA system might be like. It would mean true open revenue channel access to Disney Studios, and a dramatic change in its broadband business model. A far cry

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from how it works today.

With an ORCA network, a business has the ability to directly control its commercial transactions with customers and other service providers. Without such access, the monies cannot flow directly to the very individuals and companies that can make the entertainment and communications businesses more vital — the many innovators and entrepreneurs. Without such direct access to commercial traffic, application providers and content owners are often stifled and lose the opportunity to maximize their sales and profits. Note that lost business ultimately hurts both the entrepreneurial risk-takers and the information highway gatekeepers. One recent example involves Intertainer, the broadband movie service provider recently derailed by some Hollywood studios and others; with numerous lawsuits now pending.

By turning toward an open market approach and away from today's restrictive oligopolies, such as the telephone Baby Bells, we can hope to greatly increase commerce on the broadband and eliminate the highly restrictive barriers now in place. The battles now raging at the FCC such as whether to allow AT&T and other broadband carriers ORCA access to the Baby Bell networks is an example of the struggle that is taking place. All the while, the creation of open market access channels to say, AT&T and many others is key to their revenue growth. Such ORCAs can energize viable markets for new goods and services that may otherwise never see the fibre light of day. This approach also enriches the broadband operators such as the cable MSOs and Baby Bell telephone companies.

In the broadband world, open revenue-channel access are at times restricted by shortsightedness and poor judgment on the part of so-called gatekeepers. Nowhere can this be more self-defeating than in the cable industry. These folks often favor limiting the access opportunities of others including the very innovative enterprises whose success might well energize their business. All the while, their regional systems may churn to little or no profit as they struggle to grow and maintain hegemony by implementing new technologies, one after the other. It reminds one of the recent power struggles in the airline industry, which were followed by the financial woes of United Airlines and American Airlines.

It is useful to recall that during the Middle Ages the flow of goods was greatly restricted by the nobility, the municipalities and the highwaymen; and business suffered greatly. Only when the roads became open and safe to all wayfarers did business begin to really boom; think of the fabulous success of Venice in its time. Today the European Community has eliminated border controls and tariffs along the highways and byways that connect its member countries for just this reason. Gatekeepers stifle commerce and limit progress. The idea of protecting jobs and markets by closing borders and blocking highways, known in the 19<sup>th</sup> century as mercantilism, is a failed concept. That false concept can at times be observed in the practices of a few cable and satellite MSOs.

One might think that the culprit in the lack of profit of some broadband companies is simply due to bad luck, bad timing, a weak economy or a poor stock market. Indeed these may very well play a central role. However, down deep — in

the quiet waters that give the tide its course — there may be far more profound reasons for the recent malaise in broadband and cable TV in particular. At the heart of the matter are a few pathological factors that cause much of the trouble, including:

- The rapid advances of unsettling new technologies such as DVD, PVR, VOD and ITV, which have destabilized cable TV, satellite TV and broadband in general.

- A somewhat nearsighted and politicized FCC organization that plays ‘Stop and Go’ with the broadband industry — including cable — over cable fees, DTV, licensing, copyright and the rest. This is a political donnybrook that has Michael Powell, the commissioner of the FCC, Senators Fritz Hollins and John McCain and Congressmen Billy Tauzin and John Dingell all stirring the pot. All the while there is some troublesome legislation pending in the U.S. Congress.

- An unfortunate yet widespread failure to deal with the problems and opportunities associated with the convergence of voice, data and entertainment systems. That is, a failure to harmonize some critical aspects of the telecommunications, electronic entertainment and computer industries into a workable whole.

- An excessive belief on the part of many in broadband leadership that the ‘road to Eldorado’ lies astride the next wave of magical products: ITV, VoIP, VOD, SVOD, DOCSIS, DTV, HDTV, PPV, PVR, UWB and the like.

Rapid technological change has always been the problem, the opportunity and the challenge for the cable industry and

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broadband in general. It is also the cause of much disruption, frustration and premature or misguided investment. As the past few years have amply demonstrated, the way forward for these folks does not lie in more consolidation of technologies or companies. What is required is a better way of doing business.

The better way, if it is to be found, may emerge as media and broadband companies elect to operate the ORCA way. By riding on the shoulders of creative and innovative risk takers, new products and services that can help grow the entire broadband business may gain an audience.

Unfortunately technology can get in its own way. In particular, the modern bazaar of entertainment and information services is constrained by the nature of electronics and the necessity for complex systems, common languages, coding, encryption and data management practices. The many layers of operating systems, middleware and applications have created a convoluted maze of such proportions that it may seem to many of us that true simplification is no longer possible. Layer upon layer of bundled code that of itself acts to block direct access by market players to TV viewers; except via carefully negotiated arrangements that unlock the secret passages strata by strata through this maze. As a result, and in order to protect the viability and reliability of their systems, the cable MSOs have taken full ownership and control over most elements of their systems — aided and abetted by such things as digital rights management and other systems from the likes of Motorola and Scientific-Atlanta. In today's environment, a cable headend is truly a three-ring circus. Bring on the clowns!

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In our view, beyond managing these complexities, there is little need to transfer either ownership or full control over content streams to broadband operators as they transit down the information highway. Transactions can be enabled without the transfer of full control or authority over the applications or the content. That is unless the commercial player, say a PPV house, and the service provider, say a cable MSO, mutually beneficial from such an arrangement. Internet Protocol, MPEG, CODECs and the rest of the gobbledygook can still be managed in a way that will allow the content owners and the application providers greater control over their own destinies, especially their revenue streams. All that is ultimately needed is access onto the information highway and some basic

rules of the road, although many experts are likely to disagree with this conclusion.

An information highway interlaced with many barriers to commerce acts like a great river along which a series of dams and bypasses, channel, block or

redirect the flow. After a while there is little or no water passing through, as in the Rio Grande River bordering Texas and Mexico. It is basically a dry bed, as too much has been taken out or diverted. So too with the misguided hands that reach across the cable bandwidth and place tariffs, or require ownership, or demand a usurious share of the proceeds arising out of any commercial traffic.

No transfer of property rights or gunboat diplomacy needed here! Each commercial party should pay a fair access fee to those who provide and maintain the broadband system. In return each commercial player gets an ORCA network to his consumer base. The broadband industry in turn can

then act in two capacities, first as an ORCA provider for others and then, as it chooses, as an aggregator and distributor of content for itself and for other business interests in the form of real or virtual channels.

Consider the example of video on demand, VOD, as a way to contrast today's situation — which has studios and other content owners: (1) up in arms and ready to do battle with the cable MSOs and other broadband providers at every turn, or (2) acting to limit the quantity, timeliness and quality of video content they make available to networks and cable MSOs for VOD or SVOD services — with the way it would work instead if these studios and other content owners had access to a viable ORCA of their own:

### The VOD World as it Works Today

Via iN DEMAND, TVN and other PPV and VOD services, the cable MSOs gain the right to power-up VOD to their cable TV subscribers via their video servers located at their hundreds of local cable headends. The content aggregators iN Demand, TVN and the like make deals with the studios and networks, which own the content, on the basis of a shared revenue arrangement. Yet, once they have the content, it is the cable MSOs not the studios that own and fully control the VOD game. All the content owners get today is a portion of the MSO's bounty. This is not a satisfactory arrangement for the studios who must acquiesce to give up business and marketing control over their properties; items that may individually be valued at one hundred million dollars or more. Their copyrights are placed at risk to the many content pirates while they are expected to give up the marketing of their content.

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The number and types of real or virtual channels used on the cable network for VOD and similar matters are mostly up to the cable MSOs or their minions HBO, Showtime, STARZ and the like. The marketing decisions and promotional activities are mostly out of the hands of the studios. If they play along, the content owner also place their lucrative video rental distribution channels, such as Blockbuster, in jeopardy while they retain very little control over how the transformation plays out. There is no ORCA in this game, simply a contractual release of limited content such as movies or TV shows by the studios and networks into a VOD viewing window arrangement determined by the cable MSOs. In most matters that count the MSOs are in charge and the studios are unhappy with so much loss of control (and profit).

### The Future of VOD Possible with ORCA

With ORCA a content owner (CO) such as Disney, Viacom or Universal-Vivendi pay a fee for 'open revenue channel access' to a satellite or cable MSO system. He may or may not need his own fixed share of bandwidth — as in a TV channel — as such requirements depend on the nature of his VOD service and how it employs the distributed network, the headends and the client ends to get its videos enabled in the TV subscriber's home. What he, the content owner obtains for his VOD service is direct entrée into the cable system infrastructure and thereby direct access into the cable TV subscriber's set-top box. That is the electronic means to transact business on his own with the consumer.

In this arrangement the CO determines what will be offered to the consumer, how and when it is to be made available, as well as the terms of commerce. He maintains full digital rights management control over his content



and the way it is encrypted, decoded and otherwise protected. He alone determines the means and controls over conditional access to his content. He also determines the pricing arrangement with the consumer. It is the CO and the CO alone who chooses how long a given piece of content is made available to VOD or SVOD. He can pull it at any time of his choosing and replace it with something else that may earn more money. He can create specials and promotions to gain traffic on his VOD service. The VOD ballgame, including branding and the customer relationship, belongs to the CO alone. The cable MSOs earns a flat fee for the access services — or perhaps a prearranged percentage of the proceeds. This is very different from the previous case!

**T**his example can be extended to many other — current and future — products and services from independent vendors representing ITV, gaming, DVD, e-commerce and the rest. The concept of an ORCA is in many cases alien to the current broadband business model as each product or service gets to maintain full ownership and control over its business. The leasing of TV channels or portions thereof on the cable broadband to individual companies may not always be required. For with today's PVR and other technologies a TV channel or portion thereof may not be needed. Instead direct access into a cable or satellite headend, onto some broadband pipe and into the client end set-top boxes may suffice. The content owners and application providers deserve direct access to the consumer. They should be free wayfarers on the information super highway that only pay usage fees or tolls. They require that their products and services remain integral as they pass through the broadband systems.

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Those who might argue that such open access is already available to business via that portion of broadband known as the Internet need only recall that ‘The Cloud’, as it is known, is primarily a complex communications network. Effective low-cost large-scale bandwidth and associated infrastructure are far better served up on standard cable broadband, especially for the ‘last mile’. In fact ‘The Cloud’, with its complex worldwide network of routers and servers, is not typically the best way to move gigabytes of entertainment and other content quickly and reliably to the home. Generally, cable headends using MPEG and the like, not IP connected to DOCSIS modems, is the better way to transport video. Less chopping up, reassembling or streaming of data for little purpose is required.

After all, even when 386Kbps to 1.5Mbps bandwidth via DSL and cable modems is continuously available through the complexities of ‘The Cloud’, it may not be up to the day-to-day requirements of live VOD or HDTV. Neither are parts of the IP route as robust and may suffer from uneven reliability, pauses and common latency gaps.

## SUMMARY

**A**s long as the FCC acquiesces to the cable MSOs and other broadband service provider’s tendencies to hold on to their rigid business models, the development of better consumer services and applications may continue to be stifled and a restrictive business climate will prevail. All the while, the many attempts to bring about a full convergence of cable, PC and telecommunications are untimely. They tend to only increase the complexity of these systems while freezing some key technologies before they can fully develop

and mature. ORCA is a better idea; it can enable many new products and services to be market tested so that the best ones can ultimately flourish.

This approach will not reduce broadband or cable MSO revenue, just the opposite; it will allow their markets to grow as their revenues and profits rise. The true added value the cable MSOs bring to the table are their headend technologies, client end systems, the fibre network itself, customer service skills along with an abundance of other infrastructure and know-how that facilitate the use of cable broadband. They are not however the major source of new content or new applications. Neither do they need to limit themselves to the role of marshals and gatekeepers. Under the present model the cable MSOs — because they need to fully understand and control every step of the process — simply cannot keep up. They are swamped and distracted in a maze of technological complexity largely of their own making. They may indeed be happier and richer if they go back to their main job of managing the digital cable highway as a valuable service. Please note that ORCA should also apply equally to VPNs, satellite and all other broadband delivery systems.

In the end, communications channels exist first and foremost for the benefit of the public. They are not just private domains or fiefdoms to be exploited by the shortsighted mercantilist — some of whom may at times fail to get the big picture or to fully understand the role the public at large and the many commercial interests wish for them to play. At the same time, the FCC must refrain from excessive politicking and evolve into an even more professional organization. Ideology, after all, has little to do with the basic regulatory oversight work needed by an open broadband system intended for the benefit of all. Few ideological underpinnings are

needed beyond a good reading of Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations*. The apparent internecine struggle between Kevin Martin and Michael Powell at the FCC on granting ORCA access to AT&T and other broadband companies on Baby Bell networks illustrates the fact that this concept may not yet be fully understood.

### **Next Month**

In May we will continue our exploration of the potential benefits of ORCA with an in-depth discussion of revenue models.

[Don't miss Kalsow's Back-Channel; turn to the last page. —Ed.]

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## KALSOW'S BACK-CHANNEL: "Validating the Middle Ground"

■ Masters week among the Georgia pines and the golf world is full of Azaleas and recriminations. The real question is: when is private really private? Is a private conversation in a busy restaurant really private? Is adding another billionaire, though a female, to one of the worlds most exclusive clubs, Augusta National, a breakdown in privacy or exclusivity or just a publicity stunt. Are Jack Nicklaus and Arnold Palmer — members all — really representatives of the general public or just beloved and well-packaged elitists? Let's face it; the whole thing stinks and perhaps so does Ms. Burk. So let's keep CBS and Viacom and the rest of the TV industry and advertising world out of it and just play through!

■ Bandwidth hogs and what to do about them, surely another looming problem for the broadband industry. With IP and DOCSIS the coming rage and a gathering traffic storm of data-intensive video looming, Michael Powell is right to warn that bandwidth is becoming of greater and greater concern. More compression and multiplexing along with better scheduling and prior downloading of content are but varieties of holding actions, while the real issue is excessive low value traffic bottling up the cyber pipe. If Adam Smith were around he would point out in a kindly way that something is dreadfully wrong with the broadband video transmission pricing model. In counterpoint take IP telephony, or VoIP, at the very low end of the data density scale, very little data and still the prospect of real additional revenue for cable. All you need is efficient computer switching and you can earn a handsome income on wispily light data traffic. How many words a minute can you speak?

■ Was any musing media passerby not again befuddled this year by the ongoing mismatch between network and cable advertising upfronts? Also, what does it mean when advertising unit revenues as measured by CPMs continue to be about twice as high for the big broadcast networks, CBS et. al., as for such worthy cable networks as USA, MSNBC and CNN on equivalent programming? If the demographics and psychographics of the audience are comparable, is a national footprint a logical reason for paying twice as much for basically the same thing? Are the advertisers operating with a demagnetized compass, or are the ad agencies frozen in a worn-out ad budgeting foxtrot, or what? We don't get it, do you? Let's face it; advertising on cable is a great bargain! Maybe economic stickiness in TV advertising is the real 'strong force' the physicists are always trying to explain.

■ With Adelphia, Charter, Cablevision and other troubled cable companies in the news, what could be the cause of so much misery? While politicians, columnists and whistle blowers point to the misdeeds of miscreants, conflict-of-interest riddled public accounting firms and slack FCC rules, we at CMS NewsLine would like to respectfully suggest another perhaps equal cause, the mismanagement of new technology. Let's face it, when it comes to implementing very rapid technological change, we all still don't get it. It's all one electronic Thalidomide debacle after another, or more specifically, one crippled media or technology giant after another. Yet the techno priesthood continue to herald in each new gizmo as the next coming, even though each such new product or service typically requires vast new capital expenditures on the part of cable. When will they ever learn? With Lucent, Cisco, AOL Time Warner and so many other stock market disasters, perhaps we should reconsider the vast capital expenditures that we allow to precede and not follow the establishment of viable markets. And now, without further ado let's get on with HDTV, VOD and VoIP.

[Your mileage may vary. —RGK]



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