

Cable Bets on a Complex Weapon

By Jonathan Tombes, editor

The forecast for the cable industry's advanced advertising initiative is mixed.

In a Pike & Fischer report issued last November, Chief Analyst Tim McElgunn pointed to reduced spending across all media, online competition and privacy protections as impediments to rapid growth.

McElgunn noted the "immense complexity" of creating the new platform embraced by Canoe Ventures and the challenge of wielding it as a disruptive weapon against ingrained advertising tactics.

WORK TOGETHER

Tripling cable's advertising revenue over the next several years—a goal associated with Canoe executives—may be ambitious. (Pike & Fischer think

growing from \$5 billion to \$10 billion by 2015 is reasonable.)

But grow it will, for several reasons. First, the category plays to the industry's core competence in video. Second, cable's advertising and technology has advanced steadily for decades. In the early 2000s, when program insertions became digital and MSOs began exploiting the two-way capabilities of their systems, the pace picked up.

"Cox and several other cable operators (in recent years) have deployed our own advanced advertising technologies," said David Porter, VP of strategy and business development for Cox Media.

But competition has put brakes on the going-it-alone approach. Online advertising in particular has forced MSOs to

collaborate and leverage their combined footprint.

There lies a third reason this category will grow: It has to.

"While Cox can offer its products in front of around 6 million households...for national advertisers, they need to have a solution that gets to around 20-30 million households," Porter said.

URGENCY

As ARRIS Director Product Strategy Paul Delzio sees it, cable has always had an annual list of priorities, with advertising typically making the top 10, but not top-five agenda.

But over the past three years, competitive and budgetary threats have made it a must-do item.

"The mood is now like,

'We've talked about this and had committees, we've had beakers bubbling with smoke in the labs for years. Get it outside of the white cloaked lab room and get it out into the real marketplace, and it has to happen now,'" Delzio said.

Up front have been two main technologies, said Sigma Systems VP Product Management Rick Mallon: campaign management systems and ad decision managers.

In the former group, Mallon put Tandberg, OpenTV, Microsoft, SeaChange, Invidi and BlackArrow. The latter, he said, typically included vendors closer to network devices, such as splicers.

Another element is the ad decision server. "It sits in the

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Rationally Exuberant for Advanced Ads

Q&A WITH PAUL WOIDKE

Paul Woidke chairs the SCTE's DVS Working Group 5 on digital program insertion (DPI). He currently serves as SVP and general manager, advanced advertising, for OpenTV. Woidke recently shared with

CT his grounds for optimism on the business and technology of advanced advertising.

Skeptics are wondering if cable—specifically, the Canoe joint venture—can really pull this

off. What do you say?

Well, it's the cable industry. We've seen things as successful as CableLabs, as lackadaisical in implementation as OCAP, as imploding as @Home. Sure, there are

things that can go wrong in the whole Canoe area. But as far as revenue streams go, I think that the industry recognizes the importance of advertising. There's a real serious

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middle of this intelligent brain ... (and) is busy all the time," Mallon said.

Sigma itself is new to this business, having leveraged its back-office expertise to fill one of the three roles for information services specified by SCTE 130: that regarding subscriber information.

The other two services involve placement opportunity and content.

These sources of information are key. "There is a real focus on data," said Craig Schwabl, Concurrent chief architect, strategic technology. "Canoe continues to say that data is important."

AGENDA

To help prove out the interfaces linking these elements, CableLabs hosted an interoperability event last November.

"The SCTE spec is so complex, there are so many pieces to it, that there was a need to exercise these in a vendor interop forum," said Schwabl. (For more on CableLabs, see sidebar.)

With CableLabs engaged, and SCTE 130 near completion, it remains for MSOs—and their Canoe counterparts—to begin pulling triggers.

First up for Canoe is what's called creative versioning. "Right there for the most part there's one version of a spot," said Cox's Porter. "What Canoe is going to offer is to then subdivide that

based on household income."

That's just the first step. Doubling up on targeting criteria would be next, and so on.

Beyond targeting, Canoe and MSO partners have put enhanced TV applications on deck, although expect to wait. "EBIF and tru2way still have some work on it," said Delzio. "It's still 12 months away."

Of course, each of Canoe's six founding partners will adopt technologies at its own pace and according to somewhat divergent agendas and infrastructures (e.g. Comcast NGOD vs. Time Warner ISA.)

Then there's on-demand. "In 2009, you'll find a decent number of operators going to trial with VOD ad insertion capabilities," said Schwabl. Cablevision has itself moved ahead aggressively with branded VOD channels, a separate initiative.

Like branded VOD, other tasks are outside purview of SCTE 130, such as HD. "The challenges in HD splicing are specific and unique," said Gal Garniek, AVP of marketing for Scopus Video Networks.

But for Canoe to approach its lofty goals, MSOs and their vendor partners clearly need to move beyond the lab on some of these technologies. "They have got to get those systems in place in order to offer up those subscribers for targeting," said Mallon. ↩

CableLabs Interop

In November, CableLabs hosted an addressable advertising event at its laboratories in Louisville, CO. Fifteen companies involved in the development of advanced advertising technologies attended the event.

CableLabs and the participating vendors used SCTE 130 standards as the framework for this interoperability event. SCTE 130 is the cable industry's emerging technical standard for advanced advertising.

Don Dulchinos, SVP of advanced platforms at Cable-Labs, said 15 vendors was a larger-than-expected number of companies developing addressable advertising products that implement SCTE 130.

"More work had been done than expected," he said.

The companies that participated in the addressable advertising event were Arris, BIAP, BlackArrow, Concurrent Computer, Ensequence, Front Porch, INVIDI, Microsoft Advertising, Motorola, OpenTV, Sigma Systems, Tandberg Television, This Technology, UniSoft Corp. and Visible World.

There are three categories of addressable advertising being developed, explained Dulchinos: (1) more addressable ads with finer grain, geographical targeting, etc.; (2) interactive ads that customers can click on; and

(3) ad insertion technologies such as insertion of ads into VOD inventory.

In addition to testing in the context of SCTE 130, participants also tested products with CableLabs' enhanced television (ETV) enhanced binary interface format (EBIF) standard. CableLabs created EBIF to promote uniform TV interactivity across multiple platforms.

Products included advertisement campaign managers, advertising decision servers



CableLabs in Louisville, CO

and information systems that support subscribers, organize content and define advertising placement opportunities.

The event closed with vendors demonstrating an end-to-end process whereby an advertisement can be selected, inserted into a programming stream and delivered to a digital TV customer.

CableLabs plans to host more confabs in 2009, possibly one that again tests SCTE 130 interfaces, and at least one gathering focusing on end-to-end system testing of ads, Dulchinos said. ↩

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Arris (www.arrisi.com)

Product	Application	Key Features
SkyVision HQ	Central element of the ad insertion system	Communicates with the management console (SkyVision), the traffic and billing systems, the content sources (encoder and archive), transcoder components, and the ad control manager Insertion server.
HQ SNAPSHOT	Backup server software	Collection of software modules that run on two matching Headquarters (HQ) computers: a master HQ and clone HQ; HQ Snapshot provides a 'warm spare' backup of the master HQ that can be brought online in minutes in case of a catastrophic failure; current ad spots, HQ configuration, and system information are backed up from the master HQ to the clone HQ; if the master HQ goes down, the clone HQ takes over ad insertion operations.
Ad Control Manager (ACM)	DPI software	GigE digital program insertion connects the company's video server and linear advertising management software; provides high system availability, enhanced error detection capabilities, high scalability (enabling 120 to over 2,000 channels per server) and automatic dynamic recovery for single points of failure; promotes reduced maintenance costs and high reliability.
Virtual Interconnect (VIC)	Scheduling software	Allows cable operators to merge schedules from up to 10 different owners, working in partnership as a Virtual Interconnect Company; vendor neutral; incorporates intelligent rules-based merging that identifies conflicts and generates (partner-specific) detailed reports, allowing operators to resolve schedule conflicts before airtime.
SkyVision Console and Management Software	Management software	Provides a graphical interface for operators, which is used as a monitoring tool to view system health and status; provides automated processes, effective status information, and reliable distribution for linear ad insertion; manages scheduled file imports and exports, automates file retrieval and content distribution, and also produces high level schedule views for content and connectivity; implements paging/alerts for actions such as a missing spot, to ensure discrepancies are corrected prior to revenue being impacted.
nABLE ADM	Advanced VOD advertising solution	Generates new ad sales revenue through new inventory and dynamic ad insertion capabilities into VOD programming; includes the company's nABLE Back Office Management Suite for an optimal End-to-End solution for VOD management as well as targeted, addressable, and interactive advertising.

BIAP (www.biap.com)

Product	Application	Key Features
ETV (EBIF) Platform	Complete EBIF solution	Platform-level ETV products, set-top box software, generic ETV server and GUI-based development tools; the company's EBIF User Agent offers compact footprint, high performance and extensibility; ETV Platform products now function in many markets on a broad range of set-top boxes.
"Canoe in a Box"	Suite of advanced advertising products	End-to-end SCTE 130 compliant addressable advertising system for serving targeted ads within ITV/ETV applications and IPG programming; designed to enable programmers and operators to maximize advertising revenue through interactivity, addressability, target-ability.

BigBand Networks (www.bigbandnet.com)

Product	Application	Key Features
BigBand Media Services Platform, MSP2000	Network-based media services platform that delivers personalized applications and linear advanced advertising	<ul style="list-style-type: none"> • Provides greater near term ad opportunities • Delivers advanced advertising on linear (live) television unlike many products geared toward VOD advertising • Supports traditional ad server and SCTE 130 architectures • Ability to capture linear, zoned, addressable and future ad revenue • Will incorporate SCTE 130 interfaces: Ad Management Service (ADM) to Ad Decision Service (ADS), subscriber information service (SIS) and Content Information Service (CIS)

BlackArrow (www.blackarrow.tv)

Product	Application	Key Features
BlackArrow Video Advertising System	SCTE 130-compliant Campaign Manager, Ad Decision Server and Placement Opportunity Information Service (POIS)	<ul style="list-style-type: none"> • Enables content providers and operators to easily manage and optimize advanced advertising campaigns • Deploys rapidly using SCTE 130 standard technology • Generates additional revenues by creating new, dynamic advertising • Enhances advertising reach, relevancy and timeliness • Provides support for any ad type, any sales model, including models with multiple sellers

Cisco Systems (www.cisco.com)

Product	Application	Key Features
Digital Content Manager (DCM)	Groomer/transrater/ad splicer	The Digital Content Manager (DCM) is a compact platform that performs grooming, transrating, and ad splicing. It listens for SCTE 35 digital cue tones and inserts advertisements sent by an ad server as directed using SCTE 30 APIs.
Content Delivery System (CDS)	VOD server/ad server	The Content Delivery System (CDS) inserts advertisements into VOD assets. As this architecture evolves, CDS will use SCTE 130 to communicate with the Ad Management Service (ADM) to provide precision ad insertion services.
Set-top box (various models)	Provides client-based ad insertion	Cisco's advanced set-tops support tru2way and EBIF for the support of advanced client-based interactive advertising and can also work in conjunction with network technologies supporting SCTE 130.

Concurrent (www.ccur.com)

Product	Application	Key Features
Concurrent Myriad Advanced Advertising Solution	End-to-end advanced advertising solution	Based on SCTE 130; Web-based console managing campaign metadata, delivery instructions, geographic and demographic targeting rules, content ingest and reporting; manages ad placement opportunities, asset metadata and asset delivery; patented targeting engine performs real-time decisions on precise ad delivered to each viewer; features dynamic VOD ad insertion with targeting, ad replacement for time-shifted content and telescoping to long-form advertising content from local or network spots; includes the company's Campaign Director and MHBOSS back office suite.

Harmonic (www.harmonicinc.com)

Product	Application	Key Features
MediaPrism	Suite of content preparation tools	Includes the CLEARcut offline content preparation solution and Rhozet Carbon Coder transcoding/overlay software; used to prepare ads in the right format and bit-rate, while also providing overlay capabilities and scalability; ProStream 2000 splicer is a dense solution for splicing SD and HD channels; StreamLiner 2000 ad server can also be used as a combination ad and VOD server; ads are inserted into the VOD stream using playlists at the server level; ad insertion platform is managed as part of the overall video infrastructure.



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itaas (www.itaas.com)

Product	Application	Key Features
itaas ECS	VOD monitoring and reporting platform	Designed to help operators ensure the overall health of VOD systems and enable targeted VOD advertising by providing comprehensive operational and analytical VOD session data and reports; provides real-time granular VOD viewership data spanning the hub, set-top box and individual session.

Motorola (www.motorola.com)

Product	Application	Key Features
CherryPicker Application Platform	Video processing architecture	Advanced, IP-centric architecture for high-density digital video processing and splicing; provides software for rate shaping broadcast-quality MPEG-4/AVC and MPEG-2 SD and HD streams; designed to enable applications including grooming, dejittering, and seamless localized ad insertion; supports SDV and VOD playlist advertising.
Motorola SDV platform	End-to-end switched digital video solution	Designed to allow operators to provide subscribers with access to highly focused digital content channels; consists of Switched Video Manager (SVM1000, SVM2000), responsible for managing which SDV streams are active at any given time, Edge Resource Manager (ERM1000), and Switched Video Operations Manager (SVOM).
APEX1000	Universal edge QAM	Designed to enable MSOs to economically and efficiently deploy additional QAM capacity to meet growing consumer demand for personalized, high-bandwidth services; provides a flexible edge resource that can operate in all open standard SDV architectures.
B-1T Video Server	Video server	Designed to maximize the profitability of VOD services while enabling new services such as nDVR, time-shifted TV, and on-demand ad insertion; can integrate with an ADS and POIS and supports ranged playlists that enable it to dynamically insert targeted ads at any point in on-demand content, potentially targeted all the way to an individual set-top.

OpenTV (www.opentv.com)

Product	Application	Key Features
EclipsePlus	Ad campaign management system	Support for Oracle 10g with RAC/64 bit technology; 5000+ head-nets database capacity; performance time improvements for traffic and billing; Web Services 2.0 provides support for electronic, real-time data exchange between the sales system and EclipsePlus for avails clearance; Dynamic Scheduler; Multiple Report Server functionality; CRM-ID Field for customer records; currently being enhanced to work within the SCTE 130 framework.

RGB Networks (www.rgbnetworks.com)

Product	Application	Key Features
Broadcast Network Processor (BNP)	Digital video processing	Combines the ability to simultaneously process 500 video streams with statistical multiplexing, transrating, DPI and digital overlay capabilities; designed as an advanced digital processing solution for digital ad insertion and the customization and localization of ads; when used as a splicer, can be integrated with any of the leading ad servers to form a complete ad insertion system; can overlay text, graphics and video onto ads in real-time.

Scopus Video Networks (www.scopus.net)

Product	Application	Key Features
IVG-8000 series	Routing and processing platforms	Digital ad insertion, in connectivity with ad decision managers, ad servers and encoding systems. Other benefits include: ASI, GigE aggregation, multiplexing; SD, HD rate shaping, scrambling; QAM, ASI and GigE transmission.

SeaChange International (www.schange.com)

Product	Application	Key Features
AdPulse	VOD advertising software	Designed to give cable operators the ability to monetize VOD content through dynamic and targeted advertising, enabling on-the-fly insertion of interior, pre- and post-roll ads into on-demand program streams in real time; ads can be precisely targeted, effectively measured to demonstrate ROI, and refreshed within a matter of minutes.

Sigma Systems (www.sigma-systems.com)

Product	Application	Key Features
Sigma Subscriber Information Service (SIS)	Subscriber qualification service	Based upon SCTE 130 standards; designed to define audience qualifiers for advanced advertising campaigns and analyze subscriber information collected from multiple sources via Sigma AMP so that service providers can present personalized advertisements aligned with subscriber's service usage and purchasing preferences.

Sigma Systems (www.sigma-systems.com) Continued

Product	Application	Key Features
Sigma Active Mediation Platform (AMP)	Usage mediation system	Provides advanced, active transfer of valuable usage data from the network and CPE devices to OSS/BSS systems that rely on the information for accurate billing, VoIP mediation, bandwidth fair-usage management, targeted advertising and other operational and business processes.

Tandberg Television (www.tandbergtv.com)

Product	Application	Key Features
AdPoint Advanced Advertising Platform	Unified management and performance system	Designed to enable enhanced monetization of video experiences via addressability, measurability and interactivity; designed to allow operators, content providers and advertisers to all benefit financially while offering viewers convenience and control without additional subscription fees; intended for next-generation video advertising, including VOD ad placements, long-form VOD ads, interactive and telescoping ads, and targeted ad systems.

Visible World (www.visibleworld.com)

Product	Application	Key Features
intelliSpot	Advanced advertising suite	Provides targeted advertising solutions and brings Internet-like capabilities to television; designed to be scalable and based on open standards such as EBIF, tru2way, SCTE 130, SCTE 35, DVS 766 and others; includes: <ul style="list-style-type: none"> • intelliSpot Connect (V 4.3), an open standard delivery platform • intelliSpot Insight (V1.0), a measurement and optimization service • intelliSpot Dashboard (V2.1), an online campaign management tool • intelliSpot Video (V9.0.2), a rules-driven customization and versioning engine for video, audio, voice-over, graphics, and animation

Zodiac Interactive (www.zodiac.tv)

Product	Application	Key Features
PowerUp EBIF Player	Set-top software	Designed to help advance the deployment of standards-based interactive TV experiences; designed for PowerTV and to be fully compliant with the CableLabs ETV/EBIF IO4 specification. Zodiac's EBIF player for Cisco's PowerTV set-top box is widely available and has been successfully tested with multiple interactive TV experiences developed for EBIF.

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focus on it now. And Canoe has assembled a great team. I'm extraordinarily optimistic.

Advertising is down. Even new media advertising. But work on this advanced advertising platform continues. Is it competition that's driving it?

Exactly. It's going to become advertising in over-the-top, video-clip type programming, or the value-add the cable networks and the cable MSO delivery mechanisms offer—cable and satellite, for that matter. It's either value-add, or it's the over-the-top Internet.



I think that drives and motivates. And one could argue—and I don't think it's farfetched—but as everybody is going to be constrained for the next 12 months or so, that it's a great time for people to focus on building the infrastructure for the future. It's going to be a go-slow, in terms of the Internet and everything else.

This is an opportunity to take a deep breath and say, "OK, I don't have to have an addressable, measurable solution in place by March 15, 2009." Because if it was, it wouldn't matter. Look at how advertising dollars are pulled back.

But if you take the year of 2009 to focus on the develop-

ment efforts—and I think that's what Canoe and the MSOs are doing—in 2010, as the economy comes back, as advertising comes back, as dollars start to build, that's when you want to have something good and solid in place.

What's the key to bringing all the disparate parties together and getting these multiple stakeholders and technologies to line up?

One of the main ways that that happens and that those parties come together—and you know you were going to hear this speech—is as they start to see that there are standards in place.

So I think the work that we at SCTE do, and the work that CableLabs does in terms of the specification process, those are both very significant and comforting things, both to the vendors, who have to build a widget, and to the MSOs, who will be asked to buy it.

CableLabs is now a part of this whole advanced advertising process, by making sure that we have a good solid ADI 2.0 specification as they have revised the VOD specification from 1.0 to 1.1 to 2.0. Those kinds of things that CableLabs contributes are important and valuable in the same way that my WG5 team contributes things to the emerging SCTE 130 standard and some of the other processes because it creates that environment and the overarching infrastructure in which they will exist.

These standards mean there can be different players and different parties who excel in different components. It means

that MSOs then have the opportunity to create a plug-and-play scenario that lets them select the best-of-breed vendor.

SCTE standards and specifications from CableLabs build the confidence, from both the community that builds the widget and from the community that buys the widget, that it's not a one-time-only, do-or-die type decision.

Does the committee's collaborative nature help as well?

Everything that we do in developing those standards is very much a team effort. What you have in the whole standards process is people recognizing a common end goal: We need to make our advertising technology provide the accountability and the measurability that the Internet does; we need to provide the addressability that direct mail does; we need to provide the visual excitement that HDTV does. We need to bring all of these things together. At the end of the day, we all fail or we all succeed.

That kind of intra-industry teamwork should augur well for Canoe's success, shouldn't it?

When you talk with Arthur Orduna at Canoe and with the people that he's bringing on board, you see that they want to build on that, and they're not trying to formulate something from scratch. I think that they want to find ways to leverage these things that are in place to provide that superstructure under which cable advertising can go back and grow.

You often refer to cable's first wave of local advertising, the

second wave of the interconnects, and now ...

This is the third wave. This is the big one. This is the wave where it's not just doing what other people have done better than they've done it. It's a matter of building a whole new paradigm of technology. That's what the standards that SCTE builds lead the way to. That's what the CableLabs specification will lead the way to.

And I think that's what Canoe executes on. That's the main thing. Standards are lovely, and you know I'm a proponent of them. But they're just pieces of paper—or just a bunch of electronic files—unless someone executes.

Can you give us a status report on SCTE 130?

We have a few more pieces going to ballot. We have amendments for 1, 2, 3 and 4. We have 6, 7 and 8 that will go to ballot. I think that they probably get released by early February for ballot. And then we still have to finish Part 5.

But I believe that all eight parts of SCTE 130 will be completed, balloted and approved no later than June. We probably will go back and do some tweaking and some amendments, but they will be a completed, wrapped-up, signed, sealed and delivered standard by that point in time.

We will have done most of the work to coordinate it with some of the older standards that need to be brought into line, like 67, 30, 35 and especially the 118 series. But that's what my committee is going to be driven to accomplish in the coming four months. 