Our purpose, mission statement, this current edition, archived editions and other relative information is posted on our website: WWW.Tech-Notes.TV
This is YOUR forum!

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Editor's Comments

Here it is – that period of time between Christmas and New Years. Trying to get anything done is nearly impossible, unless you're returning gifts that are the wrong size, or are duplicates or whatever. Business seems to grind to a complete halt until January 2nd. And now it's the end of the week and we're still not done. Go figure. So, do we address the delays or the holidays? Let's look at the holidays first.

A friend sent us a Happy Holidays card a couple of Decembers ago. Inside, it said: "Merry Christmas, Happy Hanukkah, Solemn Ramadan, Joyous Kwanzaa." Only in America!

When I was a kid, there were only two holidays in December: Christmas and Christmas vacation.

Now, Americans will celebrate the 12 days of Christmas. They also celebrate the eight days of Jewish Hanukkah and the seven days of African-American Kwanzaa. And every so often they celebrate the days of Ramadan in December.

December isn't changing. America is. In Los Angeles, there are more Buddhists than Lutherans or Episcopalians. In Chicago, there are more Muslims than Presbyterians or Methodists. In Memphis, there are more Hindus and Sikhs than Quakers and Unitarians. America's spiritual holidays no longer are confined to Dec. 25 and one Sunday in spring. In recent weeks, Americans celebrated five days of Hindu Diwali and the birthday of Sikhism's founding guru. Baha'is and Shintoists also marked holy days. Things must have been simpler a millennium ago.

When the clock struck 2000, there were about 270 million people living in America. That was the population of the whole world in 1000. The whole world lives here now.

America isn't a Christian nation. It's a nation of Christians. It's also a nation of Jews, Muslims, Hindus, Buddhists, Sikhs, Shintoists Baha'is and every other sort of religious adherent, not to mention atheists, agnostics and undecideds. How we handle that might be our greatest challenge of this century.

"In the New World of religious diversity, pluralism is not a given but an achievement," Diana L. Eck, founder of the Pluralism Project, wrote in Harvard Magazine a few years ago. "Pluralism will require not just tolerance, but the active seeking of understanding ... In the world into which we now move, our ignorance of one another will be increasingly costly."

According to my encyclopedia, a society has three choices: Pluralism, anarchism and totalitarianism. Wish all multiple-choice questions were that easy.

So, this holiday season, don't just "tolerate" the holy days of others. Get to know them. Watch. Ask questions. Participate. Find out that Christmas isn't just about giving but also about liberation and salvation. Learn that Ramadan isn't just about fasting but also about compassion and dependence on God. Ask someone about the seven guiding principles of Kwanzaa, which include unity, responsibility and faith. Tell your all-America kids that Hanukkah isn't the Jewish Christmas.

"What is most inspiring about Hanukkah," historian Thomas Cahill writes in "Desire of the Everlasting Hills," a new book about Jesus, "is that it memorializes the first clear victory in history for freedom of worship." Now there's something we all can celebrate, and not only in America.

One final note: When reading a copy of the Zoroastrian Zend-Avesta many years ago, I came across a passage the said: "When I come again, I will be laid in straw, surrounded by domestic animals. Bring with you Gold, for I am a King, Bring with you frankincense for I am of the Spirit and bring with you Myrrh for I am of this world." The three wise men were Zoroastrian priest living the fulfillment of their prophesies.

Happy holy days and the very best of the new year to all and above all, please stay health in all respects.

Now to the other issue: Not withstanding, we've been trying to get an edition of the Tech-Notes out now for over a month. We finished off the Road Show two months ago and with returning equipment, a pilgrimage to Israel and personal issues, it's been nearly impossible. We know that all of you have been sitting on the edge of your seats just waiting to see what sagacious tidbits we'd have to offer, but all we can say is sorry and we'll attempt to be more diligent this next year – life does go on.

We will, in this edition, attempt to highlight the news of the past several months and in Parting Shots; attempt to look into the future of where our industry is going. In retrospect, we've got a fairly good track record in that area and its no thanks to our broken crystal ball either.

The Road Show - A Taste of NAB 2005
And a Look to Next Year

The Road Show was a complete success. The numbers are quite impressive. We visited

sixty-five venues and at some, we gave two or more presentations. We traveled over 20,000 miles in our six month trek and met with over 1450 broadcast engineers, technicians and students of the broadcast industry. We collected over 1170 business cards (some printed – some handwritten) and gave away a plethora of door prizes at each venue and at the end of the Road Show. You can see the winners at each venue on the venue's webpage and those who won the end of the Road Show prizes at: **http://www.tech-notes.tv/2005/2005-1.htm#EofRS**. As of November 2nd, we have received over one hundred-ninety e-mails thanking us for doing the Road Show and most asked us to return this next year. They can be seen at: **http://www.tech-notes.tv/2005%20Comments.pdf**. At nearly every venue we were joined by a local sponsor who provided those in attendance with a tidy repast. At several venues the local SBE chapter provided the refreshments.

For a comparison of all the Road Shows to date; statistics, pictures, etc., visit:
http://www.tech-notes.tv/Taste_of_NABs_Past.html

Why the great success? It can be attributed to three things: Our sponsors (**http://www.tech-notes.tv/2005/2005-1.htm**), for without their financial support the Taste of NAB 2005 Road Show would not have been possible, the help we got along the way from the folks at the various SBE chapters arranging the location, setting up and striking the gear and of course those folks who attended (**http://www.tech-notes.tv/2005/2005-2.htm**). Please remember one thing: These sponsors cared enough to share their technology in your backyard. Please remember them when it comes time to

acquire their special kinds of technology. In addition to our full sponsors, we did have several that joined us at selected venues. They also helped to make 2005 happen.

To help attract folks to attend, we had a number of organizations provide door prizes. There were two kinds: those given out at each venue and those given out at the end of the Road Show. They also helped to make the Taste of NAB 2005 a great success. The "per venue" door prizes are posted on each venues web page and the "end of the Road Show" door prizes can be seen at; **http://www.tech-notes.tv/2005/2005-1.htm** just after our sponsors.

At a number of the venues there were local reps, vendors, etc. who stepped up to bat and provided refreshments. We've found over the years that if you tell an engineer he or she's going to be fed, it helps make the decision: "Shall I go or not." ALL THE ABOVE helped to make the Taste of NAB 2005 Road Show a tremendous success. THANKS.

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What's to come this next year?

The folks at Omneon told us it was the best marketing effort for the dollar in the broadcast industry. Along with Omneon, we have commitments from twelve other companies to join us in 2006.

It doesn't make sense to bring the same old stuff. The Taste of NAB 2006 will be different than in past years. Will have all new equipment/technology to present and we plan to make the presentation more complete. We are making a concerted effort to include more Radio oriented items to give the presentation a better balance and appeal. There's a lot of good cutting edge technology out there we want to bring with us, but it is not always easy to convince some companies of the value of having it brought to the grassroots folks who wouldn't see it otherwise. If you know of a company who has innovative technology that you'd like to see and believe other broadcast folks across the country would benefit by it, let both them and Tech-Notes know and we'll work to get them on the ticket with us.

The Road Show in 2006 will be different in other respects also. In the past we have limited our number of sponsors to around a dozen. This next year (2006), that cap will be removed and we will take as many as two dozen. For those who saw our van, you may ask, how can you do that? The answer is simple. Our good old faithful van is very long in the tooth and will be replaced this year with a much larger van. We're look at getting a Dodge Sprinter.

Because of the increase in the amount of technology we'll be bringing with us in 2006, the Road Show will not be just an hour or so in length. We'll be asking the various SBE chapters to plan on us for a full afternoon or full evening of information and education. When we tested the waters this year (2005) with this idea, it met with very positive

comments. After all, where else can you see, touch and find out about the latest "whatevers" – right in your own backyard – and we love doing it.

The one final thing we feel compelled to mention and that is Mrs. Bloomfield, who has been our support, navigator, helper etc. over the years on the Road Show Taste of NABs, will not be able to make the trip this year. She has been diagnosed with inoperable renal cancer which, we have been told that in her condition/situation, radiation and/or chemotherapy will not do any good. Your thoughts and prayers are appreciated. Her e-mail is: **Carollee@Tech-Notes.TV**

Corrections and Reader's Comments

Howard Fine   howard@pactv.com points out that in our last edition there is a slight error about Hollywood. ABC Network is still in Hollywood at 4151 Prospect Ave, Los Angeles. The have a large lot there with very busy studios and network distribution facilities. The local O & O moved off of the 4151 Prospect lot about 6 years ago to Glendale. I think there are no more radio stations left Hollywood.

Harris acquires Leitch
From: J. C. Cooper   videoengr@sbcglobal.net

I note your commentary and dislike of the recently announced Harris acquisition of Leitch (and along with it presumably Videotek and DPS) in the September 6th edition of Tech-Notes. As many old timers remember Harris acquired a dynamic and history making startup company several decades ago, Consolidated Video Systems.

CVS as it was called, invented and introduced the first commercially viable digital time base corrector, the CVS-500 at the 1972 NAB convention in Washington, D.C. To say the introduction caused a sensation in the broadcasting industry would be an understatement. I recall the secretary for the sales department complaining that she couldn't even go to lunch for all of the people calling for information and to place orders. "Its that damned box that is causing all of this trouble" she said. This product was quickly and dramatically upgraded and improved in the following years and those who sold and worked with them will remember the progression starting with the blue box, brown box, 504, 516, 520, 630 and so on. I was fortunate to have been involved with the company from the beginning, first by arranging for the availability of a quad (remember those) to test the blue box with. After several years I went to work for CVS and contributed to the 630 development. I also had the pleasure of defending CVS's pioneering patents from four full scale validity assaults by major foreign manufacturing companies - the patent came through in flying colors.

Anyway back to Harris. When they purchased CVS from the venture capital owners CVS was a dynamic thriving company. It had just released the CVS 630 frame synchronizer and the factory couldn't keep up with the orders. I recall when the engineering department was introduced to the new Harris management and the meeting when that management told us that they were going to show us how a real company operated. It wasn't long before virtually all of the old CVS engineering, sales, manufacturing and management people left for other employment opportunities like ADDA and Sony. Of course today there is nothing left of CVS. The doors were long ago shut and the assets sold off like so much scrap. I hope history doesn't repeat itself.

J. Carl Cooper

News

Senate Confirms Tate, Copps At FCC

The U.S. Senate has confirmed Deborah Tate's addition to the FCC and given Michael Copps another term. Four of the five seats on the FCC are now filled, with President Bush yet to nominate anyone for the lone vacant seat. Tate will fill the remaining portion of a five-year term that expires June 30, 2007, while Copps' new five-year term would expire June 30, 2010.

"It is with great pleasure that I congratulate Commissioner Copps on his continued tenure and Deborah Tate on her confirmation as Commissioners at the Federal Communications Commission," commented NAB's new President and CEO David Rehr. "These are challenging times for the communications industry and both Commissioner Copps and Ms. Tate have proven themselves to be exceptional leaders and committed public servants."

By the way, goodbye and good luck to Eddie Fritz.

Nearly 1/4th of all People Watch Over The Air Broadcasting

The finding below from an Associated Press Poll that 22% of all viewers rely exclusively on over-the-air broadcasting for their television viewing is in line with the findings of NAB, the Government Accountability Office and Consumers Union. It is also considerably higher than the grossly inaccurate figures supplied by the Consumer Electronics Association. The poll, with a margin of error of ± 3.1% was conducted

December 13-15 and asked 1,006 adults nationwide, "Does your household currently subscribe to cable TV or a satellite dish service like DirecTV or the Dish network?"
Responses were as follows:
Cable TV........................ 51%
Satellite TV.................... 26%
Both............................. 1%
Neither.......................... 22%
Not sure......................... -

DIRECTV Offers Local HD Program

DIRECTV, Inc., announced this last week of the year that it has begun offering local high-definition (HD) channels via satellite to New York via new compression technology known as MPEG 4.

New York is one of dozens of cities that will receive HD local programming from DIRECTV using MPEG-4 AVC, the new standard in digital video compression, and advanced modulation that more than doubles the efficiency of DIRECTV's capacity.

DIRECTV will carry each of the four primary broadcast networks that offer an HD feed in the market. Customers who subscribe to a programming package that includes local channels will receive both the standard and HD signals at no extra monthly charge.

DIRECTV offers local HD broadcast channels in 12 cities with plans to launch an additional 24 cities early next year, offering access to DIRECTV-delivered local HD channels in more than 57 percent of U.S. television households.

Customers can receive New York local HD channels by purchasing a new H20 HD receiver and a satellite dish that has the ability to receive programming from five different orbital locations. DIRECTV is offering new and existing non-HD customers who purchase a DIRECTV HD receiver a $200 mail-in rebate. (Limit one rebate per customer.) Receiving equipment is available at major consumer electronics retailers like Best Buy and Circuit City, and through DIRECTV. Existing DIRECTV customers do not need to upgrade their HD equipment initially since their existing MPEG-2 receivers will continue to receive local HD broadcasts.

Dish had no comment, but probably won't be far behind.

Well Maybe: Starting Feb. 18, 2009

The Senate voted to end over-the-air analog TV by Feb. 18, 2009. The Senate's action effectively ends months of debate and solidifies a compromise with the U.S. House of Representatives. Earlier versions of the Senate bill had called for an April 7, 2009 deadline, while the House had pushed for Dec. 31, 2008, as the cutoff date.

The deadline became final on December 21, 2005 as part of a broader spending bill that the U.S. Senate approved by an ultra-thin margin. It seems that things get tagged onto different bills that are reasonably sure to pass in an effort to get the not so sure things pushed through. This is the case with the analog TV cutoff date. The main bill that it was attached to was stuck in a deadlock over proposals involving Medicaid and drilling in the Arctic National Wildlife Refuge, which had nothing to do with television. The legislation earned approval only after Vice President Dick Cheney flew back from a Middle East trip to push the 50-50 vote over the edge. The compromise also settled differences over the amount of money to be set aside for a set-top box subsidy program for those still relying on over-the-air analog broadcasts.

One report says that the 2009 deadline will not affect the vast majority of Americans who already subscribe to cable or satellite TV. This is probably not true. Many satellite and cable providers receive their signals off the air. If those signals are analog and the traditional ghosting that goes with analog, those companies will have to change out their equipment for the newer integrated receiver decoders to receive the over the air signals they distribute. This will vastly improve picture quality in the areas of ghosting. On the other hand, those households relying on an antenna to receive "over-the-air" analog broadcasts must acquire a digital tuner to continue receiving TV shows.

By the time of the 2009 switch, the government will have auctioned the remaining spectrum. The proceeds are estimated at about $10 billion by the Congressional Budget Office. The auction is supposed to begin no later than Jan. 7, 2008.

Before the Dec. 21st action, a 1997 law stipulated that analog television would have be cut off on Dec. 31, 2006, or when 85 percent of households are capable of receiving digital signals, whichever arrived sooner.

President Bush must sign the package into law before it takes effect. Because the House of Representatives also must approve it--which is expected to be just a formality--it is unclear when it would reach the White House.

TURBO CODES
From: THE CGC COMMUNICATOR #715

In the mid-1990s, an earthquake shook the digital coding landscape. A pair of French engineers - outsiders to the world of coding theory - astonished the insiders with their invention of what they called turbo codes. For a given transmitter power, digital "error correcting" codes could be sent over a noisy communications channel at about twice the previous speed – and moreover the data could be sent within a hair's breadth of the "Shannon's limit" - the maximum theoretical speed possible.

 In the past couple of years, turbo codes have found their way into millions of mobile phones, enabling users to send audio and video clips more efficiently than ever. Turbo's

new cousin, LDPC codes, have become the new standard for digital-satellite television. Hundreds of research groups are studying potential applications of the two kinds of codes at universities and industry giants including Qualcomm, Sony, Motorola and Samsung.

Turbo codes were invented by guys who didn't know that devising such efficient codes was supposed to be hard. "The thing that blew everyone away about turbo codes is not just that they get so close to Shannon capacity, but that they're so easy. How could we have overlooked them" says one of the sources quoted in this fabulous article from Science News:
http://www.sciencenews.org/articles/20051105/bob8.asp

How To Contact The FCC After Hours For Emergency Assistance

Those who need FCC emergency assistance or STAs can call the FCC's Communications Center, which is open 24 hours a day:
(202) 418-1122.

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-261917A1.doc

FCC Fines TV Station For Broadcasting A Voice Mail Prompt
From: Rebecca Adams

According to the Law Firm of Holland & Knight, the FCC's Enforcement Bureau recently issued a Notice of Apparent Liability for Forfeiture against KNOE-TV, Monroe, Louisiana, for a total of $10,000, for broadcasting a recording of the outgoing message on an answering machine by finding it to be a "telephone conversation." The Commission's rules generally forbid the broadcast of a live or recorded telephone conversation unless the participants are told in advance that the call may be broadcast. Finding that an outgoing greeting message on an answering machine is a "conversation" is an apparent expansion of the rule.

The FCC's rules provide that before any television or radio broadcast station may broadcast a live or recorded telephone conversation; a licensee must inform any party to the call in advance of the licensee's intent to broadcast the conversation. The limited exceptions to this rule apply to situations in which the participants should be presumed to have prior knowledge of the possibility of broadcast–station employees and persons who initiate the call to the station (i.e. callers to talk radio programs). In the KNOE-TV case, a station news reporter called a local public official and recorded his outgoing voice mail message without giving prior notice to the public official, and then broadcast the recorded voice mail message. The station then broadcast another exchange, where the reporter called the official again, identified himself but failed to tell the official that the exchange was being recorded, and the official hung up. The public official filed complaints with the FCC regarding the broadcast of the two "conversations."

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The station argued that the reporter did not need to notify the public official at the time of the first call that he was recording it for broadcast because a voice mail message is not a "conversation" that triggers the notice requirement. The Enforcement Bureau disagreed, stating in its decision that an outgoing voice mail message is a "conversation" that requires appropriate notice, and that the station violated the rule when it broadcast the two "conversations" without informing the public official of its intent to do so. The Bureau also dismissed defenses based upon First Amendment considerations and that there should be no expectancy of privacy in a voice message greeting that is available to any user of the public switched telephone network, worldwide.

A strict reading of this decision would be that absolutely no kind of recorded voice may be broadcast without actual prior notice, or strictly construed presumptive prior notice. The regulatory environment continues to be punitive. Broadcasters should act accordingly.

If you have any questions concerning the FCC's rules regulating the broadcast of telephone conversations, please contact Rebecca Adams at rebecca.adams@hklaw.com .

FYI: EAS changes

Want to read more than you want to know about the FCC's Amended Rules?

REVIEW OF THE EMERGENCY ALERT SYSTEM. Amended Rules To Include Digital Media Technologies and Seeks Further Comments On EAS System. By FNPRM. (Dkt No. 04-296).
Action by: The Commission. Adopted: 11/03/2005 by R&O. (FCC No. 05-191). EB

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-191A1.doc
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-191A2.doc
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-191A3.doc
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-191A4.doc
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-191A5.doc

BBC to trial HDTV in 2006

The BBC will begin trial broadcasts of high-definition television (HDTV) next year, director of TV Jana Bennett has confirmed.

Highlights of its schedule will be made available in high-definition format to selected digital satellite and cable viewers from mid-2006.

The BBC also aims to test the format on digital terrestrial TV in London.

The rest of the article is here:

http://news.bbc.co.uk/1/hi/entertainment/tv_and_radio/4417202.stm

Digital Tracking to Protect On-Demand TV

In our industry's on going battle with copyright paranoia, one never ceases to be amazed at the plethora of ways they can come up with tracking who is doing what. In a story that recently appeared in a financial publication, they reported on how invisible marks could be used to trace illegal copies of television shows and movies. These marks will be embedded in programs available on demand across the country using technology from Widevine Technologies.

Digital watermarks are not visible to the naked eye, but contain information about the origin of the program. They allow Hollywood studios to track shows as they are distributed to cable boxes, TV sets, computers, cell phones or other devices.

The watermarks remain even after the program is copied several times, allowing law enforcement to tell where illegal copies were obtained.

This early November 2005 announcement marks the first time digital watermarking has been used to track such programs.

For the full story, visit: http://finance.lycos.com/home/news/story.asp?story=52981885

Fox News: Bad Language Isn't Illegal

The lewd language of a Fox News Channel executive -- however tasteless -- does not constitute sexual harassment or discrimination, a lawyer for the network said recently.
The lawyer was responding to a discrimination suit against the network filed by the U.S. Equal Employment Opportunity Commission and targeting the head of the company's promotion department.

The complaint contains a list of statements alleged to have been made by network vice president Joe Chillemi to employees in the 20-person department, roughly one-half of whom are women.

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It would do well for our friends at fox to give a second thought to the issues of the sexes. If only they were to view the sexes as wings of a bird – each is different but equally important to the flight of the bird, it might get them out of this hot water.

If you are interested, more on this story can be seen at:
www.broadcastingcable.com/contents/images/Complaint_20051107.pdf

News from the FCC
From: Thomas G. Osenkowsky   tosenkowsky@prodigy.net

In an unprecedented move, the FCC has seized reign over the Internet and networks and syndicators that offer programming to over-the-air and Internet broadcasters. The Commission, by unanimous vote, decided to offer protection to all residents of the United States, its territories, possessions and occupied lands regardless of their status.

In a prepared statement, the Commission wrote "Residents of these United States can easily fall victim to predators, falsehoods, scams and insincere offers. We need to protect them. We decided not to wait for the approval of Congress, in this we act alone." The Commission noted that listeners, viewers and Internet surfers can be of any age, race, gender or orientation. Email spam offers of sexually oriented products can be viewed by children. Pornography can be viewed by anyone using a computer. Misleading, false and unsafe products can be offered to anyone. All of these people need and deserve the protection of the United States Government. Even religion can be used to cloak malintended content.

Form 6913.R would be used for religious oriented complaints. Form 6913.I for Internet related complaints. Form 6913.L for List related complaints (appropriate for this forum). Form 6913.E for EAS related complaints.

The Commission also adopted new Rules requiring expansion of the EAS system to the Internet. Weekly tests will be conducted at both National and Local levels. Every Internet subscriber will be required to subscribe to an Authenticator List service which will provide codes which the user will type in upon receipt of the Weekly tests. Failure to enter the proper code will disable the computer, necessitating a visit from an approved contractor to reactivate the machine. This will ensure attention is paid to the EAS system. The code will be different for every computer and for every test. Funds derived from this program will be put towards further expansion and improvement of the EAS system.

Tom Osenkowsky, CPBE

Paxson Resigns; NBC U Restructures Investment

Bud Paxson has resigned as chairman and CEO of Paxson Communications Corp. At the same time, NBC Universal has restructured its deal with Paxson to acquire an 18-month window in which to either buy the rest of the company, assign that right to a third party, or pony up $105 million in stock.

Brandon Burgess, executive vice president of business development and international channels for NBC U, has been named a director of Paxson and will assume the duties of CEO, replacing Bud Paxson. Dean Goodman remains president and chief operating officer under a new three-year deal.

NBC currently can't take controlling interest (it owns just under one-third of Paxson) because Paxson's TV stations would put it over the Federal Communications Commission's station-ownership-reach cap (Paxson owns 60 stations).

For more, click below:
http://email.BroadcastingCable.com/cgi-bin2/DM/y/eoEl0GeJRg0Olt0Cc4O0AQ

From THE CGC COMMUNICATOR #712

ON THE CREATION OF A LOW POWER AM ("LPAM") RADIO SERVICE

We already have a Low Power FM service. Could Low Power AM be next? Like Low Power TV, "low power" may be a misnomer. See the Petition for Rulemaking at the PRM address below. Comments received so far are at the second URL.

PRM: http://tinyurl.com/9j4uj   Comments: http://tinyurl.com/7skbf

FCC AMENDS EMERGENCY ALERT SYSTEM RULES
Submitted by: Harold Hallikainen   harold@hallikainen.com

From Benton Foundation Communications Headlines (http://www.benton.org)
[SOURCE: Federal Communications Commission]

The FCC issued a First Report and Order to help ensure that consumers using digital broadcast and subscription television and radio services have access to emergency alert and warning information. Noting the ever-increasing use of digital technologies by Americans, the First Report and Order expands the Commission's current EAS rules to include providers of digital broadcast and cable TV, digital audio broadcasting, satellite radio, and direct broadcast satellite services. With the exception of Direct Broadcast Satellite (DBS) service, all affected entities must comply with these new requirements by

December 31, 2006. DBS services must comply no later than May 31, 2007. The Commission also adopted a Further Notice of Proposed Rulemaking that seeks comment on how the Commission can best help develop a next-generation alert and warning system that takes full advantage of digital media's potential. The Commission seeks comment on the type of system architecture and common protocols that would be required in such a system. The Commission also asks questions regarding specific technologies, particularly, how the Commission could facilitate the effective integration of wireless technologies into a next generation alert and warning system, and whether traditional telephone companies that plan to provide high definition digital content to customers' homes through fiber optic connections should have public alert and warning responsibilities. In addition, the Further Notice seeks comment on issues relating to the participation of state and local authorities in the EAS system. The Further Notice of Proposed Rulemaking also asks how a next generation EAS can more effectively reach individuals with hearing and vision disabilities. Finally, the Commission seeks comment on how the EAS rules should be revised to more effectively reach non-English speaking individuals.
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-262016A1.doc

* FCC says emergency alerts should move online The national alert network, now called the Emergency Alert System, has encountered criticism as yet another expensive government boondoggle that's less necessary in the age of readily available news. The system was never activated on Sept. 11, 2001, even in the New York and Washington metropolitan areas, for instance. And local and state governments failed to activate for Hurricane Katrina.

FCC Rules Updated Daily at http://www.hallikainen.com

Evertz acquires Quartz
(From an Evertz press release)

 On Halloween day of this year, Evertz announced that is has entered the master control segment through the acquisition of Quartz Electronics Ltd., a privately held company headquartered in Reading, U.K., with over 450 master control channels installed worldwide.

Evertz has further expanded the breadth of its high performance systems for the broadcast market and has increased its worldwide HDTV presence with this acquisition. As the broadcast industry transitions to the high-definition formats and broadcasters upgrade their equipment to HD and digital, Evertz now offers the most complete HDTV end to end solution ranging from:

- master control systems
- large, medium and small routers

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- branding solutions
- master sync generation
- HD/SD terminal gear
- fiber optics
- multi-display monitoring
- production tools & interfaces
- closed captioning

"The acquisition of Quartz innovative products and talented staff, coupled with Evertz market presence and infrastructure, will create an even more dynamic force in the broadcast technology industry," said Romolo Magarelli, President of Evertz. "We believe this to be a very positive development for our customers, as it enables Evertz to provide the most comprehensive HDTV solution for the broadcaster."

"We are delighted with being a part of a high growth technology leader who can leverage out complementary master control and router product lines along with our well established brand and international sales capabilities," said Alan Edwards, Chairman of Quartz.

Established in 1990, Quartz has also developed a successful portfolio of high quality routing products which includes a wide variety of sizes, signal formats and transmission standards. The flagship Xenon midsize line is the first to use optional plug-in Signal Processing Technology modules that add powerful sophisticated features within the frame, saving space and cost on discrete products. The Topaz range of compact routers has been designed to meet the needs of both the broadcast and professional video user, offering a low cost solution, while avoiding technical compromises. The Q256-SV/HD large-scale multi format digital router is scalable to a maximum of 1024x1024 using additional frames. Quartz products are trusted by and integrated into many of the world's major broadcasters.

CBS Streams Series on Yahoo!

In a story that recently appeared in Broadcasting & Cable by Jim Benson, Broadcasting & Cable reports that CBS, for the very first time is streaming free, full-rerun episodes of Warner Bros.' *Two and a Half Men* and 20th Century Fox Television's *How I Met Your Mother* on Yahoo! TV this week. The commercial-free "Comedy Bowl" will run thru Jan. 2.

Until now, CBS has primarily left streaming to its CBS.com (notably *Survivor* and *Threshold*), with the exception of the Google pact for UPN's *Everybody Hates Chris,* and stuck primarily with in-house produced programs.

CBS is looking to grab some of the viewers shaken loose by the ending of ABC's *Monday Night Football* (and off broadcast entirely starting next season with its move to ESPN) schedule shift and shift them to its Monday-night comedies.

These episodes are from several weeks' old, which CBS says is because they were among the strongest. But that should also appeal to affiliates concerned about repurposing too close to the original airdate.

See **Parting Shots**, below for more on this topic.

SBC TO DROP NAME IN FAVOR OF AT&T

"Baby Bell" SBC intends to drop its name and adopt that of its former "mother," AT&T. The reborn AT&T will become the nation's largest provider of landline and wireless communications with annual revenues of about $90 billion. SBC is nearing regulatory approval to acquire AT&T. Déjà vu.

http://tinyurl.com/exnqz

City of Golden Offers to Buy Site of Proposed Denver TV Tower
From: Doug Lung's RF Report

In these reports, there have often been references to articles from Rocky Mountain News reporter Charley Able concerning Denver broadcasters' efforts to construct a tower for DTV antennas on Lookout Mountain and the city of Golden's efforts to stop the proposed 730-foot tower. In a recent story Golden wants site tower-free, he reported the city of Golden offered $1.68 million for the Lookout Mountain tower site and threatened to take condemnation actions if necessary.

The article Golden wants site tower-free has more information on the Golden offer and Lake Cedar Group's reaction.

Editor's Note: *We've been following and writing about this subject for many years now, having interview both sides. In the process, we alienated ourselves with both sides as well. Go figure.*

Basically our view is that the broadcasters were up there first. Real Estate brokers saw what a great place it was/is, once the broadcasters had built the roads etc., and they, the Real Estate folks developed the area. The broadcasters failed to get the land they were on zoned to their benefit early on. Now it is too late. They have a tempest in a teapot on the eastern slope of the Rock's. Denver may not have the full digital coverage they need and deserve because of this spat. It appears there is no easy solution if the broadcasters insist on remaining on Lookout Mtn. and the "Greens," as we've heard them called, want them out of there. You can't imagine the egos we ran into when interviewing both sides – egos

that preclude any possibility to common sense solution. This is one opinion we hope we're wrong in.

There is an alternative site, Squaw Mtn. where Denver's PBS station channel 12 is located. There is plenty of room there and there seems to be no objection for the Denver broadcasters to move there. But the broadcasters have categorically resisted going to Squaw Mtn. saying they'd loose valuable coverage at the foot of the slopes, an area which could easily be served by translators. The cost of the translators would certain be less than the attorney fees. With digital translators, channel branding and identity can be preserved, so it appears that the only ones who are going to win in this matter, finically, are the attorneys.

Lawsuits loom over TV burn-in
From: Rachel Ehrenberg   ehrenberg@fastmail.fm

A North Vancouver law firm is trying to certify class-action lawsuits against Sony and Toshiba over burn-in problems on big-screen TV sets.

Fixed images, such as network logos can end up permanently burned into the TV screen. And some owners' manuals warn against leaving your set tuned to one channel for too long to prevent burn-in. But lawyer Ken Baxter says in the case of Toshiba, the manual doesn't specify how long is too long.

"To put that into context, the third game of the world series went to 14 innings and anyone who read this manual would have to be thinking, 'Can I only watch two innings? Four innings? Nine? Can I watch the end of the game?'

"You wouldn't know. And that seems to us to be wrong."

Baxter says there could be thousands of people in the province who bought expensive TVs who deserve to have the case heard

No one from Toshiba was available for comment. But a spokesperson for Sony Canada notes that a similar lawsuit was thrown out of court in the U.S.

"In similar situations in other jurisdictions, this type of action has been thrown out of the court because it's been found to be lacking in any kind of merit," says Sony's John Challinor.

The FCC as a site to explain obscenity, indecency and profanity

The Federal Communications Commission launched a new, user-friendly web site designed to educate the public about the laws governing the airing of obscene, indecent and profane material and the Commission's enforcement of those laws. The web site adds transparency to the Commission's work in this important area.

The site explains how to file a complaint and what happens to the complaint once the Commission receives it. In addition, for each year dating back to 1993, it provides useful statistics on the Commission's enforcement efforts, including the number of obscenity, indecency and profanity complaints received by the Commission; the number of Notices of Apparent Liability issued by the Commission and the total forfeitures imposed by the Commission. Finally, the site answers frequently asked questions on a wide range of topics ranging from how a consumer can determine the status of a complaint he or she filed to what makes material obscene, indecent or profane.

The site can be found at http://www.fcc.gov/eb/oip/Welcome.html.

RTNDA President Barbara Cochran asks Supreme Court Chief Justice John Roberts Jr to allow radio, TV coverage of Supreme Court

The Radio-Television News Directors Association has asked recently appointed Supreme Court Chief Justice John Roberts Jr. to allow radio and television coverage of court proceedings.

The public should be granted meaningful access to arguments made before the court, RTNDA President Barbara Cochran said in a letter sent to the new chief justice.

In her letter Cochran asked initially for the release of audio taped coverage, but added "only television has the ability to provide the public with a close visual and aural approximation of actually witnessing judicial proceedings without physical attendance."

Banning electronic coverage requires the public to rely upon "secondhand accounts filtered by the perceptions of reporters," Cochran's letter said.

To read the entire letter, visit www.rtnda.org/foi/cochran_100605.shtml

Tentative Digital Channel Designations for Stations Participating in the First Round of DTV Channel Elections and Second Round Election Filing Deadline

In the *Second DTV Periodic Review Report and Order*, the Commission adopted a multi-step channel election process through

which the nation's full-power television broadcast licensees and permittees (licensees) will select their ultimate DTV channel inside the core (*i.e*., channels 2-51). In the first round, licensees with in-core channels (either one or two in-core channels) filed First Round Election Forms by February 10, 2005, selecting which of their assigned channels they wished to use for digital operations.

In this Public Notice we announce 1,713 tentative channel designations based upon these First Round Channel Elections. This list includes the 1,554 channel designations previously announced, which included stations that are participating in approved Negotiated Channel Arrangements. In the report, the FCC shows a list that adds stations that have successfully resolved interference conflicts. The call sign and tentative DTV channel designation for each licensee are also set forth. Tentative channel designations in the relevant border zones are subject to appropriate international coordination. Licensees without a tentative channel designation at this time will receive tentative designations later in the channel election process.

For details, visit: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-2649A1.doc

Google Offers To Unwire San Francisco

Google is one of more than a dozen organizations that have submitted bids in response to San Francisco Mayor Gavin Newsom's call for a citywide wireless Internet network. The network would provide free Internet access to anyone in the city. Google finds itself flush with more than $7 billion in cash after recent stock sales. Industry observers speculated that setting up a municipal wireless network in San Francisco could be the first step in a Google plan to establish such a network nationwide, though the company said it currently has no plans to expand beyond the Bay Area. Analysts said Google's interest in facilitating increased Internet access directly serves the company's goals of organizing the world's information. In addition, providing Internet access to greater numbers of people means potentially more visitors to Google's site, which would increase advertising revenues.

RIAA sued

Oregon RIAA Victim Fights Back; Sues RIAA for Electronic Trespass, Violations of Computer Fraud & Abuse, Invasion of Privacy, RICO, Fraud

ATLANTIC V. ANDERSEN

This is the case peer-to-peer file sharers have been waiting for. Tanya Andersen, a 41 year old disabled single mother living in Oregon, has countersued the RIAA for Oregon RICO violations, fraud, invasion of privacy, abuse of process, electronic trespass,

violation of the Computer Fraud and Abuse Act, negligent misrepresentation, the tort of "outrage", and deceptive business practices.

This may be the well positioned case we have been waiting for and I recommend everyone read the details at the posted link.

As I'm sure some here will remind me, I am not a lawyer. But I tend to follow these things and I'll wager the plaintive has a very good case on this one. It's being backed by the EFF, which I strongly support both with money and with my open source video filters on my web page.

Among other things it may begin to decide whether personal computers are indeed protected from malware under the Computer Fraud and Abuse Act (see quote below) because she personally uses that computer for interstate e-commerce, as we all do. That previous exception had previously made it look like maybe only big company computers were protected from infiltration.

And if nothing else it will likely make public some questionable excesses by the RIAA and their representatives. I certainly hope this one goes to trial.

http://recordingindustryvspeople.blogspot.com/2005/10/oregon-riaa-victim-fights-back-sues.html

Links to the FCC Station Channel utilization

<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-261230A1.pdf>
<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-261230A10.pdf>
<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-261230A11.pdf>
<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-261230A12.pdf>
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<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-261230A8.pdf>
<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-261230A9.pdf>

New Microsoft Office 12 a Waste of Money

Attention Business Owner:

Unfortunately, the company was a little too successful at making its innovations unobtrusive. In user testing, Microsoft found that nine out of every 10 features that customers wanted to see added to Office were already in the program. "They simply don't know it's there," Chris Capossela, a Microsoft vice president, told a developer crowd last week. "It's just too hard to find it."

"Some very small percentage of people are going to react overwhelmingly negative," Sinofsky said in an interview. "I'm prepared for that."

But, he warned, Microsoft may still face a tough sell. "Microsoft has to convince (corporate customers) not only that the new version is better, but also that there is not a significant amount of retraining that is going to be required for users."

New Technology

Samsung Develops 16 GB Flash Memory Chip
From: Craig Birkmaier

Much of my career has been spent turning over rocks looking for technology trends that have the potential to fundamentally change assumptions about the way things work. Perhaps I learned this technique while working in Grass Valley. Local legend has it that the largest nugget ever found in Gold Country was unearthed by a cow, much to the pleasure of the farmer who benefited from this bovine gold digger.

I may have been one of the first video industry journalists to understand, and then relate to the hoards of people trying to get their big break in television, that the Personal Computer revolution would change the economics and the human interface to video editing and special effects. It was a no brainer...just project out how long it would take for Moore's Law to provide the MIPS and storage needed to handle SDTV, and then a few years later HDTV. By 1992 I defined, in great detail, the Personal Video Recorder, and the time frame in which products like Tivo would become economically viable. And when some industry pundits laughed at the notion of a camcorder based on flash memory chips, I boldly predicted that digital still cameras would lead the HD video revolution as the chips they rely upon grow in resolution and storage capacity.

Recently Apple did something that I have preached about to virtually every company that i have either worked for, or provided market development consulting services...

"If you want to survive, you need to eat your children."

The iPod revolution was enabled by the massive investment in ever smaller, yet higher capacity hard disk drives (HDDs). you can bet your last dollar, however, that Steve, and his minions in Cupertino, considered HDDs to be a temporary band-aid - enough to get

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the revolution going, until memory chips became big enough and cheap enough to replace all those motors, servos etc.

Apple announced that it was discontinuing its MOST POPULAR iPod, the HDD-based Mini. In its place Apple announced (and immediately started shipping) the 1.5 ounce, flash memory based iPod Nano, available in 2 and 4 GB versions, complete with color screen and click wheel.

At about the same time Samsung announced the development of a 16 GB flash memory chip, and the roadmap to take this technology to 32 Gb, 64 Gb, and 128 Gb over the next few years.

For those of you in the DVD world, note that this parallels the road map for recordable optical media using blue lasers. This is not to say that optical media and HDDs are going to be eaten alive by flash memory - they will continue to benefit from the relentless march of Moore's Law and all things digital. What it does mean is that old assumptions must be cast aside.

I remember coming back from Japan in 1984 with the latest marvel in miniaturization, a portable media player with a cassette drive and AM/FM radio. It was about the size of today's 3.5" HDDs. Somehow the Japanese - most notably Sony - missed the basic lessons outlined above and have lost the portable media player market to Apple and "the rest of them."

Electromechanical devices are on their way out, at least in applications where power and size matter. The following article from Korea says volumes about what's next.

"The new 50 nanometer 16 Gb NAND flash memory was introduced on Monday, integrating 16.4 billion transistors on a chip the size of a thumbnail. By combining 16 of these, manufacturers get 32 Gb of flash memory that can store more than 32 hours of HD video files, 8,000 digital music files (670 hours), or 200 years of daily papers."

It's just a matter of time until flash memory exceeds our capacity to fill it up...and then it will just get cheaper.

Regards
Craig

http://english.chosun.com/w21data/html/news/200509/200509140024.html

Samsung Develops 16 GB Flash Memory Chip

Who would have thought a few years ago that flash memory chips would one day be poised to replace hard disk drives? But after Samsung Electronics announced it developed a 16 Gb flash memory chip, the product is poised to revolutionize everyday life.

Already more and more people are using flash memory to store digital content such as text, images, music and video clips. Samsung says flash memory has brought a second "paper revolution," the era of digital paper.

The new 50 nanometer 16 GB NAND flash memory was introduced on Monday, integrating 16.4 billion transistors on a chip the size of a thumbnail. By combining 16 of these, manufacturers get 32 GB of flash memory that can store more than 32 hours of HD video files, 8,000 digital music files (670 hours), or 200 years of daily papers. Samsung is planning to start mass production later next year.

Increasing numbers of products such as Apple's iPod Nano MP3 player, HP's PDA, Microsoft's X-box, and Sony's PlayStation 2 rely on flash memory technology. Samsung is bringing out a laptop system supported by 16 GB flash memory assembled from 8 GB chips later this year.

By 2006, NAND flash will be used in cars, aircraft, ships and black boxes, and all storage devices are tipped to be replaced by flash memory in five to 10 years. In the car navigation industry, Mercedes Benz and Lexus have already loaded their new models with the CMOS image sensor, which can store the whole map of the U.S. and Canada on 2 GB.

Flash memory is much lighter and faster than HDD, and that makes the digital life easier. The high price was its biggest weakness, but now that is dropping dramatically. Mobile phones, for instance, will become more capable but slimmer and faster at the same time.

The fact that Samsung is already working on the development of 30 nanometer types with 32 GB, 64 GB, and 128 GB suggests the sky is the limit for the technology.
(englishnews@chosun.com)

From NAB

As many of you know, a variety of groups in recent years have made wildly inaccurate accusations suggesting that local television stations are to blame for the inability of public safety providers to communicate in times of emergency and natural disasters.

The attached article from today's USA Today suggests that the issue is mired in complexity. It outlines a litany of problems related to why police, fire fighters and others are still struggling to communicate in times of crisis.

Chief among the culprits: turf wars and a lack of cooperation between various public safety providers; insufficient training and planning; and shoddy radio equipment and a lack of standards from manufacturers (FYI, Motorola -- which has helped fund the

Alliance in Support of America's First Responders -- is a primary supplier of public safety communications equipment).

Congress now appears to have settled on a February 2009 "hard date" for turning off analog television, and NAB will continue to work with our friends in the public safety community to accommodate their need to communicate in times of crisis. In the meantime, local radio and television stations will continue to provide the lifeline service that Americans have come to depend on. Our stations take seriously our role as first informers in times of emergency, and we know for a fact that broadcasters save countless lives each year through disaster alerts, emergency weather warnings and AMBER Alerts.

Compatible radio systems would cost billions
By Paul Davidson, USA TODAY

As chaos engulfed New Orleans after Hurricane Katrina struck, emergency responders traded urgent information in a way that was hardly a model of 21st-century high technology.

With floodwaters surging, they scurried on foot to ferry messages among city police, state troopers and the National Guard.

It's not that the agencies' radio systems didn't work. They just didn't work with each other.

The breakdown in New Orleans was the latest proof of a troubling quandary: Many of the USA's 50,000 public-safety agencies still can't talk to each other in a crisis. The problem has plagued emergency responders in every big disaster in recent memory — from the Oklahoma City bombing to 9/11 to Katrina.

The main culprit? Incompatible radio equipment.

"We didn't learn our lesson after the '93 World Trade Center bombing; we didn't learn our lesson after Sept. 11," Sen. Barbara Boxer, D-Calif., said at a Senate Commerce Committee hearing on Katrina. "We don't need anymore failures."

Yet there's no simple fix. Local agencies often lack the money and radio frequencies needed to upgrade equipment. And federal aid is sorely limited. Even with more money and frequencies, other hurdles thwart seamless communication among first responders:

•City, county, state and federal agencies buy radio equipment for their own needs. Turf battles often keep neighboring agencies from buying compatible gear, or even from teaming in an emergency. The federal government can't force all agencies in a state or region to buy the same gear.

•Safety agencies often fail to plan for interagency communication in disasters or to train officers in how to talk to their counterparts.

•Technology standards that would let disparate radio systems talk with each other have been delayed. Experts at least partly blame foot-dragging by radio manufacturers.

The upshot: Free-flowing communication among agencies in the USA won't come till 2023. At least that's the projection of Safecom, a program in the Homeland Security Department that promotes public-safety communication.

"It's going to take years to do it and a lot of money," says Harlin McEwen, who chairs the communications committee of the International Association of Chiefs of Police. "There isn't any magic bullet."

Congress is poised to take its most dramatic steps yet. It's expected to pass legislation that would give emergency responders more radio channels and money for new equipment. Yet emergency officials say the money is inadequate and the frequencies won't come soon enough.

Still, some areas of the country are attacking the problem, at least in a piecemeal way. Some are pursuing state or regional radio systems that counties or towns can join. Other areas have "gateways" that bridge disparate systems in emergencies. On the way: software-based radios that can span different radio networks.

"It's a big problem that's moving toward a solution quicker than we thought was possible a few years ago but slower than we would like," says David Boyd, who oversees radio compatibility at the Homeland Security Department.

The root of the problem is that radios on one frequency band typically can't talk to those on another. And radios made by different manufacturers are incompatible. Decades ago, agencies chose different channels from their neighbors to avoid interference. Manufacturers also built digital radios that had proprietary technology.

In a survey last year by the U.S. Conference of Mayors, 23% of local public-safety agencies said they couldn't communicate across their own police and fire departments. A third said they can't talk to the county sheriff. Most can't talk to state or federal agencies.

Those gaps can thwart teamwork during crises that draw multiple jurisdictions. A prime example: the 1999 Columbine school shootings in Colorado — where 46 agencies converged with mostly incompatible radio systems.

The most notorious breakdown occurred after the Sept. 11 terrorist attack on the World Trade Center. Police in helicopters couldn't warn firefighters of the imminent fall of the North Tower because the two agencies use different radio systems. More than 100 firefighters died when the tower fell.

Precious seconds

After the 1995 bombing in Oklahoma City, couriers had to carry messages by foot among state, county and city agencies that couldn't talk by radio.

Sometimes, responders relay messages through dispatchers, wasting precious seconds in an emergency.

Some cities use gateways that patch together different radio systems at disaster scenes by funneling the audio of one into the other. The devices cost as little as $10,000 — far less than the millions needed to replace a radio system. But gateways can be hard to set up on the fly. And they work only if the responding agencies have their own transmitter towers in the area.

"It's a stopgap," says John Powell of the National Public Safety Telecommunications Council.

The 2001 terrorist attacks spurred a call to fix the problem. Federal funding was boosted so state and local agencies could pay to upgrade walkie-talkie systems. But critics in Congress call the funding inadequate. It'll cost up to $60 billion to replace radio systems nationwide so agencies can talk to each other, Safecom has said.

Since 2003, the Justice Department has awarded $241 million to states and localities for such upgrades. Yet Congress slashed that funding to $10 million for 2006, from $93 million this year.

A separate Homeland Security grant provided about $7.3 billion for first responders. There's no mandate, though, that any of it pay for compatible radio networks. Just about $1.5 billion has gone toward that goal.

Rep. Bart Stupak, D-Mich., a former state trooper, faults the Bush administration for not dedicating more money to improved communication. "There's no leadership from the federal government," Stupak says. "All we get is a lot of talk."
In the administration's defense, Boyd says Homeland Security grants have risen sharply, from just $1 billion in the three years before 9/11. The department, he adds, doesn't want to dictate local spending decisions.

Another hurdle is a shortage of frequencies. Areas such as Los Angeles County would like to buy new radio systems in frequency bands used by neighboring agencies. Yet there are few available channels.

The federal government had been scheduled to reclaim a swath of analog channels for public safety from TV stations at the end of 2006, when the stations were to start broadcasting in digital-only. That shift, though, has been delayed to 2009 in legislation that sets aside $1 billion for new radio gear.

Some states, such as Alabama, Oklahoma and Mississippi, have tried to build radio systems to link state agencies and let local governments hook up, too. But the cost has proved too high.

Costs prove too high

A Mississippi network could cost $150 million to $300 million. "Astronomical," says Willie Huff of the state Transportation Department.

Even states that do build their own radio systems often can't persuade local agencies to tie in. Denver hasn't joined Colorado's Motorola system, which includes most of the state's localities. The city would have to pay up to $80 million for radios and transmitters.

Oakland County, Mich., declined to join Michigan's new $220 million Motorola digital system. Instead, it built its own $43 million M-A/Com network. Among other concerns, county officials said they feared they'd be forced to cede control to state officials in emergencies and share some frequencies with nearby counties.

Other obstacles:

• Training and planning. Experts note that first responders often spend little time preparing for interagency communication. Some agencies fail to teach responders how to use gateways.

In New Orleans, city officials used three channels for emergency services after Katrina struck. But they failed to set aside separate channels to talk to other area agencies, says Dan Hawkins of Search, a non-profit consortium that aids public-safety agencies.

Two years ago, when an inmate fled from sheriff's deputies in Lincoln, Neb., deputies had to call 911. The deputies, local police and state troopers had never set up a common radio channel for communication. The inmate was on the lam two days before being captured.

• Lack of cooperation. Officials often use radio lingo that differs from city to city or state to state, causing confusion in emergencies, says Donald Lund, a consultant on law-enforcement technology.

Example: "10-99" has dozens of different meanings throughout Texas, from a domestic dispute to an officer going off-duty.

In New York City, a rift between police and fire officials prevented the agencies from setting up a joint command post that might have let police warnings reach firefighters. Such command posts are now required in the city. Police and fire still use separate systems. But fire commanders carry an extra radio tuned to the police band so they can talk to police if necessary.

• Incomplete standards. Fifteen years ago, radio manufacturers started developing a common standard, called P25. The idea was to link different radio systems.

A lack of consensus, though, has kept that standard from being finished. And manufacturers have certified some radios as P25-compliant even though they aren't, says Derrick Orr of the National Institute of Standards and Technology.

Big industry players often have little incentive to back standards that would let responders use equipment from smaller vendors, says Powell of the telecom council.

No. 1 supplier Motorola disagreed, saying it's "a leading driver and proponent of the" standard.

Glimmers of hope

In some states, innovations are offering glimmers of hope. About 10 states, including Indiana, Colorado, Michigan, Minnesota and Florida, have built statewide radio systems that city and county agencies may join. Indiana got most local agencies to join by "including everyone in the design," says project head David Smith.

That network paid dividends in 2002, when a tornado roared through south-central Indiana. Thirteen agencies communicated seamlessly. Calm was restored in seven hours. By contrast, when a tornado struck the same area in 1996, incompatible systems prevented responders from talking.

Other areas, including San Diego County, Alabama and Littleton, Colo. — site of the Columbine shootings — have taken a less-costly route. They've installed gateways that link an area's radio systems. A $194,000 Raytheon JPS system in Littleton connects 36 local, state and federal agencies.

M/A-Com's radio networks bought by Denver, Oakland County and New York state have a more elaborate gateway system. It converts disparate radio transmissions into one Internet protocol for up to hundreds of users. But gateways "require somebody to patch in the call" and use up channels, says Mike Morgan, assistant fire chief in Los Angeles County. "I look at it as an interim solution."

A longer-term answer might be software-defined radios. They could tap into various frequency bands and could be ready in three years, says Fred Frantz, a communications consultant.

Powell envisions "a system of systems." Each region would use a common network and tie in to neighboring regions or states with a gateway.
And when might that arrive?

"We'll see good headway in the next decade," he says.

Investing in people

By Kevin McNamara, CNE
Reprinted by permission of Radio Magazine

I consider the most formative years of the broadcast industry to be from the early 1970s to the present. It was in this period of time we first saw the transition of listeners moving from the heritage AM powerhouses to what would be the dominant FM medium.

Being the best wasn't just about having the best programming. As the quality of FM receivers improved, so did the reality that the quality of the technical product needed to keep up and, thus, someone coined the phrase "listener-fatigue." In the programming world, this had two connotations: 1) listeners would spend more time listening to you and not a competitor, and 2) random listeners would likely stop at your station just because it sounded so good and the ratings would follow.

I'm not sure if any of this is true, but it spawned a technical evolution that brought us improved transmitters, better antenna systems and the multiband audio processor. More recently, the evolution from analog to digital technologies has created the need for additional skill-sets for engineers and people involved with the operation of a facility.

There has been a shift in importance from an industry that felt success was measured directly as function of its programming (and more particularly its air personalities), to one where the technical product, whether resulting from improved on-air product or creating efficiencies that reduce costs, reigns supreme. Employees now need more skills and a broader base of knowledge than ever before. Acquiring and maintaining the skills specific to the various technologies is essential in the day-to-day activities of the engineering staff. But, it is also important not to forget that engineers are also managers; while perhaps not always possessing the title, they are typically the common hub that is required to interact and support the other business functions. An engineer is generally the project manager of a new facility or upgrade projects. It is not hard to see that investing in your best assets, your people, is not simply to help them progress as individuals, but will also help the company realize a significant return on its investment.

Proof of performance

When it comes to supporting network infrastructures, most major manufacturers of software and hardware prefer that problems be handled by people and companies that are certified in their product. From a manufacturer's point of view, a certification program provides two benefits: it reduces the number of specialists the company needs to employ directly to handle customer problems, saving substantial expense, and certification programs make the same manufacturers a lot of money with education programs and testing fees. What makes this even better for them is that the certification programs are

continually changing to reflect new products and therefore require that certifications be periodically updated, which means plan on budgeting for the appropriate continuing education.

Microsoft offers a wide range of certifications for all of its product lines. While the majority of them are for people interested in programming and writing code, there are three I would recommend for personnel involved with maintaining the Windows-based networking platform or general office applications.

The Microsoft Certified Systems Engineer (MCSE) is perhaps one of the most useful certifications to possess. Within the MCSE program, there are several tracks that an engineer can pursue depending on a particular networking platform/version, i.e. Windows 2000, Windows 2000 Server. The core focus is on networking technologies along with system administration competence. Along with the specialization you will be required to select elective specialties, such as messaging or security. There are also upgrade paths you can take to stay current with new versions.

The Microsoft Certified Systems Administrator (MCSA) deals primarily with the administration of Windows-based network platforms and less emphasis on the networking knowledge, therefore the requirements are somewhat less than that of the MCSE.

The Microsoft Office specialist certifies proficiency with the suite of office products and the MS Project application. The certification requires the successful completion of tests for each of the individual products with the Office Suite, i.e. Word, Excel.

Cisco is the largest supplier of network routing equipment and high-end IP networking hardware. It offers a variety of certifications related to not only its own products, but it also provides a valuable foundation for advanced networking fundamentals. If you are involved with any networking infrastructure design or operation, these are valuable certifications to possess. The core certification programs that should be considered follow:

> Cisco Certified Network Associate (CCNA) is the entry level certification that provides a solid foundation of knowledge to install, configure and operate a variety of specialized IP router products for small networks.

> Cisco Certified Network Professional (CCNP) is the professional designation that builds on the CCNA and provides the additional skills that can be applied to large-scale network infrastructures.

If you are involved with the design and installation of structured cabling systems, particularly that related to networking, consider certification as a Registered Communications Distribution Designer (RCDD). Offered by BICSI (www.bicsi.org), the RCDD designation has become the defacto certification for anyone involved with the design, installation and troubleshooting of any cable or wireless-based infrastructure.

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There are a variety of specialties within the program ranging from wireless design to outside plant cabling.

While not a technical certification, another program for people who are involved with the management of projects is the Project Management Professional (PMP) designation. This program is recognized, and in some cases required, by virtually all major companies where project management is an active part of their business. Certification requires a great deal of coursework and a test. There is also a prerequisite that the candidate possesses a minimum amount of project management experience, which for most engineers should be no problem to meet.

I would be remiss if I didn't mention the certifications offered by our own SBE. These, after all, represent the core activities that you are involved with in your daily activities.

Employers need to consider the value added by having employees prepared for the ever increasing complexities of broadcast operations and provide incentive programs for educational reimbursements or grant time off for people that take the initiative. If you are work for a company that has yet to realize the benefit, seek the certifications that you feel are important. These are highly marketable certifications and I'm confident you will see your own "return on investment" in a short time.

Note: *McNamara is president of Applied Wireless, Elkins Park, PA.*

DTV Training
From: Gary Sgrignoli

There is a significant increase in HD programming (including live programs such as sports and even the news) as well as more models of lower-cost DTV sets with integrated digital tuners on showroom floors (5th generation VSB chips this fall). With the advent of the 2nd Periodic Review last fall setting the post-transition channel election and replication/maximization process in motion and Congress voting on bills that could set a December 31, 2008 (House) or April 7, 2009 (Senate) hard analog "turn off" date, the last phase of the DTV transition has surely begun!

These day-long digital VSB transmission seminars have been offered around the country for the last 7 years, with more on the way. Some of the cities across the country that have hosted seminars in the past have been: Albuquerque, Atlanta, Austin, Baltimore, Boston, Calgary (Canada), Chicago, Champaign (IL), Cincinnati, Columbia (SC), Dallas, Denver, Des Moines, Honolulu, Indianapolis, Kansas City, Lansing (MI), Los Angeles, Manchester, Milwaukee, Minneapolis, New Orleans, New York City, Norfolk, Oakland, Orlando, Philadelphia, Phoenix, Pittsburgh, Portland (ME), Portland (OR), Raleigh, Reno, Sacramento, Salt Lake City, San Diego, San Francisco, San Jose, Seattle, Topeka,

and Washington DC. The plan is to visit new cities as well as to revisit some of the ones mentioned above.

As you may recall, a new, 2nd type of VSB transmission seminar has now been created that focuses on the types of VSB Measurements that are desired in the laboratory, at transmitter sites, and at remote field sites. Topics covered will include: signal power & jitter measurement theory, laboratory/Tx site/remote field site measurement methodology (including FCC compliance), specific DTV RF parameters to be measured and why, how to measure them, and what type of test equipment to use (including required as well as desirable features and specifications). These new "VSB Measurements" seminars (also day-long in length) are now being offered in addition to the original "VSB Fundamentals" seminars (which are considered a prerequisite for these new measurement seminars). These new measurement seminars will be operated in a similar manner as the original seminars, again with corporate sponsors covering the majority of the costs and only modest registration fees for the attendees.

Upcoming all-day VSB Measurements seminars are currently scheduled for:

Date:	Thursday, January 19, 2006
Location:	SCETV in Columbia, SC
Time:	8:30 am to 5:30 pm
Hosts:	SCETV & Harris
Sponsors:	MRC (Sponsorship opportunities are now closed)

Date:	Thursday, February 16, 2006
Location:	WRAL in Raleigh, NC
Time:	8:30 am to 5:30 pm
Hosts:	SBE 93 & WRAL
Sponsors: TBD

Date:	Thursday, March 2, 2006
Location:	KAET in Phoenix, AZ
Time:	8:30 am to 5:30 pm
Hosts:	KAET & SBE 9
Sponsors: TBD

Date:	Thursday, March 9, 2006
Location:	Comstream in San Diego, CA
Time:	8:30 am to 5:30 pm
Hosts:	SBE 36 & Comstream
Sponsors: TBD

Date:	Saturday, March 11, 2006
Location:	KABC in Los Angeles, CA
Time:	8:30 am to 5:30 pm
Hosts:	STE & KABC
Sponsors:	Canare, ERI, Harris, LARCAN, MRC, Ross, STE, & others

Date:	Thursday, March 16, 2006
Location:	WHRO in Norfolk, VA
Time:	8:30 am to 5:30 pm
Hosts:	SBE 54 & WHRO
Sponsors: TBD
Date:	Thursday, May 18, 2006
Location:	KRMA in Denver, CO
Time:	8:30 am to 5:30 pm
Hosts:	SBE 48 & Rocky Mountain PBS
Sponsors: TBD

In addition to the above confirmed dates, the San Antonio SBE chapter is trying to book the fundamentals seminar in late February (e.g. February 21), the Albuquerque SBE

chapter is trying to book the measurements seminar in early March (e.g., March 7), the Tampa Bay SBE chapter is trying to book the measurements seminar in late March (e.g. March 21), and the Harrisonburg (VA) SBE chapter is trying to book a mid-May date (e.g., May 12). Scheduling for an Atlanta (GA), New York City (NY), Manchester (NH), Knoxville (TN), & Birmingham (AL) seminars this spring is also in the works. Most of these seminar dates should be forthcoming in the January seminar newsletter.

Corporate SPONSORS that are interested in being involved in any of the above upcoming seminars should contact me immediately so that I can put you in contact with the appropriate people. While the Columbia seminar sponsorship is closed, the others are currently open for the time being.

As usual, the modest registration fee for these seminars covers an updated 1-1/4" thick (600-page) detailed seminar notebook as well as lunch. I've attached an announcement flyer for the Columbia seminar for your reference, which contains contact information and general logistics. If you know of anyone (e.g. any local station engineers or business clients in the area) wanting to attend the seminars above or other such seminars, please forward this information on to them.

As an FYI, local TV broadcasters often host these seminars in conjunction with local broadcast organizations such as SBE and SMPTE. These seminars are designed to be "break-even" events for the hosts with my travel expenses and speaker fees paid by corporate sponsors, while the cost of the handout books and refreshments are covered by the very modest registration fees (often between $50 - $60 per person) charged to the attendees. The seminars often draw between 30 - 60 people (and sometimes more), and one credit is given towards SBE re-certification. Also, the material in the "VSB Fundamentals" as well as the new "VSB Measurement" seminars will help those preparing to take the 8-VSB Specialist Certification test that is now offered by the SBE. See the national SBE website for more details (www.sbe.org).

If you know of any broadcast-related groups that would want to co-host or co-sponsor any future VSB seminars in their cities, please let me know. The winter and spring seminar schedule is currently being planned. I believe that these educational seminars are well worth the time, energy, and money to attend, especially in this last phase of the DTV transition where so many requirements are in effect for broadcasters.

As the DTV transition continues to roll out, the channel election comes closer to completion, and the final date for analog shutoff comes closer to reality (keep an eye on those bills in Congress), let's all work towards continued success and progress as we close out 2005 and ring in the new year.

Gary Sgrignoli
DTV Transmission Consultant - Meintel, Sgrignoli, & Wallace
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2006 HPA Technology Retreat
Tuesday, February 21, 2006 - Friday, February 24, 2006

Don't forget the 12th annual Technology Retreat, administered by the Hollywood Post Alliance, which will be taking place February 21-24 at the Rancho Las Palmas Marriott in Rancho Mirage, California near Palm Springs.

Returning are the broadcast-network vice presidents, the CTO of the MPAA, copy-protection technical working group member attorney Jim Burger, and the consumer marketplace panel. New this year are a seminar on digital newsgathering co-sponsored by ATSC and SBE, a supersession on displays, sessions on Telco TV and TV for mobile devices, a session on 3D, and a seminar on small-format HD acquisition. All three authors of the book "DVD Demystified" will also have a session explaining next-generation consumer disks. And the large-format/hi-rez acquisition session will include the latest on NHK's camera research and a demo of Olympus's ultra-high-resolution digital-cinematography camera.

HPA Technology Retreat 2006 Schedule which is subject to change. Check their website for the latest information **http://www.hpaonline.com**

Day 1 Tuesday, February 21, 2006
11:30 am – 5:30 pm Registration

1:00 pm – 5:30 pm ATSC-SBE Joint Seminar on Digital Newsgathering

1:00 pm – 1:15 pm ATSC Activities Update Jerry Whitaker, Advanced Television Systems Committee

1:15 pm – 1:30 pm SBE Frequency Coordination and Related Activities Chriss Scherer, Society of Broadcast Engineers

1:30 pm – 2:00 pm Progress Report on Data Return Link Development Dane Eriksen, Hammett & Edison

2:00 pm – 2:30 pm DRL System Implementation Considerations S. Merrill Weiss, MWG

2:30 pm – 3:00 pm Next-Generation Video Codecs: Overview & Comparison Matthew Goldman, Tandberg Television

3:00 pm – 3:30 pm Advanced Codecs: What They Mean to D-ENG Pat Waddell, Harmonic

3:30 pm – 3:45 pm Refreshment Break

3:45 pm – 4:15 pm HDTV Over ENG: The Path Forward John Wood, MRC

4:15 pm – 4:45 pm RF Transmission of Uncompressed HD Signals Kurt Loheit, Boeing

4:45 pm – 5:15 pm Next-Generation Satellite Transmission Standard Mark Dale, Efficient Channel Coding

5:15 pm – 5:30 pm ENG Spectrum Issues: What's on the Horizon? Dane Eriksen, Hammett & Edison

2:00 pm – 6:00 pm seminar oriented towards displays Charles Poynton

Day 2 Wednesday, February 22, 2006
8:00 am – 5:00 pm Registration

9:15 am – 1:15 pm Displays Supersession coordinated by Glenn Kennel & Peter Putman

9:15 am – 9:45 am Primer on LCD, PDP, DLP, and LCoS Peter Putman, ROAM Consulting

9:45 am – 10:15 am Color Translations Ron Williams, Landmark Color

10:15 am – 10:45 am Non-Color Display Signal Processing Jed Deame, Silicon Optix/Teranex

10:45 am – 11:00 am Refreshment Break

11:00 am – 1:00 pm The Big-4 Display Issues: Contrast/Grayscale, Color, Scaling, Deinterlacing/Motion
Moderator: Glenn Kennel, Texas Instruments
- D-ILA - Rod Sterling, JVC
- DLP - Brad Walker, Texas Instruments
- LCD – TBD
- PDP - Keisuke Suetsugi, Panasonic
- SXRD - Gary Mandle, Sony

1:00 pm – 1:30 pm Break - Pick up box lunch

1:30 pm – 1:55 pm Welcome (okay to eat) Leon Silverman, HPA (Laser Pacific)

1:55 pm – 2:15 pm Introduction &Technology Year in Review (eat more) Mark Schubin

2:15 pm – 3:00 pm Broadcasters Panel
Moderator: Mark Schubin
- Randall Hoffner, ABC
- Bob Seidel, CBS
- Richard Friedel, Fox

- Glenn Reitmeier or Peter Smith, NBC
- Hal Protter, The WB

3:00 pm – 3:15 pm Refreshment Break

3:15 pm – 4:15 pm The Video Consumer Marketplace
Moderator: Peter Fannon, Panasonic
- Adam Goldberg, Sharp Labs
- Michael Heiss, M. Heiss Consulting (CEDIA Board)
- Bob Plummer, DirecTV
- Others TBD

4:15 pm - 4:45 pm Telco TV Brad Medford, SBC Labs

4:45 pm – 5:15 pm TV for Mobile Devices Tom McDonough, Azcar

5:15 pm – 5:45 pm Digital Content Protection 2006 Status Report and Introduction of MovieLabs Brad Hunt, MPAA

5:45 pm – 6:00 pm Demo Intros
John Luff, Dictator of Demos
- Codex Digital
- Computer Modules/DVEO
- Evertz
- For-A
- Lanterna Magica
- Linear Acoustic
- MPro/Omnitek
- Neural Audio
- Quantel
- Ross Video
- SmartJog
-
  6:00 pm – 8:30 pm Drinks & Demos

  8:00 pm Dinner doors open

  8:30 pm Dinner and First Quiz Prizes

  Day 3 Thursday, February 23, 2006
  7:30 am – 5:00 pm Registration

  7:30 am – 8:30 am Breakfast Roundtables
- Digital Creation Beyond (Real) 2K, Mark Chiolis, Grass Valley
- The Workforce in Post, Kathleen Milnes, Entertainment Economy Institute

- Non-Linear Color Correction, Simon Cuff, Digital Vision
- Data- & Video-Centric HD & 2K DI, Pat Howley, Digital Vision
- HDV in Mainstream Production, Michael Silbergleid, Television Broadcast
- DoD Multimedia Forensics, N. Beser, Johns Hopkins and E. Grogan, DoD
- The "Tipping Point" for HD Ads, Tom Fletcher, Fletcher Chicago
- Lip Sync, Graham Jones, National Association of Broadcasters
- Metadata and Workflows, Oliver Morgan, Metaglue
- Does the DCI Spec Drive 4K Post? Jon Pannaman, Quantel
- Next Discs: Production Impact, Mark Johnson, Technicolor, Chuck Crawford Independent Digital Production for Digital Cinema,
- Peter Wilson, HDDC
- CRT vs. LCD Displays, Gary Mandle, Sony
- XDCAM HD, Hugo Gaggioni, Sony
- Universal DI Master: Reality or Fiction?, Rainer Knebel, Ascent Media
- Implementing PMCP for FCC PSIP Compliance, Chris Lennon, Harris Scalable
- Software-based HD/SD Codecs, John Pittas, SeaChange
- Blu-Laser Encoded D-Cinema Dailies, Robert Sullivan, Blu-Laser Cinema
- Web-based Real-time Video Indexing, Jean-Denis Gingras, Lanterna Magica
- International Deliverables & Dolby Audio, Tony Cole, Josh Derby, Discovery

8:45 am – noon Large-Format, High-Resolution Imaging Session

8:45 am – 8:55 am Introduction Stephen Stough, Lockheed Martin

8:55 am – 9:15 am ARRI D20 Camera Tests Stephan Ukas-Bradley, ARRI

9:15 am – 9:45 am Advanced Camera Research at NHK Hiroshi Shimamoto, Stanford University

9:45 am – 10:15 am High-Resolution Video Imaging at Olympus Nobuyuki Koyama, Olympus

10:15 am – 10:30 am Refreshment Break

10:30 am – 11:00 am Processing Experimental 24p/12Mpixel Camera Data Sam Nicholson, Stargate Films

11:00 am – noon The New 3-D Thomas MacCalla, KM Partners

noon – 2:00 pm Catered lunch
Participants in the small-format HD seminar may bring food to the seminar and eat while it's in progress

12:30 pm – 2:00 pm Small-Format HD Acquisition Seminar
Mark Schubin, Technological Consultant

Larry Thorpe, Canon

2:00 pm – 5:45 pm Current Issues in the Digital-Cinema Rollout

2:00 pm – 2:10 pm Introduction Charles Swartz, Entertainment Technology Center, USC

2:10 pm – 3:20 pm The Quest for an Image Interchange Framework to Exchange Color
Information
- Academy of Motion Picture Arts & Sciences
- Science & Technology Council - File Format Committee Jim Houston,
  Committee Chair
- Roundtable with Post, DI, and VFX Facilities

3:20 pm – 3:35 pm Refreshment break

3:35 pm – 4:40 pm From DI to DCP: Making the Digital Cinema Package
- Rent, Al Barton, Sony Pictures Entertainment
- Serenity, TBD, Universal
- More TBD

4:40 pm – 5:45 pm International Developments in Digital Cinema
- CineGrid, Tom DeFanti, UIC,
- Laurin Herr, Pacific Interface
- Warner-NTT 4K Distribution Trial, TBD
- Digital Cinema Initiative,
- Siegfried Foessel, Fraunhofer Institute
- European Digital Cinema Forum, Peter Wilson, HDDC

5:45 pm – 6:20 pm Freshen-up-to-Get-Grungy Time

6:20 pm SHARP! Depart hotel for Big League Dreams

6:30 pm – 7:30 pm Beer & Burgers Ballpark Buffet

7:30 pm – 9:30 pm The Whole Ball Game – The Fenway Park Series Compact vs.
Regular vs. Large

Friday, February 24, 2006

Day 4 7:30 am – 1:00 pm Registration

7:30 am – 8:30 am Breakfast Roundtables
- 5.1 to Stereo Downmixing, Mark Seigle, Neural Audio
- Automated Restoration Workflow, Pat Howley, Digital Vision
  Motion-Comp. Dust & Grain Reduction, Goran Appelquist, Digital Vision
- HDV in Mainstream Production, Michael Silbergleid, Television Broadcast

- Digital Intermediates, Debra Kaufman, DI/Studio, Film & Video
- MXF in Production, Post-production, and Archives, Oliver Morgan, Metaglue
- Broadcast & Remote Op Collaborative Workflow, Jon Pannaman, Quantel
- Next Discs: Technologies & Status, Jim Taylor, Sonic Solutions
- Is "Standardized Workflow" a Red Herring? Peter Wilson, HDDC
- New Global Delivery for Tapeless Workflow, Thomas Bremond, SmartJog
- SMPTE S22-10 Update: New Broadcast Workflow, Chris Lennon, Harris.
- ExCCI: Extended Content-Control Information, Merrill Weiss, MW Group
- Reel-based Blu-Laser Post & Archives, Robert Sullivan, Blu-Laser Cinema

8:45 am – 9:30 am Washington Update Jim Burger, Dow, Lohnes and Albertson

9:30 am – 10:30 am Next-Generation Consumer Disks Chuck Crawford, Television Production Services Mark Johnson, Technicolor Jim Taylor, Sonic Solutions

10:30 am – 10:45 am Refreshment Break

10:45 am – 11:05 am Formatting for Multiple Aspect Ratios Graham Jones, National Association of Broadcasters

11:05 am – 11:30 am Lip Sync of Audio/Video Distribution and Display Bill Hogan, Clarity Image Michael Smith, Consultant

11:30 am – noon 10 Gb A/V Networking Steve Lampen, Belden

noon – 1:00 pm Catered lunch

1:00 pm – 1:30 pm Audio Metadata: Key for Producer Creativity, and Tool for Broadcaster Flexibility Ken Hunold, Dolby

1:30 pm – 2:30 pm Compression Update Peter Symes, SMPTE, moderator
- Pat Waddell, Harmonic
- Matthew Goldman, Tandberg Television

2:30 pm – 3:00 pm Wide Dynamic Range, High Precision, Lossless Layered Coding Method Gary Demos, Consultant

3:00 pm – 6:00 pm Demo Room

Digital Signage and Brand Building
From: Lyle Bunn   lbunn@canbtv.com

A new article "Digital Signage and Brand Building" and a Glossary of Digital Signage branding terms has just been posted at the links below.

The 1000 word article addresses the context and positioning of Digital Signage as a brand development and marketing communications tool. It describes the relative support for Dominant and Challenger brands, the impact on the relationship between brands and retailers, and contribution to the in-store experience".

For article www.btvplus.com - Resources - Articles "Digital Signage and Brand Building"
http://www.btvplus.com/resources/Articles/Digital%20Signage%20&%20Brand%20Building.doc

For Glossary of Terms (focused on Digital Signage for branding) see www.btvplus.com - Services - Digital Signage (paragraph 1)
http://www.btvplus.com/index.php?id=6,85,0,0,1,0

Both are available in Word format.

Lyle Bunn   BTV+
Director, Digital Display & Rich Media

Features, History & Opinions

Where We're going
From: Andy Marken   andy@markencom.com

With IDF and the series of Internet/Wi-Fi/WiMax investment announcements the video industry is being wined and dined by a whole new crowd that in the next 5-10 years could change the way you send/receive entertainment content. As always use as you will and if you want the illustrations, let us know --

I Did It My Way - Old Blue Eyes, Frank Sinatra
Dark Side of the Moon - Pink Floyd
The Second Time Around - Barry Manilow

Technology Can't Croon

Frank Sinatra may have made doing it his way famous but then he had something really going for himself … a single voice half of the population of the world would do anything for!

Unfortunately, the same can't be said for the next generation of DVD. Toshiba and Sony have left the building and have determined they will do it…their way! Instead of singing we get the feeling we're watching the great James Dean classic, Rebel Without a Cause. Remember? "A rebellious young man with a troubled past comes to a new town, finding friends and enemies."

Sure the two have troubled pasts. They both struggled with their successes and failures. They have both lusted for patent supremacy and lost. They both have friends and enemies. Big questions are:

How committed are the friends?
How determined are the enemies?
What about the gotchas they aren't considering?

All of Hollywood is committed…to making money. Lots of it! And the more the better.

They are watching ticket sales slide. They see the newness wearing off DVD sales and people are being more selective in the discs they purchase for their libraries. Dispelling the theory that moviegoers are opting to stay home and rent movies on DVD, the home video rental market was off over 2% for the first half of the year.

Is everyone buying pirated video? Are they sending/downloading it off the Internet? Best way to answer those questions is with a comment from Blockbuster's CEO who noted that the continued poor theatrical performance is having a negative impact on the industry.

That's financial community-speak for most of the movies aren't worth going to see, buying, renting or even stealing.

A different disc format won't change that. If the format disagreement continues it means it will be two years before either has any traction in the marketplace. All of the studios that committed to delivering blue technology (BD or HD) titles this year have already said they will take their seat in the stands and watch the debate play out.

They will continue to knock out titles on present DVD discs as people buy more and more DVD players. They will see what MPEG-4 and H.264 offers them in terms of added content protection on present media. They will look for new channels.

Sure the studios have huge vaults they can mine for money - you know back when movies were really good. But they won't release them on any format without solid DRM

(digital rights management) technology. It is available because they have developed it with the help of the software folks and it is flexible enough to work across any media - including IP. It's so good it will take a 15-year-old at least a day to break!

A few are dusting off the golden oldies like Universal Studios with their remake of King Kong. Universal isn't taking any chances on losing their control.   With military precision they are protecting their content from the moment it emerges from the vault and delivered to the consumer with all of the DRM protection intact. If it works, other studies will follow suit and not worry about blue laser technology.

In fact, many of the friends - on both sides of the discussion -- are starting to look elsewhere for relief.

The options are out there and the studies are looking at them all. The head of Warner Brothers recently noted that their industry is trying very hard to make sure that what

Source: In-Stat/MDR, 06/04

happened to the music industry doesn't happen to their industry.
 Trust us, they mean business…

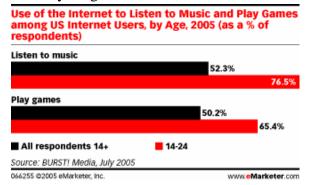That's why they are looking at every option, every opportunity.

The networks, content developers and consumers are becoming accustomed to video on demand across their cable and satellite connections.   Slightly more than 11.6 U.S. households have DVRs (digital video recorders) today and by 2009 that number is expected be nearly 47.5 million.

Much as we hate to admit it much of that content will reside in the higher and higher capacity hard drives that are cheap today and just getting ready to die. The intelligent way to deliver the content - not that intelligence has anything to do with it - would be for the content owners to employ a realistic copy approach similar to what Sony's BMG is employing with their music CDs.

Their new technology allows customers to make three copies of the disc and while they admit their solution needs some enhancement it does create speed bumps in casual piracy. Put a little meat on the bones and this could be a solution
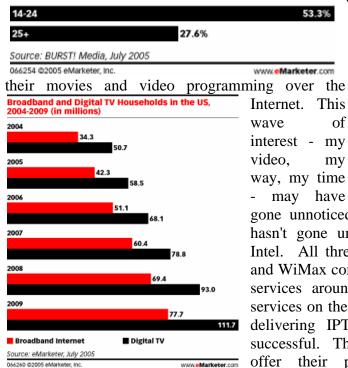

that delivers the content security they need to deliver content the most efficient way possible. When this happens they will be able to reduce their reliance on their two expensive channels of distribution - theaters/retail stores.

The Dark Side of Discs

Over the Internet.

US Internet Users Who Use the Internet to Watch Movies and Other Video Programming, by Age, 2005 (as a % of respondents)

14-24 — 53.3%
25+ — 27.6%

Source: BURST! Media, July 2005
066254 ©2005 eMarketer, Inc.   www.eMarketer.com

Broadband and Digital TV Households in the US, 2004-2009 (in millions)

2004 — 34.3 / 50.7
2005 — 42.3 / 58.5
2006 — 51.1 / 68.1
2007 — 60.4 / 78.8
2008 — 69.4 / 93.0
2009 — 77.7 / 111.7

■ Broadband Internet   ■ Digital TV

Source: eMarketer, July 2005
066260 ©2005 eMarketer, Inc.   www.eMarketer.com

Granted it isn't widespread but a growing number actually watch their movies and video programming over the Internet. This wave of int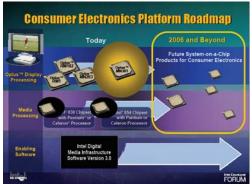erest - my video, my way, my time - may have gone unnoticed by the blue-ray engineers but it hasn't gone unnoticed by Microsoft, Cisco and Intel. All three are investing heavily into Wi-Fi and WiMax communications solutions. The phone services around the globe have TV and video services on their planning boards. Korea has been delivering IPTV for sometime and it is very successful. The BBC just announced they would offer their program over the Internet for downloading.

The Comcasts, Times Warner and other cable monopolies see these services as their prime competition over the next five years. Granted broadband video service won't be available everywhere until perhaps 2010 but remember we said it is only a small wave on the horizon…that's the way Tsunamis start.
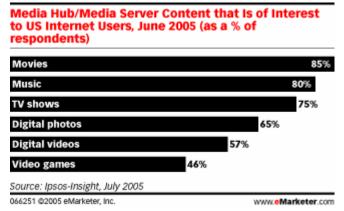

Consumer Electronics Platform Roadmap

Intel, Cisco and Microsoft are watching the horizon…not the shoreline.

Second Time Around

Paul Otellini doesn't look like he is a Barry Manilow kind of guy but he obviously hopes that love is lovelier the second time around.

Viiv is Intel's renewed run at hiding their computer chips inside a device that people will want in their living room. The plan is elaborate and Otellini is serious about making it happen. He rolled out the concept, plan and pieces at his first Intel Developers Forum (IDF) as CEO of the company.

Intel is going full bore because they see the writing on the screen. They talk with

Media Hub/Media Server Content that Is of Interest to US Internet Users, June 2005 (as a % of respondents)

Movies	85%
Music	80%
TV shows	75%
Digital photos	65%
Digital videos	57%
Video games	46%

Source: Ipsos-Insight, July 2005

066251 ©2005 eMarketer, Inc.   www.eMarketer.com

homebuilders who are installing tech-based systems and they talk with home theater and CE/PC dealers. Not that they don't believe the market research that says people want to control their content on their terms but they do something really wild…they talk to consumers across the country.

That's why Otellini has given his global team clear marching orders…make it happen in the home and do it the way folks want it. So at IDF they rolled out a wide array of Viiv options including one that looked like a regular set-top box as well as one that might have - just might have - taken it's lead from Steve Job's MiniMac.

Working closely with its partners, Intel will be offering consumers a variety of entertainment solutions that are ready to plug into your HDTV. Some with 1TB hard drive capacity. That's 128 hours of HighDef content which should satisfy the biggest couch potatoes. Sony showed their system last year and Hitachi unveiled theirs recently. You can bet Seagate, Maxtor, WD and Hitachi are following Intel into every OEM with huge bit buckets that will store a lifetime of photos, months of music and seasons of your favorite soaps.

If the DRM-secured content is sent over one of the broadband pipes to the home it will probably be MPEG-4 or H.264 encoded. Assuming the content owners "allow" consumers to make one copy (or two if they are overly generous) with really cheap next generation red-laser MPEG-4 burners and today's low-cost DVDR media, will people really be interested in the blue spat?

People receive and enjoy their content - audio and video - on their terms. The only question now is what type of set do you watch it on? Digital TV or HDTV? That's an orchestra without a lead singer!!!

Post Production System On a Budget
From: Andy Marken   **andy@markencom.com**

Editor's Note: *Television stations and post production facilities in smaller markets, needless to say, work on much smaller budgets than their bigger cousins in the larger markets. When they can find ways of making a silk purse out of a sow's ear, it is much appreciated. The following is presented in the hopes it will help to perpetuate the small market and perhaps even some of their bigger market relatives the ability to make things look and sound stellar.*

Challenge: Put together a video postproduction suite based on Hollywood's networked model on a shoestring budget

Difficulty: Surprisingly easy

Every professional videographer faces the same challenges - budget, time, budget, budget.

While capturing superb content is important, the real work begins in the post production operation. It is here that a videographer turns a script and good shooting into something that is exciting, entertaining, educational, audience grabbing and saleable.

With a little bit of planning and "creativity" it is now possible for any videographer to develop and use a post production system that is almost equal to the ones you see in big budget operations. This is because today almost every computer sold today is "video-ready."

But to do the job properly, the system should have a Pentium III 800Mhz or AMD Athlon processor, a minimum of 256MB of RAM, USB 2.0 port and at least 10GB of hard disc space for video capture. For best results we'd recommend at least a Pentium 4, 1GB of RAM and two high capacity (80GB) hard drives. You can capture your analog video with the USB 1.1 port but the video quality will suffer.

If you're going to distribute/sell your movie, you'll need a DVD burner either in the system or externally. Because DVD burners and media are so economical, you'll probably want to save your video project to broadcast quality DVD. All of today's DVD burners write to both plus and dash R, RW and DL (dual layer) media. Don't worry about the difference between plus or dash - its an inter-industry disagreement that was never settled so burners now do both and players play both.

Media Selection

The R (write-once) media is your final effort, your archive copy and the one you will want to distribute your movie on. The RW (rewritable) is the media you will want to use your project in-progress work on because you can edit and overwrite the content until you

are completely satisfied with the entire project. The DL layer nearly doubles your content storage capacity 8.5GB Vs 4.7GB).

The 4.7GB media will allow you to store about 120 minutes of video content while DL media should be used if you want to add director's cuts, outtakes, bloopers, enriched content and other professional video information. Most of the leading software - Adobe Elements, Sony Vegas and **Ulead** DVD MovieFactory or MediaServer Pro - will allow you to do advanced work including writing video data to single and dual layer media.

In choosing media for your movie storage, this is no time to skimp and save a few cents per disc. While discs may look the same, there is a performance/quality difference. Off-brand and no-name media purchased in bulk may not successfully burn or may loose content sooner rather than later because of poor production quality. If you spend days and months editing, authoring, tweaking and staging your content; there is a false saving in burning the movie to less than quality media.

Most content producers who make their living doing postproduction work will only use branded media such as **Verbatim**. The Verbatim media has become the disc of choice because the company is backed by Mitsubishi Chemical/Mitsubishi Kagaku Media (MKM) which is the leading producer of media dyes and coating materials as well as advanced media production processes and techniques. The Verbatim media is used by all of the industry's DVD burner/recorder manufacturers as well as the major software developers to test the performance of their units and the compatibility of their discs with all players.

Video Capture

For your video capture into the system, **ADS Tech** offers two approaches. The PYRO AV Link or the Instant DVD approach. The PYRO AV Link is an extremely versatile external box which allows you to input any content - analog or digital - and output to any format. It is also available with your choice of Premier Elements or Sony Vegas software. Both packages are extremely robust and easy to use in the creation of your movie. The best Instant DVD solution for professional videographers is the Instant DVD +DV which enables you to input from any source and then use the Ulead DVD MovieFactory and VideoStudio software to do your post production editing and authoring. Both external boxes contain a very high performance hardware codec (encoder/decoder) that does all the hard work of converting your content to today's digital format.

One of the first things anyone who does post production work learns is that all of the content - raw and work-in-progress - is overloading your system and you are constantly running out of disk space to store and retrieve the work.

You have four options - delete content you feel won't enhance your video or be used, open your PC and install another drive, buy an expensive external drive solution or

complete one project before you begin your next leg of the project so you can start with a clean hard drive.

Delete? Never! The minute you do, you know you'll need it!

Open the system? That's only for techies -- creative people don't do that.

Expensive external storage? How much of an additional investment can you afford for your business? How much additional budget can you get?

Do each project in turn? If you are an independent videographer you have to juggle projects in various phases of completion from shooting to disc delivery. If you do educational and informational videos you are always rushing to meet deadlines without an increase in budget and you need to have immediate access to content because you can often refresh and recycle good content in multiple projects.

Best You Can Afford

The solution is what Hollywood's postproduction facilities do: create a video editing/authoring postproduction system of your own that uses affordable powerful software-based editing solutions, such as Adobe Premiere Elements, Sony Vegas, Ulead's MovieFactory Creator or Ulead Media Server Pro.

Get a quality LCD flat-screen monitor (or two if possible), stereo speakers, and the real secret: an array of drives (multiple hard drives and a DVD burner) configured in a daisy-chain stacked fashion that allows you to move content from one stage to the other directly from your desktop. The interconnected storage array cuts down on cable runs and desktop clutter.

> **Content Protection**
>
> There's been a lot of controversy about content and intellectual property (IP) protection in recent years. Most content that you don't create yourself is copyrighted in some way or another, and the law carries significant penalties for commercial misuse of IP.
>
> However, the law can also be on your side. Thanks to the Digital Millennium Act of 1998, you are allowed to use copyrighted material that you have acquired legitimately for personal and possibly for educational use. The license to do so is implicit in the act of purchasing the content, in the form of DVDs, CDs, still photos or other graphics.

This allows you to move quickly and seamlessly from one storage source to the other almost instantly. It even allows you to mirror content on multiple drives to always have a copy in the event of a hard drive failure.   Best of all, you can move the entire project on a 200 - 500 GB HD from one workstation to another, take it home to work on it there or take the hard drive with you to keep the entire project safe and secure until you have completed your creative work.

The Basics

We're not going to spend a lot of time on the editing software or video or audio monitors; there are plenty of reviews of Ulead's, Adobe's and Sony's products. There are also plenty of advice out there to help you determine if you want to go the all-in-one Mac or choose a more open Windows-based system and solution.

About ergonomics -- Set up your system's monitor(s) and speakers on a flat surface, with the screen(s) and speakers within easy reach. Keep the monitors slightly lower than the top of your head, so you're looking slightly downward at it with the speakers on either side of the screen.

As many film and television postproduction editors will tell you, delivering a quality finished product requires a comfortable creative environment - one in which you'll be able to sit at and work for long stretches of time as you carry out the editing and authoring process. The screen should be at a comfortable viewing angle to eliminate neck and eye strain and the speakers positioned so that you can hear without having to have the volume up high, which causes ear fatigue.

The ADS Tech Drive enclosures provide a flexible and economic approach to building and expanding your storage library. The ADS enclosures are stackable, can hold any of the types of drives commonly used (hard drives, DVD drives, tape drives). The reason for this approach over buying an external drive solution is that you can choose the manufacturer, capacity, speed and price that is right for your budget. In most instances you can save 50% of the cost with only five minutes of work. The units come with their own internal power supply and are preconfigured to support both FireWire and USB cabling.

The main source for content for educational and event videos will be your camcorder. If the cameras use the DV format, you can download the content to the computer via USB. In this approach the camera is being used as an external drive. About 20 minutes of digital footage will create a file about 4GB in size. For added content security, you may want to transfer the raw footage to recordable DVD media (DVD+/-R). Or for convenience, transfer the content to one of the HDs that are independent of the main computer's storage solution.

Mixed Content

Videographers and postproduction personnel often want to include content from other sources, some of which resides on VHS tape. A converter, like ADS's Pyro AV Link, will convert analog information to the DV format. There's a myriad of other sources for content, including CDs, DVDs, streaming video from the web or television content (See sidebar on content protection). This is what makes the daisy-chained and stacked solution so useful: you can draw content out of an array of sources without constantly swapping out discs or connecting/disconnecting external drives. FireWire connections allow as many as 16 drive devices to be daisy-chained sequentially with no device ID

conflicts.   You probably won't need more than three to six devices especially if each ADS drive kit contains a 400GB hard drive giving you sufficient capacity to work on multiple video projects in parallel.

USB connections can't be daisy-chained, but a USB hub, such as the ADS Ultra Hub 4, will enable five to seven drive devices to be accessed instantly (theoretically you could connect up to 127 devices). Also, with FireWire and USB, unlike SCSI, you don't have to worry about terminators or device IDs. ADS's FireWire enclosures provide ports for both FW 800 and 400, so they are backward compatible with older systems that only have FW400 ports.

FireWire or USB - it's your call.
Either works perfectly and anyone who has ever tried to troubleshoot SCSI conflicts and termination errors will appreciate their ease of use.

Furthermore, most new drives enter the market as internal versions. Having cases for them in the form of format-agnostic drive housings gives you an edge on accommodating higher capacity, higher speed drives.

Area Set-Up
Position the drive stack near the editing/authoring station, but not necessarily on top of it. You can place on the desktop or off to the side. Either the FireWire or USB hub options will result in only a single cable to the computer. (can also be off the desk for clean, open workspace. Leave an area between the computer and the drive stack to avoid thermal buildup.)

In a typical beginning or low volume postproduction environment, you'll have two hard drives and one or two DVD-R player/burners - one as a content storage device and one as the "final mix" platform. This approach to drive management allows you to keep your drives at the leading edge in terms of performance and capacity.

It also has another benefit: you can run multiple OS - Windows, Mac or Linux - without having to reformat/partition the computer's internal drive.

With your drive array in place, you can begin to edit in the "A/B roll" style: previewing content from various drives before assembling them at the post production workstation. Hollywood film and video editors do this with TB-capacity drives networked throughout their post facilities. You can achieve a similar installation for your organization's video service or for your event videography business.

The result is a comprehensive video postproduction facility at a fraction of the large solution approach.

For more information: www.adstech.com   www.verbatim.com   www.adobe.com www.ulead.com   www.sony.com

Handy Hints

The question came up - Is there a place in Windows XP where I can find a list of where all desktop CTRL-ALT shortcut keys are assigned to? Check out this link. It will probably answer your question. **http://support.microsoft.com/?kbid=301583**

Television for disaster coverage
From: Mark Schubin tvmark@earthlink.net

OTA TV vs. cable and satellite TV - When the 9/11 attacks happened, the TV transmission facilities on the World Trade Center were destroyed, but, except for a very brief interruption of one of the least viewed station's signals, cable and satellite carriage of all stations continued. Only WCBS-TV had a working transmitter in the Empire State Building (same as after the first World Trade Center attack 8.5 years earlier), so they were the only station receivable off-air via antenna. WCBS-TV's ratings went up, and the other stations' went down, until the other stations got back on the air. I think the only conclusion that can be drawn is that the increased ratings were due to off-air viewers using antennas.

- Radio news vs. TV news -

   - Power failures - There is no question that radio is more likely than TV to be receivable during a power failure. There are many battery-operated TVs and many TV-sound radios (many models of the latter are now being sold specifically for disasters), but their numbers pale by comparison with portable radios. Distasters, however, are not necessarily accompanied by power failures. When the 9/11 attacks occurred, almost all of the New York market continued to be served with electric power. The same was true of our recent transit strike and the recent heavy northeast snowstorm.

   - News departments - Fewer than half (but not too much fewer than half) of U.S. TV stations have news departments. A MUCH smaller percentage of U.S. radio stations do. I have taken long drives across stretches of the U.S. without being able to find any news on the car radio.

   - Destroyed transmission facilities - When a hurricane knocks down towers or floods transmitters, the public searches for whatever they can get. In some cases, that might be TV rather than radio. I have been at my relatives' home in rural Colorado when weather has knocked out all of the radio translators -- and phone and Internet service -- but not the TV translator. At those times, we watch TV to find out what's going on.

- Pictures - TV screens can present information beyond what a commentator says. The projected path of a hurricane or tornado is easily seen instantly on a map. A list of bridge closings can be presented as a rolling or crawling graphic.

After 9/11, a local political candidate here in New York set up a TV tuned to WCBS-TV outside his campaign office and placed rows of folding chairs in front of it. The chairs were soon filled, even though the TV offered nothing TV viewers couldn't get at home. I can think of more than one possible explanation. Maybe people sought a sense of community. But maybe people who normally get their news from newspapers or radio (and didn't even own a TV) felt a need to watch TV during the disaster. Other than owning a TV, I am one of the latter.

Personally, I get most of my local news from the three daily and three weekly local newspapers I read. Secondarily, I get news from a non-commercial radio news station, which, despite a sizable news department, usually rehashes stories from The New York Times (and which, after the post-transit-strike mediator-requested media blackout of the continuing negotiations, announced that we should "stay tuned for complete coverage of the media blackout"). Under normal circumstances, I do not watch TV news.

That makes me an anomalous American. Most Americans prefer to get their local news via TV -- even Americans who prefer to get national and international news via the Internet, newspapers, or other sources. But when disasters happen even I turn to TV.

Disasters are not normal circumstances. Neither are elections. I tune to some form of TV (sometimes our local cable-news channel, NY1) to watch the results at the bottom of the screen. I can quickly discover the results I want to know about long before radio commentators get to them (IF they ever bother to cover a local state-assembly or city-council district race).

TTFN,
Mark

The Perfect Radio System
(Food for Thought?)

The perfect radio system (Transmit & Receive) would be microprocessor based, DSP core, easily reprogrammed (for the changing tides of technology).

The transmit side should be easily programmed/updated to encode IBOC, DRE or any other dream the FCC or manufactures can come up with, all in one box. Royalty free. Could be bi-phase L, Quadra phase or even eight phase, FEC, interleaved. A watch-dog circuit to regularly reboot the box when it quits.

The receivers should be easily programmed/updated (using a special CD/DVD) to receive and decode anything the transmitters are throwing at it. Including satcasters or IP. The receive RF section should be digitally tuned at the front end (selective and sensitive) with variable bandwidth and capable of receiving anything from DC to the speed of light.

The antenna inputs should be diversity capable again under microprocessor control, using flash memory. The receivers output should be both analog and digital (TOS) to interface with the amp of your choice ($26.95 to $5,000.00). Also should be able to operate from -20F to +160F in the rain if necessary.

This system, of course would operate using Windows XP (enhanced) or any other flavor of OS. With a very large reboot button on the front (for the BSOD) with a 3.5mm multipurpose jack on the front for headphones and data output to connect to your cell phone or service monitor to upload error reports for tech support.

A Fire wire port could be used here for faster data transfer or external accessories.

To keep it cheep, the receivers would be mostly on one LSI chip, except for the RF and audio amp sections. This would make it small enough for everything from a walkman to a component sized units.

An SD card slot on the higher end receivers for recording and playback would be nice.

Every one makes money due to its expandability, Best Buys and Circuit City would love this.

Format Wars or Fiddling With Format While DVD's Burn

In a story that appeared in the New York Times by Ken Belson and supplied by Monty Solomon   monty@roscom.com, it states: "The war for control of the next-generation DVD is approaching a critical juncture: next week in Las Vegas at the Consumer Electronics Show, companies championing the two competing high-definition DVD standards - Blu-ray and HD-DVD - will unveil their lineups of new players and movie titles."

The fight between the Blu-ray and HD-DVD groups is based on what Japan thinks consumers want. The HD-DVD camp, led by Toshiba, assumes that consumers will buy high-definition DVD's and players, but only at the right price. So it is improving existing DVD technology, which can be made cheaply and quickly. On the other hand, the Blu-ray group figures that something brand new is needed to get consumers interested, so it is developing discs with enough capacity to allow for innovative features in the future.

This is not a joke. This is another Betamax vs. VHS, AM Stereo, etc. format war where the non-technical consumer is supposed to decide who will win in this multibillion-dollar

market. The article goes on to say: "As electronics makers, technology companies and Hollywood studios haggle over the fine points of their formats, consumers are quickly finding alternatives to buying and renting packaged DVD's, high definition or otherwise."

Despite the fact that Holographic storage is right around the corner, these "new" technologies are still pushing forward. Holographic storage, as presented by InPhase Technologies, is capable of much more capacity than anything that any of the Blu-ray techniques can offer in their present format. Blu-ray is surface only recording and the current form factor is limited to only 100 GB capacity. Yes that will accommodate High Definition movies in a TV format, but that's still not what Hollywood will be putting into the theatres in the not too distant future. 35mm film has a 2K x 4K pixel count which is four times greater than our best HDTV. The potential in the same form factor for Holographic storage is rated to be in the vicinity of 17 TB – that's 17,000 times as much storage capacity. If capacity is what the industry is striving for then the prudent thing would be to wait and see. But, then on the other hand, who ever said anyone in Hollywood was prudent? The money grubbing, bottom feeding, greedy producers and "content protection" folks certainly aren't.

The story further states: "Both sides agree, however, that now is the time to introduce high-definition DVD discs and players. Sales of high-definition televisions, with their sleek design and superior picture and sound quality, are soaring, and the major networks are broadcasting more programs in high definition."

Hollywood isn't the only faction that sees this push for greater capacity and soon. The Game console folks, such as Sony, see high-definition video games as a way to increase sales. God only knows we don't have enough of these mind consuming boxes occupying our youth instead of furthering their education. And that said, back on the Hollywood scene, the movie industry hopes that high-definition discs will offset slumping sales of current-generation DVD's in the $19 billion prepackaged disc market.

Everyone is fishing for a way to get their hands into the consumer's pockets. On Demand is one approach. One research group says that the percentage of cable customers who watch on-demand television has doubled in the past year. Not only do the cable folks see this as an alternative, but the networks are beginning to offer their own diatribe over the internet to Wi-Fi users and iPod fanciers.

Why pay anywhere from $14.00 to $21.00 for a freshly released DVD when for $3 or $4 you can rent one at the local DVD rental store? Once their viewed, not too many folks will ever pull their purchased copy off the shelf and view it again. If the did, it would probably be months, if not years, before they would and they could then rent it for a buck or so at that time.

Yet again if you are on cable or satellite, you have thousands of free movies available at any time, so why should consumers rent a DVD at Blockbuster or buy a new one at Best Buy. They are also likely to think twice before spending $1,000 or more for a new high-

definition DVD player, or $25 or so to own a disc of a movie they might already have in standard definition. It's crazy!

From a different source, we've heard that Microsoft is not backing Blu-ray. Why ? In an interview, Bill Gates said: "Well, the key issue here is that the protection scheme under Blu-ray is very anti-consumer and there's not much visibility of that. The inconvenience is that the [movie] studios got too much protection at the expense consumers and it won't work well on PCs. You won't be able to play movies and do software in a flexible way.

"It's not the physical format that we have the issue with; it's that the protection scheme on Blu is very anti-consumer. If [the Blu-ray group] would fix that one thing, you know, that'd be fine.

"For us it's not the physical format. Understand that this is the last physical format there will ever be. Everything's going to be streamed directly or on a hard disk. So, in this way, it's even unclear how much this one counts."

Andy Setos, the high priced engineering help at Fox Broadcasting said on this matter: "We talked to both formats and asked them: 'What are you going to do about content protection?' We asked them to step up their content protection in a serious way, and the members of Blu-ray association won,"

On top of that, consumers should expect punishment for tinkering with their Blu-ray players, as many have done with current DVD players, for instance to remove regional coding. The new, Internet-connected and secure players will report any "hack" and the device can be disabled remotely.

We also learned that consumers don't like to purchase things only to be told they don't really own them and that they are by default a common criminal. DIVX players are no longer with us. Draw your own conclusions.

Well... in the view of "Hollywood," consumers ARE common criminals. Almost everybody would rather see a movie for free than pay for it, or pay for it indirectly by watching endless commercials. Just like everybody would like to have food and fuel for free, but that is not as easy as copying bits. And when the price ratio between a recorded disc and a blank disc is almost infinite, how are you going to discourage them from stealing your bits? These days intellectual labor is just about the only thing that the western world can still make a profit on, as most manual labor has already been exported. Protection of intellectual property is essential for our survival, but once paid for; one should be able to do with it what they want, providing they're not distributing it all over the place. Backing up copies of software, movies, etc. should not be a crime. We said BACK UP copies not mass distribution of what you've got.

Here's an interesting thought, with the current copyright laws, you probably don't own the software that you are using to read this newsletter with. Does that bother you?

What "Hollywood" is proposing(?) now would seem even more serious: You pay the full price for the disc, but you never know how long you will be able to replay it – for free or otherwise...

"Hollywood" does have a valid point when it wants to protect itself against the thieves. It's okay to prevent copying. It's not okay to prevent us from replaying an original that we have already properly paid for.

Region coding as it is now doesn't work. While in the Middle East recently, we saw several DVD players which were designed to play media from any region.

According to our associate Craig Birkmaier, the combination of three things is going to cause HD-DVDs (both formats) to be still born:

1. Not a sufficient improvement in quality for 95% of potential buyers relative to SD-DVD with surround sound.
2. The inevitable format war.
3. Onerous content protection schemes that are being forced by Hollywood.

He's placing his bet on Red laser discs with H.264 for HD applications. Movies don't need much more detail, and H.264 can provide all that is needed for that application. The real application will be HD for non-entertainment applications, especially corporate/institutional and educational applications. These applications typically do not need to get two hours of HD on a disc, so Red laser should work fine. The best part is that there are already millions of portable players out there that can support EDTV resolutions, and most of the new notebook PCs and Macs will be able to support 720P.

One more comment about holographic recording. If the current DVD holds 4.7GB of material for a movie, this is standard definition. HD requires about 4.5 times as much space to record or just over 21GB. OK so the Blu-ray will work for HDTV, but what about the movie industry where a frame of 35mm film is roughly 2K x 4k pixels or a total of 8 Megapixels. HDTV is only about $1/4^{th}$ of that or slightly over 2 Megapixels. If you consider that some movies are shot in 70mm, which is 4 times greater than 35mm, it plane to see that the holographic storage method is really what the movie industry should be looking toward. We'll just have to wait and see: Right?

Migrating to advanced video coding; What's the plan?
From: Craig Birkmaier   craig@pcube.com

I found the analysis in a recent article of the evolution path to Advanced Video Coding techniques to be quite interesting; it raises some valid issues and demonstrates just how misguided the FCC receiver mandates are. In essence it boils down to the following:

Do broadcasters have enough clout to impede the technical evolution of

competitive systems for the delivery of multi-channel TV?

Two of the statements in this story are quite interesting. To fully appreciate the situation you need to understand that the DBS operators, who were ignored by the FCC mandates on receivers, are moving forward with AVC deployment, since they have control of the receivers for their service. But...

"Cable operators don't feel the same pressure to increase their network capacity by moving to advanced coding. But that could change. If it does, advanced coding can be deployed system by system, using new set-top boxes to do the decoding. But as cable-ready ("plug & play") digital TV receivers are deployed more widely, the cable industry's ability to introduce new technology like advanced coding becomes more constrained."

And why would cable feel constrained to limit their ability to compete because some consumers will be using cable-ready tuners integrated into new DTV receivers? They already offer STBs with more capabilities than you can get in an integrated receiver (e.g. two-way interactivity and PVRs). Does anyone really believe that the cable industry will choose not to use advanced compression techniques, just to protect the investment made by consumers in the so called "cable-ready" receivers.

Then the author raises an interesting point, but totally blows the conclusion:

"Broadcasters, however, don't have a business plan based on set-top boxes. They broadcast directly to TV receivers. According to the Consumer Electronics Association, 7 million DTV sets were sold in 2004 and an estimated 15 million will be sold in 2005. That's at least 22 million "legacy" TV sets, once advanced coding is deployed. They'd all have to be replaced in order to decode and view programming that is transmitted using advanced coding.

Replaced? What on Earth for?

Even analog sets can be used with digital services with the addition of a STB. Every so called DTV ready display that has shipped since day one of the transition can be used with a STB. The FACT than the majority of consumers are opting for monitors rather than integrated receivers should tell us (and the author) something. Most people, who are investing upwards of $2,000 in a home theater system, are smart enough to understand that an integrated tuner may be worthless, long before the display is ready for the scrap heap. -- Just one more nail in the coffin for OTA broadcasting...

Regards - Craig

What follows is the article Craig was referring to: **Migrating to advanced video coding; What's the plan?**

It's no secret that something better than MPEG-2 video compression is emerging. In fact, there are two video coding methods that are better. Both AVC (also known as MPEG-4 Part 10) and VC-1 are better.

They can provide the same picture quality as MPEG-2 in about half the bandwidth. So a TV broadcaster, instead of using a full 6 MHz channel to carry an HDTV program, could use that channel to carry both an HDTV program and a bunch of SDTV programs. It's technically feasible.

But neither broadcasters nor cable operators nor TV manufacturers have figured out how to get to AVC or VC-1 from where we are today.

Broadcasters have staked their claim to an approach that retains the same data rate, 19 Mbps, in their 6 MHz channel, but uses a kind of time division multiplexing to interleave signals using MPEG-2 coding with signals that can use advanced coding. This approach allows "legacy" receivers to ignore the signals with the advanced coding. But it eats into a broadcaster's payload capacity.

Broadcast satellite operators have plans to use advanced coding in the near future, and have actually selected AVC as the one they plan to use. They have a more urgent need to migrate to advanced coding because otherwise they would not have the capacity to carry all the HDTV programming-both satellite services and local broadcasters-that is expected in the next few years.

For the most part, existing consumer electronics hardware can't decode AVC or VC-1. So that means new hardware must be introduced. There are currently about 18 million DBS subscribers, so a lot of new set-top boxes will be needed. But DirecTV and EchoStar can manage their rollouts on a region-by-region basis because of new spot-beam satellite technology. And they can use rebates and tie-ins in the same way that cellular operators do-a free set-top box if you sign up for a two-year subscription.

Cable operators don't feel the same pressure to increase their network capacity by moving to advanced coding. But that could change. If it does, advanced coding can be deployed system by system, using new set-top boxes to do the decoding. But as cable-ready ("plug & play") digital TV receivers are deployed more widely, the cable industry's ability to introduce new technology like advanced coding becomes more constrained.

Broadcasters, however, don't have a business plan based on set-top boxes. They broadcast directly to TV receivers. According to the Consumer Electronics Association, 7 million DTV sets were sold in 2004 and an estimated 15 million will be sold in 2005. That's at least 22 million "legacy" TV sets, once advanced coding is deployed. They'd all have to be replaced in order to decode and view programming that is transmitted using advanced coding.

But, the question is-replaced with what? Consumer electronics manufacturers are reluctant to produce TV sets with new technological capabilities until broadcasters

commit to use and promote the use of those capabilities. And, broadcasters can't use new technology if their viewers don't have the hardware to receive it. It's a real chicken-and-egg problem.

And then there's the marketplace confusion factor. You go to Best Buy and you see two DTV receivers side by side, and the only difference is that one decodes MPEG-2 and AVC and the other decodes only MPEG-2. Which one do you buy? Maybe it depends on the price difference. Maybe you don't buy anything, but instead go home confused. Or maybe you buy an analog set. Remember, even today, people are still buying analog TV sets. Who knows how long Best Buy will continue to sell them?

So suppose you buy the cheaper DTV set, the MPEG-2 set without the advanced decoder. You take it home, plug it in, and let the set search out all the channels. What does it do when it finds one carrying advanced coding programming? Hopefully it ignores that channel, and doesn't load those programs into the electronic program guide. Otherwise, you might decide to watch one of those programs, and the display would go dark when you tuned to it. But what if you see that very channel listed in the newspaper's printed program guide? How does one explain to a customer why he can't watch that program, especially a customer that just bought a new TV set?

The government will force the migration from analog to digital, because it wants to reclaim the analog spectrum. There won't be any such forcing to move from MPEG-2 to AVC or VC-1. But there are business considerations. Microsoft could subsidize the deployment of VC-1 decoders in TV sets. And it seems like IPTV services are leaning in the direction of VC-1. Decoder chip manufacturers don't seem to be worried about building chips that can decode both AVC and VC-1, along with MPEG-2. But they are worried that the royalty payments will be too high.

So here's the bottom line with respect to advanced video coding. The DBS guys have a plan. At least some IPTV guys seem to have a plan. Broadcasters and CE manufacturers are at an impasse, pointing fingers at one another, and nobody knows how to resolve it. Cable doesn't have a plan. Maybe it doesn't need one right away. But cable better have a couple of plans ready to go if it wants to remain the dominant entertainment medium.

FCC: All Sets Must Have DTV Tuners
From: Craig Birkmaier   craig@pcube.com

It looks like the FCC has killed another market for portable televisions. Yesterday the commission ordered that ALL television "receivers" must include an ATSC tuner by March 1, 2007; existing rules only required receivers 13" and larger to include an ATSC tuner.

I guess this clears the way for cell phone video services and portable media players. U.S. TV Broadcasters can now forget about reaching hand held receivers, except via legacy NTSC devices.

Makes one wonder if the commissioners are going to get desperate and mandate an ATSC tuner in cell phones and other devices that can receive bits from sources other than NTSC broadcasts?

Quite a contrast, on a day that saw the introduction of DVB-H support via Nokia cell phones...

Regards
Craig

http://www.broadcastingcable.com/article/CA6280974.html?display=Breaking+News&referral=SUPP&nid=2228

Distribution and Transmission of TV is Going Backwards
From: Dan Grimes   dan.grimes@unlv.edu

If I had influence on the changing the world of television from a technological perspective, one of the areas I would try to change is the way media, particularly video, is distributed and transmitted to the consumer. The quality of video is going backwards, not forwards. And the root of the problem is compression.

With the large amount of turnover in technology, media production has improved on technical quality tremendously. High Definition production produces wonderful pictures and an evermore lifelike experience. Even when downcoverted to SD, the pictures are an improvement over past productions. Likewise, displays can now be purchased by an average consumer that produce beautiful pictures when fed a pristine media source. However, what is displayed at the consumer does not match what is produced at the studio or live truck. This is true for the CATV, DBS, and OTA consumer.

Here is my take on the situation:

1) The digital transmission schemes are faulty. When comparing an SD picture via analog to an SD via digital, the analog picture is superior. This is true of CATV, DBS, and OTA. The positive elements of digital transmission is more media over the same connection and better quality to fringe/rural areas, but not better quality to the majority of the customers. (HD digital transmissions are better in some aspects, but I have problems with HD digital transmissions also, as stated in the next point).

2) The distribution from the network to the local distributor is overly compressed. When comparing a local generated video to the network feed, the local picture is far superior to the network feed. It used to be the other way around. And the picture we used to get for live sports over analog was better than the digital ones we get today. The ball (football, baseball, golf ball) actually looked like a ball in analog rather than a square blob in digital. Grass actually looked like grass rather than a bunch stubble on an unshaven face.

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One would think HD would improve these, and it does for close up static shots. It is in the wide shots and in the action that we need the most detail, not when we are waiting for the action. It is in these shots that the digital HD picture falls apart.

3) Compressing motion is the problem. Static shots look okay, but as soon as a picture has high motion, panning, fades, etc., it falls apart. The compression and decoding needs be able to handle these areas because this is where most of the exciting information is.

4) Progressive scan should be the only production format. 1080i video looks better than 720p video at the production level, but after the distribution and transmission, 720p looks far better than 1080i on the consumer display. We have got to give up old ways of doing things and embrace the right way of doing things. We need 1080p production, period.

Now my point is this: let's stop forcing a faulty progression and actually progress, rather than digress. We need to be focusing on fixing distribution and transmission so that this digital conversion actually results in better pictures for all. It is a waste of all our efforts and resources to transition to digital if we don't get a better benefit from it.

I am sure I am preaching to choir, but I had to vent my frustration to someone! I just wish I had some clout to actually influence the right people to make it change.

Dan Grimes

Almost a Darwin award!
From: Jack L. Davis (KTXL)   Jldavis@tribune.com

 We had an incident recently where a BASE jumper climbed up one of the 2000 foot towers in our local antenna farm and jumped. Unfortunately for him he hit the 5th guy wire and slid down onto one of the sand dampers at about 200 feet. It took fire rescue from 7:15 PM until 12:10 AM to climb up the guy wire and lower him to the ground. In Sacramento County this is considered a misdemeanor and is only punishable by a $1,000 fine and or 6 months in the county jail. I have met with the other Chief Engineers from stations that own tall towers in the area and we are all going to contact the District Attorneys office and ask for the maximum sentence to try and discourage this activity. We have had base jumpers in the past and not much has happened to them when they are arrested. We have also contacted the Fire Department and they have agreed to go after the guy for expenses incurred during the rescue. Considering there were 5 fire agencies, the county sheriff and the CHP plus 3 helicopters and life flight this could be a bigger penalty then the judicial route.

I learned a few things out there that we as a group should be aware of:

1)   Secure the tower.
2)   Trip the breakers or pull the fuses on the elevator when not in use.

3)		Post signs prohibiting trespassing (This is very important from a liability standpoint, if you have no sign the courts my hold you liable for injury)
4)	Report all incidents to the local law enforcement agency

If you are interested here is a link to a news story about the incident:
http://cbs13.com/topstories/local_story_300235941.html

Jack Davis
K6YC

Beware Of The Top 5 Interview Mistakes
By Deborah Walker CCMC

We've all heard stories of job candidates who looked great on paper but who were absolute disasters in person. With fewer interview opportunities available in our competitive job market, it's essential to make the best possible first impression. Learn from the mistakes of others and avoid these top five worst interview blunders:

1. Not preparing for the tough interview questions.
Like every job seeker, you probably have your own set of tough interview questions you hope will never be asked. The best strategy is to prepare ahead of time with answers to ALL of these questions. A career coach can be a great resource for helping you work out suitable answers with a positive spin on negative or challenging career situations.

2. Failure to match communication styles.
Making a great first impression is easier to do when you communicate effectively with your interviewer. The best way to do this is by mirroring his or her communication style. Allowing your interviewer to set the tone of the conversation will put him or her at ease and makes the conversation flow more naturally.

For instance:
- If the interviewer seems all business, don't attempt to loosen him or her up with a joke or story. Be succinct and businesslike.
- If the interviewer is personable, try discussing his or her interests. Often personal items on display in the office can be a clue.
- If asked a direct question, answer directly. Then follow up by asking if more information is needed.

3. Talking too much.
In my recruiting days, I abhorred over-talkative candidates, and so did most of my client employers who interviewed these candidates. Over-talking takes several forms:

- Taking too long to answer direct questions. The impression: This candidate just can't get to the point.

- Nervous talkers. The impression: This candidate is covering up something or is outright lying.

To avoid either of these forms of over-talking, practice answering questions in a direct manner. Using role-playing in preparing for your interview will help you avoid excessive, nervous talking.

4. Saying negative things about your current or past employers or managers.
Even if your last boss was Attila the Hun, avoid stating your ill feelings about the person or work situation. No matter how reasonable your complaints, your negative comments will be viewed as disrespect towards your boss. When faced with the challenge of talking about former employers, make sure you are prepared with a positive spin on your experiences.

5. Giving away too much salary and earnings information.
Candidates often weaken their future earning potential by speaking too freely about their current income. No matter the official salary range of the position you are interviewing for, your current earnings have an enormous effect on the size of the offer. Investing in a career coach to help you answer salary questions can add thousands of dollars to your new job offer.

You already know that it takes a strong resume that sets you apart as a candidate of choice to be invited for an interview. The next step is to hone your interviewing skills to actually win job offers. Polishing your interviewing skills can mean the difference between getting the job and being a runner-up.

Read more job-search tips and resume samples at http://www.AlphaAdvantage.com .

Deborah Walker CCMC
Career Coach & Resume Writer
888-828-0814

1080i vs. 720P
From: Craig Birkmaier   craig@pcube.com

We recently had a surprise party for my Father-in--Law, who was celebrating his 80th birthday. The party took place while Florida was playing Kentucky - the game was in HD on CBS.

The room was filled with Florida fans, and I was forced to sit in a chair about three feet from the 50" screen, to the side. At normal viewing distances the pictures looked very good. I think CBS has improved their production processes, and their HD sports no longer look like a compromise between the SD and HD audience. But at three feet, i was amazed at how bad the pictures looked.

Since my display is 720P, I expected so artifacts from the inter-format conversion from the 1080i source. But I was amazed at how pronounced the interlace artifacts were at this distance. The small area twitter was quite pronounced, and I would often see tearing and hash in graphics. But this was not as bad as the compression artifacts.

There were three major types of video that fell apart into visible blocking artifacts:

1. Anything with a dissolve in and out of replays with DVE zoom effects would fall apart. And any other dissolve would fall apart.

2. Any close-ups with players moving through the field of view would fall apart. This was especially noticeable on tight close-ups, even if slightly out of focus.

3. Many graphics would fall apart, especially when they were being flown in and out.

What were most annoying were the huge differences in quality; sometime the pictures would be sharp, and at other times they would just fall apart.

Just now I pulled up a game from ESPN-HD that was recorded on the PVR. The game was the FSU Boston College game of two weeks ago. An interesting side story with this one. The game was supposed to be in HD, but "due to technical difficulties" the first half was presented in 4:3. What was interesting is that it looked like 4:3 HDTV. They managed to get things working during half-time and the second half was in 16:9 at 720P - the images were not sharper, they just filled the screen.

So I sat in the same chair at the same distance and watched some of the game in 720P. The difference was remarkable. First, there were no interlace artifacts. Second, the pictures rarely if ever showed blocking artifacts. What did happen was the SNR would spike up during more difficult scenes - the picture would become a bit noisy, but did not break up. All of the problems I had seen with the CBS 1080i feed were MUCH less pronounced with the 720P feed.

This is the first time I have had the luxury to compare formats on my HD display, thanks to the PVR. It was quite revealing. Now if our local ABC affiliate would get their DTV station on the air...

Regards
Craig

Cable's digital drive irks basic customers

From: Monty Solomon   monty@roscom.com
By Deborah Yao, AP Business Writer

LaRonika Thomas got upset when Comcast moved the Sci-Fi channel to its digital service this summer, ensuring she couldn't continue to watch her favorite show, "Firefly," without paying $20 more a month.

The Chicago resident received The Golf Channel instead on her basic, analog cable service.

"I don't watch golf. I would rather have static on than that channel," said the theater director.

"It's an awfully big cost," said Thomas. "I haven't canceled my service yet, but I may."

Across the country, cable operators have been moving popular channels from analog to digital service, which offers customers better picture and sound but also can handle much larger volume, allowing cable operators to use their networks for more lucrative options such as video on demand and Internet and telephone services.

Cable operators such as Comcast, Time Warner Cable, Cox Communications and Cablevision are tight-lipped about the changes, which affect many of the nation's cable subscribers. Markets seeing the change include cities in Pennsylvania, Connecticut, Illinois, Michigan, Massachusetts, California, Louisiana, Nevada, Colorado, and Texas.

"They're trying to reclaim some of the capacity, mostly for HD" or high-definition TV, said Bruce Leichtman, president of the Leichtman Research Group, a research and consulting firm in Durham, N.H.

Digital services let cable operators better compete with satellite TV and soon, phone companies, said Jimmy Schaeffler, an analyst with The Carmel Group, a market research firm in Carmel-by-the-Sea, Calif.

Another reason why digital is alluring to cable: "It's hugely more profitable," Schaeffler said.

Fees for advanced services can inflate a basic subscriber's bill by 30 percent to 40 percent or more.

http://www.boston.com/business/technology/articles/2005/09/25/cables_digital_drive_irks_basic_customers/

Digital Cinema - Is It Now Ready for Prime Time?

While Digital Cinema rollouts in theaters have been fairly steady over the last few years, they have been slow. It now appears the stars are finally beginning to move the industry forward at a much faster pace. Digital Cinema Initiatives (DCI) have defined the movie specifications, both in 2K x 4K as well as 1K x 2K, standards are being set, 2K x 4K cameras are available, content is now coming, financing is available, and leadership appears to have arrived. While the transition will still take some time, an acceleration of the transition now seems more realistic. Stereographic is in its infancy and might be the wave of the future for theaters. But, with attendance down this summer at theaters, storm clouds still remain on the horizon.

Digital Cinema News

Technicolor Digital Cinema recently announced its long-awaited deployment plan for digital cinema, for which four studios are on board and three more are in final negotiations.

Under separate, long-term agreements, DreamWorks, Sony Pictures, Universal Studios and Warner Bros. Entertainment have signed on to distribute content digitally and to pay a virtual print fee for each screen equipped with the DCI-compliant digital cinema system.

In addition, 20th Century Fox, New Line Cinema and the Weinstein Co. are in final negotiations to back the venture, which intends to deploy up to 5,000 DCI-compliant screens during the next three to four years. Over 10 years, Technicolor plans to take the system to a total of 15,000 screens.

Sources said the Walt Disney Co. also is in negotiations with Technicolor but is still working through the finer financial points of the deal. Paramount Pictures is the only major studio not currently involved in Technicolor's rollout effort. Paramount declined comment at press time.

In addition to this, Warner Bros. Entertainment and its Japanese subsidiary have partnered with two Japanese companies to collaborate on the first-ever field trial of 4K digital cinema distribution and exhibition.

The 4K projection and delivery test, which will take place over the next year, represents the first tryout of the high-resolution system in a commercial theater. To date, d-cinema

tests in North America and abroad have been conducted with projectors featuring the lesser HD or 2K resolution.

The field test will began in three Japanese theaters Oct. 22 with the release of "Tim Burton's Corpse Bride." It is being conducted by Warner Bros. Entertainment, Warner Entertainment Japan, Nippon Telegraph and Telephone, NTT West and Toho Co. The announcement was made at a news conference in Tokyo, where Warners debuted the full 4K release of "Corpse Bride" in addition to some demonstration footage from "Batman Begins."

The test also will include the exhibition of high-profile movies like "Harry Potter and the Goblet of Fire." The movies to be shown will be branded with the marketing moniker "4K Pure Cinema." The test will implement the recently completed DCI specification for digital projection and exhibition.

According to the New York Times: Unhappy with the pace at which consumer electronics firms and IT researchers are developing tools to protect digital content, the six major movie studios will launch a research lab to address their concerns. Called Motion Picture Laboratories, or MovieLabs, it will focus on technologies to protect content, with the expectation that such research can also lead to new ways to deliver digital content, ultimately expanding consumer access rather than limiting it, according to James Gianopulos, cochairman of 20th Century Fox. Among the lab's subject areas will be tools to prevent camcorders from working in theaters, technology to monitor campus and corporate networks for copyrighted material and to block it, and methods to prevent unauthorized access to digital content that do not infringe on legitimate uses. MovieLabs is modeled largely on CableLabs, which was established in 1988 to address issues confronting the cable TV industry. Efforts at CableLabs are credited with encouraging the development and adoption of various technologies including fiber optics, cable modems, and digital video.

http://www.nytimes.com/2005/09/19/business/19film.html

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Parting Shots
By Larry Bloomfield

Especially at this time of the year, I've been tasked with coming up with some sagacious observations on the past and, using our broken crystal ball, come up with some semblance of believability in predicting what's in store for the broadcast industry in the future. All I can do is look at some of the things we've predicted in the past and look at some of the stories we've been reviewing recently and try to draw some correlation between them. I think you'll be pleasantly surprised.

The one thing we can be sure of in life is change; change is inevitable in every aspect of our lives. So let's start with some recollections from the past. First, remember not too long ago when we scoffed at "post stamp" size pictures offered in those Quick Time videos on our computers? Promises of improved technology told us they'd get better and larger.

Secondly, it wasn't too many years ago when we spoke of how the viewing habits of the American public was changing and they were evolving from those days when the "family" gathered around the living room TV, as a group, to watch their favorite programs as delivered over ABC, CBS and NBC. If they were to be watching a movie (usually at least a half decade old), it would be on one of the local independents. This evaluation has brought us to the turn of the century when the viewing habits were such that nearly everyone in the house had their own TV set, in their own room and if there was a central viewing room, it had evolved into a home theatre.

In one or more of our editions we have reported that viewers want to see their programs when they want to see them and not necessarily when the networks, or even local stations, say they must be viewed. To help satisfy this appetite, we've seen the development over the years of NVOD – Near Video On Demand on satellite services to pure VOD – Video On Demand on cable. Digital has made this and other services possible. This NVOD and VOD were available for movies, but what about regular network type shows? We predicted that the networks, once digital, would offer their programs to the public in one of several delivery formats: Free with commercials after a given date and time for a period of time and "Fee based," without commercials, again after a given date and time for a period of time. Keep in mind that the internet has made "on demand" content the baseline going forward.

How off were we? Let's look at some of the headlines we seen over just the past couple of months and one or two lines from those stories. They tell most of the story.

CBS, NBC make VOD play: A pair of separate deals have been announced recently between CBS and Comcast as well as NBC Universal and DirecTV that will soon allow viewers to pay to watch current primetime broadcast hits just hours after they air for free. CBS and NBC will be charging 99 cents per episode to access such series as "CSI: Crime

Scene Investigation" and the "Law & Order spin offs." The story continues with a most obvious observation: "Putting a twist on the traditional TV business model that will have untold implications for industry sectors ranging from affiliates to advertisers for years to come." An interesting piece from the U.K., predicts that selling network shows directly to consumers is going to kill prime time.

ABC (the Walt Disney Co.) is also in the thick of it. Last month they made a deal with Apple Computers and made series programming like "Lost" and "Desperate Housewives" available on video iPods.

These are probably just the first of many changes that will put programming on as many different screens as possible, including mobile phones.

As we also have predicted here in the Tech-Notes, the next shoe to drop will be related to content restrictions. Look for the versions that the networks sell directly to consumers to have "more" content than the versions that are broadcast. The kind of thing that may or may not be worth touting for this new type of delivery will be such things such as language that is not permitted on OTA broadcasts and probably more explicit sex and violence in the paid versions.

The only hope for broadcasters is to go with the changes. Perhaps it's time to consider changing "the business models." One industry reporter says: Television's half-century old business model, has truly been out of date and obsolete for the latter half of that time frame from the viewers' perspective. It would be prudent to deliver their content via these various DTV delivery services. It will be necessary to think in terms of "getting a piece of the action" for delivering bits to a storage device for later viewing instead of competing for the most viewers in a given time slot.

Optimistically, the hope for the media industry would be that rather than thinking in terms of eroding viewer numbers when the show first airs, the new arrangement would, in fact, increase total viewers by making it easy for those who have missed an episode to "buy it" for a small sum of money. Just as the DVD did not destroy movie theatres, I believe this will not destroy prime-time television.

Associated Press writer David Bauder reported: "Desperate Housewives" on your iPod. Jay Leno's monologue on your cell phone. Brian Williams delivering the night's news on your computer. And "CSI: Crime Scene Investigation" available whenever you want to watch it not just Thursday night." Bauder continued, observing: "The autumn of 2005 will doubtless be remembered as the time when all assumptions about the rules of television were thrown into the air and scattered, with no certainty about what happens when they land."

One media analysts reported that cable's biggest competitive threat for video delivery is not the short-term competition from telcos but the long-term threat of internet-based content delivery. Pointing to IP telephony, which cable has a piece of as well, and Apple's "revolutionizing" of music delivery via iPod/iTunes, the report says the Internet

will become the primary deliverer of video content, with companies like Google, Yahoo and AOL becoming the next big aggregators and distributors of content.

I've limited the discussion to the internet, cable, satellite and OTA delivery, but what about other ways of getting program material to potential viewers? How about watching TV on your mobile phone? Well the wireless industry is betting billions that you'll want to. Yes, downloading or streaming on demand video clips to your cell phone. Efforts are afoot to broadcast TV programming nationwide to a new generation of mobile phones that can tune in, just like an at-home TV.

The problem is that cell phones are designed for two-way access and despite all the bucks spent on upgrades; they are insufficient for the job (at this time). To broadcast programming on such networks would require that each show be sent to each subscriber separately – an impossibly time-consuming and expensive proposition. It is, however, possible at this time to dial into such services as weather and/or news programming and programs patterned after the NVOD concept.

But the cell phone folks are not asleep at the wheel. As we write, several initiatives are under way to achieve a reasonable VOD delivery system; a separate wireless network built specifically for one-way multimedia broadcasting.

With all this talk of using small screen display devices, iPod, Cell phones, laptop computers, etc., one can not help but wonder how the programs of the future be shot, especially when the industry is pushing HDTV on large screens? Remember, HDTV should not be viewed on a screen smaller than 30 in diagonally if the viewer expects to get the full benefit of HDTV. One concept we've always pushed here in the Tech-Notes is that it is better to record all the pixels/bits you can. You can always throw away those you don't need in a display device, but you can't put something there that never was.

To help illustrate where things might also be going, a recent article in the Boston Globe touches on some interesting items we've not mentioned here. Here is a brief view of that article, in part: "Blogging is another way the industry might go. For example, you may be invited to visit blogs such as www.MySpace.com, or pay for mobile phone episodes (known as mobisodes), or buy DVD packages and video games containing new and additional plot information. Your once-simple affair with your TV "story" could have as much to do with your PC, your cellphone, and your DVD player as it does with your TV set.

"In other words, your relationship is starting to get complicated. Network TV is becoming only the first step in what is known as a "TV series." It's becoming an entry point to show-o-spheres, where you not only watch "24" on Mondays on Fox but you purchase a "24" DVD set that contains clues to the season's big mysteries.

"You not only watch "Lost" on Wednesdays on ABC but you check into the weekly podcast to hear, say, Adewale Akinnuoye-AGBaje talk about playing Eko. You don't just

laugh at "The Office" on Tuesdays; you laugh at Dwight's blog entries on the NBC site and on MySpace.

Recently, "Invasion" even included a plot in which paranoid Dave was abducted because of his blog, which actually exists on ABC's site. And Neil Patrick Harris's Barney on "How I Met Your Mother" frequently refers to his blog, which is on the CBS site.

"Extras such as commentary and deleted scenes have been with us for years on DVDs, and of course T-shirts and knickknacks are Marketing 101. But now timely information and integral plot and character developments are also becoming available outside of the televised mothership. Recently, for example, Fox announced plans to create new episodes of its animated hit "Family Guy" exclusively for the Web next year, for a fee."

To see the entire article, visit:
http://www.boston.com/news/globe/living/articles/2005/12/18/the_plot_thickens/

In spite of all this, it doesn't appear that GMs are the least concerned. If this be the case, why are they so reluctant to let folks view distant stations when they can not get reception within their DMA?

I was going to conclude with a few comments on a la carte, but we're a little long and will save it for our next edition.

So what do you think about all of this?

I just want to leave you with this: Please promise us here at Tech-Notes that you'll have a healthy, very prosperous and

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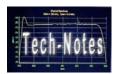
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