



# Page of Enlitenment

April 2003

The Enliten Management Group  
29 N. Park Square, Suite 201  
Marietta, GA 30060  
(770) 590-1590 (v)  
(770) 590-1553 (f)  
[www.enliten.net](http://www.enliten.net)

Industry News and Information for users of satellite-based business television and interactive distance learning networks.

## Featuring:

### **Converged Technologies and Approaches Deliver for AT&T Business Learning Services**

Gary Thompson provides an overview about AT&T IVBN

### **When the Well Runs Dry**

Excerpts from Richard Dalbello's Article in the April 7, 2003 Issue of SpaceNews

### **Learning & Training Week 2003**

Enliten's Ed Behan presents IP via Satellite

Dr. Jolly Holden chairs the Federal Government Distance Learning Primer

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Get an overview of the Industry. Know who is doing what, with what and for whom. Enliten can bring you up-to-date quickly, saving you a great deal of time and effort. See below for more details.

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### **Learning & Training Week Federal Government Distance Learning Primer**

Monday April 28, 2003  
8:30AM – 5:00 PM



The Federal Government Distance Learning Association (FGDLA) will be hosting a one-day primer at Learning and Training Week that will be free to government employees. The purpose of the Distance Learning Primer is to provide the participants a basic understanding of the distance learning technologies used in the Federal Government, a background

### **Converged Technologies and Approaches Deliver for AT&T Business Learning Services**

Gary Thompson provides an overview about how AT&T IVBN makes it happen.

In the last issue of POE, Don Gentry, AT&T Distance Learning Specialist, told us how the Interactive Video Business Network (IVBN) of the AT&T Business Learning Services division provides training to the AT&T technical workforce.

In this issue, Gary Thompson, technical staff member, talks about the IVBN video production and technical capabilities. In addition, Gary provides an overview of how IVBN uses a selection of technologies to deliver the AT&T ABLS training, including the IVBN satellite network and the Internet.

**Here's Gary's story:**

### **When the Well Runs Dry**

Richard Dalbello

Excerpts from SpaceNews article  
(April 7, 2003)

*The December 2002 issue of POE, included a piece titled: What Would Modern Life be Like Without Communication Satellites? It pointed out that information, news, entertainment and sports programming may not be as readily available as it is today. "...coverage of events from Afghanistan, Iraq and other places around the world would likely be far less timely and maybe only available by tape delay." In light of the current situation in Iraq, we thought it would be appropriate to provide the following excerpts from an article by Richard Dalbello, in the April 7, 2003 issue of SpaceNews.*

Arthur C. Clarke once observed that "any sufficiently advanced technology is indistinguishable from magic." In recent days, the commercial satellite

on media selection for distance learning, building a business case for distance learning, synchronous and asynchronous web-based technologies, and instructional strategies and interactive techniques used to support distance learning.

**Presenters and topics:**

Chair: **Dr. Jolly Holden**, Chair, Conference & Awards Committee, FGDLA

- A primer and overview of technologies supporting distance learning. CDR Ben Stewart (USCG), President, FGDLA
- Media selection criteria for distance learning. Dr. Phil Westfall, Past-President, FGDLA, and Director, Air Technology Network, Air Force Institute for Advanced Distributed Learning (AFIADL)
- Building a business case for distance learning in the Federal Government. David Navari, Treasurer and Chair, Membership Committee, FGDLA, and VP, Vertex Solutions
- Instructional strategies and interactive techniques for distance learning. Karen Mantyla, Secretary, FGDLA, and President, Quiet Power, Inc.
- Web-based learning technologies. Rich Arnold, Past-President, FGDLA, and Director, Training Solutions, UNITECH
- Effective Collaboration Techniques. John Rogers, Past-President, FGDLA, and Chief Engineer, Air Technology Network, AFIAD

**Advanced Distributed Learning by Satellite**

Tuesday April 29, 2003  
8:15 – 10:00 AM

The session will focus on satellite delivery of distance learning/Advanced Distributed Learning as part of a blended media solution for Government. Cost effectiveness, quality of instruction, and the distance learning classroom environment will be discussed. The success of the Government Education & Training Network (GETN), used by a variety of agencies will be presented, and future applications of satellite technology will be discussed.

**Interactive Video Business Network (IVBN)**

It's been ten years since we went on-line with the Interactive Video Business Network (IVBN) satellite network to support the training requirements of the AT&T NOET network technicians. In 1993, we conducted a pilot training program with the Vistacast Video Services group of AT&T Tridom. The pilot was considered a resounding success. It fueled the growth of IVBN to over 300 downlink locations, by adding the video receive capabilities as an overlay to the AT&T FASTAR two-way VSAT network.

Traditionally, IVBN supported AT&T technicians by bringing them into our facilities in Kansas City for in-classroom training or sending our trainers on the road to reach our technicians on a regional basis. Initially, the classroom continued as the primary means of providing training. However, with the IVBN network, we were able to provide refresher classes on a regular, more affordable basis.

In the early days of the network, we broadcast a few hundred hours per year of training programs. Today, as a part of the AT&T Business Learning Services division, we maintain a full-time, 24x7 satellite broadcast channel with nearly 1,500 hours per year of original programming. In total, IVBN reaches about 7,500 students each year.



Gary at the controls

In addition to training the technicians, the network has proven itself to be invaluable for contingency management training. On occasion, AT&T needs to inform and train its managers to handle unique and/or crisis situations. IVBN provides the ability to deliver the training in a timely, consistent manner.

The satellite network covers the AT&T offices throughout the US. However, we're able to extend our reach to facilities

community has had ample opportunity to demonstrate its technical wizardry and virtuosity. And, like most good magicians, much of what we do has remained invisible.

With over 250,000 coalition troops in the Persian Gulf region, commercial communication satellites are providing the warfighters with essential tools and services. Commercial communications satellites provide soldiers and airmen with the ability to communicate with their families (via e-mail or satellite phone) half a world away. Logistical communications, essential to operational success, has largely been routed over commercial satellite circuits. Unmanned Aerial Vehicles have been flown remotely by pilots halfway around the world using commercial satellites. Commercial remote sensing satellites now are providing the military with high-resolution images of the battlefield to supplement the information collected by their own satellites.



Detroit News

Such imagery has also been made available globally through the major media outlets. Crystal clear images from space have allowed viewer around the globe to virtually fly over Iraq and through the troubled streets of Baghdad. Intrepid reporters, hundreds of miles from the nearest wired or wireless phone system have been able to provide live reporting and imagery.

Satellite dishes mounted on the roofs of humvees and compact satellite phones, slightly larger than cellular telephones, have enabled a new breed of backpack journalists who provide viewers throughout the world second-by-second live accounts from the battlefield. Their voices and stunning imagery have provided the substance

## Presenters

### Dr. Philip Westfall

Director, Air Technology Network  
Air Force Institute for Advanced  
Distributed Learning

### Dr. Jolly Holden

Enliten Management Group, Inc.

## IP via Satellite: Next Generation Technology for Government e- Learning & Multimedia Users

Wednesday April 30, 2003  
3:00 – 3:45 PM

Businesses and government organizations are turning satellite-based, IP multicasting ("Next Generation") solutions to deliver their video and multimedia applications for e-learning and visual communication, whether it's video streaming or on-demand solutions.

It's no longer simply a matter of broadcasting to television monitors in classrooms, executive offices, or recording to VCRs—satellite IP can reach the workers and students at their desktops. Satellite IP multicasting is a cost efficient and effective solution for government organizations to meet the challenges confronting their organization's visual communication and e-learning needs.

This session will provide a basic tutorial on IP multicasting over satellite, including an overview of IP and examples of users who have installed and/or upgraded to an IP network.

## Presenter

### Ed Behan

Chief Technical Officer  
Enliten Management Group, Inc.

## Tradeshows & Conferences

### Learning & Training Week

Washington Convention Center  
Washington, D.C.

April 28-May 1, 2003

[www.learningandtrainingweek.com](http://www.learningandtrainingweek.com)

throughout the world by using the Internet. We train employees in such places as the Netherlands, the U.K. and St. Thomas and St. Croix Islands by streaming programs live, at lower bandwidth rates, and/or making them available on a delayed, video-on-demand basis.

## Production Studios and Technical Capabilities

Much of the success of our network is based on how we designed our studio and video production capabilities. The most important aspect is that we have automated as much as possible, to keep manpower to a minimum. As a matter of fact, we typically produce live programs where I am the one-person production crew. I work closely with Marquida Raine, our network coordinator, who handles all of the registration, coordination and help desk activities. The third, and last, person of our team is the Distance Learning Specialist (such as Don Gentry who was featured in the previous issue of the newsletter).



AT&T IVBN master control

Our studio has racks and racks of telecom equipment, similar to what's in the AT&T switching centers. The studio maintains a green backdrop to chroma key the training specialist in front of the equipment, which is featured in each respective broadcast. We use robotic cameras to capture the training specialist and equipment.

The control room is located across the hall from the studio. It features a Sony digital switcher and the ability to record and playback in multiple tape formats. In addition, we use the One Touch System for student interaction.

## Automated Playback

We do our best to get the most out of the IVBN network, by replaying programs on a

for a great national debate – a debate that is the heart and soul of our democratic process.



Las Vegas Sun

Commercial satellites are also a vital asset in the battle to ensure homeland security. They provide state and local governments and individual users with high-resolution images for natural resource monitoring, urban planning, insurance and risk assessments, mapping and weather reports. Satellites are essential to millions of users throughout the globe for search and rescue, air traffic control, and tracking of deadly shipments across land air and sea.



CNN's Jason Bellini

They provide first responders and disaster relief and recovery personnel the information they need to ensure timely and accurate action following a crisis or natural disaster. As the world witnessed on Sept. 11, when terrorist acts reduced the terrestrial communication infrastructure to rubble, communications satellites quickly took charge to inform the world and to coordinate the recovery.

U.S. satellite manufacturers and operators take great pride in the role they have played and continue to play in protecting the homeland, informing the public, and providing essential support to U.S. and coalition forces in the field.

## CMMA Conference

(For members & media managers who qualify for membership)  
Contact Enliten for information.  
Washington, DC  
The Hilton McLean Tysons Corner  
May 17-20, 2003  
[www.cmma.net](http://www.cmma.net)

## Retail Systems 2003/VICS Collaborative Commerce

June 9-12, 2003  
McCormick Place  
Chicago, IL  
[www.retailsystems.com](http://www.retailsystems.com)

## Satellite Internet Forum

June 17-19, 2003  
Renaissance Hotel  
Washington, D.C.  
[www.actconferences.com](http://www.actconferences.com)

## DV EXPO East: 2003

Jacob K. Javitz Center  
New York, NY  
July 7-11, 2003  
[www.dvexpo.com/east](http://www.dvexpo.com/east)

## Contentworld

October 2003  
More Info TBD  
[www.contentworld.com](http://www.contentworld.com)

## Industry Related Publications

### Satellite Publications

Via Satellite  
[www.viasatellite.com](http://www.viasatellite.com)

### Training Publications

e-Learning  
[www.elearningmag.com](http://www.elearningmag.com)

Training  
[www.trainingmag.com](http://www.trainingmag.com)

## Video Production/Systems Publications

AV Multimedia Producer  
[www.avvmpp.com](http://www.avvmpp.com)

Broadcast Engineering  
[www.broadcastengineering.com](http://www.broadcastengineering.com)

Government Video  
[www.governmentvideo.com](http://www.governmentvideo.com)

Millimeter  
[www.millimeter.com](http://www.millimeter.com)

Presentations  
[www.presentations.com](http://www.presentations.com)

regular basis. As with the studio, we rely on automation, using a broadcast quality video server. The server has 400 GB of built-in storage, which houses about sixty to eighty one-hour programs at a time. Each program includes three to four individual segments. The automated playback is ideal for a network that transmits on a 24 x 7 basis. Keep in mind that we provide training for a work force that maintains a 24-hour schedule.

## Registration & Accreditation

The IVBN training can only be effective if we provide the right courses and they reach the target audience. Dennis Downer, IVBN Staff Manager, is responsible for making sure that we provide the right courses and on a timely basis. Dennis works closely with me, the IVBN Distance Learning Specialists, AT&T management, to develop the courses.

Then, we rely on Marquida, to make sure that everything else comes together correctly. As mentioned, we succeed with a rather small, but efficient team. She coordinates with each site to provide course materials to all students who are registered for each program. During the programs, she handles the help-desk, trouble-shooting activities. Once the students have completed a program, Marquida issues the appropriate information to assure they get proper accreditation.

All scheduling and registration activities are done through our automated registration system.

## Satellite Transmission

Training programs are transmitted from the IVBN facilities in Kansas City, MO, to the MicroSpace Communications uplink in Raleigh, NC over the AT&T T45 terrestrial lines. MicroSpace provides uplink services and 3.5 MHz of space segment to IVBN. Programs are replayed and transmitted over the same transmission path, on a pre-scheduled, automated a 24 x 7 basis.



Salt Lake Tribune

*Richard Dalbello is executive director of the Satellite Industry Association.*

## Industry Information & Update

**The Enliten Management Group** tracks the industry suppliers, service providers and users, related to the satellite-based delivery of visual communications for video, multimedia and distance learning applications.

Our goal is to educate and inform you... to do the groundwork and research, so that you can make the right decisions for your organization.

We work hard at keeping up-to-date ourselves, so that ultimately, we can keep you informed and up-to-date... **saving you time and money!**

**Enliten** offers an on-site presentation to companies and organizations: **Overview of the Satellite Industry.** It's a half-day presentation, covering the satellite-based delivery of video, multimedia and e-learning applications: where the industry is; where it's going; the technology manufacturers; service providers; and users of IP technologies and their applications.

Please contact Randy Palubiak to schedule a date and for pricing information.

**The Enliten Management Group** will publish an Industry Report on IP satellite receivers. The report will feature a competitive comparison of the IP receivers, with information relevant to the enterprise user.

Please contact Randy Palubiak for additional information and pricing.

## **Organizations & Associations**

Communications Media Management Association  
[www.cmma.net](http://www.cmma.net)

Government Education and Training Network  
*Distance Learning through Interactive Television*  
[getn.govdl.org](http://getn.govdl.org)

Federal Government Distance Learning Association  
[www.fgdla.org](http://www.fgdla.org)

Society of Satellite Professionals International  
[www.sspi.org](http://www.sspi.org)

Teletraining Institute  
[www.teletrain.com](http://www.teletrain.com)

United States Distance Learning Association  
[www.usdla.org](http://www.usdla.org)



AT&T IVBN viewing location

### **Role of the Internet – Extended Reach, Streaming and On-Demand**

The Internet is an excellent extension and/or alternative to the satellite network. However, it's not likely, nor is it intended, to replace it. As mentioned earlier, the footprint of the IVBN satellite network only covers offices throughout the US. Therefore, to extend our training reach to other locations around the world, we make it available over the Internet. Also, there are situations and circumstance, which prevent students from viewing programs during the scheduled time(s). For instance, when heavy snowstorms prevent employees from reaching their offices, they can access training programs from their homes.

All live satellite broadcasts are also encoded for Unicast and multicast transmissions, for live, real time viewing on television monitors or at the desktop. Also, the programs are made available on a delayed, on-demand basis for those who are unable to view the programs live. All programs are available over the Internet at 28 kbps and 128 kbps. Actually, we feed programs at higher transmission rates when possible. Transmissions to the St. Thomas and St. Croix Islands are at 256 kbps, where the programs are viewed on 27" television monitors.

### **In Summary**

IVBN has the overwhelming challenge to provide a significant amount of training to a large and widely dispersed AT&T technical workforce. To do so successfully, we rely a great deal on technology, including automated systems to create and manage the training programs and both our satellite network and the Internet to deliver them.

## **Enliten Consulting Services**

- Industry Trends & Updates
  - Users
  - Technologies & Systems
  - Suppliers & Providers
- Applications Needs & Assessments
- Cost Models & Analysis
- Benchmark Studies
  - with other users and their "winning" applications
- System and Vendor Assessment
- RFP/RFI Development & Administration
- Project Management

## **How Young Are You? Do you remember?**

1. Soda pop machines that dispensed glass bottles.
2. Wax coke-shaped bottles with colored sugar water inside.
3. Home milk delivery in glass bottles, with cardboard stoppers.
4. Party lines.
5. Newsreels before the movie.
6. P. F. Flyers.
7. Howdy Doody
8. 45-RPM Records.
9. Candy Cigarettes
10. Green Stamps.

## **Feedback**

We encourage your feedback and input in making **Page of Enlitenment** an effective means of providing you with information on industry related trends, solutions and suppliers. Please forward your suggestions or requests to us at [enliten@enliten.net](mailto:enliten@enliten.net) regarding the topics, products, services or companies that you would like us to include.

**For more information** on the topics presented in this communication, please visit the Enliten web site ([www.enliten.net](http://www.enliten.net)) or contact an Enliten representative at 770/590-1590.