Cable AML News

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MMDS SYSTEM UPGRADES STL TO FULL REDUNDANCY

Cable AML has upgraded an existing 8 GHz Studio-to-Transmitter Link (STL) from an unprotected to a fully protected, dual-redundant configuration.

The upgrade involved adding a second transmitter, a second receiver, and independent automated controllers for the transmitter and the receiver.

The STL was originally installed in 1998 for CBC in Barbados to transport 31 analog video channels from the Headend to an MMDS transmitter located

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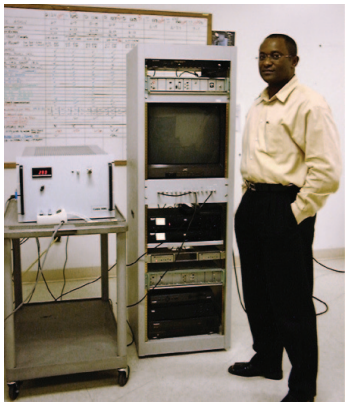
BROADBAND WIRELESS SYSTEM FOR NIGERIA



Mr. Sam Ikoku, President of Proper Communications, Inc. with the BWA-2002 base station equipment.

Cable AML, Inc has delivered a broadband wireless access system to be installed and commissioned in Abuja, Nigeria, in June of 2003. The full-duplex, high-speed data system is the first of several fixed-wireless communication systems to be installed by Proper Communications in key cities around the country.

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New Product:

DIGITAL HEADEND MODULE

Cable AML has introduced the DHM-4001, a Digital Headend Module that allows digital video delivery of one to four video signals (plus their stereo audios) as a single digital carrier. The DHM-4001 digitally encodes, multiplexes and modulates up to four analog videos into a single RF carrier. The DHM-4001 is fully integrated, MPEG-2 and DVB Compliant.

DHM-4001 Digital Headend Module

The output of the DHM can be modulated at either 16 QAM, 64QAM or QPSK. The output frequency can be chosen from several options in the standard IF bands (38 MHz, 45 MHz, 70 MHz or 140 MHz), CATV bands (5 MHz to 860 MHz) or L band (950 MHz to 1525 MHz).

The DHM-4001 is loaded with state-of-the-art features previously available only in high-end units. It is equipped with non-volatile memory capable of high-speed configuration via serial port. The multiplexer is software-

Please see DMH-4001 on page 4

Inside...

CABLE AML INSTALLS MORE MMDS SYSTEMS IN MEXICO

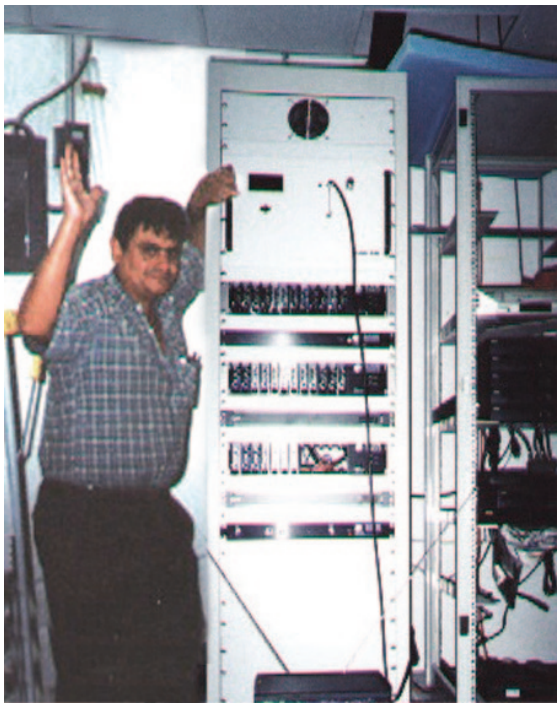
Cable AML continues to install new broadband MMDS systems in Mexico at an increasing pace. The systems, which typically include integrated headends, are designed to provide competitive multichannel pay TV service to medium-size towns with limited or no multichannel TV service other than satellite.

Broadband technology pioneered by Cable AML makes it possible to install MMDS systems at a fraction of the cost of of previously available channelized systems.

Both of the systems shown in the photographs use a 250-watt broadband transmitter and an omni-directional antenna to provide 31 channels of analog video.

The system on the right was installed in the city of Las Sabinas (Coahuila, Mexico) and the one on the left was installed in Valparaiso (Zacatecas, Mexico). Cable AML assisted in the installation of the system and provided on-site installer training.

Both systems started operations immediately following the installation and report substantial monthly increases in subscribers. ✦



Above: Mr. Sergio Arriaga following installation of the MMDS Transmitter in Sabinas, Mexico.

Left: Mr. Pedro Chavez of Valparaiso Mexico with MMDS turn-key system installed by Cable AML.

Upcoming Event...

Cable AML looks forward to seeing you this summer!

Wireless Cable Association
WCA 2003 Show, Booth #234
July 8 - 11, 2003
Washington, DC

http://www.wcai.com/event/03general.htm

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The system, which operates in the MMDS frequency band normally used for data and multi-channel video, will be dedicated exclusively to high-speed data communications and VoIP applications. The strong demand for Internet access, coupled with recent advances in IP telephony equipment, have made it financially attractive to offer these services as the primary application of the system. The operator plans include peer-to-peer, local and long distance telephony services at a competitive cost. The promise of VoIP has been one of the main reasons why Cable AML has been delivering IP-centric, DOCSIS-compatible fixed-wireless systems since 1998.

The system uses standard, DOCSIS-compliant CMTS and Cable Modem equipment. The base station transceiver is a single Cable AML Model ITRX02-100C broadband transceiver selected to broadcast multiple data and digital TV carriers over a distance of at least 25 kilometers. ✦

MORE 18 GHz REPEATERS INSTALLED AND COMMISSIONED IN CHINA

Cable AML is supplying additional 18 GHz repeaters to increase the coverage of a system providing multi-channel digital television to subscribers in China. Two high-gain Repeaters have already been commissioned and two additional units are being delivered to the system, which carries 20 QPSK carriers with a capacity for more than 100 programs through a major metropolitan area.

18 GHz Repeater with Input Antenna.

18 GHz Repeater with Sector Output Antenna.

As shown in the photographs, the repeaters feature rugged outdoor housings to withstand the strong winds that are common in the area during the monsoon season. ✦

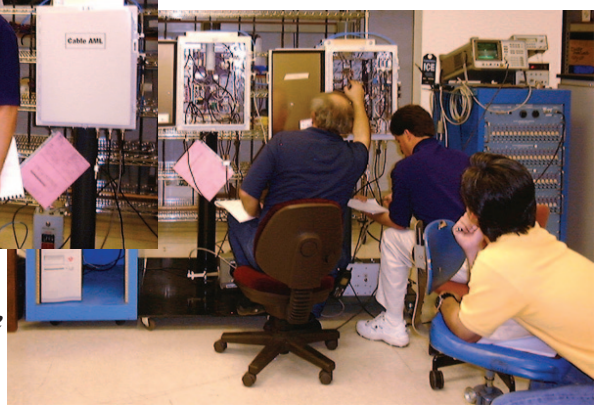
TWO-WAY AML SYSTEM FOR ATT-COMCAST

Another state-of-the-art, two-way AML system has been delivered to ATT-COMCAST for installation in an HFC cable system in California.

The system is designed to provide two-way cable modem service to communities served by microwave.

With the new system, it is possible to increase the downstream digital channel carriage capacity of an existing AML link by expanding the downstream into the 550 to 750 MHz range and the upstream band in the 5 to 42 MHz range.

This makes it possible to simultaneously increase channel capacity and provide two-way DOCSIS cable modem service to three different receiver sites from a central hub. ✦



Engineers from ATT-Comcast following training course on two-way AML System.

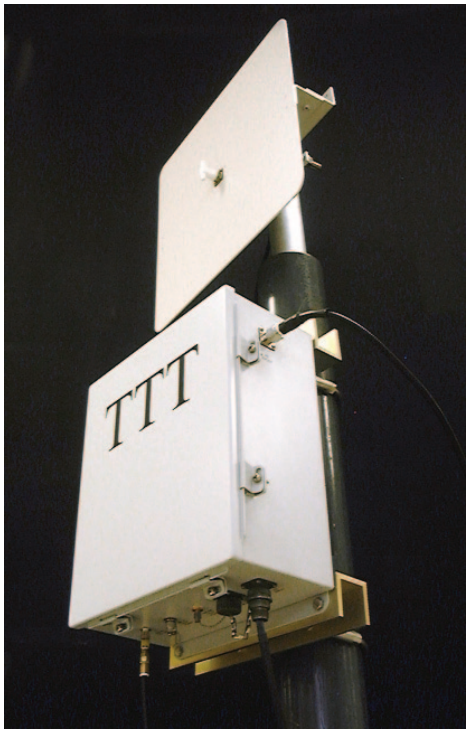
NON-LINE-OF-SIGHT (NLOS) WIRELESS SYSTEM DELIVERED

Cable AML has developed an integrated Transceiver designed to transmit digital video and two-way data over relatively short distances in a NLOS (non-line-of-sight).

Operation under NLOS conditions is of interest in dense urban environments where small cells can deliver service in a cost-competitive way due to the high density of potential subscribers.

The system operates in the 2.5 GHz band and is capable of accepting QPSK, 64-QAM and any of the OFDM modulation formats in use for either digital TV of high-speed data systems.

The transceiver is designed to work with a variety of antennas depending on the application. ✦



2.5 GHz Non-Line-Of-Sight Transceiver for digital video and data application.

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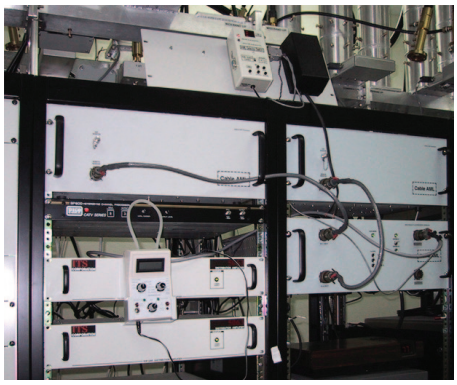
approximately 11 kilometers away. CBC decided to implement the STL with full hot-standby redundancy as part of the MMDS system upgrade from analog to digital. Since all Cable AML equipment is digital ready, the existing STL required no modification to interface with the new digital Headend equipment. ✦



Dual Redundant 8 GHz Receivers for digital AML Link.

DMH-4001 from page 1

controlled using a Field Programmable Gate Array and can multiplex up to four DVB transport streams. These streams can be sourced from up to Four MPEG2 Encoders, four other video sources. Alternatively, the multiplexer can accept two external Transport Stream Sources. ✦

What Our Customers Are Saying...

In the city of Salta, in northern Argentina, a Cable AML model ITX-015 transmitter has been working without interruption since it was installed in 1994. The transmitter was originally installed as a model ITX-011 and subsequently upgraded in the field to an ITX-015 configuration.

The cable system, presently owned by Cablevisión, upgraded the entire system to HFC status but the ITX-015 transmitter has continued to operate to this day in a hot stand-by mode as a back up to the fiber trunks.

Martin Rodríguez, the System Engineer who made the initial installation of the transmitter, said: "The Cable AML transmitter has been working without any problems since 1994, and it is expected it will continue in service for many more years". ✦

AML Transmitter in Salta, Argentina.

For More Information On Any Cable AML Product or Application, Call or e-Mail:

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