Cable AML News

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"TRIPLE PLAY" WIRELESS SYSTEM DEBUTS IN JAPAN

A "triple play", point-to-multipoint wireless system capable of providing simultaneously digital TV, high-speed data and voice has been delivered and installed in Izuka City, Fukuoka Prefecture, Japan.

The state-of-the-art system is being operated by V-Networks to provide triple play services to remote stations at distances of up to 5 Kms from the Main Base station.

"Triple Play" Base Station Transceiver and Sector Antenna.

According to an article in Denpa Shinbun (Electric wave Newspaper) on May 14th 2007, the system installation and operation is the result of a collaboration between NetOne Systems, Kyushu Institute of Technology, Kinki University, Nitsuki, HTK and V-

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ALL DIGITAL WIRELESS HFC EXTENSION SPANS 35 MILES

A dual-band, two-way microwave system was recently installed by MSO Cable One in Morenci, Arizona, providing an all-digital wireless HFC extension capable of delivering the same Digital TV and DOCSIS cable modem services offered in the nearby Safford, Arizona system.

13 and 18 Ghz Antennas at Guthrie Peak repeater site

The wireless HFC system was selected over the two other possible alternatives: a fiber link from the Safford headend or a stand-alone headend. The main reason is that it is much more cost effective, which is a significant consideration when providing service for areas with under one thousand subscribers.

The Morenci system had previously received off-air broadcast signals from Safford via a two-hop FM microwave system. The links are 23.3 and 11.7 miles long respectively, for a total of 35 line-of-sight miles.

Cable One decided to implement an all-digital service. The microwave system operates with multiple carriers, all with 256-QAM modulation. The initial 13 GHz downstream transmission rate is 814 Mbps, but the system has capacity

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Inside...

MEXICO ENTERS DIGITAL MMDS ERA

Baja Cable has announced the launch of a digital MMDS service in Tecate, Baja California, Mexico. The launch marks what is believed to be the first operational deployment of a digital MMDS system in Mexico.

The service will reach fifty-two thousand households in an area of eight kilometer radius centered in the town of Tecate. The first operational phase starts with transmission of twenty-four TV programs, soon to be expanded to sixty, along with premium packages and pay-per-view. Total system capacity exceeds 120 TV programs. Wireless Internet and telephony services are planned for the near future.

Digital MMDS headend and STL 13GHz Broadband Transmitter

Cerro Jarammillo headend installations showing satellite receive antennas and STL antenna

The system was designed, fabricated, installed and commissioned in less than 45 days. The digital headend is located on a high hill 25 Kms from the MMDS transmitter. The digital headend signals are sent to the MMDS transmitter in Tecate via an AML broadband microwave link.

According to Jaime Bonilla, CEO of Baja cable, "Cable AML

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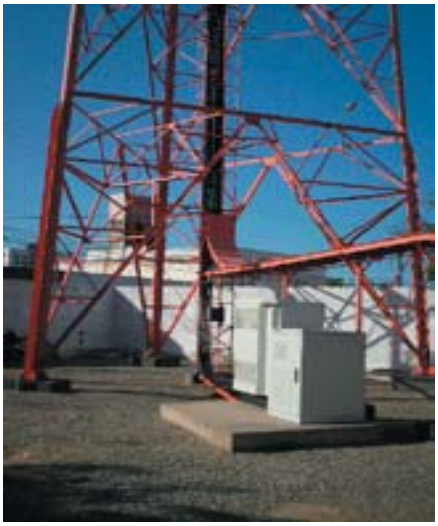
CABLE AML TRANSMITTTER POWERS DIGITAL MMDS SYSTEM IN BRAZIL

ACOM Comunicações, the leading digital MMDS system operator in Brazil, has just installed two new Cable AML 1000 Watt broadband transmitters in São Luis and Volta Redonda respectively, to power the new digital MMDS service in these cities, adding to the four digital systems already operated by the company in Brazil. Two additional transmitters are being installed in September in two new cities.

Alcides Silva of ACOM Communicacoes following the installation of the 1000 Watt MMDS Transmitter

The new systems are designed to provide service in an area of over 20 Km radius, and are located in cities with more than 20,000 TV households.

According to Carlos Barreiros, CEO of ACOM, "the Cable AML transmitter has made it possible to provide optimum coverage with a high quality product. We are very pleased with Cable AML's technology and service and we plan to continue to use their products for the continued expansion of the digital TV service we are planning in Brazil".



Base of transmission tower showing the shelter housing the 1000 Watt MMDS Transmitter

CABLE AML STARTS DEPLOYING WiMAX REPEATERS

Cable AML has initiated deployment of the Model OAR3.5 WiMAX repeater family in a commercial WiMAX network operating in Europe.

Cable AML's Repeater is a two-way radio transceiver system designed to provide coverage of "dark" zones not served by WiMAX base stations. The repeater is a very cost-effective way to bypass direct line-of-sight obstacles between a base station and remote terminals or to extend coverage beyond the Base Station area.

The repeater configuration just deployed has been designed for operation in the FDD mode (Standard 802.16d) and operates in the 3.5 GHz band. It consists of two outdoor transceivers, each connected to its antenna by a short cable run and fed from local DC power.

Typical applications include bypassing large obstacles such as mountains, improving in-building coverage and extending the BS footprint to cover users outside the main BS coverage. ✦

WiMAX Outdoor Repeater

"Triple Play" continued from cover...

Network Systems.

This system will be operated on a trial basis for three types of service:

- Retransmission of DTV (Digital Terrestrial Television), with broadcast signals from RKB/Fukuoka.
- Transmission of independent video content.
- Internet Access and Data Communications Services.

Takashi Eifuku from V-Network Systems adjusts one of the remote subscriber antennas.

The system's base station is at Kyushu Institute of Technology. Five subscriber stations are located throughout the city. Following the operational trials, the system will be operated as a "wireless FTTH" to serve areas where terrestrial digital broadcasting reception is poor and also to provide simultaneously high-speed Broadband Internet access.

"Triple Play" Remote Unit

The system trial was well received by Mayor Saito of Iizuka city, who said that, "This city needs new industry creation. We are very happy that the trial has started in this city. I expect with interest the full deployment of the system."

Following the Izuka City trial, other Pilot installations are being planned in different areas of Japan such as Tohoku and Hokkaido. ✦

MMDS System cont from pg 2...

Digital Headend, STL, and MMDS System Test

has delivered a state of the art system with excellent performance in record time. We are very pleased with the excellent customer support offered to our company during the acquisition, installation and commissioning process".

Jugeniero Oscar Eguia with the Tecate 500 Watt MMDS Transmitter

HFC Extension cont. from cover...

to transmit upwards of 3 Gbps.

The 18 GHz upstream was designed to accommodate multiple 16-QAM signals from each of the four nodes. With the increasingly symmetrical nature of subscriber data traffic, more than one upstream channel was required. Cable AML developed a synchronized, block-conversion system to transport four independent upstream channels (each from 5 to 42 MHz) through the two-hop microwave system back to Safford for integration into the CATV return network.

In order to minimize the cost and reduce cut over issues, the existing 13 GHz antennas and waveguides were used for downstream 13 GHz transmission of the 256-QAM digital signals within the 54 to 550 MHz spectrum.

The upstream service in the 18GHz band required the installation of new antennas and waveguide jumpers at the transmitter site at Morenci, the repeater at Guthrie Peak and the receiver at Safford.

The town of Morenci, AZ, served by an all-digital Wireless HFC System

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