

Cable AML News

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WORLD'S LARGEST MMDS OPERATOR EXPANDS AGAIN WITH CABLE AML TRANSMITTERS

MVS Multivision, the world's largest MMDS operator, has selected Cable AML to provide transmitter systems for its latest expansion into eighteen additional cities in Mexico.

Seven transmitter systems were

Ingeniero Miguel Aquino next to the new MMDS transmitter in Ensenada, Mexico.

delivered in the last quarter of 2004 and eleven additional units are being fabricated for delivery in early 2005. When the last delivery is completed, MVS Multivision will be operational in thirty-one major new markets throughout Mexico.

Cable AML provided broadband transmitters integrated with

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AML TRANSPORTS HDTV OFF-AIR CHANNELS

AML links continue to be used by many Cable TV operators to transport off-air TV signals from nearby cities to the cable system Headend.

Cable One wanted to transport TV off-air from the Houston TV stations to the cable system in Fort Lavaca (Texas), about 140 miles away. Due to the large distance between the two sites and the difficult propagation environment in the area, the reliability of the direct

pick up signals was poor, which is why Cable One had been using a 6 GHz FM Common Carrier Link with 3-channel capacity to transport analog signals from an intermediate point between the two locations.

When the need arose to transport the new HDTV channels and to add additional analog channels, the

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Cable AML's Lorri Kaufman and Martin Schooley of Cable One inspect the HDTV transmitter.

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MMDS SYSTEM EXPANSION IN ECUADOR WITH IN-BAND STL



Installation crew at Chiguilpe (Ecuador) headed by owner Holger Velastegui

The existing MMDS system in Santo Domingo (Ecuador), which was originally installed in 2003, has been such a commercial success that it was recently upgraded to reach subscribers in adjacent towns.

The expansion involved upgrading the transmitter from 100 Watts to 250 Watts and moving it about 10 kilometers to a new hilltop location where the increased signal availability can now reach towns up to 25 km away.

A new in-band, point-to-point STL (Studio to Transmitter Link), designed with a capacity for 31

channels, was also installed in Santo Domingo to transport the MMDS channels from the Headend to the new transmitter location. By using an in-band link it was possible to implement the STL without a separate frequency license, thus avoiding new license fees and other costs.

Following the expansion of the system, Holger Velastegui, President of CableZar, said he is so pleased with the performance of the system that he is already planning the addition of one repeater to reach the nearby town of Aulluriquin. ♦

CBC UPGRADES DIGITAL MMDS REPEATERS

Caribbean Broadcasting Corporation, a leading digital MMDS operator on Barbados, is in the process of upgrading a number of repeaters to improve the overall signal quality, particularly to areas blocked from the mountaintop transmitter by mountains and other obstacles.

The repeater upgrade is being



Installation underway at lighthouse repeater site

implemented using high-reliability Cable AML equipment. The high-power indoor repeaters are replacing older units from another manufacturer originally installed when the system was only analog. The repeater sites include a lighthouse and building roofs.

Fields engineers from Cable

AML assisted CBC's experienced technical staff during installation and repeater site performance optimization. Glyne Husbands, Executive Engineer of CDC is very pleased with both the equipment and the field engineering



CBC engineers Jeffrey Chandler, Maurice Bailey, and Hallam Franklin checking out the equipment after installation.

assistance provided by Cable AML. He said "Cable AML has improved signal coverage and quality in the areas served by the repeaters, and as a result CDC is planning to continue the repeater upgrade program to bring top quality digital signals to all parts of the Island." ♦

UPSTREAM WIRELESS HFC UPGRADE FOR LEADING CABLE OPERATOR IN ARIZONA

Cable AML has implemented a full digital upstream upgrade to an existing 54 to 550 MHz downstream AML System.

The upgrade allows full bi-directional cable service in areas that are expected to generate significant

income growth, because marketing studies showed that DOCSIS Modem service and Set Top Box interactivity were important issues for increasing revenue.

The existing downstream system consisted of a transmitter at Sedona (Arizona) delivering signals to five remote sites via a repeater array at Mingus Mountain. Cable AML designed the upgrade and assisted in the installation and turn-on.

Upstream capability was implemented without the need to change or add to the existing antennas. Local and

remote transceivers were implemented by using existing receivers, originally purchased from another company, thus saving NPG tens of thousands of dollars. ♦



Repeater tower at Mingus Mountain



Installing the Return Path Receiver at the Sedona Headend site

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coherent modulators. The systems have been designed to allow for incremental field upgrades in the future, when it becomes necessary to increase transmitter power for increased coverage range. ♦

MVS technician installs MMDS antenna in Ensenada.



HDTV from page 1

6 GHz link was no longer a feasible solution. Cable AML has provided an enhanced 13 GHz digital AML link that transports the added channel load as well as the HDTV channels.

Martin Schooley, Technical Operations Manager of Cable One, said he is very much looking forward to this upgrade of the old analog link, "It is something I have fought over for a long time", he said. ♦

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New Products From Cable AML...

WIRELESS DOCSIS RETURN AT LICENSE-FREE 5.8 GHz BAND

The ability to offer DOCSIS Cable Modem service is an essential component of the growth strategy of most cable systems in the world. Cable AML is now making it possible for Cable Operators to offer DOCSIS cable modem service in a one-way cable by implementing a low-cost, license-free wireless return system in the 5.7-5.8 GHz band.

To implement the system, the cable operator installs the same DOCSIS equipment he would install in a conventional two-way cable system. The downstream signal travels to the subscriber through the cable, much like any other digital carrier or like the analog video channels. The upstream signal from each subscriber returns through a wireless link to the headend.

The upstream wireless link need not be located at each subscriber; it can be at a node in the cable plant beyond which there is two-way connectivity. All subscribers that have two-way access from the node will then communicate upstream through only one transmitter.

As sections or nodes of the cable system are eventually upgraded for two-way service, the wireless transmitter and antenna can be moved further upstream to continue to provide return path for all subscribers in the node.

By offering the system in the license-free 5.8 GHz band, any cable operator can immediately start offering cable modem service with a capital investment that is typically less than 3% of the capital required for a two-way plant upgrade. ✦



DOCSIS upstream return transmitter operating in the license-free 5.7-5.8 GHz band.

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