



BROADCAST

CASE STUDY

MAJOR NEW YORK CITY BASED BROADCASTER
NEW YORK, NY



INTRODUCTION

This past summer a major New York city based network broadcaster unveiled its new state of the art newsroom studio. With the help of PureLink and its partners, this 12,000 square foot facility was transformed over an 18 month period into a modern multi-functional media center. The working area and broadcast spaces were specifically laid out with a glossy, clean look that combines the bright aesthetics of glass, with sleek surfaces and video panels and exposed brick and beams. The high-tech yet warm and trendy design elements helped reinforce the strength and history of the company's brand imaging, while at the same time represented the most advanced Ultra High Definition (UHD) video broadcasting technology.

PRIMEVIEW
ADVANCED DISPLAY SOLUTIONS

TAD ASSOCIATES

VCA
*Video Corporation
of America*

THE COMPANY

The company, one of the oldest broadcast stations in the United States, originally started out in radio back in 1926, eventually evolving into a full-fledged television network by 1939. Its news division consists today of its main parent network news channel as well as several other sister news outlets, including one focusing on financial/business information and analysis, and another covering world and national stories in the form of a 24 hour cable news network. The parent company has thirteen owned-and-operated stations and nearly 200 affiliates throughout the US, and Canada. The company also maintains brand licensing agreements for international channels in both South Korea and Germany.

THE CHALLENGE

For design consultants TAD Associates, the challenge was to provide a system that would meet the needs of the network in the ongoing election news cycle and its intention to use the facility for both its broadcast and cable news shows. TAD Associates therefore designed a flexible and reconfigurable space, based on a modular design that could be rearranged as needed to change the on-air look and format of the anchor desk and background lighting and panels. The studio was also to include two LED video walls, with one featuring movable, tracking panels that could be configured in a variety of layouts for segments, standups and debriefs.

One of the most important objectives for this customer's project was, as with any modern news organization, to be able to broadcast to its viewers with the highest definition video quality possible. To accomplish this goal, all the players involved in putting the pieces of this newly upgraded studio into place needed to be able to work in unison, as a team, meshing their people and technologies together to be as flexible and innovative as possible while implementing these solutions. With the advancements of 3G HD-SDI video walls and 4K UHD video signal processing, the ability to offer a suite of value-driven solutions with the highest level of reliability and resolution was crucial for all firms involved.

This installation required a switching system able to bridge the SDI and A/V systems gap. Whereas some would fall into the trap of designing a clumsy two system approach; one utilizing an SDI/3G-SDI platform and the other using A/V interfaces like HDMI, DVI and VGA - with a converter stuck in between them, TAD selected the PureLink switch to maintain optimal signal speed and quality. "I would like to emphasize here the PureLink PM-128's strength in SDI to HDMI internal conversion and switching," stated Kevin Kang, PureLink's Technical Sales Director. "In fact, our entire PureMedia line offers seamless SDI and A/V signal conversion, within the same chassis, which provides a most elegant and reliable solution in these cases," added Kang.

THE SOLUTION

Due to its ability to switch any input signal to any combination of outputs, TAD Associates selected the PureLink PM-128X (128x128 PureMedia™ Matrix Switcher) for this project. For example this PureLink matrix switcher can take HDMI input signals and output them to 3G/HD-SDI, fiber optic output, and/or CATx. The PM128x can route multiple input/output configurations simultaneously. It can support up to thirty two (32) I/O boards of any of the following interface types: HDMI, DVI, 3G/HD-DSI, Analog VGA, CATx (HDBaseT), Fiber Optic or DisplayPort. Its unique cross-platform features make the PM-128X the most flexible and simple solution for many of today's sophisticated digital A/V environments. The system was easily integrated into the project design and was the perfect solution for proper speed and resolution of the video signals from/to the multiple sources and displays needed in the newly upgraded studio.

TAD Associates is a New York based design consultancy firm offering enterprise audiovisual design services, workplace technology strategies, content production and managed design solutions for Fortune 500 companies including multiple Fortune 50. On this particular implementation, TAD participated in the selection of Video Corporation of America (VCA) as the AV integrator. VCA designs, engineers, services, and manages communication technology systems, with expertise in audiovisual, telepresence, unified communications, IT and broadcast markets. The company is consistently listed in Systems Contractor News' [SCN Top 50 Systems Integrators](#) list. TAD Associates incorporated PureLink in the design for their ability to provide the correct transcoding between formats as required by the Owner.

Combined with the switch size capability, and PureLink's support both during the design and implementation phases, specifying the PureLink PureMedia switch, and ancillary components, was the only logical decision, according to their internal design team. VCA built the system, as designed by TAD, and they acknowledged the essential role that PureLink played in its implementation. "Our main concern for this project was to seamlessly interconnect the SDI and A/V elements of the broadcast signals in the newsroom," stated Mattias Allevik, lead Design Engineer for VCA on this installation. "PureLink produces really the only product on the market that consistently guarantees that handshake will go through, on time and in the appropriate format," he added.

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“They have a propensity to consistently be on budget, and to offer the essential technical and logistical support required during the integration process. From our perspective PureLink is an ideal partner,” concluded Mr. Allevik.

In addition to the advanced switching requirements, a core feature element was a series of video walls that brought character and collaboration to the main gathering space. For these displays TAD Associates selected the manufacturer Primeview. Primeview specializes in advanced industrial display solutions and high quality LED video walls, and large format and interactive touchscreens. In this particular design, TAD Associates deployed 33 of Primeview’s super narrow FHD LCD LED (PRV55SNG01-SDI) gap displays due to their reliability, HD-SDI connectivity and genlock functionality. This particular video wall system transmits signals on a single cable to eliminate any external converts to connect video walls to DVI or HDMI inputs. It also features an IPS panel for landscape and portrait viewing and is heavily used in the broadcast industry due to its capability to reproduce content at the highest level of video quality.

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SUMMARY

Working together with TAD Associates and VCA, PureLink was able to provide a robust signal management solution in the PM-128X that delivered the highest quality UHD connectivity in real time. Additionally, the systems' proprietary Motore scaling technology provided comprehensive Ultra HD upscaling and downscaling, frame conversion, smooth motion performance and auto-scaling for seamless reproduction on every display. "As a project based manufacturer, Primeview always looks to partner with other manufactures who value the strategic approach of designing simple AV system architectures that work," stated Chanan S. Averbuch, EVP of The Americas for Primeview USA. "By working closely with a team of industry experts at PureLink, our joint customer benefited by getting 24/7 reliability and confidence in an exceptionally color uniform video wall that seamlessly integrates into their entire infrastructure," he added.

In the end, with the improvements made to the facility, the newsroom studio was heavily utilized during the presidential debates as well as on election night. Since then the set has been reconfigured several times to play host to a variety of news broadcasts and specials from the network. Not only does the upgraded news room present a professional, polished, modern design but the quality of the television broadcast itself is assured on a daily basis with the use of PureLink and its partners' products and services. The entire news organization has been consolidated onto a single floor and the image of the company as the source and central headquarters for breaking news and in-depth analysis of national and world events has been even further enhanced.



FEATURED PURELINK PRODUCTS

Matrix Switcher

PM-128X 128x128 PureMedia™ Cross-Platform Matrix Switcher

Input Cards

PM-SIS4 3G/HD-SDI Input Card for PM Switchers

PM-HIS4-U 4K HDMI Input Card for PM Switchers

PM-CIS4-U 4K HDBaseT Input Card for PM Switchers

Output Cards

PM-SOS4 3G/HD-SDI Output Card for PM Switchers

PM-COS4-U 4K HDBaseT Output Card for PM Switchers

Extenders (Transmitters)

PM-CT102-U 4K HDMI/VGA to HDBaseT Transmitter

PM-CT103-U 4K HDMI/VGA to HDBaseT Wall Plate Transmitter

Extenders (Receivers)

PM-CR102-U 4K HDMI over HDBaseT Receiver with Scaling

PM-CR103-U 4K HDMI over HDBaseT Wall Plate Receiver

About Purelink

Focused on innovation and quality, PureLink is the leading provider of digital connectivity solutions to commercial audio/video and IT markets worldwide. PureLink has pioneered a powerful line of matrix-switching, format conversion, signal distribution, and long-distance extension systems that are optimized to support any consumer or commercial application.

For further information on all our product offerings, please visit www.purelinkav.com.

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