The ongoing transition of the broadcast plant toward higher resolutions and IP-based operations has created the need for signal monitoring technology that is more scalable, flexible and multifaceted than ever before.

At the 2016 NAB Show, Imagine Communications addressed this need with the introduction of EPIC™ MV — a software-based, UHD-ready, uniquely scalable monitoring solution that provides media organizations with a single canvas for hybrid SDI and IP environments.

EPIC MV is a complete multiviewer solution that offers the full features of a class-leading multi-image display system. Featuring exceptional video quality, rich graphics, tally, UMD, timers, clocks and interfaces to a variety of third-party systems, EPIC MV delivers all the capabilities expected for monitoring and monetizing content in high-value production environments.

What sets EPIC MV apart from other available multiviewer systems is its uniquely versatile and future-proof architecture. EPIC MV is based on Imagine Communications’ open and extensible Zenium™ platform — an agile software engine that enables media companies to deploy customizable software-defined workflows. “Powered by Zenium™” products scale dynamically, easily update as new technology becomes available, and are seamlessly portable between environments, from appliance to datacenters to the cloud.

Designed to simplify monitoring environments as broadcasters migrate to IP, EPIC MV is a true hybrid solution that natively supports low-bandwidth compressed streaming formats, including MPEG 2 and H.264/AVC essence. Option boards provide high-capacity SDI over IP, ST 2022-6/7 reception. A high-capacity baseband 3G/HD/SD/ASI option releasing this year will add more breadth to the portfolio of input formats supported.

EPIC MV provides one solution for the monitoring of compressed streams for contribution, distribution, emission or OTT delivery, and can handle a broad range of resolutions from UHD-1 down to QCIF. Whether the requirement is monitoring a handful of compressed contribution feeds or a much larger set of lower-complexity emission streams, EPIC MV is able to present a scaled or full-resolution image with all alarming, traffic status and interpreted ancillary data visible.

EPIC MV is purpose-built to support UHD workflows. The system can output UHD-1 resolution mosaics with no restrictions on placement of scaled images or OSD adornments within the layout. Individual images can be up-scaled to UHD-1 resolution for full-screen viewing or can be configured to display at pixel-true resolution for the specific image selected, anchoring to a fixed point on the display. Pixel interleaved or quad panel signals can be consumed. As advanced CODECs come to market, the system will be able to acquire and decode those UHD-1 input sources as well.

Another aspect that sets EPIC MV apart is the unmatched versatility and scalability of the system. EPIC MV separates source extraction, analysis and pre-processing from the display engines that render the mosaics. A single EPIC MV can be used to duplicate sources across multiple rooms, with fully independent displays each driven via their own layout.

EPIC MV was designed from the ground up for the task of “monitoring by exception.” With the explosion of channels and the vast number of formats needed to serve all the platforms that consume content, this solution can ease some of that burden by identifying the streams that have gone below a certain threshold of quality.

EPIC MV runs on Hewlett Packard Enterprise (HPE) servers, leveraging smart hardware-acceleration options to provide the density and performance required for facilities of any size. As a software-based solution using selective hardware acceleration, the EPIC MV is well positioned to enable cloud-based monitoring options in the future.