

Magellan™ Control System Application Note



How Magellan Control System Delivers a Cost-Effective Transition to IP Routing, Orchestration and Control

The Challenge:

Media companies are embarking on a transformational change, upgrading their SDI facilities to an IP interconnected architecture. This upgrade brings benefits of economy, agility, and flexibility, as well as next-generation compatibility and readiness; however, unlike an isolated system upgrade, changing the entire facility routing fabric and associated technology is no trivial decision.

The challenges media organizations face include leveraging existing SDI workflows, new technologies and interconnected equipment to reduce initial costs and manage the IP transition. In addition, managing a complex network of Commercial-Off-the-Shelf (COTS) components means staff training is an area not to be taken lightly with any system or technology that touches almost every part of the workflow.

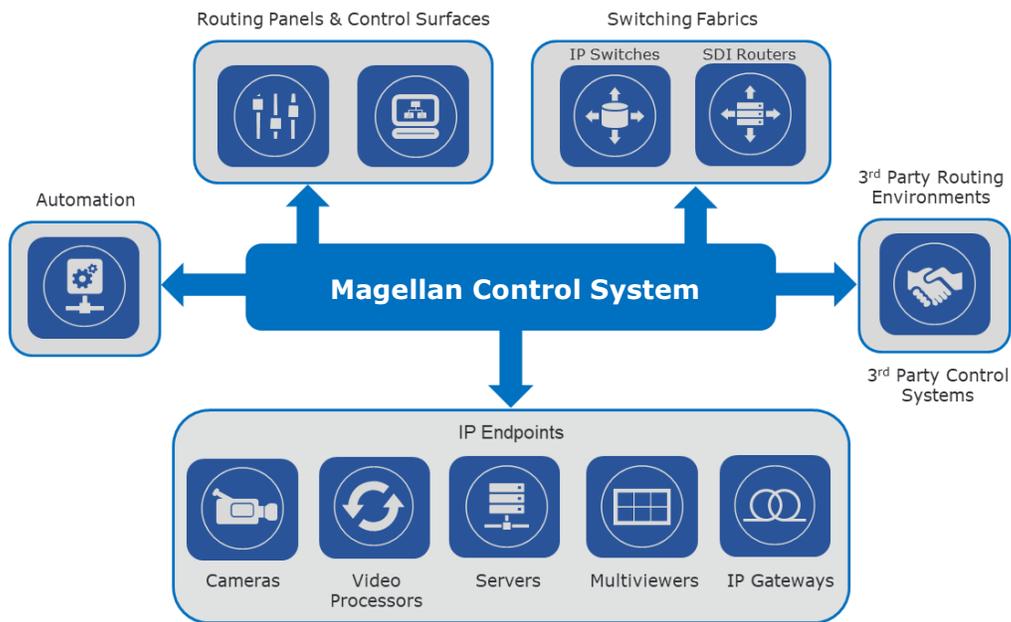
The Solution:

Imagine Communications' Magellan™ Control System is a proven software solution that enables media organizations to utilize existing SDI equipment in a hybrid SDI/IP environment and make a cost-effective, self-paced transition to full IP.

Our commitment to open standards enabled the Magellan Control System to be one of the first control systems to implement vendor-agnostic COTS switches and IP video endpoints. The utilization of high-performance, industry-proven, and resilient switches brings peace of mind by providing choices for best-of-breed solutions, versus a proprietary IP switching alternative. Magellan Control System boasts the fastest IP switching currently available.

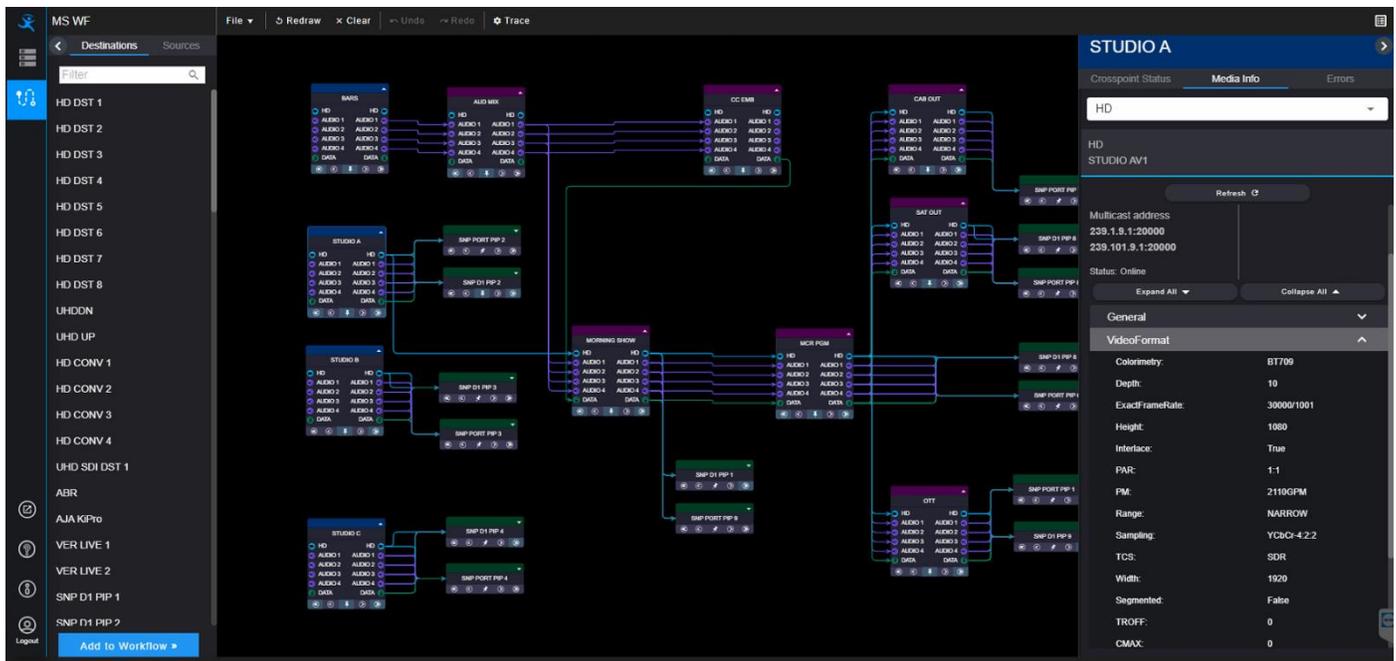
A key part of the Magellan Control System design philosophy focussed on making the hybrid switching infrastructure look and act like an SDI router that operators would be familiar with. Hybrid and IP endpoints are driven from traditional and familiar hardware or software routing panels, which negates the need for staff retraining.

Magellan Control System controls traditional SDI matrixes and delivers full support for SMPTE ST 2110 and ST 2022-6 workflows. Using native APIs and open protocols, Magellan Control System offers a comprehensive list of third-party SDI and IP endpoints — making it ideal to orchestrate entire live production and playout operations.

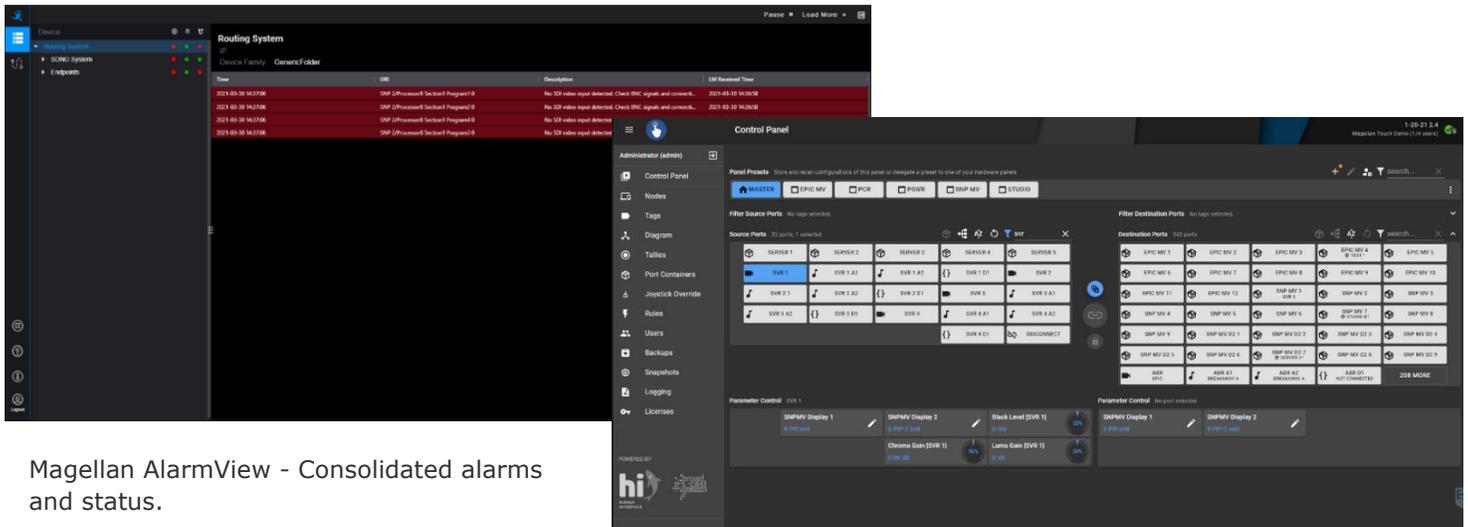


During the development phase, Imagine Communications worked closely with leading switch providers to ensure optimized integration and maximization of their API tools, enabling customer to implement a true ST 2110 infrastructure using COTS IP switches — without special switch firmware, settings, or anything proprietary or customized.

Intuitive graphical interface applications included with Magellan Control System such as Magellan PathView, AlarmView and MagellanTouch provide an easy-to-use, unified approach to operations monitoring, control and overall management.



Magellan PathView - Dynamic graphical representation of routes, connections, and flows.



Magellan AlarmView - Consolidated alarms and status.

Magellan Touch – Intuitive, customizable control surfaces.

Intuitive control surfaces for live production environments include routing and parametric control with real-time tally information for cameras, monitors, and multiviewers, sources and destinations. Magellan Control System also includes an impressive list of protocols and third-party device integration.

Features and Benefits:

- Supports SDI/IP hybrid networks within existing workflow — no operational disruptions.
- Provides control framework for hybrid SDI/ASI/IP facilities.
- Maximizes infrastructure investments, delivering scalability with IP-based system efficiency.
- Offers easiest path to IP and UHD.
- Manages SDI and IP matrices simultaneously.
- Supports a host of Imagine and third-party IP endpoints using native and open APIs.
- Features a mix of physical and virtual processing functions.
- Facilitates traditional live production workflows like Virtual Re-Entry in an IP domain.
- Simplifies management/operations — everything “looks like a router.”
- Utilizes current routing protocols and control panels.
- Presents a unified user environment with Operational Control, Monitoring and Alarms.
- Compatible with automation, tally, multiviewer, and other devices in the facility.
- Manages IP switching and connectivity.
- Capable of true audio/video/data breakaway in the IP domain in a SMPTE ST 2110 environment.
- Supports switching of compressed and uncompressed signals per SMPTE ST 2022 standards.
- Delivers high availability through 1+1 redundant configuration.
- Enables clean switching of uncompressed IP sources.
- Facilitates seamless redundancy switching in main and backup network configuration (SMPTE ST 2022-7).

Ready for the Future:

Magellan Control System provides a clear path to an IP routing environment, allowing an optional hybrid approach to leverage existing equipment and transition to a full IP infrastructure on your schedule. Start your transition to IP off the right way with standards-based solutions.