Television facilities worldwide are moving to IP, and customers are looking to implement the most effective COTS-based SMPTE ST 2110 live production systems. Imagine Communications' Selenio Network Processor and Magellan Control System combined with Arista Networks provide customers a reliable foundation when making their move to IP.

Even while the underlying technology is modernized, television production infrastructure still must perform its basic mission – connecting signals around the plant – through the time-tested routing system paradigm. The key is to provide a system that is easy to operate and fully featured; capable of routing signals from any source to any destination; and ready to support the customer's requirements today and tomorrow.
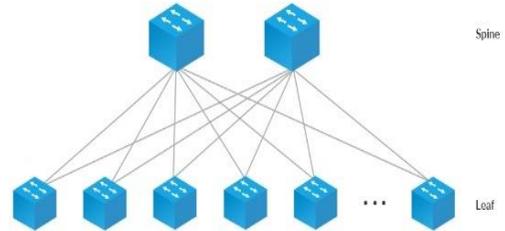
The target of most projects is a fully non-blocking infrastructure – but moving to UHD expands the signal bandwidth by 4x and can saturate spine/leaf linkages without careful design and management. Modern IP networks give customers the headroom to make the transition to UHD at their pace and provide the necessary tools to manage the links and bandwidths, even in situations of limited spine/leaf trunk bandwidth. IP systems also make it easy to change configurations for different events – UHD one day, 1080p the next – on a consistent network footprint.

Interoperability is key to integrating the best technologies from each vendor – giving operators a choice of cameras, switchers, replay, multiviewers, and other critical technologies such as IP fabric infrastructure. SMPTE ST-2110 and AMWA NMOS are both field-proven standards with a very high degree of cross-vendor interoperability Integration with critical technologies and APIs such as the Arista MCS provides customers the flexibility and scalability needed to meet their production requirements. The Imagine SNP and Magellan Control System are renowned for interoperability with other vendor equipment, and Imagine's deployment and support teams excel at rolling out IP systems.

IP Multicast Routing is a fundamental part of IP production systems, and managing bandwidth in the control system is important. The Magellan Control system integrates fully with the Arista Media Control Service (MCS) to provide a fully managed solution.

Magellan Control System - Bandwidth Management with Arista MCS

- Magellan Control System pushes names and bandwidth tags to Arista MCS to configure ingress policing and monitoring

- MCS manages policy configuration, security and flow visibility and monitoring

- Arista MCS performs flow orchestration with bandwidth awareness across the switches and links along the path from source to destination

- All status and error reporting roll up from the Arista MCS to Magellan Control Surfaces at the operator level

- Routing operations are performed in parallel on "A" and "B" networks in 2022-7 hitless configurations – for full 1+1 redundancy along the way from end to end

Imagine and Arista – Some Customer Success Stories:

About Imagine Communications:

Imagine Communications empowers the media and entertainment industry through transformative innovation. Broadcasters, networks, video service providers and enterprises around the world rely on our optimized, future-proof, multiscreen video and revenue enablement solutions every day to support their mission-critical operations. Today, nearly half of the world's video channels traverse our products, and our software solutions drive close to a third of global ad revenue. Through continuous innovation, we are delivering the most advanced IP, cloud-enabled, software-defined network and workflow solutions in the industry.