

**Zio**

**Networked Real-time Video Distribution  
And Management System**





RGB Spectrum's new Zio™ technology offers video and audio distribution over an IP network, replacing traditional dedicated switchers. Zio endpoints attach to a 1Gig Ethernet switch, with encoders accepting computer and video signals at resolutions up to 4K, and decoders for feeding displays. The Zio system offers seamless switching over the IP network infrastructure. Both dedicated and shared networks are supported.

For moving large amounts of data, an IP infrastructure excels. However, distributed video sources and destinations create unique challenges for time-sensitive and time-ordered video streams. Zio's transport technologies and unique peer-to-peer architecture address these problems, with exceptional user control and performance management. A distributed management platform avoids costly server architectures and "single point of failure" vulnerability.

A room, a building, a campus, a city, or the world – LANs, WANs, even satellite links – Zio is up to the challenge.

## Scalability

The Zio architecture supports systems in size from a handful of devices to very large configurations. As system requirements grow, additional endpoints are easily added.

## Cost Effectiveness

Zio offers a choice of endpoints to capture and display content, with models supporting 2K or 4K resolution. Decoders range from single signal displays to more powerful multi-signal decoders. With many options available, Zio systems can be designed to balance budget and technical requirements.

## Flexible Compression

Choice of standards-based compression method and parameters allow optimization for the needs of any environment, e.g. high quality, low latency or low bandwidth. Where bandwidth is sufficient, Zio supports all I-frame compression for highest quality and lowest latency.

## Seamless Switching

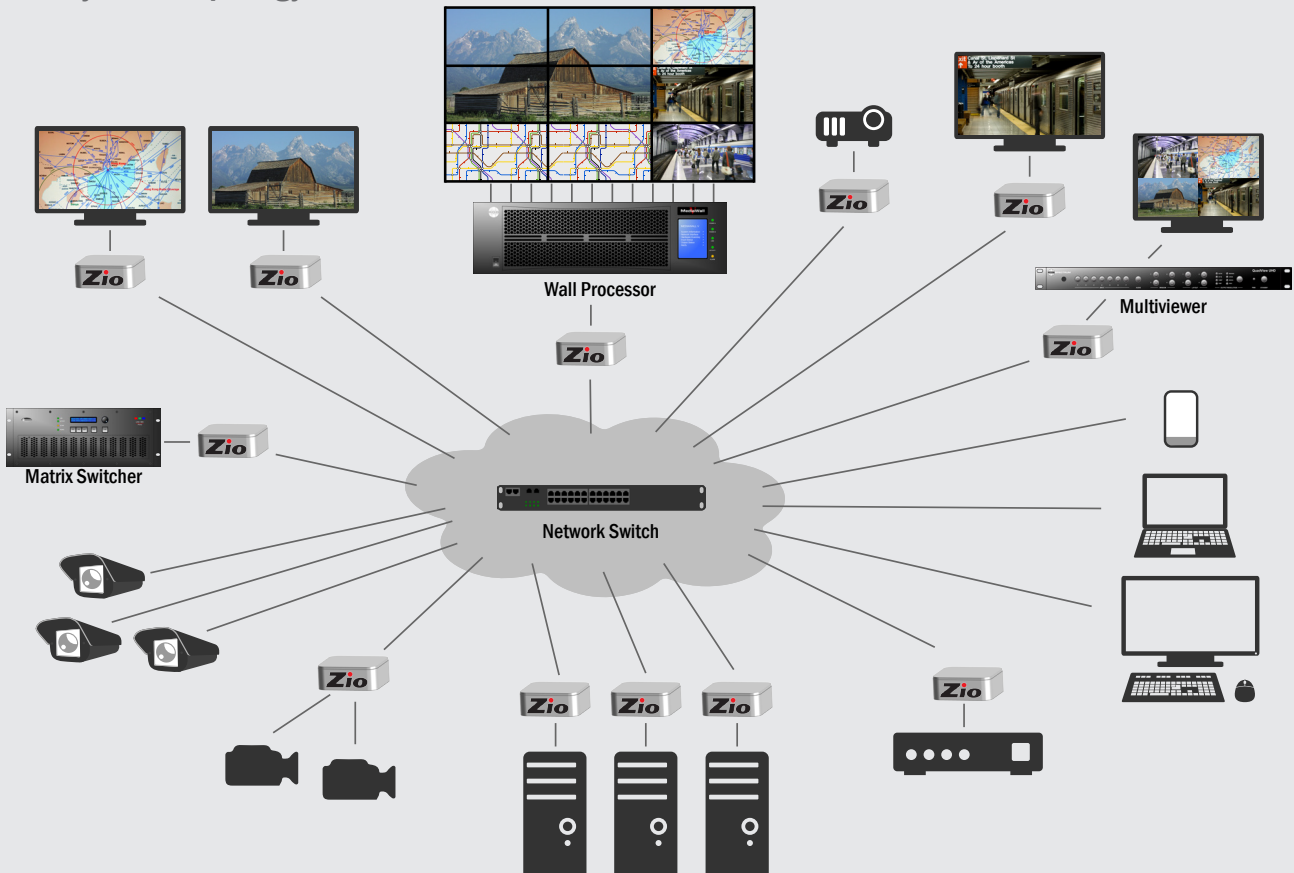
Sources and displays up to 4K resolution are supported, with scaling and artifact-free video. Zio offers instantaneous switching, overcoming one of the traditional limits of encoded video.

## Gateways

For sharing video between domains, Zio produces multiple independent streams of differing compression parameters, allowing a signal to be optimized to meet the stringent bandwidth, frame delay and jitter challenges of WAN links while keeping the highest quality in its original domain.



## Zio System Topology



### Reliability

Zio's peer-to-peer architecture avoids "single point of failure" vulnerability. For applications requiring the highest levels of reliability, there are redundant endpoints. Automated failover features help ensure continuous operation.

### External Video Streams

Zio is an open system that can accommodate externally generated video streams from third party H.264/H.265 IP cameras and encoders. Zio can also stream content to smart phones, IPTVs or other devices.

### Third Party Control

Zio can control external systems or be controlled by them; scripting enables sophisticated interaction. An API for control by third party devices is available.

### Integration with AV Switchers

Zio endpoints offer a gateway to a traditional AV distribution system with RGB Spectrum's *Linx* switchers. This enables a mixture of analog and digital baseband content with IP traffic.

### Video Wall Compatibility

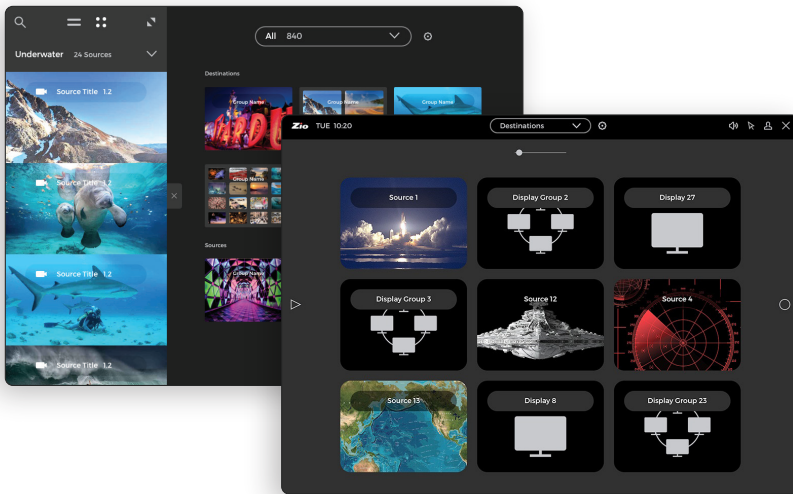
Zio endpoints are integrated with RGB Spectrum's *MediaWall* processor for multi-screen display, providing streaming inputs to the wall and streaming video wall content to other destinations.

### Audio Distribution

Audio originates embedded in an HDMI stream or as analog input. Decoders provide both HDMI embedded audio and analog output. Audio can instantly be selected from any of the streams being decoded by a multiviewer.

# Control

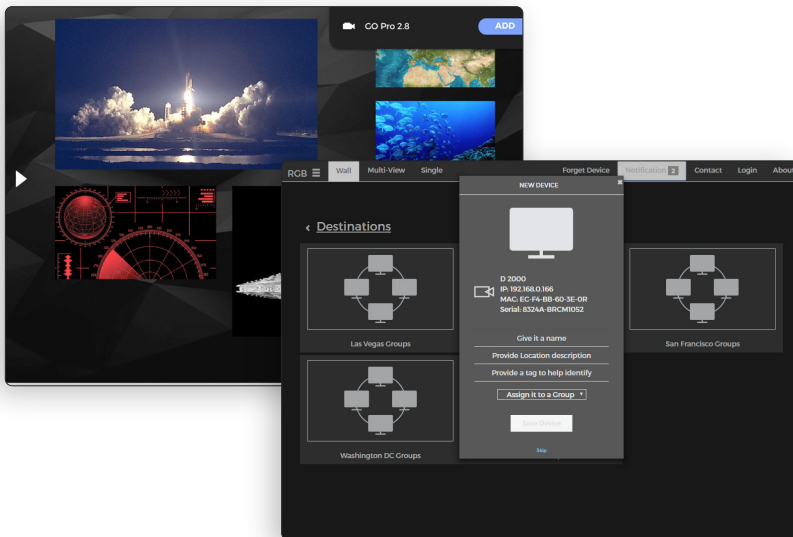
Our User Experience team has designed the Zio control interface from the ground up. Simplicity and ease of use are evident throughout. But don't let the simplicity fool you - the Zio control interface allows administrators access to very advanced tools.



## User Interface

The Zio user interface provides live thumbnails of each stream. Search tools make finding the right content quick and easy.

Any number of users can control distribution of content and manage endpoints - via PC, tablet, phone or web.

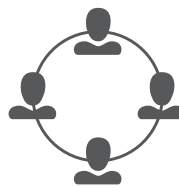
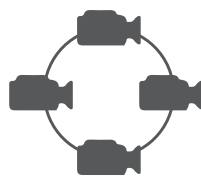
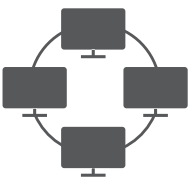


## Robust Administration

Powerful tools for system configuration, monitoring and management simplify operation. Automatic device discovery eases installation and system modifications.

## Grouping

Zio endpoints can be organized into groups to manage administrative functions and communications with other groups, speeding up set-up and facilitating switching in complex environments.



# Zio Product Family

The Zio family includes a wide range of choices to ensure the right product for the job. Endpoints are offered in models supporting up to 2K or up to 4K signals. All models are compatible and may be configured into a single, cost effective system.



## Encoders/Decoders

### S2000 Series Encoder



The compact Zio S2000 encoder accepts signals up to 4K resolution over a locking HDMI connector with loop through capability. The S2000 encodes video, audio, and control signals using industry standard compression. Power over Ethernet (PoE) is provided to simplify installation.

Model S2002: up to 2K input/output

Model S2004: up to 4K input/output

### D2000 Series Decoder



The compact Zio D2000 is a flexible decoder designed to work with the S2000 encoder and H.264/H.265 compliant devices. The D2000 decodes and displays streams at up to 4K resolution. Power over Ethernet (PoE) is provided to simplify installation.

Model D2002: up to 2K input/output

Model D2004: up to 4K input/output

## Multiviewers

### D2000 Series Multiviewer



The compact Zio D2000 multiviewer allows multiple streams to be decoded and viewed on a single display. Up to four 1080p streams, or equivalents, can be placed on a screen any size, anywhere. Power over Ethernet (PoE) is provided to simplify installation.

Model D2022: up to 2K input/output

Model D2024: up to 4K input/output

### D3000 Series Multiviewer



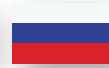
The Zio D3000 multiviewer builds on the functionality of the D2000, increasing the number of simultaneous streams displayed. Up to sixteen 1K, eight 2K or two 4K streams, or other equivalents, can be combined on a single display.

Model D3102: up to 2K input/output

Model D3104: up to 4K input/output

Find out more: [www.rgb.com/zio](http://www.rgb.com/zio)





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