Zio AV-over-IP Platform

Video Distribution, Recording, and Display
for Mission-Critical Applications

Zio. The ideal choice for mission-critical applications.

RGB Spectrum designs and manufactures video processing systems for real-time visualization. We support enterprise-wide mission critical operations with systems for collaboration and decision support. Visual quality is a part. So is 24/7 reliability. Intuitive user interfaces. Good ergonomics. All are part of improving workflows and decision-making.

Based on almost 40 years of experience, RGB Spectrum is proud to offer a comprehensive display and transmission platform connecting decision-makers over baseband, LAN, WAN, and mobile networks. As an open, standards-based platform, *Zio* is compatible with third-party equipment as well as RGB's own full line of offerings including IP encoders, decoders, media servers, multi-image displays and video walls, with a common user interface.

Effective video distribution and display is a multifaceted task encompassing network agility, multi-image displays, good ergonomics, intuitive user interfaces and efficient workflow. Data must not only be available; it must be easy to access. Our user interfaces coordinate video processing across system components. They are designed for intuitiveness and simplicity, employing live thumbnails of available signals and customizable presets for quick changes in display. We provide APIs to build custom interfaces to integrate event driven control, external alerts, scheduling, and AI. Good ergonomics also help, as in the use of a single keyboard and mouse control of multiple systems and support of multi-image monitors. It's about enabling *Better. Decisions. Faster.*

The foundation of our system is the *Zio* AV-over-IP platform, which provides distribution, recording, and display of video enterprise-wide, onto consoles, command center displays and mobile devices anywhere within reach of a LAN, WAN, or mobile network. No other vendor offers as complete a system with tight integration between distribution and display. A scalable, reliable, and secure platform supporting industry standards, *Zio* is the ideal choice for mission-critical applications.

Why Choose *Zio*

- Multichannel capability in a small package, up to 4 encoders or decoders in a small package

- Encoding capabilities up to 4K resolution, with multiple streams at different resolutions

- Display capabilities including multiple decodes on a single screen

- Multiple compression schemes, including H.264/H.265 (simultaneously, if desired)

- An open architecture supporting 3rd party IP cameras & streaming servers

- Additional CODECs such as JPEG2000 and VC-2 by custom implementation

- An FPGA architecture that provides inherent future proofing

- 1GbE networking

- All systems TAA compliant; most made in the USA

What Sets *Zio* Apart

The *Zio* platform includes encoders, decoders, multiviewers, video wall processors, and mobile apps easily managed through an intuitive GUI or customized interface using the *Zio* API.

Zio offers video content display and distribution across any sized network, with straightforward design and management. Third-party IP video sources, including cameras and content servers are also supported.

Key Features

Redundancy

Zio products are based on a peer-to-peer architecture that is inherently scalable and redundant, with no single point of failure.

Flexible Compression & Decompression

Hardware support for H.264 and H.265 compression combines high-performance visuals with bandwidth efficient global distribution. Multiple H.264 and H.265 signals can be decoded simultaneously on a single display.

Multiviewer & Video Wall Integration

Zio processors can display multiple IP and baseband video streams simultaneously. In addition, they can encode baseband video signals and even mirrored composite images for streaming over a network.

Open Ecosystem

The *Zio* platform was designed from the ground up as an open, standards-based system. It supports third party video sources and controllers allowing for integration of video content from cameras and other devices.

Multichannel Devices

Encoders and decoders are available in 1-, 2- and 4-channel configurations. Decoders offer display on 2-4 separate monitors or in user definable windows on a single monitor.

Control

Control options including a browser-based GUI, with no software to install, a CLI to support 3rd party controllers, and an API to create custom user interfaces. The *Zio* user interface delivers intuitive control and management of any *Zio* device.

User Interface

The *Zio* user interface provides live thumbnails of each *Zio*-originated stream. Search tools make finding content quick and easy. Any number of assigned users can control distribution of content and manage endpoints via PC, tablet or phone.

Robust Administration

Zio offers automatic device discovery, group device control, and bandwidth management to give administrators the power to set up quickly and keep operations running smoothly. Display devices can be grouped by area or function, allowing users to drag & drop content to a defined display group to distribute content into targeted areas. For example, a user can drag and drop a training video to a training display group or an announcement from the captain onto a ship-wide display group.
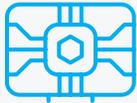
Mobility

The *Zio* platform allows decoding a stream directly on an IOS or Android mobile device using the *Zio* mobile app. Any stream can be viewed on a mobile device.

Enterprise-Class Excellence

The *Zio* platform is an enterprise-class solution. With these capabilities, the *Zio* platform can provide for the efficient distribution, recording, and display of video streams, from almost any source to any destination, over any network, onto any display. Wherever you are, whatever the need, the *Zio* platform has you covered. 24/7.

Components

Encoders/Decoders

Zio comes in single-or multi-channel configurations, with 1-, 2- and 4-channel encoders and decoders in a compact unit. These accommodate multiheaded or independent computer video signals, simplifying network design and offering substantial space and per channel cost savings. Power-over-Ethernet (PoE) is also supported.

Multiviewers

Zio multiviewers decode visual content from multiple streams for simultaneous viewing on a single high-resolution display. Multiviewers can display local baseband as well as IP video. An enhanced version adds the capability of encoding as well as decoding video streams simultaneously, all in a small form factor package.

Video Wall Processors

Zio 3000 wall processors allow streams to be decoded and viewed on arrays of up to four monitors, in windows at any size, anywhere. *Zio* 4000 wall processors support a mix of local baseband and IP video content on medium-to-large display walls.

Recording & Media Servers

Zio media servers record and stream video content. Features include concurrent recording/streaming and concurrent recording/playback along with full playback controls (stop, pause, play forward/reverse, variable speeds, jump to time). Storage capacity can be sized according to requirements.
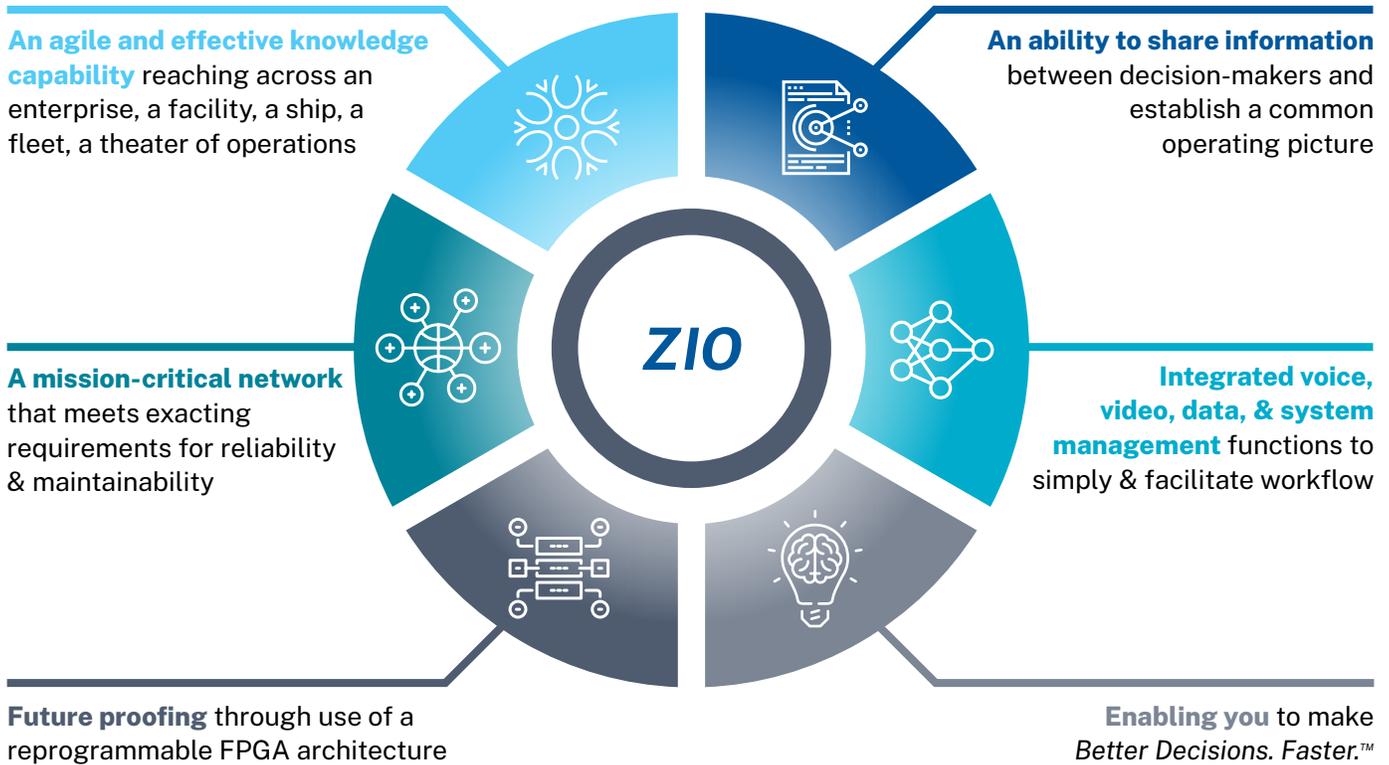
Using these robust components, the *Zio* platform can provide for the efficient distribution, recording and display of audio and video streams from almost any source to any destination, over any network, onto any display. Wherever you are, the *Zio* platform has you covered. 24/7. That's what we mean when we say that *Zio* is an ideal enterprise class solution for mission-critical applications.

Mobile Apps

Supports Android & iOS phones and tablets allowing visuals to be pushed to designated mobile users (via push notifications) or pulled by authorized mobile users.

Zio Delivers

An agile and effective knowledge capability reaching across an enterprise, a facility, a ship, a fleet, a theater of operations

An ability to share information between decision-makers and establish a common operating picture

A mission-critical network that meets exacting requirements for reliability & maintainability

ZIO

Integrated voice, video, data, & system management functions to simply & facilitate workflow

Future proofing through use of a reprogrammable FPGA architecture

Enabling you to make *Better Decisions. Faster.™*

About RGB Spectrum

RGB Spectrum is the leader in real-time visualization for decision support. Since 1987, we have powered mission-critical operations for civil, public safety, and military deployments. We have designed an integrated hardware and software that simplifies distribution, processing, and the display of video streams. RGB Spectrum's innovative solutions offer enhanced situational awareness and remote collaboration. Our motto: Better Decisions. Faster. To learn more, visit **www.rgb.com**.

RGB SPECTRUM

Contact us to learn more
RGB Spectrum HQ: **1-510-814-7000** • Contact your sales manager: **rgb.com/contact**
1101 Marina Village Pkwy, Suite 101 • Alameda, CA 94501