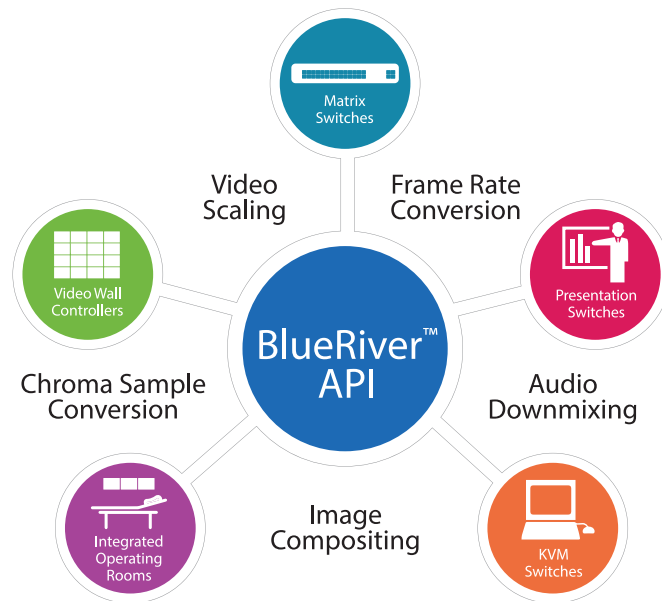# BlueRiver API

BlueRiver™ API enables and streamlines the creation of Software-Defined Video over Ethernet (SDVoE) control and management applications. And why is that important? First a bit of background.

Only a couple of years ago, the only solutions for video over IP were high compression and high latency. That style of technology was, and still is, useful for getting content to wireless devices (mobile) or across great distances (the Internet), where the convenience of having SOMETHING outweighs the downsides of having to wait two seconds (latency) and settle for lower quality (compression). Today, there is still a place for that approach in those same use cases. But now with the advent of affordable 10 Gigabit networking and the BlueRiver platform, uncompressed zero-latency transmission over IP networks is possible. Ethernet switching can displace high performance point-to-point technologies, while also servicing mobile and long-haul applications with complementary compression technologies like H.264 and H.265.

BlueRiver is the most widely adopted chipset giving AV product manufacturers a turnkey solution for zero-latency 4K video over IP. We have done all the heavy lifting, allowing manufacturers to leverage the IT industry's multi-billion-dollar investment in Ethernet hardware while applying unique capabilities to endpoints (encoders and decoders) and bringing a whole new level of creativity and innovation to advanced management software.

That's where BlueRiver API comes in.

As with any comprehensive, well-designed application programming interface (API), BlueRiver API provides a set of simple subroutine definitions, protocols, and tools that control complex tasks to make it easier for developers to program their applications. They can focus on creating the perfect user interfaces and management tools for their targeted market segments in education, healthcare, enterprise, entertainment, hospitality, retail, houses of worship, government, military, industrial, and security – wherever the need for uncompromised zero-latency 4K video arises.

Matrix Switches

Video Scaling

Frame Rate Conversion

Video Wall Controllers

Presentation Switches

BlueRiver™ API

Chroma Sample Conversion

Audio Downmixing

Integrated Operating Rooms

Image Compositing

KVM Switches

The building blocks in BlueRiver API include easy interfaces to control: upscaling up to 4K, downscaling, aspect ratio management, frame rate conversion, chroma sample conversion, video wall processing, image compositing, audio downmixing, video routing, independent audio routing, multicast IGMP management, and much more.

Manufacturers who adopt the SDVoE approach and fully exploit BlueRiver API to support high-bandwidth video distribution in their products have a huge opportunity to be the next-generation of market leaders.

Integrators, consultants and designers who embrace the new paradigm also have a market advantage.

End users benefit from increased flexibility, more applications tailored to their particular needs and the reduction of both CAPEX and OPEX related to their video distribution deployments.

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