



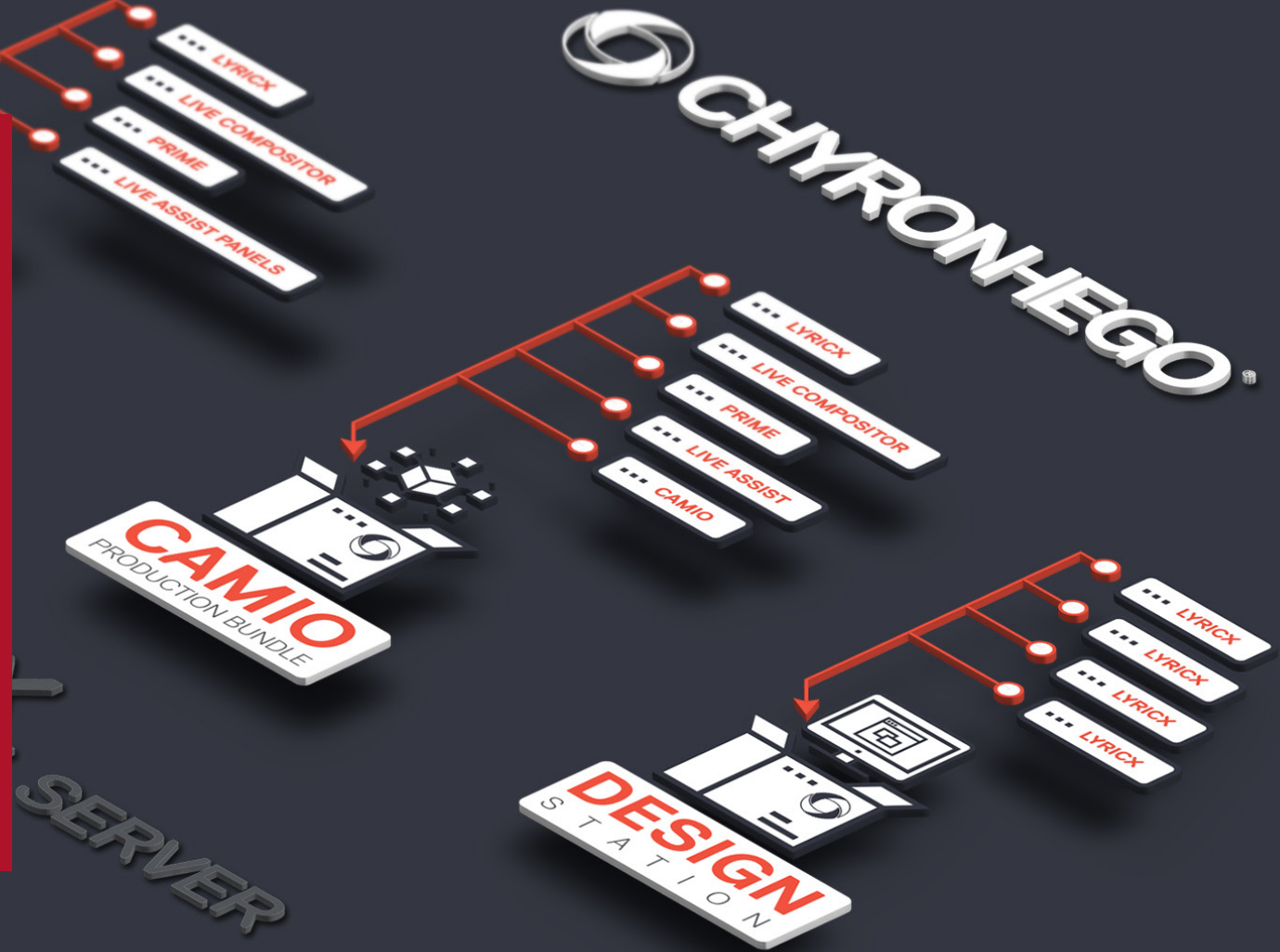
**VPX**

VIRTUAL PRODUCTION PLATFORM

WHITE PAPER

# VPX

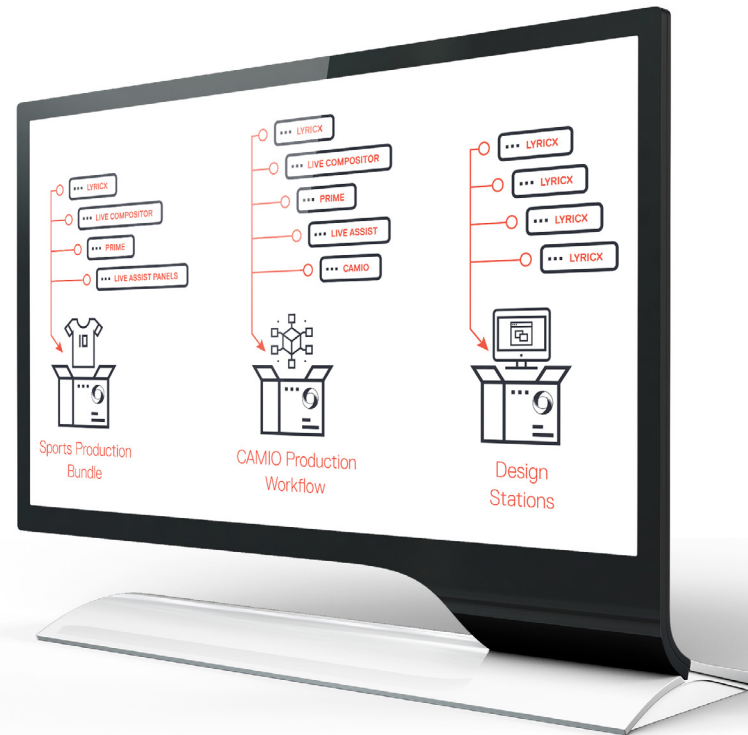
CONTENT  
CREATION AND  
PLAYOUT IN A  
VIRTUALIZED,  
IT-BASED  
ENVIRONMENT



## VPX – AN INTRODUCTION

ChyronHego's new Virtual Production Server (VPX) platform represents the next phase in IT-based broadcast operations by enabling broadcast news operations to run critical content creation and playout software in a virtualized, IT-based environment. The VPX platform enables broadcasters to create highly efficient, cost-effective, and easy-to-manage production workflows for news, sports, and other programs, all from virtual instances running on a single server.

With VPX, the technical transformation from SDI to IP to IT is complete.



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## A PLATFORM FOR THE FUTURE

The broadcast industry is in a time of major transformation, facing stronger pressure than ever before to produce not only more engaging content but also greater quantities – delivered as fast as possible to multiple platforms in different formats. The need for efficient solutions has never been more important, and of course total cost of ownership is at the center of almost every conversation about broadcasting technology.

At ChyronHego, we've invested a great deal to ensure we can provide our customers with highly efficient, all-software solutions for end-to-end production workflows. Last year's introduction of the CAMIO Universe was an important step in that direction.

In parallel, we're helping our customers make the transition from SDI-based workflows to all-IP video production. Our adoption of NewTek's

Network Device Interface (NDI) video protocol across the entire ChyronHego product family is one important milestone. The next step is to introduce the ability to use standard IT infrastructure instead of bespoke hardware. In particular, the use of virtualized server technologies instead of dedicated servers for each individual production task is of tremendous benefit to our customers.

Our latest answer to these market dynamics and our customers' requirements is the all-new ChyronHego Virtual Production Server (VPX) – a ground-based virtual server platform that can host end-to-end live production workflows. VPX is a game-changer because it means that running live production workflows in a virtualized server environment is no longer a vision for the future, but is available to broadcasters here and now.

# 3 STEPS

## A THREE-STEP PROGRESSION

The path to ChyronHego's VPX has evolved along three key milestones:

### 1 ALL-SOFTWARE WORKFLOWS

The first step is to provide end-to-end production workflows based entirely on software and with almost no hardware dependencies. With the introduction of the CAMIO Universe in 2016, we took a huge leap in this direction by all creating an all-software workflow for every aspect of live production including video and audio switching, broadcast graphics, clip playback, virtual sets, and weather graphics, all under extensive playout automation.

### 2 FROM SDI TO IP

The second step is to make sure all live production components have the ability to share video within the software-based workflow and without the need to go through SDI. This is a core benefit of IP-based video distribution, and our company-wide adoption of standards such as NDI was an important accomplishment in this regard.

### 3 STANDARDIZED IT INFRASTRUCTURE

At ChyronHego, we believe the IP future is bright for our broadcast customers – but we're seeing the conversation continuing to shift from the broader concept of IP to the more nuts-and-bolts-focused topic of IT. That's because IP technologies are enabling broadcasters to migrate to all-software-based workflows running on standard IT infrastructure, rather than having to make new investments in proprietary hardware.

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## BRINGING VIRTUALIZATION BENEFITS TO BROADCAST OPERATIONS

We know broadcasters are eager to start using virtualized server technologies, but until now they've had few options for bringing virtualization into the realm of live production video workflows. That's all changed with the VPX platform.

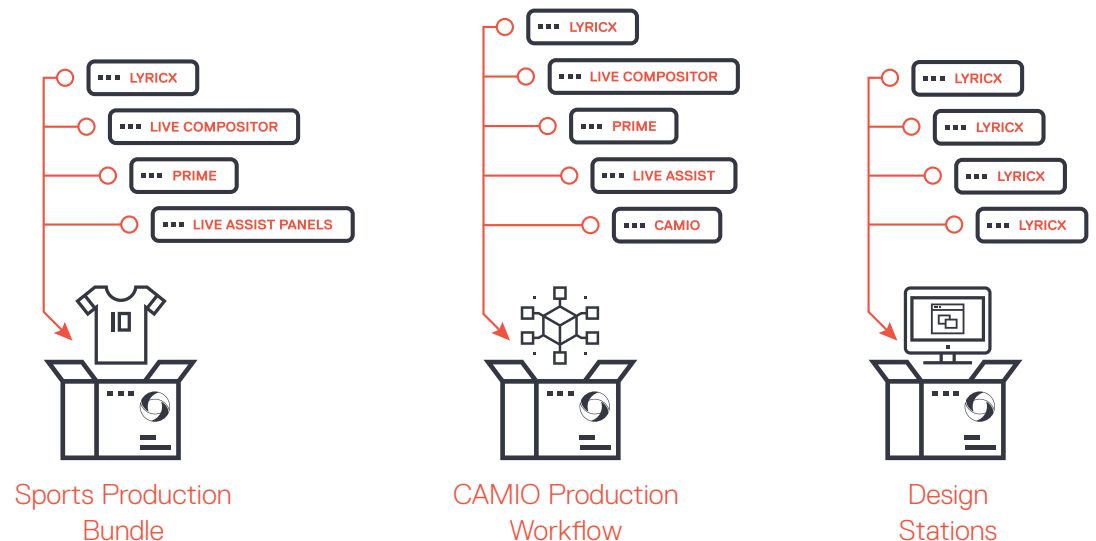
By running broadcast-specific applications in a virtual server stack, VPX delivers to media operations all of the virtualization benefits that corporate and enterprise IT departments have been enjoying for years. Just to name a few, these include:

- **Scalability.** Broadcast operations can spin up a complete production workflow running on the VPX server at a moment's notice to support a new channel or program, and they can scale down just as quickly. There's no more need to invest in additional hardware for peak hours that will simply sit idle during slower times; users can simply buy the capacity they need on a per-hour basis.
- **Reduced cost of ownership.** Since there's no longer any need for a separate hardware system to support each function, hardware dependencies are drastically reduced or even completely removed – yielding significant cost savings.
- **Redundancy.** Depending on its needs, a broadcast operation can run all of its applications on a single VPX server or, for maximum redundancy, spin up another server running the same applications. If the first server fails, the second can take over without interrupting service – offering critical redundancy in a high-pressure live broadcast environment.
- **Seamless Video Sharing.** As we've said, ChyronHego's VPX has emerged through a natural progression; from baseband SDI to IP networks supporting all-software production environments (such as the CAMIO Universe), and now to the next phase – seamless and effortless video sharing through VPX virtualization. To that end, VPX supports IP-based standard protocols such as NDI, which enables live-production video workflows over standard Ethernet networks. These protocols enable all ChyronHego solutions to communicate, share, deliver, and receive broadcast-quality video between the applications running on the VPX Platform.

# THE RIGHT APPS FOR THE JOB

## IMPROVE YOUR AGILITY

Broadcasters can cherry-pick from the ChyronHego product portfolio to create a mix of VPX applications matching the specific requirements of the production workflow. Or, they can pick from two packaged VPX solutions: A CAMIO Production Workflow Bundle, which virtualizes the news production solutions from the CAMIO Universe, or, a Sports Production Bundle, virtualizing ChyronHego's award-winning sports-specific solutions such as the Paint telestration tool or Virtual Placement virtual graphics system.



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## ABOUT CHYRONHEGO

ChyronHego, a portfolio company of Vector Capital, is a global leader in products, services, and solutions for the broadcast and sports industries. Specializing in live television, news, and sports production, ChyronHego offers some of the industry's most widely deployed solutions — including Lyric®, the world's most popular broadcast graphics creation and playout offering; the all-new CAMIO® Universe newsroom workflow; and TRACAB® Optical Tracking, the global leader in optical sports tracking systems as well as Click Effects, the most proven and versatile stadium broadcast family of graphics products. Headquartered in Melville, New York, ChyronHego also has offices in the Czech Republic, Denmark, Finland, Germany, Mexico, the Netherlands, Norway, Singapore, Slovak Republic, Sweden, and the United Kingdom.

For more information on ChyronHego, visit [www.chyronhego.com](http://www.chyronhego.com).

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