KVM over IP Streamlines Broadcast Operations

Taking Broadcast Operator Collaboration to the Next Level

In modern MCR, post-production, radio, or live event production environments, technology that fosters real-time collaboration between geographically-dispersed connected workspaces is a must for distributed device and control rooms, remote and local users, and OBVs. KVM-over-IP technology has become a major contributor to facilitate this challenge.

Enabling Remote Access with KVM over IP

- Optimizes live events broadcasting for better collaboration among staff members
- Users can control remote computers, servers, and virtual machines on a LAN or WAN
- Connect any number of users to an unlimited number of endpoints
- Add more devices via an IP switch
- Experience 4K pixel-perfect video, peripheral device support, 24/7 uptime, and real-time remote access to mission-critical servers over large distances anywhere in the world

KVM over IP Products Trending Now

The latest developments in IP-based KVM solutions include intuitive, simple, and flexible collaboration and visualization tools, such as Black Box Emerald® KVM over IP.

Factors Driving KVM over IP Growth that Benefit Users and Administrators

Global KVM OVER IP Market Size, 2028 (USD Billion)

2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028

52.6% growth 214.2 USD Billion 2022 to 326.9 USD Billion global KVMoIP projected market value by 2028[2]

- Fast response times
- No onsite maintenance, reduced personnel costs
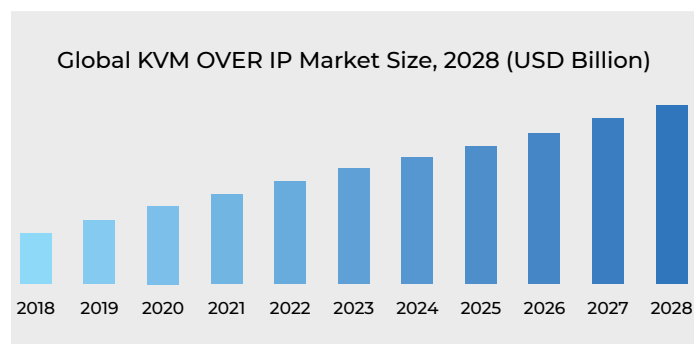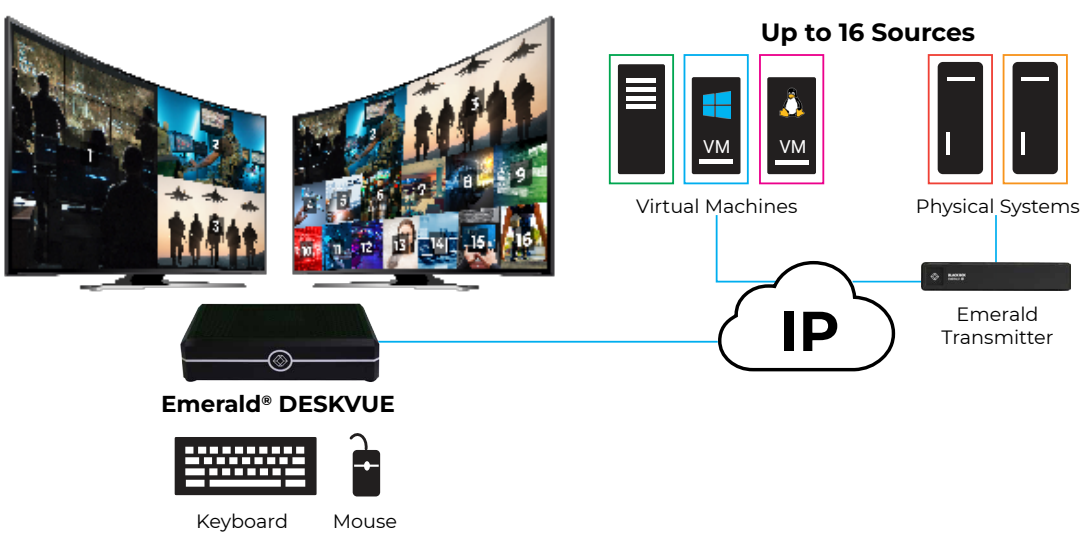- Enhanced security through authorization
- Flexibility to expand

Emerald KVM over IP

Black Box innovative Emerald® KVM-over-IP platform changes the way people collaborate. Emerald serves as an infinitely scalable universal access system, giving users the flexibility to connect to both physical and virtual machines, along with anywhere, anytime IP access over an existing IP-network, WAN, or even the Internet. Interoperability between 4K and HD video, and one-touch control room setups, combined with a high degree of automation through Emerald's APIs, gives users valuable flexibility and ease of use, while system administrators can easily control and manage the system through an intuitive and appealing KVM management dashboard.
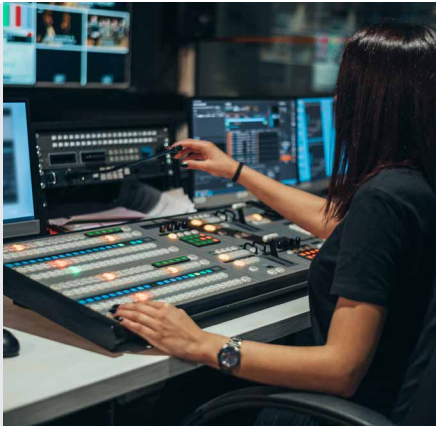
Choose Emerald DESKVUE to Optimize Your User Workspace

In a completely new concept in KVM over IP, the award-winning Emerald DESKVUE receiver allows users to create a personalized workspace with a simplified user experience.

Up to 16 Sources

Virtual Machines

Physical Systems

Emerald Transmitter

IP

Emerald® DESKVUE

Keyboard   Mouse

best of show 2023
AT ISE 2023
Winner
AV TECHNOLOGY
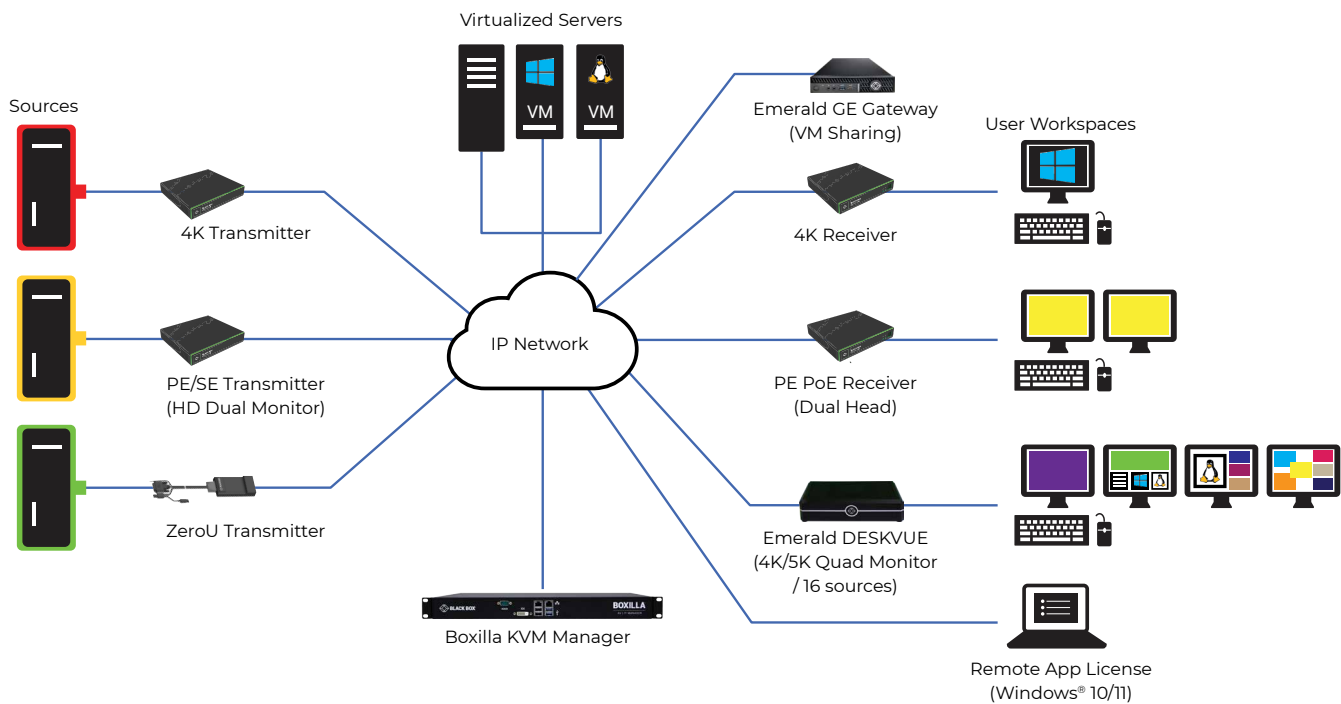
NABSHOW®
of the PRODUCT YEAR 2023
WINNER

How Can Emerald DESKVUE Improve Your Workspace?

- Interact with 16 systems at the same time from your own personalized workspace
- Freely size and arrange system windows in eyesight, even across single monitor borders
- Use ultra-wide 5K curved monitors or up to four 4K monitors
- Instant mouse-over switching – no more clumsy keyboard commands or OSD opens
- Get rid of multiple KVM receivers on your desktop
- No need for additional transmitters to access VM

Emerald Connectivity Concept

Virtualized Servers

Sources

4K Transmitter

PE/SE Transmitter
(HD Dual Monitor)

ZeroU Transmitter

IP Network

Emerald GE Gateway
(VM Sharing)

User Workspaces

4K Receiver

PE PoE Receiver
(Dual Head)

Emerald DESKVUE
(4K/5K Quad Monitor
/ 16 sources)

Remote App License
(Windows® 10/11)

BOXILLA
Boxilla KVM Manager

LERAN MORE   **BLACKBOX.COM/ BROADCAST**

Use Cases

Control Rooms

Challenges:

- Replace legacy KVM system
- Support a large campus
- Access physical & virtual machines
- Integrate systems at local desk plus KVM access

Solution: Emerald & Freedom, Why?

- Emerald scales well – bandwidth and system wise
- No single point of failure – high reliability
- Seamless integration of virtual machines in all receivers
- Excellent management – easy to analyze system

Live Events

Challenges:

- OB Vans
- Limited Staff onsite
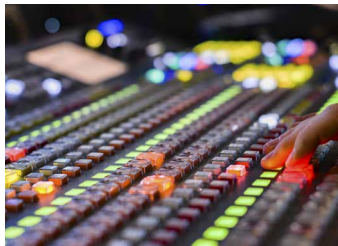- Work from base 2000 kilometers away

Solution: Why Emerald?

- Access to systems in OB van
- Low latency, low bandwidth
- Lightweight with small form factor

Post Production

Challenges:

- Remote access for video and graphics editors
- Campus-wide extension over existing IP network
- Pixel-perfect DisplayPort video 2560 x 1600 and 4K

Solution: Why Emerald?

- KVM over IP solution with lowest bandwidth demand
- 4K and dual link DisplayPort video with no interruptions
- Clear management dashboard, easy system handling

Remote Production

Challenges:

- Integration of virtual machines
- Flexible remote access with ease of use across multiple facilities and systems
- High redundancy, resiliency, and scalability

Solution: Why Emerald?

- Seamless user experience accessing VMs and physical systems
- WAN resilience with anywhere remote access
- Exceptional performance, efficient network usage, and fail-safe operation

Studio Infrastructure

Challenges:

- New building including multiple control rooms, playout places
- Reliable platform to be operated by remote automation systems
- Full HD/4K video interoperability
- Seamless adaption to changing requirements
- Easy management, simplified user operation

Solution: Why Emerald?

- Infinitely scalable IP solution with extremely low bandwidth usage
- App for remote Windows® laptop users, full HD/4K interoperation
- Reliable sytem with API integration
- Excellent management – easy to analyze system

References

Want to learn more about how you can optimize your workspace? Contact our solutions experts today.

References:
[1]https://www.altmansolon.com/news-and-events/altman-solon-report-avoip-helps-broadcasters-deliver-more-live-events-that-viewers-want/
[2]https://www.businessresearchinsights.com/market-reports/kvm-over-ip-market-100446

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