

# KVM in Broadcast: A Success Story

**Then:**  
Before KVM, on-site camera crews filmed events, then manually carried films back to the broadcast studio to process.

**Now:**  
Broadcasters beam video from a live event to the broadcast control room and on to your living room using virtualized servers, accessed by IP-based KVM systems.

## 100 Years of Broadcast and the Role of KVM

**1920s-1950s**  
Broadcast for  
Everybody!



First TV broadcast  
by wire from  
New York to  
Washington, D.C.

1927

1951

Live TV sports  
broadcasts debut.

**1960s-1970s**  
Era of "Big"  
Mainframe  
Computers

A computer for your pocket?  
That will have to wait  
another couple of decades.

1969

Broadcast brings  
us to the moon!

**YOU ARE  
HERE**

First images of the  
1969 moon landing  
broadcast via Earth-orbiting  
satellites that transmitted  
back to NASA in Houston  
and, via further satellite links,  
to TV receiving centers  
around the world.

**1980s**

Era of "Personal  
Computers"

PCs in broadcast  
were not yet  
mainstream.  
Throughout the  
decade, the relatively  
small PCs and  
cathode-ray tube  
(CRT) displays quickly  
entered studios.

1989

First analog KVM  
Switch is born. The  
broadcast industry quickly  
realizes the potential of the new  
technology for connecting multiple users  
with multiple systems.



## Enter KVM Switching and Extension

**1990s-2000s**  
Transition "Analog  
to Digital"

KVM technology is yet in  
its infancy but starts to  
quickly gain traction in  
broadcast. Switching  
sources was done  
using hotkeys over  
directly connected  
systems or CATx  
connections.

Maximum resolutions  
reached up to a stunning  
**1280 x 1024**

2008

A new Star is born  
**KVM over IP**  
Gone are the days of limited scalability  
of KVM matrices. Send 4K video and USB  
as far as your network reaches & connect  
physical and virtual machines.

2018

**NAB 2018**  
Black Box introduces  
**Emerald® 4K KVM-over-IP**  
4K60 pixel-perfect KVM over IP  
**Boxilla® KVM Manager**  
Manages hundreds of endpoints  
and converges AV and IT networks.

**2010s +**  
Let's go virtual!

This time it's not  
physical: a move to  
virtual machine based  
infrastructure is on its  
way. Broadcast industry  
is shaken by major  
market disruptions  
including social media,  
streaming media, and  
higher resolutions.



## Product Spotlight 2023: Award-Winning Emerald® DESKVUE

Create a personalized workspace to simultaneously  
monitor/interact with 16 physical, virtual, and  
cloud-based systems from up to four 4K/5K screens  
(maximum of one 5K screen).



**5.9 Billion**

Global KVM switch market  
by 2030  
growing at a CAGR of 7.20% (Contrive Datum)

**7.06 Billion**

Global Broadcast Equipment  
Market by 2030  
growing at a CAGR of 4.8% (Polaris)