

# Sequoia 4K60

UHD 4K60 HDMI and KVM Switcher Intergrated with Multiview

—Integrated Monitoring, Distribution, and Operation Solutions



# Company Overview

Headquartered in Redmond, Washington, Avitech International Corporation was founded in 1995 to address the growing demands faced in monitoring. We focus exclusively on the design, development and manufacture of multiviewers and their enhancing peripherals for a broad range of customers in the information technology, professional AV, television broadcast, and the surveillance industries. With over 25+ years of experience in the field and tens of thousands of units in private and public sectors, Avitech provides industry-recognized and award-winning solutions in dynamic markets.



# History & Milestones

1995 ▶ Avitech International Corporation founded  
 ▶ Meeting with ABC to discuss the concept of Virtual Wall Monitor



1997 ▶ Partnership with Seattle KOMO TV Station



2000 ▶ Featured editorial front page coverage on Television Broadcast, Oct 2000 Issue



▶ First ever editorial coverage in trade magazine about multiviewers

2001 ▶ Showcased world's largest Virtual Monitor Wall (120x50" screens) in Tulsa, Oklahoma

2003 ▶ Introduced Application Specific Integrated Circuit (ASIC) design for multiviewer performance

2005 ▶ Achieved RoHS Compliance for environment sustainability



2006 ▶ MCC-8004UE selected for 2006 FIFA World Cup football games in Germany



2007 ▶ Rainier series wins InfoComm Rental & Staging "Best Video/Broadcast Product Award"



2008 ▶ MCC-8004UE selected for UEFA European football championship games in Austria and Switzerland

2010 ▶ MCC-8004UE selected for 2010 FIFA World Cup football games in South Africa



2011 ▶ Editorial featured in Religious Product News e-newsletter: Redefining Multi-tasking

▶ Rainier 16U1V field report editorial featured in Broadcast Engineering November Issue

2012 ▶ Rainier 3G selected for UEFA European football championship games in Poland and Ukraine



2013 ▶ US patent granted - "Control System and Method for Controlling Information Processing Devices"

2014 ▶ US patent granted - "Securing Device for Securing of Transmission Cable with Connector" (HDMI Hook)

▶ Rainier 3G Plus selected for FIFA World Cup football games in Brazil



2016 ▶ Pacific MS non-compressed KVM and video matrix switcher introduced

2018 ▶ Launched the Avitech KVM and AV over IP ecosystem

2019 ▶ First Avitech KVM over IP ecosystem installation, including a 66 screen video wall

▶ First installation of the Pacific MS-6 32x32 matrix switcher

2020 ▶ Introduced the Avitech Pacific X-IPW (S) for remote access and control of Avitech oIP ecosystems and Pacific MS units

2021 ▶ Rainier 3G Plus used for Tokyo 2020 Olympic Games broadcast



2022 ▶ First all 4K60 multi-functional video processors Sequoia 4K60/L introduced.

# Product Series Overview

## Titan

### Video Wall Processor / Card-Based Multiviewer

Newer generation video wall processor, TitanWall oIP and TitanWall ES series with open and distributed architecture deliver high-performance wall solutions with scalability. Installation of multiple walls at various sites on dedicated gigabit LAN also concurrently supports hundreds of user spaces in video wall management.

## Pacific

### Matrix Switcher / Converter / Extender / Distribution Amplifier

The Pacific family of products enables facility-wide integration and ensures consistent and powerful performance. The latest KVM and AV over IP solutions support ecosystems with signal conversion, extension, distribution, switching, monitoring, and operation.

## Sequoia

### Multiviewer with KVM Switcher

The Sequoia series adds another dimension of versatility to multiviewing with the integration of a switching function for keyboard / mouse control, audio and USB hubs with support of touch-screen operation.

## Phoenix

### GUI / Touch-Screen Control Panel

The Phoenix family includes easily configurable human interface devices and graphical user interface programs.

## Rainier

### Card-Based Multiviewer

The Rainier series features high quality multiviewers exclusively for processing SDI (3G/HD/SD) and CVBS (NTSC/PAL) signals.

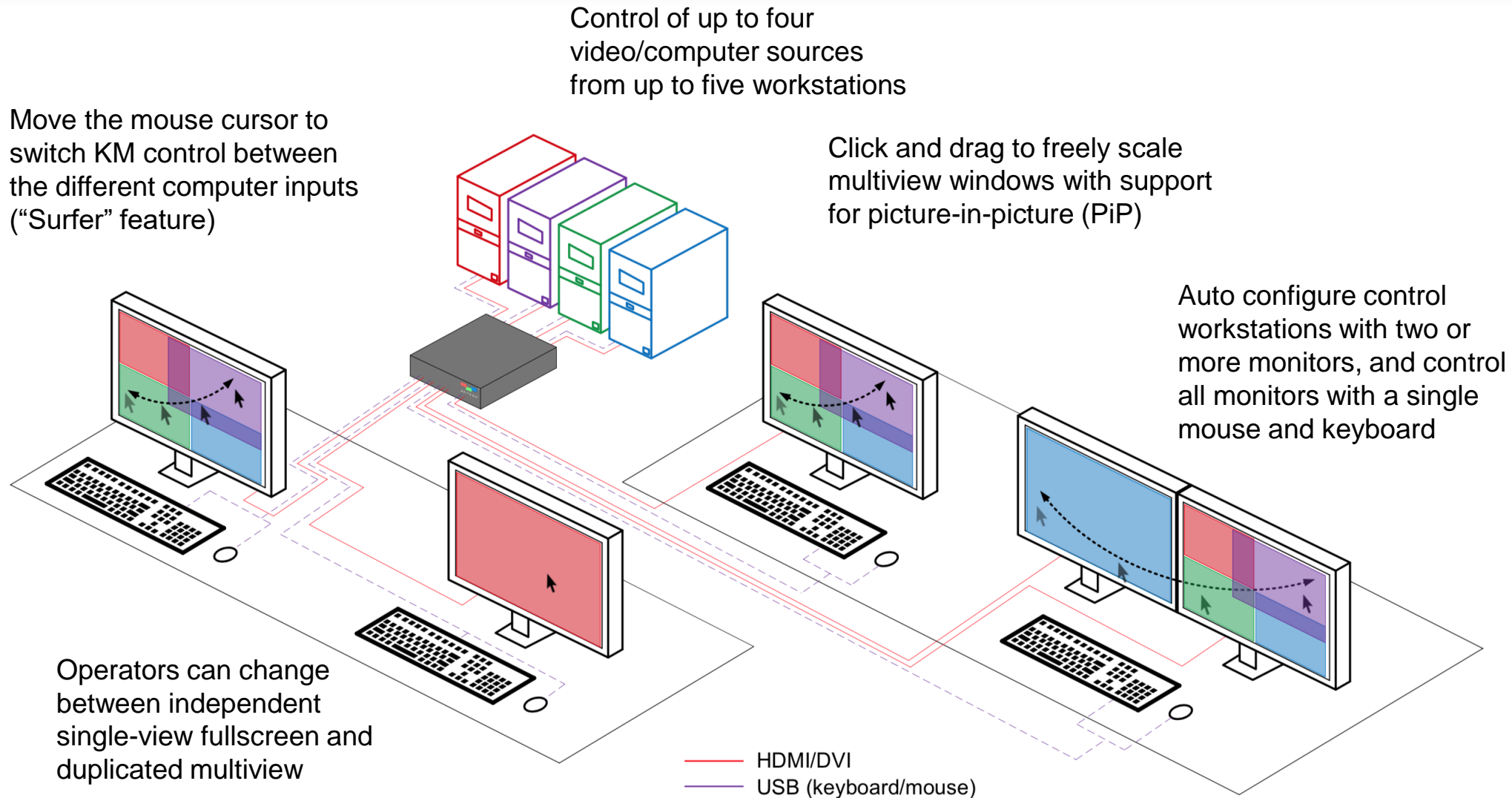


# Sequoia 4K60 Physical Overview

The Sequoia 4K60 is a multi-functional video processor – a 4-in-5-out UHD seamless video wall controller, a UHD PiP video switcher, and a multi-user KVM switch with multiview, with support for multi-user UHD multi-touch operations. The Sequoia 4K60 has FCC Class-B certification for in-home and commercial use.



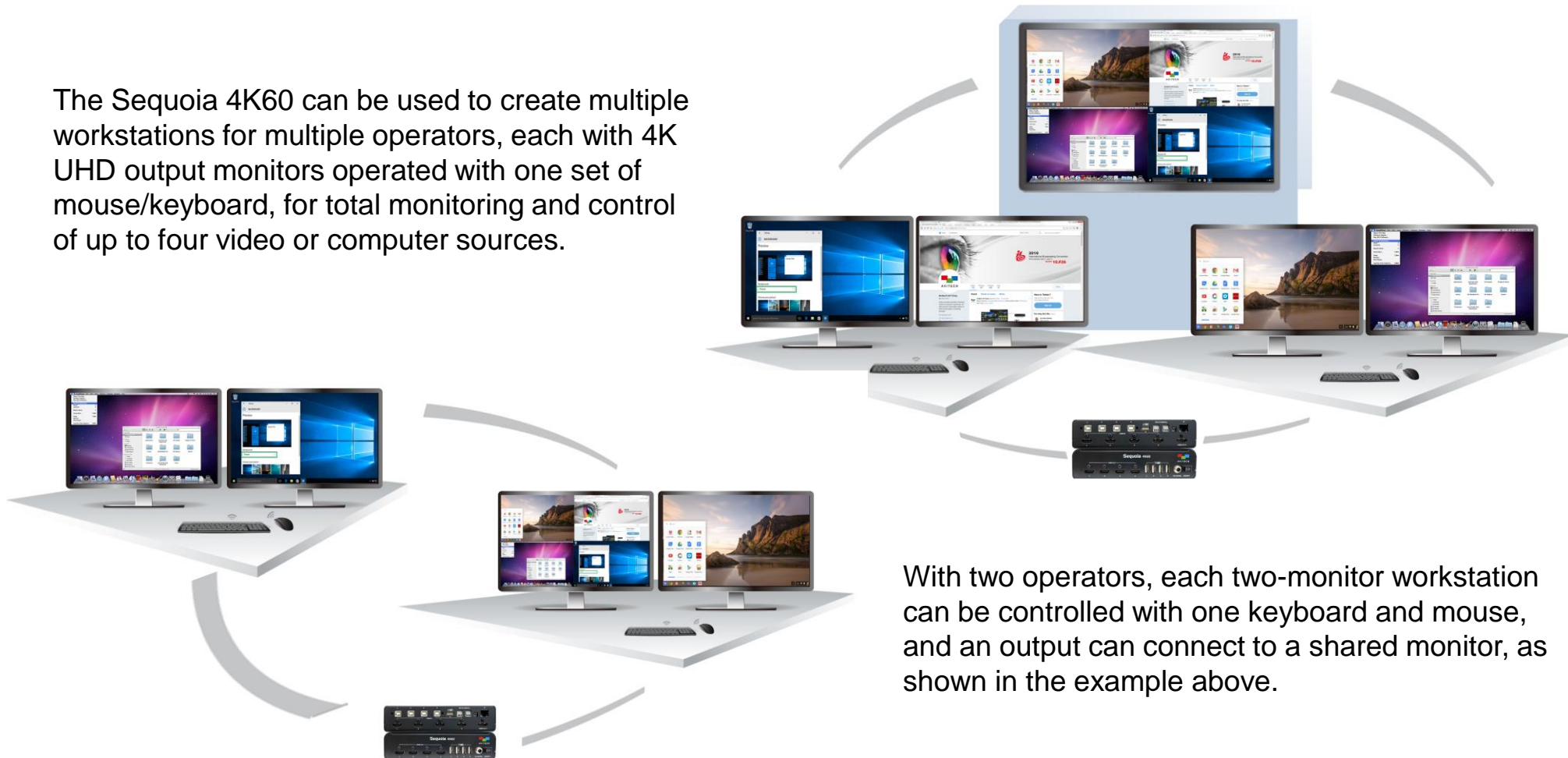
# Sequoia 4K60 KVM Multiview Feature Overview



# Sequoia 4K60 Example

## Two operators at two independent workstations

The Sequoia 4K60 can be used to create multiple workstations for multiple operators, each with 4K UHD output monitors operated with one set of mouse/keyboard, for total monitoring and control of up to four video or computer sources.



With two operators, each two-monitor workstation can be controlled with one keyboard and mouse, and an output can connect to a shared monitor, as shown in the example above.

# Sequoia 4K60 Example

## Three operators at three independent workstations

The Sequoia 4K60 can also be used to create three workstations for three operators with duplicate 4K UHD quad-view outputs or independent 4K UHD single-view outputs. Any output/monitor can be quad-multiview or single-view fullscreen.

Moving the mouse cursor to any computer source image switches mouse and keyboard control to that computer ("Surfer" feature). The user can surf across all the monitors and windows in the workstation.





# Sequoia 4K60 Example

## Four operators at four independent workstations



With five HDMI outputs and USB-A ports, the Sequoia 4K60 can connect to up to five monitors and mouse/keyboard sets.

In the below example, a Sequoia 4K60 is used to create four workstations for four operators, with one shared large 4K UHD screen with quad multiview. With the "Surfer" feature, one of the workstations can use its mouse and keyboard to also control the quad multiview.



# Sequoia 4K60 Example

## KVM Multiview Touch Operation

The Sequoia 4K60's five HDMI 2.0 outputs and five USB-A ports can connect to up to five 4K UHD multi-touch monitors. On the single-view full screen monitors, the operator can use touch to quickly and easily switch between the different input sources, with touch control of the source computers. On the multiview, tap and drag to freely move the windows around and make them larger or smaller, and double-tap on a window to switch touch control to a different source computer.



# Sequoia 4K60 Example

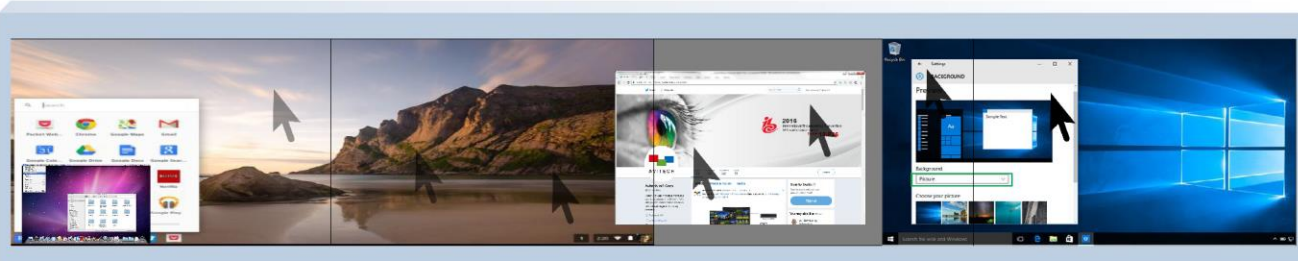
## 4K UHD Video Wall

With the four front HDMI outputs, the Sequoia 4K60 can create video walls with 4K UHD panels. Inputs and outputs can support up to 4K60 at 4:4:4, with picture-in-picture and free-scaling windows. The user-friendly web-based Graphical User Interface (GUI) is in-system, so no downloads are needed. It can be operated from a computer's web browser or touch capable devices like smartphones and tablets, making the video wall simple to configure and control. The integrated API allows third party control.



# Sequoia 4K60 Example

## 4K UHD Video Wall



With integrated KVM, the Sequoia 4K60 can support mouse control of computer sources on the video wall. The Sequoia 4K60 can also be used to create multiple video walls, with GUI control from multiple stations



The Sequoia 4K60 GUI is easily plug-and-play; simply connect via ethernet cable, make sure the device is on the same network, and open the GUI in any web browser to start configuring and controlling the video wall.



# Sequoia 4K60 Example

## 4K UHD Auditorium Displays



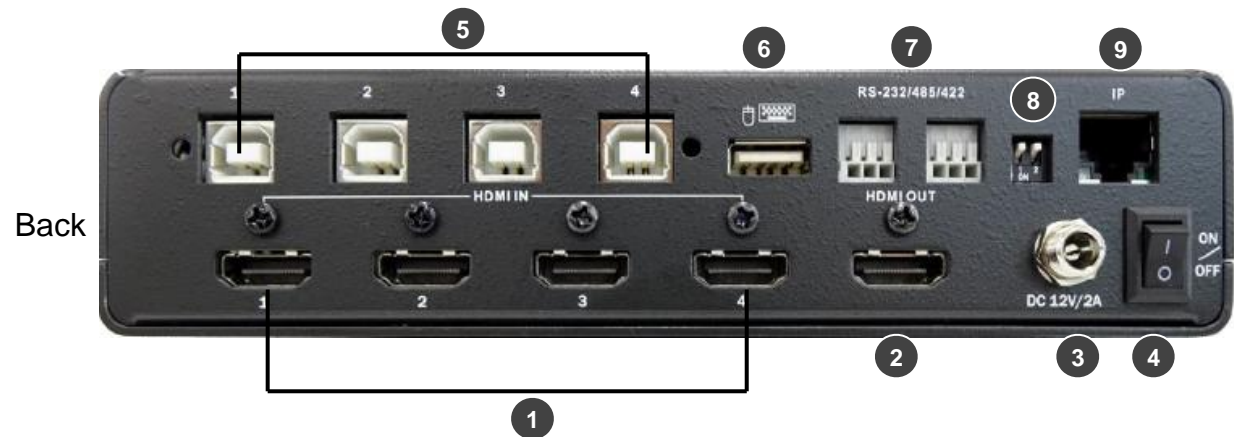
The Sequoia 4K60 offers seamless switching of the input sources to any of the single-view fullscreen outputs. The web-browser based GUI offers easy and intuitive control from computers and handheld touch devices. When in display mode, four outputs can duplicate two picture-in-picture (PiP) images, and one output can create a preview multiview, as shown to the left.

# Sequoia 4K60L Physical Overview

The Sequoia 4K60L integrates the functions of a 4-in-4-out UHD seamless video switcher, a UHD video wall controller, and a KVM switch with multiview, with support for UHD multi-touch operations. The Sequoia 4K60L has FCC Class-B certification for in-home and commercial use.



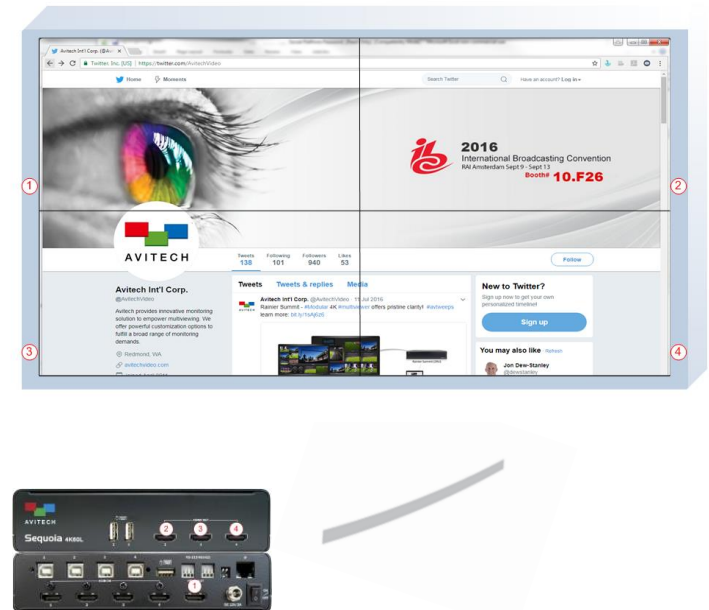
- 1 HDMI input ports
- 2 HDMI output port
- 3 12V power supply port
- 4 On/Off switch
- 5 USB-B ports (outputs)
- 6 USB-A port (input)
- 7 RS-232/RS-485/RS-422
- 8 Dip switches
- 9 IP port (RJ-45)



# Sequoia 4K60L Example



The Sequoia 4K60L has four HDMI ports with up to 4K UHD output and three USB-A ports. This can support a user workstation with dual monitors and one set of mouse/keyboard for operation of all four source computers.



The Sequoia 4K60L can connect to four 4K screens and create a 2x2 video wall for a display equivalent to a single picture at 8K resolution, or view up to four sources at 4K at the same time.

# Sequoia 4K60L –Daisy Chained

One Sequoia 4K60L displays up to 4 UHD/FHD.



Three Sequoia 4K60L support up to 10 UHD/FHD.



The Sequoia 4K60L supports up to 16 UHD/FHD computer and video sources displayed on one UHD 4K monitor with mouse/keyboard/multi-touch operations. It can auto configure multiple daisy chained units on the network. With this auto configuration feature, it is flexible to add or remove Sequoia 4K60L units in a daisy chained group.

Two Sequoia 4K60L display up to 7 UHD/FHD.



Four Sequoia 4K60L provide up to 13 UHD/FHD multiview and operation.



- ▶ HDMI
- ▶ USB (keyboard/mouse)
- ▶ Daisy Chain HDMI
- ▶ 10/100 copper (Ethernet)



# Sequoia 4K60 & 4K60L Feature Comparisons

	Sequoia 4K60	Sequoia 4K60L
Source HDMI Input #	4	4
USB-B Port	4	4
Output HDMI #	5	4
USB-A Port	5	3
Source Switching without multiview	Seamless 4 in-5 out	Seamless 4 in-4 out
Source Switching with multiview preview	Seamless: #2-5 outputs with single image at full screen	Instant: #2-4 outputs with single image at full screen
Multiview	Output #1 : Main multiview Output #2-4 : Duplicated	Output #1 : Main multiview Output #2-4 : Duplicated
Auto KVM Workstation Configuration	Multiple; up to 5 users	Single user
UHD/FHD Multi-touch operation	Multiple incidences on 5 outputs	Single incidence on 4 outputs
UHD/FHD video wall control	PiP 2x2, 1x2, 1x3, 1x4 (dual image layer per output)	2x2, 1x2, 1x3, 1x4 (single image layer per output)
UHD/FHD projection	PiP Duplicated Projection with multiview preview	PiP Duplicated Projection without multiview preview
Daisy chain multiview with KVM and multi-touch	N/A	Yes, for up to 16 sources per UHD/FHD screen

# Sequoia 4K60 & 4K60L Applications



## Active Learning

Students can view and control multiple sources, sharing resources and collaborating effectively

## Collaborative Workplaces

KVM Multiview enables effective information sharing and effective group workflows



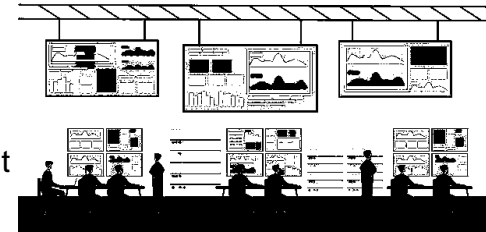
## Confidence Monitoring

View and control multiple computer and video sources at the same time, providing confidence and the capability to fix unexpected issues quickly



## Situation Management

In time-critical emergencies, users can easily see the relevant information and control key equipment



## Presentation Operation

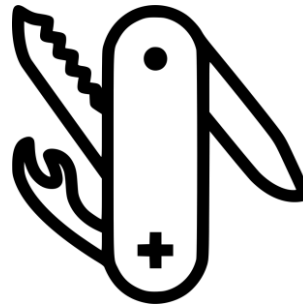
One Sequoia box provides confidence monitoring and seamless switching, with KVM for easy control of computer sources



# Sequoia 4K60 & 4K60L Advantages

## Multifunctional Video Processing

One system with multiple modes (seamless matrix switching, single and multi-user workstations, multiview preview, presentation, multi-touch compatibility, video wall control) can reduce inventory needed for different projects



## Robust Design

Rigorously tested heat-management systems ensure dependable operation in extreme environments. Designed to IEC-60945 specifications for vibration, humidity, and temperature.

## TAA and NDAA Compliant

Safe to source and use

## FCC Class-B

Certified for in-home and commercial use

## Small Form Factor

Light-weight and easy mounted



3.04 lbs

12" x 7" x 1.75"



2.12 lbs

8" x 7" x 1.75"

## Intuitive Control

Switch system control by moving a single mouse cursor between monitors and windows, switch sources with pop-up icons and hotkeys.



# Related Solutions for More Sources and Users

## - Pacific MS; Non-compressed Matrix Switchers

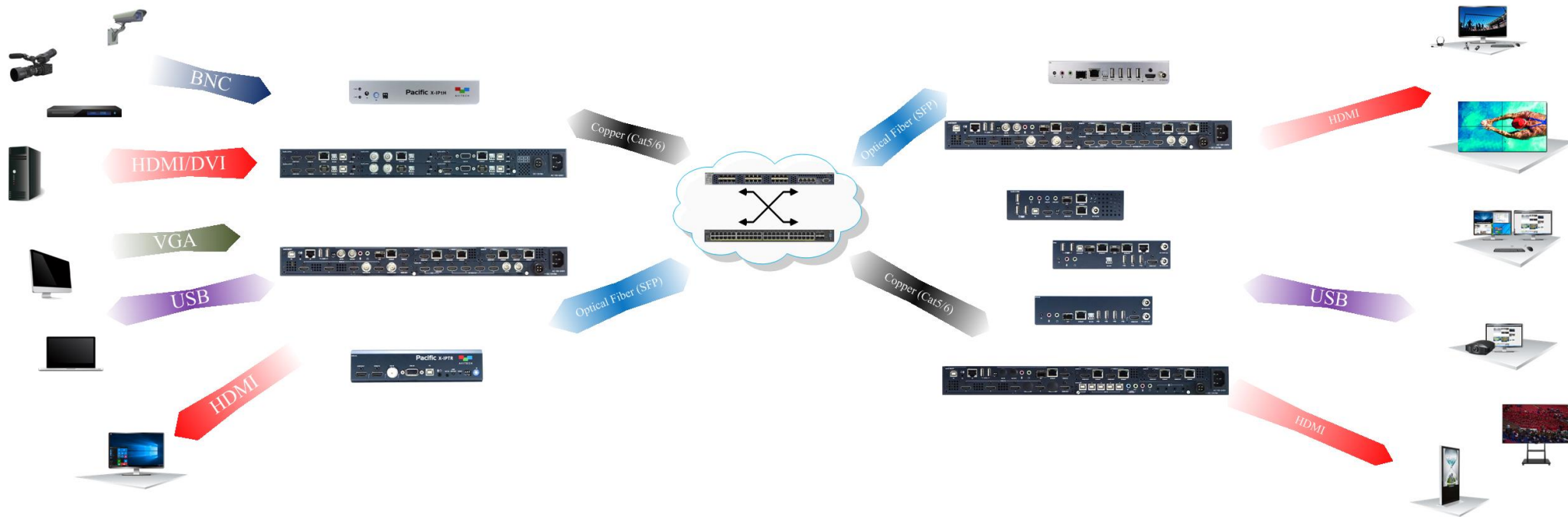


The Pacific MS is a modular matrix switcher system that enables switching, monitoring, and operation of up to 32 computers and video signals. The Pacific MS has 1RU, 2RU, 3RU, and 6U versions, and can centralize control and monitoring of multiple source systems on multiple displays at different locations in a workplace. It offers non-compressed high-speed video routing, flexible KVM switching, and multiviewing capabilities through various input/output card combinations.

# Related Solutions for More Sources and Users

## - KVM over IP

The Pacific X-IP series provides solutions for signal extension, distribution, and switching from any location to any destination in a networked environment. With a quad-core CPU, the Pacific X-IPRG can manage thousands of nodes on a Local Area Network with an extensive database and user friendly icon-based Graphical User Interface. One-to-one switching or switching in groups can be done by a simple set of commands using a mouse and keyboard, serial or IP third party commands, or touchpad. The Sequoia UHD can provide integrated KVM multiview for the over IP ecosystem.



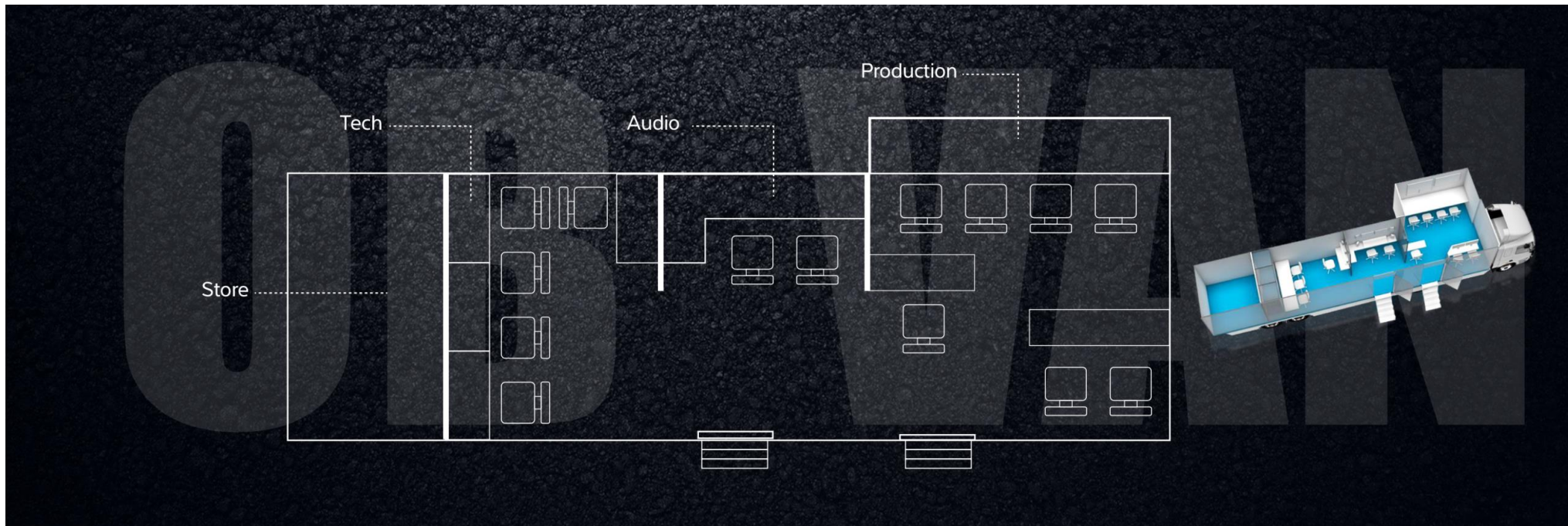
# Installation Example – Communications Center



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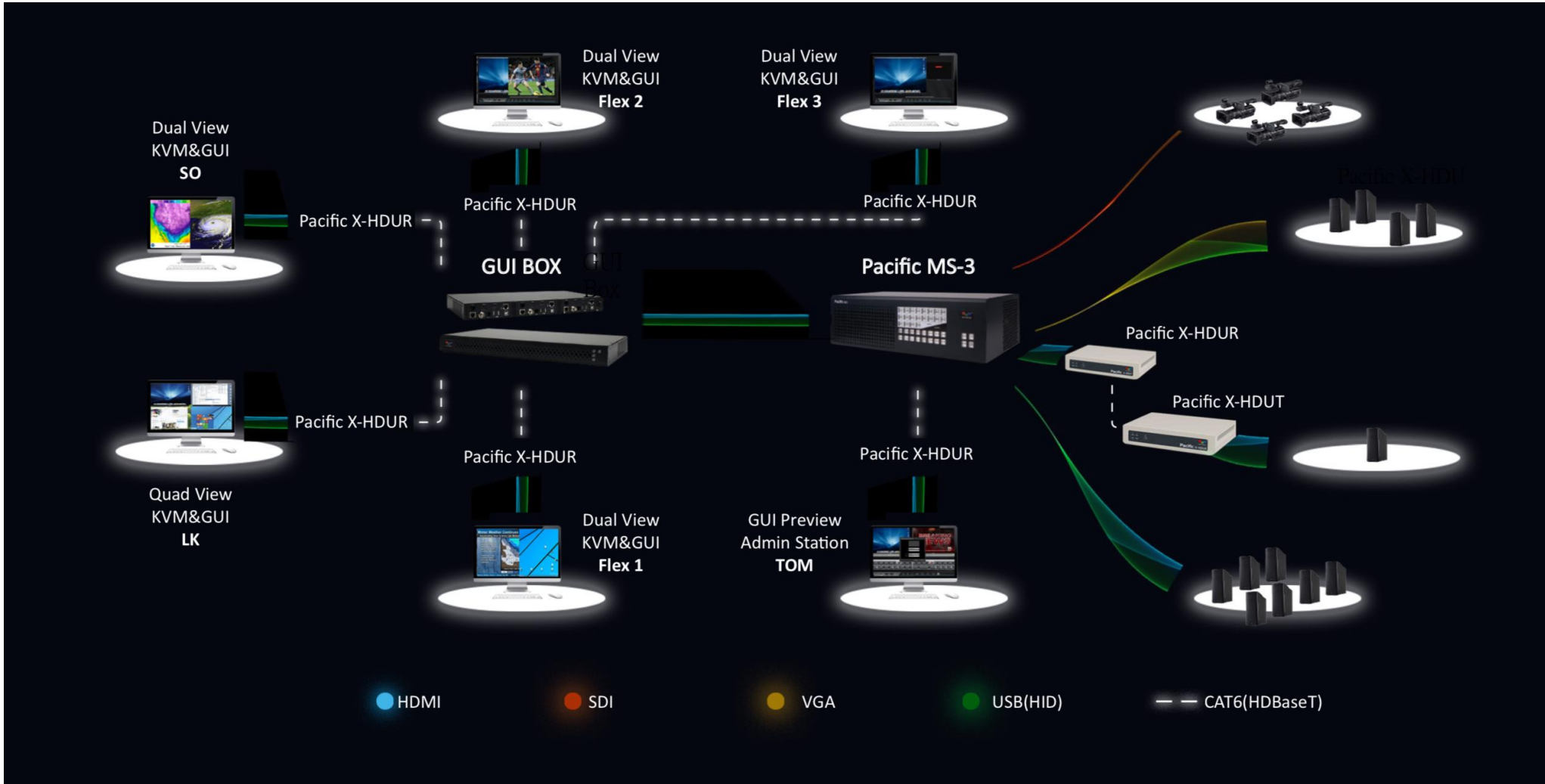


# Installation Example – OB Van





# Installation Example – OB Van



# Installation Example – OB Van



# Installation Example – Marine Vessel Bridges



Before



After



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