OLYMPUS®

4K

EasySuite® 4K

Ultra-High Definition O.R. Integration

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The EasySuite® 4K Integration system is an Enterprise-driven platform connecting care teams across the entire healthcare ecosystem. Its future-proof architecture and enhanced security features ensure compatibility, and safeguard protected health information. The solution enables surgical and interventional clinicians to connect with the visual insights derived from legacy HD/SD and now ultra-high definition (4K/UHD) medical sources, to simplify pre-, intra-, and post-operative clinician workflows in spaces ranging from small outpatient procedure spaces and larger operating rooms.

Rooms integrated with EasySuite® 4K have a level of flexibility and scalability which allows the space to be used for multiple specialties and types of medical procedures. This helps hospital enterprises improve clinical procedures and operational efficiencies, while enabling clinicians to focus on what matters most: patient care.

Easy Adoption of 4K Technology

Olympus Ultra-high definition (4K/UHD) video quadruples the resolution of high definition (HD) video, captures more light, and generates a wider color gamut. The increase in light, color and resolution from Olympus 4K cameras, scopes and monitors enable clinicians to see more structural detail and make it easier to distinguish the subtle difference between reds and yellows. The added light enables clinicians to use a smaller scope while viewing a larger image than previously possible. The EasySuite® 4K system integration platform has been designed specifically for the healthcare environment to empower surgeons to operate with greater efficiency and precision, not frustrate them with complex technology.
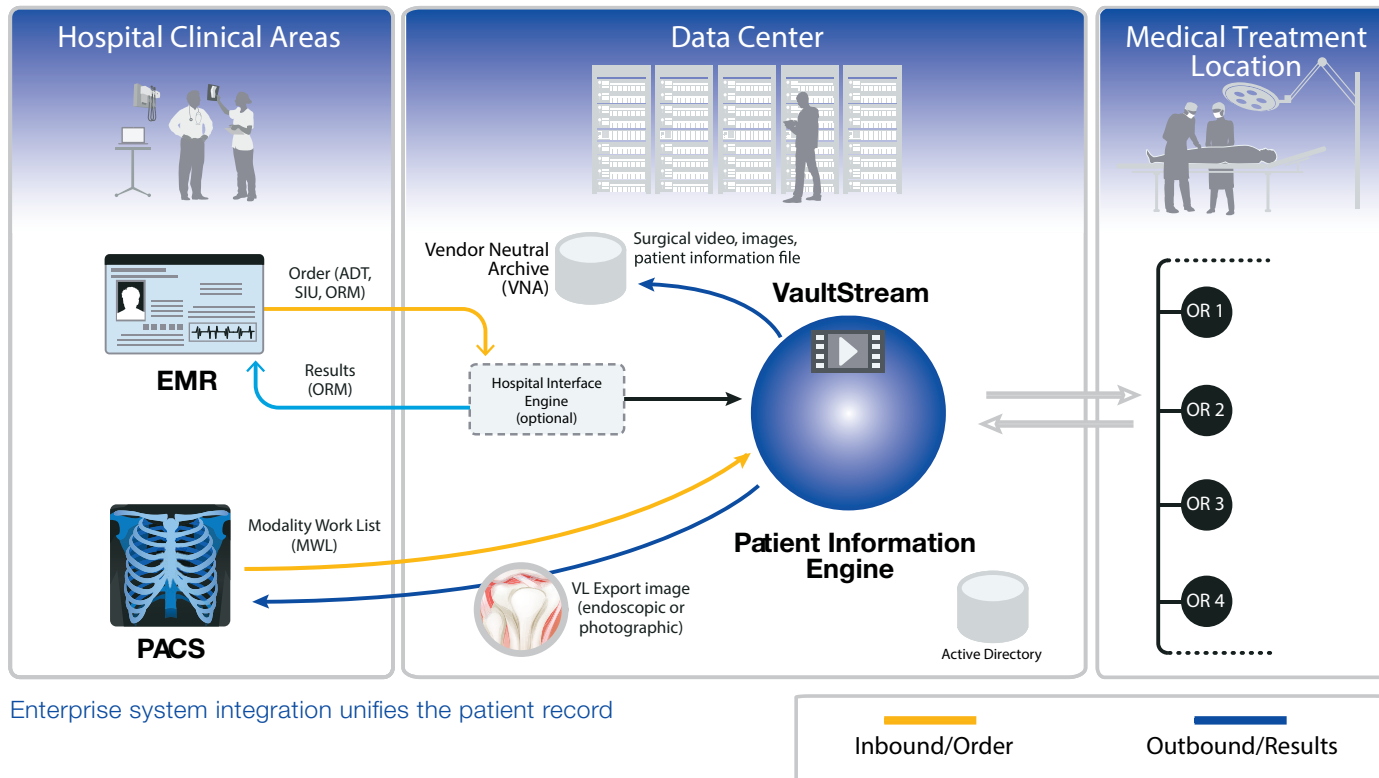
Future-Proofing Technology

EasySuite® 4K is modular, scalable and standards-based—allowing hospitals to add new devices, ports, and switching capacity as needed, while protecting its investment. Seamless support for both 4K and legacy high definition (HD) and standard definition (SD) video accommodates mixed-source environments and allows easy migration from 2K to 4K on the hospital's timeline.

Flexible Deployment

The flexibility in which EasySuite® 4K may be deployed enables O.R. and technology leaders to satisfy their facilities' unique requirements based on procedure room size, available server space, and the distances between procedure rooms. Deployment options include: at the nurse's station in the procedure room, in a room adjacent to the procedural space, or in an equipment closet for multiple-room support.

Enterprise-Grade Security Protection

Modern Healthcare reports $2.8 billion was spent on healthcare hacking breaches in the US during 2016. Cybersecurity needs to be taken seriously which is why EasySuite® 4K is built on the latest Microsoft Enterprise IoT platform, a commercially hardened embedded operating system. Each EasySuite® 4K device runs Microsoft AppLocker Whitelisting, which only allows the execution of known and signed (trusted) applications, and Windows Defender in conjunction with Windows Server Update Services (WSUS) for up-to-date antivirus protection. In addition, each EasySuite® 4K device is configured with an uniquely identified security certificate which ensures that only authenticated devices are allowed into the EasySuite® 4K system and protects communication between EasySuite® 4K devices.

Hospital Clinical Areas

Data Center

Medical Treatment Location

EMR

Order (ADT, SIU, ORM)

Results (ORM)

Vendor Neutral Archive (VNA)

Surgical video, images, patient information file

VaultStream

Hospital Interface Engine (optional)

Patient Information Engine

PACS

Modality Work List (MWL)

VL Export image (endoscopic or photographic)

Active Directory

OR 1

OR 2

OR 3

OR 4

Inbound/Order

Outbound/Results

Enterprise system integration unifies the patient record

The EasySuite® 4K Video Manager includes StreamGuard™, an embedded power management system that provides a controlled shutdown in the event of unexpected power loss to prevent loss of irreplaceable procedure visual data.

StreamGuard™ supports data integrity with smart checkpoints and retry on failure features to ensure a complete, accurate record.

Seamless Interoperability

Not every hospital will be ready for 4K System Integration in every room, or even at the same time. Olympus understands this reality and make it easy for hospitals to deploy EasySuite® 4K in the rooms that need it, while continuing to rely on EasySuite® in rooms that have not yet made the transition. This is possible because EasySuite® 4K leverages the same enterprise services for content management, streaming, and healthcare IT system integration making EasySuite®

4K fully interoperable with existing EasySuite® rooms. This eliminates the need to install duplicate servers, train staff on a new system, or require clinicians to know what type of room they are operating in.

Streamline Hardware & Management Costs

Olympus simplifies enterprise connectivity. Hospitals can run content management, streaming, and EHR integration on the same virtual server, rather than deploying a separate physical server for each function or requiring per room connections.

Flexibility of Choice

Many O.R. integration systems route and control only O.R. video sources manufactured by that vendor, limiting a hospital's options. EasySuite® 4K has an open architecture that supports devices from any manufacturer, enabling hospitals to choose their preferred vendors for specific rooms and specialties.

Enterprise O.R. System Integration

Capture Images & Video

4K Image Capture

Olympus simplifies enterprise connectivity. Hospitals can run content management, streaming, and EHR integration on the same virtual server, rather than deploying a separate physical server for each function.

Video Recording

With EasySuite® 4K, clinicians can record HD video from one or two HD and UHD sources simultaneously to capture the entire procedure, or shorter segments of it, and save it in industry-standard MPEG-4 video format.

Enabling video collaboration across all integrated rooms

Enterprise Connectivitiy

Integrate with Health Information Systems

EasySuite® 4K supports a unified patient record by integrating with a hospital's EHR and other systems through industry-standard HL7® and DICOM interfaces. Inbound surgical orders integration ensures error-free patient registration without manual patient data entry. Post-procedure, outbound image and video results can be shared with EHR, PACS, or VNA systems to provide seamless access to important surgical information, using familiar clinical applications.

Share Surgical Content Intelligently

Access to surgical images and video are often required long after a procedure is over. VaultStream® is a centralized, self-managed surgical content library that provides secure, web-based access for authorized clinicians from any device connected to the hospital network.

EasySuite® 4K's architecture helps prevent clinicians from downloading videos to insecure locations while minimizing the risk of data loss and HIPAA violations due to inappropriate Protected Health Information (PHI) access.

Drive Clinical Collaboration

The complexity of today's multi-disciplinary and multi-vendor procedure spaces requires real-time access to clinical consultations, technical support, training, and clinical education. EasySuite® 4K enables collaboration within a procedure room, across the hospital enterprise, and beyond by making it easy for clinicians to view, route, record, stream, telestrate, and edit surgical video information pre-, intra-, and post-operatively.

EasySuite® 4K's MedPresence® immersive medical virtual presence solution enables teams to quickly bring needed expertise – specialists, senior clinicians, technical experts, application trainers, or manufacturer's representatives – into a procedure space from across the organization, around the world, and at any time – virtually. MedPresence® combines the context that participants need – room- and task-specific views, live imagery, and clinical information with shared control of sources and real-time telestration – to collaborate effectively.

With one button room-to-room connectivity, EasySuite® 4K's RoomLink is ideal for quick conversations. The LiveStream® Network supports views into an O.R. for clinical monitoring, scheduling, and teaching applications. With LiveStream® StatusBoard, clinical teams can monitor the state of multiple O.R.s at a glance from a central location such as a nurse's station. StatusBoard can improve turnaround times for prep and cleaning crew deployment, eliminate clinician productivity losses due to waiting, and alert staff and clinicians of patient arrival and departure.

Enterprise O.R. System Integration

"LiveStream® StatusBoard:" See surgery room status in real time and optimize room utilization

Optimize Clinical Workflows

See More with Multi-view Tiling

A multi-view tiled display can be especially helpful to clinicians during surgery. EasySuite® 4K gives users the ability to tile up to four (4) independent sources on each display. Tile layout configurations are easily generated and previewed through the EasySuite® 4K touch panel and saved for each room display on a per-physician basis.

Accelerate Team Efficiency

EasySuite® 4K supports clinicians at every step, including a pre-surgical review of previous procedures and in-procedure consultations with colleagues or medical students instruction, post-op surgeon-to-patient communications, and presentations for professional conferences.

The VaultStream® EasyView® application lets clinicians access, view, and share video content from anywhere on the hospital network. Clinicians can search for, annotate, and even compare multiple procedure videos side by side. EasyCut® provides a simple solution for video editing and production designed for use by surgeons, with advanced features like video bookmarks with automatic editing, voice annotation, and Microsoft PowerPoint® integration for effortless creation of podium-ready presentations in minutes.

Increase Device Connectivity and Speed

In today's more flexible, multi-disciplinary rooms it is common for the the surgical team to transfer devices from room to room, and need to connect them quickly. Once connected, the EasySuite® 4K integration system automatically recognizes a device, labeling it in the touch panel with the user-friendly name that the hospital chooses, so clinicians don't have to guess which device is routed to a display. The universal EasyPort® makes it possible to connect HD and SD imaging device without searching for a matching video connector for that device. EasySuite® 4K automatically recognizes and labels 4K sources as well.

Improve Patient Safety and Satisfaction

Automate Safety Complaince

EasySuite® 4K automates surgical safety with integrated pre-surgical multi-page safety checklists to guide the surgical team through the Time-Out process. Clinicians can use either the World Health Organization (WHO) or the hospital's Time-Out safety checklist. With a single press of a button the Time-Out function automatically mutes all music, brightens the room lights, and places the safety checklist on all room displays, supporting compliance with Joint Commission's Guidelines for Prevention of Wrong Site, Wrong Procedure, and Wrong Person Surgery.

Facilitate Patient Well-being and Clinical Satisfaction

Studies demonstrate that pre-surgical positive distraction can reduce patient anxiety and pain. The Patented 4K Patient Greeting System's library of soothing music and videos helps establish a calm environment for adult and pediatric patients. Once the procedure begins, clinicians can stream music from personal devices or run popular music streaming services through EasySuite® 4K's high-quality audio control system to maintain a relaxed work environment.

"EasyPort®:" One-handed device connection speeds room setup

Product Specifications

Options*

High-Definition Room Cameras

Pan/Tilt/Zoom (PTZ) IP cameras

Fixed IP cameras

Racks

Low profile, under desk racks

Custom racks for any application

Audio

Personal audio wireless microphone

Standard or upgraded speakers

Personal music control system and convenient audio and charging interfaces

Clinical Collaboration

Immersive Virtual Presence with MedPresence®

Live video streaming

RoomLink uni-directional audio and video from another EasySuite® O.R.

Legacy video conferencing with selected 3rd party systems**

Video Content Management

Image and video annotation, searchable labels

Automatic content storage with guaranteed delivery at case finish

Secure, enterprise-wide access to content with EasyView® web-based application

Reduces PHI exposure risk for HIPAA compliance

Enterprise & HIS Integration

DICOM® | PACS

VNA and HL7 | EHR/EMR

Image Capture

4K or HD

Video Recording

HD

Single or dual-channel

Displays

4K Medical-grade surgical field displays

Variety of 4K and HD wall displays

Printers

Sony® UP-DR80MD in-room medical-grade or network-based options

Advanced Visualization

Display multi-view tiling (PIP/Split/Quad)

Live preview

Work-Flow Modules

Patient Greeting System

Checklist Manager

Full Service Solution

Design Services

Consultation with Integration Specialists

Project management

On-site installation

On-site and remote training

Warranty & Support

One year warranty included

Annual and extended service contract options with scheduled preventative maintenance visits

24×7 technical support

Local field service

Remote diagnostics

Critical security updates delivered using Windows Server Update Services (WSUS)

Features

Supports UHD, HD and SD video input

Full resolution video routing of 4K and 2K to multiple surgical-field and room displays

4K image capture

High definition video recording and streaming

Familiar EasySuite® user interface and workflow

Device recognition via EasyPort®

Virtual care team collaboration via MedPresence®

Multi-view Tiling (PIP, Split, Quad) with live preview capabilities

Access to sources via USB-based keyboard, mouse, and 2-touch control