# Images for life

## Shaping OR integration for the future



Visibly yours

# Tomorrow's here today

Operating rooms are quickly evolving. New medical technologies and minimally invasive procedures have changed surgery and the surgical environment. Constant changes, increased complexity and demands for increased productivity mean the surgical suite needs to be more efficient and flexible than ever.

Barco's solutions for the Integrated OR, Hybrid OR and Interventional Suite combine leading-edge surgical display technology, seamlessly integrated with our Nexxis video-over-IP technology, for the best precision, efficiency, and flexibility. With Barco surgical solutions, you're ready for today's demands and tomorrow's opportunities.

## Ask your OR integrator about Nexxis!

We partner with the world's leading integrated OR providers to bring the unique benefits of Nexxis to your OR. Ask your OR integrator about Nexxis for video and audio integration in the OR and learn how you are now able to share any source to any location, whether inside or outside the OR, without delay and without loss of quality. So you can make the best decisions.

# Expect your every need to be met

Barco offers smooth integration of uncompressed video-over-IP and surgical displays. We have what it takes to meet the complex needs of the integrated and hybrid OR as well as the interventional suite. And we can control the complete imaging chain from acquisition to display.

#### **Surgical displays**

The perfect match for real-time critical imaging in the OR.

- Premium LCD LED technology
- From Full HD to Ultra High Definition
- Accurate colors
- Powerful image processing
- Cleanable design
- Cable management system

## Nexxis uncompressed OR-over-IP

A whole new way to connect and collaborate

Nexxis is Barco's uncompressed video-over-IP platform for the integrated operating room. Nexxis uses stateof-the art encoder and decoders to convert digital and analog video signals to **uncompressed** IP video streams and distributes them over an IP network switch. Images go where and when you need them, in and outside the OR. Without artifacts and with near-zero latency. All connected through one type of cable to plug and play devices. Adaptable to fit the needs of any procedure or new technology.

> Nexxis decoders and encoders

OR

**IP** network

From 19"to 58"



# The future is **Nexxis**



# Are you ready to face the future?

Operating rooms have relied on AV (audio-visual) systems for many years. The drawbacks? Ever-changing video formats, limited integration, complex and non-future-proof cabling, and complicated configurations unfit to meet the changing imaging requirements of a modern OR. That's exactly why **IP is becoming the universal communications platform.** 

It allows easier and faster integration of new devices and technologies. Nexxis builds on the IP network to transform the surgical suite forever. This leads to a lower TCO and makes the OR ready for the future. **Ask your integration partner** about it!

## **Powerful capabilities**

- Unlimited video inputs and outputs
- From legacy analog to future 4K signal compatibility
- 4K & 3D ready

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- Near-zero latency without compression
- Fully fiber-optic
- Dynamic User Interface
- Flexible screen layout (PiP, PaP, Quadview...)
- Easy image composition of eight multi-modality sources onto a single screen
- Remote keyboard/mouse control
- Bi-directional inter-OR communication
- Medically certified (CE/FDA class II)

# Technology that makes a difference



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## The precision you need

With Nexxis, high-resolution, uncompressed medical images are presented with pixel-perfect precision and shared more efficiently. No compression means **zero artifacts** and **near-zero latency** for perfect hand-eye coordination.

## Work more efficiently

A **single optical cable** solution makes it easy to set up, configure and manage the integrated OR. Sources can easily be switched with no worries and the platform can be managed **remotely** for maximum use of the OR investment.

## The flexibility you've always wanted

Nexxis meets every requirement for surgical procedures. **Plug and play** (new) devices, **switch** sources with ease, and display images in **any layout** (Picture-in-Picture, Picture-and-Picture, Quadview...) for optimal viewing comfort and ergonomics.

## Safety guaranteed

Certified as a medical device (CE/FDA class II), Nexxis is fit for use in the interventional OR. Every part of the solution has been designed and approved for use in a surgical environment.





## Share and collaborate

Nexxis enables **streaming** of images in, between, and outside operating rooms. This makes it easy to educate, consult, and collaborate with your peers. **Recording** is also possible for documentation purposes and clinical research.



The success of our procedures in the operating room greatly depends on the flexibility of the system. Nexxis is a very versatile, flexible system that allows us to see, use and switch images on any monitor in the OR, without disruption. The platform is clear and simple, so that we can easily connect and disconnect sources. Only the sources in use are visible, which is a clear benefit."

Prof. M. de Haan, Interventional Radiologist, Maastricht University Medical Center

#### Expand as you grow

The **modular and scalable** platform supports easy modification and expansion as technologies and techniques for surgery evolve. Upgrading the OR with the latest **4K** imaging technology, for example, happens without changes to the infrastructure and without impacting your initial investment.



#### **Protect your investment**

Built on a **non-proprietary IP** technology platform, Nexxis is ready for the latest networking and visualization technologies. It's easy to adopt new imaging technologies and meet new integration requirements in the operating room. Your needs will not outpace the technology – a **future-proof** solution is guaranteed.



# More than video integration

## Medical-grade surgical displays

Barco surgical displays are designed for patient safety. In high definition (HD) or 4K ultra-high definition (UHD). Promising the best image quality out there. And working perfectly together with Nexxis for full OR integration.



### **Full OR integration**

From near-patient to large-screen displays, with screen sizes ranging from **19" to 58"**, Barco surgical displays offer **advanced image integration** capabilities and work perfectly together as part of the Nexxis solution.

### Excelling in endoscopy

Barco surgical displays are the perfect match for highdefinition and **4K endoscopic cameras**. Their high brightness, high contrast and super high resolution provide surgeons with excellent depth perception and the most accurate images.

#### Interventional suite and hybrid OR

Barco's large-format 8MP surgical displays allow for a precise overview of all the information that is available in the interventional suite. They enable flexible display of multiple images from **multiple modalities** onto a single high-resolution monitor.

# Designed for the OR



Barco surgical displays are designed with a smart cable management system for **clutter-free installation**. The splash-proof housing, smooth surface and edgeto-edge front screen allow for **easy cleaning and disinfection**. Automatic signal failover features increase **patient safety**. Needless to say, all displays comply with medical standards, including ITU-R BT.709 and DICOM.



## Precise images

Superior LED LCD technology guarantees a wide color gamut with **deep blacks and accurate colors** – even under a wide viewing angle – for real-life presentation of the patient anatomy. Powerful color and image processing algorithms ensure **images are calibrated**, **rendered quickly, and displayed precisely.** For perfect hand-eye coordination.



# The future: 4K imaging

Providing **four times the resolution of HD**, 4K UHD promises to be the next big thing in endoscopy imaging. Barco's growing range of 4K displays lends itself perfectly to high-quality, advanced surgical procedures. That's how Barco 4K displays make you see everything with stunning clarity.

# Supporting healthcare professionals a billion times per year

More than a billion times each year, Barco brings healthcare professionals the confidence they need to take the most critical decisions and make a difference in the lives and well-being of their patients.

As experts in healthcare imaging, Barco provides medical practitioners with reliable imagery, enhanced clinical efficiency and increased productivity through advanced enterprise visualization systems that address the most complex and critical elements of diagnosis, surgery and patient care delivery.

This commitment to the quality of care has earned the trust of customers from all over the world, who partner with Barco to meet their most demanding imaging challenges. This partnership approach is also reflected in Barco's worldwide customer service network, ensuring professional support, wherever you are, whenever you need it.

BARCO