SONY

NUCLeUS

NUCLeUS™ Core
NUCLeUS Compute

NUCLeUS Core implements the management environment for a NUCLeUS installation, whereas NUCLeUS Compute, as its name suggests, delivers computing power to the installation. The NUCLeUS Core and NUCLeUS Compute products provide the runtime environment for the NUCLeUS backend, which is typically installed in the hospital's data room. The NUCLeUS backend has been designed according to a scale-out paradigm, meaning it can be gradually expanded when additional operating rooms are added to the installation or when additional functionality has been licensed.

NUCLeUS Core and NUCLeUS Compute are fundamental base software environments for whole the system. Every application requires NUCLeUS Core. NUCLeUS Core and NUCLeUS Compute can only be used in combination with Sony-validated hardware*[1]. The required number of NUCLeUS Core and NUCLeUS Compute modules is highly dependent on the number of operating rooms in an installation and the features that are enabled.

*1 For details about validated hardware, please contact a Sony dealer near you.

Key Features

User Interfaces

NUCLeUS Core implements the user interfaces of all NUCLeUS applications. These graphical user interfaces (GUIs) are easy to understand and very intuitive. And as they are web-enabled, they are available on every authorized computer in the hospital.

Taskbar

The Taskbar is a graphical application launcher on a touch panel PC. It starts automatically with your touch panel PC, and takes you directly to the NUCLeUS user interface: the control application for the operating room. In addition, the Taskbar can be configured to launch additional tab pages in which NUCLeUS Link*[2] or third-party applications can be run. In this way, your touch panel PC is converted into a convenient, accessible environment, grouping controls from many different applications with a single, user-friendly GUI.

The Taskbar also allows you to convert your touch panel PC into an additional monitor.

Streaming Recording

The NU-IP3T, IP converter (transmitter) transmits streaming video to the NUCLeUS backend for recording and broadcasting. The NUCLeUS backend records video streams safely and effectively. Recordings can be used for the purpose of self-review, education, and presentation in hospitals. Created files are managed by the Content Management software*[3], uploaded to PACS or edited. There is no need to wait for data uploading, and content can be used immediately after the surgery. Also this doesn't require clinicians to record content to their own external media (e.g., USB flash drive) and remember to remove this media. This improves management and secure handling of sensitive personal data such as videos, and still images, and it enables reliable workflow.

Record Multiple Sources Simultaneously

When reviewing an operation, surgeons need much more than just a single source. NUCLeUS Core records multiple video sources simultaneously.

Secure Information Control

For security reasons, NUCLeUS Core encrypts all communications including video as well as metadata. Obviously all web applications are served over HTTPS and require authentication and sufficient levels of authorization before access is granted.

Enhanced Processing Capacity

NUCLeUS Compute provides the necessary computing power for computationally heavy processes like recording and transcoding video. An intelligent load-balancing algorithm evenly distributes the load on the available machines.

*2 For more details, please refer to the NUCLeUS Link spec data sheet.
*3 For more details, please refer to the Content Management spec data sheet.

Ordering Information

Product Reference;
NUCLeUS Compute
NU-CP30B

NUCLeUS Core
NU-CR30B

These products are non-medical devices.

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