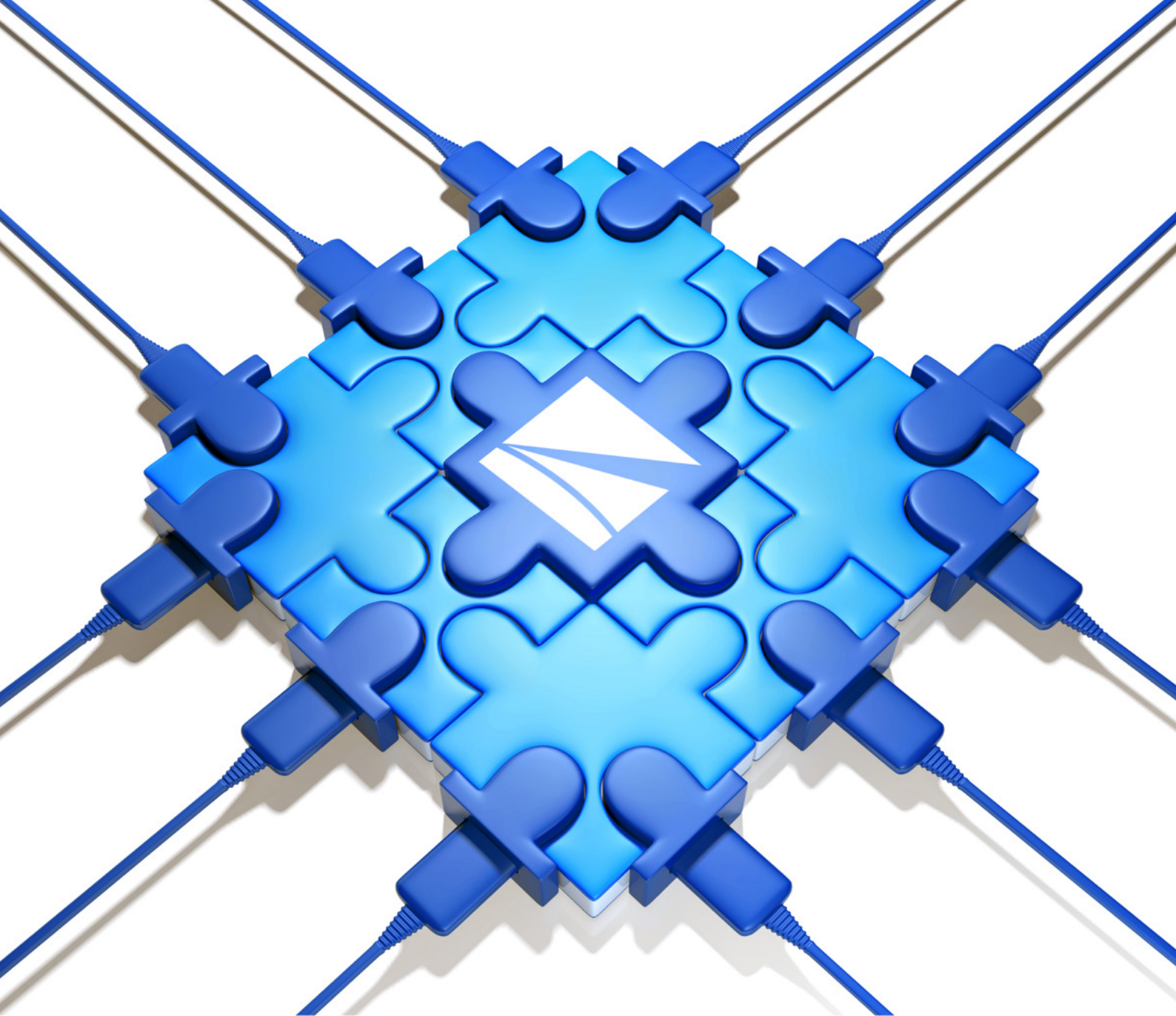


Digital Solutions in Patient Monitoring

Symbiosis of Patient-Oriented Approach,
Clinical Added Value and Efficiency





Nihon Kohden offers completed integrated multi-modality products that serve patients across all care areas.

As experts in the specialties of neurology, patient monitoring, cardiology and pulmonology, we bring clinical solutions that provide access to a deeper, more comprehensive level of information, enabling more accurate diagnoses, ventilator support, and ultimately, better outcomes.

Breaking Down Barriers to Care

The Institute for Healthcare Improvement's aim – to drive quality initiatives while promoting efficiency in the marketplace – has an impact on the entire healthcare system.

Advancement simply for the sake of change is not enough; it must enhance healthcare in some way. Improvements must be quantifiable, as well as qualifiable. Care must be coordinated. Every clinician must manage greater risk as patients present with multiple comorbidities.

And each piece of technology must break down conventional barriers – cutting across specialties and care areas and exposing the vital connections between brain and body, while delivering a more complete picture of a patient's condition.

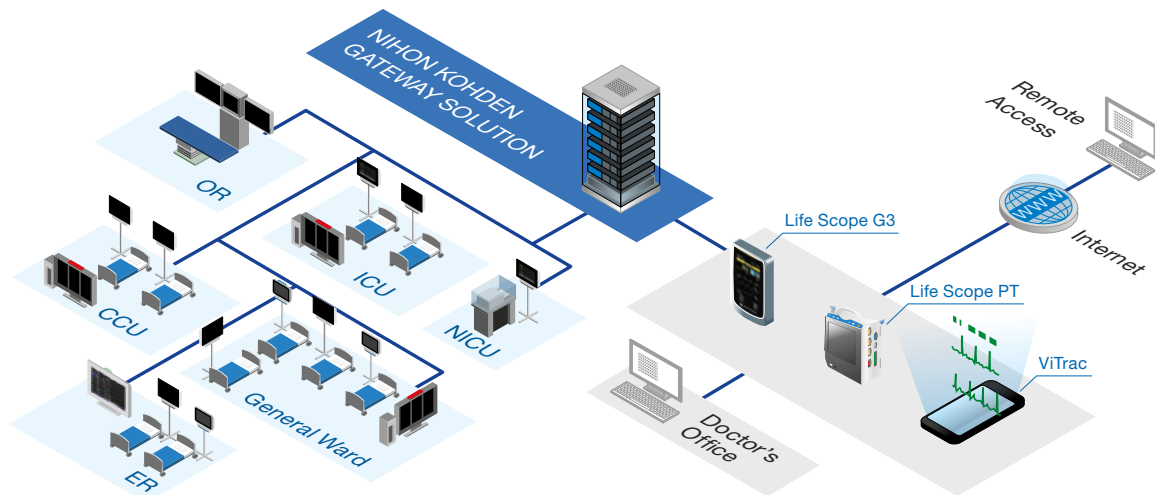
SEAMLESS INTEGRATION TAILORED TO YOUR NEEDS

At Nihon Kohden, we understand how difficult it can be to integrate new diagnostic instrumentation and patient monitoring systems into your current enterprise.

Simple implementation, transparent pricing, and forward-and-backwards compatibility define our solutions. These features ensure seamless adaptation to evolving hardware and software landscapes, safeguarding your investment.

Once implemented, our value proposition extends across the entire spectrum of care – from patients and caregivers to administrative and IT teams.

CLINICAL SYSTEM INTEGRATION



As a system solution provider, Nihon Kohden supports digitalisation in the hospital environment with high-performance and easy-to-configure components

In today's hospitals, networked medical devices are no longer just optional accessories, but have become crucial components of patient care.

Improving quality, simplifying documentation, and reducing the workload by administrative tasks are core functions of communication with clinical IT systems.

With our solutions, we ensure that you can focus on patient care while ensuring to have the right data at the right place.

The patient journey through the hospital also requires seamless data acquisition and clinical data processing. Nihon Kohden offers customized solutions to ensure a high level of flexibility, integrability and interoperability.

According to the customer's requirement, monitoring devices of any series can be used, as well as a mixture of stationary and portable devices for monitoring mobile patients.

Our central gateway solution transmits all data from the network and thus offers maximum investment protection.

Functional extensions like "Mobile Viewing", "Monitoring mobile patients" or "Smart alarming" can be realized within the entire patient monitoring network.

Together with our unique parameter settings, we can provide the best solution for patient care.

COMMUNICATION WITH CLINICAL ECOSYSTEMS

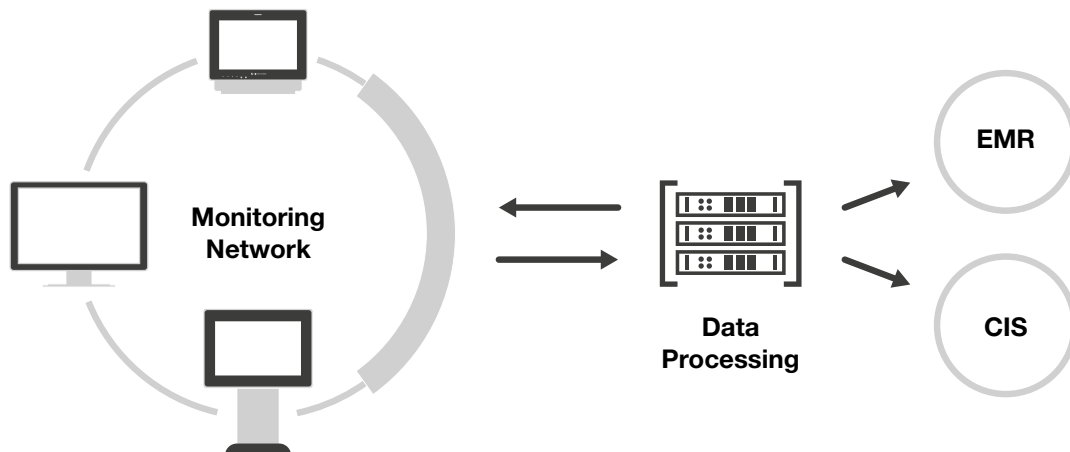


Figure 1: Providing relevant data – seamless and safe

Nihon Kohden offers communication solutions that establish the connection between the monitoring network and the hospital network via one or more secured gateways.

With the two networks' consistent separation, higher standards are set regarding cybersecurity. Ensuring seamless and continuous operation of patient monitoring is one of Nihon Kohden's core tasks and values.

The patient is registered in the monitoring network either by manually entering the necessary data or automatically using barcode RFID or smartcard readers. For this purpose, the system communicates with the clinic's patient administration via standardized messages.

Vital data is transmitted in HL7 format to the electronic patient record for documentation. This facilitates seamless data compilation for diagnosis, further therapy, and correct accounting of services.

Waveform data is transmitted to downstream AI systems and for storage in data centers in near real-time. This enables seamless support of the "Big Data" philosophy for generating scientific evaluations and studies.

Additional functions such as alarm reporting and distributed alarm system "SmartPager" expand the portfolio to support caregivers and improve patient safety and comfort.



WORKFLOW SUPPORT THROUGH INTELLIGENT DATA FLOWS

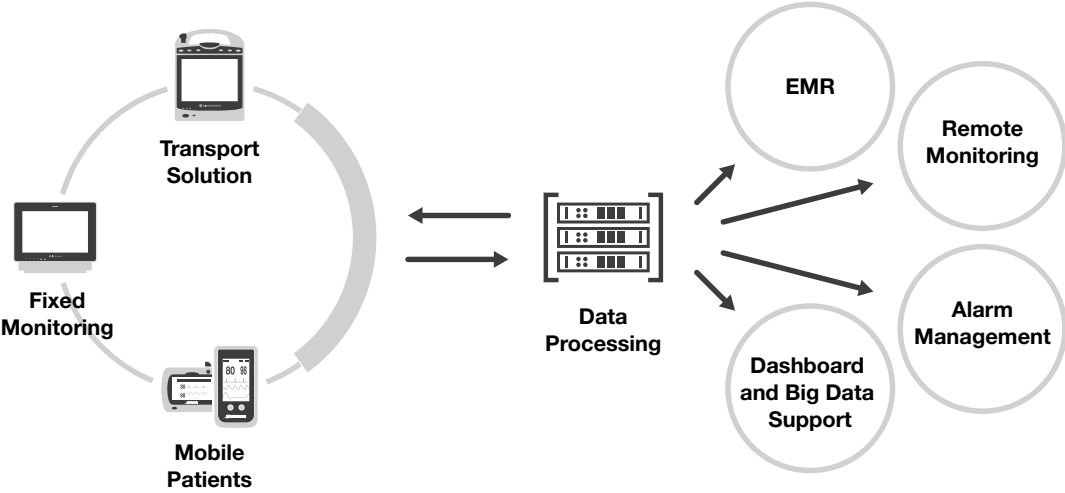


Figure 2: Covering demands in digitalisation

Nihon Kohden as an entire solution provider for systems in neurology, cardiology, emergency, ventilation, and patient monitoring has developed solutions to combine the benefits from the different product areas and achieve the best possible support for our customers.

The quality of the solutions used in terms of usability, operational reliability and added value for our customers is unique.

Nihon Kohden also stands for its own highest standards of implementation and support for our customers in complex use cases.

Transfer of data to the electronic medical record and into data analytic systems, provision of a remote view solution, or control of a reliable alarm system – all these components create added value for our customers in addition to patient monitoring.



MORE DECISION-MAKING CERTAINTY WITH AI

Nihon Kohden not only provides monitoring devices to record vital signs but also supports decision-makers with sophisticated AI solutions.

These consider all available measurements and data points and create a decision-making basis for medical evaluation. Nihon Kohden's AI solution retrieves data from various sources to provide the best result for current and projected patient conditions.

AI solutions visualize prognoses and changes in condition, and the possible developmental state of patients is visually processed and simply presented.

A wide variety of parameters are incorporated into scientific calculations to produce the best possible prognoses.

Proactive intervention increases the probability of a significantly improved course of disease. Treatments become more precisely controllable and targeted.

The care of patients, the support of decisions and the avoidance of additional costs for therapies form a foundation for successful hospital operations.

The integrated solution for risk prediction is a milestone in the application of AI.

Data from diverse sources are combined to find results, these can include all data-providing systems (laboratory, diagnostics, etc.).

The goal is to detect changes in patient conditions at an early stage and to inform clinicians to initiate measures in time.

MONITORING MOBILE PATIENTS AND VITAL DATA REMOTE ACCESS

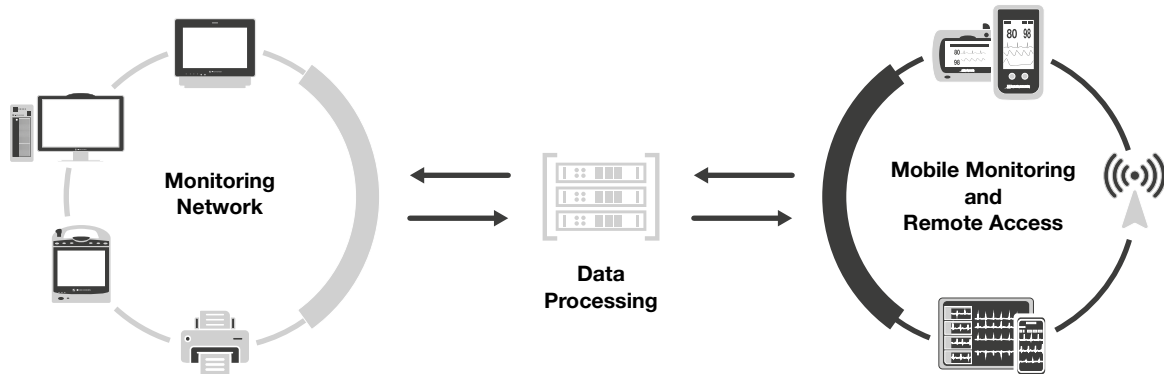


Figure 3: Nihon Kohden's solution to enhance patient safety through a smart remote concept

Successful therapy aims to mobilize patients as early as possible. However, this may require further monitoring of vital functions.

As a system solution provider, Nihon Kohden enables the operation of patient-worn telemetry devices.

Not only the use for early mobilization of patients but also the monitoring option on low-acute or normal wards enables comprehensive patient care.

The hospital's own WLAN is used to operate the patient transmitters and no further infrastructure changes are required in the hospital's network. This helps our customers reduce costs for separate infrastructure and maintenance and allows flexible expansion of the WLAN.

Life Scope G3 series simplifies the monitoring of mobile patients. Vital signs such as ECG and oxygen saturation, including the option for non-invasive blood pressure measurement, are the basis for a quick assessment of the patient.

ViTrac as a remote access solution for vital data perfectly supports the decoupling of static patient monitoring including central nursing stations. Access from anywhere enables the caregivers to provide healthcare without standing in front of the bedside monitor.

ViTrac is a license option on Nihon Kohden 's HiQ Enterprise Gateway which fulfils all requirements on safety and security in the clinical environment.



Figure 4: Integration of monitoring devices and remote solutions

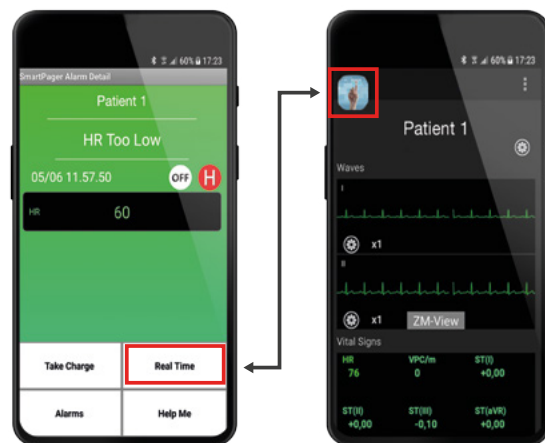
RIGHT ALARM AT THE RIGHT PLACE — TRUSTED AND RELIABLE



Bringing the right alarm to the right person at the right time: Missed alarms can cause delayed clinician response, which poses a significant threat to patient safety.

With SmartPager, you can keep the whole ward in your pocket and never miss risky situations again. Clever alarm management allows you to customize the pathway to determine who receives the notification, leading to clear and timely responses.

Access real-time waveforms and vital signs of multiple patients from both mobile and stationary devices. On a user-friendly interface, the nursing team can easily manage shifts, bed assignments, and call for help whenever needed.



SmartPager and ViTrac – a perfect solution for optimized patient observation

DIAGNOSTIC SUITE TO COMPLETE THE CLINICAL WORKFLOW

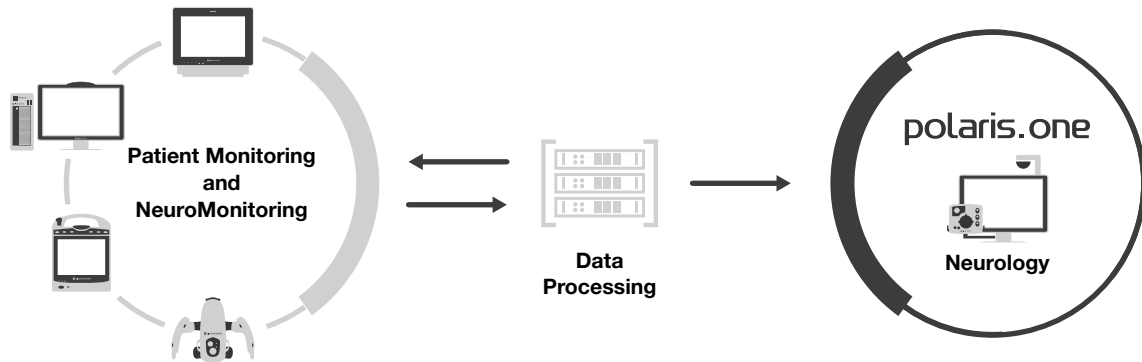


Figure 5: Bringing the power of NeuroMonitoring to the expertise of neurologists.

Nihon Kohden is a full service provider for critical care, diagnostic and analytic solutions. With our diagnostic suite we are supporting the clinical pathway of patients.

Nihon Kohden revolutionizes EEG diagnostics in intensive care medicine. With CerebAir, we provide a simple way to clearly and reliably determine the cause of unresponsive patients.

Initial diagnosis is made by the intensivist using the easy-to-read graphic information on the bedside monitor. The central nursing station is enhanced by the transfer of raw data to Nihon Kohden EEG evaluation and seizure detection software. This enables neurologists to gain a deeper insight into the same basic data for detailed diagnosis.

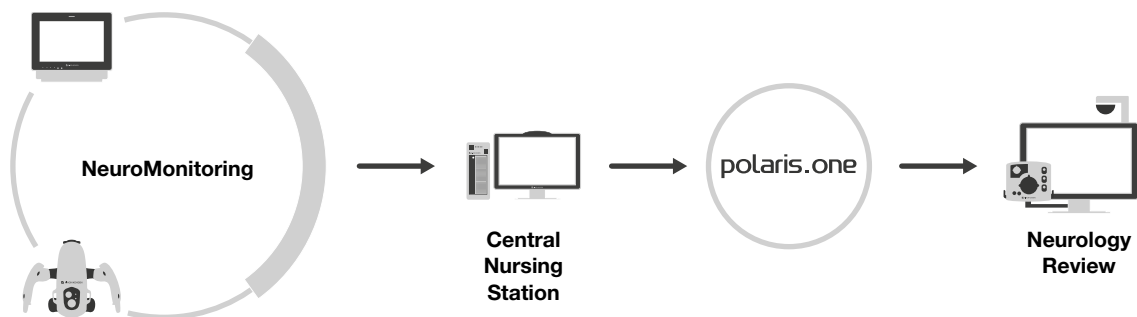


Figure 6: Easy data transfer from patient to experts for quick and safe diagnosis

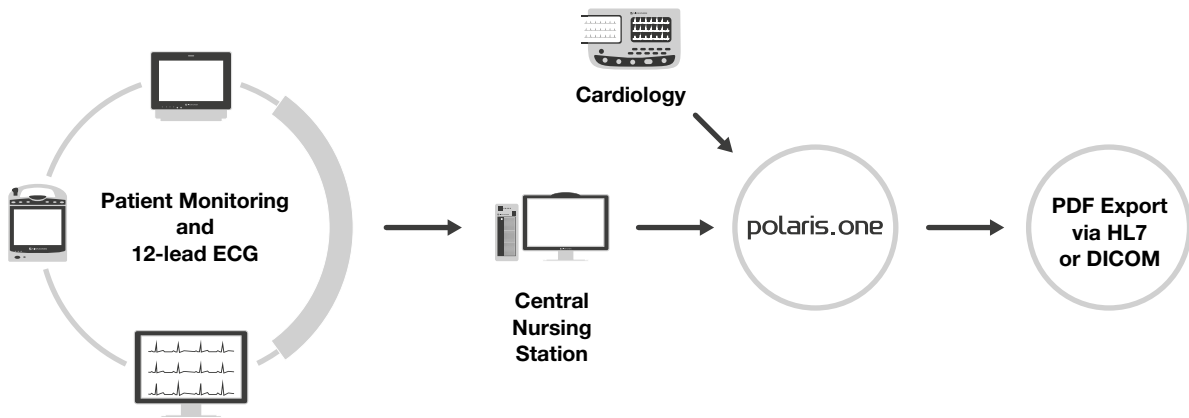
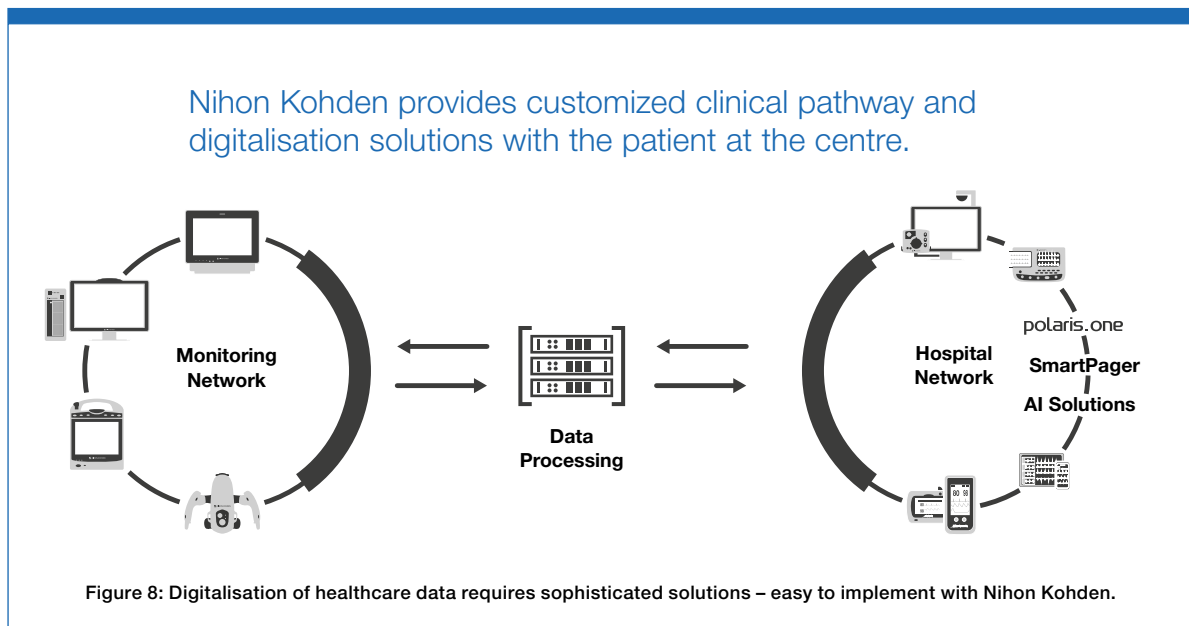


Figure 7: Getting the benefit from transferring 12-lead ECG in patient monitoring and standalone ECG in one data processing unit.

Nihon Kohden's polaris.ONE software is designed to seamlessly integrate advanced IT solutions into existing clinical set-ups for cardiology professionals. It ensures efficient access to relevant medical data while complying with regulations.

The platform is versatile and is aimed at individual practitioners and large healthcare institutions.

It offers comprehensive data fields for patient information, records, medical conditions, and workflows. The data received can be evaluated and transferred to archiving systems via PDF, HL7 or DICOM. Noteworthy features include quick filters, radio button filters for various record types, time filters for recent data, and customizable filters for users' specific needs.





Improving Healthcare with Advanced Technology

Since its foundation back in 1951, Nihon Kohden's mission has been to improve the quality of life with advanced technology. We provide solutions for diagnosis, critical care, clinical information, and in vitro diagnostics – and we are dedicated to collaborate with you to meet the challenges of healthcare today and tomorrow.

Visit www.nihonkohden.com to find out more.

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