Device interoperability through IntelliBridge solutions
We strive to make the world healthier and more sustainable through innovation.

And we are inspired by you...

By understanding your needs and desires we deliver innovation that matters to you, to your businesses, to your hospitals, to your homes and to your families.
We expect investments in technology and solutions to be offset by gains in workflow and efficiency.

- Support a “silent ICU” workflow.
- Remove gaps in documentation of vitals even during patient transport and transitions for a comprehensive patient record.
- Reduce errors, redundancy and inefficient manual record entry with electronic patient care device data to the EMR.
- Connect devices, regardless of brand, into one hospital information system.
- Display device data on bedside patient monitors.
- Drive clinical decisions through meaningful patient data.
- Support industry standards for data security.
- Alarm distribution from bedside medical devices to a caregiver’s smart phone.
Need creates opportunity

Patient Care
- Clinical documentation
- Informed clinical decisions
- Alarm management

Workflow
- Mobile notification
- Workflow at bedside
- Patient transfer

Interoperability & IT
- IHE compliance
- IT friendliness
- Security
IntelliBridge solutions

• A family of hardware, software and service solutions providing interoperability between patient care devices and hospital information systems

• Our purpose:
To provide standards-based and vendor-neutral platform that enhances enterprise-wide interoperability

• Our value:
We empower healthcare organizations to achieve their goals of lower enterprise operability costs, more efficient clinical workflows and optimize data from patient care devices and hospital information systems for informed clinical decision making.

Philips has been providing patient care device connectivity solutions for more than 20 years.
Our product and solution portfolio

**IntelliBridge Bedside**
- Feed device data into Philips IntelliVue bedside and transport monitor
- Display device data, including waveforms in clinical context, and correlate with patient monitor data
- Display and store device data in Philips central station, and display device data on central station web access
- Support bed-to-bed overview for numeric and waveforms and alarm data

**IntelliBridge System**
- Transfer data from patient care devices for documentation, e.g. Philips IntelliSpace Critical Care and Anesthesia
- Enable Philips central station to re-annunciate alarms from patient care devices
- Support connectivity to non-Philips monitors
- Support connectivity to LAN/gateway devices besides serial devices
- Support interface with complex/data heavy devices
- Support bed-to-bed overview for alarm data

**IntelliBridge Enterprise**
- Single point of contact solution for bi-directional interfacing and communications between hospital information systems (EMR, CPOE, ADT, LAB etc.) and Philips clinical informatics solutions and medical devices, such as Philips IntelliVue Information Center iX, Philips IntelliVue Guardian Solution etc.
- Simplify enterprise wide interoperability

*Customer Services, Clinical Education and Consulting*
Automate clinical documentation

IntelliBridge solutions capture patient care device data, translate them into HL7 format, associate device data with patients’ demographic information, and upload data to electronic medical record (EMR).

- Reducing nurses’ manual charting effort
- Enhancing documentation accuracy compared to manual charting
- Providing compliance to certain government regulations*

*For instance, American Recovery and Reinvestment Act requirement of 2009
Make informed clinical decisions

IntelliBridge solutions can bring lab results as well as patient care device data to Philips bedside monitors, Philips central stations and EMR.

- Leveraging data from patient care devices and hospital information systems
- Providing a patient-centric view for different workflows and empowering caregivers to make informed clinical decisions
Centralize alarm management reporting

IntelliBridge solutions can capture alarm data from the patient care device and transfer that data to Philips central station for alarm management, such as alarm limit setting, alarm audit log, alarm summary report etc.

- Providing a centralized overview of all alarms for each patient
- A tool for identifying non-actionable alarms
- Fewer non-actionable alarms supports “Silent ICU” initiatives by reducing the overall noise level from alarms in the unit
Stay informed with mobile notifications

When deployed together with Philips central station and CareEvent, IntelliBridge solutions can deliver alerts from patient care devices – including up to four numerics, four waveforms and associated patient monitoring ring tones - directly to nurses’ smartphones. Nurses can determine the validity and priority of the alarm, and make an informed decision to respond, escalate it to a colleague, or rule it non-actionable.

– Streamlining workflow and enhancing staff communication
– Addressing financial costs associated with nursing overload
Workflow at bedside

IntelliBridge solutions, together with Philips bedside monitors, can bring lab results as well as patient care device data to Philips bedside monitors for display.

• Allowing caregivers to use the bedside monitor as a workstation and make informed clinical decisions at the bedside
Patient transfer

IntelliBridge solutions, together with Philips transport monitors, can provide continuous data capturing from devices such as ventilators and infusion pumps during the patient transfer process. Data can be temporarily stored in the transport monitor. Upon reconnecting the transport monitor with bedside monitor, data can be uploaded to Philips central station and then forwarded to EMR.

- Reducing nurses’ manual charting effort and gaps of documentation during patient transfer
Philips is an active member and key contributor to the Integrating the Healthcare Enterprise (IHE) with the common goal of establishing world-wide and industry-wide standards for healthcare interoperability. IntelliBridge System supports the following IHE profiles:

- Patient care device (PCD) Domain
  - Device enterprise Communication (DEC)
  - ProfileAlarm communications management (ACM) Profile
- IT infrastructure technical framework
  - Patient administration management (PAM) Profile

This makes it easy to interface with other IHE-compliant hospital information systems and easy to maintain future system updates.
IT friendliness

IntelliBridge solutions support standard IT best practices such as server virtualization, centralized deployment of updates for Microsoft® software, antivirus software and Philips applications.

- Allowing support for high availability
- Potentially reducing costs associated with downtime and data center deployment
IntelliBridge solutions are hardened using U.S. Department of Defense Security Technical Implementation Guides for operating systems, SQL Server, .Net Framework, and Internet Explorer browser. They are tested on an ongoing basis using vulnerability assessment tools and fuzzing tools. Access control and customer password policy are also supported.

We test IntelliBridge products against the latest DoD updates, though there is a brief lag time between Guide release and testing completion.
IntelliBridge Solutions enable enterprise interoperability

Data Acquisition
Bedside / Patient Room

Data Aggregation
Central Station / Clinical Unit

Data Distribution
Enterprise Info. Sys. / Data Center

IntelliBridge
EC10

IntelliBridge
EC5

IntelliBridge
EC40/80

IntelliBridge
MX40

IntelliVue
Patient Monitor

IntelliSpace Event Manager/
CareEvent/Mobile Caregiver

Hospital Information Sys. /
Patient Data Management Sys.

IntelliSpace ECG
Management System (iECG)

Mobile Device

Wavestrip/
Document Export

Optional

Required

Serial connection
LAN connection (non-HL7)
LAN connection (HL7)
LAN connection (proprietary 1)
LAN connection (proprietary 2)
LAN connection (other protocol)
Wireless connection
Support most popular devices on the market

60 medical device manufacturers have collaborative relationship with Philips on device interoperability

1400 hospitals worldwide use IntelliBridge solution

250 device models supported through IntelliBridge interface

Data source: Philips IntelliBridge Device Interface Library document and Philips internal sales data
Market trends in patient care device connectivity

Device connectivity across the health continuum from home to hospital

Rising demand for industry-wide standards-based interoperability but slow adoption rate

Vender neutral middleware connecting patient care devices and hospital information systems

Security challenges raised by enterprise deployments of clinical systems and medical devices
Our commitment to an open and connected care for our communities

For the past 20 years Philips has worked to develop standards to create an environment where health information can be securely accessed and easily utilized. Patient data may come from different sources, including historical data from the electronic health record, helping you gain rich clinical insight for meaningful decision support.

From our devices to our Informatics solutions to our HealthSuite Digital Platform, everything we build is meant to interoperate within the health system. Our entire portfolio depends on the free flow of an individual's health information from third party vendors' information systems.
Philips delivers innovation that matters to you

IntelliBridge Solutions offer standards-based, IT friendly, enterprise-wide interoperability solutions to connect patient care devices to hospital information systems.

Investments in IntelliBridge solutions can be offset by gains in patient care quality, enhancement in clinical workflow and improvement in care delivery efficiency.