

A photograph of three healthcare professionals in white lab coats standing in a hospital hallway. A man on the left is looking towards a woman in the center, who is smiling and gesturing with her hand. Another woman on the right is also smiling and looking towards the center. The background shows a window with blinds and a wall with a sign that partially reads 'blood'.

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 hear your needs ...



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



Philips has been providing patient care device connectivity solutions for more than 20 years.



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.

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 ringtones - 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

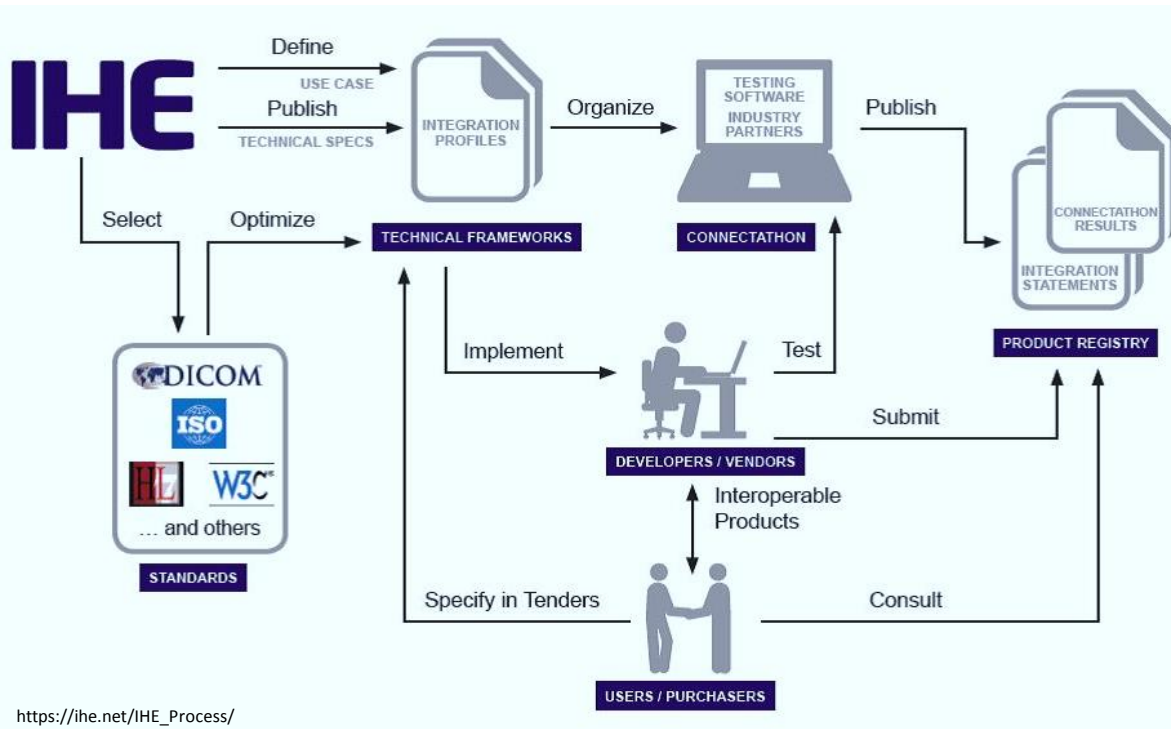
Patient transfer



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

IHE compliance



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.

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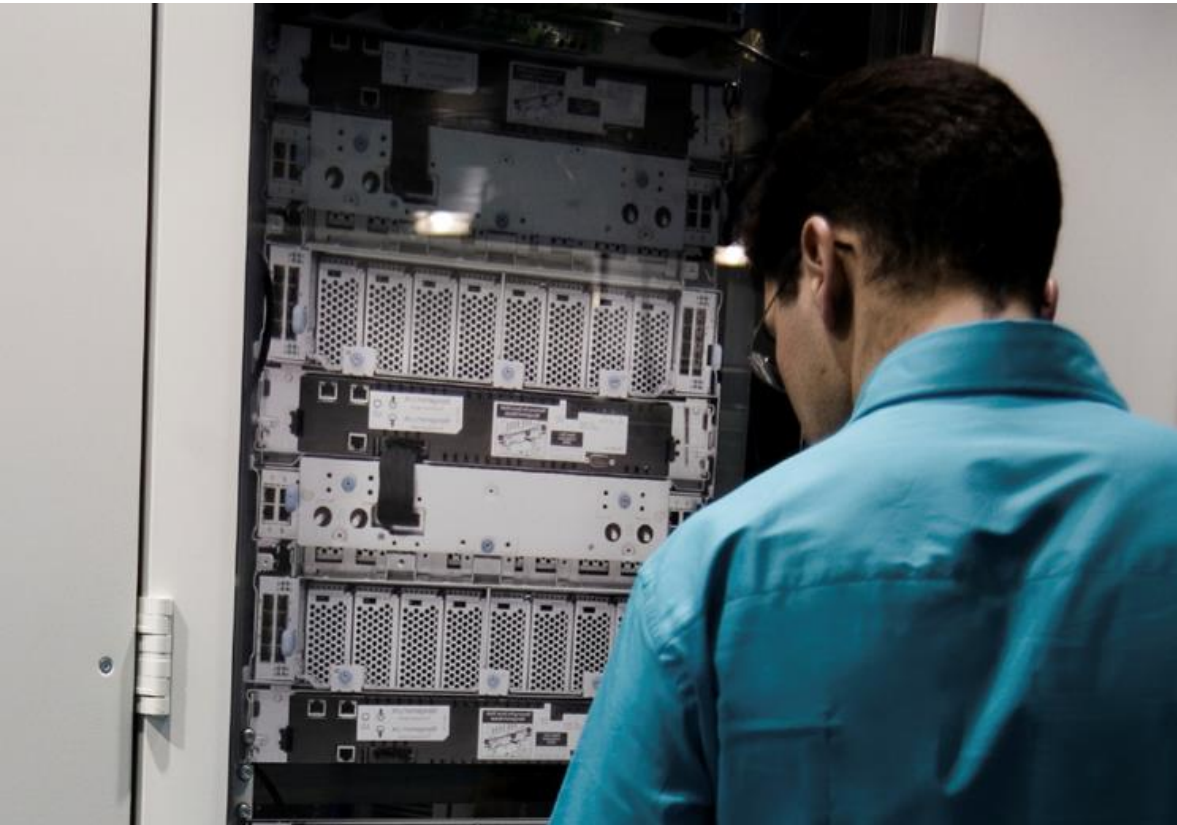
IT friendliness



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

Security

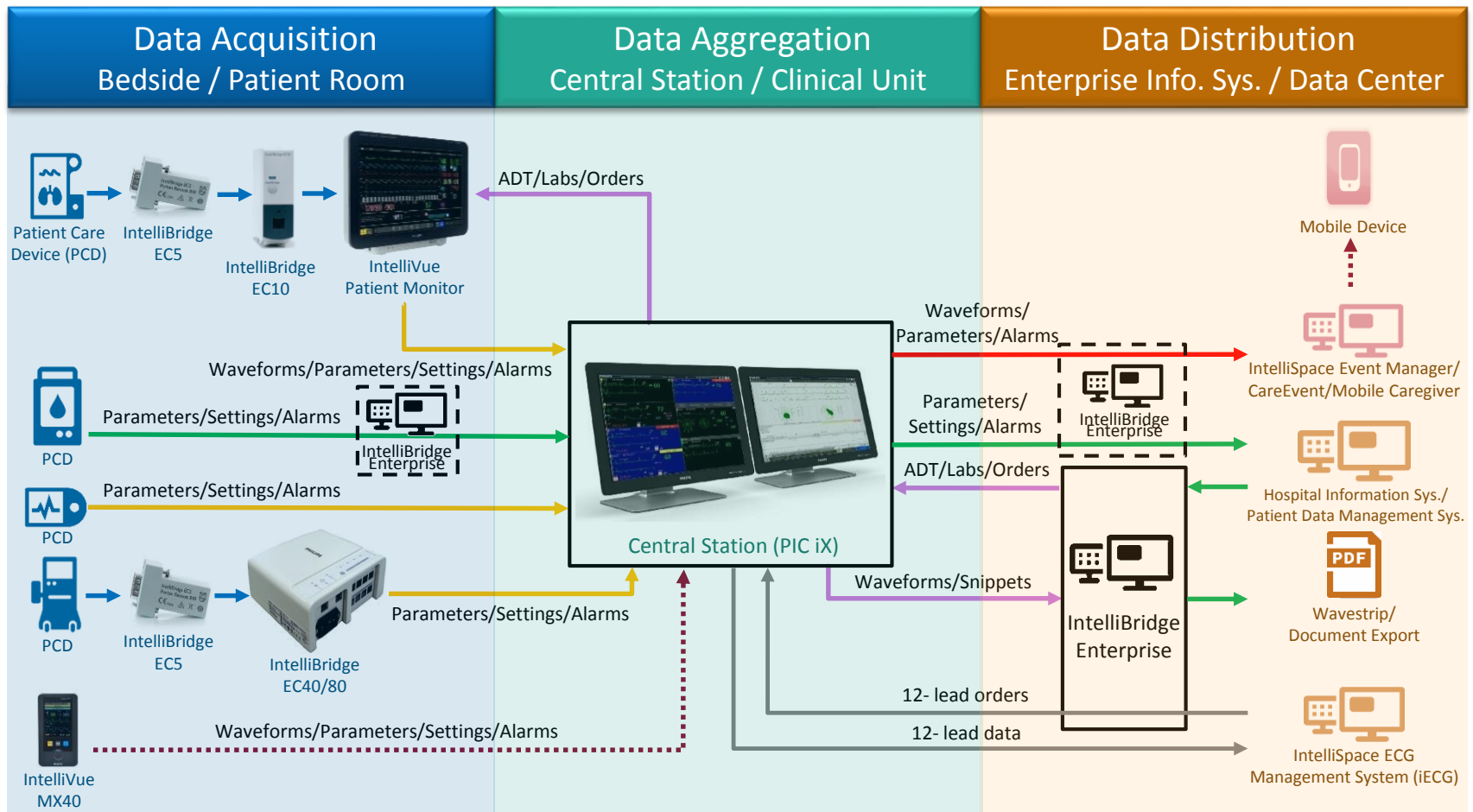


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IntelliBridge solutions are hardened using U.S. Department of Defense Security Technical Implementation Guides for operating systems, SQL Server, .Net Framework, and Internet Explorer browser. They are tested on an ongoing basis using vulnerability 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



Support most popular devices on the market

250 device models

supported through
IntelliBridge
interface

60 medical device manufacturers

have collaborative relationship with
Philips on device interoperability

1400 hospitals worldwide

use IntelliBridge solution

Data source: Philips IntelliBridge
Device Interface Library document
and Philips internal sales data



IntelliBridge Device Interface Library

The IntelliBridge family of device connectivity solutions let you connect devices from a range of medical device manufacturers at the point-of-care into Philips Intensive Patient Monitoring Systems. The architecture of Philips IntelliBridge solutions goes beyond simple data capturing for pure documentation purposes and can support integration of comprehensive real-time data, such as waveforms (ECG only) and acute alarm information, on Philips bedside patient monitors as well as forwarding such data from connected POC medical devices in real-time for further processing, such as central monitoring and alarming, alarm distribution to nurses' pagers, or uploading relevant data to an electronic medical record.

Standards Patient Monitoring Systems	Page 2
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Centrifugal Blood Pumps	Page 7

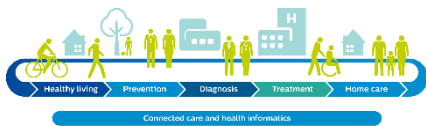
PHILIPS

Manufacturer	Device	Year	IntelliBridge	Intensive Patient Monitoring	ICU	Other
Agilent	see Corbett		yes	yes	yes	yes
ALCANTARA	PERFORMER M1-20000	2011	yes	yes	yes	yes
	PERFORMER DUETTE	2014	yes	yes	yes	yes
Chiesi Medical	MedOne	2011	yes	yes	yes	yes
	Quark Spire	2012	yes	yes	yes	yes
Corbett	Quark NextGen	2014	yes	yes	yes	yes
Corbett (Japan)	BS-VISTA	2010	yes	yes	yes	yes
Corbett (Germany)	PERFORMER	2014	yes	yes	yes	yes
Corbett	Central Data Monitor	2014	yes	yes	yes	yes
Datascopie	see IntelliBridge		yes	yes	yes	yes
Datex	Cardio-Oxym-ESM	2014	yes	yes	yes	yes
	Cardio-Oxym-ESM+	2014	yes	yes	yes	yes
Dräger	InfuWay	2011	-	yes	no	yes
	InfuWay Data XL	2011	-	yes	no	yes
	InfuWay Gemini	2011	-	yes	no	yes
	InfuWay Gemini XL	2011	-	yes	no	yes
	InfuWay Gemini XL	2011	-	yes	no	yes
	InfuWay Spire	2011	-	yes	no	yes
	InfuWay Spire XL	2011	-	yes	no	yes
Edwards Lifesciences	EV100	2011	yes	yes	yes	yes
	Vigileo	2011	yes	yes	yes	yes
	Vigileo 2	2011	yes	yes	yes	yes
	Vigileo	2011	yes	yes	yes	yes
FLUWELDANCE	UNIPULSE	2011	yes	yes	yes	yes
GE Healthcare	TruSight	2014	yes	yes	yes	yes
GE Healthcare	GE	2011	-	yes	no	yes
	GE Compact	2011	-	yes	no	yes
	GE Light	2011	-	yes	no	yes
	GE Pro	2011	-	yes	no	yes
	GE with ADU	2011	-	yes	no	yes
	GARDISCARE Baby	2011	-	yes	no	yes
	GARDISCARE Baby	2011	-	yes	no	yes
	GARDISCARE Baby	2011	-	yes	no	yes
	See also	2011	-	yes	no	yes
	See also	2011	-	yes	no	yes
	PROSCAPE Baby	2011	-	yes	no	yes
	PROSCAPE Baby	2011	-	yes	no	yes
	PROSCAPE Baby	2011	-	yes	no	yes
	Star Baby	2011	-	yes	no	yes
	Star Baby	2011	-	yes	no	yes
	Star Baby	2011	-	yes	no	yes
Hypnatis	see IntelliBridge		yes	yes	yes	yes
IRIS	see IntelliBridge		yes	yes	yes	yes
IntelliBridge	see ICU Monitor and Intellisense		yes	yes	yes	yes
ICU Medical (Chicago)	GE Pro	2011	yes	yes	yes	yes
IntelliBridge	see IntelliBridge		yes	yes	yes	yes
Intellisense	see IntelliBridge		yes	yes	yes	yes
LECO	LECOplus	2011	yes	yes	yes	yes
LECO	LECOplus	2011	yes	yes	yes	yes
UPM	see IntelliBridge		yes	yes	yes	yes
Intellisense	see IntelliBridge		yes	yes	yes	yes

*These could be device manufacturers for detailed information
**This device is IntelliBridge compatible
***This device is not IntelliBridge compatible

PHILIPS

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.



