Integration and interoperability in one comprehensive solution
Are these your integration challenges?

- Complex management
- Non-standard integration
- High cost
- High effort
- Multiple integration engines
Meaningful interoperability – right information, right place

From medical devices and imaging modalities to PACS and informatics systems, there are a lot of contact points to a patient during their hospital stay. In emergency and operating rooms, and in intensive care and step down units, the devices and systems involved in delivering care generate volumes of data which are critical for your decisions. The number and variety of these supporting technologies means complexity in getting them all to work together, and inconsistencies in the format of the information being shared.

We designed Philips IntelliBridge Enterprise to bring together these different sources of information, and provide the interface through which they combine data with your hospital information system and electronic medical record (EMR). IntelliBridge Enterprise applies healthcare standards to achieve workflow efficiencies that simplify collaborative care and help you enhance the quality of patient care.
IntelliBridge Enterprise – simplifying the interoperability challenge

IntelliBridge Enterprise empowers healthcare organizations to control the cost of enterprise interoperability, enhance the efficiency of clinical workflows, and help care providers make informed clinical decisions by leveraging data from patient care devices, informatics systems and EMRs.

**Connected care and single point of interoperability**
When you are delivering care, time is critical. Connected care is about using interoperability to make data available promptly. It helps you collaborate wherever you are in the continuum, across inpatient and outpatient facilities, and even into patient homes. In an ever-changing healthcare landscape, achieving this takes the transformative support of capable enterprise systems.

To interface Philips systems with the hospital’s clinical information systems or EMRs, IntelliBridge Enterprise acts as centralized, HL7 messaging service. It implements the necessary communication protocols, the mapping and message delivery, and it performs the necessary data filtering, transformation and routing. By providing a single point of interoperability with Philips systems, IntelliBridge Enterprise simplifies interface complexity and enhances the value of IT investments.

“Our proximity to the patient provides us with deep clinical knowledge because we are the providers, the analyzers and the interpreters of near patient high-resolution data and we support interoperability with information that is further away from the patient’s immediate setting such as demographics and diagnosis and other data in an EHR and other clinical systems.”

Dr. Joe Frassica, Vice President, CMIO and CIO for Philips
Enterprise connectivity and IHE compliance – using standards to get data to your EMR

Interoperability builds on systems understanding each other. Philips has a long tradition been actively participating in and chairing different workgroups involved in developing industry-wide interoperability standards and frameworks. By sharing our knowledge and using our partnerships with different vendors, we have developed IntelliBridge Enterprise as part of the shift to providing plug-and-play interoperability.

In particular, the development of IntelliBridge Enterprise was guided by the IHE charter, which establishes standards for industry-wide interoperability of healthcare devices and systems. IntelliBridge Enterprise is an early adopter in the IHE Patient Care Device domain, to achieve interoperability for IHE profiles including Device Enterprise Communication, Infusion Pump Event Communication, and Alarm Communication Management.
Empowering clinical decisions at the bedside

Patient-centric access to data helps care providers make informed clinical decisions, particularly in high acuity care settings where an overview of data from different sources can matter most. This can be data from hospital information systems, such as the EMR or laboratory results, or from patient care devices, such as ventilators.

To make this possible, IntelliBridge Enterprise can consolidate patient data from different sources and make it available on the bedside monitor or Patient Information Center: the point where the care provider needs it most.
Managing your ECGs

Inside or outside your department or institution, as a cardiology caregiver you need easy access to resting ECGs, and Holter and stress reports. Of course, you also need to read, create, and share ECG reports as part of your workflow.

To do this efficiently, and cost-effectively, IntelliBridge Enterprise integrates with the IntelliSpace ECG management system and interfaces to your enterprise information systems. Standardized HL7 communication with enterprise clinical and administrative systems provides access to demographics and order worklists, and makes it possible to distribute the results. On electrocardiographs, IntelliBridge Enterprise can complement the data in worklists with patient demographic data and order information. This saves on manual data entry and enhances the consistency of data.
Integrating the cardiology PACS

Compiling comprehensive reports can mean combining data from different sources, taking both time and concentration. By acting as a central point of data exchange, IntelliBridge Enterprise can gather patient demographic data, schedules, and ECG reports from your patient management, order management and ECG management systems, as well as images from your imaging modalities, using DICOM-based services such as DICOM Modality Worklist (DMWL) and Modality Performed Procedure Step (MPPS). The results can then be accessed in Xcelera and IntelliSpace Cardiovascular for finalization.

Once completed, being able to flexibly export those reports from Xcelera or IntelliSpace Cardiovascular can contribute to simplifying your clinical workflow. IntelliBridge Enterprise can create reports as formatted or unformatted text or as a PDF document - as it would display in a cardiology PACS. And using the HL7 standard, IntelliBridge Enterprise can look after forwarding those reports to your information systems.

Incorporating dose information in your report

With IntelliBridge Enterprise, your dose management system can supplement data from other sources. Combining dose information with examination information from the EMR, for example, could simplify your reporting, and support you in communicating it in a standard (vendor neutral) format for regulatory tracking. This is another way that IntelliBridge Enterprise can apply HL7 connectivity between hospital IT systems to simplify interoperability and support workflows.
IntelliBridge Enterprise – simplifying the interoperability challenge

Reliable, automated inclusion of data from various sources can ease the manual effort needed for charting, enhance the accuracy of documentation, and even help comply with government regulations.

IntelliBridge Enterprise can gather device data, vital signs or ECG waveforms captured by Philips patient care devices, combine it with the patient’s demographic data, and deliver it using the HL7 interface to your information system and EMR.

“As we moved towards a completely electronic record, it was very important to get those (vital signs) values into the record, and for them to be as real-time as possible.”

Jenny Horn, Hardin Memorial Hospital, Kentucky
Specifications

IntelliBridge Enterprise is a software-only solution. The hardware is provided by you. You can choose between a physical or virtual environment that fulfills the following minimum recommended specifications (based on a factory assessment of the software).

<table>
<thead>
<tr>
<th>Item</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>CPU</td>
<td>3 GHz Dual Xeon 4 or higher. For example, Intel Xeon® CPU E5-2643 0 3301 Mhz, 4 cores, 4 logical processors</td>
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<tr>
<td>RAM</td>
<td>8 GB (minimum)</td>
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<tr>
<td>Hard drives</td>
<td>500GB hard disk [15K RPM hard disk (x2)]</td>
</tr>
<tr>
<td>Network</td>
<td>100 Mbps, Ethernet Adaptor</td>
</tr>
<tr>
<td>Virtualization</td>
<td>Yes, through VMware® ESXi 4.1 or later</td>
</tr>
<tr>
<td>Power supply</td>
<td>Dual</td>
</tr>
<tr>
<td>RAID memory cache</td>
<td>RAID 1</td>
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<tr>
<td>Operating System</td>
<td>Windows Server 2012 R2 (64 bit)</td>
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<tr>
<td>Database</td>
<td>MS SQL server 2008 R2 – 64bit – SP3</td>
</tr>
<tr>
<td></td>
<td>MS SQL server 2008 R2 – 32bit – SP3</td>
</tr>
<tr>
<td></td>
<td>MS SQL 2012 – 64 bit – SP3</td>
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<tr>
<td></td>
<td>MS SQL 2014 – 64 bit – SP1 (recommended)</td>
</tr>
<tr>
<td>Integration engine</td>
<td>Orion Rhapsody 6.2.1</td>
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<tr>
<td>.NET Framework</td>
<td>4.5.2</td>
</tr>
<tr>
<td>Anti-virus</td>
<td>Required, McAfee® recommended</td>
</tr>
<tr>
<td>Remote access</td>
<td>Provide remote accessibility through Philips Remote Services for field service engineers</td>
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For additional details on IntelliBridge Enterprise technical specifications, please ask for an IT specifications document.

When it comes to connecting patient care devices to hospital information systems, IntelliBridge offers interoperability solutions that are standardized, IT friendly, and enterprise wide. The return on that investment is in the quality of patient care, the enhancements in clinical workflow, and the efficiency of care delivery.

By committing to standards such as IHE and building a platform that can be extended, IntelliBridge Enterprise helps you enhance comprehensive data collection. By providing a single point of contact between Philips solutions and the EMR, IntelliBridge Enterprise also helps simplify your interfacing, with impact on your overall cost of ownership. And by helping you increase the richness of your data, IntelliBridge Enterprise helps you meet the challenges of rapidly changing healthcare and regulatory environments.

Looking for more information?
To learn more about IntelliBridge Enterprise, contact your local sales representative or visit www.philips.com

Ask us how we integrate!