

# PHILIPS

Patient monitoring

Information center



## Patient Information Center iX for IntelliVue monitoring systems

### Release C.03 technical data sheet

Philips Patient Information Center iX (PIC iX) is the heart of a patient monitoring system that facilitates visibility into patient condition, assisting with early intervention of patient deterioration while improving workflow to enable more time with patients.

#### PIC iX:

- Supports continuous monitoring of patient vital signs from admission to discharge.
- Consolidates and communicates vital signs data from monitors and third-party devices to caregivers and to the EMR to support a complete patient record.
- Supports industry standard interfaces to integrate into existing hospital IT infrastructure and EMR systems while meeting requirements for manageability, serviceability, and security.
- Meets the needs of caregivers on the go enabling remote access to patient vital signs.
- Scales from out-of-the-box to enterprise network to enable customers to buy what they need, when they need it.

Through a combination of advanced alarm management, mobility, and clinical decision support, Philips Patient Monitoring systems provide clinicians with the tools they need to enable reduction of non-actionable alarms, improve workflow efficiency, and facilitate early intervention of patient deterioration to improve patient care and outcomes.

**Note:** This document describes only the PIC iX base systems that support IntelliVue monitoring devices. See the technical data sheet **Patient Information Center iX for Efficia monitoring systems** for information about the PIC iX Essentials base system.

1.2.29.

PIC iX palaiko nuolatinį paciento gyvybinių funkcijų parametų monitoravimą viso monitoravimo laikotarpiu.

Sujungia ir perduoda gyvybinių funkcijų duomenis iš monitorių.

## Base systems

The Philips central station portfolio consists of five base systems to choose from depending on your patient monitoring needs. Each base system can be upgraded to add beds or capabilities. See "**Product configurations**" for details about the options available with each system.

- **PIC iX Enterprise:** High-end surveillance station with data acquisition and storage. Can be licensed as a local database for up to 32 patients or with a network option for up to 1600 patients. Compatible low-, mid-, and high-acuity IntelliVue patient monitors. Advanced purchasable options.
- **PIC iX Express:** Mid-level surveillance station with data acquisition and local database storage for up to 32 patients. Compatible with low- to mid-acuity IntelliVue patient monitors. Intermediate purchasable options.
- **PIC iX Essentials:** Entry-level surveillance station with data acquisition and local database storage for up to 32 patients. Compatible with Efficia bedside monitors only. Minimal purchasable options. Designed for simplified installation.<sup>1</sup>
- **PIC iX Enterprise Link:** No surveillance display but can be licensed with the Overview package for surveillance station capabilities. Networked to support up to 1600 patients. Compatible with low-, mid-, and high-acuity IntelliVue patient monitors. Same advanced purchasable options as PIC iX Enterprise.<sup>2</sup>
- **PIC iX Link:** No surveillance display. Data acquisition and local storage for up to 64 patients. Compatible with low-, mid-, and high-acuity IntelliVue patient monitors. Minimal purchasable options.

PIC iX is part of the IntelliVue Network for patient monitoring. The IntelliVue Network can be supplied by Philips or can run on a customer's network infrastructure. The network must meet the requirements of the Philips *IntelliVue Network Specification* to ensure performance and reliability of life-critical information.

### Maximum system configurations per domain

Base system	Maximum hosts	Maximum patients
PIC iX Enterprise (local)	1 data acquisition and 7 Overview	32
PIC iX Enterprise (networked)	250 <sup>a, b</sup>	1600
PIC iX Express	1 data acquisition	32
PIC iX Essentials	1 data acquisition	32
PIC iX Enterprise Link	250 <sup>a, b</sup>	1600
PIC iX Link	1 data acquisition	64

a. Can include a combination of Overview, Physio, warm standby, data acquisition, Mobility, and Web servers and clients

b. Each Physio server can support up to 128 beds

1. See the technical data sheet "Patient Information Center iX for Efficia monitoring systems" (4522 991 53401) for information about PIC iX Essentials.

2. Patient Worn Device/Monitor connectivity requires the Overview package.

### Maximum device configurations per patient

The following devices, wired or wireless, can be assigned to a single patient:

- One designated bedside monitor
- One designated transport monitor
- One designated X2/X3 bedside monitor
- One designated X2/X3 transport monitor
- One Patient Worn Device/Monitor
- Two IntelliBridge Hubs
- Four IntelliBridge LAN devices

## Surveillance

PIC iX provides one intuitive view of each patient's current status, including ECG waveforms, numerics, trends, STEMI Limit Maps, labs, and more. The view is personalized for the patient's clinical condition and configured for the department to provide a comprehensive view of a patient's condition. The user can

- View waveforms, numerics, and alarms for up to 32 patients on one or more displays.
- Automatically or manually expand the sector size for high-acuity patients.
- Maximize screen space for actively monitored patients by minimizing inactive beds.
- Use Clinical Decision Support tools such as Horizon Numerics (**PRO** package) that indicate deviations in measurements such as HR, Horizon Trends, Philips ST and STE Map. Clinicians can quickly view the status of high-acuity patients.
- View up to 12 waveforms per patient sector.
- View up to 96 waveforms per display.
- View all surveillance waves, numerics, and CDS elements in the Patient Window.
- Configure volume levels for day and night to support reduced alarm volume at night when patients need rest.
- Manage grouping of beds for caregiver assignments for secondary alarm notification at the bedside or on smartphones.
- View Modified Early Warning Score or Single Parameter Score numeric from an IntelliVue patient monitor.
- Receive trends, reviews and secondary notifications to smartphones.

## Alarm management

PIC iX provides information and tools to help prioritize alarms and reduce alarm fatigue. Adjustable alarm settings and intuitive visual cues prioritize the most actionable alarms. Clinicians can manage and acknowledge alarms from the central station, review alarms remotely via a Web application (**Visibility** package), or on a mobile device via CareEvent.

- Visual and audible alarm indicators include Philips industry-leading blue sector color coding, banners with color matching severity, and multi-level audible tones.
- Up to 25 customized alarm profiles can be configured for patients on Patient Worn Devices/Monitors per unit and per patient.
- The **Alarm Summary** application displays a snapshot of a patient's most frequent alarms, alarm limits, and trends for the major vital signs to assist the clinician in determining appropriate alarms and limits based on unit policies.
- With Philips IntelliBridge System, alarms from third-party vendors can be sent to PIC iX, filtered by severity at PIC iX, and forwarded to a mobile device or EMR. Alarm limits can be sent automatically via HL7.

- The **Clinical Audit Trail** application captures and stores a log of alarms and actions for up to 90 days. The user can
  - search by patient to review a specific event
  - search by unit to view all alarms and actions taken on alarms, ADT transactions, and more
  - if allowed, access the log from System Configuration and save the log to a shared network drive or a USB flash drive.
- CareEvent supports data storage and makes it easy to create alarm reports for retrospective analysis. A managed copy of the CareEvent database can be created and used for third-party reporting applications or other tasks that should not be performed on a live system. The reporting function can be purchased without the notification feature.
- Alarm Advisor notifications (called frequent alarm notifications) provide feedback on recurring alarm limit violations for a specific measurement over a period of time. These notifications can help users to understand when it may be appropriate to change alarm limits for individual patients to improve the number of clinically significant alarms. Alarm Advisor notifications are available with IntelliVue bedside monitors release M.0 or later and Philips Patient Worn Devices/Monitors.

## Clinical workflow

PIC iX simplifies clinical workflow by giving nurses the power to do more at the bedside, including admitting patients from the hospital ADT system and assigning nurses and equipment to patients. During care transitions, clinical reports help the team easily communicate patient information for efficient patient handovers. A Web application (**Visibility** package) allows for remote viewing of patient vitals which enables timely reaction to adverse patient events.

- Point of care IntelliVue patient monitor controls of admission via the hospital information system, as well as choosing the bed assignment, changing the caregiver assignment, and equipment management.
- Lab interface provides lab data to the IntelliVue patient monitor, supporting advanced clinical applications such as ProtocolWatch Sepsis and Early Warning Scoring.
- Transfer a patient within the enterprise network using the X2/X3 by docking to the new host monitor and confirming the transfer. Alternately, the user can choose from a list of specific transfer destinations at either the IntelliVue patient monitor or PIC iX.
- IntelliVue equipment can be configured to stay with the patient upon transfer as part of infection control policies.
- Remote Display Setup can be used to add or remove bed labels, determine the layout of any PIC iX to which you have access, and consolidate Overview PIC iX hosts during a time of low census.
- View current and stored data for a patient monitored by another PIC iX in any clinical unit (**Overview** package); up to 10 different overview sessions for the same patient. Central monitoring units can act with the same controls as the Surveillance station, by configuration. This includes using Remote Display Setup to add bed labels to the Main Screen of the Surveillance and add the Overview label, all from a single application.
- Connect to the CareEvent mobile application, a notification tool that alerts a nurse via a smartphone about patients' actionable events requiring immediate attention. Users can
  - View up to four numerics and four waveforms, including ECGs, for up to 10 seconds to make an informed decision.
  - Use visual indicators and varied ringtones to distinguish alarm types.

- Remotely view patient vital signs, delegate a patient to another nurse, and forward patient information with the actual event to a physician or another caregiver via secure text messaging for improved caregiver collaboration.
- System notifications via inbound ADT HL7 messages for Admit, Discharge, and Transfer (Auto ADT) into the monitoring system to reduce ADT administrative tasks. Admission notifications can be configured to be automatic or to require confirmation. Transfer and discharge notifications always require confirmation to assure continuous monitoring. Transfer confirmation can be configured to be at the sending and/or receiving location.
- Select a single button to discharge a patient, put their equipment into Standby, print a Patient Summary report, and minimize the patient sector.

## Clinical review applications

PIC iX review applications can assist clinicians to evaluate patient conditions and assess treatment status. Retrospective review applications display historical physiological data in a variety of formats including waveforms, graphic and tabular trends, and events. With dual displays, data is available in a consolidated view on one display for a clearer view of patient status.

General Review	Displays the data history as a dashboard of waves, events, trends, and tabular data.
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Alarm Review	Displays the alarm events that have been automatically stored as well as strips that have been manually saved.
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In addition, up to 12 configured review applications are included with each PIC iX Enterprise system, and can be purchased with PIC iX Express. Factory defaults for these **Specialty Review** applications include:

Cardiac Review	Designed for cardiac patients. Stores all ECG waves, ST Snippets, ST Maps, and ECG Statistics for retrospective review, as well as compressed waves, strips, graphical and tabular trends. Displays cardiac-relevant alarms and events. A Signal Quality Indicator for 12-lead full disclosure lets users quickly access high quality 12-lead ECG, EASI or Hexad wave storage to review with alarms and events.
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Hemodynamic Review	Displays hemodynamic relevant waves, numerics, trends, and events.
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Respiratory Review	Displays respiratory relevant waves, numerics, trends, and events, including from ventilators.
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Neuro Review	Displays neurologically relevant waves, numerics, trends, and events, including ICP and EEG measurements.
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PIC iX išsaugo informaciją iki 7 dienų kiekvienam pacientui sistemoje montavimo metu ir išrašius pacientą. Įskaitant diagnostines EKG ir ne EKG kreives, pavojaus signalus ir įvykius, grafikus ir lenteles.

## Data storage

### 1.3.3.

PIC iX stores data for up to seven days for each patient on the system during the patient stay and upon discharge.

- Includes all stored diagnostic ECG and eight non-ECG waves, alarms, and events, graphical and tabular trends.
- All specialty data stored with **Specialty Review**.
- All 12-lead ECG captures stored with the **12-Lead ECG** package.
- Patient admission is not required for data collection to begin. The data will be updated with patient demographics after admission.
- Discharged patient data review can be performed without readmitting the patient.

## Clinical reports

Clinical reports with customized formats can be generated on demand or at a scheduled time. Patient reports can be sent to a laser printer or as an electronic PDF document in the EMR. A unit configuration (with password protection) sets the report templates for all patients on PIC iX.

- The **Patient Summary** report includes demographics, patient care information, current vital signs, and a recent wave strip. This report can be automatically printed upon transfer or discharge, and scheduled to print, for example, at the beginning of each shift.
- The **Alarm Summary** report provides a snapshot of the patient's most frequent alarms and the associated trends of major vital signs. This report can help determine whether an alarm limit change would reduce non-actionable alarms. An Alarm Summary report can be printed ad hoc or scheduled as part of a shift handoff.
- Wave strips can be configured for a specific duration (4, 6, 8, 10, 15, 20, or 30 seconds) reducing the need for a recorder.
- Data review reports include: 12-Lead Capture, Alarm, Multi-Lead, QT View, ST View, Review Summary, Tabular Trend, ECG Statistics, and Clinical Settings. Availability of some reports depends on the **PRO** package license.
- Measurement reports for QT View and ST View display QT and ST snippets (15 seconds) that can be superimposed or viewed individually. These reports provide more insight into the patient condition, where the measurements are taken, and measurement quality.
- Exporting an electronic PDF report can be scheduled or manual for all PIC iX and IntelliVue bedside patient reports, including annotated wave strip reports.
- Wave Strip Export creates an image file (.png) for automatic export of all alarms and saved strips to a configured server for import to the EMR. The image can show up to 20 waves. Philips IntelliBridge Enterprise filters the strips to send to the patient record.
- Unit management reports print to paper:
  - **Unit Summary** provides a snapshot of all admitted patients, including equipment assignment time, for a shift change handoff.
  - **Device Assignment** lists all assigned devices, including date, time and duration, and battery status.
  - **Clinical Settings** contains the unit settings for user records.

## 12-lead ECG package

12-lead ECG is a solution from order entry to order completion and reconciliation, eliminating the need for a cardiograph to take the measurement. Features include:

- Review, capture, and export continuous diagnostic quality 12-lead ECGs from review applications at the monitoring system when utilizing a 10-wire ECG lead set on the IntelliVue patient monitor Release K.1 or later.
- The proprietary Signal Quality Indicator lets users zoom to high-quality waves for capture.
- Advanced age and gender-specific interpretation, advanced pediatric analysis and interpretation, enhanced atrial arrhythmia analysis, and critical value statements alert users to conditions that may require immediate treatment.
- Upon capture, the Philips DXL algorithm (also used in Philips cardiograph) provides analysis and interpretation for arrhythmia and AMI.
- Special features of the algorithm include: location within Culprit Artery, better differentiation between LBBB, LVH and Atrial Flutter, and improved diagnosis of NSTEMI.
- The 12-lead ECG order interface from the Physician Order Entry system enables the user to add an order for 12-lead ECG captures at the time of export at either the bedside or the PIC iX. The user can enter order details such as reason, requested by, and so on when exporting 12-lead ECG from an IntelliVue patient monitor Release M.0 or later.
- Export diagnostic 12-lead ECG to a compatible cardiology management system at either the IntelliVue patient monitor or the PIC iX.
- PIC iX can store up to 100 conventional diagnostic 12-lead ECGs per patient. Up to 30 captures can be locked to prevent them from being overwritten.
- Export ECG waves to a Zymed Holter monitoring system for a complete patient record, in and out of the hospital.

## Research option

**Data Warehouse Connect (DWC)** is a licensed feature that allows patient data, including waves, alarms, events, and trends (admitted and discharged) to be exported directly from surveillance PIC iX stations to long-term data storage. DWC is designed for clinical research and can be used for sentinel event review for a single patient, particularly for events that are more than seven days old. DWC reports and stores complex numerics such as EWS scoring, third-party device data and multi-parameter alerts.

## Visibility

### Web application

The Web application enables remote viewing of physiological vital signs data, including waveforms and parameters, and retrospective review of alarm and wave data. The user can be aware of changes in patients' conditions regardless of their location. The user can access information via single- or multi-patient views on a desktop or laptop.

Web communication can be secured using HTTPS and configured to require user authentication. The application permits access to Patient Selection, Main Screen (multi-patient only), and Patient Window. Web review applications include: Alarm Review, General Review, 12-Lead Capture Review, and Cardiac Review.

### Web Proxy

The Web Proxy enables the IntelliVue patient monitor Release M.0 or later to display retrospective vitals data from the PIC iX for review at the bedside.

## Care Assist

Enables remote viewing of patient vitals, including waveforms and parameters on a smartphone or tablet. The application can supplement Philips CareEvent to provide greater physiological context for patient alarms. The application is available on iTunes or Google Play Store. When a mobile client user with appropriate PIC iX clinical unit access is authenticated by the PIC iX Mobility Server, the user can view a list of all beds in the topology and vital signs for individual beds. Refer to the *Philips Mobility Compatibility Guide* for a list of the mobile devices that are currently supported.

### Operating system, SQL Server, and virtualization software

PIC iX uses:

- Microsoft Windows 10
- Microsoft Windows Server 2016 Standard Edition
- Microsoft SQL Server 2016 SP2 Standard Edition or Enterprise Edition
- VMWare ESXi vSphere 6.0, 6.5, 6.7 or Microsoft Hyper-V (Windows Server 2016 or Server 2019)

## Information Technology capabilities

### Centralized deployment of updates and security

PIC iX is designed to deliver information when and where it is needed without adding an unnecessary burden to the hospital IT department. PIC iX supports IT best practices such as centralized deployment of updates, security, and scalability.

- Centralized deployments of updates include: Philips, Microsoft, and antivirus vendors (McAfee, Symantec and Trend Micro) to support more efficient ongoing maintenance and upgrades.
- Directly downloads applicable OS patches from Microsoft and supports Microsoft WSUS and Microsoft SCCM.
- Antivirus protection for PIC iX supports standard enterprise antivirus configurations.
- Client/server architecture supports centralized management, security, scalability, and enterprise deployments.
- Uses the hospital Domain Name Services (DNS) and Dynamic Host Control Protocol (DHCP) for large, networked system deployments.
- Leverages Active Directory (AD) infrastructure for user administration and authentication; servers can join the domain.
- Supports the hospital's policy of configurable passwords that meet complexity and expiration requirements.
- Hardened using the US Department of Defense Security Technical Implementation Guides for Operating Systems, SQL Server, .NET, and Internet Explorer.
- Windows Firewall is enabled for surveillance, overview, and servers.
- Node Authentication and Encryption for PIC iX and IntelliVue X3, MX400/MX450/MX500/MX550/MX750/MX850 and PIC iX-to-PIC iX Encryption.
- Encryption for data at rest on PIC iX using Intel and Microsoft technologies.
- Internet Information Services (IIS) security to meet Security Technical Implementation Guide (STIG) and Web requirements.
- Complies with Department of Defense Information, Assurance, Certification, and Accreditation (DIACAP) process.

## Centralized licensing

Customers can purchase a central pool of monitored bed and option licenses to distribute across surveillance stations. Centralized licensing allows the flexibility of moving licenses in the future based on changes in units and monitoring practices without being restricted by the physical hardware.

This requires downtime and trained personnel. With software licensing and Philips Remote Support, the Philips Customer Care Service Center knows which system, options, and release levels that the customer has installed, which helps when diagnosing system issues.

### IT and biomedical monitoring and management

PerformanceBridge Focal Point (also called Focal Point) is a management and monitoring system for Philips medical equipment such as PIC iX, applications, and networks that increases system uptime through proactive management capabilities. This reduces the cost of deploying, managing, maintaining, and servicing Philips products. The result is a superb experience for clinicians and patients.

Focal Point is a scalable, on-premises software system with the following features:

- Intuitive, Web-based user interface
- Provides a complete inventory of Philips equipment, applications, and network devices (managed elements) in the healthcare facility
- When issues arise, creates operational alerts and actionable insights
- Notifies users of alerts and fault conditions through Web-based interface, e-mail, text messaging, and so on
- Displays overall system and device health status in a dashboard summary view
- Displays key performance indicators/statistics for trending, capacity planning, troubleshooting, and maintenance purposes, such as charts and reports
- Integrates with customers' IT and network management systems and processes
- Includes Philips remote connectivity for support and services

### Leverage hospital hardware and network investments

PIC iX functions with existing hospital IT infrastructure. It communicates with EMR, ADT and lab systems to provide timely access to data which helps treat patients and provide quality care while enabling IT best practices.

- Virtualize servers on customer hardware using VMware or Microsoft Hyper-V to support high availability and reduce operational costs associated with downtime and data center deployment.
- Select the existing customer network to run monitoring solutions, or run on the manufacturer's separate, isolated, turnkey system. Leveraging the existing network enables advanced support for networking best practices, including:
  - Full Layer 3 support between the surveillance station and servers to centralize servers in the data center
  - Flexible IP addressing according to enterprise standards
  - Wireless environments for bedside monitors and patient wearable monitors: 802.11 or Smart-hopping network (1.4 WMTS, 2.4 GHz)
  - Supports offloading SQL Server database from PIC iX Primary, Physio, Web, and Mobility Servers to the customer-provided SQL Server database and storage infrastructure for encryption of data at rest.

## Continuous patient monitoring

The Philips product portfolio spans telemetry and transport monitoring, bedside, central, mobile, and can interface with third-party monitors and devices to offer a complete patient record from admission to discharge.

Tested and validated to the IHE PCD Profiles Patient Care Device (PCD-01). IT-centric capabilities that support a complete patient record include:

- **Auto Reconnect:** Supports reconnection if a server is disconnected and comes back online.
- **Synchronization from Local Mode:** If the server goes down, the surveillance station continues to function as a central monitor. When the connection to the server is restored, changes made to the surveillance station are automatically synchronized, and patient data stored locally on the surveillance station uploads to the server.
- **Trend Upload:** IntelliVue patient monitor Release K.1 or later and MX40 Release B.06 or later accumulate numeric vital signs data when off-network. When the monitor reconnects, up to 8 hours of buffered data uploads to the central station.
- **High Availability:** PIC iX Enterprise Link systems separate surveillance from the PIC iX to enhance uptime while maintaining key system capabilities. Surveillance capability is provided via the **Overview** package.
- **HL7 Store and Forward:** Central station buffers and stores historical trend data if network services are disrupted. Data is sent to the EMR when the connection is restored. **Note:** *Not all electronic records accept historical data.*
- **Connectivity to third-party devices:** Ventilators, infusion pumps, and other devices interface through a bedside module to provide a single HL7 information stream from the patient monitoring source to the central station for alarm management data and reporting into the patient record.

## Interoperability with EMR

### HL7 and Alert Data Integration (ADI) services

HL7 and ADI (paging and CareEvent connectivity) services can be configured as Distributed or Centralized. If Distributed, the HL7 or ADI service runs on each PIC iX and each PIC iX connects directly to configured clients. If Centralized, the services run on the gateway server. Each PIC iX sends information to that server, which sends the information to configured clients.

### HL7 outbound

PIC iX sends HL7 messages (compliant with IHE profiles) containing patient monitor parameter data, external device data, alert data, and physio calculations to the EMR system. HL7 versions 2.3 and 2.4 are supported for Classic and Vista profiles. HL7 version 2.6 is supported for the IHE profile. The communication transport is TCP/IP. All patient numeric data is exported via HL7.

HL7 Alarm Reporting: PIC iX sends alarm data for monitors and other devices using the IHE Alarm Communication Management profile and Alarm Reporter actor using HL7 version 2.6. This is a separate communication stream and does not contain any patient parameters except for the specific alarming message.

### HL7 Toolkit

The HL7 Toolkit includes a simulator and diagnostic ability that can be used to view HL7 service output and troubleshoot HL7 installation.

## Regulatory information

For regulatory compliance information, see the Information Safety and Specifications chapter in the *Patient Information Center iX Instructions for Use*.

## Product configurations

### Base packages

x = included in base product; O = purchasable option; OE = purchasable option by exception only; N/A = not available

Type	Description	PIC iX Enterprise	PIC iX Express	PIC iX Essentials <sup>a</sup>	PIC iX Enterprise Link	PIC iX Link
Topology	Patient Connections	2-1600 <sup>a</sup>	2-32	8-32	2-1600 <sup>b</sup>	2-64
	Surveillance	x	x	x	N/A	N/A
	Dual Display Software	x	x	x	N/A	N/A
	Calipers	x	x	x	N/A	N/A
	Audit Log	x	N/A	N/A	N/A	N/A
	Local Database	O	x	x	N/A	x
	Networked	O	N/A	N/A	x	N/A
	Encryption and Node Authentication	x	x	N/A	x	x
Equipment Management	Efficia Monitors	N/A	N/A	x	N/A	N/A
	X2, X3, MP5, MP5SC, MP20/30, MX400/450	x	x	N/A	x	x
	MRx, MP40/50, MX500 (incl. MP0)	x	x	N/A	x	x
	MP60/70, MX550 to MX750 (incl. MP1)	x	O	N/A	x	x
	MP80/90, MX850 (incl. MP2)	O	N/A	N/A	O	O
	MX40 Telemetry and Device Location	x	O	N/A	x <sup>a</sup>	N/A
	Device Interface (IBS)	x	O	N/A	x	x
	Spare Connectivity (Warm Standby)	O	N/A	N/A	O	O
	Physio Server	O	N/A	N/A	O	N/A
Data Review	7 Days Full Disclosure	x	x	x	x	x
	General Review only (for SPE - Alarm and General Review)	x	x	x	x	x
	Specialty Review (SPE, General Review incl.)	x	O	N/A	x	N/A
Interfaces	HL7 Inbound and Outbound (HL7 + ADT)	O	N/A	N/A	O	N/A
	HL7 Outbound (HL7 only)	O	O	O	O	O
	Auto ADT (requires HA7)	O	N/A	N/A	O	N/A
Visibility	Web Single-Patient View	N/A	O	O	N/A	N/A
	Web Multi-Patient View					
	Mobile					
Research	DWC Live (Stream)	O	N/A	N/A	O	N/A
	DWC Live Warehouse (Storage)	O	N/A	N/A	O	N/A
Notifications	ADI Alert Outbound <sup>c</sup>	x	N/A	N/A	x	N/A
Other	DIACAP	OE	N/A	N/A	OE	N/A

a. See "Patient Information Center iX for Efficia monitoring systems technical data sheet" (4522 991 53401) for details.

b. TEL will only work with PIC iX Enterprise Link if the **Overview** package is purchased.

c. ADI Outbound is for pagers and CareEvent connectivity.

## PRO package

Feature	Description
MP80/90, MX850	IntelliVue patient monitors
Electronic Reporting	PDF format export of reports
Wave Strip Export	Export wave strips to EMR
HL7 Vitals	HL7 numerics export to EMR
Lab Interface	Support for inbound labs
ADT Interface	Admit, transfer, discharge from HIS
Horizon Trend	Visual representation of vital measurements relative to baseline or target value, and how vitals are trending
ST Map	Visual representation of patient's cardiac ischemic profile

## Overview package

Feature	Description
Dual Display	Connect single or dual display
Calipers	Electronic calipers
Audit Log	Captures and stores a log of alarms and actions for up to 90 days
Overview Connectivity	Overview capability
Electronic Reporting	PDF format export of reports
Horizon Trend	Visual representation of vital measurements relative to baseline or target value, and how vitals are trending

Feature	Description
ST Map	Visual representation of patient's cardiac ischemic profile

## Visibility package

Feature	Description
Web Single-Patient View	Single-patient view of patient vitals on desktop or laptop
Web Multi-Patient View	Multi-patient view of patient vitals on desktop or laptop
Web Proxy	Display retrospective vitals data from PIC iX at IntelliVue patient monitor
Mobile	Single-patient view of patient vitals on smartphone or tablet

## 12-lead ECG package

Feature	Description
Electronic Reporting	PDF format export of reports
Wave Strip Export	Export wave strips to EMR
ADT Interface	Admit, Transfer, Discharge
12-lead Orders	12-lead ECG orders
12-lead Export	12-lead ECG capture/analysis
12-lead Full Disclosure	12-lead ECG waves
Holter Export	12-lead ECG export to Zymed Holter

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4522 991 53381 \* SEP 2019



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