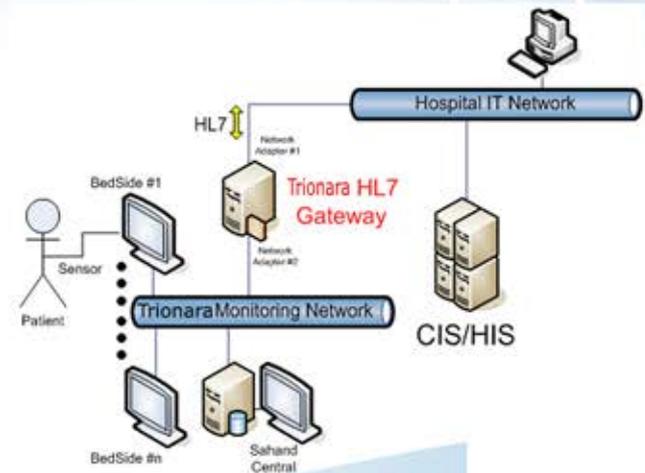# TRION**ARA**

Innovative Caring

Easily integrated with any Hospital Network
Reliable & Accurate patient data delivery to EMR systems
Secure data communication with HIS, PACS and any hospital
WEB application through standard protocol

kiwa certified   kiwa certified

ISO 13485   CE 1984

TRIONARA Gateway Solutions

Provide the ability for the Trionara monitoring network to communicate safely with any other information system in hospital. Due to network security and management considerations, Trionara Gateway shall be installed with two network adapters, one connects to Trionara Monitoring Network and the other one connects to the hospital network. Trionara Gateway Solutions include three modules that would be applicable with any combinations.

- **TRIONARA HIS Gateway**
- **TRIONARA PACS Gateway**
- **TRIONARA WEB Gateway**

TRIONARA HIS Gateway

Trionara HIS Gateway module connects Trionara monitoring network to HIS EMR system through HL7v2.x standard protocol. Therefore vital sign parameters can be observed periodically in EMR in the hospital information system. Any Physiological or technical alarms can be reported if needed. Patient admission and Medical Record Number is entered in Trionara Vitus CS central station manually.

Features:

Provide vital sign parameters, physiological Alarms and technical events in form of OBX message to HIS/EMR server in the hospital with HL7 v2.x standard protocol.

Sending of OBX message periodically. Setting of duration by central Vitus CS user .

Activation of sending OBX messages on occurrence of alarm and event by central Vitus CS user.

Parameters type and alarm type selection by central Vitus CS user.

Supports up to 15 Central Vitus CS (240 beds) with one single TRIONARA Gateway.

Manage and configuration by secure remote web access in hospital network.

Benefits:

Adding vital sign parameters, alarms and events to patient electronic health records in HIS/EMR servers in the hospital.

Backing up patient records with standard HL7 format in the HIS/EMR servers in the hospital.

Physically separate hospital network from monitoring network for more reliability, security and better management.

TRIONARA PACS Gateway

TRIONARA PACS Gateway module creates DICOM file from ECG arrhythmia wave form that is stored in Vitus CS Central System and forwards the DICOM file to PACS storage server. Patient demographics are entered into Trionara Vitus CS Central System manually.

Features:

- Createing and sending ECG recorded files with DICOM Standardformat to PACS Storage Server.
- Sending ECG DICOM file via arrhythmia alarm activation in the central Vitus CS.
- Sending current ECG signal DICOM file by user request in the central Vitus CS.
- Sending Disclosure ECG signal DICOM file by user request in the central Vitus CS.
- Supporting up to 15 Central Vitus CS (240 beds) with one single Trionara Gateway.

Benefits:

- Adding ECG waveform to patient electronic health rcords with DICOM standard format in PACS storage servers in the hospital.
- Reducing ECG thermal paper consumption.
- Backing up patient records in DICOM format in PACS storage servers in the hospital.
- Physically separate hospital network from monitoring network for more reliability, security and better management.

TRIONARA WEB Gateway

New applications have web interfaces to facilitate remote and easy accessibility via web browser like Firefox, Chrome or IE. Now many PACS and HIS applications have web console. Therefore Trionara WEB Gateway handles http request/response from Vitus CS Central system to PACS/HIS systems.

Features:

- Ability to display PACS images on the Vitus CS Central System by access to web interface of PACS servers.
- Ability to access web interface of Hospital Information System on the Vitus CS central System.

Benefits:

- Quick access to DICOM images and archives of ECG records by physician besides central Vitus CS or bedside monitors, 8 Series.
- Quick access to patients electronic health records in the HIS by physician besides central Vitus CS or Vitus series bedside.
- Physically separate hospital network from monitoring network for more reliability, security and better management.

TRIONARA eGateway Specifications

Hardware

Processor	Intel Core i5 (3GHz)
Memory	4GB DDR3 1333Hz
NIC CARD	2 x 10/100/1000
HDD	128 GB SSD
Operating System	Linux Ubuntu 14.04

Power Requirement

Voltage :	200~230 VAC
Frequency :	50~60 Hz

Physical Specification

Dimension (cm):	H : 5, W : 15, L : 15

Environmental specifications

Temperature :	10 ~35 C
Humidity :	10%~90%

Trionara Technologies AB