



# IP based communication tools - making life easier in hospitals

HEALTH CARE

**SCHRACK**  
S E C O N E T

## Hospital Communication Systems - Connecting People.



## Modern Hospital Communication meets the requirements of



## **IP based communication tools – Making life easier in hospitals**

- **Learning from the user's opinions and expertise**
- **Communication concepts for the future versus actual situation**
- **Higher value for lower cost**
- **Patient safety**
- **Patient comfort**
- **Staff comfort / Self organising tools for staff**

## Learning from the user's opinions and expertise



## National Expert Commission / Canadian Nurses Association

### Message from the Commissioners

The Canadian Nurses Association (CNA), the professional voice of Canada's 268,500 registered nurses, plays a key role in developing policies and models of care to enhance the health of Canadians.

In May 2011, CNA established an independent National Expert Commission, made up of leaders in nursing, medicine, business, law, academia, economics and health-care policy. Guided by the motto "Better Health, Better Care, Better Value, Best Nursing" (based on the Institute for Healthcare Improvement's triple aim initiative), we set out to discover the most efficient, effective and sustainable ways to meet the changing and pressing health needs of Canadians in the 21st century.

We heard from people across the country – the public, nurses and other health professionals and policy makers – in person and via the Internet.

We commissioned research, welcomed written submissions, and conducted public polling.

Revised in September 2012

Can be found on: <http://www.cna-aiic.ca/expertcommission>

## National Expert Commission / Canadian Nurses Association

**Technology will never replace human caring. Rather, it can free up human resources to intensify the humanity of health care.**

Nurses have been leaders and inventors of technology, quick to adopt technologies that do things to and for patients as part of diagnostics and treatment. We challenge nurses, their teachers and employers, to imagine the potential improvements in patient safety and education, cost savings and efficiency if nurses vigorously demanded the latest information and communication technologies (which many of them use outside of clinical settings).

They should not need to demand them:

Health-system leaders should be requiring their use as essential equipment.

## National Expert Commission / Canadian Nurses Association

### 9. Use technology to its fullest

21st century health care demands 21st century tools.

We need an unparalleled escalation in our use of technology to drive a transformed health-care system. Properly used, today's technology has the potential to provide rapid access to evidence and best practices for providers, to information and education for citizens and tools for communication and collaboration among health-care providers – all of which will enhance patient safety.

#### Getting started

Nurses must urge their organizations and their colleagues to understand the power of technology to ensure better health, better care and better value – and to act rapidly to identify, invest in, support and require the use of technology, such as point-of-care devices, that can lead to immediate improvements in care. These tools hold the potential to change the face of health promotion, improve timely access to care, and put valid and reliable information and research into the hands of patients, families and providers.

# Communication concepts for the future versus actual situation

COMPETENCE

ON TOP

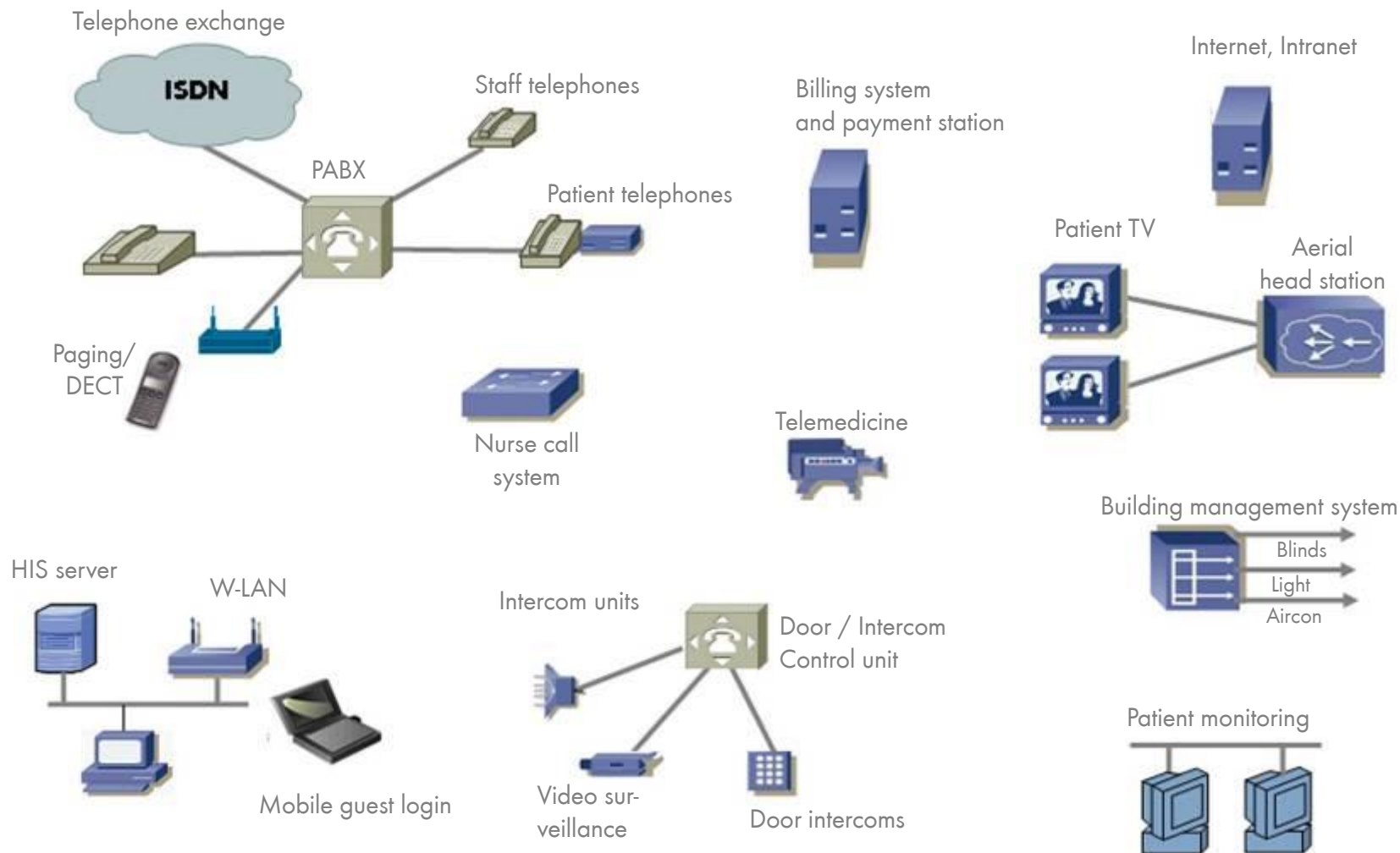
emergency call  
ward - C  
room 4.09

10:58 08  
2013 Nov 20

ALL IN ONE, ONE FOR ALL!

## Typical system installations in today's hospital reality

**And someone should be able to manage this all !**



## System integration into one network - VISOCALL IP



## Main benefits of system integration: Higher value for lower costs

- Multiple functions in one system - optimum interoperability
- One system has much lower investment costs than many systems
- Saves a lot of individual installations
- Use of existing network structure
- Higher reliability and lower failure rate



## Main benefits of system integration: Higher value for lower costs

- Maintenance of only one structure reduces manpower and costs for whole system lifetime
- Easy data transfer between servers via IP protocol
- Future oriented investment for easy, modular hardware and software extensions



**Supports all functional requirements for patients, nurses, doctors, administration and technical services**

## Bed Head Unit - ALL IN ONE

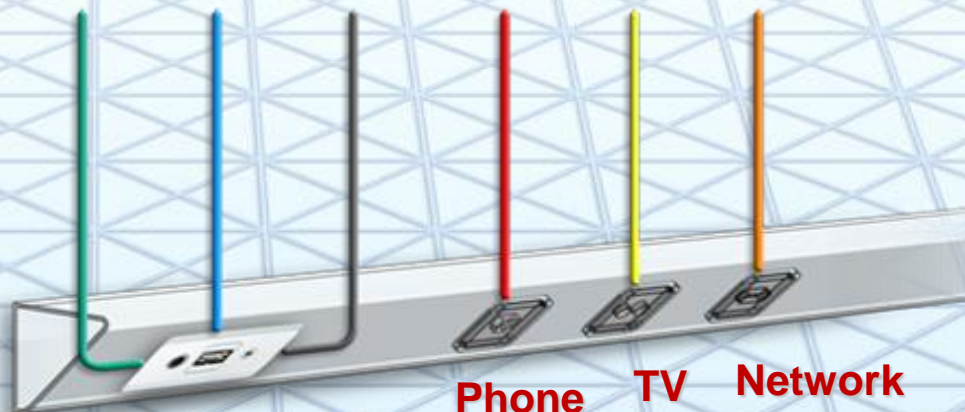


**VISOCALL IP**



**ALL IN ONE**

**24VDC BUS PA a/b Coax LAN**



**Nursecall**

**Voice**

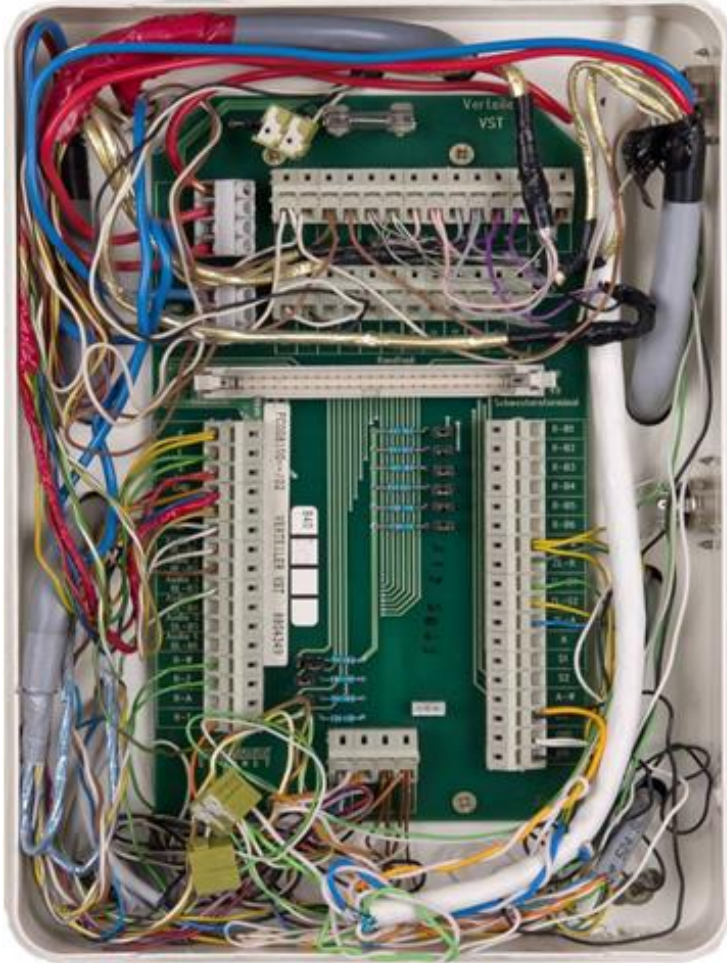
**Radio**

**Phone**

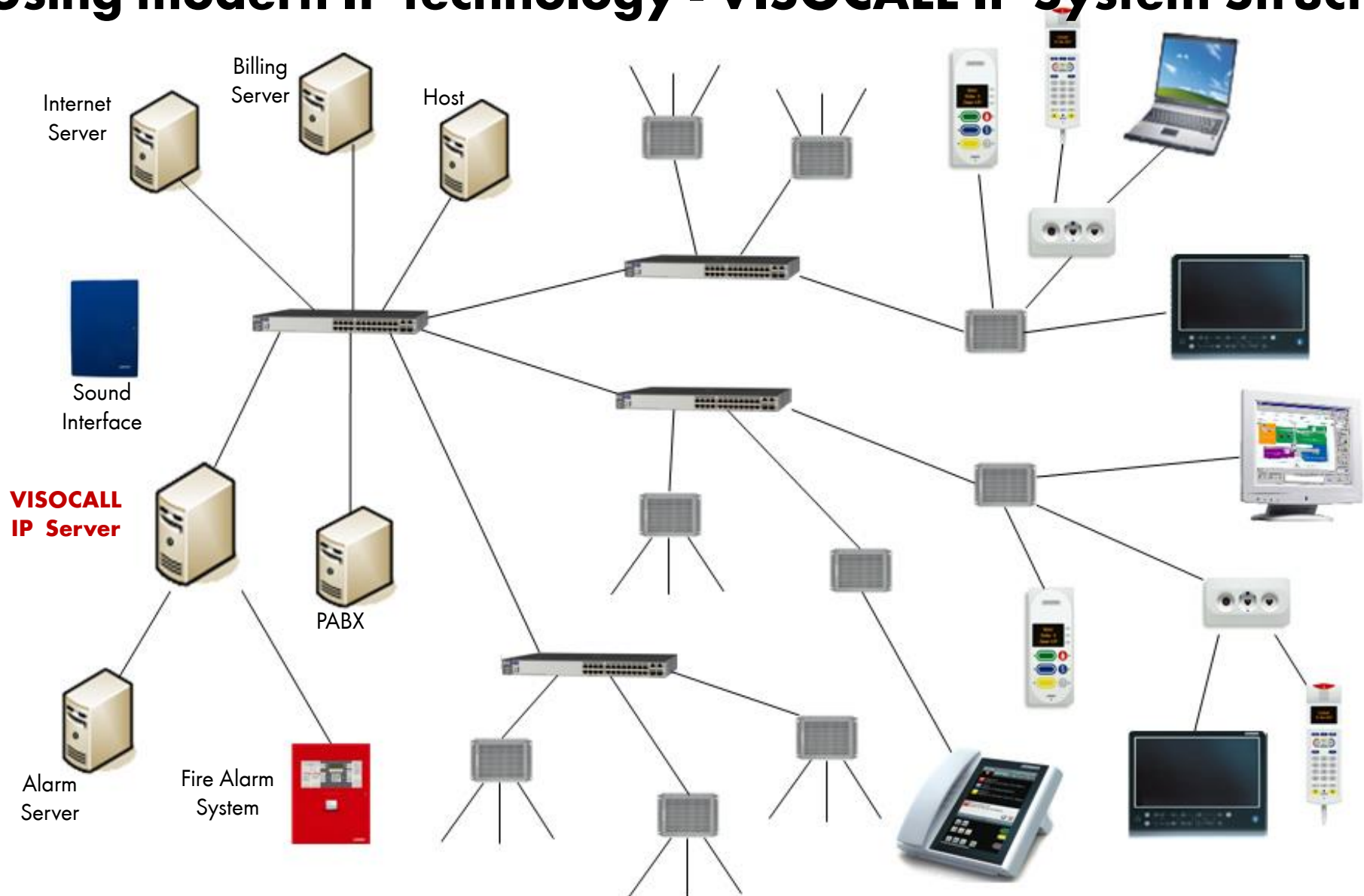
**TV**

**Network**

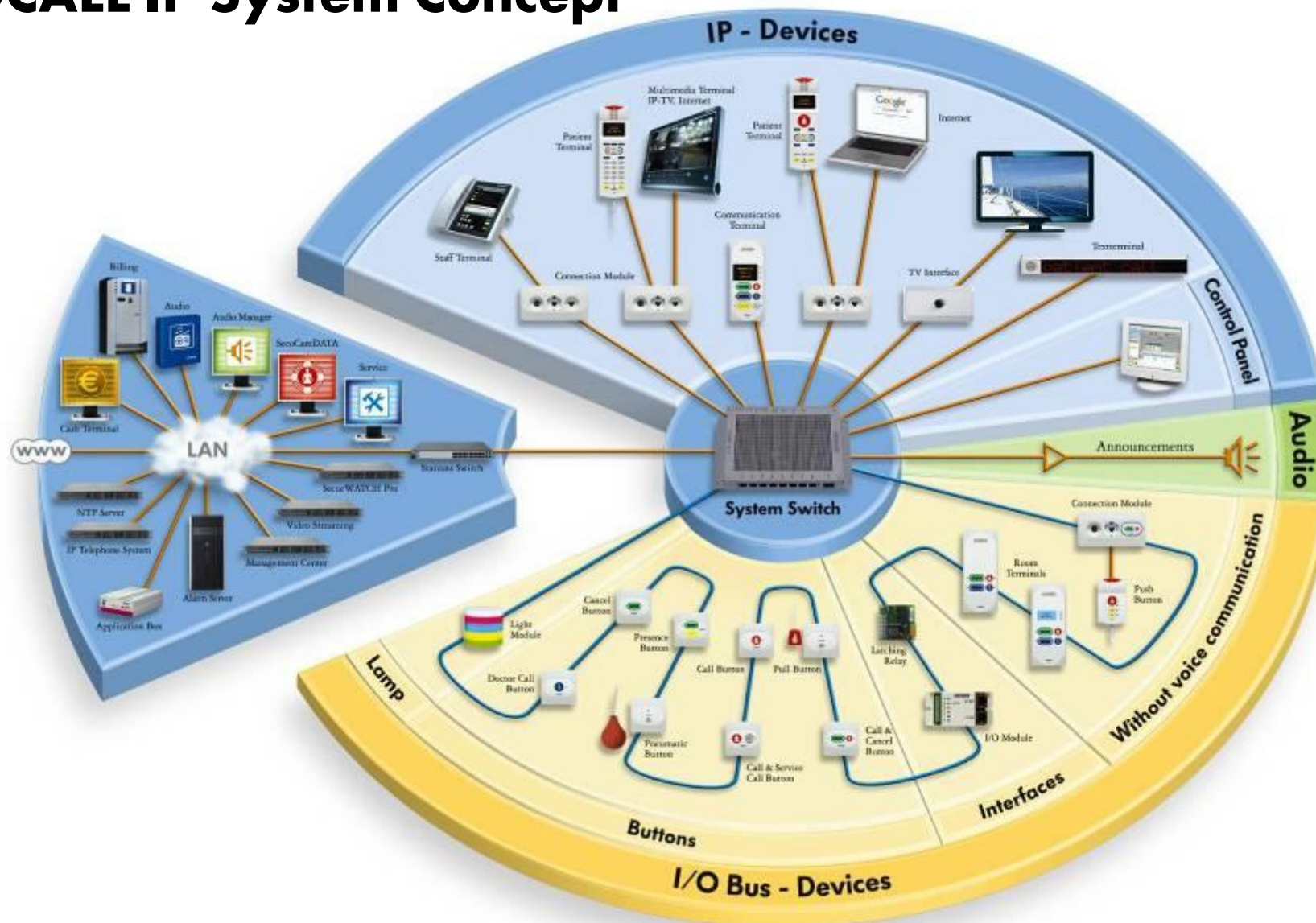
## From separate wiring to integration into one cable



## Using modern IP technology - VISOCALL IP System Structure



## VISOCALL IP System Concept



## Staff Terminals – user friendly operation



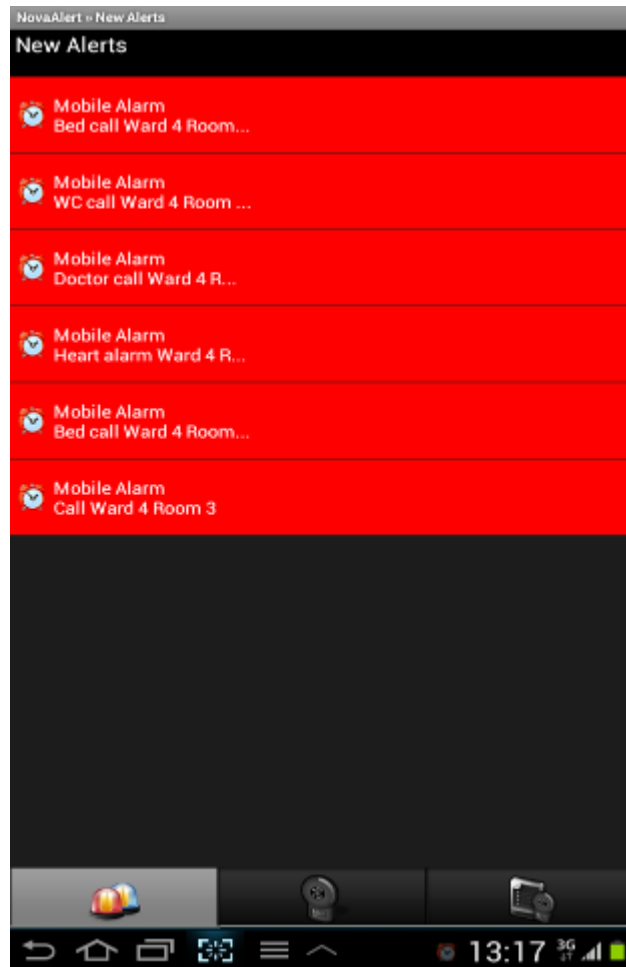
**Mobile applications:  
Acting wherever you are**

**SecoCare APP**

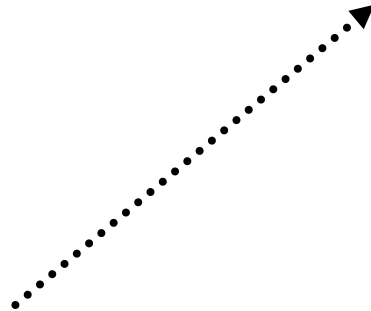
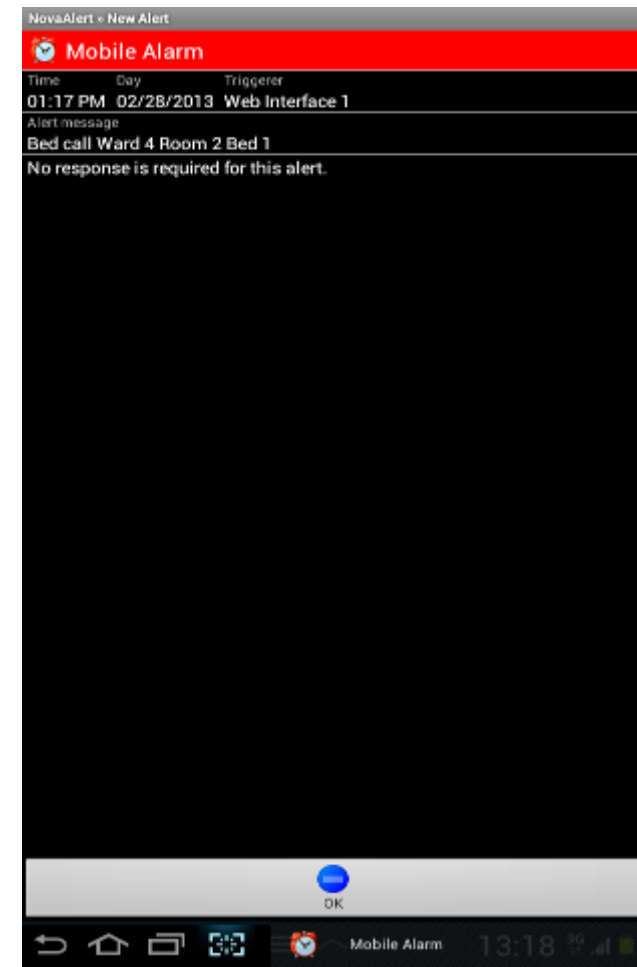




## Alarm overview

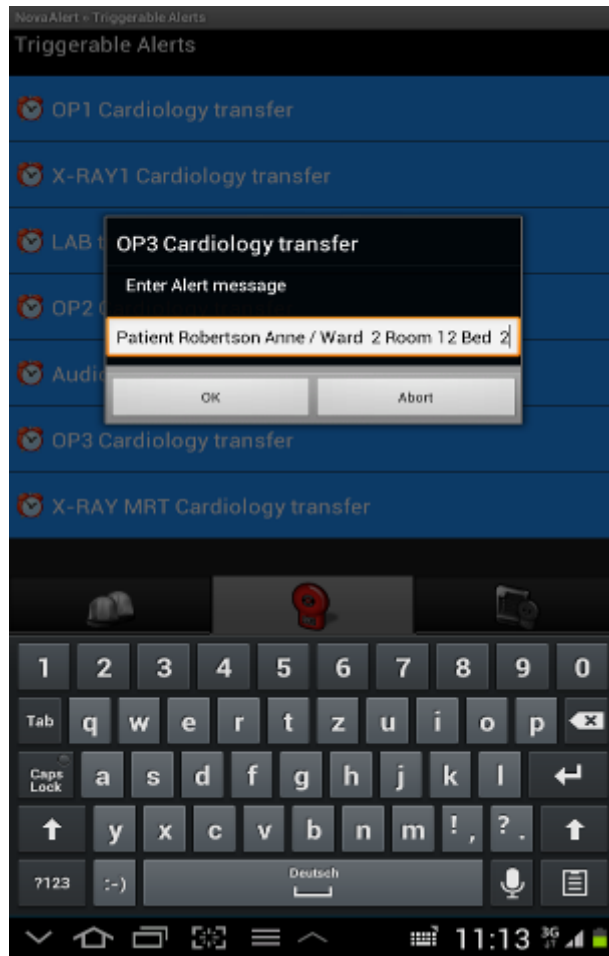


## Detail view

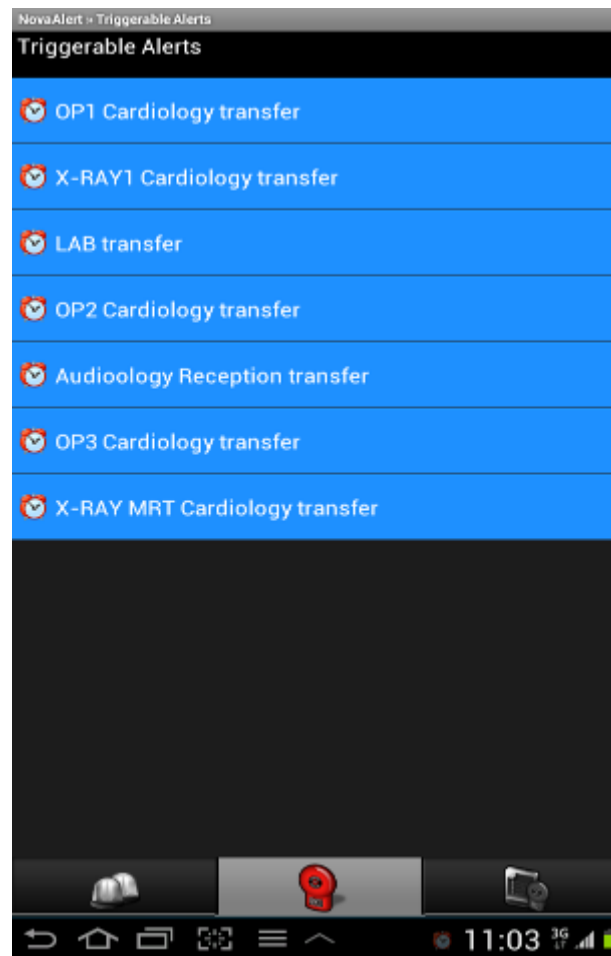


## SecoCare APP

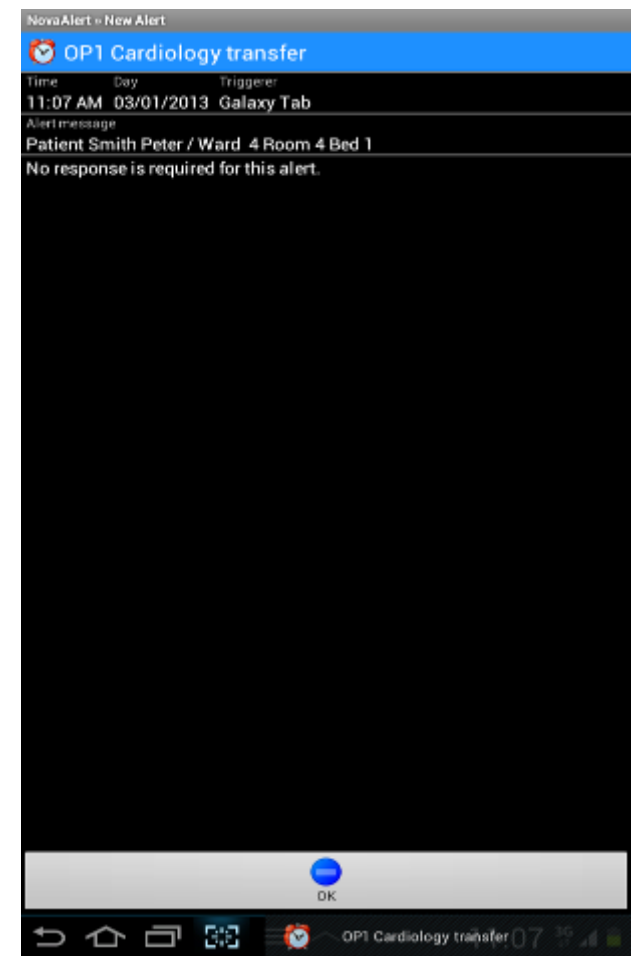
### Job entry



### Job overview



### Detail view



## Patient handsets for safety and comfort – the choice is yours



## Patient safety - increasing priority in USA

Alarm Fatigue as an important topic in the US news:

“From January 2005 to June 2010, 216 hospital patient deaths nationwide were linked to issues with patient monitor alarms.

In many cases, medical staff failed to notice the alarm or take immediate action to help a patient in distress.”

The **Joint Commission** has designated alarm fatigue as one of its top priorities for 2011 and plans to collaborate with **FDA** to pinpoint a relief strategy.”

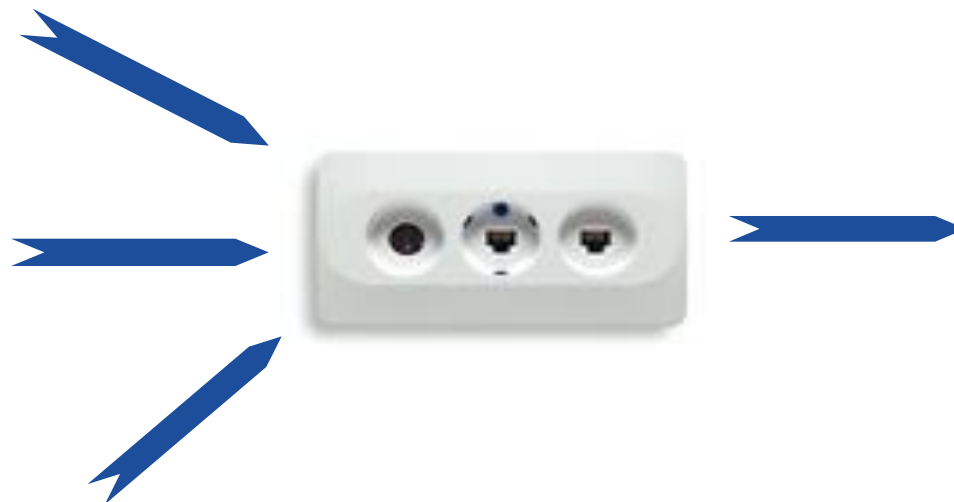
Boston Globe, April 18, 2011

## Medical/monitoring devices information via VISOCALL IP

Infusions **Patient safety by staff alert at the right place**



Heart monitoring



Contact plates, fall sensors or other monitoring devices ...



## Patient Safety by protecting demented patients

- High risk of accidents due to unwanted exits
- High responsibility for hospitals
- Psychological distress for staff

**Solution: Protection by means of wireless tags for patients and integration of door alarm**



## VISOCALL IP Software Modules – self organising tools

**Control panel**

**Event database**

**VISOTAX IP**

**SecoCareDATA**

**AudioManager**

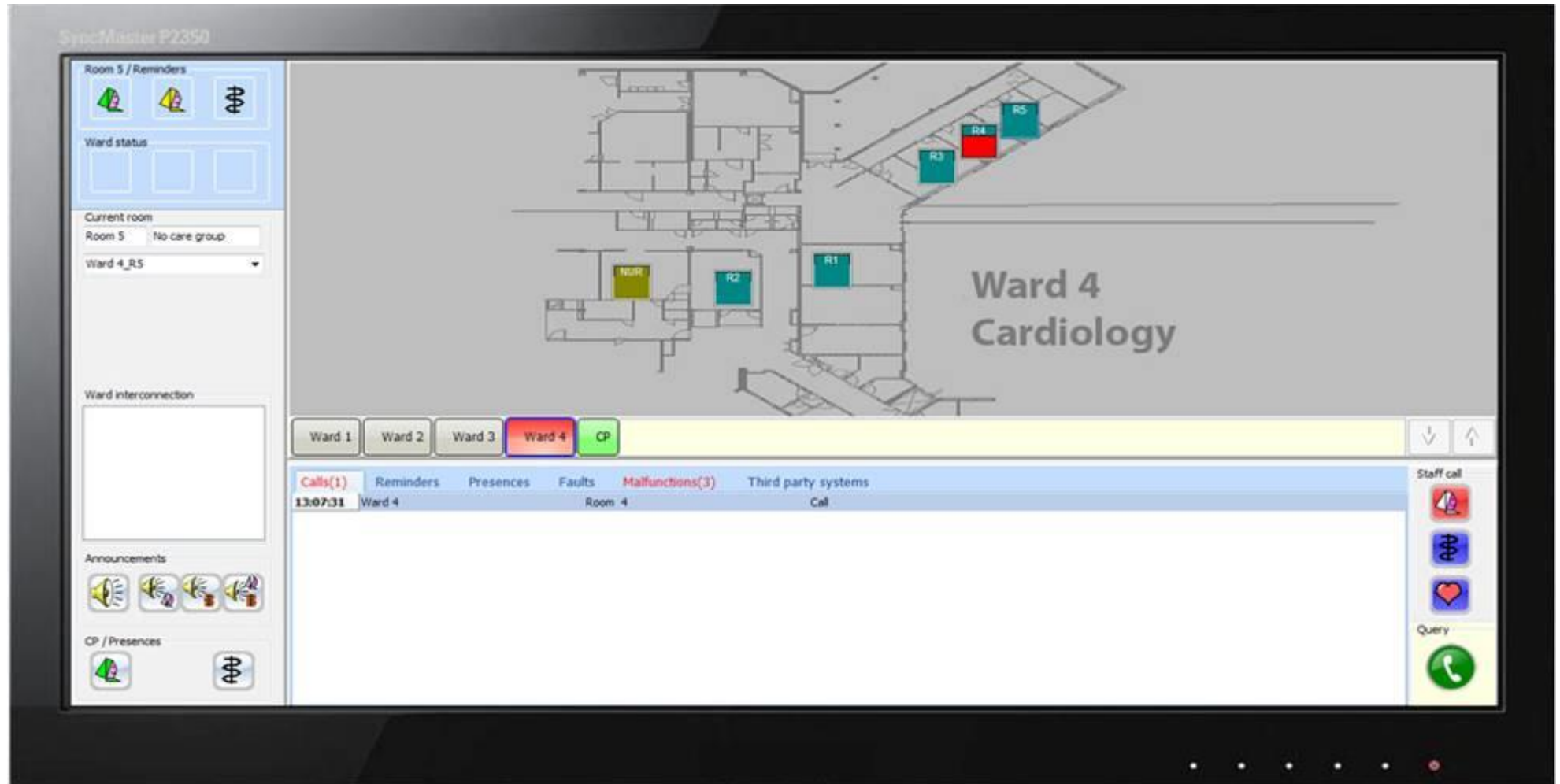
**System monitor**

**Patient management**

**Other functions...**



## SW Module Control Panel



## SW Module Event Database



[All events](#)



[Calls](#)



[Reminders](#)



[Presences](#)



[Care Documentation](#)

**Evaluation Presences 01.11.2012 00:01 - 21.11.2012 23:59**

DATE	BEGIN	END	DURATION	WARD	ROOM	EVENTTYPE	INFO
21.11.2012	12:59:09	12:59:10		1	Ward 3	Room 4	Presence Nurse 1
21.11.2012	12:59:07	12:59:08		1	Ward 3	Room 4	Presence Nurse 1
21.11.2012	12:59:04	12:59:13		9	Ward 3	Room 2	Presence Nurse 1
21.11.2012	12:58:59	12:59:00		1	Ward 2	Room 2	Presence Doctor
21.11.2012	12:58:56	12:59:18		22	Ward 1	Room 2	Presence nurse 2
21.11.2012	12:58:49	12:59:19		30	Ward 1	Room 2	Presence Nurse 1
21.11.2012	12:58:36	12:59:00		24	Ward 2	Room 2	Presence nurse 2
21.11.2012	12:49:38	12:49:41		3	Ward 4	Room 2	Presence Nurse 1
09.11.2012	16:01:25	16:01:26		1	Ward 2	Room 4	Presence Nurse 1
09.11.2012	16:01:22	16:01:23		1	Ward 2	Room 4	Presence Nurse 1
09.11.2012	16:01:14	16:01:16		2	Ward 3	Room 5	Presence Nurse 1
09.11.2012	16:00:58	16:00:59		1	Ward 3	Room 3	Presence Nurse 1
09.11.2012	16:00:50	16:00:53		3	Ward 3	Room 2	Presence Nurse 1
09.11.2012	16:00:49	16:00:50		1	Ward 3	Room 2	Presence Nurse 1
09.11.2012	16:00:35	16:00:36		1	Ward 3	Room 4	Presence Nurse 1
08.11.2012	11:28:29	11:28:30		1	Ward 3	Room 4	Presence Doctor
08.11.2012	11:28:28	11:28:34		6	Ward 3	Room 4	Presence Nurse 1

- Page 1 -

**Evaluation Reminders 01.11.2012 00:01 - 21.11.2012 23:59**

DATE	BEGIN	END	DURATION	WARD	ROOM	EVENTTYPE	INFO
08.11.2012	11:27:55	11:28:29	34	Ward 3	Room 4	Reminder doctor	
08.11.2012	10:39:58	11:28:28	48:30	Ward 3	Room 4	Reminder nurse 1	
07.11.2012	11:24:22	15:01:53	3:37:31	Ward 2	Room 2	Reminder nurse 1	
06.11.2012	16:21:58	16:28:38	6:40	Ward 4	Room 2	Reminder nurse 1	

## SW Module SecoCareDATA

- Simple and fast menu driven data entry at care place
- Automatic switch to menu after insertion of staff chipcard
- Automatic call cancellation and presence setting
- Automatic data transfer to server after chip card removal
- No additional staff workload



## SW Module SecoCareDATA



Date from    
 Date to    
 Time from    
 Time to    
 Care Documentation    
 Ward

- 
- 
- 

Evaluation Care Documentation 01.11.2012 00:01 - 21.11.2012 23:59

DATE	BEGIN	END	DURATION	WARD	ROOM	EVENTTYPE	INFO
21.11.2012	16:24:16	16:24:50	34	Ward 2	Room 2	F9M0T91	Bed 2
					<b>NAME</b>	<b>CODE</b>	<b>USED</b>
					Finish infusion	2	1
					Measure Temp.	3	1
					Measure Blood Pressure	4	2
					Measure Oxygen Saturation	5	3
					Breakfast	6	1
					Lunch	7	1
					Dinner	8	1
21.11.2012	16:23:41	16:24:07	26	Ward 4	Room 2	F9M0T91	Bed 2
					<b>NAME</b>	<b>CODE</b>	<b>USED</b>
					Change infusion	1	1
					Measure Temp.	3	1
					Measure Blood Pressure	4	1
					Measure Oxygen Saturation	5	1
					Lunch	7	1

## SW Module AudioManager Announcements / Evacuation Support

The screenshot displays the AudioManager software interface. It features a vertical list of five blue buttons for ward announcements, each with a speaker icon and a person icon. The first button, 'Announcement Ward 1', is expanded to show a microphone icon and four speaker icons. Below the list is a yellow button labeled 'Play customer specific audiofile', which is expanded to show a play button, a stop button, and four speaker icons.

Announcement Ward 1

Announcement Ward 2

Announcement Ward 3

Announcement Ward 4

Announcement All Wards

Play customer specific audiofile

## Patient comfort - from Room TV to Multimedia Solutions



## Modern Patient Entertainment

- IP – TV at each individual bed
- Video On Demand
- Internet and Intranet
- Games
- Multilingual user interface
- Food or shop orders
- Wellness and healthcare informations and explanations to patients regarding their therapy
- Access to Hospital Information System (HIS) via Citrix server



## TV / Multimedia Terminal Design and Mounting



reddot design award  
winner 2011



## How to use sources of income with entertainment

Integrated payment system for services



## VISOCALL IP – Benefits for

- Patients
- Nurses and Doctors
- Hospital / Technical Management and Administration



## Patients' Requirements

- Feel well treated and safe
- Call for help
- Communication with hospital staff
- Good connection with friends and relatives
- Remote control for light, shutters, TV
- Entertainment: Radio, TV, Video, Internet, Games, ...
- Infotainment: Hospital or therapy informations, ...
- Services like food and drink ordering, shop orders, magazines, ....

## Benefits for Patients



## Nurses' and Doctors' Requirements

- Satisfied and „calm, well entertained“ patients
- Full concentration on patient care
- Saving time and reducing unnecessary footways
- Direct communication with patients
- Call for help, emergency calls and direct communication to other staff members, nurses, doctors
- Organisation help like call prioritizing, call reminders, ward overview of staff allocation and call locations, ...
- Security help for evacuation or protection of demented patients, ...
- Access to patient data
- Easy care administration and documentation

## Benefits for Nurses and Doctors



## Requirements of Management, Administration

- Establish modern and efficient medical and care facilities
- Maximum income and cost effectiveness
- Highly efficient process organisation, workflow and Quality Management
- Investments for long term use, future proof
- Low investment costs, low maintenance costs
- Easy and fast project implementation and renovation
- Good managing support with user friendly data access, documentation, reports and statistics
- Patient and staff security (emergency, fire, evacuation, demented patients, ...)

## Requirements of Technical Service

- Support of all required services, functions and features
- Creative solutions provider with high reliability and future proof technology
- Easy implementation and installation of systems
- Minimum maintenance efforts and costs
- High functionality and efficiency of technical equipment
- Integration and interconnectivity of systems and devices, technical compatibility and data exchange capability
- Modular systems, future expansion abilities
- Fulfilling all relevant standards and guidelines, certifications
- Independency by self-monitoring and self-repairing systems, low failure rates, low external support needs

## Benefits for Hospital / Facility Management and Administration



## VDE 0834 - Third Party Certified

**OZS** 

**Austrian Electrotechnical Association**

**CERTIFICATE**

Issued for

**SCHRACK**  
SECONET

The Call System for hospitals and similar institutions

**VISOCALL IP**

has been found in conformity with

**ÖZS-Richtlinie RA 01:2009-12-01**  
**DIN VDE 0834-1:2000-04**  
**DIN VDE 0834-2:2000-04**

The above mentioned company is entitled to use the ÖZS Label for the Call System as specified in the Annex.

Certificate valid until: **2015-07-13**  
Certificate Ref. No.: **13437-002-02**  
Vienna, **2012-07-11**

  
Dipl.-Ing Wolfgang Martin  
Head of OVE Testing & Certification

The Annex is an integral part of the ÖZS Certificate

ÖVE - Testing & Certification, 1190 Vienna, Kahlenberger Str. 2A, Austria

Accredited by the Austrian Ministry of Economy, Family and Youth as Certification Body for products and processes in the field of electrical and electronic engineering, including safety and EMC



**Certified according to Guideline ÖZS RA 01 for Call Systems**

## Contact dates:

Herbert Hübl  
Head of International Business

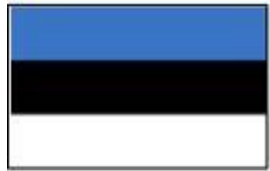
SCHRACK SECONET AG  
Eibesbrunnergasse 18  
A-1122 Vienna, Austria  
Tel.: (+43 1) 811 57 - 601  
Fax: (+43 1) 811 57 - 600  
E-Mail: h.huebl@schrack-seconet.com

## More Information:

Internet: <http://www.schrack-seconet.com>

## VISOCALL IP – Application Film:

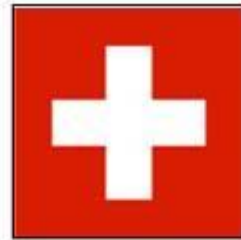
[m.youtube.com/watch?v=4Gws6Ex80os](https://m.youtube.com/watch?v=4Gws6Ex80os)



Estonia.



Austria.



Switzerland.



Kasachstan.



Ireland.



Netherlands.



Belgium.



Ukraine.



Hungary.



Greece.



Portugal.



United Arab Emirates.



Saudi Arabia.



Russian Federation.



Iraq.



Italy.



Turkey.



Norway.



Bulgaria.



Romania.



Gabon.



Libya.



Slovakia.



Czech Republic.



Poland.



Pakistan.



Azerbaidzhan.



Germany.

## Austria - General Hospital Vienna



## Austria - Rudolfinerhaus Vienna



## Austria - Private Clinic Maria Hilf Klagenfurt



## Austria - Care homes in Vienna



### Meidling



### Leopoldstadt



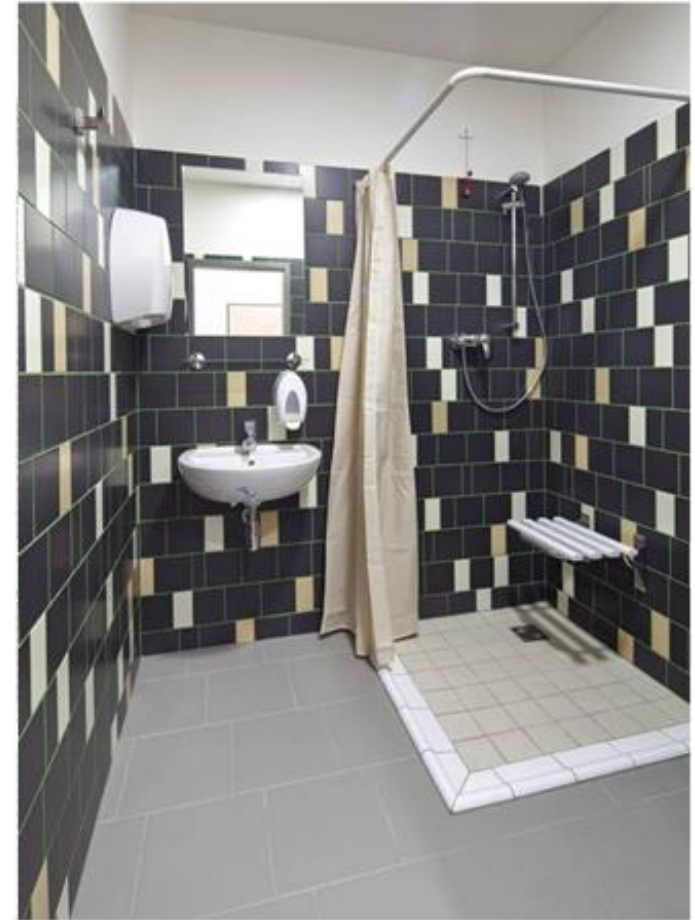
## Czech Republic - Hospital Horovice



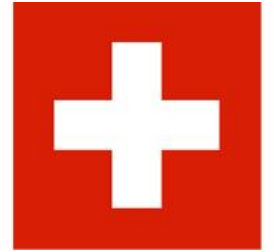
## Czech Republic - Hospital Beroun



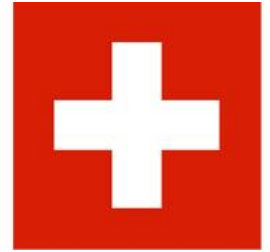
## Czech Republic – Regional Hospital Kladno



## Switzerland - Hospital Sonnenhof Bern



## Switzerland - Clinic Beau-Site Bern



## Pakistan - Aga Khan University Hospital Karachi



## United Arab Emirates Qasr Al Sarab Central Hotel Liwa, Abu Dhabi



## United Arab Emirates New Medical Center Al Fujairah



## Netherlands - University Hospital Maastricht



## Netherlands - Hospital Isala



## Portugal - Novo Hospital Amarante



## Greece - Diaplasis Hospital Kalamata



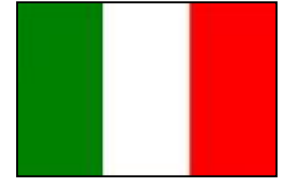
## Turkey - Hospital Memorial Diyarbakır Hastanesi



## Poland - Swissmed Centrum Zdrowia Warszawa



## Italy - Hospital Santa Maria Goretti di Latina



## Norway - 9 Nursing Homes in Oslo



## Azerbaijan - Military Hospital in Baku



## Estonia - West Tallinn Central Hospital



## Ireland - Ennis General Hospital



## Romania - Maternity County Hospital Buzau

