



KONTRAX AT A GLANCE

www.kontrax.bg



LEADING SYSTEM INTEGRATOR IN BULGARIA

- ▶ **EMPLOYEES**

 - Sofia – 125

 - Bulgaria – 350

- ▶ **Main Activities**

 - Information technology – **NEC, Fujitsu Siemens, Dell, IBM, Canon, KyoceraMita**

 - Communication Technology – **Avaya, Siemens, Allied Telesis, Cisco, 3Com, Brand Rex, AMP, 3M**

 - Software Development – **Microsoft, Oracle, Kaspersky Lab**

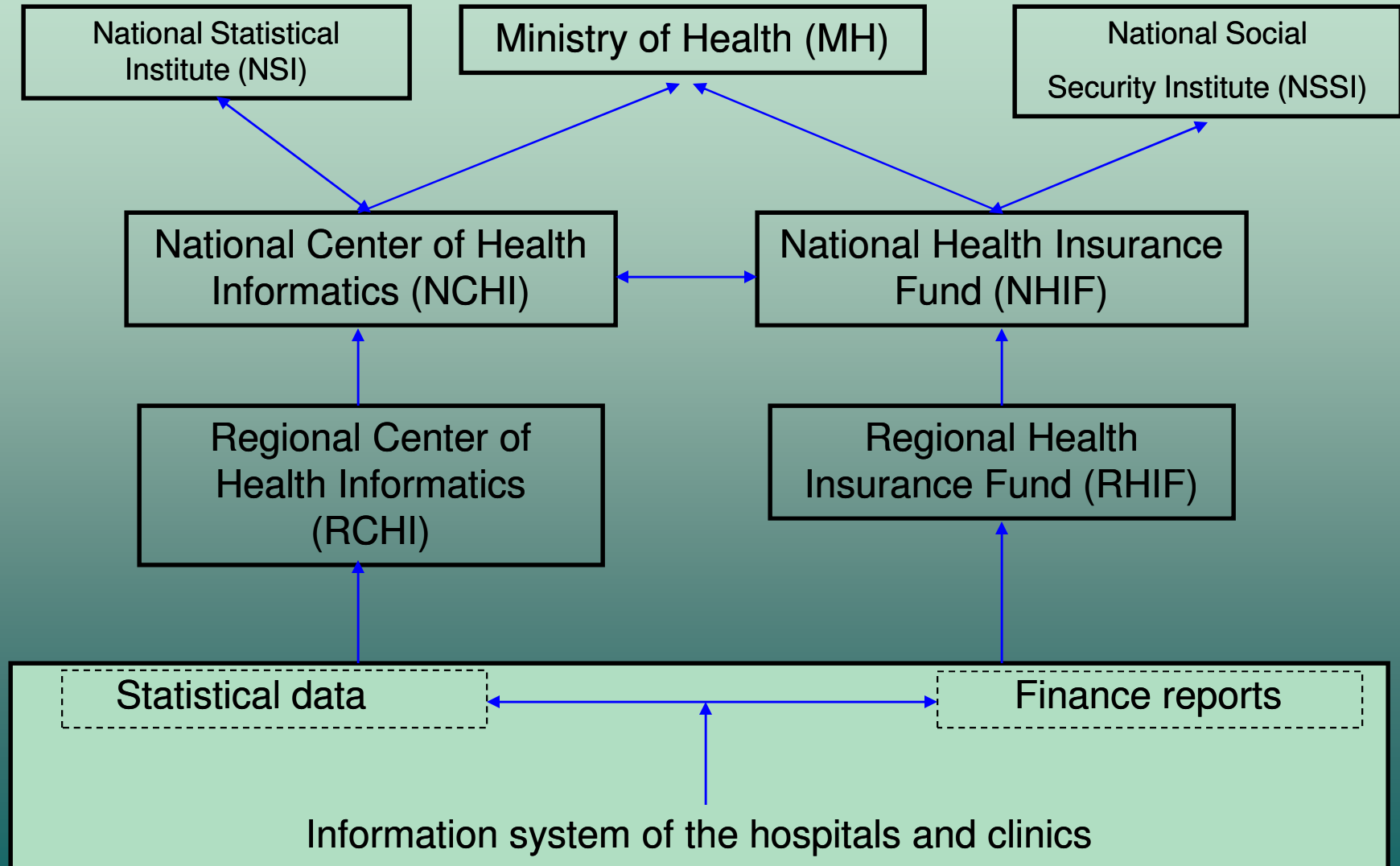
- ▶ **Turnover – more than 20 Million Euro**

- ▶ **ISO 9001:2008, ISO 27001:2005, Classified information permission**



**DEVELOPMENT OF THE
BULGARIAN HEALTHCARE SYSTEM
and
KONTRAX**

Bulgarian national healthcare information system





Sources of the information

- ▶ **Medical Centres**

 - Hospitals – **257**

 - Dispensaries – **46**

- ▶ **Clinics, Laboratories and Family doctors**

 - Clinics – **561**

 - Dentist clinics – **100**

 - Laboratories – **828**

 - Family doctors – **5383**

 - Dentists – **5595**

 - Individual doctors – **2312**

 - Group practices – **426**

- ▶ **Other Medical Centres – 165**



Volume of the information

There is a huge volume of data for the national healthcare information system. Every year there are:

- ▶ 300 000 expert protocols from local and national medical commissions for permanent disability
- ▶ 670 000 hospital protocols и 450 000 medical protocols for temporary disability
- ▶ 70 000 reports for activity of clinics, laboratories, dentists and family doctors
- ▶ 10 000 reports for infectious disease etc.

Development of healthcare information system

- ▶ **Decreasing the paper work**
 - ✓ **Medical registration – more than 300 forms and blanks;**
 - ✓ **Report documentation – more than 50 forms and blanks.**
- ▶ **The system had to be transformed. The information has to be collected in electronic forms directly from hospitals, clinics, family doctors, laboratories and individual practices using Internet communications.**




Establishment of National Health Insurance Fund (NHIF)

Kontrax delivers computer, communication and peripheral equipment NHIF and 28 RHIF - year 2000

- ❑ NHIF and 28 RHIF received computers, printers, network equipment, system software and office equipment.
- ❑ A total of 1000 computers with Windows XP, Office XP and antivirus software; 400 laser printers and copiers.
- ❑ Multimedia projectors, white boards and office furniture
- ❑ 30 Telephone PBX, VPN network, building structure cabling systems in all 30 offices.
- ❑ LAN switches, VPN routers and GSM gateways
- ❑ Internet data and voice communications
- ❑ Three years warranty support.



OUTPATIENT CARE SOLUTION



Kontrax delivers computer and peripheral equipment for family doctors - year 2003

- ❑ 4000 family doctors received computers (NEC), printers (Kyocera), network equipment, system software and card readers.
- ❑ Total 4000 computers with Windows XP, Office XP and antivirus software; 4000 laser printers, modems or wireless Ethernet cards, 4000 two slot card readers.
- ❑ Delivery of computer and peripheral equipment to the family doctors.
- ❑ Three years warranty support.
- ❑ Kontrax is offering additional Health Information System “Hippocrates” for the family doctors, individual and group practices, clinics and laboratories. The electronic reports can be prepared and send to the Regional Health Insurance Fund (RHIF) through the Internet.



HEALTH
INFORMATION
SYSTEM
“HIPPOCRATES”



Family of software products for outpatient care

- Hippocrates “S” - Clinics, laboratories and individual practices
- Hippocrates “GP” - General practitioners (family doctors)
- Hippocrates “D ” - Dentists

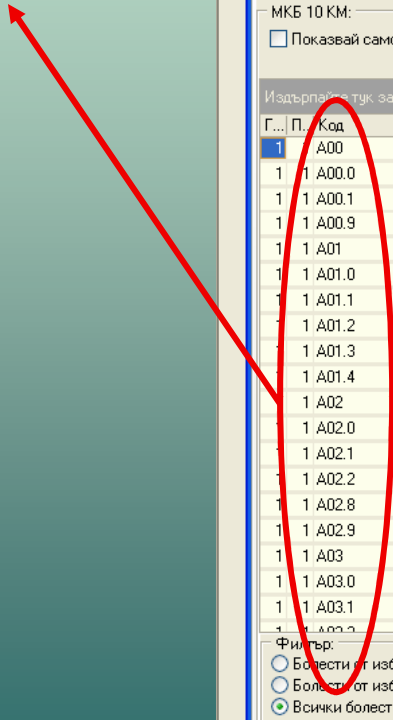


Features

- Supports NHIF regulations and prepares the necessary documents
- Keeps actual all data and lists
- Searching the information is faster.
- Creates an **electronic patient record**
- Checks for errors and mistakes
- Decreases time for communication
- Prepares all reports
- Authorization control and access rights
- Flexible and easy adjustable to the business processes
- Direct connection between computer and laboratory analyzers

“Hippocrates” is working with international standards and codes

ICD 10



Хипократ-S 4.31

Дейности Спийсти Номенклатури Входящи Справки Сервиз Инструменти Импорт/Експорт Сигурност Прозорци Помощ

МКБ 10

МКБ 10 групи МКБ 10 подгрупи МКБ 10 (Международен класификатор на болестите - 10-та ревизия)

Нов Редактиране Изтриване Предпочитано Запис Отказ Потвърждение Изход

МКБ 10 КМ:
 Показвай само предпочитаните от мен

Издържа се тук заглавие на колона

Г...	П...	Код	Наименование	П...
1		A00	Холера	
1	1	A00.0	Холера, предизвикана от холерен вибрион 01, биовар cholerae	
1	1	A00.1	Холера, предизвикана от холерен вибрион 01, биовар eltor	
1	1	A00.9	Холера, неуточнена	
1	1	A01	Тиф и паратиф	
1	1	A01.0	Кореман тиф	
1	1	A01.1	Паратиф А	
1	1	A01.2	Паратиф В	
1	1	A01.3	Паратиф С	
1	1	A01.4	Паратиф, неуточнен	
1	1	A02	Други салмонелозни инфекции	
1	1	A02.0	Салмонелозен ентерит	
1	1	A02.1	Салмонелозна септицемия	
1	1	A02.2	Локализирана салмонелозна инфекция	
1	1	A02.8	Друга уточнена салмонелозна инфекция	
1	1	A02.9	Салмонелозна инфекция, неуточнена	
1	1	A03	Шигелоза	
1	1	A03.0	Шигелоза, предизвикана от Shigella dysenteriae	
1	1	A03.1	Шигелоза, предизвикана от Shigella flexneri	
1	1	A03.2	Шигелоза, предизвикана от Shigella boydii	
1	1	A03.3	Шигелоза, предизвикана от Shigella sonnei	
1	1	A03.9	Шигелозна инфекция, неуточнена	

Група: (A00-B99) Някои инфекциозни и паразитни болести
Подгрупа: A00-A09 Чревни инфекции

Наименование: Холера Код: 1

Забележка:

Филтър:
 Болести от избраната подгрупа
 Болести от избраната група
 Всички болести

Детайлност:
 МКБ
 МКБ.X

Контракс ООД CAPS NUM SCROLL Потребител: Д-р Минев 04.05.2006 15:02:37

“Hippocrates” is working with international standards and codes

ATC codes

The screenshot shows the Hippocrates software interface. The main window is titled "Хипократ-S 4.31" and contains a menu bar with options like "Дейности", "Списъци", "Номенклатури", etc. Below the menu is a toolbar with icons for "Нов", "Редактиране", "Изтриване", "Предпочитано", "Запис", "Отказ", "Потвърждение", and "Изход".

The central part of the interface is a window titled "Безплатни лекарства" (Free drugs). It contains a table with columns: "Код", "Международно наименование", "Търговско наименование", and "Предп.". The table lists various drugs, including Glipizide, Maninil, Metformin, Acarbose, Ranitidine, Famotidine, Omeprazole, and Mesalazine.

To the right of the table is a detailed view for a selected drug, "Glimepiride". The fields include: "Межд. наименов.:" (Glimepiride), "Наименование:" (Amaryl 1,0), "Производител:" (Aventis Pharma Deutschland GmbH), "Форма:" (tabl.), "Код:" (AE095), "ATC код:" (A10BB12), "Количество:" (1 mg), "MD:" (60 mg), "Единична цена:" (7,65), and "Цена, заплащана от НЗОК:" (3,9). A red circle highlights the "ATC код:" field.

At the bottom of the interface, there is a status bar with the text "Контракс ООД | CAPS | NUM | SCROLL" and "Потребител: Д-р Минев 04.05.2006 14:50:56".



HIPPOCRATES subscribers

- Since year 2003 till now more than 4000 family doctors, individual and group practices, clinics, dentists and laboratories are working with Hippocrates and prepare their monthly reports to the National Health Insurance Fund in electronic format.
- This is more than 50% of this market!!!
- From July 2007 digital certificates are being used for the reports



HOSPITAL CARE SOLUTIONS



Kontrax delivers computer and communication equipment to hospitals - year 2005

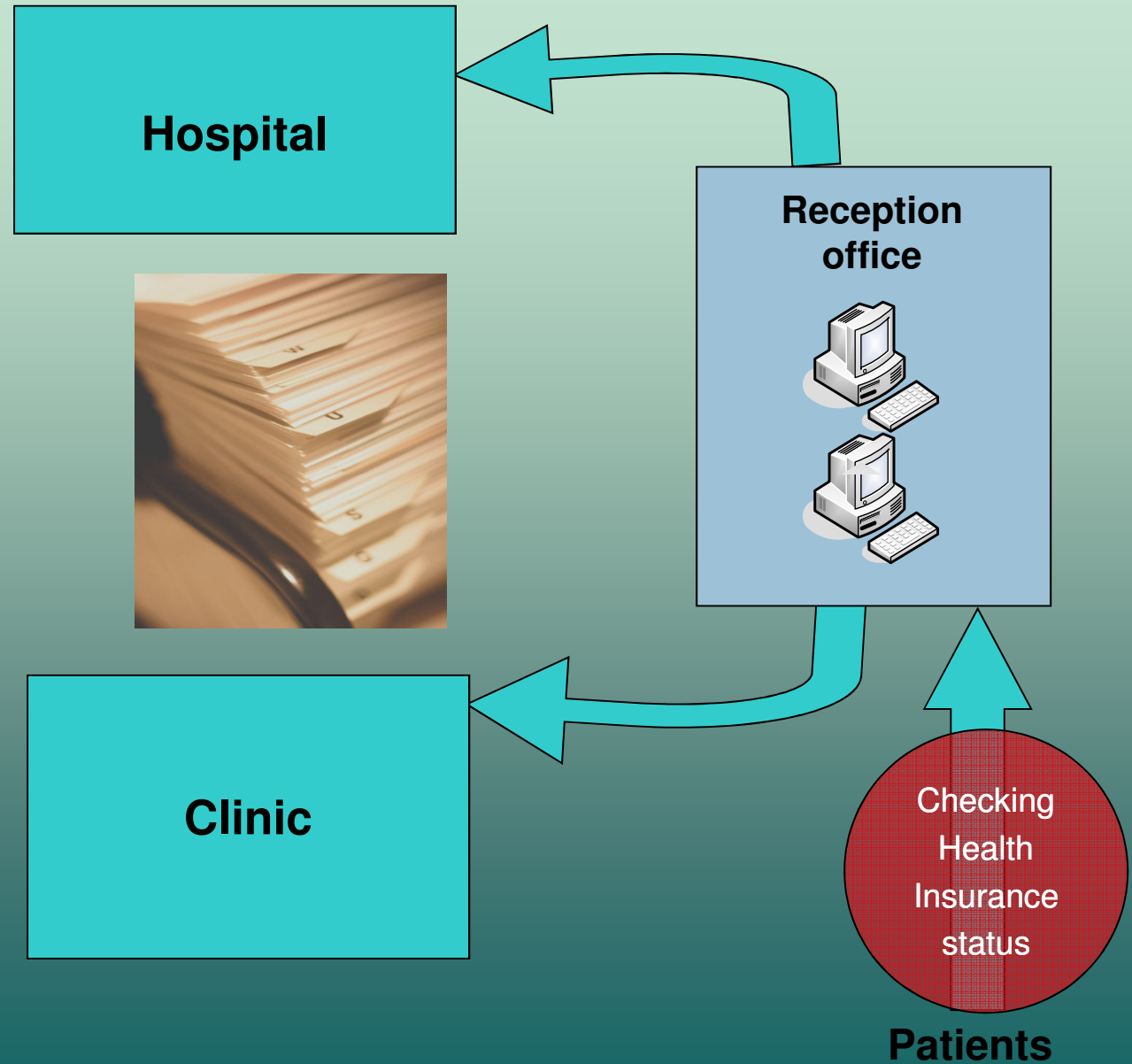
- ❑ 154 hospitals received computers, servers and network equipment**
- ❑ Total 154 servers, 2415 computers with Windows XP, Office XP and antivirus software; 154 communication racks, switches and routers; 251 uninterruptible power supplies; 337 laser printers; 29 copy machines and 30 laptops.**
- ❑ Delivery of computer and network equipment for regional centres of health informatics.**
- ❑ Building local area networks in hospitals.**
- ❑ The specialized software was implemented in all 154 hospitals and their electronic reports is being sent to the Ministry of Health and National Health Insurance Fund through the Internet.**



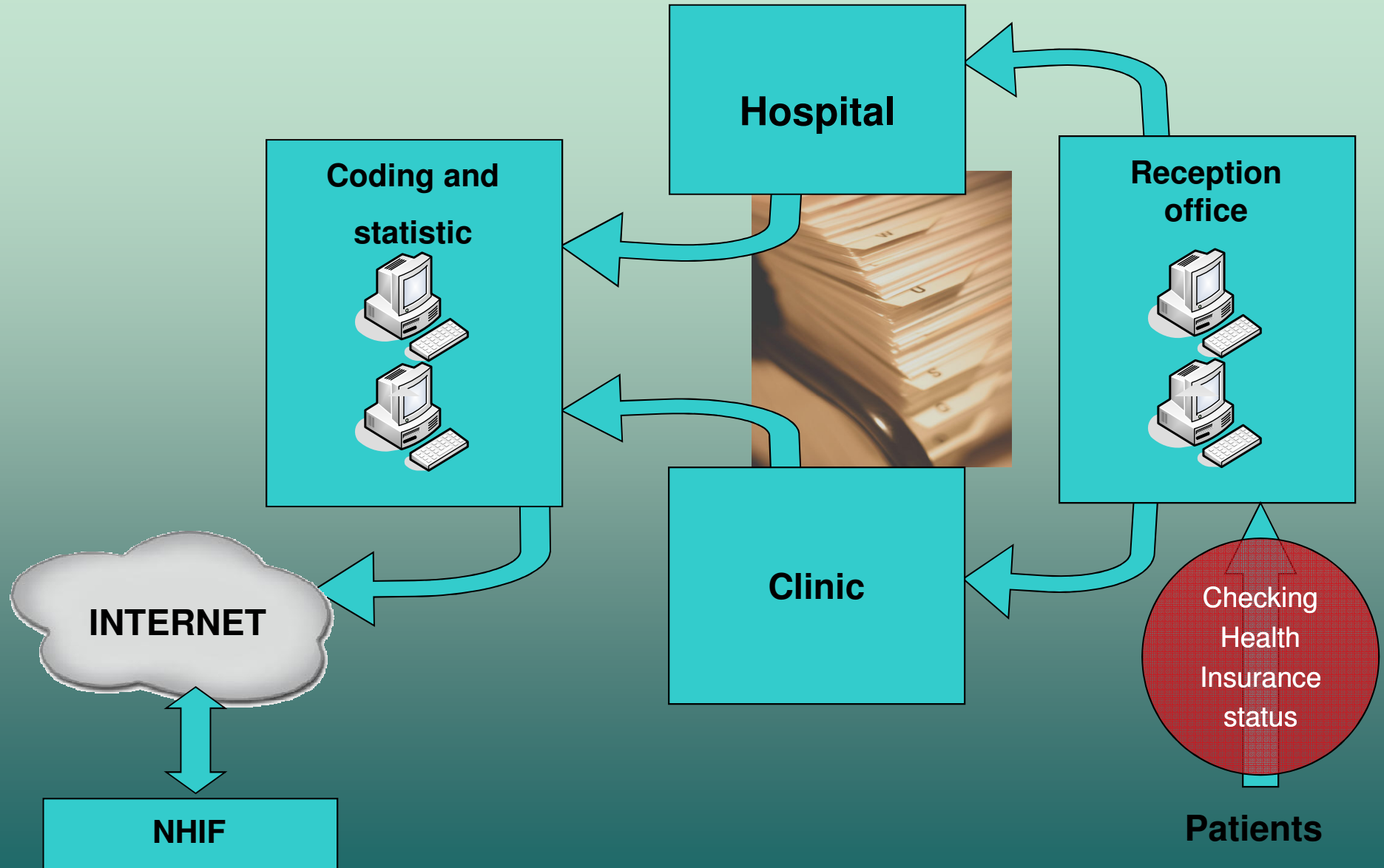
Project aims

- ✓ *Optimizing the process of preparing the claims in hospitals and sending them through the Internet.*
- ✓ *Evaluating the finance results of the hospitals through unified methodology.*
- ✓ *Creating a national database with medical, statistical and finance information for all hospitals.*
- ✓ *Uniform check and control system including:*
 - ✓ *Patient ID, health insurance status, name etc.*
 - ✓ *Using ICD 10, DRG etc.*
 - ✓ *Checking patients movement on national level*

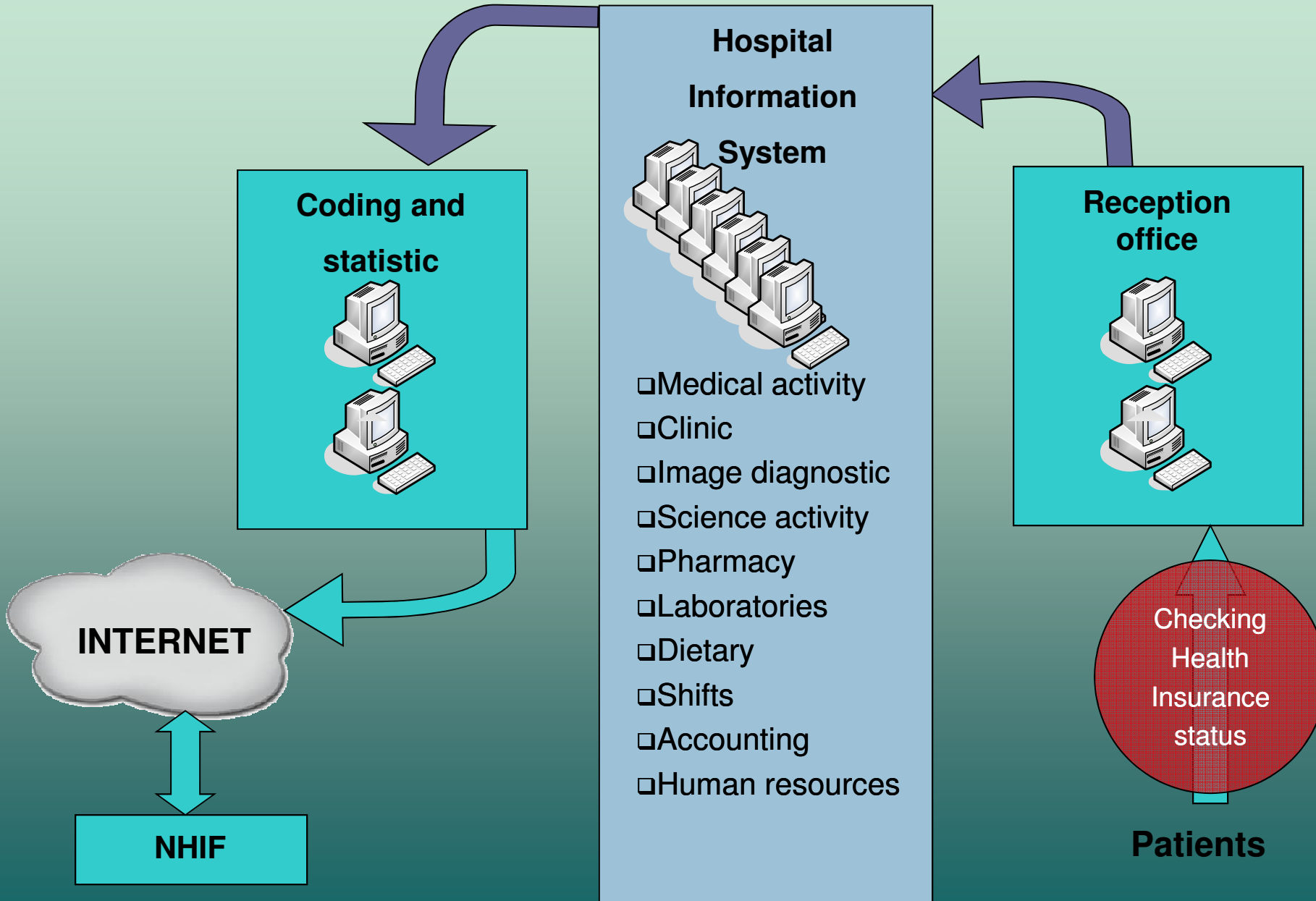
Claims and control process



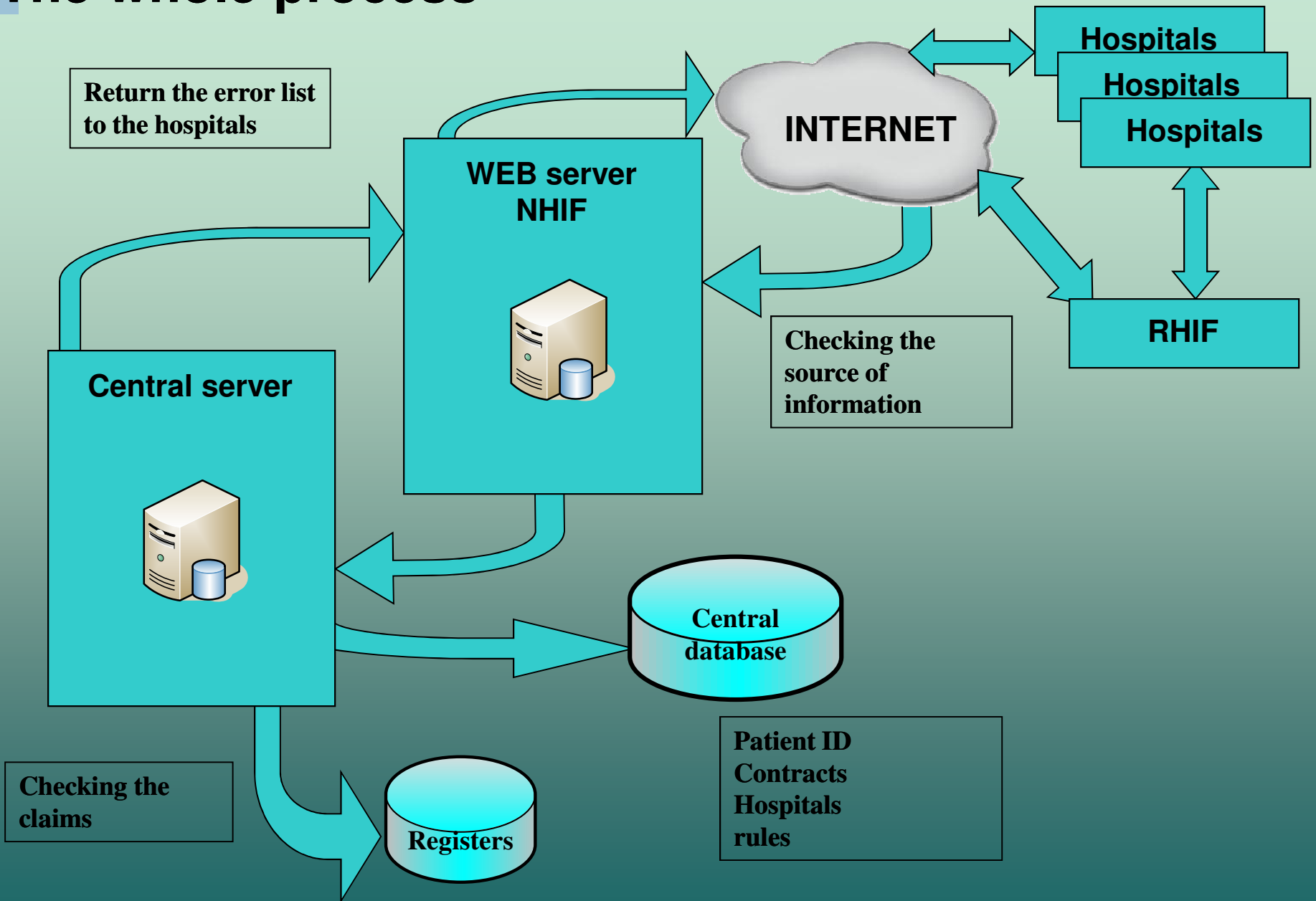
Claims and control process



Claims and control process



The whole process




GAMA Sofia acquisition year 2009

- ✓ ***Company with more than 10 years tradition in development of Hospital Information Systems (HIS)***
- ✓ ***New member of Hippocrates family: Hippocrates HIS***
- ✓ ***The HIS is working in:***
 - ✓ ***National Heart Hospital since 2003***
 - ✓ ***Sofia City Gynecological Hospital since 2006***
 - ✓ ***National Hematology Hospital since 2009***
- ✓ ***Patient oriented architecture***
- ✓ ***Creates Electronic Health Record***
- ✓ ***Calculates costs for each patient***
- ✓ ***Hippocrates HIS is based on Microsoft platform***


TOKUDA Hospital - Sofia

- ✓ *New hospital owned by Tokushukai Medical Corporation*
- ✓ *SCS - more than 1000 ports (1Gbps, wireless and fibber optic), UPS equipment*
- ✓ *Active equipment Allied Telesys including switches, routers, Symantec gateway and firewalls*
- ✓ *Video monitoring system for surgery operation room*
- ✓ *7 servers (including 2 clusters with > 20TB storages)*
- ✓ *Microsoft software including clusters solutions and SQL database*
- ✓ *470 NEC workstations with fingerprint readers*
- ✓ *Symantec antivirus solution*
- ✓ *72 laser printers Kyocera*
- ✓ *52 matrix printers and fiscal printers Epson*



TOKUDA Hospital - Sofia

- ✓ ***Full Hospital Information System***
- ✓ ***Modules for Medical activity, Clinic, Image diagnostic, Science activity, Pharmacy, Laboratories, Dietary, Shifts, Accounting, Human resources***
- ✓ ***Integrated modules for outpatient care in diagnostic block***
- ✓ ***Integrated Picture Archiving and Communication System (PACS)***
- ✓ ***Service and software support. System administration.***
- ✓ ***The hospital is running with 1000 beds from January 2007.***



Pilot Project for e-prescription year 2007-2008

- ✓ *In partnership with ICW and Cisco*
- ✓ *Implementation of e-prescription in Slivnica (a town 30 km away from Sofia) with 7 family doctors, 5 pharmacies and 1000 patients*
- ✓ *The project started in October 2007*
- ✓ *The project received positive evaluation from the Ministry of Health and the National Health Insurance Fund*




EHR in Bulgaria year 2008

- ✓ *Pilot project for 40 000 state employees in Ministry of State Administration and Administrative Reform.*
- ✓ *In partnership with ICW and Capelen as subcontractor.*
- ✓ *Kontrax established the connection between EHR system and Healthcare Professionals*



Telemedicine - year 2009

- ✓ *Special video cameras in surgery rooms*
- ✓ *Video and sound connection between hospitals*
- ✓ *Online consultations*
- ✓ *Transfer of images and movies from angiography, endoscopy and other procedures in real-time.*



WEB system for laboratory results - year 2010

- ✓ *Connects GP's information system and Laboratory Information System (LIS) on-line*
- ✓ *The doctor sends necessary observation identifiers according to LOINC.*
- ✓ *The laboratory returns results*
- ✓ *Secure communication*
- ✓ *Fast and precise medical service for patients*

