Hospital Management & Information System (HMIS)

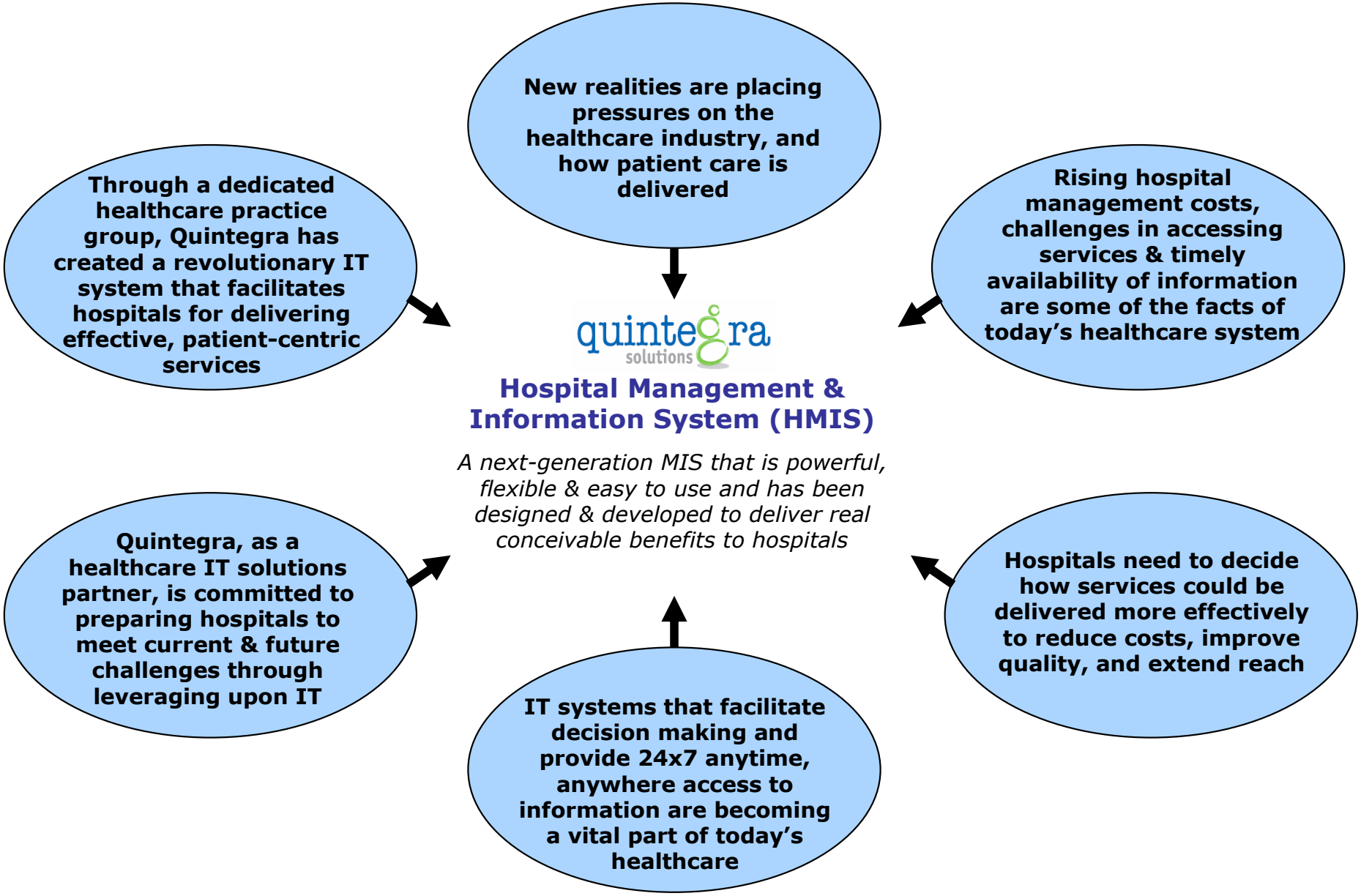
November 2006

The best-value services provider

Agenda

- HMIS Overview
- Powered by SAP NetWeaver®
- Featured Case Study
- Corporate Information

Introduction



Quintegra's HMIS

- Quintegra's HMIS is a revolutionary solution with end-to-end features for simplifying hospital management – all at a cost which provides the fastest ROI
- Access to the right information and the automation of complex tasks & workflow is the key focus of the HMIS, enabling freeing the staff to spend more time on caring for patients and extending the reach of services
- The HMIS is designed to cover a wide range of hospital administration and management processes
- Quintegra believes that every hospital is unique in terms of its requirements and priorities. Hence, flexibility has been built into the HMIS to allow easy customization.
- The HMIS features unparalleled flexibility & scalability, comprehensive report types, easy customization, intuitive visuals and interactive graphics that simplify complex data, dashboards-supported quality initiatives and comprehensive drill-down capabilities
- The HMIS has been conceived by a blend of seasoned professionals with rich and relevant experience in healthcare industry
- The system incorporates the best healthcare practices and is designed to deliver key tangible benefits to clients across the globe
- With technology expertise garnered for over a decade and specialists drawn from diverse fields of medicine, we help hospitals provide better managed care through the state-of-the-art HMIS solution

Modules

The HMIS modules have been designed according to three categories – core modules, supporting modules and enterprise-enabling modules. These modules can further be customized according to hospital needs.

Hospital Management & Information System (HMIS)

Core Modules

Patient Administration	Doctors	Nursing	Ward
Theater Management	Laboratory	Radiology & Imaging	User Management

Supporting Modules

Blood Bank	Physiotherapy	Dieting	Dialysis	Bio-Medical	CSSD	Movements
Housekeeping	Complaints	Billing	Preventive Maintenance	Pharmacy	Purchase	General Stores

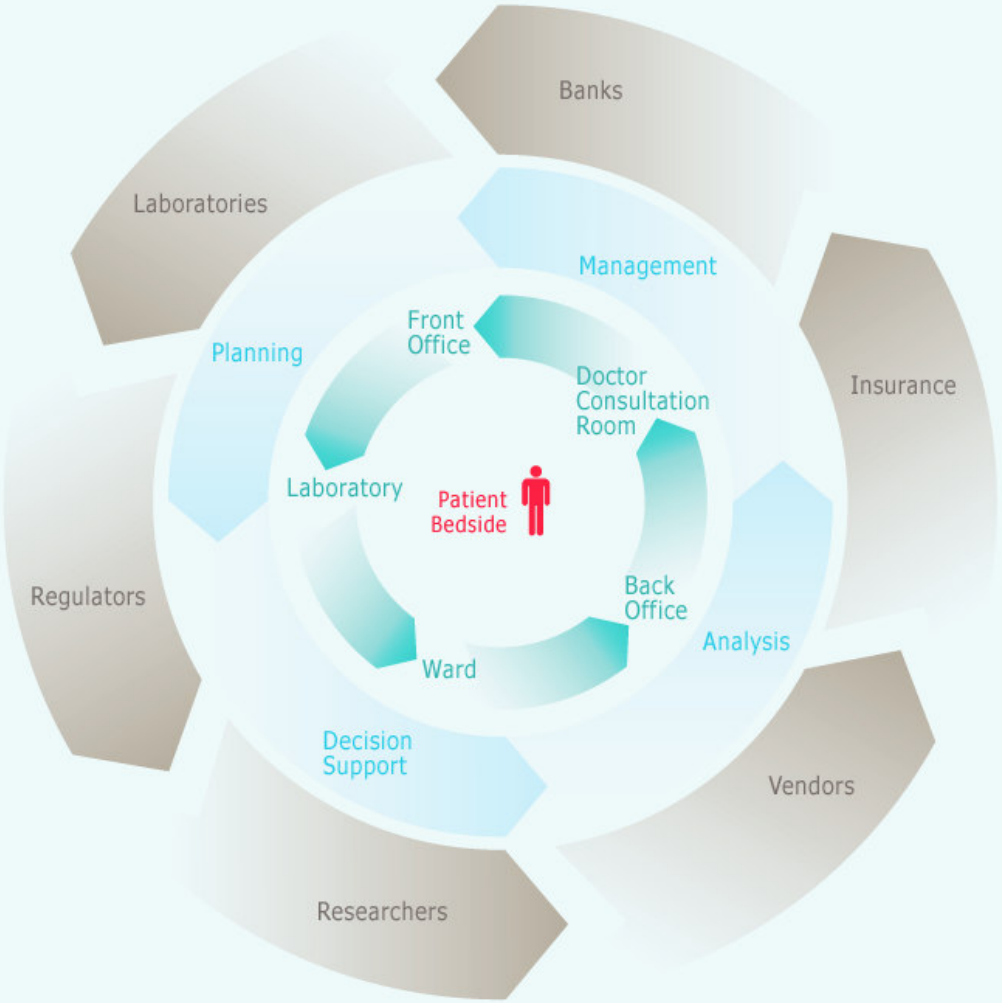
Enterprise-enabling Modules

Fixed Assets	Finance	Human Resources

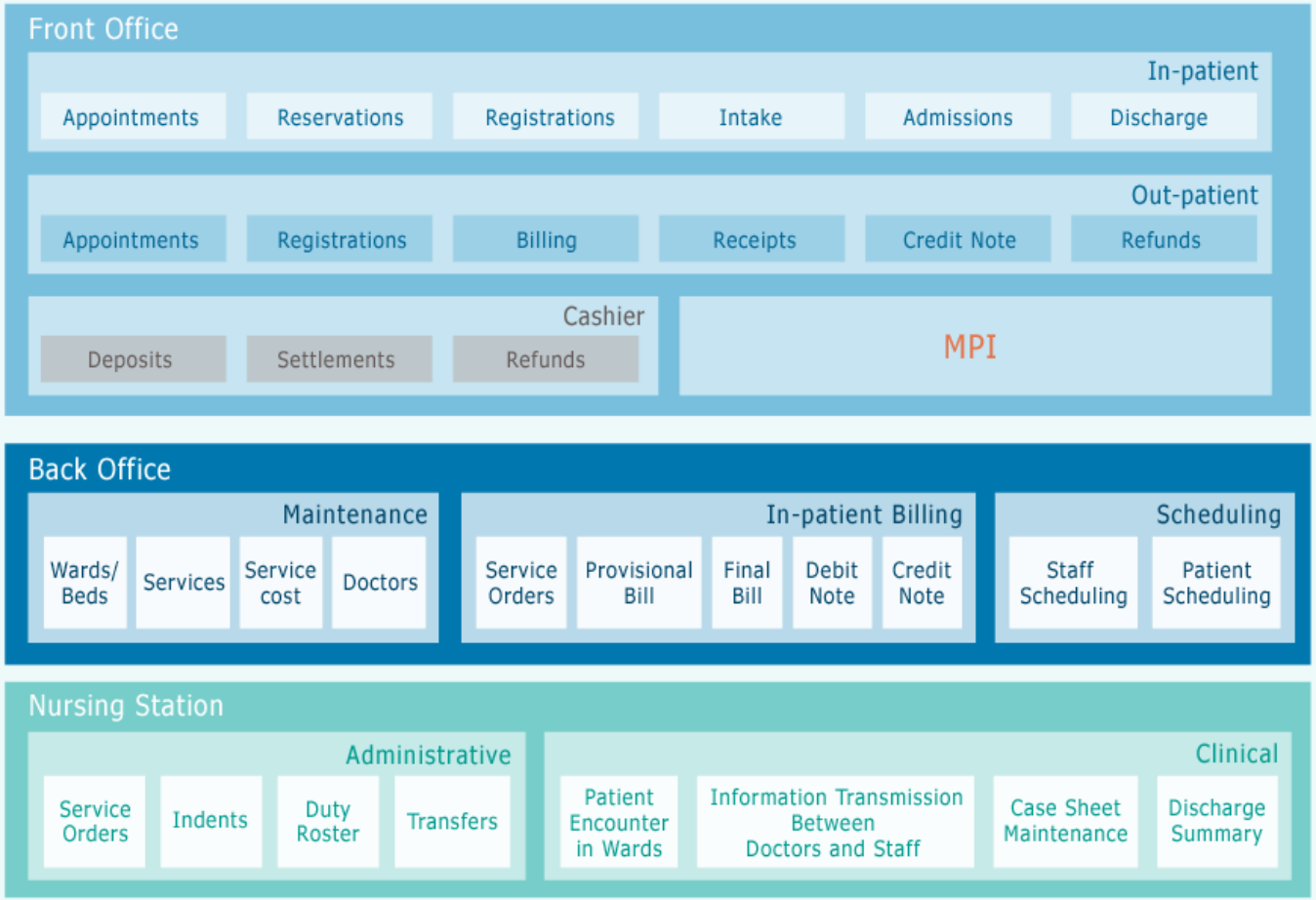
Highlights of HMIS

- Patient-centered approach
- User-friendly, easy-to-use & web-enabled applications
- Multi-level distributed hospital information system
- Security & privacy (authentication, authorization, privacy policy)
- Integration
  - Patient identification
  - Single log-in
  - Use of controlled vocabularies for coding
  - Data consistency
  - Transparency
- Powered by SAP NetWeaver®
- Single enterprise warehouse data store
- Robustness, reliability, performance
- HIPAA and HL7 compliance
- Scalability & portability (open modular architecture, declared interfaces, etc)

Roles Addressed



Key Functions – Patient Administration



Key Functions – Clinical Management

Diagnostics/Laboratory

* Lab Scheduling
* Order Acceptance
* Work lists
* Imaging (PACS)
* Reports
* Lab Records
* Lab Kit Management
* Inventory Management

Operation Theatre

* Theatre Scheduling
* Procedure details
* Theatre Maintenance
* Equipment/Gas Usage
* Theatre Usage
* Drugs/Disposables Consumption

Master Patient Index

Medical Records

* Preliminary Information
* Visit Details (Out-patients)
* Visit Details (In-patients)
* Codification of Diseases (ICD, etc.)

Blood Bank

* Donor Registration List
* Donor Master List
* Cross Matching List
* Requisitions
* Issue Transaction
* Component Separation
* Blood Stock

Telemedicine

* Teleradiology
* Telepathology
* Teledermatology
* Telecardiology
* Telepsychiatry
* Teleophthalmology
* Medical Consultation
* Fetal Monitoring
* Quality Assurance
* Continuing Medical Education

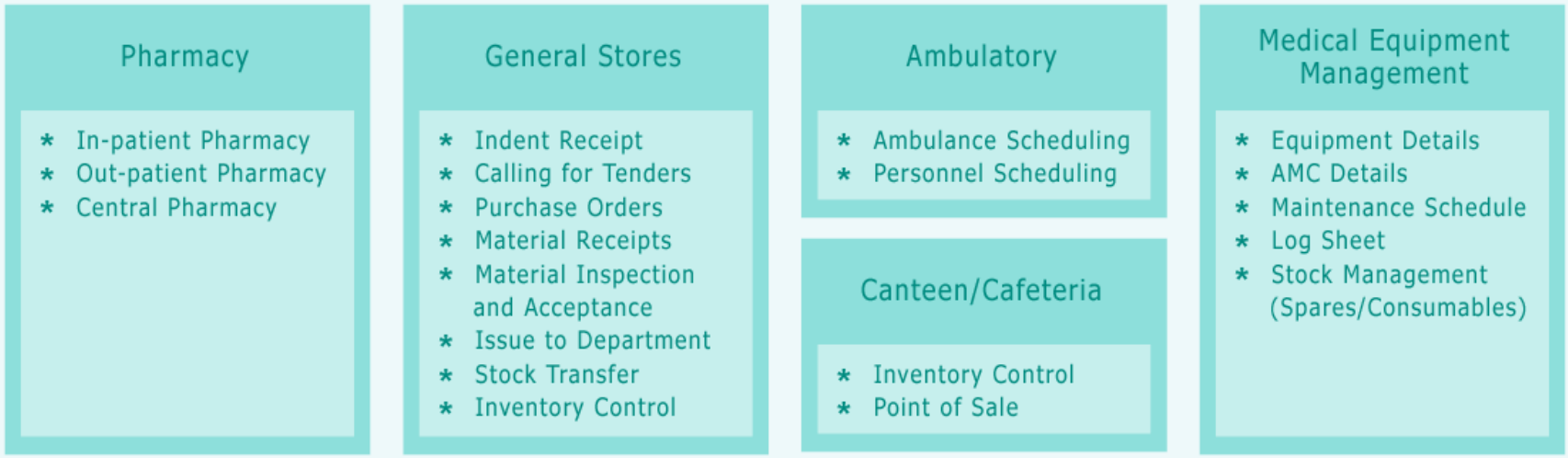
Physical Management System

Care Plans

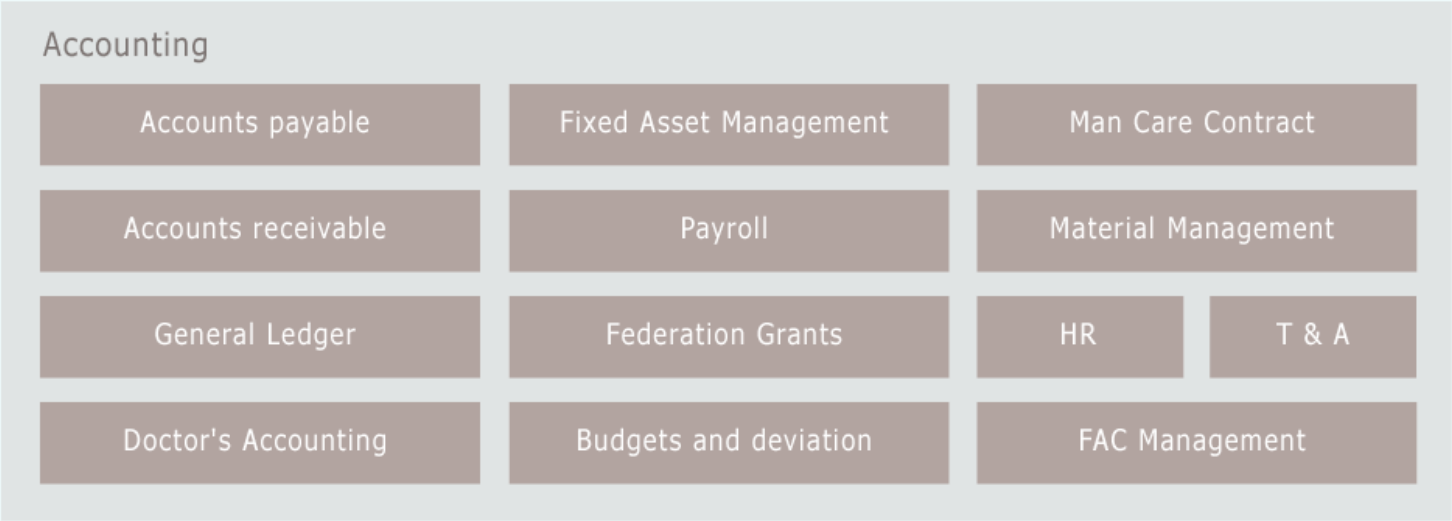
Personnel Management

* Employee Details
* Appointments
* Resignation/Retirements
* Daily/Monthly attendance
* Leave Management

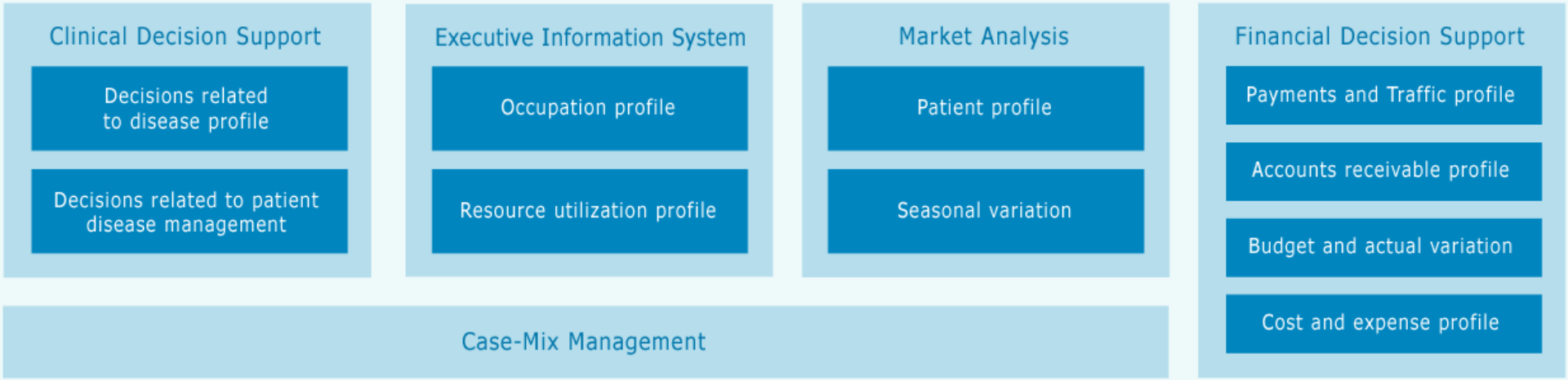
Key Functions – Resource Management



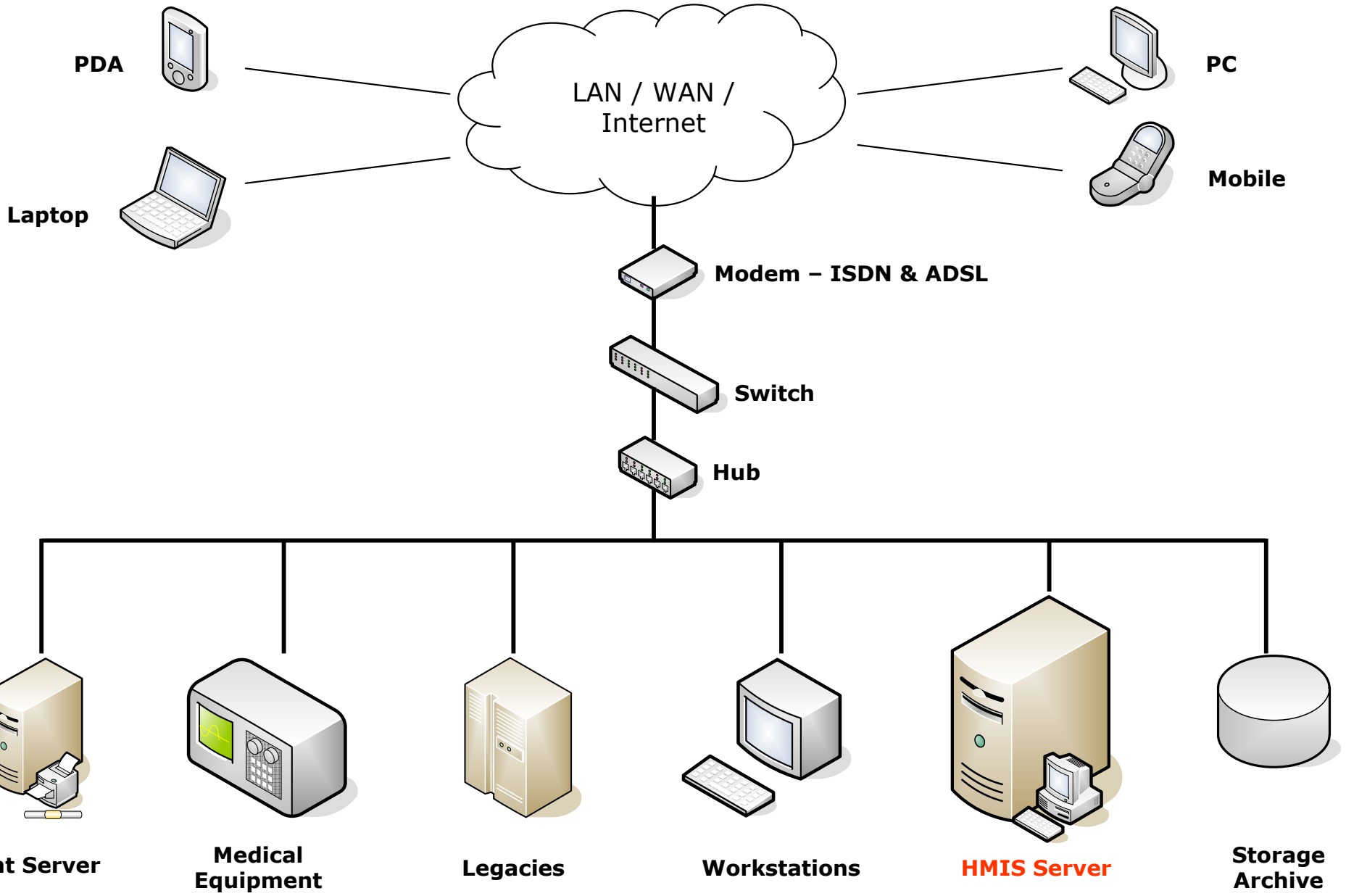
Key Functions – Financial Management



Key Functions - MIS



Network Configuration



The HMIS Edge

Quintegra's unique insights into hospital information needs provides value-additions beyond "productized" hospital management systems

Concerns with off-the-shelf products	Advantages of Quintegra's HMIS
Need for major change in the existing practices/methodologies resulting in higher employee inconvenience and resistance	The HMIS can be designed with minimal changes to existing practices resulting in enhanced acceptance by employees
Suitability of the products to the unique practices / expectations of a hospital	The HMIS can be totally customized to take care of all general / unique requirements
Predetermined features / gap between present functionalities and requirements / difficulties in customization	Modular architecture of the HMIS allows full customization in accordance with the requirements
Ability to have flexibility in required decision making areas between automation and manual authorization in products	Complete functionality will be in line with specific requirements
Higher cost of implementation	All life cycle phases will have distributed costs
Interface with pre-defined instruments, resulting in purchase of those instruments to make use of the functionality in the product	Interfaces can be designed to suit the existing instruments
Issues in post-implementation support	Since clients will be involved in all stages of the HMIS implementation, post-implementation issues will be minimal, since customization is as per the inputs of clients

Benefits

- The HMIS provides an effective solution to hospitals that plan to reduce the costs of administrative and clinical transactions, and at the same time, provide better service to their consumers
  - It aids hospital administrators by significantly improving operational control and streamlining operations
  - It enables improved response to demands of patient care because it automates the process of collecting, collating and retrieving patient information
  - Clinical pathways mapped to the system improve diagnoses and treatments offered
  - It provides doctors and hospital staff with the decision support system that they require for delivering patient care, which is comparable to global standards
- By enabling an automated and intelligent flow of patient information, the HMIS enables hospitals and doctors to better serve their patients
- Additionally, the HMIS provides a host of direct benefits such as easier patient record management, reduced paperwork, faster information flow between various departments, greater organizational flexibility, reliable and timely information, minimal inventory levels, reduced wastage, reduced waiting time at the counters for patients and reduced registration time for patients
- The indirect benefits would be an improved image of the hospital and increased competitive advantage
- Quintegra's HMIS not only provides an opportunity to the hospital to enhance their patient care but can also increase the profitability of the organization

Agenda

HMIS Overview

Powered by SAP NetWeaver®

Featured Case Study

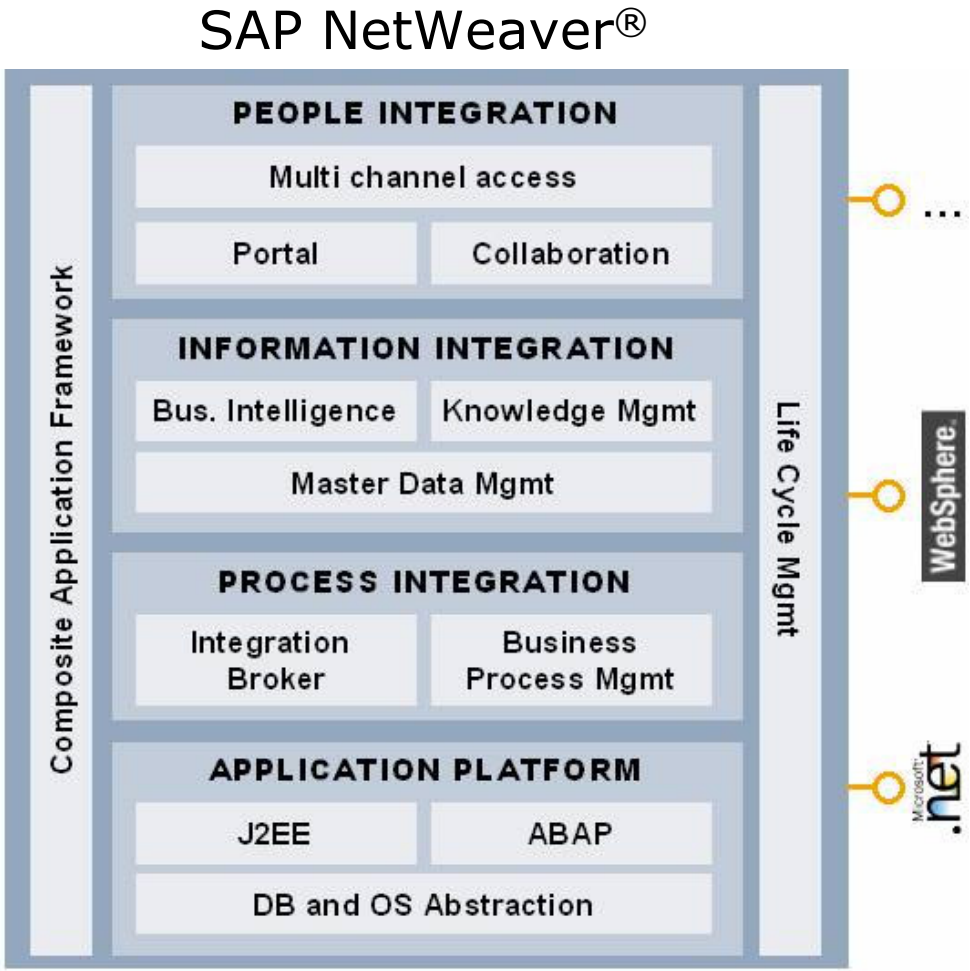
Corporate Information

Powered by SAP NetWeaver

Leveraging upon the power of SAP NetWeaver, the Microsoft .NET-based HMIS can fully integrate with your SAP solution-based environment.

- Maximize the value of existing or new investments in SAP solutions through the integration of HMIS, Powered by SAP NetWeaver
- Reduce total cost of ownership through seamless integration
- Facilitates complete customization of HMIS through dedicated tools, support & expertise
- Multilayered interoperability that covers all of the key integration layers enabled by SAP NetWeaver
- System landscape commonalities
- Powered by SAP NetWeaver, HMIS gives hospitals the winning edge to deliver superior patient care while optimizing internal processes through the power of SAP solutions

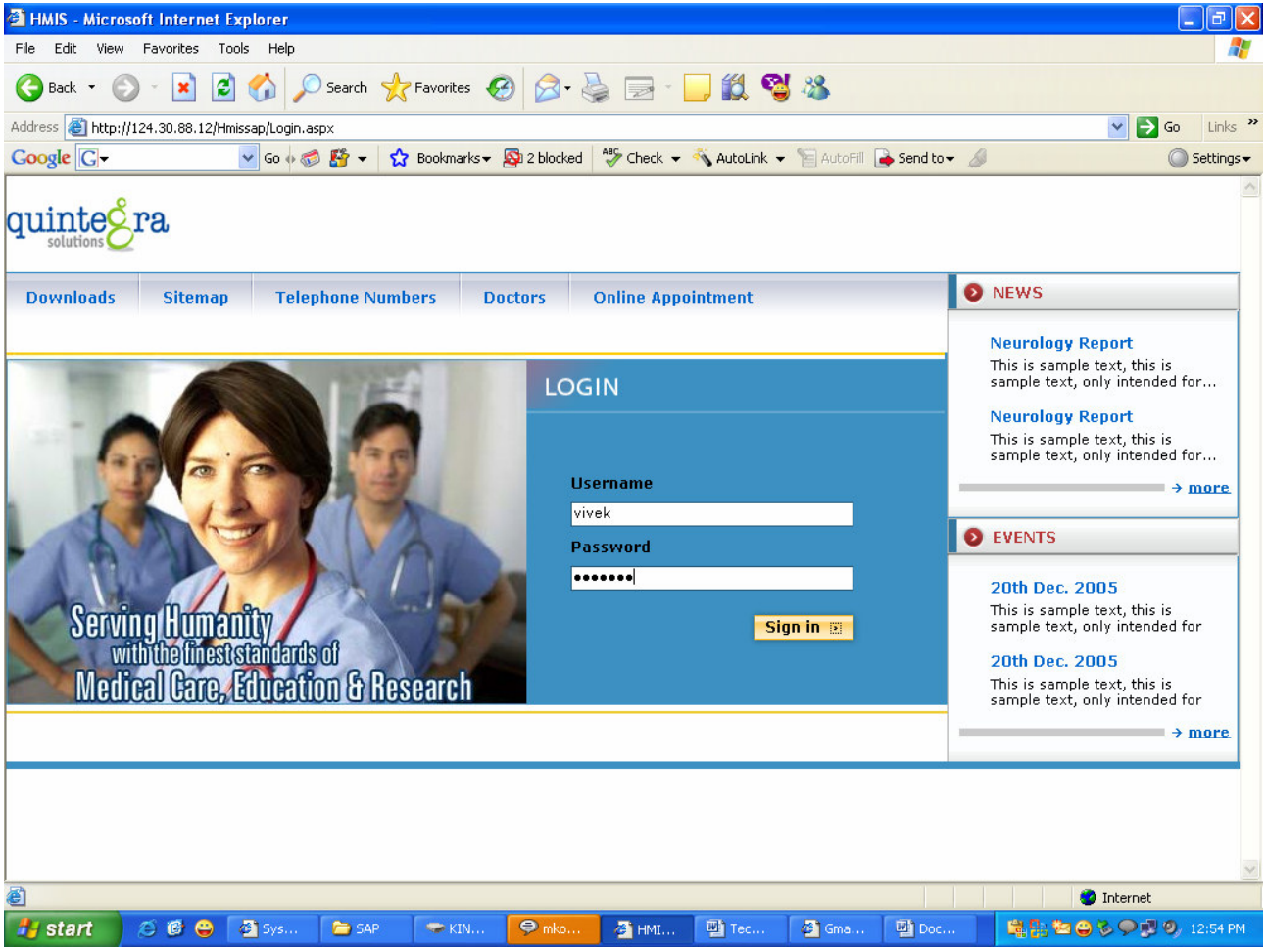
Powered by SAP NetWeaver…



- ## Integrate People
  - Seamless integration into the unified user interface of SAP NetWeaver Portal
  - Simplification of user management through integration between SAP NetWeaver, mySAP Business Suite, and the HMIS-based Microsoft Active Directory
- ## Integrate Information
  - HMIS-managed content can be integrated at any level of SAP NetWeaver Portal
  - HMIS seamlessly integrated with SAP applications to provide a comprehensive healthcare solution
- ## Integrate Processes
  - SAP NetWeaver and HMIS support advanced Web services protocols, providing a solid basis for flexible integration of processes
  - Transition to an enterprise SOA
  - Through SAP NetWeaver Exchange Infrastucture, HMIS can access the in-depth process optimization and integration capabilities of SAP solutions

Illustrative Scenario: Patient Registration

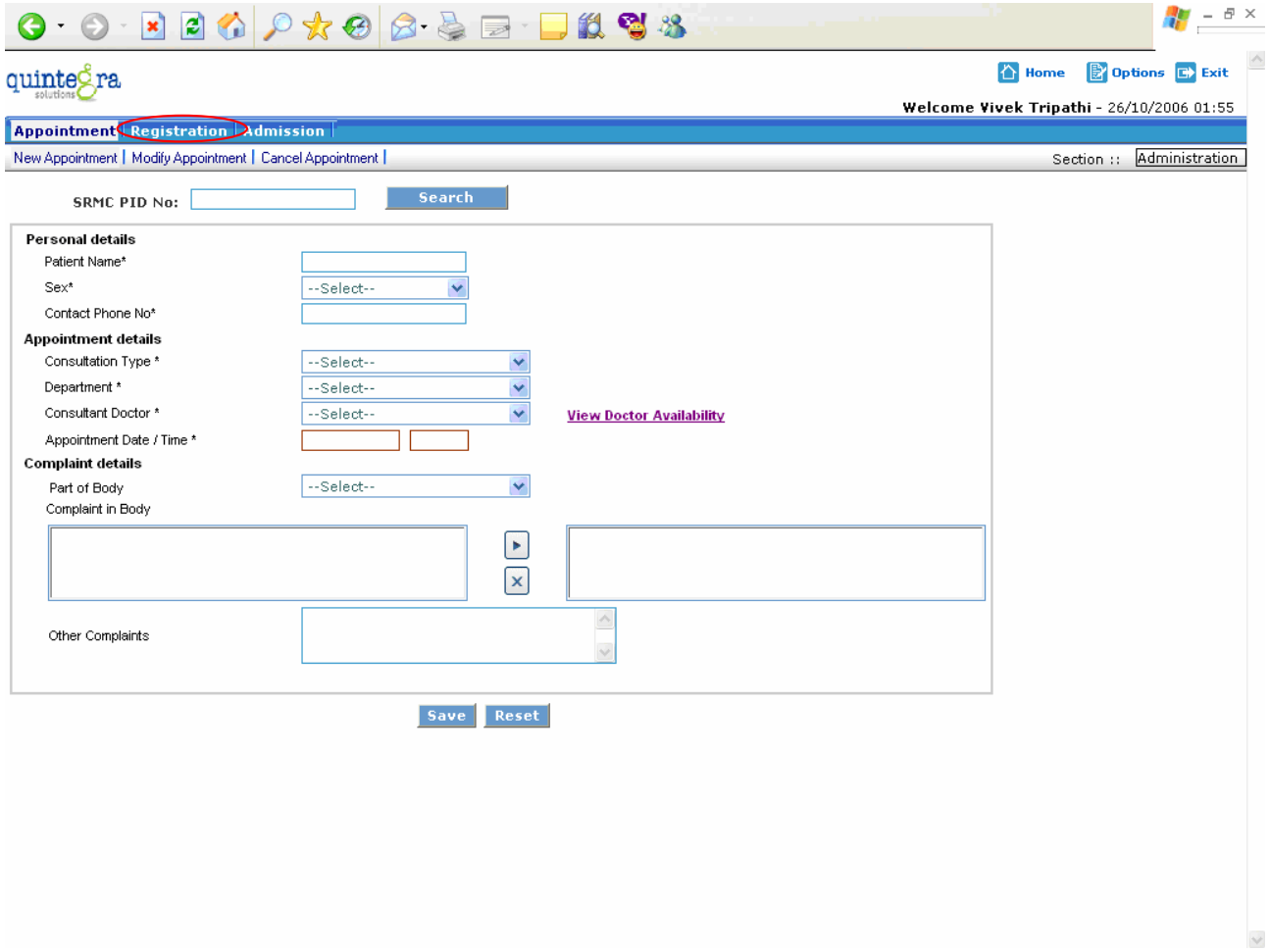
Logon to HMIS Portal...



…the default Appointment screen will be displayed.

Illustrative Scenario: Patient Registration…

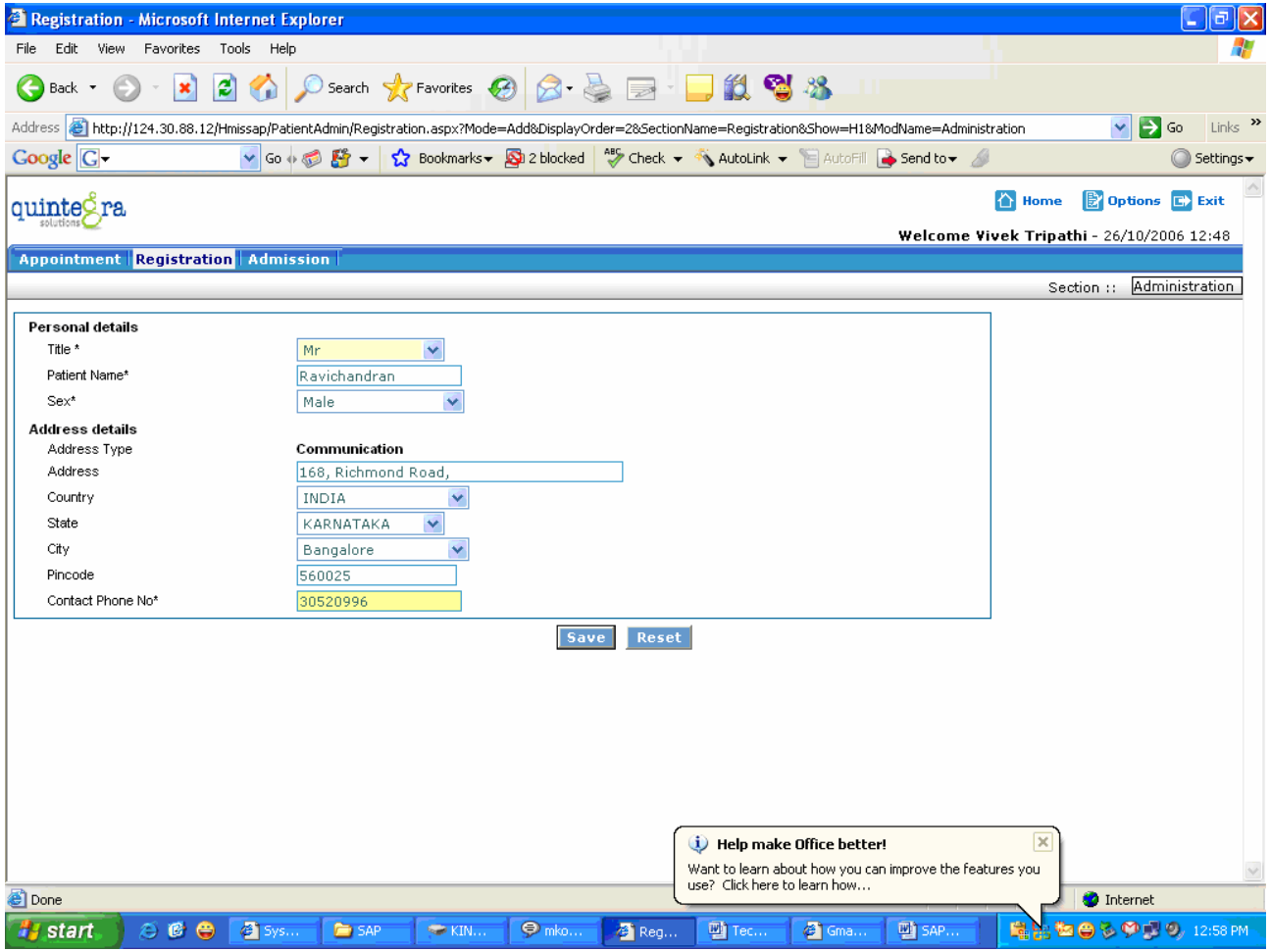
Select the registration menu...



…the user will be displayed the registration screen.

Illustrative Scenario: Patient Registration…

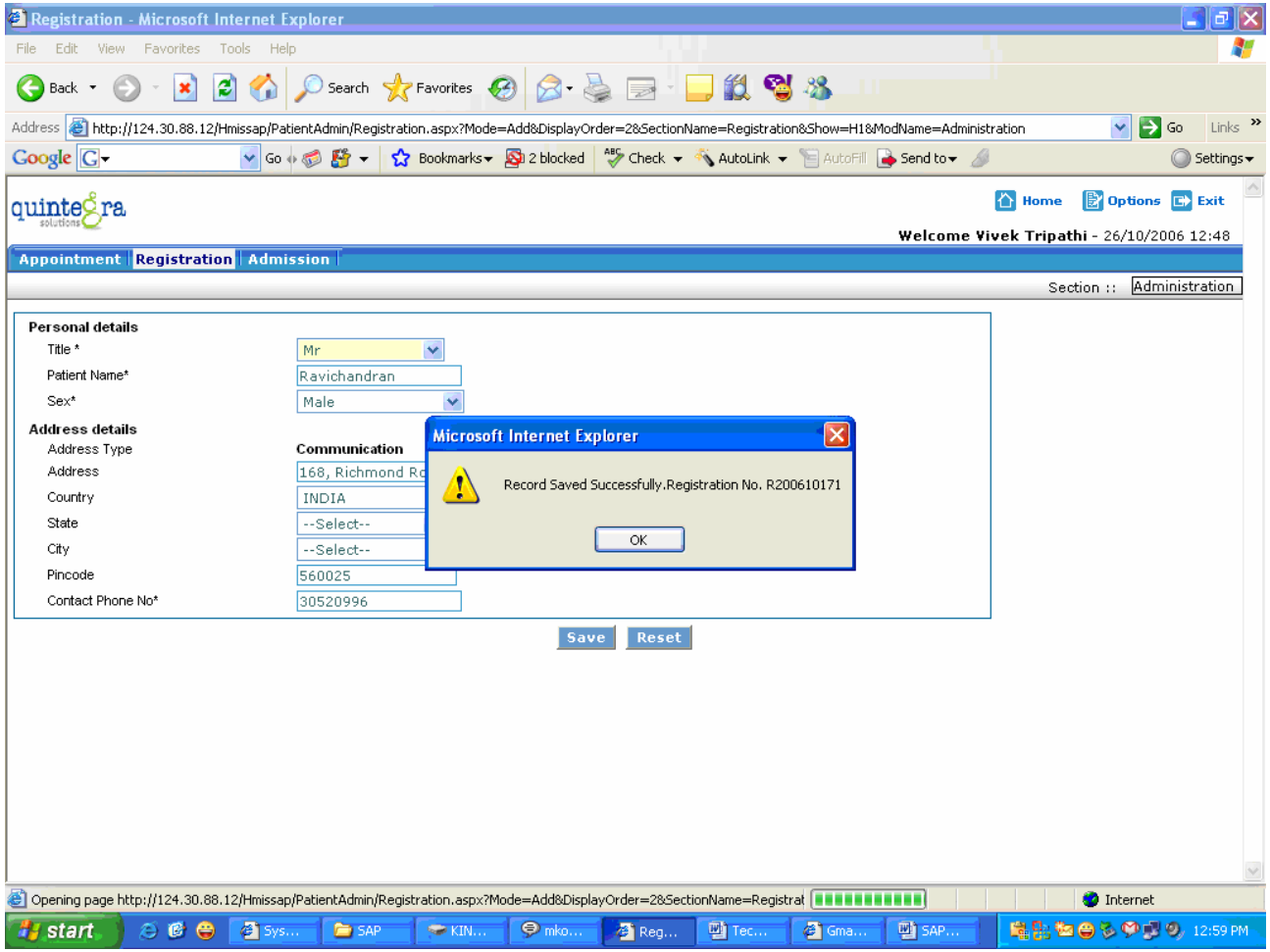
Select the registration menu...



…the details are saved and the Registration number is displayed in a popup.

Illustrative Scenario: Patient Registration…

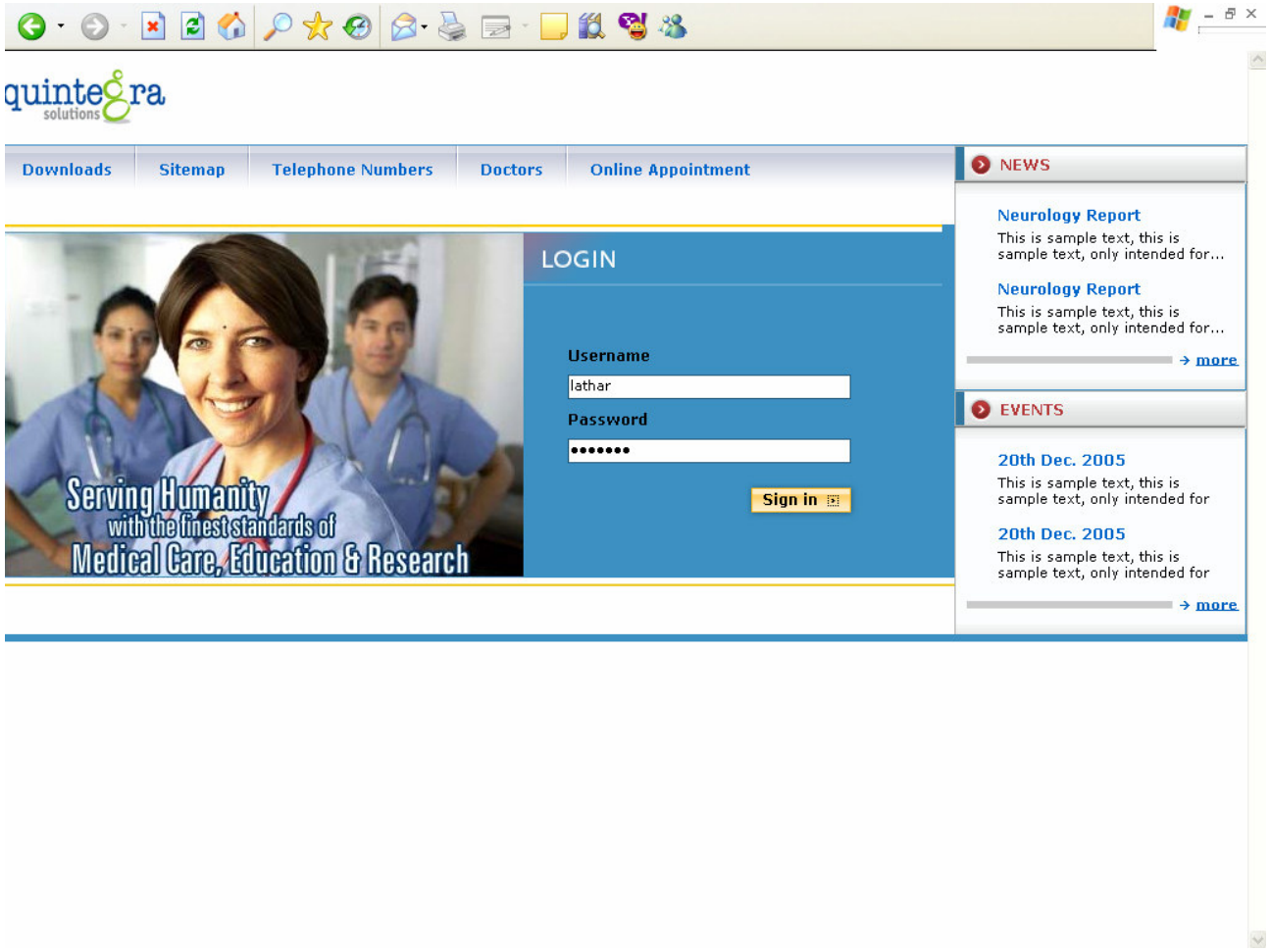
Acknowledge the registration number and exit...



…the system logs out the user and displays the login screen.

Illustrative Scenario: Drug Order

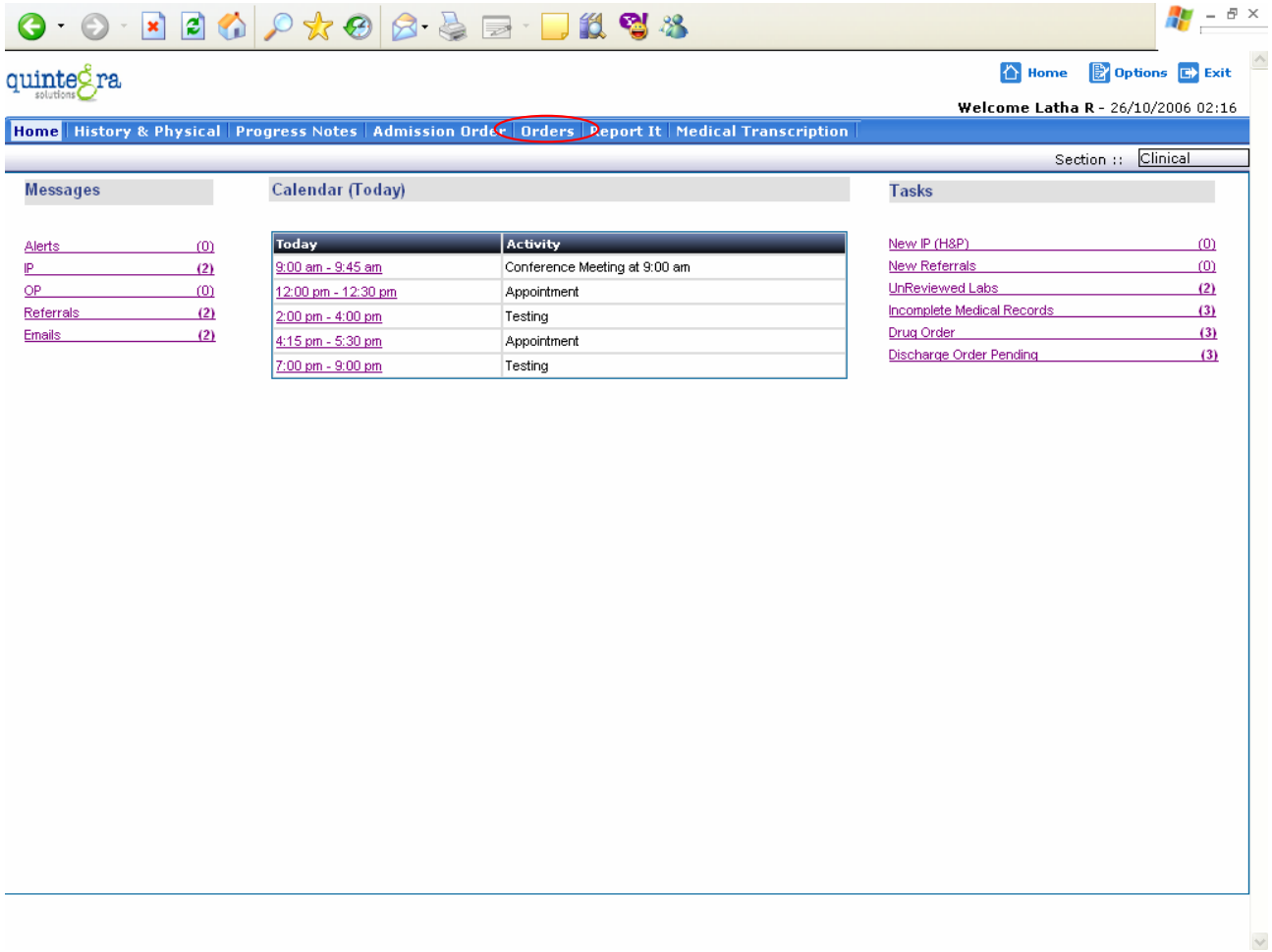
Logon to HMIS portal...



…the user will be displayed the default Home Page.

Illustrative Scenario: Drug Order…

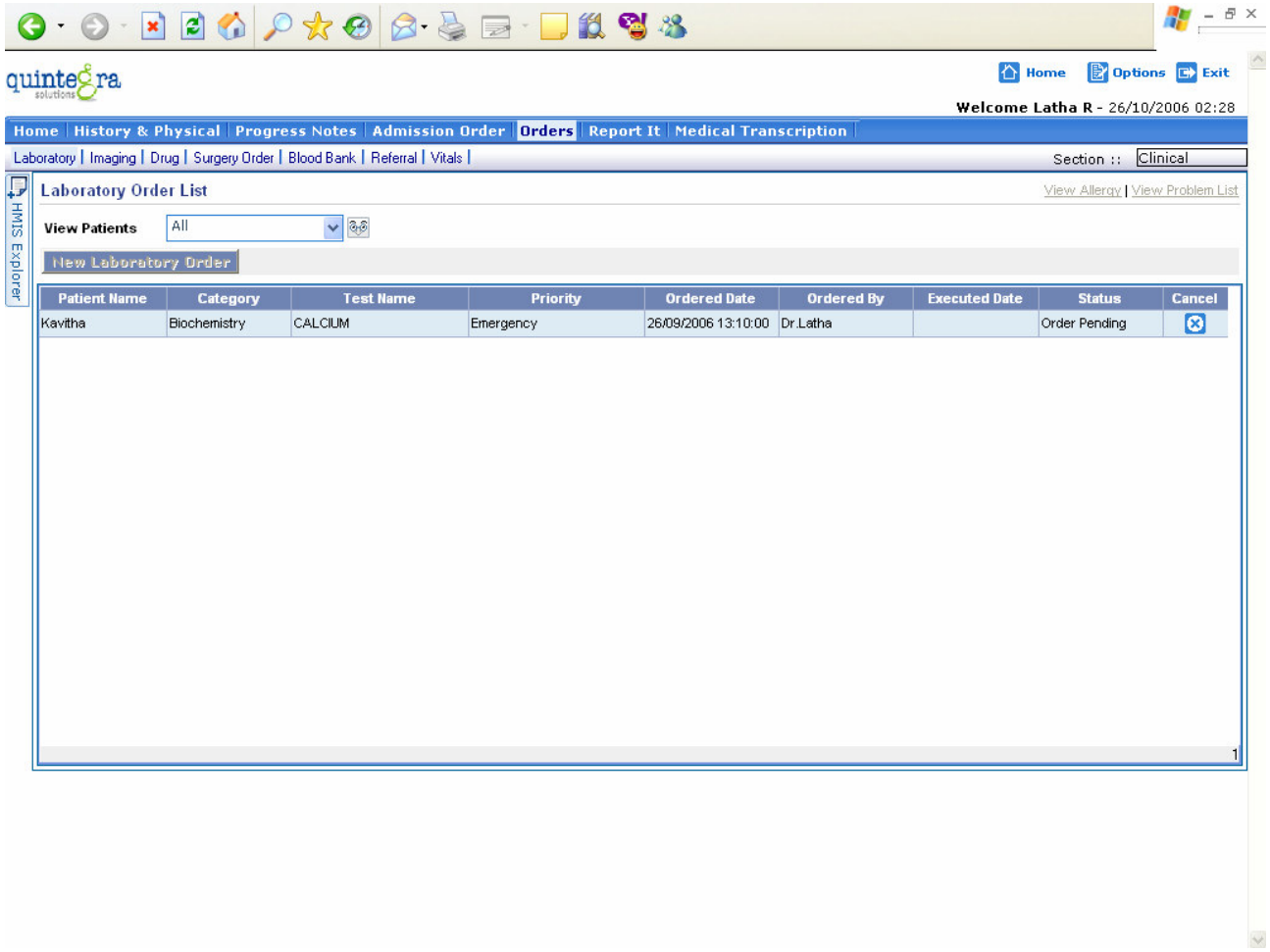
Select the orders menu...



…on selecting the orders menu it displays the default Laboratory orders screen with a sub menu bar below the top main menu bar.

Illustrative Scenario: Drug Order…

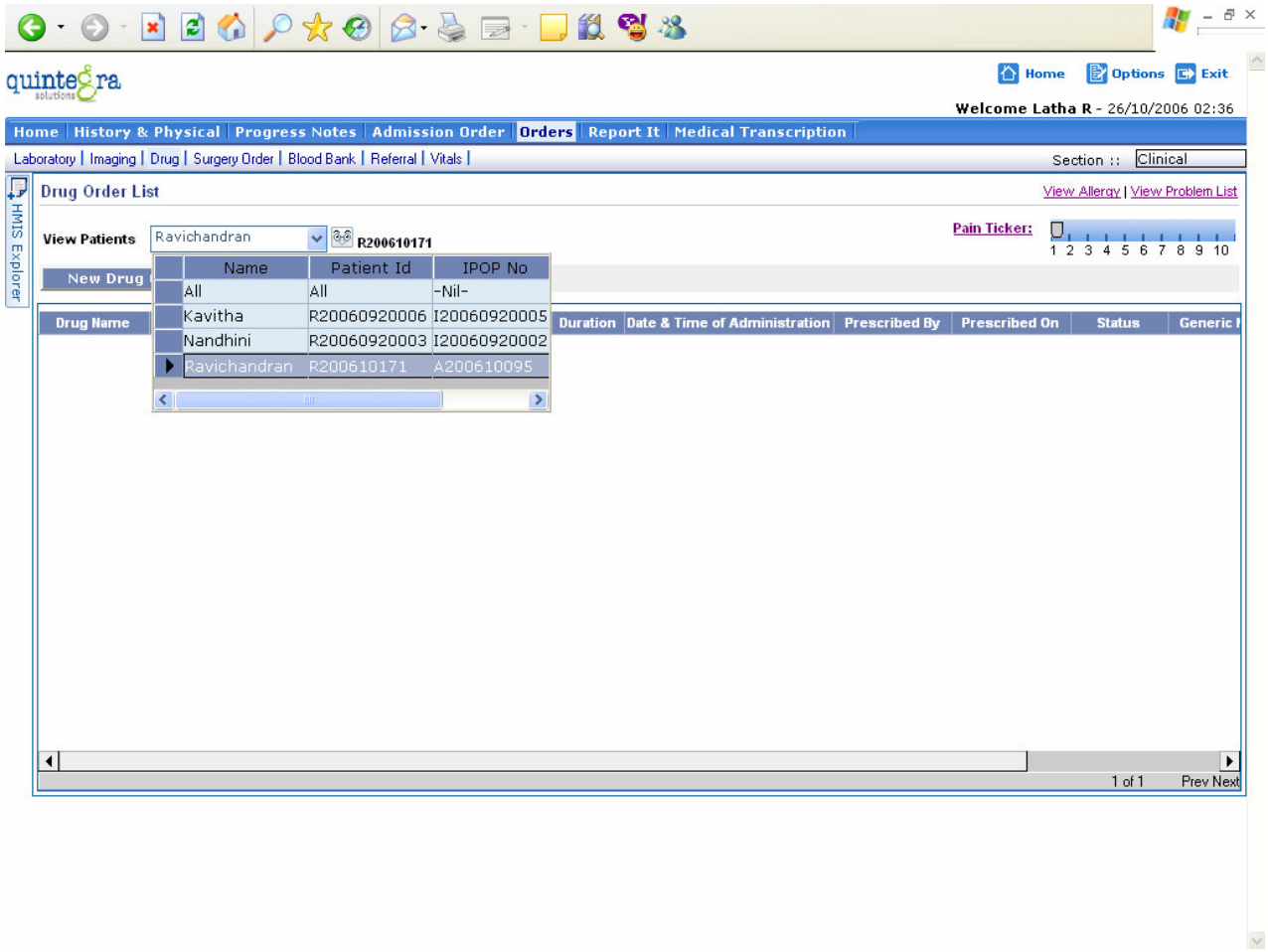
Select the drug Menu from the submenu bar...



…the default Drug order screen is displayed.

Illustrative Scenario: Drug Order…

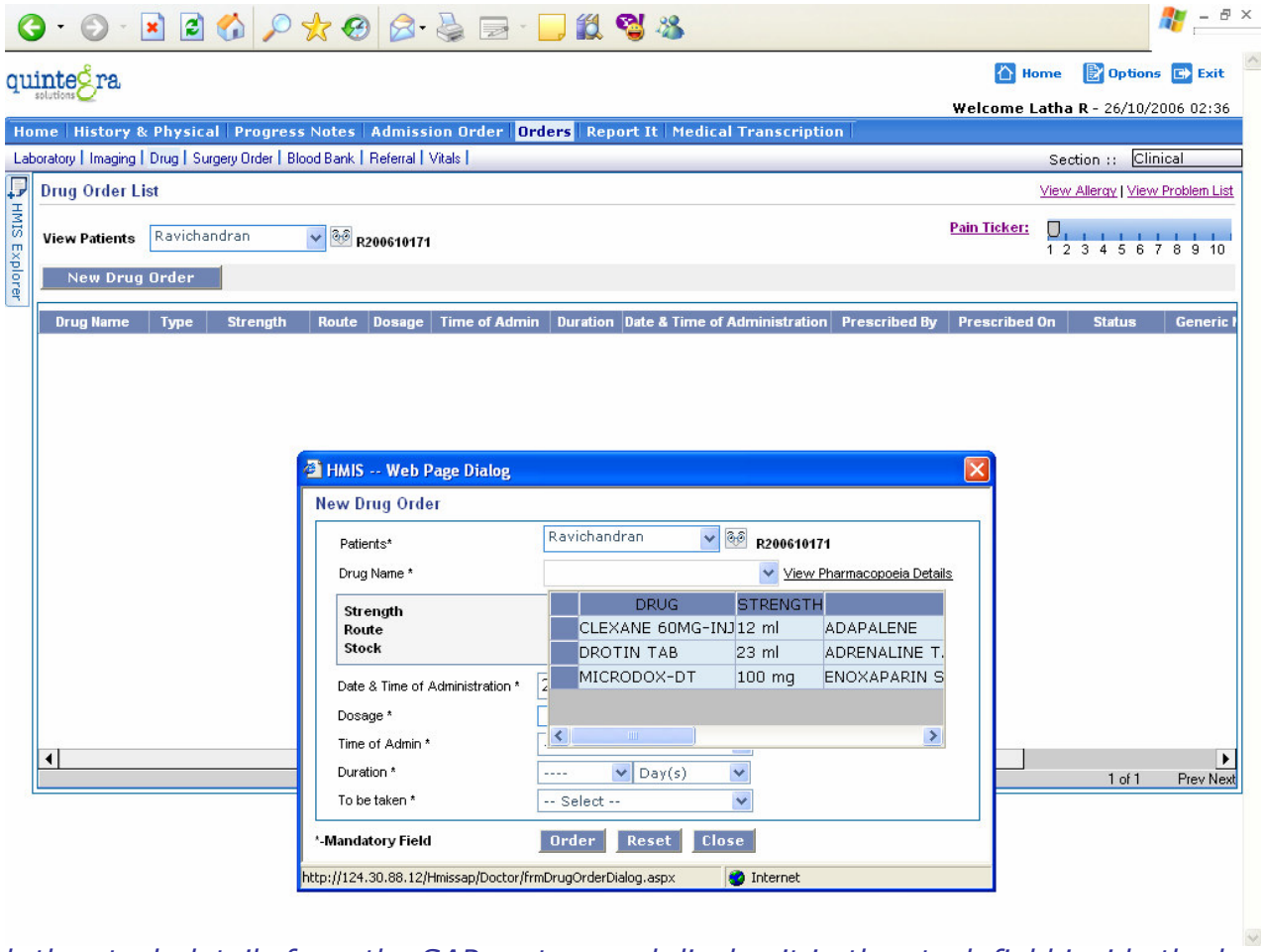
Select a patient from the View Patients dropdown list and click the New drug order button below the dropdown list...



…when the patient is selected all drug orders placed earlier will be displayed. When the New drug order button is selected, then the new drug order screen (popup) will be displayed.

Illustrative Scenario: Drug Order…

Select drug from the drug name (say Microdox-DT, the drug should not have been ordered already) dropdown box....



…the system will fetch the stock details from the SAP system and display it in the stock field inside the box. After the stock is displayed the user can enter the other details and save the order using the order button. The order will saved and the confirmation popup will be displayed.

Agenda

HMIS Overview

Powered by SAP NetWeaver®

Featured Case Study

Corporate Information

Featured Case Study

Quintegra's HMIS is running a Harvard Medical International associated hospital with...

- 1500 beds
- 800 patients per day
- 40 departments
- 30 locations
- 3000 employees
- 1500 medical equipment
- 40,000 records
- 110,000 transaction entries per month
- 140 surgeries per day
- 160 specializations
- 10,000 student college & hostel

Association part of the hospital's long-term plans to effectively utilize information technology to facilitate decision support and ensure effective governance of the organization's initiatives through leveraging upon Quintegra's expertise.

Featured Case Study…

Quintegra's HMIS is running a Harvard Medical International associated hospital through...

- Automation of 250 processes
- 34% operational cost reduction
- 80% reduction in paperwork
- 60% improvement in patient care
- 80% reduction in information flow time
- Enhanced competitive advantage
- 100% timely & accurate information
- 250,000 customized workflows & rules
- HL7 & HIPAA Compliance
- JCAHO accreditation compliance
- Patient-centric online & kiosk access
- 200% enhancement in customer delight

Agenda

HMIS Overview

Powered by SAP NetWeaver®

Featured Case Study

Corporate Information

About Quintegra

- **Founded:** 1994
- **Business:** Information Technology Services and Consulting
- **Public Listing:** NSE, India
- **Headquarters:** Chennai, India
- **Global Presence:** India, UK, USA, Germany, Malaysia and Singapore
- **Quality Processes:** SEI CMM assessed
- **Partnerships:** SAP, Oracle, IBM, Microsoft & Mercury Interactive
- **Building Blocks:** Visionary Leadership

  Customer-Centricity

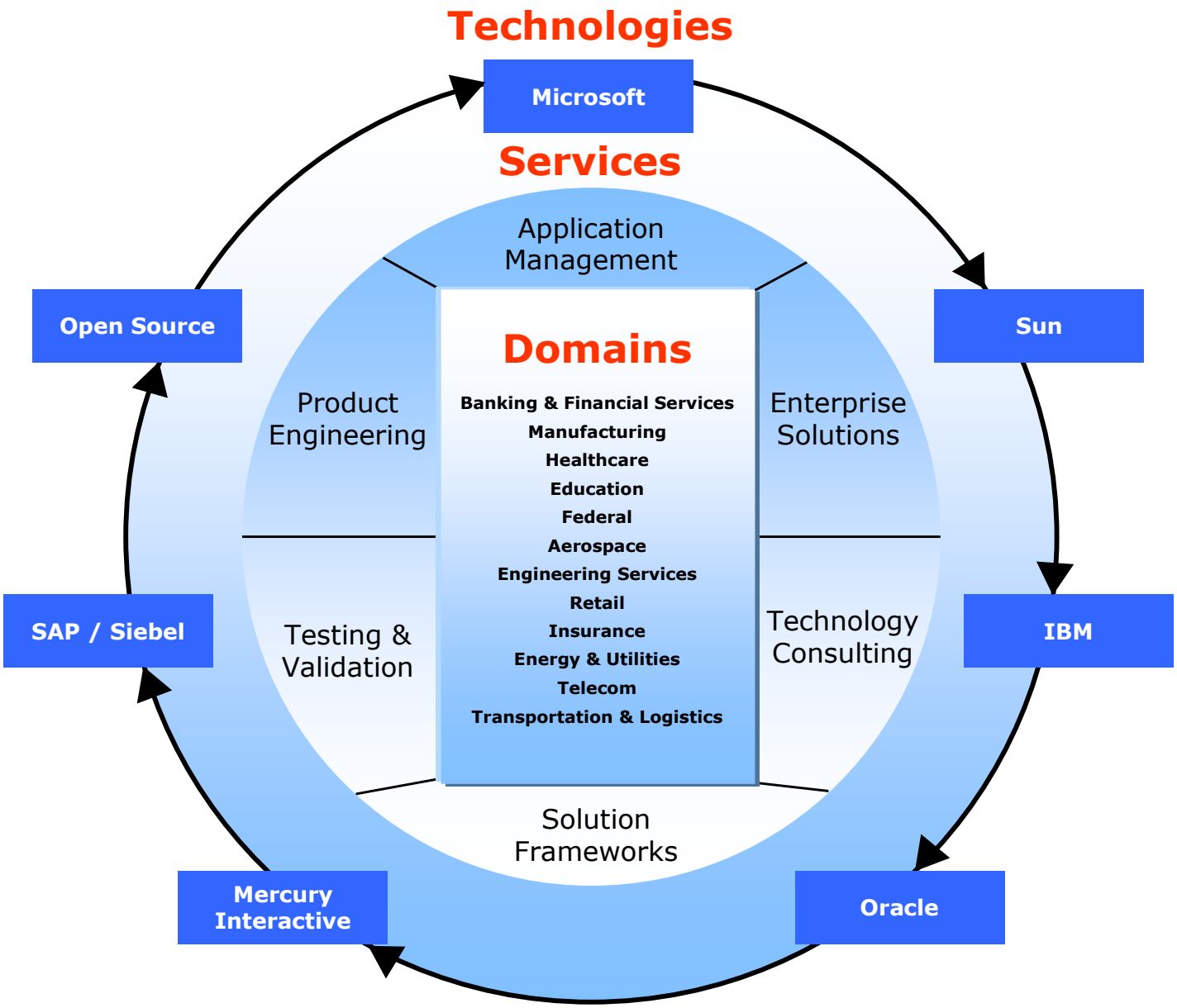
  Total-cost Advantage

  Service Practice Groups

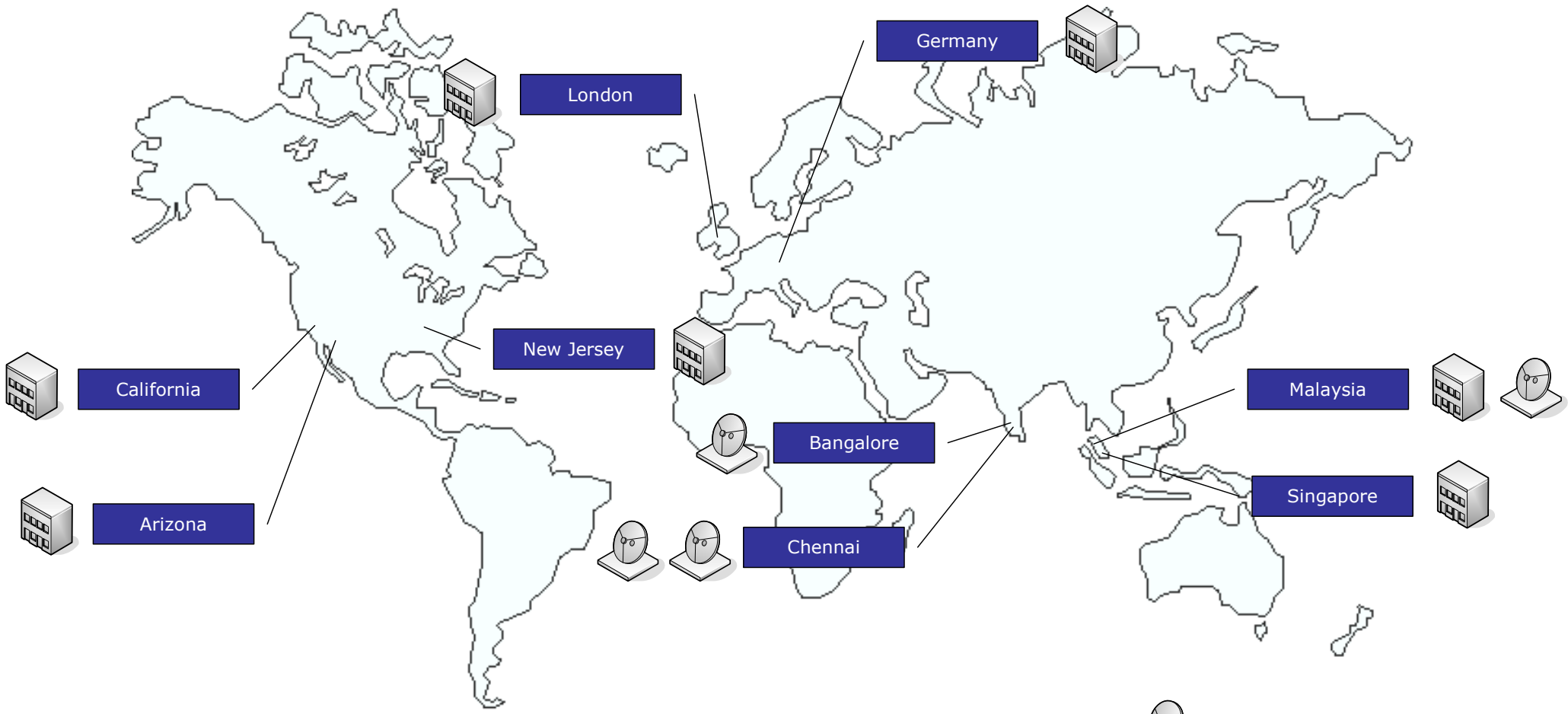
  Commitment to Quality and Excellence

  Strong Skill Pool and Resource Management Practices

Services Portfolio

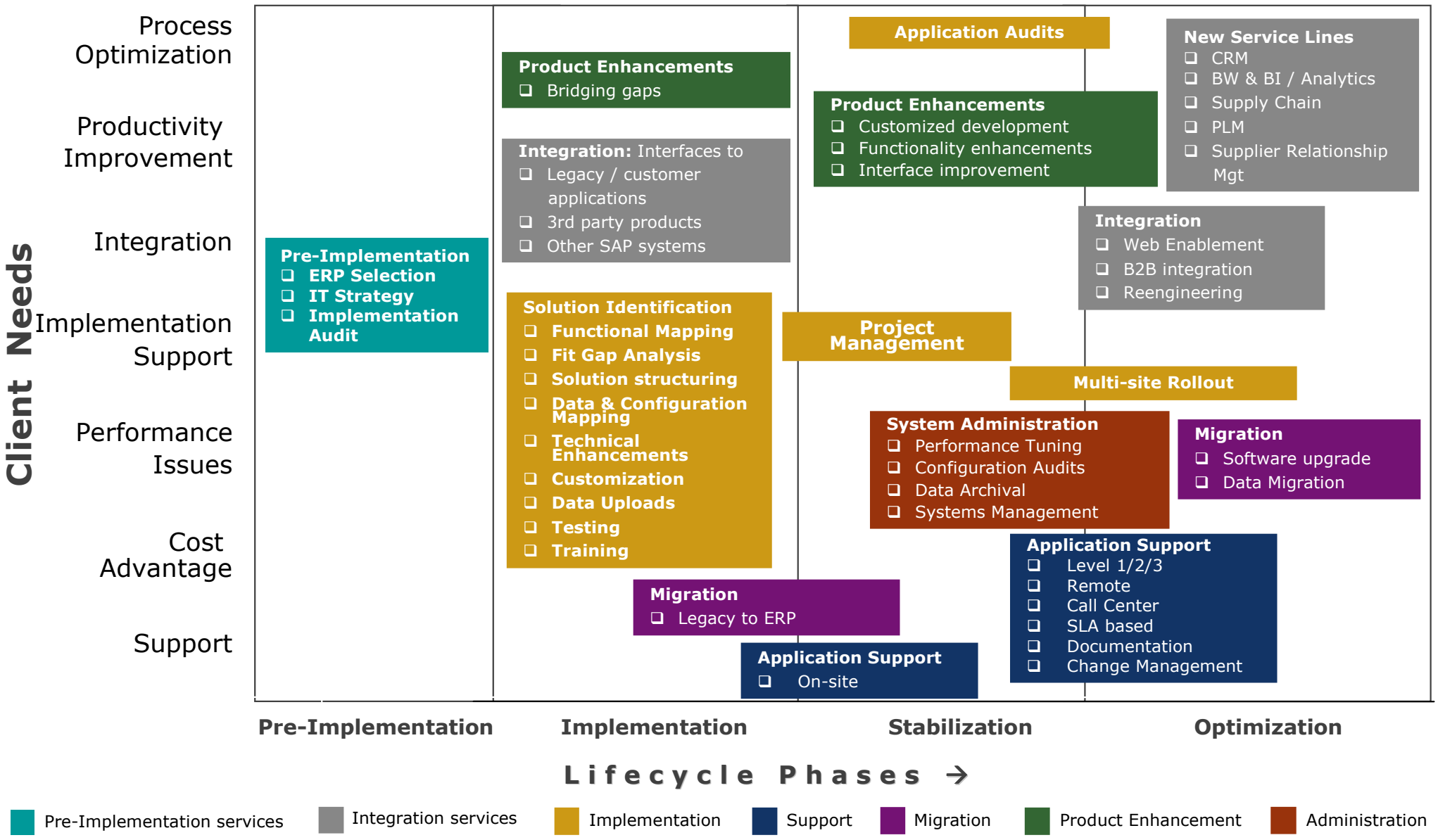


Geographical Presence



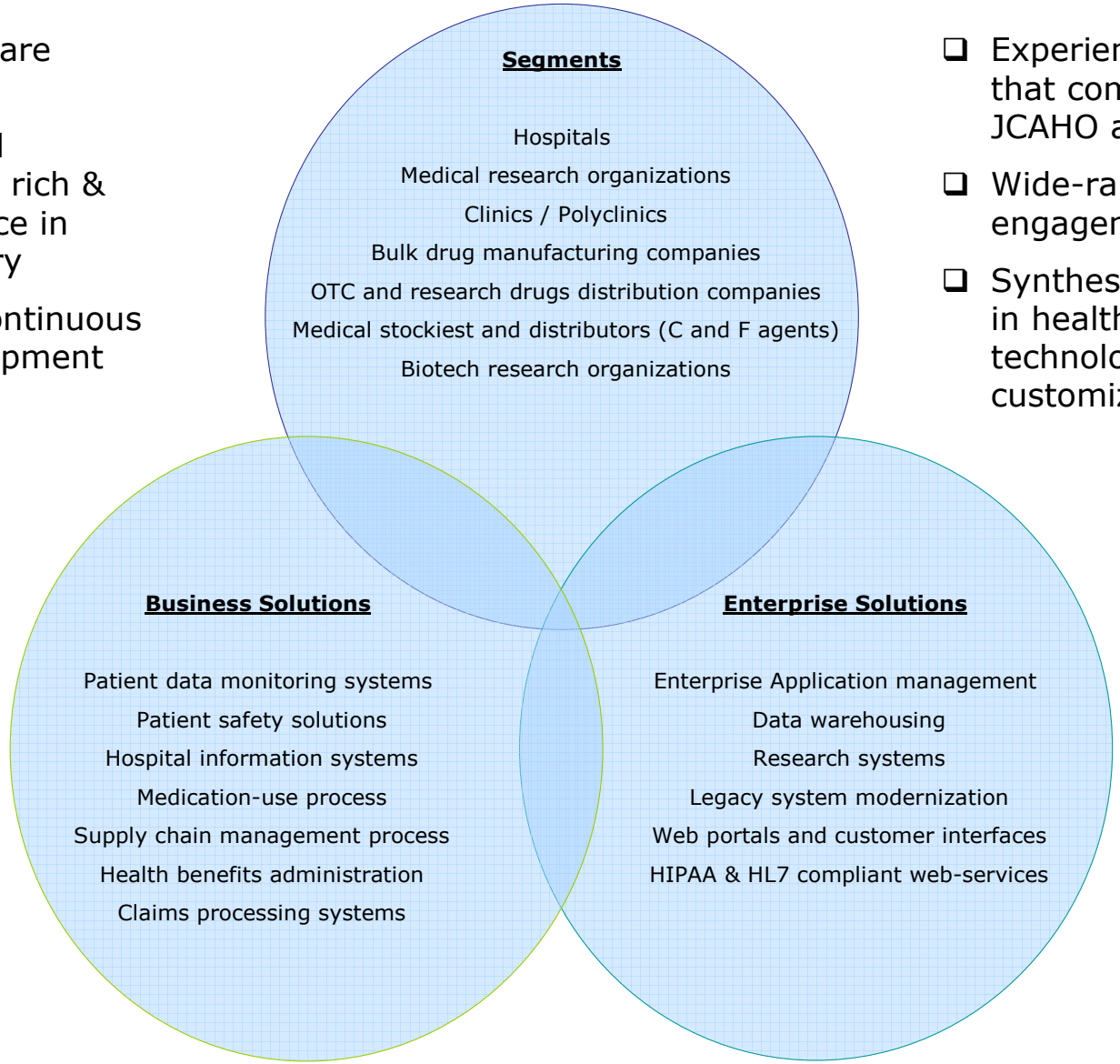
Continuously expanding geographical presence provides Quintegra's clients a truly 24x7 operations model

Quintegra's SAP Competencies



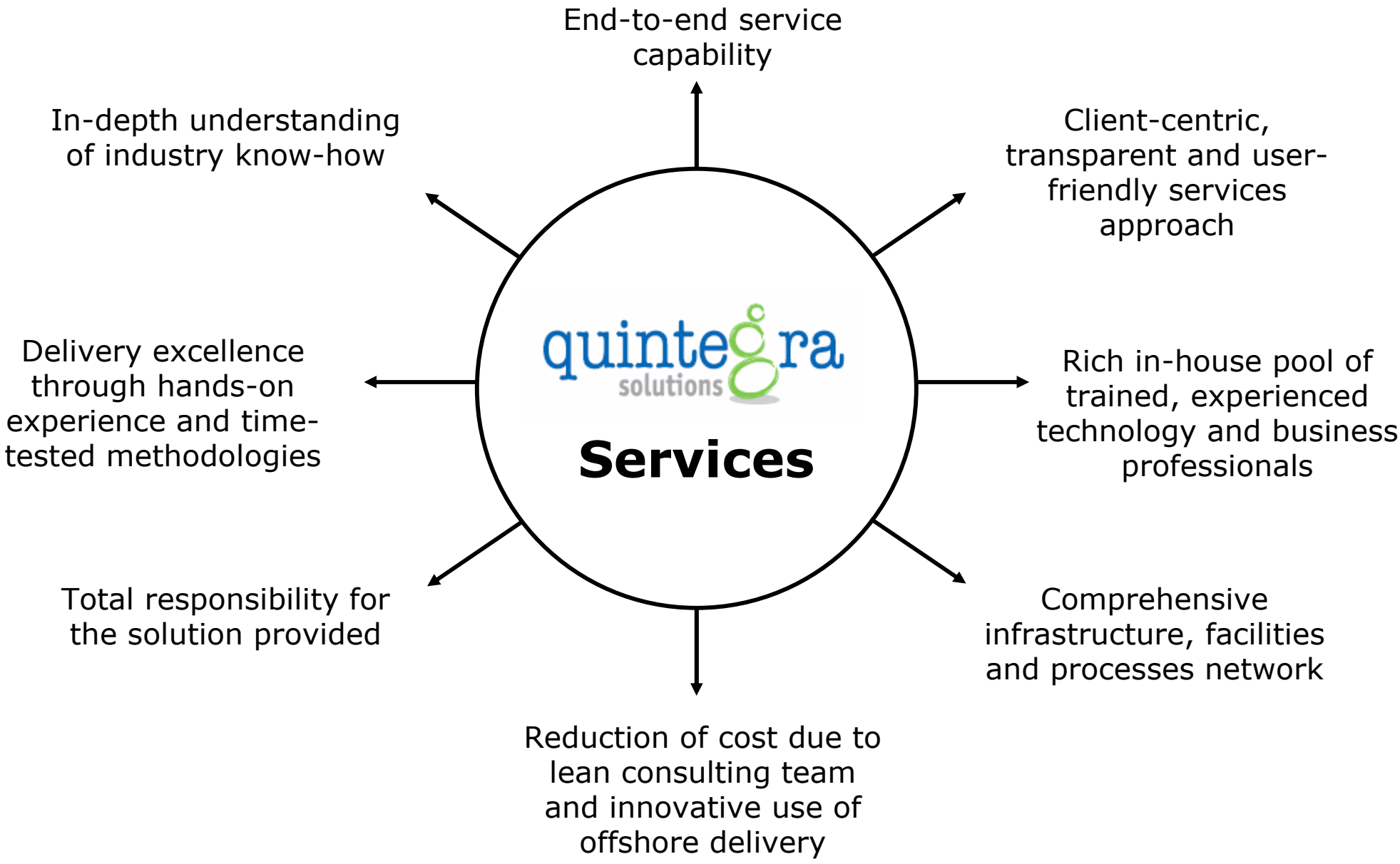
Quintegra's Healthcare Competencies

- Dedicated healthcare practice group
- Blend of seasoned professionals with rich & relevant experience in healthcare industry
- Active focus on continuous research & development



- Experience on solutions that comply to HIPAA, HL7, JCAHO and FDA regulations
- Wide-range of client engagement models
- Synthesizing our knowledge in healthcare and technology to offer new, customized solutions

Advantages


End-to-end service capability
In-depth understanding of industry know-how
Client-centric, transparent and user-friendly services approach
Delivery excellence through hands-on experience and time-tested methodologies
quintegra solutions
Services
Rich in-house pool of trained, experienced technology and business professionals
Total responsibility for the solution provided
Comprehensive infrastructure, facilities and processes network
Reduction of cost due to lean consulting team and innovative use of offshore delivery

Thank You

The rich experience of a decade in providing value-based software solutions...

The dedication, reliability, knowledge and imagination of a strong pool of resources...

The capability of delivering efficient business solutions for focused verticals...

The global infrastructure and processes delivering results in a transparent manner...

The company where every moment is a relentless pursuit towards perfection...

Quintegra Solutions

The best-value services provider