



Jackson Health System (JHS) Automation Initiatives



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Senior Vice President & CIO

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Jackson Health System

Jackson is the largest hospital in the State of Florida, providing nearly 60,000 admissions each year. With our partners, the University of Miami Miller School of Medicine, we provide a comprehensive safety net health system supporting Miami-Dade County:

- 500,000 patient visits.
- The only Level 1 Trauma and Burn center serving the area.
- The largest children's hospital in the Holtz Children's Hospital, including Florida's largest Regional Perinatal Intensive Care Center.
- The only regional, full service transplant center in South Florida.



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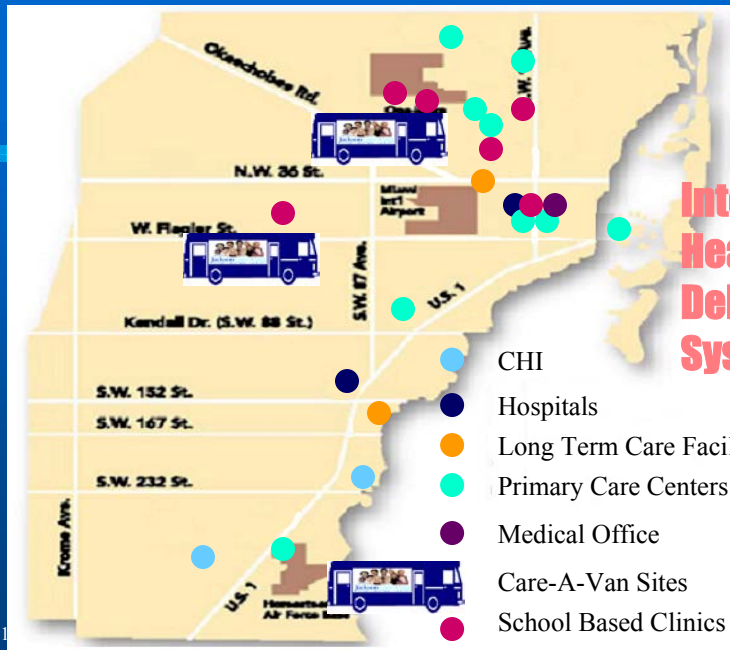
Eight Specialties listed among best in the nation



- Neurosurgery
- Urology
- Pulmonology
- Digestive Disorders/
Gastroenterology
- ENT / Otolaryngology
- Geriatrics
- Hormonal Disorders
- Kidney Disease

Our Mission is to provide a single, excellent standard of care to all we serve!!

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**Integrated
Health
Delivery
System**

Current JHS Priority Projects

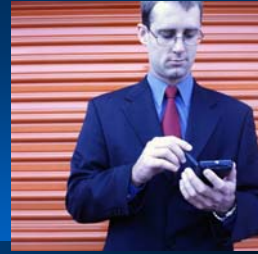
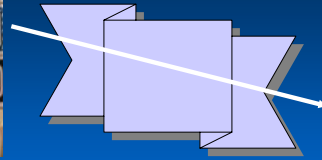
- **Infrastructure**
 - Colocation at NAP of the Americas
 - Disaster Recovery Plan/Testing
 - Single Sign On/Provisioning
- **Clinical Systems**
 - Core System Update (Cerner)
 - Electronic/Community Health Record Demonstration Project (discussed later)
 - Wireless Infrastructure

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Current JHS Priority Projects (cont'd)

- **Administrative Systems**
 - ERP/Patient Accounting
- **Business Case for MIS "Future"**
- **Program Management Office/MIS Governance/Strategic Alignment**
- **Joint Laboratory Results Viewer**
- **PACS Pilot**

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JHS Pilot Project - Building the Community Health Record

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Project Goals

- **Demonstrate the viability of the community health record concept**
- **Obtain data and support for future expansion of the pilot**
- **Create valuable input to the National Healthcare Information Infrastructure**

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Frequencies of Reported Medication Ordering Errors and Error Risks Involving the CPOE System (n = 261 Respondents)

Table. Frequencies of Reported Medication Ordering Errors and Error Risks Involving the CPOE System (n = 261 Respondents)

Error Type	Error Frequency During Past 3 Months, %					Missing Response, %
	Never	Less Than Once a Week	About a Few Times a Week	About Once a Day	More Than Once per Day	
Information Errors*						
Used CPOE to determine low dose for infrequently used medications	27.3	34.6	28.5	7.3	2.3	0.3
Used CPOE to determine the range of doses for infrequently used medications	18.5	40.4	27.3	10.8	3.1	0.3
Delayed for several hours canceling medication because of fragmented CPOE display	48.6	29.0	12.0	6.2	4.2	0.6
Observed a gap in antibiotic therapy because of unintended delay in reappraisal of antibiotic	16.9	43.5	26.9	6.9	5.8	0.3
Human-Machine Interface Flaws†						
Not able to quickly tell which patients ordering for because of poor CPOE display	45.4	32.3	12.3	5.0	5.2	0.3
Been uncertain about patients' medications because of multiple CPOE displays	28.5	25.4	23.4	11.7	10.9	1.5
Delayed ordering because CPOE system down	16.3	45.0	33.1	8.8	4.6	0.3
Had difficulty specifying medications and problems ordering off-formulary medications	8.5	37.1	30.9	12.0	11.6	0.6

Abbreviation: CPOE, computerized physician order entry.
 *Generated by fragmentation of data and failure to integrate the hospital's several computer and information systems.
 †A reflection of machine rules that do not correspond to work organization or usual behaviors.

Koppel, R. et al. JAMA 2005;293:1197-1203.

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Description

- Using existing infrastructure with a modest amount of new technology, we will show how free exchange of patient care information will benefit both the patient and providers using wireless handhelds
- Pilot will focus on provider interactions at multiple sites
- Information presented will still reside in the appropriate system(s) ... for example, Laboratory Information System
- Usability and acceptance are key metrics

FOR MORE INFO...

See the detailed term sheet and pilot agreement.

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Description (cont'd)

- Pilot is a joint industry-government effort with initial deployment based on voluntary contributions by all parties
- Pilot complies with the criteria set by the Governor's Health Information Infrastructure Advisory Board
- Eventually, all parties hope to seek external funding and wider participation from both commercial and not-for-profit providers

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Team Composition

- Commercial Partners
 - Cogon Systems
 - Gold Standard Multimedia
 - Terremark
 - Neoris
 - Sprint
- Provider Partners
 - Jackson Health System
 - University of Miami Miller School of Medicine
 - Medical Computer Systems Laboratory
 - Jackson Memorial Foundation
 - Institute for Patient Safety

NEORIS
Practical Visionaries

 **COGON SYSTEMS**
MOMENT OF CARE™

Jackson
HEALTH SYSTEM 

MILLER | SCHOOL OF MEDICINE
UNIVERSITY OF MIAMI

 **nap** of the Americas™

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Terremark Overview

- Terremark is a provider of “network neutral” Internet infrastructure and managed services.
- The Company operates four NAP Data Centers in the U.S., Europe, and Latin America.
- Terremark, headquartered in Miami, Florida, currently has 190 employees and over 20% of them maintain U.S. Federal government security clearances.

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What is a NAP?

- “Internet traffic hub” efficiently interconnects and exchanges internet traffic
- Analogous to an airport hub; networks/carriers/content providers exchange data and route it to its final destination
- TWW centers uniquely combine a Network Access Point and best in class Data Center



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Customer Value Proposition

- Carrier Neutrality
- Massive Connectivity = “Zero-Mile” Access
- Ideal “Media Content” Distribution Platform
- “One-stop” Integrated Technology Solutions
- Industry Leading Service Level Agreements (SLAs)
- Global Strategic Locations
- Cleared Personnel (Federal)
- SCIF Certified (Federal)

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Neoris Overview

- Client focused consulting services firm, headquartered in Miami, with a practice group in healthcare
 - “We thrive at understanding the strategic needs of our clients and work with them to build business and technology solutions aimed at assisting them in achieving their objectives. “
- We offer:
 - Value-added consulting
 - Application Management Services
 - Emerging technologies/package solutions

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Neoris participation in the project

- **Business Analysis**
 - Develop business case and cost-benefit analysis specific to the value that that Electronic Health Records (EHR) will bring to JMH and the local community providers
 - Assure goals of project meet the business needs
- **Data integration**
 - Healthcare data integration using HL7 and XML
- **Project Management**
 - Overall project support managing remote resources from various partners
- **Technical Support**
 - Provide 1st level support and on-site support for Cogon Systems' Moment of Care solution
- **Training**
 - Provide end-user training for Cogon Systems' Moment of Care solution

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Cogon Overview

- **Patient Safety/Outcome**
 - Moving More than Data, Moving Analysis
 - **Moment of Care™** information system v 3.0
- **Customer Focus**
 - User Driven Development
 - User Adoption / Technological Socialization
 - Continuing User-Centered Research and Development
- **Market Recognition**
 - ComputerWorld Worldwide Finalist - Medicine Category (2004)
 - Intel Solution Blueprint
 - ITFlorida Small Business of the Year (2004)
 - AHCA's AHRQ grant

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Gold Standard Multimedia Overview

- **Florida Medicaid Program**
- **Broad Overview**
 - Sprint Pocket PC Phones
 - Medication Profile From Claims Information – Patient Manifest
 - ePOWERx e-prescription – Rx Writer
 - GSM Clinical Pharmacology
 - GSM Drug Interactions

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Technology

- **Wireless Handheld Devices**
- **Continuity of Care Record (XML-based Standard championed by AAFP)**
- **Health Level 7 (HL7)**
- **Database “abstracting” and consolidation**
- **Human factors analysis**

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Demonstration of Key Technologies

Dr. Huy Nguyen
President and CEO of Cogon Systems

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Questions

What about ...?

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