



*Navigar Consulting, LLC*

# SOA Healthcare Conf



**JULY 13, 2010**

- Business Process Management as a strategic platform to support a Service Oriented Architecture
- Opportunity to automate and streamline processes in Healthcare
- Three specific processes will be highlighted including
  - grant allocations
  - employee on-boarding
  - patient information integrations
- Considerations to selecting the right BPMS is critical to your organization's future success

# BPM as a strategic platform to SOA

3

- **Orchestration of business events.** Not just notification. Processes are executed based on specific business events involving humans, systems and other events.
- **Support of MDM Strategies.** BPM leverages existing data sources and does not create duplicate copies of 'like' data. BPM can make calls to existing data and also publish updated data to MDM systems.
- **Provide real-time process control.** Give managers real-time insight into process bottlenecks and the ability to adjust thresholds to improve performance.
- **Enable collaborative solution development.** A collaborative design environment facilitates shared understanding of process requirements across business and IT users — a critical element of deployment success.
- **Services Prioritization.** BPM creates real-world application requirements for service development which ensures you are building the right services for the business.
- **Quick ROI.** While many SOA strategies will take years to provide any ROI, BPM can provide a quick ROI that supports and defends a SOA strategy.

# A Business-Oriented Architecture

4

Office of the CIO

Healthcare IT Infrastructure

BPM

Document  
Centric

Integration  
Centric

Human  
Centric

Case  
Management



# Opportunities for Healthcare Process Improvement

5

- Reduced revenues
  - Down economy = optional procedures delayed = fewer patients
  - Increased percentage of payments from government sources = lower per transaction revenues (federal government is largest payer in healthcare system)
  - Increased DSO
  - Focus on OR & ER
- Increased expenses
- Employee turnover
  - Increased employee on-boarding time & expenses
  - Need to track certifications
- Electronic records management
- Operational efficiency
  - Nurse productivity
  - Improved asset utilization (right asset at right time at right place)
- Compliance
  - Grant tracking & allocation
  - Pharmaceutical products
  - Regulatory bodies (FDA) – changing requirements
  - Safe & secure supply chains
  - Federal regulation a moving target; difficult to stay in compliance
- Claims processing
  - Payment errors & exception handling
  - Various payer practices; difficult to reconcile payments
- Supplies Management
  - Inventory control
- Medication errors
  - Prescription medication process
  - Undetected interaction problems
  - Unreadable handwriting scripts
  - Fatigue & human error

## Examples of Business Processes that can be automated and improved using a BPMS

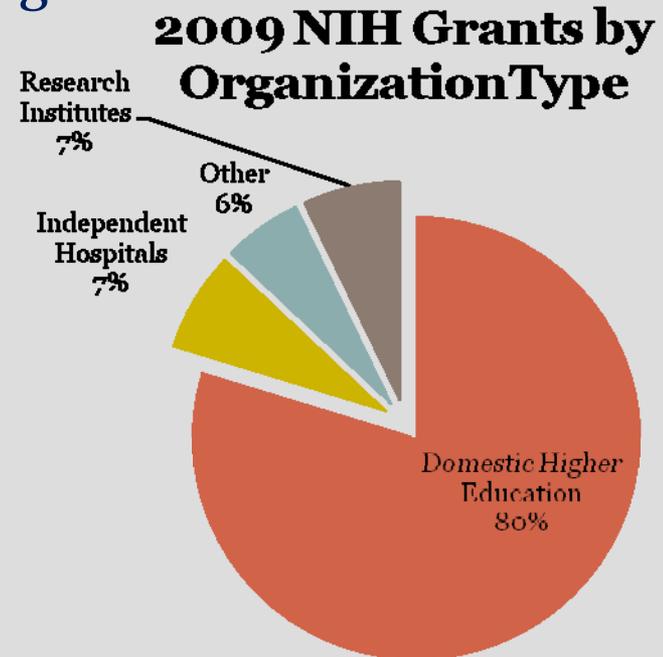
- Grant allocations
- Employee on-boarding
- Patient information integrations

# Grant Allocation & Control

7

Grants from a variety of sources including NIH

- NIH awarded in 2008
  - 54,000 grants
  - \$21 billion
  - 2,600 organizations



- *Business rules and proper reporting can be created to ensure that the grants are allocated according to specified rules*
- *Grant receiving organizations must ensure and demonstrate that the grant funds are tracked, allocated & spent according to the grant rules and regulations*
- *Process steps and controls should be included in this process to ensure proper allocation and management of the funds*

# Grant Allocation

8

Receive Grant

- Department or individual completes grant application
- Grant is received along with regulations

Pass grant update to internal systems

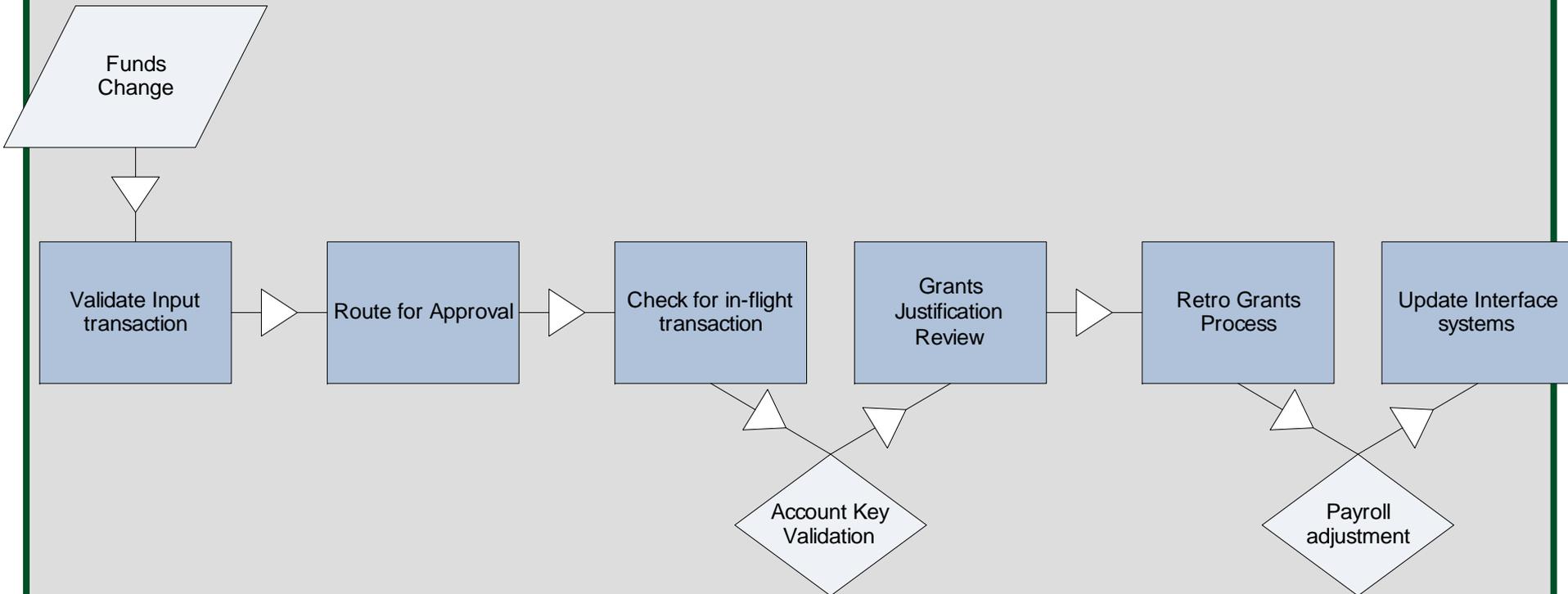
- Grant update is passed to payroll
- Back office HR and financial systems must be updated

Charge time to grant

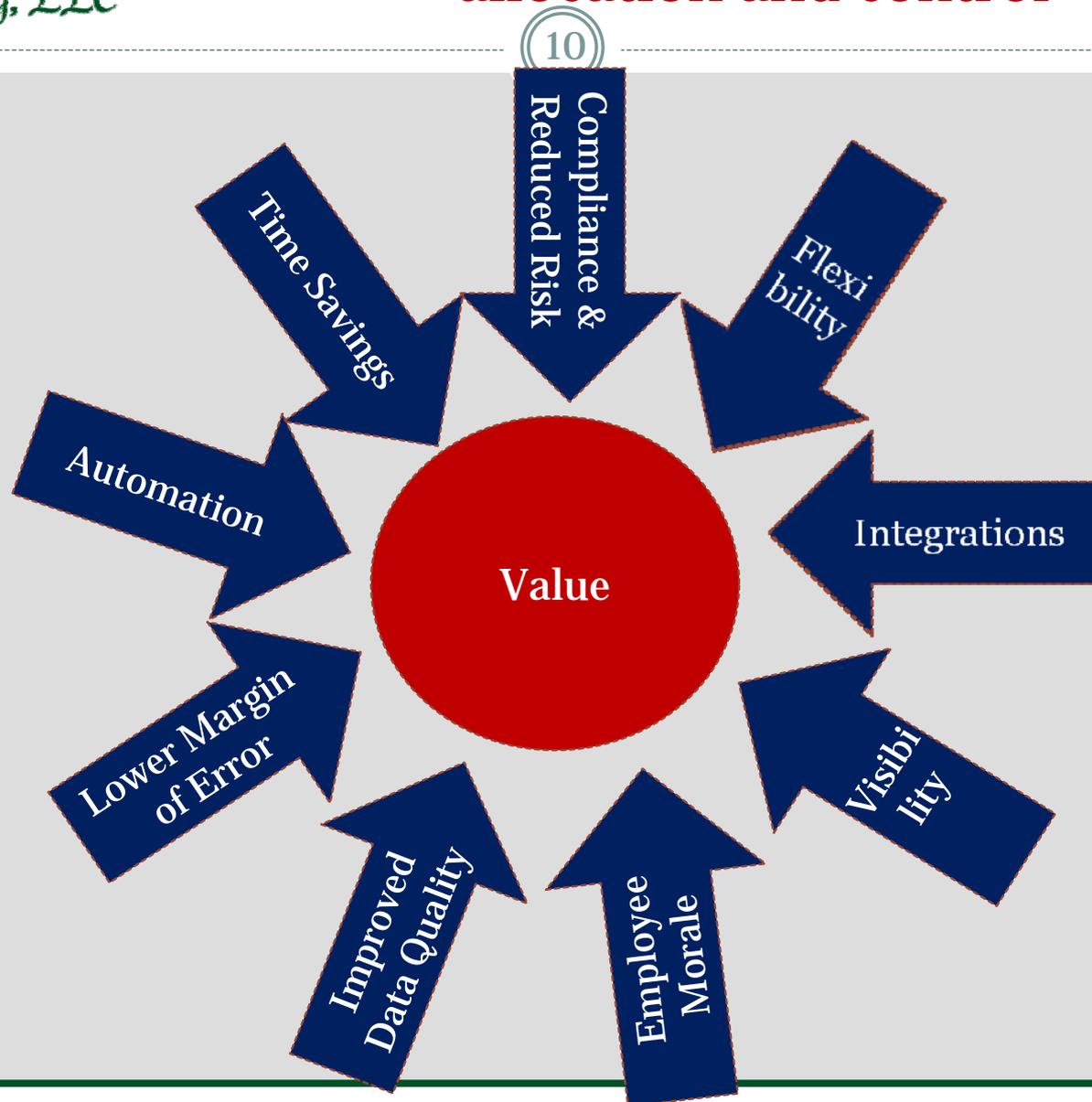
- Time or expenses are charged to grant
- Reconciliation required between grant and back office systems

# Grant Allocation Process

9



# The value of a BPM approach to grant allocation and control



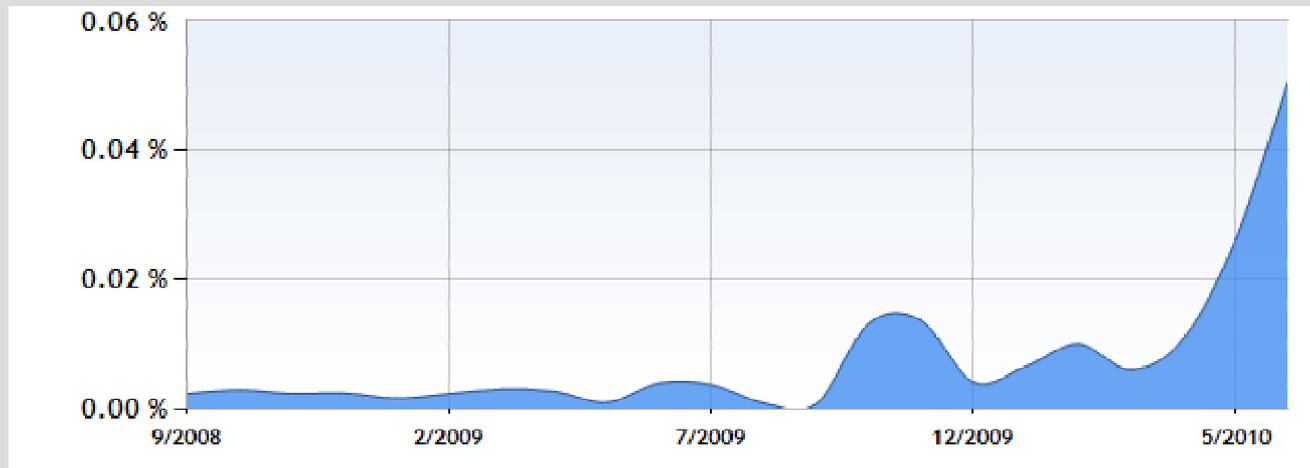
# Healthcare Hiring Trends

11

- “Over the prior 12 months, health care employment had increased by an average of 20,000 per month.”

Source: <http://www.bls.gov/news.release/empsit.nr0.htm>

- Healthcare jobs as a percentage of total jobs on the Internet:



Source: <http://www.careerbliss.com/trends/57013/healthcare-trends/jobs/>

- “Data from Staffing Industry Analysts showed the U.S. economy added 27,000 new healthcare jobs in March -- a 50 percent increase from the average monthly gain over the past 12 months.”

Source: <http://www.marketwire.com/press-release/Healthcare-Hiring-Scores-Big-in-Q1-1263844.htm>

# Employee On-boarding

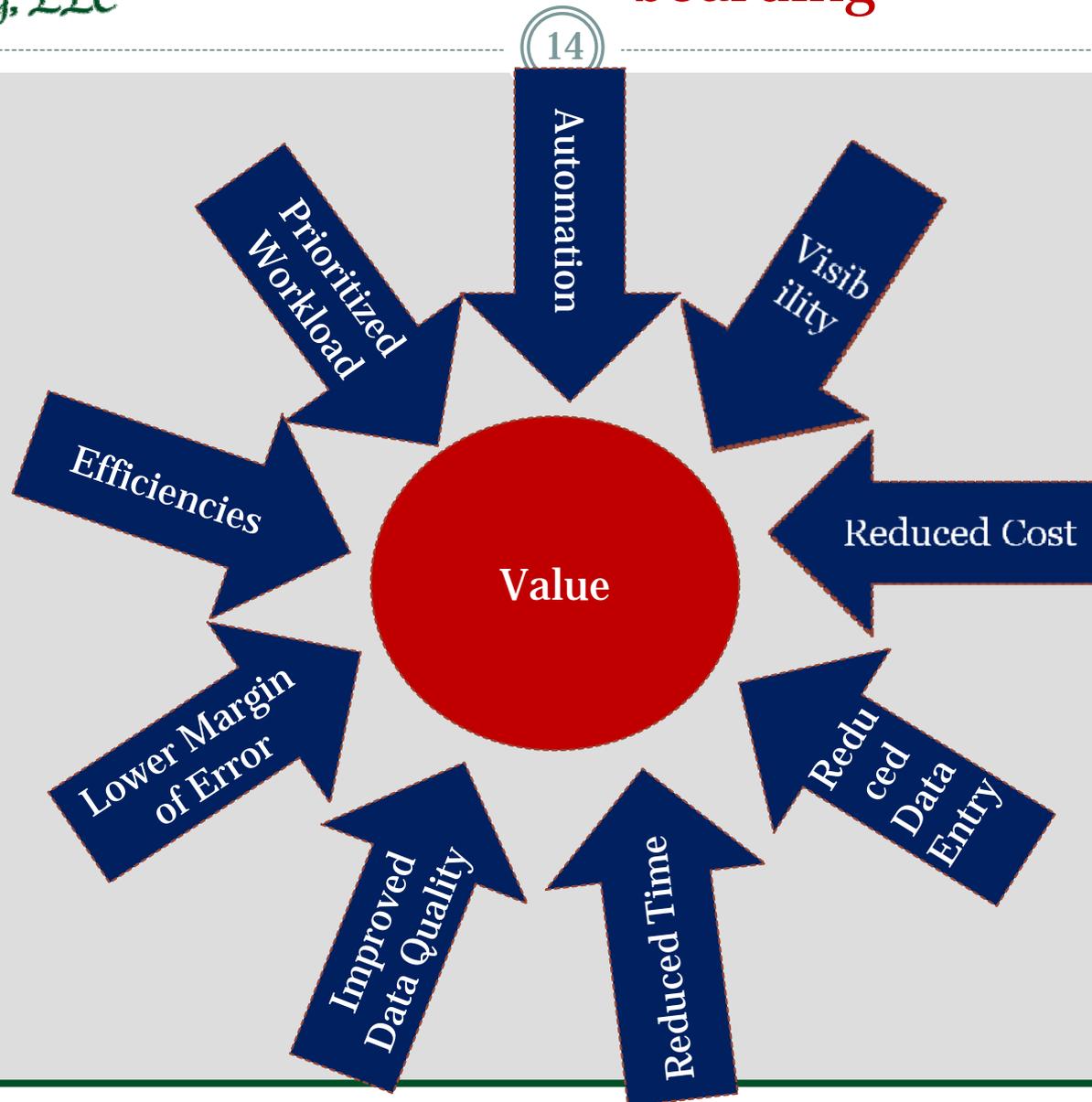
12

- Cost to Hire in Healthcare can range from \$276 - \$36,743\*
- Redundancy and increasing costs due to the inefficiencies of paper faxes, emails, legacy applications, and phone calls
- Disparate, diverse technologies and applications
  - ✦ Recruiting System
  - ✦ HR System
  - ✦ Payroll System
- Workflow done via email, desk to desk correspondence, manual
- Manual setup of employees on many various systems
- No visibility into the status of the on-boarding
- No way to track data throughout the process to ensure consistency
- Time to go through the entire process varied and was lengthy
- Opportunity to reduce cost, automate & streamline the process, leverage existing systems, resulting in cost and time savings

\*Source: <http://www.protectmasspatients.org/docs/Shocking%20Cost%20of%20RN%20Turnover.pdf>



# The value of a BPM to Employee On-boarding



# Patient Information Integration

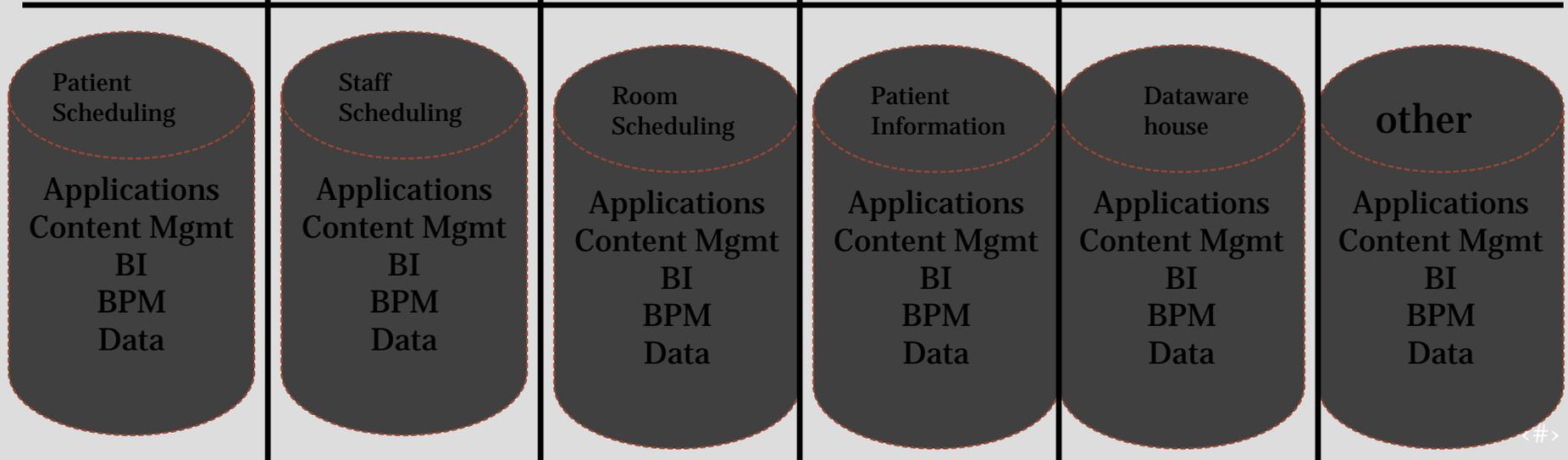
15

- Healthcare institutions have a multitude of patient information systems that are often disparate systems based on different technologies.
- BPM can also be used to integrate patient information systems with patient scheduling systems to reduce data entry and data redundancy resulting in cost and time savings.

# Silos of data and duplicate applications

16

Healthcare institutions have a multitude of patient information systems that are often disparate systems based on different technologies. The reality is that a healthcare organization needs to work across these silos of data, applications, technologies, and business processes in order to optimize efficiencies and create a successful operation.



# Patient Information Integration

17

- BPM creates a platform on which healthcare organizations can streamline and automate processes, ensure systems and people are talking to each other, and existing infrastructures are leveraged.
- ✓ **Remove inefficiencies** – reduce duplicate data entry.
- ✓ **Integration** – BPM platform can integrate disparate systems residing on different platforms, in different sections of the facility.
- ✓ **Visibility** – BPM can create a single view of the entire healthcare organization .
- ✓ **Reduced paper processing** – BPM has helped healthcare organizations to reduce paper-based processing from 4 days (with an 15% accuracy rate), down to an automated 40 second process, with a 97% accuracy rate.
- ✓ **Improved bottom line** – increased patient processing and maximum use of resources (rooms, staff, equipment) results in an improved bottom line.

# Selecting the right BPMS

18

- Considerations to selecting the right BPMS is critical to your project success
  - Does the BPMS give my organization visibility into the overall process? Does the BPMS give me visibility into the performance of my process?
  - Can the BPMS tell me how my process performance has improved?
  - How does the BPMS handle exceptions?
  - Does the BPMS support human centric processes?
  - How does the BPMS support document centric processes?
  - Is it case management that your organization is looking for?
  - How easily does the BPMS integrate with existing systems?
  - Is the BPMS hosted?
  - Does the BPMS provide management control?
  - Does the BPMS support an agile development methodology?
  - Can I find consultants knowledgeable in the BPMS?
  - How does the BPMS accommodate process change?
  - Does the BPMS support and embrace Social BPM?
  - How does the BPMS manage re-usable processes? How will it work within my BPC?



**Thank you**

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