Where Do Old Systems Go To Retire?

By Tony Paparella

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Where Do Old Systems Go To Retire?

Agenda:

- Frame the challenge
- Data life cycle
- Cases
- Data retention requirements
- Assessment of options
- Costs
- Chosen option
- Results

Where Do Old Systems Go To Retire?

Frame the Issue

- Legacy applications and hardware are expensive to maintain;
- Data is often “orphaned” when new production systems are brought on-line
- …Or may become inaccessible – no support or change of ownership
- The Challenge: How to retain access and function without the legacy systems

Where Do Old Systems Go To Retire?

What Is A Legacy System?

- Hardware and software ("out-of-production")
- Older systems
- Rarely an open architecture
- Sometimes poorly supported
- Normally high vendor support costs
- Usually big energy user
- Relatively big footprint in data center

Where Do Old Systems Go To Retire?

Where do old systems (applications & hardware) go to retire?

A) A nice home with other computers their same age, playing shuffleboard and backgammon?

B) Back with their families with little their desktop children and their little iPad grandchildren running around.

C) They usually stay right where they are.

Where Do Old Systems Go To Retire?

They stay right where they are.

Why?

- Access old data - “system of record”
- Respond to requests for information.
- Bill old accounts.
- Defend Audits
- Regulatory compliance.
- We love them too darn much

Where Do Old Systems Go To Retire?

How Long to Keep data?

General perception: keep patient data for 7 yrs.

In actuality, many different regulations, laws and guidelines range from 2 to 30 years, some examples:

- 5 – 10 years for Medicare, Medicaid and Commercial carriers
  - RAC Audits, MSP Audits, Commercial "take backs"
- HIPAA: 6 years for PHI requests & disclosures
- State Laws: 6 – 30 years, e.g.:
  - Massachusetts was 30 years
  - Pennsylvania 6 years
  - Mississippi: 10 years for adults, up to 28 years for Children
- Pediatric Care: up to 28 years (age 21 plus 7 years)

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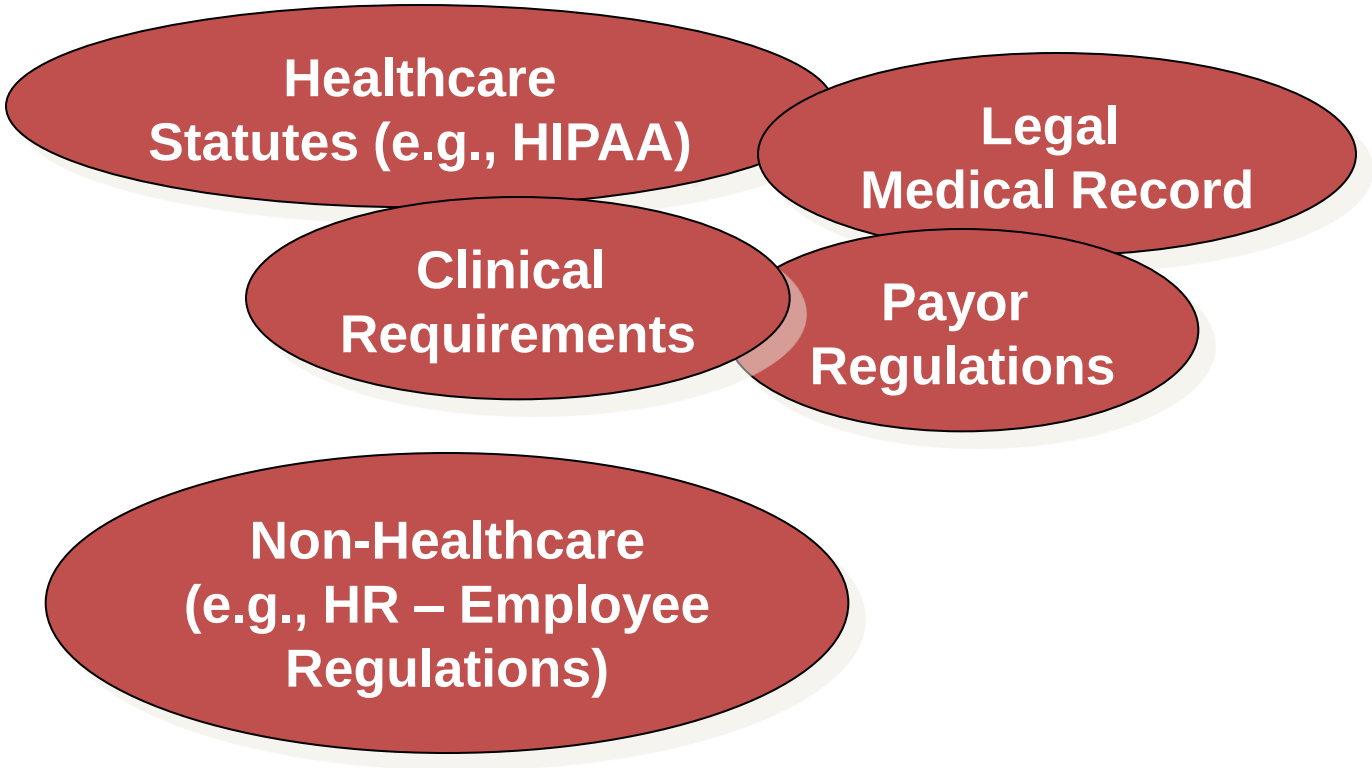
Data retention requirements come from:



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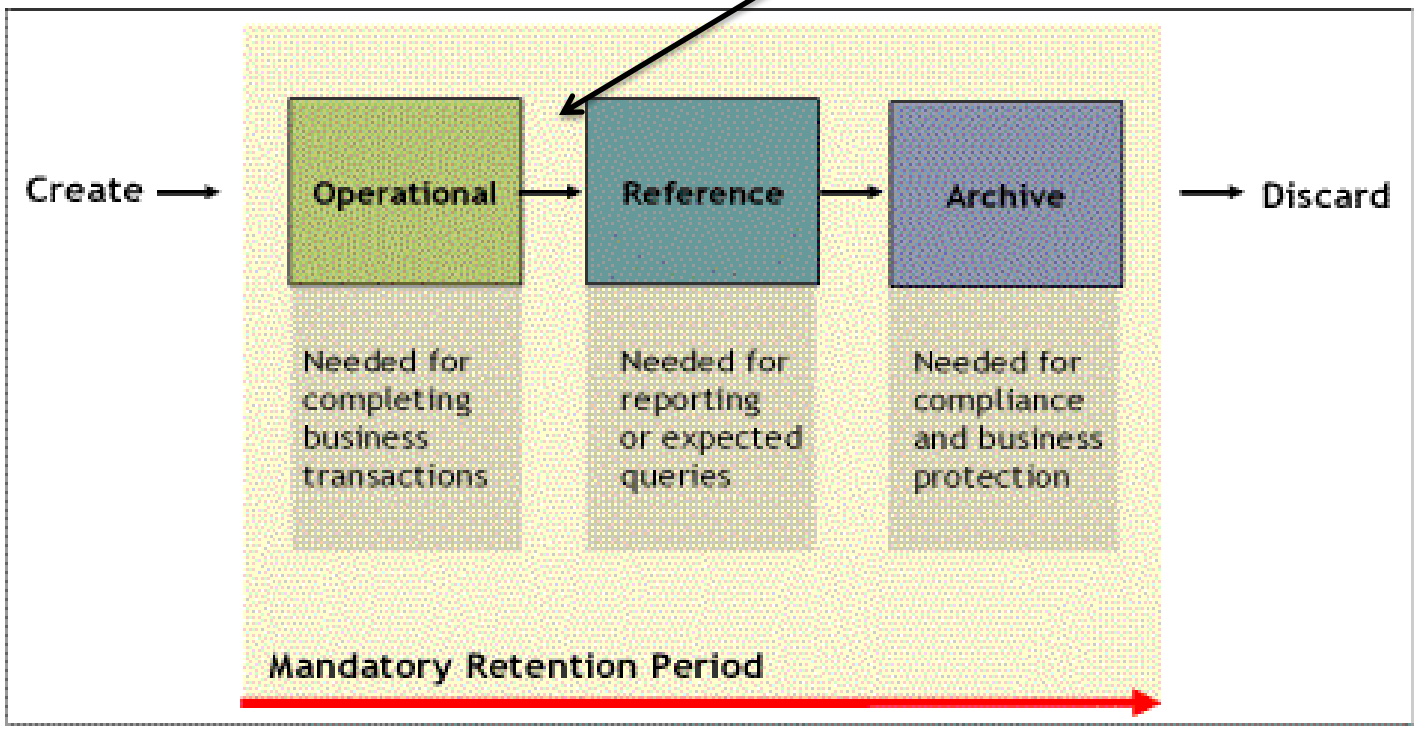
The Lifecycle of Data

Fourth Stage: This is where the old system becomes overkill.



Database Archiving for Long-Term Data Retention

http://www.tdan.com/view-articles/4591, accessed January 2010

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Case Studies

- Kettering Health Network, Dayton, OH
- Jewish Hospital - Mercy Health, Cincinnati, OH
- Marin General, Marin, CA

Where Do Old Systems Go To Retire?

Kettering Health Network, Dayton ,OH

- ***Profile:*** Eight-hospital system
- ***Background:***
  - Multi-stage implementation of new HIS
  - Multiple applications to be decommissioned
  - First project was for recently acquired facility
- ***Challenge:***
  - For first project, multiple applications for 1st hospital
  - Data not going to new HIS
  - "Active" accounts: Billing plus interfaces required (835, 837, DSS)
  - Link to new HIS required
  - Single repository for multiple applications for all facilities

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Marin General, CA

- ***Profile:*** Single facility, community hospital
- ***Background:***
  - Broke away from Sutter (large multi-hospital system)
  - Converted to Paragon & other systems
- ***Challenge:***
  - Most system were to remain with former parent organization
  - Eight different applications – P/A, clinical, ERP
  - Marin still needed to manage the old data
  - ROI (request for information), billing, compliance

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Jewish Hospital – Mercy Health, Cincinnati, OH

- ***Profile:*** Part of 21 hospital system
- ***Background:***
  - Joined Mercy Health
  - Old system belonged to former parent
  - Previous billing system: Centricity
  - Accounts still active
- ***Challenge:***
  - Billing performed by former CBO
  - Accounts still need worked, accounts needed a new home
  - Billing plus interfaces required (835, 837, DSS, etc.)

Assessing Costs

Some costs of <u>not</u> maintaining the data

- ***Revenue Costs:*** Cash Flow losses (the MOST costly)
  - Loss of detail & Loss of access to billing history = write-offs
  - Potential loss to audits and take-backs
- ***Compliance risks***
  - State & federal statutes for healthcare records
  - Payer requirements (Medicare, Medicaid, Commercial)
  - HIPAA
  - Federal penalties for EOE infractions
    - Age, race, gender
    - Hiring & termination practices
- ***Legal medical record*** – required for adequate lawsuit defense

Assessing Costs

Cost of Maintaining Legacy Systems:

- ***Out-of-Pocket Costs of Legacy System***
  - Software & hardware support fees
  - Consulting fees
- ***Internal Costs***
  - Staff time: IT, Business Office, HIM, others
  - Amount of resources x (salary + benefits) for duration of the conversion
- ***Opportunity and internal costs:***
  - Resources expended on out-of-production “clunkers” instead of new system

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Illustration of Cost Framework

250 to 400 bed facility, Medium Sized Financial System

Out-of-Pocket Costs of Maintaining Out-of-Production System

Vendor: Legacy HIS Support Fees……..$250,000/Year

Vendor: Hardware Support……$36,000/Year

Internal: Staff to Support Legacy System……$50,000/Year

Total Out-of-Pocket Costs……$336,000/Year

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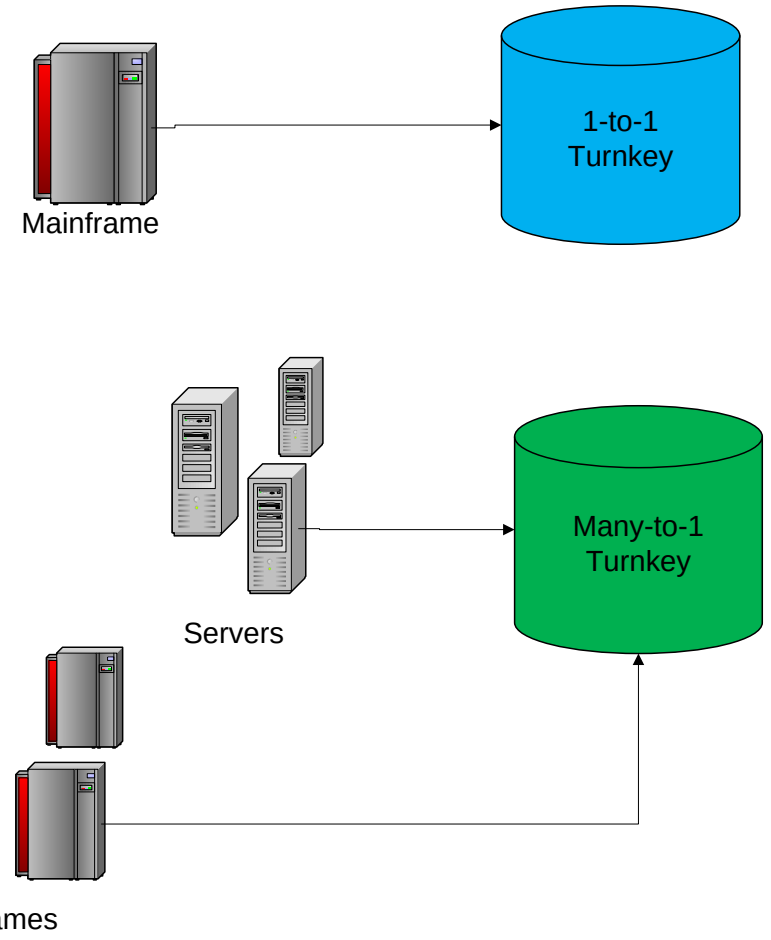
Choices – Legacy System Options?

- Do Nothing
  - Perpetuate the problem
- Try to "convert" data
- 1-to-1, Turnkey
- Many-to-1, Turnkey

What about?:

- **Data Marts**
- **Data Warehouses**
- **Optical disks**



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	Revenue & Cash Retention; Able to bill	*Data Retention Compliance*	*Audit Readiness*
Active (Live) Archive + Legacy	HIGH– *A/R worked in legacy for 4 mo.; data is only migrated to the Active Archive*	HIGH – *Data retained in its original format*	HIGH – *Data retained in its original format*
Full Detail Conversion	LOW– *Mistakes will affect new bills as well as old; HIGH if done perfectly*	HIGH – *If all data is moved to new HIS* LOW – *for partial conversions*	HIGH – *If all data is moved to new HIS* LOW – *for partial conversions*
Keep Legacy System	HIGH– *A/R worked in legacy*	HIGH – *Data retained in its original format;* LOW – *When it's retired*	HIGH – *Data retained in its original format;* LOW – *When it's retired*
Balance Forward	LOW– *No detail for follow-up; almost guaranteed revenue loss*	LOW – *Detail is lost, unless saved via an archive*	LOW – *Detail is lost, unless saved via an archive*

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Method Used:
Many-to-One "Active Archive"

- **Has rich GUI for direct access by end-users**
  - Patient Accounting
  - H/R
  - Easier to use than the old system
- **No silo's, single repository**
- **Allows A/R to be worked, data updated**
  - Payment posting, reporting and other functions
- Retains all data
- Open architecture
- Minimizes costs

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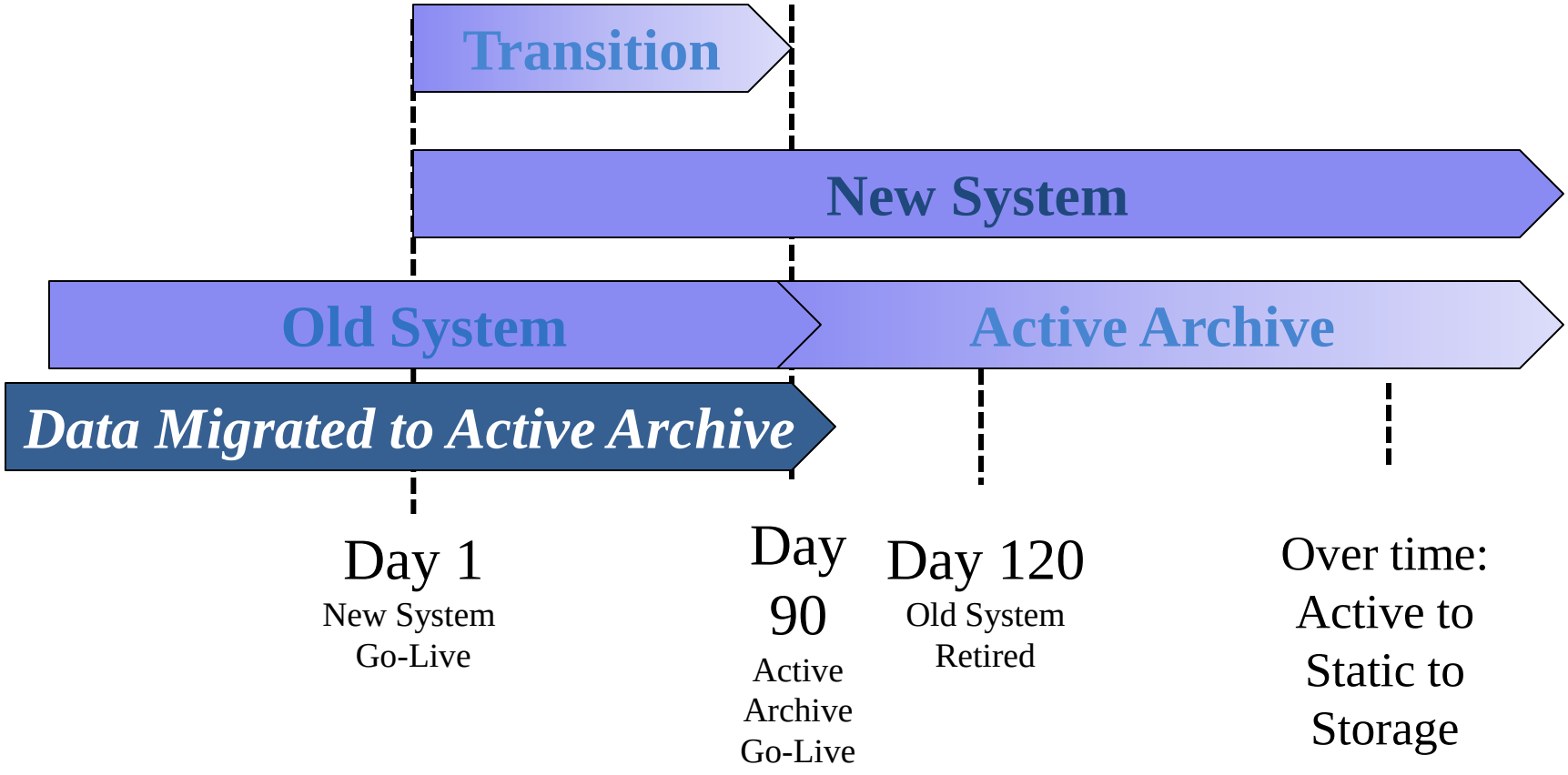
The Process



Migrating to an Active Archive

- Old system & data evaluated
  - Depth & breadth of data
  - Workflow requirements evaluated
- Data extracted from old system
  - Multiple methods
  - Hospital, vendor or consultant
- Loaded & tested in Active Archive

Who was Involved

- Business Unit Staff
  - Defined data sets & functions
- Hospital IT
- Hospital – Project manager
- Data extract resource
- Archive vendor

Keys to Success

- Understand timing & objectives
  - Review support contracts EARLY
  - Identify costs
- Planning
  - 3 to 6 Months to complete project
  - Involve the right people
- Secure complete & validated data set from retiring system
- Keep it centralized (avoid repetition of “silo’s”)

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Results

1. All data was retained
2. Users had real-time access
3. Billing functions continued
4. Cash-flow uninterrupted
5. Old systems were decommissioned
6. Costs reduced by as much as 80%

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Questions?

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