

Avoiding the Unforeseen Risks Associated with Legacy Clinical Systems

CURRENT STATE OF HOSPITAL AND HEALTH SYSTEMS MARKETPLACE



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Evolving regulatory and marketplace drivers are changing the way healthcare organizations price, package, and deliver their services, which makes now the most dynamic era in our industry's history. Healthcare organizations are undergoing shifts in business models and looking at new ways to compete against both larger and non-traditional competitors.

As operational costs rise at a rapid and unsustainable pace, healthcare organizations need to look at next-generation organizational structures and determine how to best leverage new technologies, while optimizing their existing investments. They also need to better understand their cost models and minimize operational spend.

Additionally, today's IT organizations face tremendous challenges to innovate.

1. Budgets are tied up in supporting existing applications and infrastructure, leaving little room to invest in new technologies to help grow the business.
2. Healthcare mergers and acquisitions have proliferated, and the resulting new organizations must maintain and operate multiple disparate systems.
3. Healthcare organizations have large amounts of data across many complex systems that need to be maintained, which raises operational costs and drains IT resources.

With application retirement as a managed service solution, data remains accessible and is managed according to your data governance standards. It enables you to decommission all associated hardware and software after retirement, eliminates maintenance costs associated with these outdated systems—including the ever-escalating cost of scarce application experts. As a result, this deployment solution can help your organization allocate more of its budget toward re-investment and business growth.

As healthcare leadership embraces the cloud and data center consolidation, they still need to reduce the amount of data in various production environments, while simultaneously allowing access to the production data for various internal business constituents. The high-level financial benefit of utilizing a strategy of application retirement involves changing the purchase and acquisition process from a traditional capital expenditure approach (CAPEX) to a more desirable and flexible operating expenditures (OPEX) approach.

The Complexity Associated with Legacy Systems

Today's rapidly evolving healthcare IT environments are often further stressed by the need to address legacy clinical systems that are a result from acquisitions, divestitures and the ongoing need to consolidate nonstrategic clinical systems. All of these scenarios create a dilemma related to the critical decisions facing an organization. Where do they begin and what are the best options for legacy systems? Other considerations must be made on how to best meet the needs of clinical teams relying on historical data, the requirement to support existing operational processes, and compliance with data governance requirements. This white paper adds clarity to the decision making process for legacy clinical systems and guides organizations to avoid the risks associated with not having a definitive plan in place.

The key areas this white paper will address are:

1. **Environment** – *Existing clinical systems within your organization*
2. **Cost** – *The financial impact of maintaining legacy systems*
3. **Security, Compliance and Stability** – *Risk associated with legacy systems*
4. **Productivity** – *Workflow and operational efficiency*

The successful outcome of embracing effective legacy system retirement is reduced costs, more efficient workflow and less risk for Protected Health Information (PHI).

Existing Environment

For many healthcare organizations, clinical data lives in a myriad of disparate systems which are often no longer the official system of record. The typical default response is to do nothing and have these systems run until end of life or until all need for the respective data has expired. Further, IT departments are typically over committed and under resourced. They don't want to undertake a data migration project for systems where there are large resourcing needs compounded with little technical experience. Everyone knows of horror stories for these types of projects that run over budget, were never completed, caused a new set of problems that then needed to be solved, or completely missed the ROI originally associated with project.

It is essential to fully understand the legacy systems in existence and how they are being utilized across the entire organization. It is imperative to complete a discovery for each legacy system and the associated data to address specific detail, develop it into a comprehensive plan, and obtain sign-off by all the respective owners/users. Each system must have identification of a specific software version, the amount and age of the contained data, the specific document types and how and for what purpose it is being accessed across the organization.

By 2019, without rationalization, 30% of the healthcare delivery organization's current application portfolio will no longer satisfy the needs of the business.

Healthcare applications will be the principle driver of data growth, with EHR penetration in the U.S. expected to reach 95% by 2020

– HealthcareITNews



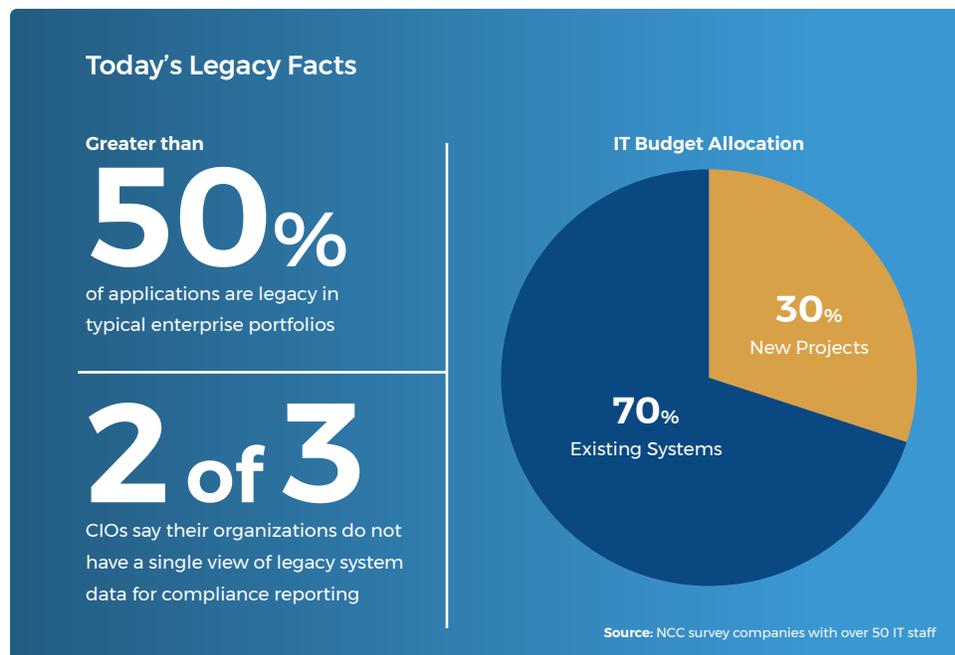
On a fundamental basis, organizations need to effectively access comprehensive patient data to meet regulatory requirements, fulfill release of information requests, and make available clinical information on patient medical history to maintain continuity of care.

*It's estimated that 50% of health systems are projected to be on second-generation technology by 2020**

– IDC technologies

The Data Predicament

The internal data migration and aggregation processes can be complex and require significant time and resources to ensure a smooth transition into a fully working consolidated platform. This assumes that the necessary expertise exists and can be made available. If support is unavailable or insufficient, the organization runs the risk of project delays. Given clinical and medical legal impacts, this forces organizations to spend even more money to resolve these issues. In addition, it's expensive to train IT teams to effectively maintain legacy systems.



Cost

Supporting legacy systems is a resource-intensive process with hidden costs that can challenge an IT budget. In order to properly maintain legacy systems, large investments need to be budgeted per system for licensing and application software support, as well as server and other environmental expenses. Additionally, many systems require a per user or costly month to month fees to access and query the data which is always fluid and difficult to budget.

75-90% of IT budget goes towards maintaining IT systems environment.

Downtime

Outdated legacy systems are prone to issues, which require periodic downtime for maintenance and bug fixes – if they are available. This downtime can impact the hospital's bottom line as well as have medical and legal ramifications. Maintenance takes systems and their data offline, causing slowdowns in workflow and potentially impacting patient care delivery. Downtime requires significant IT support to complete, which diverts attention from other important and time-sensitive projects. If IT support is unavailable, it can wind up costing hospitals millions of dollars.

A study conducted in 2015 by IHS on the costs of technology downtime for mid-size to large-size companies found that downtime of servers, applications, and networks combined resulted in an average of \$1 million/year lost for mid-size firms, with almost \$60 million/year in costs for large enterprises

Workflow and Operational Efficiency

Healthcare providers spend valuable time searching throughout multiple systems to find the right data. Lack of accurate and accessible patient data in a single location can lead to unforeseen adverse events and gaps, which place the organization and patients at risk. Healthcare organizations must be able to access patient records quickly and have it in one consolidated view. Old and antiquated systems prevent this from happening. Workflow considerations should include the following:

1. Authorized access
2. Information required
3. Extracting required information

Security and Compliance

Outdated legacy systems are not typically in compliance with the new regulatory requirements and security standards. These non-compliant systems can pose a tremendous medical-legal risk. Outdated legacy systems are prone to malware, which can lead to data breaches that put Protected Health Information (PHI) in the wrong hands. The older the legacy system, the higher the risk of loss or corruption of data, making it unusable and unrecoverable. Some systems are so fragile, fear of taking them down for any reason is compounded by the reality they may not come back up. Many older systems are not designed to provide the audit reporting necessary to conform to organizational compliance and governance bylaws.

Healthcare providers are required to have years worth of patient data and varying components based upon state requirements, etc.

Did you know: Legacy systems rank #1 among Federal execs' top cybersecurity challenges
- 2017 Federal CIO Survey, September 2017

Knowledge is Power

Decommissioning legacy systems saves significant time and cost. It eliminates the need to maintain old systems, pay maintenance and user fees, etc. It achieves a return on investment (ROI) by investing in a resource with the experience and expertise to cost-effectively decommission the systems and migrate and archive data. This can be documents and/or discrete data with some portion potentially imported into the new EHR environment.

When organizations contract with an expert resource, they can be assured of two important things. First, the data archival will meet mandated retention and compliance requirements. Second, patient data will be widely available in one location, making it easily accessible and consistent for clinicians to better understand their patient's needs. When aggregated data is stored in a single location, it provides an overall consistency and efficiency to the organization. Data archival increases operational efficiency and significantly reduces downtime, costs and liability issues. Choose a vendor that understands the risks involved and the best approaches needed to successfully complete the archival process.

Takeaway

Steps to Successfully Streamline Healthcare Legacy Data Management:



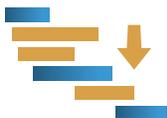
1. Assess – Conduct a comprehensive assessment of your current clinical application environment (systems and utilization) in order to identify needs and work toward a optimal future environment



2. Benchmark – Establish a baseline in order to measure ROI across cost savings, security compliance risk, system data accessibility, quality of data, etc.



3. Solve – Vet solution providers to ensure the right technology and processes are selected



4. Plan – Create a detailed roadmap that outlines resources, timelines, costs and success criteria associated with the project phases then execute toward completion

Trinisys ClearView provides a unique product solution for securely archiving and accessing historical data, allowing for the effective retirement of individual or multiple legacy systems. With Clearview, you know your cost upfront - no surprises or hidden fees. We provide clients with significant financial savings by eliminating all associated costs: maintenance, infrastructure to support old system and employee costs to track down historical patient data. ClearView's implementation approach means no downtime and a faster timeline than other archiving solutions. Our team delivers on any size project, having moved millions of documents for some of the largest health systems in the country. ClearView offers full audit capabilities and documents all transactions and reports by showing the date and who viewed the data. We can even import these results into existing security applications. All security and compliance standards are met with ClearView. The ClearView solution delivers comprehensive data in one accessible system that is customizable to your requirements. One of our many features allows you the ability to store all data in industry standard and portable format (all your data is stored as PDFs or can be presented as discrete data).

ClearView software is offered as either a SaaS/cloud-based or hosted on site - your choice. By always being one step ahead and positioned for the future, we can ensure your organization remains equipped to respond to changing technology environments.

Key Challenges ClearView solves:



Significant maintenance and support costs for legacy systems



Lack of timely, at-your-fingertips access to complete historical patient records



Productivity and staffing issues related to the arduous task of manually retrieving data for release of information requests



Data silos or inability to aggregate disparate data for effective use in patient care and analytics



Risk to PHI associated with poor security on non-compliant legacy systems



Quality and completeness of historical record information made available

Success Story

A national health company was faced with the issue of having data stored in a multitude of legacy EHR systems. Using the ClearView solution, Trinisys was able to consolidate more than 42 million documents in just two months onto a single sign-on portal. ClearView helped this organization save \$20 million in annual maintenance costs and increase the overall Health Information Management productivity for release of information by an estimated 60%.

Conclusion

With application retirement as a SaaS/Cloud managed service based solution through our partnership with Amazon Web Services, Trinisys enables healthcare organizations with a comprehensive approach to application retirement. Trinisys ClearView provides a common, centralized store for archival content and long-term retention. It also enables organizations to reduce expenses through a fixed pricing agreement and minimizes the risks of obsolescence and noncompliance by taking a managed service approach to application retirement. This solution becomes easily extendable by delivering repeatable value that aligns process and people with an SLA-based technology deployment approach.

Trinisys ClearView Managed Services is a turnkey solution that enables you to:

- Reduce costs and risks, safely and efficiently
- Rationalize application portfolios by moving legacy data into modernized infrastructures
- Consolidate data across numerous legacy applications into a single archive
- Maintain secure access to retired data for physician-needed queries and Healthcare Information Management releases
- Automate the enforcement of data retention, data disposal, and legal holds

Benefits

- Improve patient care by consolidation legacy applications in a secure, unified accessible archive.
- Eliminate hardware/software cost by archiving disparate legacy applications.
- Mitigate risk that comes with maintaining health records across a myriad of legacy systems.
- Improve clinical reporting and analytics across systems by eliminating redundant systems.
- Facilitate HIPAA patient privacy and compliance audits across legacy data sources



About Trinisis

Trinisis is a leading provider of enterprise data migration, integration and web application solutions for the healthcare industry. We convert, connect and combine data to automate manual processes, extend existing systems and develop web solutions that improve processes and optimize resources. Our success is based on the company's philosophy and work culture that drives continuous innovation of quality software that addresses real business challenges. Trinisis connects systems to systems and people to systems.



For more information about Trinisis and its products, please visit www.trinisis.com.