

Best Practices for Technology Renewal in Banking Institutions

Mitigating Risk, Lowering TCO and Enabling
Technology Advancement through Disciplined
Lifecycle Planning



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Introduction

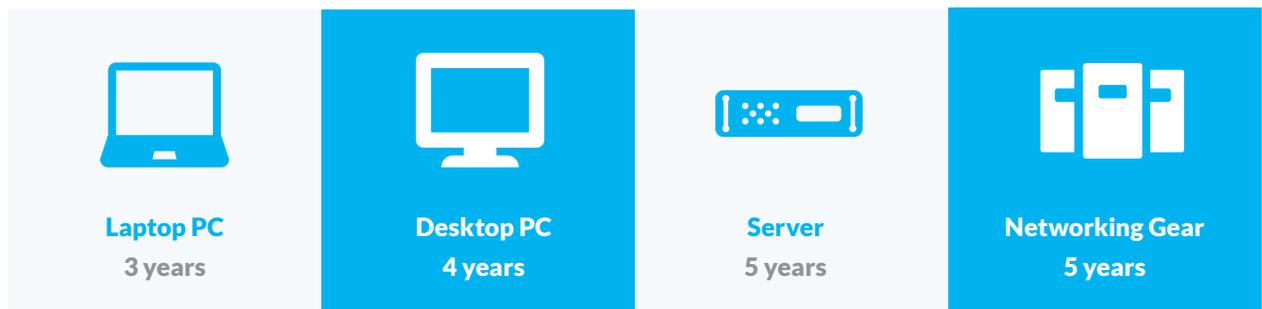
There are tens of thousands of bank branches and financial services locations throughout the world and the business of banking is constantly changing. It combines elements of high-end commercial services with a front-line retailing component, mobile capabilities and remote sites. A single large bank might have thousands of locations, even more ATM sites, while a small credit union may have six sites across a particular geographic region. No matter the size or scope of an organization, each business faces a variety of unique security and risk challenges.

Digital video technology emerged in the late 1970s/early 1980s when analog technology was first introduced and quickly became popular with banks across the world. Corporate security departments were charged with managing these systems, which often had a lifecycle of 7 to 10 years, and found them to be a key part of its fraud, security and investigation processes.

Today, organizations have many more options in regards to the technology solutions available today and this alone can make technology renewal daunting. As digital video surveillance has replaced analog technology in nearly every financial institution across North America, corporate security professionals are incorporating a more disciplined approach to technology renewal. Lifecycle management now parallels the broader IT asset management practices of an organization, allowing security leaders at financial organizations to keep pace with new and emerging technology, while optimizing the total cost of ownership of video surveillance deployments.

In this document, we take a closer look at how financial organization can best approach the lifecycle planning of its surveillance technology and outline the foundational thinking necessary to support technology renewal planning.

AVERAGE LIFE CYCLE OF COMMON HARDWARE

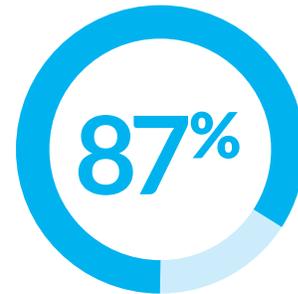


Best Practices in Information Technology

IT professionals generally follow standard guidelines for technology renewal based upon the average life expectancy of various types of computing equipment. Additionally, a number of leading technology consulting firms have outlined the need for well-planned technology refresh programs every 3 to 5 years.



The Yankee Group, an independent technology research and consulting firm, observed that the **industry standard lifespan of network equipment is three to five years.**



According to Forrester Research, in a poll of 441 organizations with more than 100 employees, **87 percent of organizations refresh performance network equipment within four years.**



Gartner Inc., an information technology research and advisory firm, suggests that **the optimal timeline for a technology refresh lies between three and one-half to four and one-half years.**



International Data Corporation, a market research, analysis and advisory firm, reports that **businesses should establish three-year product lifecycles.** Dynamic management models demonstrate lower average deployment and retirement costs as a benefit to meeting these product lifecycle parameters.

“Pulling the plug on old hardware: Life-cycle management explained,”

—Computer World, April 22, 2010, Cara Garretson

The Evolution of Verint Digital Video Recorder Platforms

As a leader in the market, Verint Systems has identified new ways to perfect video intelligence solutions to better serve financial organizations. Verint Systems continues to improve technology solutions available to ensure ease-of-use, customer and employee safety, and asset protection. The graph below shows the various Verint digital recording solutions used most commonly by today's leading financial organizations.

PLATFORM SERIES	DATE OF INTRODUCTION	END OF SALES
RVC 1025	1999	2001
NetDVR	2001	2005
NetDVRII	2005	2009
EdgeVR200	2009	2012
EdgeVR200A	2012	2013
EdgeVR300	2013	Currently Available



Drivers Affecting Technology Renewal

In today's evolving risk environment, financial organizations face a wide variety of threats and business challenges including balancing capital expenditures, managing enterprise and brand risks and keeping abreast of advancements in technology solutions. Although risk mitigation is often the key driver to considering new solutions, it is often an overlooked component of budget planning. This fact can stall the upgrade process when needed, which can lead to greater vulnerability. Financial leaders need to plan proactively for technology renewals to ensure the entire organization is protected, and ready to meet customer needs and business challenges. Below we look at the reasons a proactive approach is necessary.

Risk, reliability and repair

Video surveillance is a critical component of a financial organization's infrastructure and enterprise risk management program. Financial institutions can also be exposed to penalties by auditing agencies for failure to provide reliable surveillance. In high-risk locations, such as cash vaults and lock boxes, businesses may be required to close if video surveillance is not operational. When a system is not fully operational, organizations can be exposed to a wide variety of risks, including liability.

Digital video recorders, unlike desktop PCs and laptops, operate 24/7/365. As these devices age, there is an increased likelihood of hard disk failure. Charges for repair, on-site technician fees and replacement costs can be expected, increasing the overall total cost of ownership.

Loss of availability of key components in legacy platforms

Key components of digital video recording platforms can be replaced or become unavailable as companies enhance technologies and add new capabilities.

The first generation of digital video recorders used PATA hard disks. Drive manufacturers migrated to SATA hard disks and within two years of the migration, PATA hard disks were no longer available.

Digital signal processors (DSPs) compress video streams for efficient transmission and storage. Recently, one of the largest semiconductor suppliers of DSPs left the market, requiring manufacturers and end users to seek out other options.

Faster processors at equal or lower cost

The evolution of faster processors at equal or lower cost enables manufacturers to take advantage of emerging complimentary technologies that will add value and reduce the total cost of ownership. Over the course of Verint's product evolution, for example, new developments emerged that offer tremendous benefit to Verint customers, leading to new technology developments.

Security vulnerabilities in legacy platforms

Cyber threats against banking institutions pose a tremendous risk. Verint is diligent in analyzing how discovered vulnerabilities may affect its customers and is quick to provide corrective firmware to address such vulnerabilities. Recent examples include the Heart bleed, Shellshock, Poodle and Ghost vulnerabilities that impacted Linux operating systems. These vulnerabilities were easily addressed through system updates. Once legacy platforms are no longer supported however, code modifications to those platforms may cease, making response to known threats more difficult.

Capability to support new hard disk technologies with higher storage capacities

Since Verint first began supplying digital video recorders, hard disk sizes have grown from 8GB to 10TB. As drive size expanded, the desire to increase frame rate, video retention rates and resolution has grown with it. Additionally, not only has the electronic interface to hard drives changed (conversion from PATA to SATA), but the file structure to support larger drives has changed making it difficult to use the current drive sizes on legacy platforms.

Support for new generations of IP cameras and higher camera counts per recorder

As the industry has embraced IP cameras, which provide improved image quality and new efficiencies in storage and network transmission, video resolution and compression standards have changed. The migration to IP cameras has also led to an increase in the camera counts supported by recording platforms. These improvements require increased processing power, added memory requirements and robust performance. A legacy platform can minimize the ability to take hold of the benefits of IP technologies.

Support for emerging technologies

Recently, there is an increased interest in video analytics in the banking sector. These technologies include license plate recognition, face capture and video business intelligence analytics. For these technologies to run successfully, there must be a sufficient amount of computing power to support these systems. Legacy platforms may not be able to support these advancements and therefore, limit the ability to offer new solutions to the changing business needs within a financial institution.

Conclusion: Technology Renewal Mitigates Risk, Lowers TCO and Enables Technology Advancement

As the banking industry increasingly migrates to IP surveillance solutions, corporate security organizations look to deliver added value to their digital video investment. Many organizations seek to integrate new technologies with existing equipment while others look to expand the stakeholder audience within the institution by demonstrating how surveillance can help reduce fraud and risk, ensure compliance and boost business intelligence. Both approaches can help increase the overall return on investment and improve the contributive value to the organization as a whole.

Verint has witnessed a spectrum of strategies for technology renewal. Some organizations employ a break-fix strategy while other businesses are forced to adopt a reactionary posture to technology renewal as components become unavailable, support is suspended or an existing supplier leaves the marketplace. Technology replacement in some financial institutions is based solely on capital depreciation guidance; however capital depreciation alone may not put the institution on the best possible footing to stay abreast of a rapidly changing technology ecosystem.

For corporate security professionals to successfully mitigate risk, it is important to take advantage of new and emerging technologies, which increase return-on-investment. Security professionals must also incorporate technology renewal strategies, typically ranging from 4 to 5 years, to maximize the benefits of technology investments. Institutions can then realize several operational benefits:

- **A reduction in the number of system failures and corrective lead times.**
- **Reduced impact to the organization or facility because of loss of surveillance.**
- **Reduction in the frequency of stored video loss.**
- **Reduction in the complexity of video deployment management through greater platform uniformity.**
- **The ability to take advantage of new and emerging technologies.**
- **The ability to reduce exposure to network vulnerabilities and IT support audits associated with end-of-life devices.**
- **Lower training costs and more unified user experience through the elimination of disparate system platforms.**

Verint Systems provides a comprehensive, end-to-end video surveillance solution for the financial market, incorporating intelligent edge devices, embedded DVRs, and business and situational awareness solutions. Integrated security analytics simplify administration of video system feeds and expedite investigations. Powerful notification and response combine with real-time analytics to offer a proactive approach to security—lowering overall management costs. Verint's scalable, actionable technologies lower total cost of ownership and ease of operation in an intelligent video and situation awareness suite. It puts video and operator response in an easy to interpret package, and enables proactive and timely response.