

EXECUTIVE INSIGHT

The High Cost of Technical Debt

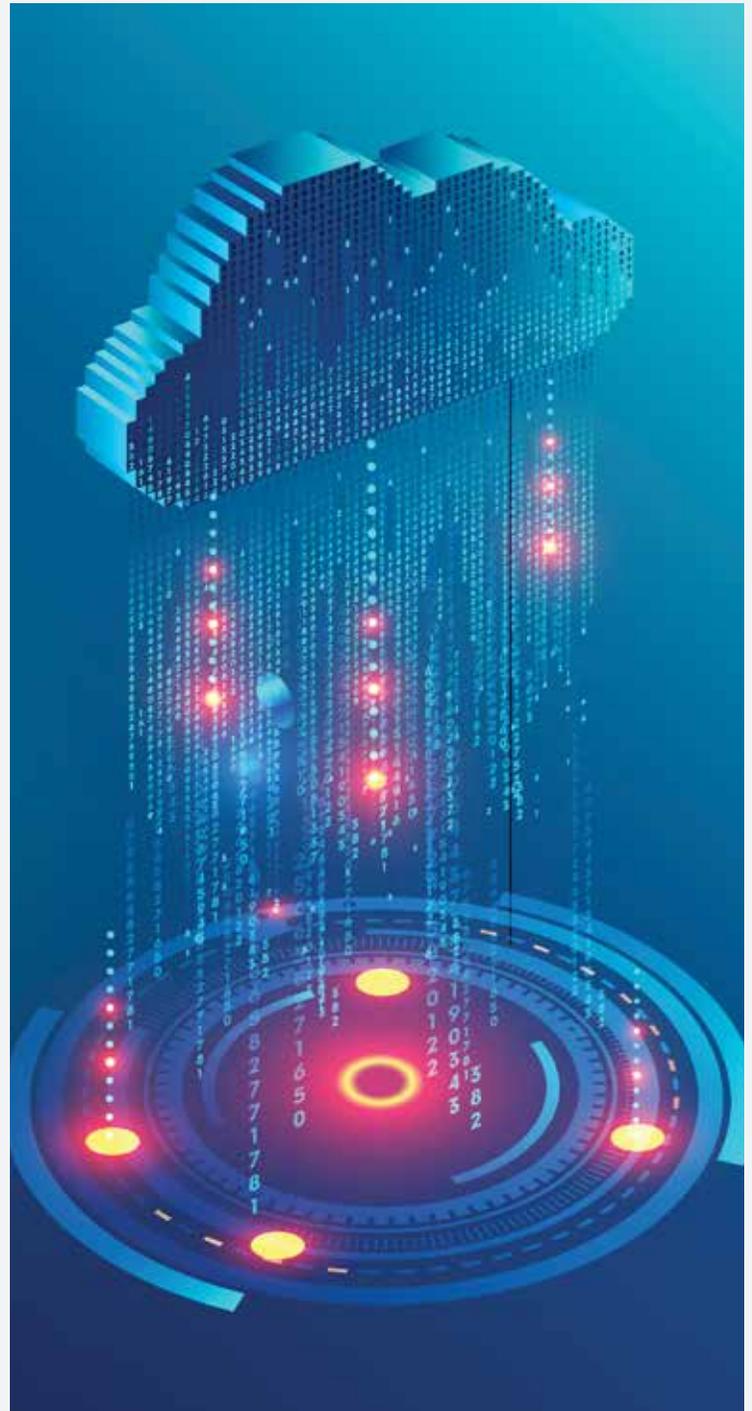
Every company has technical debt. Technical debt is comprised of the costs that are accumulated over time for not making the necessary investments to keep up with technology. Technical debt can come in many forms from lack of technology planning and improper implementation or training for new software, to process workarounds or delays in upgrades and computer renewals.

The bad news is that technical debt must be repaid at some point; the longer it goes unaddressed, the more likely it will lead to more significant business risks or consequences. The good news is that once the debt is repaid, a thoughtful governance structure, roadmap, architecture, process orientation, documentation and training can minimize technical debt moving forward. In addition, there are standards and technologies available that can significantly reduce the potential for technical debt in the future.

What Does Technical Debt Look Like?

There are two common examples of accumulated technical debt that affect the majority of small to medium-sized organizations. The first is poor deployment of a legacy software platform without proper training or ongoing support for users of the system. These systems require constant care and management until they are transitioned to a software as a service platform where they are not dependent on new release cycles or upgrades to remain current.

The second area of accumulated technical debt occurs with legacy hardware systems that are running on earlier release operating systems that can create performance problems and security vulnerabilities. In many cases, these issues are amplified by poor deployments, workarounds, and users failing to use the system the way it was designed.



Do I Have Technical Debt?

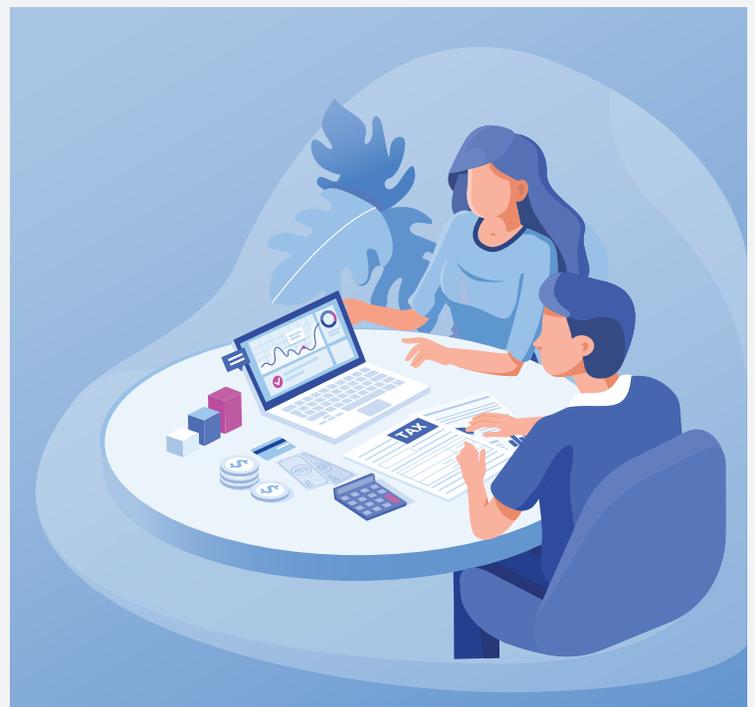
As a starting point for assessing your current accumulated technical debt, answer the following questions:

- Does my company have a Technology Steering Committee that regularly meets to align business strategy with technology priorities through a documented roadmap and budget process?
- Does my company have an enterprise architecture including network in place and a process for integrating new technologies into the architecture?
- Does my company have a formal process for new software selection, implementation, training and deployment?
- Does my company use your enterprise software according to the processes in which they were designed without workarounds or customizations?
- Does my company consistently invest in new releases, upgrades and renewals of software and hardware or have you migrated to cloud technologies?
- Do I have technology policies and standards in place for security, storage, upgrades and renewals?
- Do I have change control processes in place including documentation?
- Do I have formal processes in place for onboarding and offboarding employees and their technology?
- Do I have a documented disaster recovery and business continuity plan in place?

If your answer to any of these questions is “no” then you have some degree of technical debt that will ultimately have to be paid off at some point in the future. The earlier you address these issues and chart a path forward, the lower the long-term costs to your business will be. You also have to consider establishing sponsorship, setting the appropriate culture and creating a technology framework for achieving success.

Leadership Sponsorship:

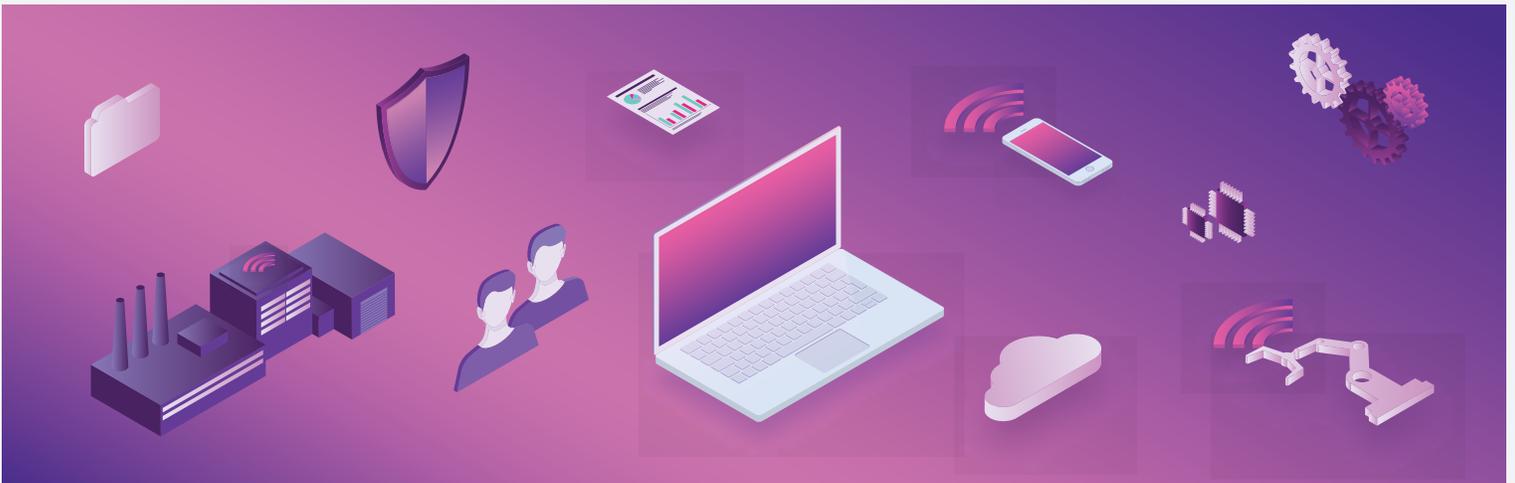
Getting out of technical debt and minimizing future debt takes investment and leadership. Many business leaders do not understand technology and believe it should be delegated within the organization in many cases to a non-technical individual or a technical individual without a business perspective. Because technology is becoming more and more entrenched in every aspect of business, alignment with



strategy and sponsorship from the highest levels in the organization is required in order to be successful. Leaders need to make sure that the technology roadmap is aligned with the business strategy and that the technology initiatives have a “seat at the table” in strategic discussions. This could be a senior operational leader or ideally a CIO-type individual that can represent the technology implications to strategic decisions and introduce new technologies that could have a positive impact on business strategy.

Cultural Integration:

Optimizing technology investments with business results takes partnership. Your company needs a combination of mutual empathy and understanding between the business and IT. The business and business leaders need to have an appreciation of the challenges associated with accumulating technical debt and the costs. In addition, business leaders need to understand the importance of having a cohesive architecture particularly given the advent of Software as a Service and prioritization around technology initiatives. In turn, technologists need to understand the challenges of achieving business results and the implications to the business when there is downtime or issues go unresolved. The best way to achieve this partnership is through a well-structured Technology Steering Committee and a technology leader that has earned the respect of the organization, has application knowledge, understands the business and can translate technology issues into business terms.



Systems Approach:

As a result of this partnership between the business and IT, there needs to be an awareness that technology is not designed to conform to the unique processes of each and every organization and that each and every organization does not have to fully conform to the way in which the system was designed. The ability to leverage the systems for the purpose in which they are designed in conjunction with the internal and external processes that have grown organically within an organization over time takes a balance between both worlds. The more one drives the other, the greater the technical debt tends to be.

For example, the more that the organization creates workarounds with the systems being used, the greater the technical debt in terms of customizations or lack of productivity resulting from these practices. A systems approach aligns systems and processes as much as possible and leverages systems and tools to handle the fringes on the core processes of the business.

The second aspect of a systems approach is to maintain the underlying systems across a scalable and reliable architecture. The evolution of cloud infrastructure and the use of software as a service (SaaS) has greatly simplified this notion and given organizations more resources to focus on application support rather than the constant maintenance of system upgrades and new releases. Any on-premise or co-location infrastructure will require ongoing capital expenditures and care and feeding for as long as that strategy is deployed versus the “utility computing” strategy afforded by cloud computing where you pay for what you use while being assured you are always subscribed to an evergreen infrastructure.

Process Discipline:

It is impossible to embrace a systems approach without a strong process discipline. As mentioned earlier, almost every technology system has been designed to support core business processes typically within a particular industry or business function based on use cases or standard business processes. Any deviation from these design purposes or lack of alignment can lead to manual workarounds or customizations that can result in a host of technical debt issues as an organization continues to evolve and change.

One needs to understand the business processes supported, including design specifications in conjunction with documenting your current business processes including use cases. This puts you in the best position to discover process gaps and develop strategies that best align technology systems with internal business processes without allowing workarounds.

Without a holistic approach to technology, including hardware, software networking and the underlying business processes aligned with strategy, there will inevitably be technical debt. The longer this fragmented approach is allowed to develop, the larger the investment will have to be in order to overcome it.

The good news is that there are technologies that can minimize these costs and, through thoughtful planning, eliminate the accumulation of debt in the future. It is critical for leaders to address the issue of technical debt as it prohibits your organization from investing in more strategic projects that can drive customer value, revenue growth, differentiation and competitive advantage in the marketplace. By engaging with a proven provider that has expertise in emerging cloud technologies, your company can assess its issues around technical debt and develop a cost-effective solution to move forward.

