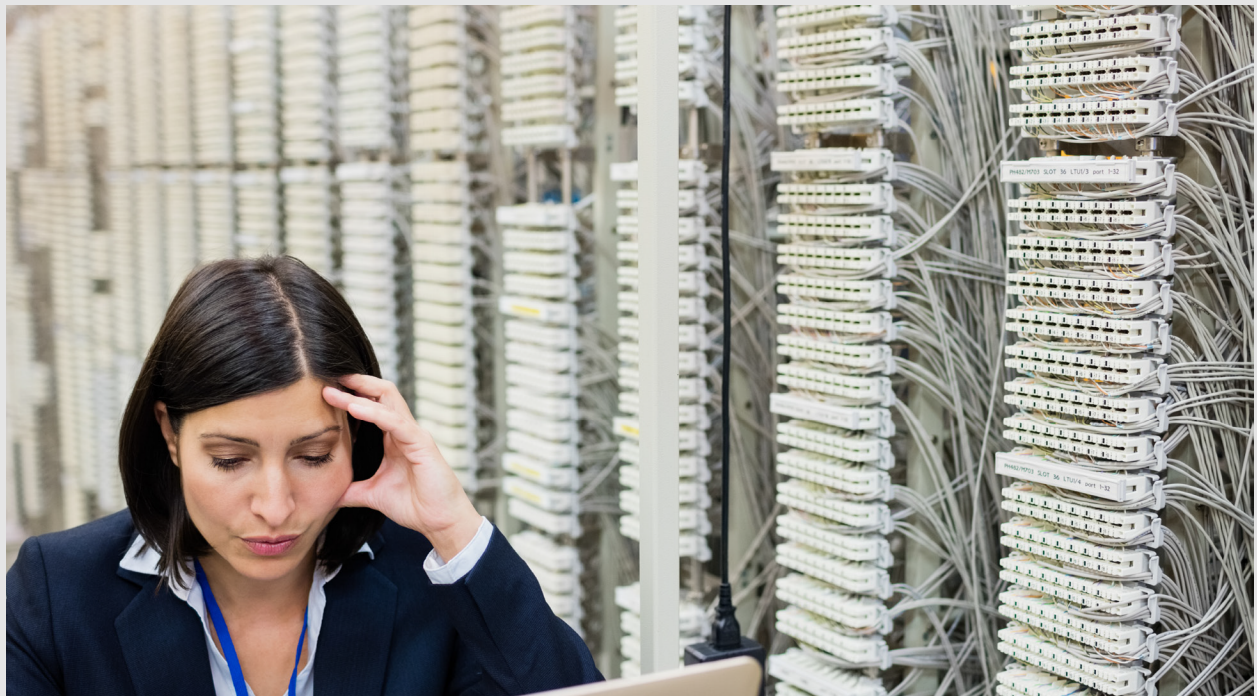# How Financial Services Firms Are Eliminating Tech Debt

As financial organizations have pursued customers and rushed to anticipate expectations, the industry has jumped into technology head first. Moving from main frame to mobile, data center to cloud, tools to ecosystem—the industry has incurred a growing mass of "tech debt" that threatens ongoing business.

An industry that was founded on effectively managing debt obligations is now drowning in a new kind of debt: "tech debt". For anyone not familiar with the term, we define tech debt as the gap between the investment in new customer focused functionality, and the infrastructure needed to support it. The drive to meet continually increasing customer expectations in the financial services industry has expanded the amount of tech debt. Over time, the level of incurred debt, or the size of the gap, has expanded to an almost unmanageable level.

Every day a set of firefighting IT activities are keeping financial organizations running in real time. Little time is left over for IT service management (ITSM) to actually resolve current issues or future-proof the organization to ensure it is fully functional within a landscape of rapid change and growing complexity.

It's all about the customer

IT service management almost always impacts the end-user, the financial-services client, whether intended or not. The close connectivity of the customer to information is constant and demanding. People care about their money: a day late on receiving a product from Amazon is generally not too bad, but a late mortgage payment is unacceptable. Individual and corporation concerns are immediate and critical because the impact of their concerns is typically high. Any failures or delays with standard services like overnight sweeps, stock trades or wire transfers have immediate reputational consequences. Too often client facing services were launched without ensuring the long-term flow and stability of the backend services that support them.

While each organization is different and has incurred its own tech debt over time, there are three main ITSM focus areas that financial services firms can leverage to change course and pay down tech debt: the architecture/landscape, the culture and the technology.

> IT investment has focused on attempting to layer new technology onto old tech within a matrixed web of often poorly integrated systems

The global IT landscape has taken a giant leap forward with the digital transformation age. Clients demanded better/easier access and got it. The challenge is transitioning to new mobile technology from old legacy systems. Using new technology to make client connections required going from 1960s mainframes, to the internet, and ultimately to mobile apps. IT investment has focused on attempting to layer new technology onto old tech within a matrixed web of often poorly integrated systems, applications and workarounds to immediately drive new services. The result has been a nightmare for ITSM professionals who have to support a system that could break at a number of layers and intersects.

The environment has shifted

The global financial crisis and regulatory changes increased system complexity as many financial organizations were forced into mergers with stronger partners. Moving and merging data centers and systems creates ongoing challenges as data is expected to move quickly, securely and smoothly, often across a diversity of platforms and processes. Each component of the system requires its own updating and improvement in order to ensure the ecosystem functions appropriately, and issues can be resolved, quickly and effectively.

Cost controls vie with customer demands to improve services, and the ground keeps shifting. For example, since Wells Fargo merged with Wachovia, they have closed over 100 data centers. Bank of America now has 27% fewer branches and 11% more mobile users. According to a 2019 report on insurance industry trends, although slower to go mobile than banking, nearly 50% of insurance companies view systems integration and incompatibility as their biggest roadblock to achieving results with technology. Disruptions to the financial services landscape continue to accelerate with new fintech and new data services to onboard, plus the incompatibility of systems and platforms demanding a high level of redundancy to accommodate this complex environment.

Understanding the landscape
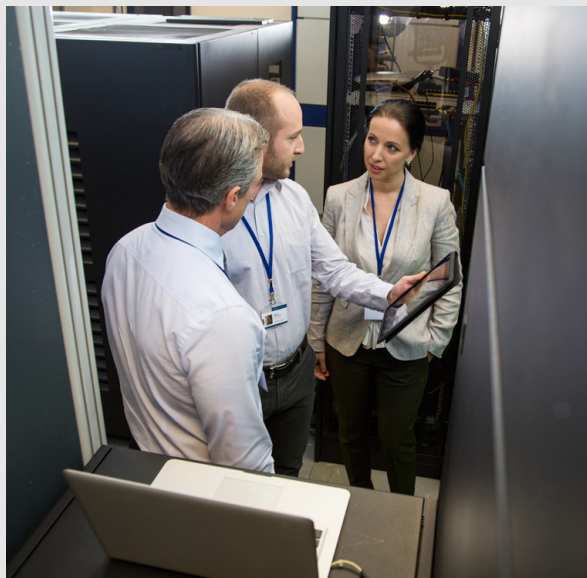
It is imperative for ITSM to have a blueprint of their landscape. Simply put, if you don't know what sits on a server, you don't know who is impacted if a problem arises. To bring order to this dynamic environment, ITSM must understand the landscape, data models and architecture. The organization needs to know where things fit in the environment and who is responsible for what. Unfortunately, this is an ever-changing landscape, transforming on a daily or hourly basis. Changes are being made, security patches installed, while day-to-day tasks are driving systems. The configuration management database is never 100% up-to-date, but it still needs discipline, effective communication and appropriate tools.

This dynamic landscape is further hobbled by a lack of clarity in organizational responsibilities and communication. When an issue occurs, too often there is a lack of understanding of who owns which application and which process, and who should take action. For example, in many organizations, time is wasted when a legacy system requires work-arounds until funding for a new one can be secured. Even when a new system is implemented the legacy system often continues to exist, creating unnecessary redundancies. Communication is "messy," and time is continually wasted on finding root cause for recurring problems that will never be fixed.

No one individual or team can possibly know everything about all the organization's systems. As a result the imperative becomes ensuring the teams that are quarterbacking issue resolution activities are armed with good information about who owns the infrastructure/ applications, who needs to be involved, and how that architecture supports workflows. At an enterprise level the ability of ITSM to achieve greater IT stability is predicated on the organization's investment in ensuring the landscape is mapped and understood.

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Creating a problem-solving culture

and communicate solutions to problems. Building a problem-solving culture, where people use a shared approach to problem solving, creates greater stability as issues are resolved faster and at a lower cost. Advanced problem-solving capabilities help move an organization away from reactive to more proactive problem management by eliminating issues more effectively at the core and communicating both rapid fixes and permanent root cause solutions. When forms and practices support a shared approach to problem solving, organizations can minimize potential issues and optimize change.

As problems arise, structured problem-solving processes can offer a shared language that encourages

team work and focuses efforts on relevant data. Whether managing an incident to restore service, or managing a problem through to root cause, a shared process for describing issues and sharing relevant data accelerates resolution and reduces costs. Many organizations use tools such as "Cause & Effect Charting" to communicate visually the sequence of events, understand recurring patterns, and assist problem solvers in addressing issues as they unfold. Analysis of an incident requires meticulous reporting; a cause & effect chart replaces excess verbiage with visual information that is easily understood. If others don't understand the breadth of an issue, any fixes or changes can create additional, unanticipated problems.

While machines are rapidly replacing people in job functions where simple, high-volume tasks can be automated, global business leaders confirm that people with advanced problem solving capabilities will continue to be in high demand because the complexity of IT is only going one way: up! A problem-solving culture within a high-tech landscape is key to meeting financial services' customer expectations and driving down existing tech debt through a more stable environment that is less reliant on technical knowledge.

Setting priorities that strive to meet customer expectations must be balanced with the capability to effectively support them.

Leveraging technology

The industry's rush into new technology incurred tech debt, but investments in back of the house enhancements can help pay it down and drive stability. Tools that provide early identification and the elimination of high volume, low complexity issues can bring greater efficiencies and reduce costs while freeing up resources for more complex tasks. For example, machines can monitor user service agreements and certificate expirations, disk space, storage, and any of the ongoing details that support basic functionality.

But technology can easily add complexity. Too often we hear, "I need a dashboard for my dashboards" when users are at a loss to integrate tools. Setting priorities that strive to meet customer expectations must be balanced with the capability to effectively support them. Careful planning and mapping of the tool landscape against a framework like IT4IT™ will guide an organization as it integrates new tools effectively into the ecosystem and culture.

Financial institutions that begin taking some of the steps needed to move from firefighting to stability have enjoyed impressive results. One global bank had

Figure 1.
Major Impact Incidents | Year 1 - Year 2
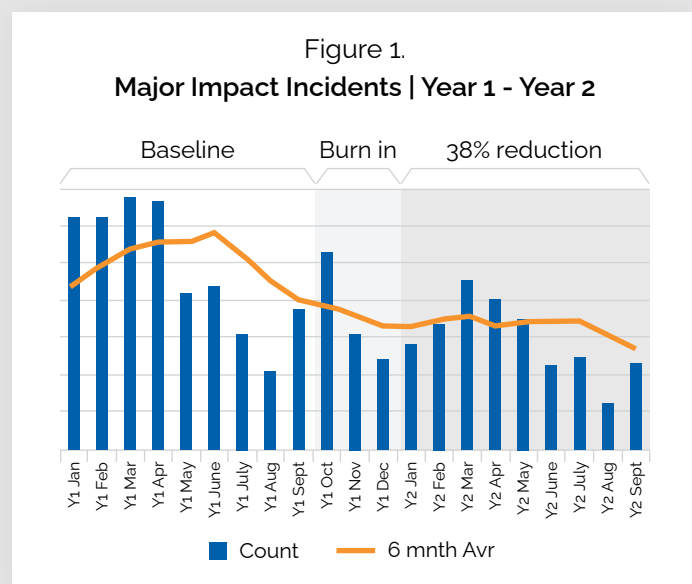
teams of problem managers at locations across the globe. Each siloed group of problem managers was using different root cause analysis (RCA) and incident management tools to address incidents at a local level—but they couldn't reduce the number of incidents or the time required to solve them. A two-stage restructuring program implemented, shared problem-solving methods and promoted a problem-solving culture. In the first year, Priority 1/Severity 1 incidents were reduced by 50% and an additional 20% reduction was realized during the second year. RCA time periods fell from weeks to just 5 to 10 days along with faster implementation of corrective actions. A chart of the major impact incidents from this effort are displayed in figure 1 on the right.

It's time to strike a balance

It's time to strike a balance. Financial organizations need to re-balance the scales from providing customers with myriad technological features with no backbone of support to empowering customers with rock solid platforms and back office support. It's time to make and initiate a plan to repay tech debt and move toward a platform for organizational stability in the face of accelerating change.

About Kepner-Tregoe

Founded in 1958, and based on ground-breaking research regarding how people think, solve problems, and make decisions, Kepner-Tregoe provides a unique combination of training and consulting services to improve quality and effectiveness while reducing overall costs. The KT methodology is used at every level of client organizations: to implement strategy, achieve continuous improvement, increase customer satisfaction, and drive effective issue resolution throughout the organization.