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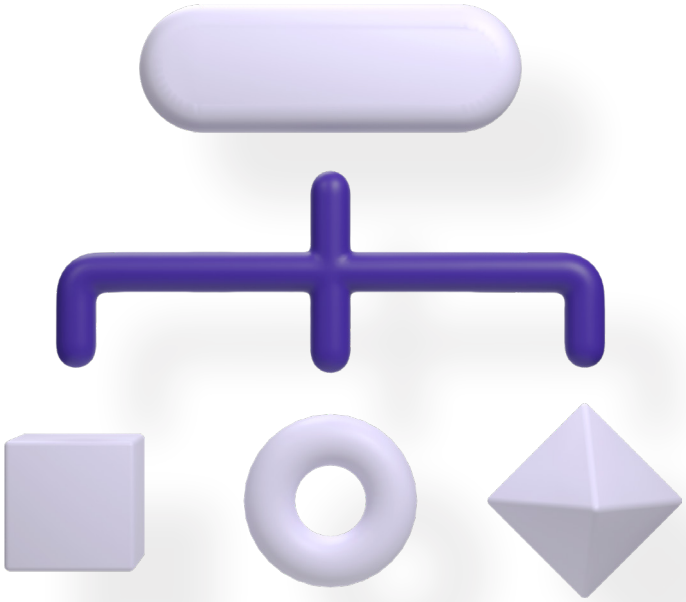
The hidden cost of transformation

Managing tech debt in financial services



The hidden cost of transformation

Managing tech debt in financial services

CIOs across banking, insurance, and capital markets are under pressure to transform faster than ever. They must modernize legacy estates, accelerate AI and cloud adoption, and comply with evolving regulations all while protecting margins, ensuring resilience, and delivering seamless client experiences in volatile markets. In this race to modernize, tech debt has become the hidden cost of transformation quietly eroding agility, consuming budgets, and constraining innovation.

The CIO's balancing act of market pressures vs. technology barriers

CIOs must balance external market pressures with internal technology barriers. Tech debt is a major hurdle that disrupts this balance and hinders growth.

External market pressures are accelerating from capital rules to customer disruption. Banking CIOs face unrelenting pressure to adapt.

Internal technology barriers persist. Legacy systems, siloed data and manual workflows stall readiness and erode ROI.

Tech debt is the hidden disruptor breaking the balance between strategy and execution across compliance, resilience, and innovation.

The CIO's balancing act in banking industry

Market pressures

Tight capital rules from Basel III reforms (CRR3/CRD6, 2025) increase requirements, affecting funding and risk models.

The EU Instant Payments Regulation mandates 10-second euro transfers across SEPA by October 2025, demanding 24/7 liquidity and fraud controls.

Margin compression squeezes profitability due to global interest rate shifts, sanctions, and inflation-driven cost hikes.

Disruptive customer models include embedded finance, super-apps, and big-tech challengers redefining service delivery and customer engagement.

Cyber risk escalation from nation-state threats, ransomware, and third-party exposures is driving CISO security priorities.

Global trade fractures are driven by de-risking from volatile geopolitical effects and SWIFT reviews reshaping transaction landscapes.

Technology barriers

Legacy core banking systems are batch-oriented and monolithic, blocking 24/7 real-time operations and hindering modular innovation.

Fragmented finance data with misaligned ledgers and duplicative data sets delays compliance and impairs trust.

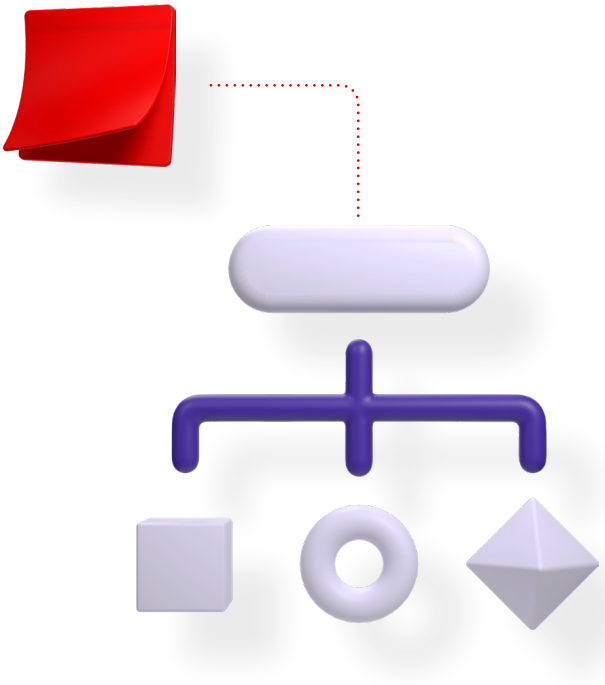
Manual compliance workflows for AML/KYC still rely on spreadsheets, email triggers, and human review queues for operations.

Cloud control ambiguity due to inconsistent policy enforcement across hybrid/multi-cloud setups delays modernization and increases attack surface.

Legacy fraud detection engines use rules and cannot detect real-time patterns across digital or cross-border payments.

Underutilized data lakes suffer from poor data discoverability, metadata tagging, and governance, reducing platform ROI.

Tech debt: the hidden disruptor



Technical debt is not simply an IT backlog. It's the accumulation of legacy systems, siloed data and workarounds that create risk and put the brakes on an organization's transformation strategy. And it could be silently stifling your next big business breakthrough.

As institutions look to test, adopt and capture value from new technologies, this debt is becoming a board-level concern, impacting compliance, resilience, innovation and the ability to scale AI safely.

According to Accenture executives*

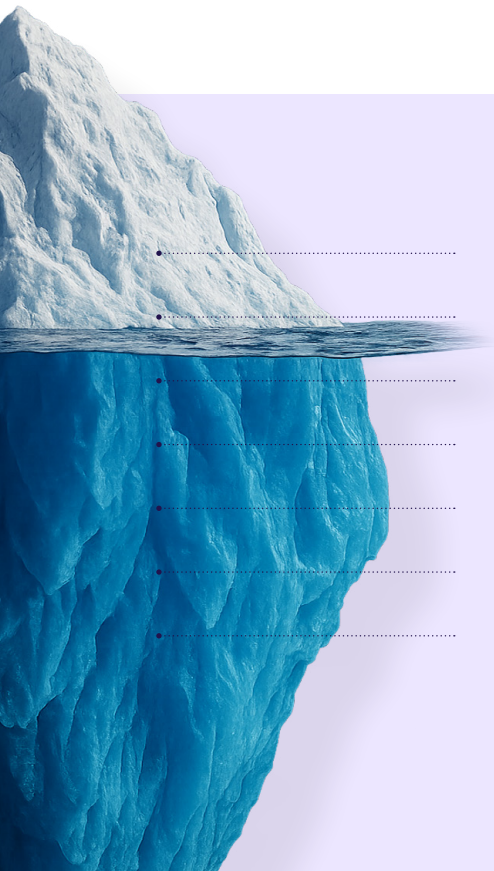
158% of the annual IT budget would be required to address all known debt.

23% of IT spend goes to servicing the 'interest' on debt – i.e. keeping outdated systems running.

68% say removing debt would unlock faster time to market.

78% expect GenAI and agentic AI will help reduce tech debt in the next two years.

* Internal Accenture survey of executives working on tech debt, n=116



01. Security & compliance debt
02. Application & code debt
03. Automation & tooling debt
04. AI & model debt
05. Architecture & platform debt
06. Data & integration debt
07. Organization & process debt

Under the iceberg

Most technical debt is hidden beneath the surface. Visible debt, such as security and compliance issues, is easier and more urgent to address, because it is monitored, audited, and regulated.

But more deeply hidden tech debt, such as data integration problems or outdated workflows, can silently erode performance, stalling initiatives such as AI adoption and compounding risk.

Not all tech debt is bad tech debt

Accenture's recent tech debt research found that a controlled degree of tech debt is a strategic advantage. It's the necessary cost of experimentation, fast prototyping and new market development. But unmanaged debt will quickly drain budgets, slow down service delivery, and expose financial services organizations to risk, without providing any strategic value.

Your challenge is not to eliminate all debt, but to establish the right strategy to optimize it. This means choosing what to remediate first and what you can manage over time.

The cost hiding under the surface

Financial Services firms cannot control regulation, market volatility, or customer expectations. One thing they can control though, are the extent and severity of tech debt costs. The first step is understanding where it sits, how significant it is, and what value it is preventing you from realizing. **Across the industry, tech debt shows up in four ways:**

Principle – your core legacy

When you have outdated operating systems and infrastructure which is nearing end-of-life, maintenance becomes a full-time job. This is compounded by the complexity of scripting key processes, locking institutions into brittle and unscalable environments.

Liability – the risk that will continue to grow

Old systems invite compliance gaps with DORA or Basel III, weak data lineage, and limited observability. When these are stress-tested by volatility, fragile platforms can reveal weak points in resilience, observability, or failover.

Interest – the ongoing cost of servicing the debt

Manual rework, duplication, and slow release cycles can quietly but persistently drain productivity. Incompatible automation, risk, and data tools add further complexity, and waste audit teams' valuable time untangling fragmented logs and undocumented exceptions. This means higher operational costs and slower responsiveness when you need it.

Lost opportunity – the value you leave behind

Tech debt, if left unchecked, can delay key modernization initiaties such as GenAI readiness and partner integrations, and also traps skilled talent in unproductive maintenance loops. Time spent servicing your legacy systems is time that you lose innovating and finding new ways to improve your customers' experience.

Regulators expect resilience and traceability beyond traditional compliance. New mandates like DORA, Solvency II, and the EU AI Act make architecture a board-level issue, while growth in personalized finance itself demands more agile, modernized foundations. Those who take the right steps now to manage technical debt will gain the agility to scale AI, unlock data value, and make the right moves in a tough, unpredictable market.

The PAID framework

This is where Red Hat and Accenture come in. Accenture has built the PAID framework to help CIOs systematically make sense of their tech debt and create a coherent strategy to address it.

Prioritize

Identify and act on debts that block compliance, limit AI or digital solutions' adoption, or impair customer-facing performance.

Address

Remediate those debts that create immediate operational, security or performance risk.

Investigate

Explore lower-visibility debts with potential downstream impact. At this stage you can evaluate carefully, rather than looking for urgent or quick fixes.

Document

Catalog low-priority debts to avoid duplication and build a culture of transparency and awareness around tech debt.

Illustrative PAID framework in banking

The following is an illustration of the PAID framework when applied to the banking industry. It demonstrates how tech debt priorities need to be aligned to each strategic archetype based on prevailing market pressures and technology barriers.

Strategy archetype 1: cost optimizer

Prioritize
- High-cost legacy systems (e.g., COBOL batch cores)
- Low-utilization Disaster Recovery infrastructure
- Fragmented monitoring tools driving OPEX

Address
- Manual KYC/AML processes (high FTE drag)
- Redundant server & storage overhead
- Vendor duplication across tech stack

Investigate
- Low-ROI toolchains for compliance/audit
- Overallocated sandbox/test environments
- Basel data processing inefficiencies

Document
- Deferred infra upgrades (OS/DB)
- Waived patching cycles for low-risk apps
- Ongoing tech labour arbitrage patterns

Strategy archetype 2: velocity driver

Prioritize
- CI/CD delays for SEPA instant payments
- Legacy APIs slowing embedded finance rollout
- Latency in cross-border payment chains

Address
- Siloed integrations with fintech partners
- Manual onboarding in lending & cards
- Fragmented sandbox/test pipelines

Investigate
- Delay-prone approval chains in release workflows
- Network bottlenecks across hybrid infra
- Core dependency blockers to "API-first" model

Document
- Known shortcuts in lower environments
- Feature toggles masking infra debt
- Deprecated modules impacting dev velocity

Strategy archetype 3: risk guardian

Prioritize
- Basel III/CRD6 data pipeline gaps
- Gaps in DORA 2025 controls (especially vendors)
- Unsupported OS/DB in critical risk apps

Address
- Outdated risk models (AML/KYC rules engines)
- Manual compliance reporting cycles
- Delayed DR/failover recovery paths

Investigate
- Fragmented risk/finance data lakes
- ICT vendor controls missing audit trails
- Legacy systems handling sensitive workloads

Document
- Regulatory exemptions granted under old norms
- Technical limitations in disclosure/reporting
- Known workaround scripts in control functions

Strategy archetype 4: growth catalyst

Prioritize
- Core limitations plocking digital lending growin
- Platform inflexibility stalling embedded finance
- Monolithic bottlenecks limiting API monetization

Address
- Data flow fragmentation across M&A systems
- Limited scalability for AI-based scoring/ops
- KYC/Onboarding frictions in new products

Investigate
- Scalability of fintech integrations (stress/load)
- Modularization gaps for cross-border services
- Gaps in performance benchmarking infra

Document
- Pilot product tech debt (with end-date targets)
- Deferred decisions on integration tooling
- Business tech assumptions in sandbox testing

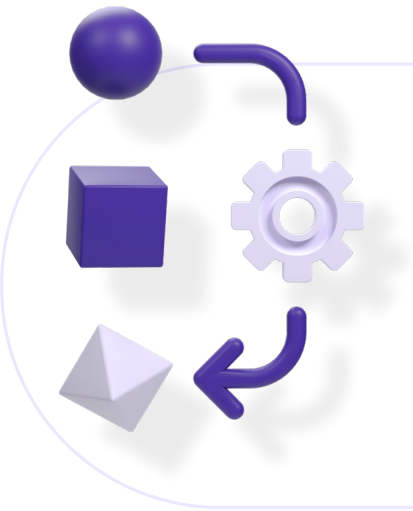
Building your business strategy into your approach

Tech debt does not exist in isolation. It should reflect your business strategy, both in how it presents and your approach to addressing it. Based on what is most important to your financial services organization, we can help you to choose the right archetype to follow.

The PAID framework is a proven strategy to translate these strategic archetypes into practical tech debt actions. For example, a risk guardian may prioritize regulatory reporting debt, while a velocity driver may focus on integration bottlenecks that slow new product launches.

- **Cost optimizers** will focus on reducing operational spend.
- **Velocity drivers** prioritize rapid delivery of new digital services.
- **Risk guardians** focus on compliance, auditability, and security.
- **Growth catalysts** push for speed-to-market in products and acquisitions.

Precision remediation



A four-pronged strategy for remediation

Once debts are diagnosed and prioritized, the next step is remediation. We can help you to deliver this quickly and precisely, by targeting the right type of debt with the right approach to avoid overstretching resources.

Red Hat and Accenture have developed a four-pronged strategy for remediation, specifically built for AI-ready organizations and environments.

1 Operating system modernization

Legacy operating systems create vulnerabilities, add maintenance costs, and limit readiness for AI workloads. By modernizing to an AI-first OS platform, you can:

- Reduce vulnerabilities through standardized patching.
- Lower maintenance costs and free up FTE capacity.
- Improve audit readiness with consistent, transparent environments.

2 Automation optimization

Manual workflows and simplified automation scripts suppress ROI and create risk. Moving to AI-driven automation factories can help you to deliver:

- Smarter automation, powered by proven AI playbooks.
- Higher productivity, with reusable components and AI-generated content.
- Faster provisioning and lower operational costs.

3 Hybrid cloud consolidation

Fragmented cloud estates create sprawl, inefficiency, and security gaps. By consolidating into a secure, scalable hybrid platform, you can achieve:

- Unified AI platforms across on-prem, private, and public cloud.
- Consistency in governance and management.
- Optimized scalability for AI-intensive workloads.

4 Industrialization and governance of AI

AI pilots can get stuck unless you have the right governance, scale, and trust within your business. By industrializing AI with production-ready solutions, you can:

- Move from experimentation to enterprise-wide adoption.
- Deploy cost-effective domain-specific models.
- Ensure responsible AI through automated governance workflows.

Measurable, reliable precision outcomes

This model does not only reduce risks, but helps you to turn tech debt remediation into a proactive lever for service and process innovation.
As a CIO you can then move beyond the ongoing, time-consuming process of firefighting debt, to using remediation as driver of speed, compliance, and competitive differentiation.

Aligning debt layers to the four prongs

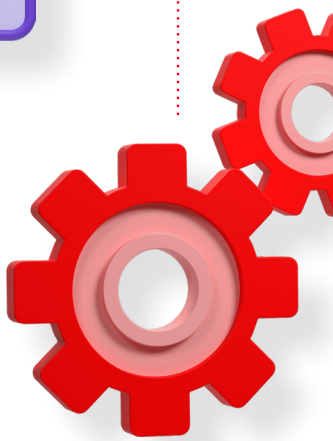
By aligning solutions to the exact nature of the debt, we preserve architectural integrity, accelerate AI readiness, and deliver business outcomes with precision. This closes the loop from diagnosis to impact.

	Operating system modernization	Automation optimization	Hybrid cloud consolidation	Industrialization & governance of AI
Security & compliance debt	Standardizes patching, reduces OS vulnerabilities and audit exposure.	Enables, infra-as-code, policy-as-code, automated remediation, audit-ready playbooks for day 0, 1 and 2.	Enforcing consistent infra policies and container security in hybrid setups, leverages zero-trust, shift-left security approach for apps.	Embeds AI-driven compliance monitoring and predictive breach detection for regulated workloads.
Automation & tooling debt	Removes OS drift that causes script incompatibility, enforces best practices with AI assistant.	Improves automation via Red Hat Ansible Automation Platform (AAP), Terraform Enterprise (TFE) Ansible Lightspeed and RBAC.	Enables automated provisioning and toolchain standardization across clouds, eases management with AI based assistant.	Applies AI governance to automation workflows, ensuring explainability and traceability in critical process automation.
AI & model debt	Optimizes OS for AI workloads, ensuring low-latency model execution and secure runtime environments.	Automates AI pipeline orchestration with Ansible, reducing manual ML Ops intervention and deployment delays.	Unifies AI infrastructure across hybrid/multi-cloud, enabling seamless model training and inference at scale.	Embeds responsible AI governance, automates compliance checks and enables lifecycle management of AI models.
Architecture & platform debt	Enables platform uniformity by removing legacy OS exceptions.	Supports composable architectures via consistent automation workflows.	Consolidates fragmented platforms (OpenShift Plus), enables GitOps, simplifies onboarding of developers and apps.	Extends OpenShift governance to align AI workloads with enterprise platform standards.

Direct impact: Red Hat's tools and Accenture services address the core causes of debt.

Indirect/supportive: Helps enable reduction, but not a standalone solution.

Getting started with FlightPath



FlightPath is your roadmap to value

The journey with Red Hat and Accenture starts with FlightPath, our enterprise strategy team who work with you to map, prioritize, and remediate technical debt.

FlightPath brings an insight-driven approach that enables you to:

- Benchmark your profile against peers and uncover hidden liabilities.
- Reframe the problem by linking scattered debt issues to specific business challenges.
- Design your path to value with a sequenced roadmap that connects remediation to cost savings, resilience, and AI adoption.

Find your entry point

Depending on your current priorities, there are a few ways you can engage with us:

Tech debt value discovery session	Benchmarking and cost of debt workshop	PAID prioritization deep-dive	FlightPath discovery	Tech debt to transformation blueprint

Your tech debt will not disappear on its own. The question is whether you let it undermine your transformation initiatives – or manage it effectively to catalyze your reinvention.

With Red Hat and Accenture, CIOs are turning tech debt into a strategic opportunity – unlocking trapped value, accelerating AI adoption, and building resilience for the future.

Let's get started

Get in touch