

Gartner Insights

# **Use an Outcome-Driven Approach to Orchestrate Technical Debt Reduction Decisions**

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## Use an Outcome-Driven Approach to Orchestrate Technical Debt Reduction Decisions

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Initiatives: Head of Enterprise Architecture Leadership; Deliver IT and Business Value Through Enterprise Architecture

As IT budget pressures grow, heads of enterprise architecture play a key role in reducing costs in operational spend and ensuring that today's choices don't become future technical debt. EA leaders must orchestrate technical debt reduction efforts to prioritize those affecting business outcomes.

### Overview

#### Key Findings

- Although 69% of heads of enterprise architecture have technical debt reduction plans in place in 2024 and 2025, only 23% actually have technical debt reduction programs in place.
- Multiple IT leader roles are tasked with technical debt reduction, including application leaders, heads of infrastructure and operations and EA. However, the focus for each leadership role tasked with "technical debt reduction" varies, and success remains elusive.
- IT leader roles predominantly focus technical debt reduction efforts on improving the efficiency of the IT estate. They assess neither the wider IT portfolio, nor the importance of making reduction decisions, based on the potential to enable or realize desired business outcomes or improve the business functions they support.

#### Recommendations

To secure technical debt reduction buy-in and commitment, heads of EA must:

- Orchestrate a detailed assessment of identified debt reduction and prevention challenges and opportunities for portfolio managers, applications and infrastructure leaders and their teams.

- Analyze this detailed assessment against desired business outcomes, and extract and provide debt reduction and prevention recommendations to business and IT leaders.
- Coordinate the execution of reduction recommendations.

## Strategic Planning Assumption

By 2027, 80% of technical debt will be architectural technical debt, up from 30% in 2024.

## Introduction

Gartner research has shown that legacy technology systems and/or technical debt are the No. 1 barrier to associate (e.g., employee and staff) productivity and the second-highest hurdle for executives.

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*Gartner defines technical debt as the deviation of a system from any of its nonfunctional requirements. Technical debt can be summarized as the future liabilities and risks that are created by suboptimal decisions, the natural entropy of systems, out-of-date and dependent components, new security and vulnerability threats, and changed or new requirements.*

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Technical debt occurs when work is “owed” to an IT system, because delivery teams “borrowed” against long-term quality by making short-term sacrifices, taking short cuts or using workarounds to meet delivery deadlines. This commonly includes:

- Limited testing
- Not documenting all functions, changes and release notes
- Not handing over release notes from development to operations
- Refactoring activities that leave backlogs in place
- Not scheduling regular preventive maintenance
- Not scheduling regular refactoring sprints
- Not taking out unused code
- Not consolidating compute assets

- Not consolidating unused or orphaned network devices
- Not revisiting actual versus required technology to deliver functionality

It also happens when an IT system (or any of its components) is no longer delivering sufficient value for the costs and risks it incurs, because it is:

- Degrading in operation in the IT estate for technical reasons
- Out of compliance with a vendor's end of life (EOL) or end of support (EOS) dates
- Unable to meet expectations of nonfunctional requirements
- Orphaned unintentionally (e.g., application is deprecated, but the associated utility software is not)
- Deemed to contain components that are no longer optimal for the future state — e.g., algorithms that are no longer necessary for future functionality, compute or network, or handheld assets that can no longer deliver the required performance
- Open to security and/or vulnerability threats, or no longer able to comply with any mandatory policies (e.g., privacy protection or anything else that legal considers important)

Technical debt is **NOT**:

- **A One-Time Problem:** Technical debt is not something that can be addressed once and then forgotten. It requires ongoing management and continuous improvement efforts to ensure that it doesn't accumulate to detrimental levels.
- **Just Poor Code Quality:** Although poor code quality can contribute to technical debt, it is not the only factor. Technical debt can also arise from architectural decisions, lack of documentation, outdated technologies and shortcuts taken during development.
- **Always Negative:** Technical debt is not inherently bad. In some cases, taking on technical debt can be a strategic decision to achieve short-term business goals, such as faster time-to-market or cost avoidance associated. The key is to manage it effectively and ensure it doesn't hinder future progress.

- **Easily Quantifiable:** Technical debt is not always easy to measure or quantify. It often involves intangible factors, such as the complexity of the codebase, the difficulty of making changes and the risk of introducing defects, which can be challenging to assess accurately.
- **Only a Technical Issue:** Technical debt is not solely a concern for the IT or development teams. It has broader implications for the entire organization, affecting business agility, customer satisfaction, and the ability to innovate. Therefore, it requires cross-functional collaboration to address effectively.

Commonly, technical debt reduction is seen as an application or infrastructure and operations (I&O) leader's responsibility; however, Gartner research shows that:

- 69% of EA leaders have plans for technical debt reduction in 2024 or 2025.
- 23% of EA leaders have a technical debt remediation program in place.
- 27% of EA leaders have a strategy and roadmap in place to modernize the legacy IT portfolio.

The challenge is that the focus for each leadership role tasked with "technical debt reduction" varies, and, as such, success remains elusive. This is especially true because technical debt cannot easily be connected to business outcome metrics – for example, it's difficult to demonstrate how resolving technical debt has increased sales with 1%, or reduced operating expenditures (opex) with 2%.



**This is an excerpt of the full 19-page research note. For the next steps, in-depth frameworks and proven strategies for managing technical debt as a head of enterprise architecture:**

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