

Start Paying Down Your Technical Debt Today



Technical debt is an issue that often isn't given the attention it deserves. Companies can even get away with ignoring it for quite a while. However, once it rears its ugly head, technical debt can be incredibly costly both in terms of money and reputation. Look no further [than Southwest Airlines' meltdown during the 2022 holiday season](#) for an example of technical debt causing massive problems that hurt a company's reputation as much as its balance sheet. Luckily, there are some steps that organizations can take to start addressing technical debt without breaking the bank.

Address Technical Debt in Stages

As with anything, technical debt can't be solved all at once. Resolving it takes concerted effort over time. At a minimum, the following stages must be completed before technical debt can be considered paid off:

1. Acknowledge that the debt exists — until it is acknowledged, there will be no funding
2. Assess and analyze the extent of the technical debt
3. Determine what can be modernized within the tools and platforms currently deployed
4. Determine what tools and platforms must be replaced
5. Implement the changes identified in stages 3 & 4 in phases until complete

Many companies struggle to even get past the first stage. It's not that the technical debt isn't recognized within pockets of an organization, such as IT or the users of a given system. It's usually that the senior executives holding the budget don't truly understand the magnitude of the problem. This could be due to employees not feeling comfortable with telling the executives how bad things are or due to a non-technical executive simply not understanding how to quantify the risk that exists.

Let's assume you and your organization can get past the first stage. Congratulations! As you navigate the remaining stages, making use of a new technology called a data operating system, such as DataOS from The Modern Data Company, can make the process of removing technical debt go faster and more smoothly.



Stage 2: Assess & Analyze the Extent of the Debt

One challenge in this stage is that there can be multiple legacy systems in place that are not well (if at all) integrated. This makes it particularly hard to analyze information across those systems. A data operating system lays on top of existing systems, even legacy systems, and provides an inventory of the data assets within each system. This requires no changes to the underlying platforms outside of allowing the data operating system to have access. Once the corporate data has been mapped, the data operating system creates a single, central entry point that allows users to query and explore data across the enterprise. It also adds a cross-system security and governance layer that ensures that corporate policies are followed.

Once this layer is in place, it is much easier to perform analysis to understand the extent of the technical debt. Data can be compared to see if it matches across different systems. New ways of combining the data from different systems can also be explored to help develop the requirements of the future. In effect, a data operating system enables an organization to explore data as though it wasn't locked inside a mix of outdated and insufficiently functional systems.

Being able to see all of the data together helps validate accuracy, identify problems, and solidify new requirements. That's a winning combination. Using that information, it is then possible to attack stages 3 and 4 to come up with a modernization plan that you can have confidence in.

Stage 5: Make Steady Implementation Progress

The good news is that as you begin to upgrade and replace your current systems in stage five, the data operating system that was put in place to help with the scoping and planning work in stages two through four can stay right where it is. The operating system will maintain its cross-system security and governance layer that ensures compliance while work is done to modernize the underlying systems.

The data operating system also adds a layer of abstraction on top of the other corporate systems so that it serves as a centralized service. Downstream processes and applications can be redirected to access the data operating system layer. In turn, the data operating system layer can be adjusted to make use of new systems and functionality as they become available. A single redirection of the operating system layer will flow automatically to all the other downstream processes and applications.

While a data operating system might at first sound too good to be true, it is really a natural extension of the evolution of APIs, services, and system interconnectivity. It can help you isolate and minimize interaction with outdated systems by centralizing that access within the operating system. Having enterprise-ready security and governance adds more power since levels of sophistication that may not be available within any given system can still be laid on top of them.



Let a Data Operating System Help Pay Off Your Technical Debt

If your organization has a lot of technical debt that needs addressed today, then start by learning about DataOS from The Modern Data Company. The first and most robust data operating system, DataOS is helping companies modernize their data and analytics functionality. DataOS can be used to assess and diagnose where debt exists up front, how to best mitigate that debt, and DataOS can also be a big part of the final state. Consider making use of DataOS today to — hopefully — avoid your own Southwest-style meltdown caused by pent up and unaddressed technical debt.

To learn more about how a data operating system like DataOS can help your organization modernize its systems and end user functionality, download our e-book *Maximize Your Data Transformation Investments*.

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