

Evergreen Challenge: Does Your Storage Deliver Agility?

There's been a lot of talk in storage circles about making storage "future proof" or "timeless." At Pure Storage®, we're all in on this conversation, since it can help shine a light on a pain that legacy storage customers, just like you, have felt for decades. It's the pain of being caught between escalating maintenance rates and expensive, difficult storage re-buys and forklift upgrades. It's the pain of feeling nickel-and-dimed by vendors with hidden charges and hidden complexity behind their glowing marketing claims.

And most painful of all, it's the pain of feeling like your storage is actually holding you back—keeping you from responding to user demands and becoming an innovator for your organization.

That's the pain Pure Storage set out to eliminate over 10 years ago. We saw then what we still see today: users who've been forced to accept the painful and costly status quo in storage, including complexity, planned obsolescence, rising costs, and storage that puts the brakes on innovation.

At Pure, we started by engineering out the complexity. Eight years ago, we built an all-new, [all-flash storage](#) architecture. From the very start, we wanted to make storage as simple as using a smartphone, and we made upgrading as seamless as possible. But we didn't stop there. Five years ago, we launched a business model called Evergreen Storage that's all about giving you peace of mind and keeping your storage modern and agile.

To help those of you who are evaluating storage choices—or who just want to double-check that your current vendor isn't making things too difficult for you—we've created simple questions that help uncover whether your storage is agile like Pure's Evergreen™ Storage. In this blog post, we'll explore storage architecture, especially designs that can limit your IT agility. In the next post, we'll explore how to keep your storage modern while protecting your IT investment.

So, let's get to it.

Take the Evergreen Challenge!

Is Your Storage Designed to Upgrade and Expand, Simply and Easily?

When you start to hit storage roadblocks, like performance loss and capacity ceilings, do you have to consider re-buying storage all over again? This is the central question behind what really makes storage agile. Legacy storage is just that—a legacy of architectural compromises made by vendors, going back to the days of spinning disks. First, it was retrofitted to include just enough flash to call it hybrid flash. Then, a lot more flash was added so they could call it all-flash. Basically, stuff was bolted onto other stuff.

One of the last things that legacy storage vendors thought about during this retrofit process was upgradability. And why should they? Their entire business model was based on getting customers like you to re-buy your storage (euphemistically called a “storage refresh”) every three to five years. So, why would these vendors spend the extra R&D to ensure that upgrading an array is as simple for you as replacing controllers? Or designing new controllers that always work with the older flash already in your array? Or for that matter, allowing you to get new features, performance, and capacity through a simple, included software upgrade?

When we say that [Pure was founded](#) as a different kind of storage company, it starts with the design of all our products, like FlashArray™. Want more performance or capacity for your data-hungry applications? Easy! Just add some flash. Or, move up to the latest Purity software version. Or, upgrade to next-level or even the latest generation controllers. All without disruption, and without re-buying your storage (more on that in our next post). You get the peace of mind that it will all work together, now and in the future. With its dual-controller, stateless, software-driven design, FlashArray was built from the ground up for simplicity, upgradability, and most of all, IT agility. Pure Storage doesn't hold you back—we launch you forward.

Does Your Storage Allow Your Data to Stay in Place?

Where does your data go when you upgrade? One change we've seen since Pure started delivering truly non-disruptive upgrades is that legacy storage vendors often claim that they too offer non-disruptive upgrades. It's only when digging into the details—or worse, once you're already in the upgrade process—that you realize what they really mean is they make it *marginally* easier to migrate your data from

old to new arrays. Maybe it's using virtualization, or maybe clustering, or even the cloud. The bottom line is that you're still migrating your data, over and over again. And you probably know that a lot can go wrong any time you do that with your valuable data.

The real question is: Why move your data at all? Pure doesn't think you should. That's why we built all our products to keep your data right where it belongs—in the array. Data stays in place while the array just keeps upgrading around it—controllers, software, even flash media itself. It's completely non-disruptive, without performance loss. There's no need to plan data migration projects that have to be run on nights and weekends to avoid impacting your operations.

"It was hard to believe at first, but we tried software upgrades during weekday production runs and everything went very smoothly. We've done both hardware and software upgrades non-disruptively and it's been a great experience."

— Reza Seraji, IT Architect, [Cornerstone OnDemand](#)

Are Your Storage Upgrades Mired in Complexity?

There's another "gotcha" that can trip up the upgrade process: complexity. When you upgrade, does your vendor require you to add expansion boxes, interface modules, disk enclosures, cables, software—and all the manuals and training they require? Have you ever needed to bring in outside services just to help you manage the process? Are you upgrading before you really need to because performance gets dragged down when you use more than half of your array capacity? And for that matter, is performance impacted during upgrades?

If so, you're right back to giving up your team's nights and weekends for another upgrade project.

That's the kind of complexity that Pure feels should be engineered out of storage. And that's exactly what we did, with architectures designed to easily scale up (FlashArray) and scale out (FlashBlade™), without adding unnecessary interface boxes, cables, or limits. Without planned downtime—and without impacting performance.

"We've had Pure in production for more than two and a half years with 100% uptime. That includes at least three capacity expansions, numerous software upgrades, and even a change in controllers—all done with no downtime. We don't even know it's happening."

— Jason Thomas, CIO, CSK Legal (watch the webinar)

Pure's products are so simple to set up and use that the installation "manual" is a business card-sized tent card that you can carry in your wallet. This lack of complexity is paying dividends for many Pure users these days, since they can remotely manage their storage without the need to be in the data center building. [Pure Professional Services](#) even offers remote and low-touch installation services to get up and running fast even in times of restricted access.

It's All About the Design

Hopefully, you're feeling better-armed to understand storage vendors' claims and abilities to help you upgrade and stay modern, without business disruption. In our next post, we'll look at storage ownership programs and the ways to get the most out of your storage investment.

Get more information about Pure's Evergreen Storage and listen to the Pure Report podcast on The Evergreen Challenge.