

Energy Transformation

Nick Psaki

Federal Principal Engineer
Pure Storage



The past year was a case of what happens when preparedness meets opportunity and the culmination of about 20 years worth of work.

“There are four things that drive operational dynamics in the IT space – people, process, policy and technology,” explained Nick Psaki.

“The technology is easy. But what has been transformational are the policies and the thought processes of the leaders and the staffs in terms of the comfort and the ability to adopt external services and utility computing services.”

Plus the acquisition vehicles necessary were in place; and from our perspective — knowing the commercial services we had to provide were FedRAMP compliant and met government security criteria — solved a huge problem in terms of adoption, Mr. Psaki added.

Even during the pandemic, DOE has been undergoing a tremendous infrastructure transformation particularly out in the National Laboratories.

“An enterprise data center infrastructure at DOE was installed in about 6 weeks,” he said. “We are talking multiple dozen petabytes worth of storage that went in and out; the net effect of which was a 90% reduction in power space and cooling consumption and 10x improvement in their overall performance and service efficiency; and the elimination of all of their sustainment technical debt for that infrastructure.”

Mr. Psaki said doing this was breathtaking. “In my experience it takes 18 to 36 months to accomplish what the Sandia National Laboratory did it in less than three weeks resulting in a sudden and an

extraordinary improvement in the operational services at a critical time for DOE. Not only were they resourcing obviously their usual scientific and energy research, but making themselves available for the pursuit of COVID solutions and virology and helping agencies leverage their extraordinary supercomputing capability to solve an immediate emergency challenge for the U.S.”

Pandemic Priorities

From the PureStorage perspective, the priority is honing in on how customers want to consume enterprise infrastructure applications and services.

“We don’t see ourselves as a storage company, but as a data service company,” Mr. Psaki explained. “So our focus is on evolving to address the full scope of data services and data integration from end-to-end to deliver a ‘modern data experience’”.

Our federal customers are looking for ways to leverage their data on-premises and then move it, leverage it and

make it available across every infrastructure platform that they can consume. So a lot of that is the public cloud, he noted. Then there’s data protection, integrity and security aspects of this as well and we are working to help facilitate addressing those issues.

“So our top priorities are transforming the entire data services experience to make it consumable as a subscription service, whether that’s on-premises data service platforms or cloud based data service infrastructure, applications services etc.,” Mr. Psaki explained.

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Then it's making the implementation and utilization of those services invisible and infinite. And if we are doing our jobs, we literally disappear into the IT infrastructure fabric. Customers don't know we are there; they just know that the data is there; it's performant and the applications run well, he noted.

"The idea is we know we're successful in this endeavor when agencies are simply able to focus on application service delivery, integration and innovation and assume that can be implemented as a matter of course regardless of whether that data is on-premises or hosted in other infrastructure."

The second priority for Mr. Psaki is hardening the security of data services in the infrastructure appliances and online services to ensure the integrity of their systems data.

"Our corporate focus is to deliver those capabilities and ensure regulatory and statutory compliance – but most importantly without having to wrestle the infrastructure into submission to make it happen," Mr. Psaki explained.

"From our perspective – proven this over and over again – is when security is built into the platforms and services that are procured, it is tremendously more efficient and effective than when it has to be bolted on afterwards."

The standards are published freely and openly Mr. Psaki observed. "We know what our building code is, so the move for us is to actually start baking in that code to make it much easier for us to obtain the necessary certifications and therefore make it a lot simpler and more efficient for our customers to consume it." ■