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VMware Explore, PowerFlex, and Silos of Glitter: this blog has it all!

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Those who know me are aware that I've been a big proponent of one platform that must be able to support multiple workloads—and Dell PowerFlex can. If you are at VMware Explore you can see a live demo of both traditional database workloads and AI workloads running on the same four PowerFlex nodes.

form of workloads, these hide in plain sight - disguised with other names like “departmental,” “project,” or “application group.”

Some of these workload silos are becoming even more stealthy and operate under the guise of needing “different” hardware or performance, so IT administrators allow them to operate in a separate silo.

That is wasteful! It wastes company resources, it wastes the opportunity to do more, and it wastes your time managing multiple environments. It has become even more of an issue with the rise of Machine Learning (ML) and AI workloads.

If you are at VMware Explore this year you can see how to break down these silos with Dell PowerFlex at the Kioxia booth (Booth 309). Experience the power of running ResNet 50 image classification and OLTP (Online Transactional Processing) workloads simultaneously, live from the show floor. And if that’s not enough, there are experts, and lots of them! You might even get the chance to visit with the WonderNerd.

This might not seem like a big deal, right? You just need a few specialty systems, some storage, and a bit of IT glitter... some of the systems run the databases, some run the ML workloads. Sprinkle some of that IT glitter and poof you’ve got your workloads running together. Well sort of. They’re in the same rack at least.

Remember: silos are bad. Instead, let’s put some PowerFlex in there! And put that glitter back in your pocket, this is a data center, not a five-year old’s birthday party.

PowerFlex supports NVIDIA GPUs with MIG technology which is part of NVIDIA AI Enterprise (<https://docs.nvidia.com/ai-enterprise/index.html>), so we can customize our GPU resources for the workloads that need them. (Yes, there is nothing that says you can’t run different workloads on the same hosts.) Plus, PowerFlex uses Kioxia PM7 series SSDs, so there is plenty of IOPS to go around while ensuring sub-millisecond latency for both workloads. This allows the data to be closer to the processing, maybe even on the same host.

In our lab tests (<https://infohub.delltechnologies.com/section-assets/powerflex-kioxia-data-convergence-infographic>), we could push one million transactions per minute (TPM) with OLTP workloads while also processing 6620 images per second using a RESNET50 model built on NVIDIA NGC containers. These are

Here are the TPM results from the demo environment that is running our four SQL VMs. The TPMs in this test are maxing out around 320k and the latency is always sub-millisecond. This is the stuff you want to show off, not that pocket full of glitter.



Yeah, you can silo your environments and hide them with terms like “project” and “application group,” but everyone will still know they are silos.

We all started battling silos at the dawn of virtualization. PowerFlex with Kioxia drives and NVIDIA GPUs gives administrators a fighting chance to win the silo war.

You can visit the NVIDIA team at Lounge L3 on the show floor during VMware Explore. And of course, you have to stop by the Kioxia booth (309) to see what PowerFlex can do for your IT battles. We’ll see you there!

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The simple answer is Yes, you can do that AI thing with Dell PowerFlex. For those who might have been busy with other things, AI stands for Artificial Intelligence and is based on trained models that allow a computer to “think” in ways machines haven’t been able to do in the past




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MLPerf™ Training v3.0 has just been released and Dell Technologies results are shining brighter than ever. Our submission includes benchmarking test results from new generation servers that were recently launched, such as Dell PowerEdge XE9680, XE8640, and R760xa servers.

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