SOLUTION BRIEF

Pure Storage for DevOps

Modern software development and deployment requires simple, scalable access to data.

High velocity development workflows demand performant data pipelines which can serve 100s of concurrent builds with 1000s of concurrent tests. Simple orchestration of stateful application deployments must also have quick access to data from any of the compute nodes in the pod.

Accelerating Development and Deployment Velocity

Modern software development and deployment pipelines need to be totally automated to harness the power of continuous, concurrent development and automated testing. To manage the complexity while maintaining the efficiency of these pipelines, developers and automated test environments must always have reliable and timely access to the data. Early integrated testing keeps bugs out of production deployments but requires scalable concurrency to achieve necessary build, test, and triage times.

A new, innovative data platform is needed to support these workflows while providing best-of-breed performance in all dimensions of concurrency – including throughput, IOPS, latency, fast cleanup of temporary files, and capacity. It must be as simple and reliable as it is powerful. What's required are Pure Storage's FlashArray™ and FlashBlade™ products, both of which are cloud managed with Pure1® Services.

Software DevOp Challenges

Key challenges in addressing these demands include:

1. Data silos created with local storage implementations.
2. Complexity of managing multiple data sets across varied workspaces.
3. Development and Deployment data bottlenecks stalling pipelines.
4. Massively concurrent deployment environments which need to be continuously updated and monitored.
5. Orchestrating and managing complex deployments of stateful applications.
6. Infrastructure complexity requires configuration management, and legacy storage architectures require constant tuning.

FlashBlade: Scale-Out, Shared File and Object

On-demand, resilient, scalable file and object for DevOps pipelines, efficiency with built-in compression, simple to manage across file and object.
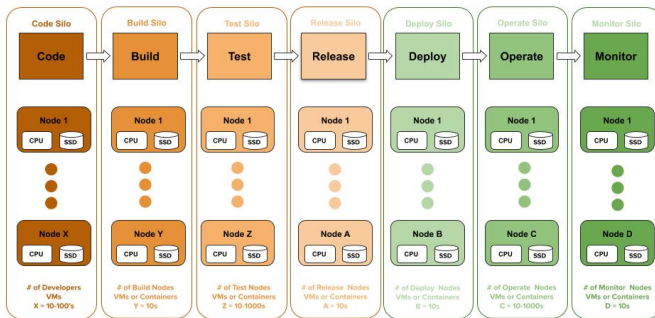
FlashArray: Low-Latency, Efficient and Resilient Block Storage

Low latency, high efficiency flash for datastores and databases using deduplication and compression for efficiency, instant test and dev environments using Snapshots.
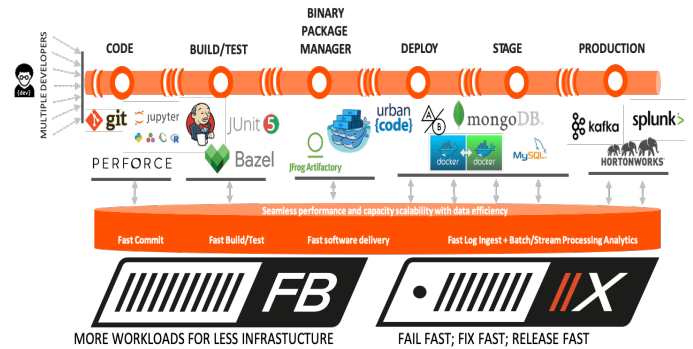
Pure1/Meta: Intelligent, Cloud Managed Data

AI-driven management, full-stack analytics and predictive support for modern DevOps infrastructure.

Figure 1. Siloed compute and direct attached storage.

Figure 2. Modern DevOps workflows run best on Pure Storage products.

Pure enables software teams to improve and accelerate their application development and deployment. We provide the flexibility, scalability, reliability and performance to power the highest velocity development and deployment pipelines today. For structured data, Pure's FlashArray products provide best in class shared data performance with excellent total cost of ownership. For file and object data, Pure's FlashBlade delivers scale-out performance that aligns with the scale-out compute clusters supporting modern DevOps workflows with RESTful APIs, Ansible configuration and Pure Storage Orchestrator. Here are some of the benefits of Pure solutions for DevOps:

Software Delivery Tools: Eliminate local compute and data silos, increase the flexibility and monitoring of orchestrated deployments, and improve availability with rapid data recovery in the event of failures.

Container orchestration: Using Pure Service Orchestrator (PSO), enable persistent storage and load balancing for stateful applications, which consume data on demand. Disaggregate the storage from the compute servers to provide storage on demand with more application resiliency.

Infrastructure automation: Using Pure's RESTful API and Ansible support, accelerate infrastructure improvements, and simplify configuration management for your most important data sets. Improve collaboration between development and operations teams with low friction infrastructure automation.

Infrastructure Monitoring and Reporting: Improve resource and capacity utilization by visualizing dynamic workloads using Pure Exporter with Prometheus and Grafana.

Additional Resources

For more information about Pure Storage DevOps Solutions, please visit purestorage.com.

purestorage.com

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