



Solution Brief

Enabling DevOps Success with NetApp

Technical Benefits

- Continuous software delivery
- Reduced problem complexity
- More visibility
- Faster resolution of issues
- Less rework and unplanned work

Business Benefits

- Faster delivery of features
- More stable operating environments
- More effective utilization of resources
- More value added, with less time spent fixing and maintaining
- More visibility into systems

Looking into IT organizations around the world, it cannot be denied that environments mature and evolve with time. From a genesis of direct installations with dedicated servers and applications, environments have evolved to optimize with virtualization and automation. Every data center's evolution varies and isn't necessarily a clean, linear development; sometimes sophistication takes time.

Altering your company's structure to become more service oriented and evolve how business is done requires an equally large shift to updating your IT infrastructure. Bringing development and operations teams together allows an integration of minds, skills, and expertise to keep up with continually evolving needs. As application and infrastructure delivery continue to fundamentally shift, continuous deployment becomes possible and essential to keep up with the pace of change.

Understanding DevOps

DevOps, the blending of development and operations teams, allows continuous streams of code development in which requirements are addressed in real time. In today's quickly evolving world, agility is a key driver in attracting new customers, maintaining existing ones, and remaining competitive. It is no longer enough to generate and deliver bug-free code once or twice a year.

With a DevOps adoption, developers are leading the charge in writing code that can create, store, manage, modify, protect, analyze, and reuse data at a scale that was previously considered unachievable. This ability to monitor and learn what's happening in an environment makes real-time intelligent decisions possible for you and your company.

Development teams are now able to expedite application creation using automated, repeatable workflows in a collaborative environment. DevOps uses self-service provisioning—both on premises and in the cloud—to get the resources they want, when they need them, in ready-to-use development workspaces. Developers access a rich set of tools to streamline application development and testing that allows:

- Accelerated time to market for new applications and services
- Reduced risk with improved code quality
- Streamlined development with repeatable processes and best practices
- Improved collaboration across development teams

It is important to remember where your business is now and realize its growth trajectory. Adopting a DevOps approach does not mean you need to deploy new code every day. DevOps will transform your development process with an accelerated, collaborative culture in which IT operations and development engineers work together across the entire service.

DevOps and NetApp Deliver

To deliver on these new developer demands, NetApp has identified six primary focus areas: containers, configuration management, code and artifact management, continuous integration/continuous deployment (CI/CD), cloud and platform as a service (PaaS), and

analytics. These areas, although relatively new to IT operations, are critical to the success of businesses looking to achieve maximum outcomes and have become imperative to delivering the right environment for application development. NetApp makes DevOps easier to achieve by enabling development of higher-quality code, accelerated testing, and better and faster deployment of the code.

Core Capabilities That IT Must Now Deliver

DevOps	
 <p>Containers Simple application development</p>	 <p>Configuration Management Consistent environments</p>
 <p>Code and Binary Management Fast, real-time data access</p>	 <p>CI/CD Streamlined development experience</p>
 <p>Cloud and PaaS Data access without infrastructure management</p>	 <p>Analytics Actionable insights into environments</p>

- **Containers.** Deliver application portability and better support for multifactor applications.
- **Configuration management.** Deliver consistent environments throughout the software development lifecycle.
- **Code and artifact management.** Protect and deliver the content created by developers.
- **CI/CD.** Automate the value stream from code commit to code deployment.
- **Cloud and PaaS.** Use platforms to support developer and application needs.
- **Analytics.** Deliver actionable insights to make code faster and more effective.

Integrations with toolsets throughout these six capabilities are critical for enabling DevOps practices. With a common set of tools to increase overall knowledge and awareness, better integration and agility can be achieved. NetApp aims to extend the capabilities of storage through integrations with partners, such

as Kubernetes, Ansible, Jenkins, and many more. These extended capabilities allow developers to code using their tools of choice while enabling operations to maintain the security and insights to infrastructure and how it's consumed. These integration points allow DevOps to collaborate fully with development and release cycles, making NetApp an ideal partner in their DevOps journey.

NetApp® technology is designed for modern consumers who want to access data when they need it and where they need it and thus is a seamless addition to a DevOps environment. In implementing continuous integration and continuous deployment, storage—whether in the cloud or on premises—is often a forgotten but crucial piece of the puzzle. Whenever code is ready to be pushed, NetApp delivers solutions regardless of your data management strategy and seamlessly moves data from one environment to the next. NetApp solutions support:

- **Cloud innovation.** Deliver data-rich customer experiences through new application deployments such as NetApp Cloud Volumes Service, making data use and services simple, no matter where they reside or what platform they're on.
- **Cloud and cloud services.** Manage data and services as one resource supporting both public and private clouds with NetApp HCI. Deliver complete system automation allowing code deployment when your organization is ready.
- **Modernizing traditional data centers.** Free the resources necessary to fund transformation with highly efficient, scalable solutions from the edge to the core to the cloud with NetApp ONTAP®.

To learn more about NetApp solutions and third-party integrations supporting DevOps, visit the [NetApp DevOps page](#).

About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation and optimize their operations. For more information, visit www.netapp.com. #DataDriven

About thePub

NetApp's developer and operator community, thePub, is built to bring together experts who make technology go. By sharing best practices for containers, configuration management, CI/CD, and much more, we make it easy to consume all of the NetApp goodness with the latest tools and technologies. Join us at netapp.io.

