Solution Brief

Modernize Traditional Applications with Docker Enterprise Edition

Bring Portability, Security, And Efficiency To Your Traditional Applications Without Changing Application Code

IT organizations continue to spend 80% of their budget on simply maintaining their existing applications while only spending 20% on new innovation. At the same time, enterprise organizations have increasingly disparate infrastructure landscapes with x86 servers, mainframe, and multiple private and public clouds to manage. This fragmentation increases the pressure on your IT budget, making it even harder to focus on innovation.

Docker Enterprise Edition (EE) enables IT ops to modernize traditional applications with the leading container platform without requiring modifications to the source code. By simply containerizing the application without adjusting the source code, legacy applications begin the journey to modernization with hybrid cloud portability, increased security and cost efficiency.

Benefit: Hybrid Cloud Portability

Docker packages application code and dependencies together into lightweight, standalone containers. Containers eliminate the "works on my machine" problem so that the applications can run in a new environment without any issues regardless of the differences between environments. Once packaged, the container can easily be deployed to any environment with a single Docker command. Quickly enable cloud migration, accelerate tech refresh cycles or burst to the cloud.

Benefit: Increased App Security

Packaging legacy applications into Docker containers allows them to inherit the built-in security capabilities of Docker EE without any changing the source code. Docker provides strong isolation properties and comes with hardened default settings that can be configured to be even more limited, if needed for the application. With these features, IT admins can substantially reduce the attack surface area of older applications and provide the minimal amount of host resources required to operate and nothing more.

Additionally, Docker EE provides a secure supply chain for container applications to be created, scanned, signed, shared and deployed. Security Scanning provides a deep level of visibility with a detailed Bill of Materials (BOM) of all the packages and version numbers included in the application and their reported vulnerability status. Should a CVE be reported at a later time, the Docker admin will be notified of the change for quick remediation. Containers can also be digitally signed, and Docker clusters enabled for verification to guarantee safe transport of applications across the network from one infrastructure to another. Combined, these make existing apps safer simply by leveraging Docker EE.

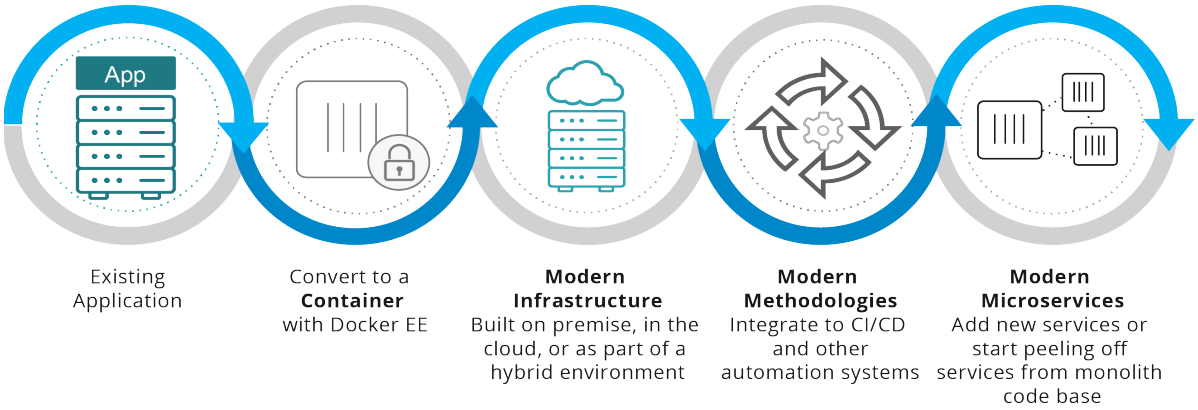
Benefit: CapEx And OpEx Cost Efficiency

Over 90% of an application's total cost of ownership (TCO) is incurred after the initial deployment. Modernizing legacy applications with Docker EE allows IT ops teams to dramatically streamline the operational tasks like provisioning, deployment, and updates. On average, Docker customers have experienced an average of 75% time savings in deploying existing applications once migrated to Docker.

Architecturally, Docker containers are lightweight and share the kernel of the underlying operating system meaning they use fewer resources than virtual machines. Container isolation also prevents application conflict issues. These two features allow IT admins to increase the workload density on existing infrastructure and optimize the compute utilization of existing VMs and servers.

What Is Involved

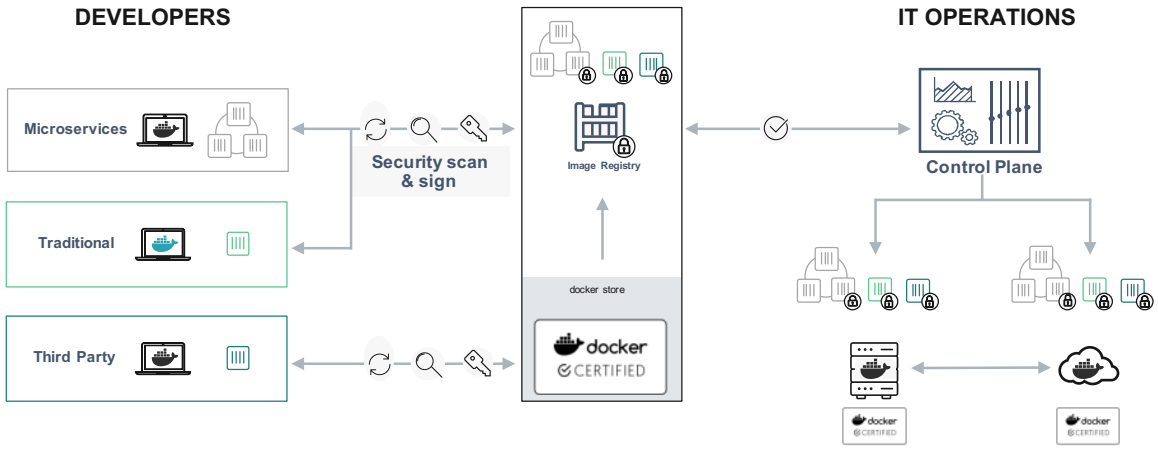
Modernizing traditional applications can be approached in logical steps to gain efficiencies and benefits along every step of the journey



First, package the application to a container using Docker Enterprise Edition and once validated consider where to deploy the application. Migration to cloud or server refresh is a good consideration for this stage. Once deployed and confirmed, consider integrating the container into systems that automate build, integration testing and deployment to further optimize operations and save time. The final stage considers the path for the application code to microservices. The application itself can be broken up or have modern services added to the existing container – Docker EE allows for the flexibility for the application teams to decide how much to modernize.

The Journey Forward Towards Containers as a Service

The path to a modern and agile IT environment begins with the applications and infrastructure you already have. Containerizing legacy apps, deploying and managing them with Docker EE is the first step to DevOps, microservices, and cloud.



Docker Enterprise Edition is the only Containers-as-a-Service platform for IT that manages and secures diverse applications across disparate infrastructure, both on-premises and in the cloud. Docker EE brings traditional applications and microservices built on Windows or Linux and enables organizations to manage them from one interface. Only through Docker EE are organizations able to modernize applications, infrastructure and operational models by bringing forward legacy systems and adopting new technology at the rate of their business.

Interested in getting started?

Check out our MTA Program at www.docker.com/MTA or contact sales@docker.com to find out how our cooperative MTA program can assist you with tranforming your legacy application in just a few days

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