Accelerate Digital Transformation with Docker

Application Modernization with Containers Across Hybrid Clouds

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Are You Ready for the Digital Economy?

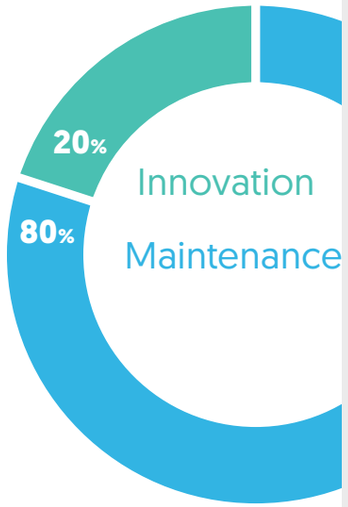
Agile IT. Hybrid Cloud. App Modernization.

Organizations in every industry are under pressure to adapt to the new digital economy and are asking their technology leaders to help them make the right investments. There are an unprecedented number of new technology solutions that promise to bring real change to business, and IT leaders are expected to invest in them appropriately. But that does not mean existing technology investments can be ignored and this poses a real challenge for those who make the budgeting decisions.

The Innovation Dilemma

Enterprise organizations spend about 80% of their IT budget maintaining legacy applications and only 20% on innovation. That is a ratio that has not significantly changed in the last 20 years even with improvements in hardware, server virtualization, and application development technologies. These existing applications often serve an important purpose and are critical to the day-to-day operations of a business; they cannot be simply retired. But the reality is that these applications are generally inefficient to operate. They are expensive to maintain and have many interdependencies that make them fragile and difficult to move. As a result, organizations tend to overprovision resources to “keep the lights on” and hang onto outdated infrastructure just to support these applications.

At the same time, application developers gravitate towards solutions that allow them to build and create new applications with the least friction. That has contributed to platform sprawl where different applications are being deployed in a variety of private and public clouds. A RightScale study shows that the average number of IT platforms (public clouds, private clouds, and other on-premises infrastructure) a company operates has increased in the last year from 6 to 8. This fragmentation increases the pressure on the IT budget as each platform becomes an operational island requiring its own tools, expertise, and processes.



For IT leaders, this becomes the paradox of being asked to invest in new areas of innovation while the overall infrastructure footprint continues to expand and while existing applications still require ongoing maintenance and updates.

Sources: IDC “The Cost of Retaining Aging IT Infrastructure”, RightScale 2017 State of the Cloud Report

Current IT Challenges:

IT COST INEFFICIENCIES

The average data center is only operating at 20% or less CPU utilization which means there is money being left on the table. Improved efficiency alone can reduce your future capex spend and help scale to meet your growth needs.

HYBRID CLOUD COMPLEXITY

While the benefits of cloud computing are clear, the process to embrace the cloud and move applications to the cloud is much more complex. Cloud lock-in also restricts your organization’s flexibility.

INCREASED SECURITY THREATS

There are more stories of major security breaches happening every day. Organizations do not want to hinder innovation, but are also putting themselves at risk if they do not emphasize prevention and compliance.

Modernize the old or build new? Do both.

Organizations may look at their legacy application portfolio and decide that almost every single app should be replaced, but it isn't a realistic endeavor. Replacing older applications with cloud-native technologies and microservices architectures may be the preferred option, but most organizations are limited in the number of these projects they can execute in a single year. The application development requirements alone may require new staffing or skills and at minimum it will require considerable investments in engineering time. Focusing only on complete redevelopment will cause organizations to fall behind as they wait for the resources to become available.

Many existing applications remain critical to the business but have just become rigid and inflexible over time and operationally inefficient which makes them more expensive to maintain. These applications can benefit from incremental modernization projects that are easy to implement. The key is to make these existing applications easier to maintain, easier to update and patch, and migrate to new platforms, including public clouds like Azure, AWS, Google Cloud Platform, and IBM Cloud.

Instead of pouring all resources into the redesign of these applications, it is possible to modernize them by containerizing and managing them with Docker Enterprise Edition (EE).

Existing Application

Modern App Convert to Docker **container** and deploy with Docker Enterprise Edition

Modern Infrastructure Built on premises, in the cloud, or as part of a hybrid environment

Modern Methodologies Integrate to CI/CD and automation system

Modern Microservices Add new services or start peeling off services from monolith code base

Case Study: Northern Trust

NORTHERN TRUST

KEY CHALLENGES

- Have 400+ existing WebLogic, Tomcat and .NET applications
- Limited flexibility, hard to modify due to dependencies and static environments
- Per application isolation contributes to server and VM sprawl

SOLUTION

- Containerize existing applications, starting with Tomcat apps
- Leverage Docker EE Advanced for orchestration, centralized management, and image scanning for security inspection on legacy workloads

RESULTS

- Reduced risk with smaller attack surface
- Ability to spin up a Docker cluster in Azure and move an app in 1 day
- 2x improvement in server density from improved multi-tenancy
- 4x improvement in deployment time from 29 days down to 7 days

MetLife Reduces Traditional App Total Costs and Accelerates New App Delivery with Docker Enterprise Edition

Background

With over 145 years of experience, MetLife is a leader in protection planning and retirement and savings solutions around the world. MetLife offers auto, home, dental, life, disability, vision, and health insurance to over 100 million customers across 50 countries. Their business relies on information – about policyholders, risk assessments, financial and market data accumulated in over 400 systems of record – with an extensive portfolio including thousands of applications actively supporting the business over many decades.

Challenges

Rapid innovation is difficult at MetLife due to a complex infrastructure of hundreds of systems of record, thousands of applications and a variety of infrastructures to deliver services around the world in a secure and compliant manner. The adoption of new technology like cloud and containers could be disruptive and increase costs overall. MetLife needed a way to build a business case for new innovation by reducing the total costs of their existing applications and infrastructure.

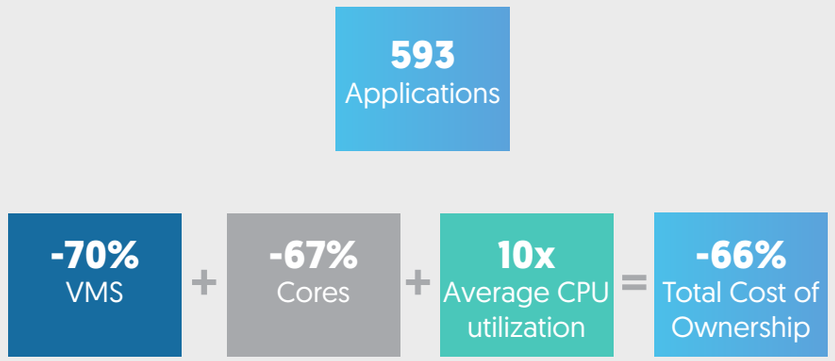
Solution

MetLife chose Docker Enterprise Edition to modernize their traditional application landscape to make containerization a self-funding initiative that drives holistic change and reduces overhead to their bottom line. By leveraging the Docker Modernize Traditional Apps [MTA] program, MetLife is able to reduce the cost of a single technology stack, accounting for roughly 600 applications by 66%. This cost savings, although dramatic, represents an impact to 10% of the total application portfolio. The potential cost savings combination of Docker EE and Microsoft Azure applied to the rest of the existing application landscape provide a dramatic business case to accelerate new innovation and gain operational scale.

MetLife

- Reduce total costs by 66%
- Over 70% VM consolidation
- Enable cloud migration
- Gain massive operational scale
- Accelerate delivery of new applications

Total cost savings forecast for a single technology stack

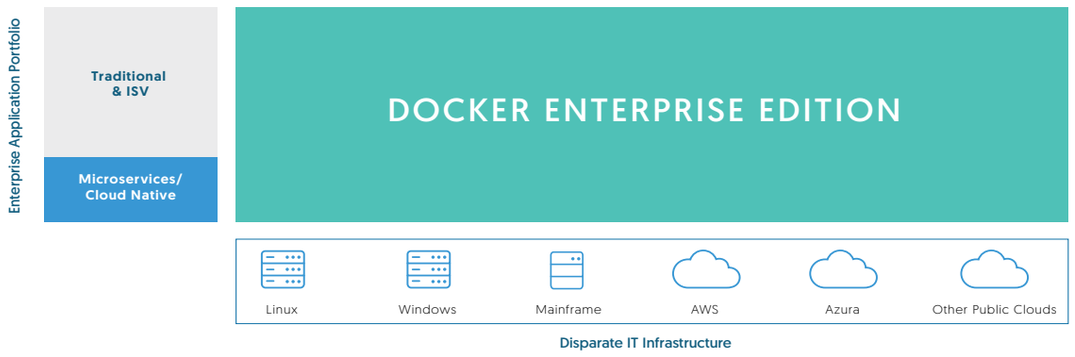


Introducing Docker Enterprise Edition: Containers-as-a-Service Platform for the Enterprise

Docker Enterprise Edition (EE) is the only platform for IT that manages and secures diverse applications across disparate infrastructure, both on-premises and in the cloud.

Docker EE enables IT organizations to easily modernize traditional applications without requiring modifications to the source code. By simply containerizing the application with Docker EE, traditional applications gain modern properties like hybrid cloud portability, security, agility, reliability, and cost efficiency.

Modernizing traditional applications with Docker EE delivers immediate value and cost savings to organizations without waiting for full re-architecture or re-coding of the existing application. Once applications are containerized, organizations begin to save money on infrastructure and operational costs delivering a faster time-to-value.



AGILE
Faster time to market and response

PORTABLE
Infrastructure Independent Apps

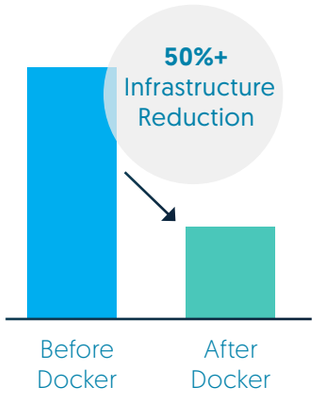
SECURE
Reduce risk and enforce new controls

EFFICIENT
Optimize CapEx and OpEx costs

Docker EE helps organizations deliver new innovations faster and more securely, across a broader set of the application portfolio by creating a single, secure software supply chain that works across multiple infrastructure platforms. Diverse applications from traditional to microservices on Windows, Linux and mainframe leverage this supply chain when packaged into uniform Docker EE containers. Docker EE accelerates software delivery by removing the friction of moving a wide variety of applications from development through test, QA and production. While multi-architecture operations drive operational efficiency through a consistent management, security and automation model independent of workload type or infrastructure.

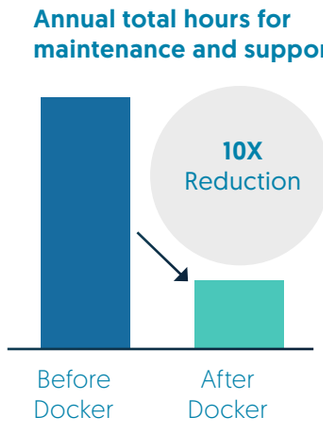
Docker Enterprise Edition Delivers the Fastest Time-to-Value for Modernizing IT

To shift more investment into innovation, organizations need to reduce the costs of maintaining their existing applications. Docker EE reduces both CapEx and OpEx for existing applications by being more resource efficient and simplifying day-to-day operations.



Server Consolidation

Docker containers are more efficient than running applications on virtual machines alone. By deploying applications in Docker EE, customers realize more than 50% cost savings from server consolidation, reduction in virtualized instances, and lower overhead costs. By operating a single, common platform across multi-architecture environments (Linux, Windows, and mainframe), customers also reduce administrative overhead and increase overall infrastructure utilization.



Operational Efficiencies

Docker EE reduces ongoing operational costs by improving the way applications are deployed and maintained. From dramatically reducing the time to deploy and scale applications to streamlining issue remediation and applying updates. Built in capabilities improve reliability and availability. This helps to keep applications more secure while reducing the overall time it takes to maintain the portfolio.

Developer Productivity

When new developers join a team, a key metric is their onboarding time—how long it takes a developer to become productive. With Docker EE, there is no complicated runbook that a new developer has to learn and if they have used Docker before, onboarding is 60% faster. In some cases, new developers can ship code on their first day.

Application Deployment Rate

Technology teams are often measured by how quickly they can add new features and capabilities and ship these into production. Docker EE allows organizations to ship 13x more frequently as the path from developers' laptops to production is simplified and the development pipeline is faster. Getting better software out the door faster creates a real competitive advantage for the business.

Sources: Docker State of Apps Survey Report 2016, Business Value of Docker EE 2017

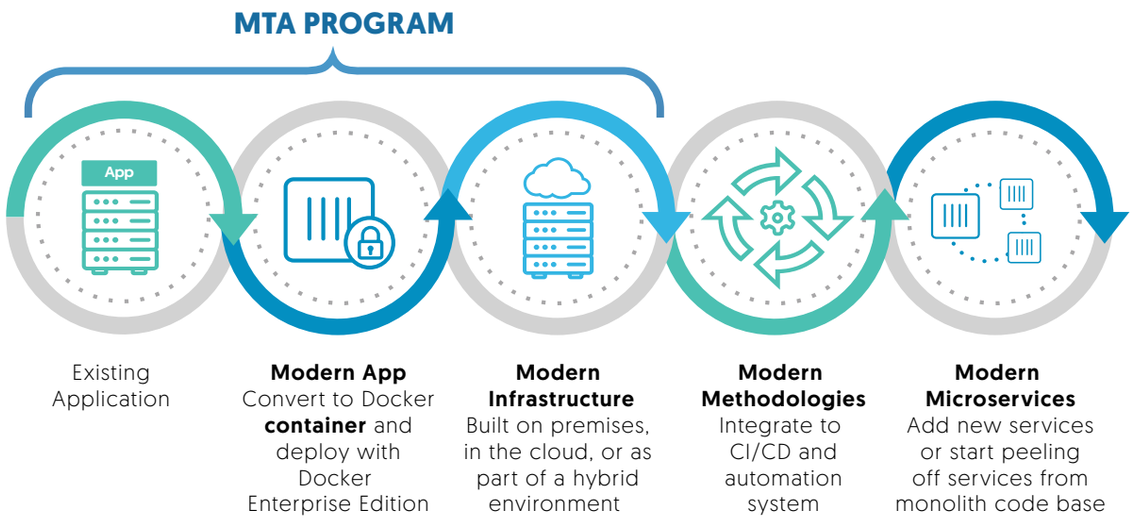
The Docker Modernize Traditional Applications (MTA) Program

Begin your Docker journey here to unlock and accelerate savings and agility

The Docker MTA Program is designed to accelerate the time to value as you begin your Docker journey. This turnkey program modernizes existing Windows .NET and Linux Java apps with Docker Enterprise Edition (EE) onto modern cloud or on-prem infrastructure in five days or less. Realize improved agility, portability and security while reducing total costs by 50% - all without having to recode the apps.

Delivered in partnership with leading IT infrastructure and services companies, the MTA Program guarantees success and immediate ROI with validated methodology that is repeatable across your enterprise app landscape.

Within the first five days, we work with you to identify a target app, package, deploy to modern infrastructure and gather results to build the business case for the next phase of your journey.



What's Included

- Docker Enterprise Edition
- Cloud or On-Premises infrastructure
- Professional Services (1 week onsite and 3 weeks remote)
- Containerize existing Windows .NET or Linux Java app
- End to end deploy and operations with Docker EE

MTA Offerings

In just 30 days we can transform your Windows or Linux applications to run as a container making it more efficient, more portable, and more secure, all without touching a line of code.

Cloud	Datacenter
Microsoft Azure, avanade	CISCO
Datacenter	**Federal**
Hewlett Packard Enterprise	Booz | Allen | Hamilton

More Info: **Docker.com/MTA**

Docker, INC.
AT A GLANCE

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March 12, 2013

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Scott Johnston, COO
Roger Egan, SVP Sales and Channels
Iain Gray, SVP Customer Success
David Messina, SVP Marketing

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