

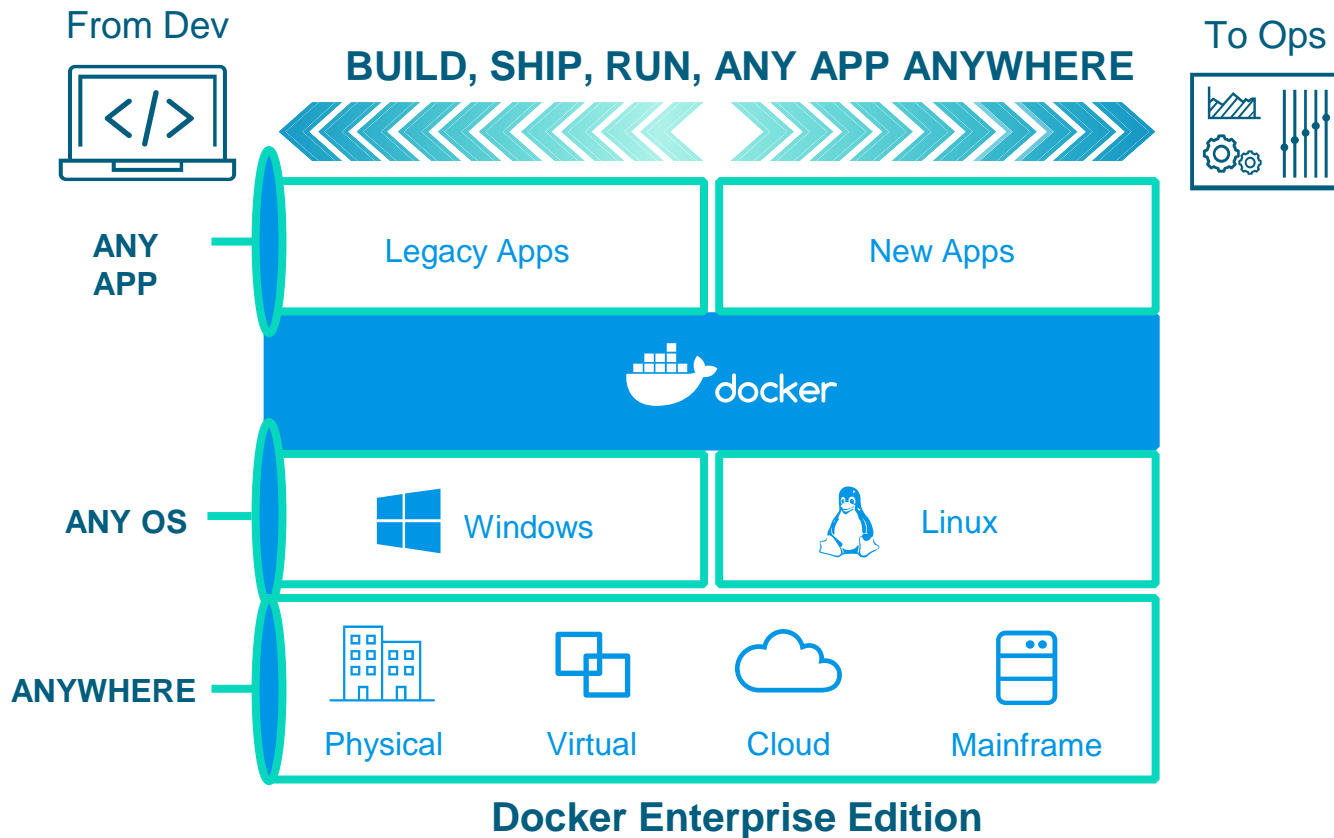
Docker and the IBM z System Cloud

Ray Edwards—Sales Manager Northeast

Ray.edwards@docker.com

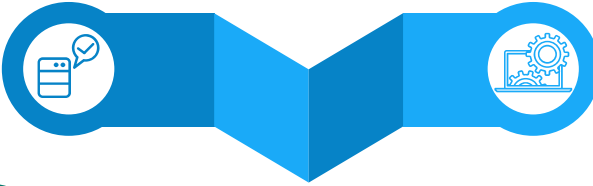


Docker Enterprise-Ready Container Platform: Provides Infrastructure Independence and Power of Choice to IT and Software Teams



Docker-Based Containerization Strategy Addresses These Problems for Our Customers

Avoiding Large CapEx Investments for New Data Center Builds



Delivering Modern Software Development Benefits to Your 1000s of Legacy Applications

Avoiding Cloud Lock-in – Flexibility & Choice



Offering Consistent & Secure Global Supply Chain for the Delivery and Protection of Your Software IP

Restructuring & Unwinding Costly Legacy ELA Arrangements



Reducing Exposure to Security Exploits Targeting Your Data

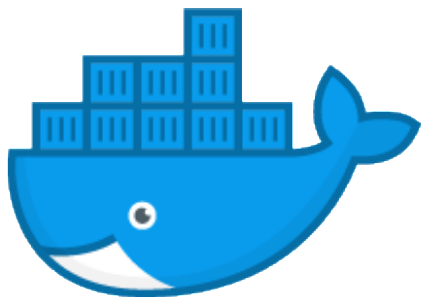
Creating Automation and Operational Scale Across Silo'd Infrastructure from Datacenter, to Cloud to Remote Offices



Streamlining the Integration of Applications and Systems from M&A



Docker is a Standard



docker

Docker Certified

**Docker is a Standard to Build, Ship, and Run Software
Anywhere!**

That Standard Does Not Ever Change

**The Same API's....
The Same Commands....**

**The Same Features All Garunteed To Work Across
Infrastruncture, Clouds, and OS**

Choice, Efficient, Secure, Lock In Avoidance



Evolution of the Docker Platform

Many purposes, users and infrastructure



Open source projects with **framework** for assembling core components that make container systems

Intended for:
Open source contributors +
ecosystem partners



Community Edition

Free to use, community-supported **tools** for delivering containers

Intended for:
Developers and small teams
Software dev & test

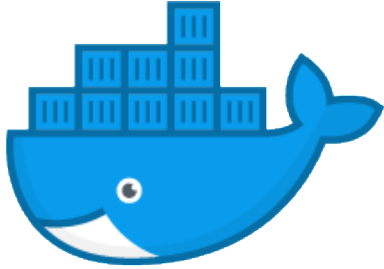


Enterprise Edition

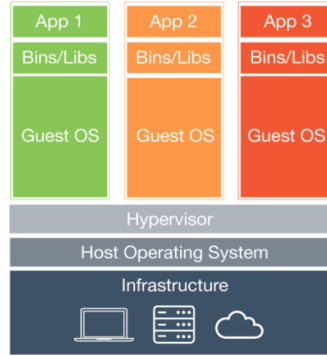
Enterprise **container management platform** subscription for delivering a secure software supply chain

Intended for:
Production deployments +
Enterprise customers

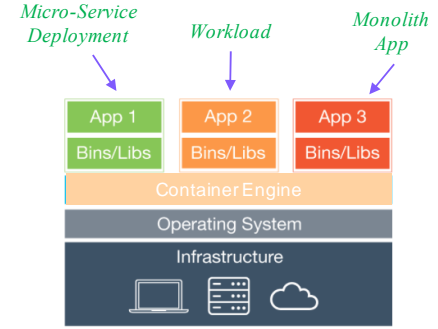
What Does Docker Do?



docker



Virtual Machines



Containers

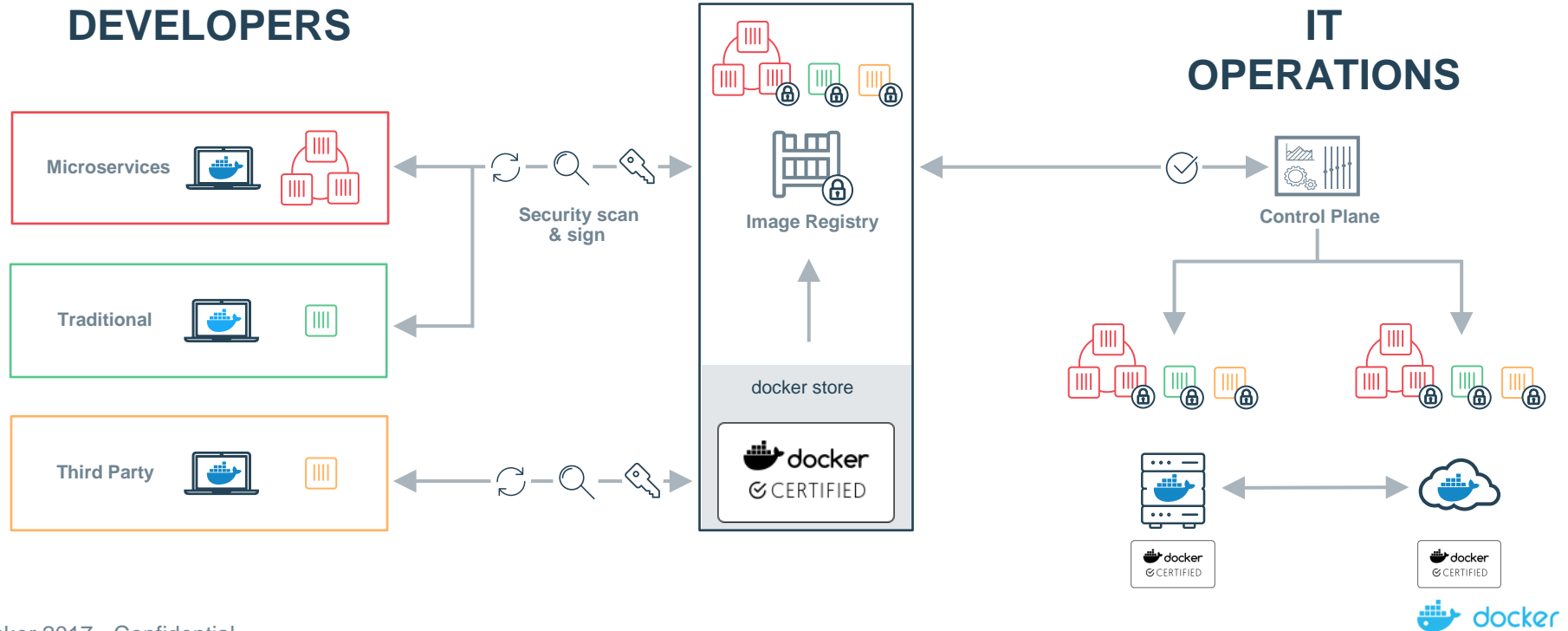
Creates Cloud Ready, Isolated, Consistent, & Lightweight Images that Run Code... Anywhere

Certified on Any OS.....

And Any Infrastructure.....



Build a Secure Software Supply Chain (CaaS)



Docker's Value is Implicit Anywhere it is Instantiated



App Isolation

13X

More software releases
Start Iterating

62%

Reduced MTTR
Immutable Infrastructure



Consistent Portability

100%

Removal of Code Fail Rate
across private/public clouds

100%

“Eliminates works on my
machine” issues



Compute Density

20X

Better resource CPU utilization

40%

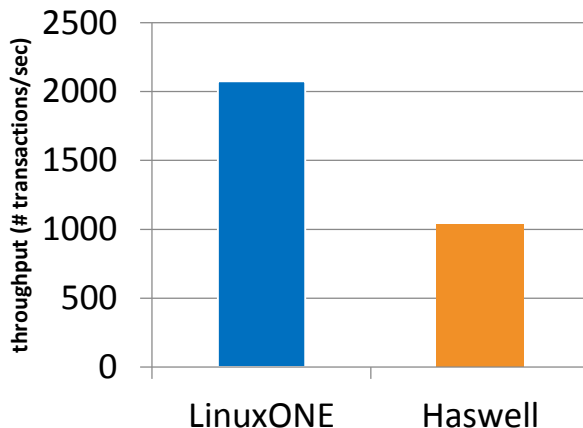
Reduction of VM usage

Introducing a Newly Certified Docker on zLinux



Better Container Density = More WL Throughput

- Runs **4K active** Docker containers on ave **2.0x** better than comparable Haswell-based system!
- Host over **10K** Docker containers with mixed (heavy & light) workloads



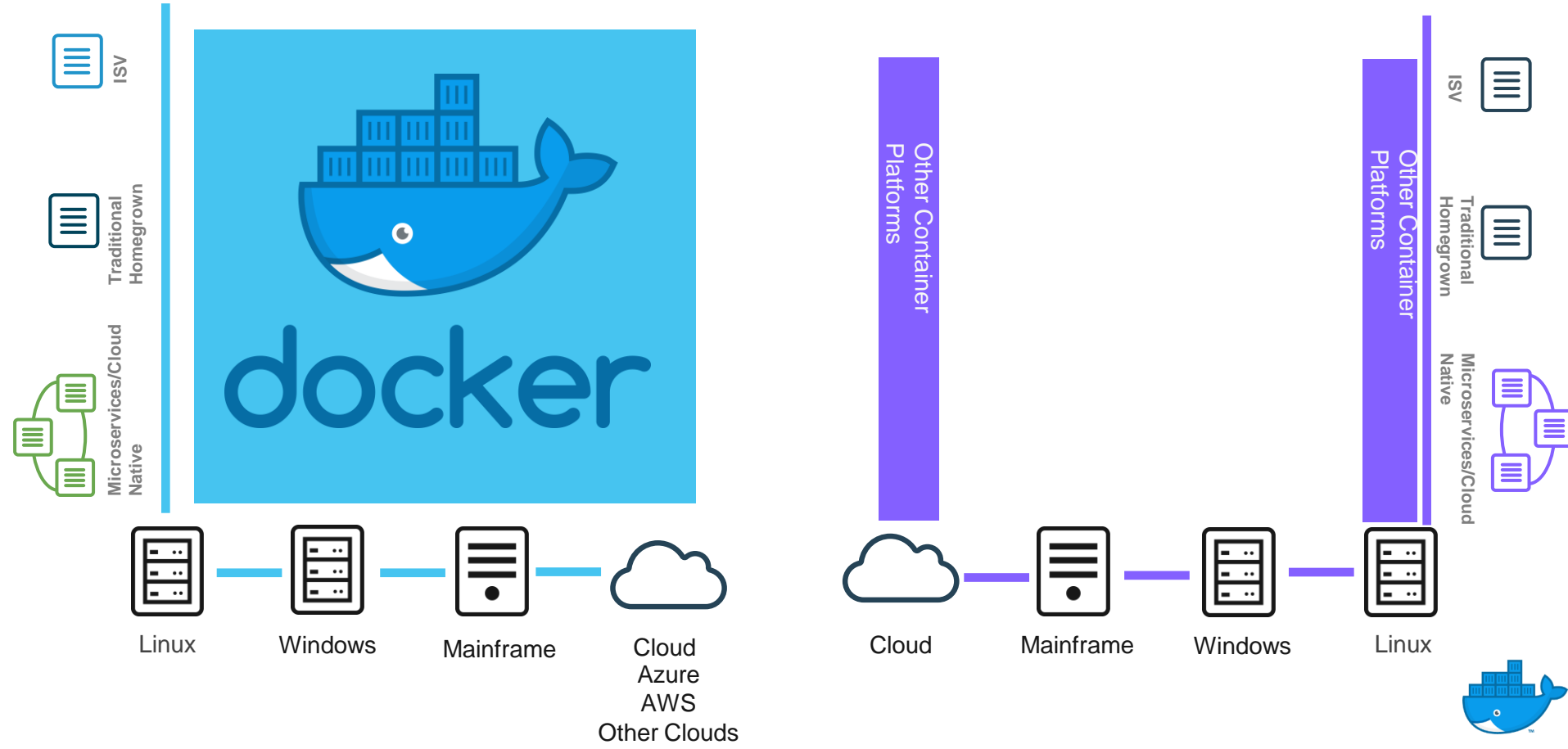
IBM z Systems



Bring the Modern Agile Developer Back to Z



Why Docker for MTA



Certified Docker IBM S390 Images through CaaS Workflows

Developers

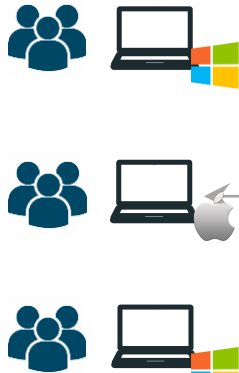
IT Operations

BUILD

Development Environments



Docker Engine

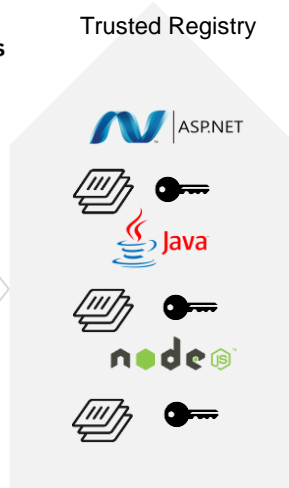


SHIP

Secure Content & Collaboration



Trusted Registry

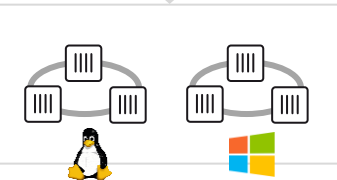
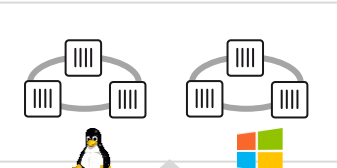


RUN

Deploy, Manage, Scale



Universal Control Plane

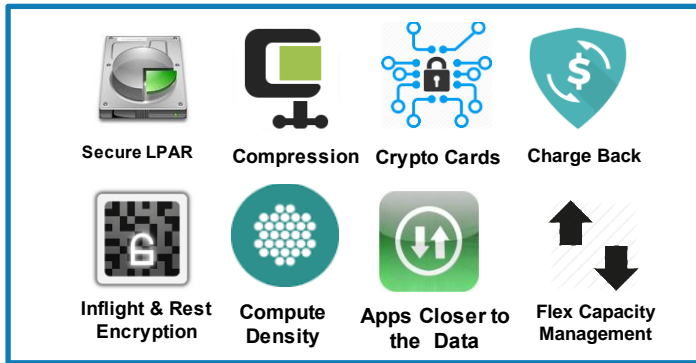
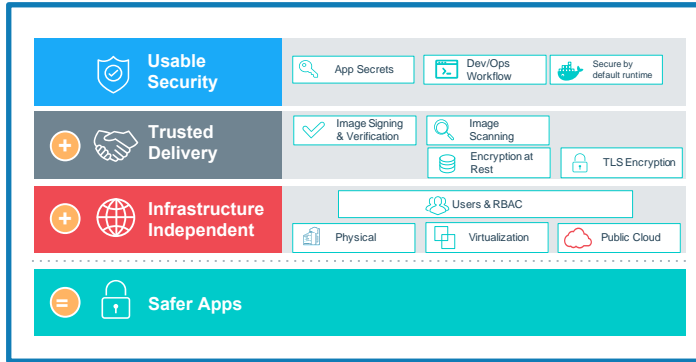


IBM z & Docker - Security Supercharger for Cloud Apps



IBM z Systems

Docker Secures the Global Software Supply Chain Lifecycle Provenance Across Build, Ship, Run



Z Ultra Secure & Performant OS/Infrastructure for Modern Developers

Optimal Landing Zone for Blockchain & Machine Learning Applications

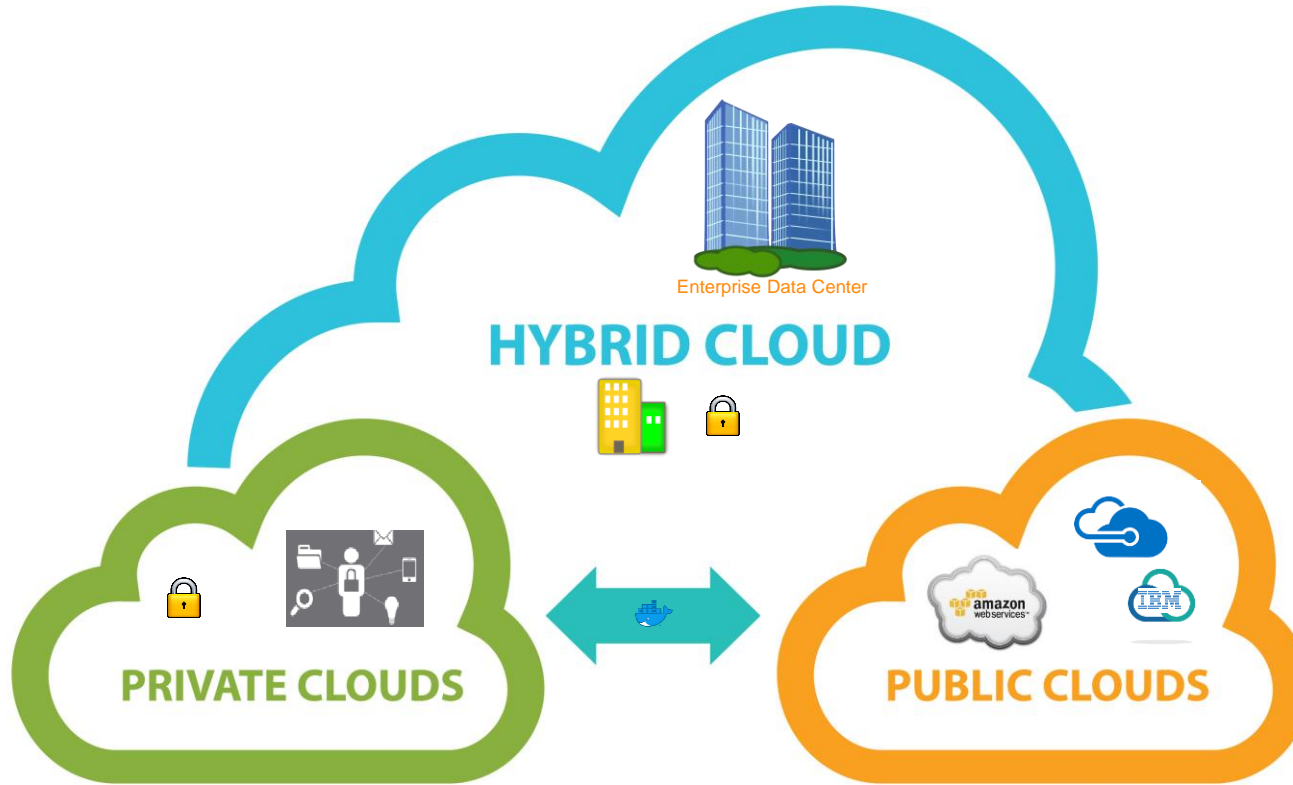


	MICROSERVICES	TRADITIONAL APPS GONE AGILE	TRADITIONAL APPS
PUBLIC CLOUD	↕	↕	↕
NEXT GEN PRIVATE CLOUD	↕	↕	↕
TRADITIONAL ON-PREMISES	↕	↕	↕

And..... Developers have the same Docker Experience as on x86. They won't even know they are on Z

Docker Cloud Autonomy

“A failure in our operational systems or infrastructure or those of third parties, including due to security breaches or cyberattacks, could disrupt business, damage our reputation, and cause losses” – Chubb



Private Cloud

- Single Tenant
- Standard tooling
- Enforceable policies

Public Cloud

- Multi Tenant
- Disparate tools
- Multiple API

- It may be easy to move apps to the cloud, BUT what if you want to change providers?
- How do you bring apps back on-premise
- How do you ensure consistent API, tooling experience on prem and also across cloud providers
- How do you reduce security exposure
- Common governance & self service
- How do you manage Edge computing

Methodology: Docker EE Modernizes Apps and Infrastructure

┌ The quickest way to cut into that 80% ┐



Existing
Application

Convert to a
container
with Docker EE

**Modern
Infrastructure**
Built on premise, 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



Get Started Today

The quickest way to cut into that 80%



Existing
Application

Convert to a
container
with Docker EE

**Modern
Infrastructure**
Built on premise, in the
cloud, or as part of a
hybrid environment.

What's Included

- 1 week onsite support /3 weeks remote
- Deploy Docker EE on standalone Azure
- Containerize one application
- End-to-end app deploy using Docker EE
- App operations using Docker EE

In the first 7 days

- Containerize App Components
- Compose App Components
- Deploy App Stack to Docker EE
- Docker EE platform and tools showcase
- Performance testing and tuning



Wanted to modernize one of their legacy java applications running in their datacenter so they could reduce costs and establish a common governance model for all their applications

Priorities going into the MTA Engagement

- TCO reduction
- Common governance model
- Security
- Self-service platform
- Standard deployment model



Time from Commit to Deploy



Infrastructure Utilization



MTTR for Security Patches



Average Time To Scale

Before

7 Days

4 Servers

7 Days

7 Days

After

5 Mins

2 Servers

2 Hours

5 Mins

99% Faster

50% Decrease

84x Decrease in MTTR

99% Increase