Vaatimukset IT-ratkaisulle kasvavat, millä teknologioilla liiketoiminnan tarpeisiin vastataan?

Mitä esimerkiksi kätkeytyy termien DevOps, Microservices ja Containers taakse – mitä roolia ne näyttelevät

Janne.Korhonen@redhat.com

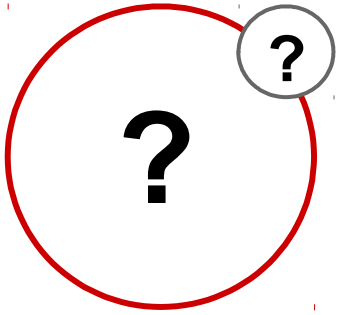
Software Disrupts Business

Retail

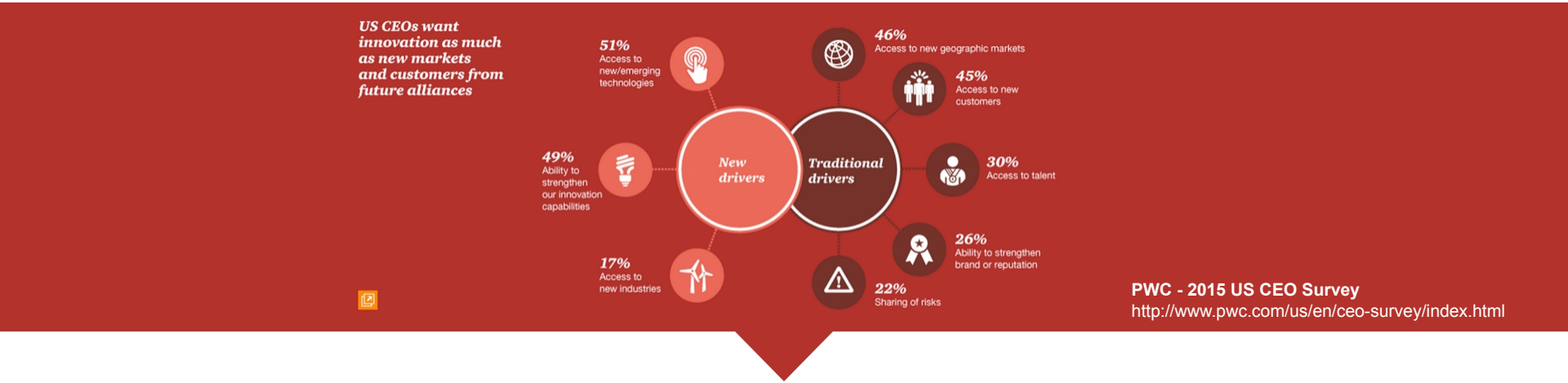
Finance

Media

Transportation



Impact of Technology



PWC - 2015 US CEO Survey
http://www.pwc.com/us/en/ceo-survey/index.html

36% of US CEOs say they entered or considered entering a different industry at some point over the past three years

Half of US CEOs believe a significant competitor is emerging or could emerge from technology sector versus 32% of CEOs globally.

61% Think it's likely competitors will compete in industries other than their own over the next three years

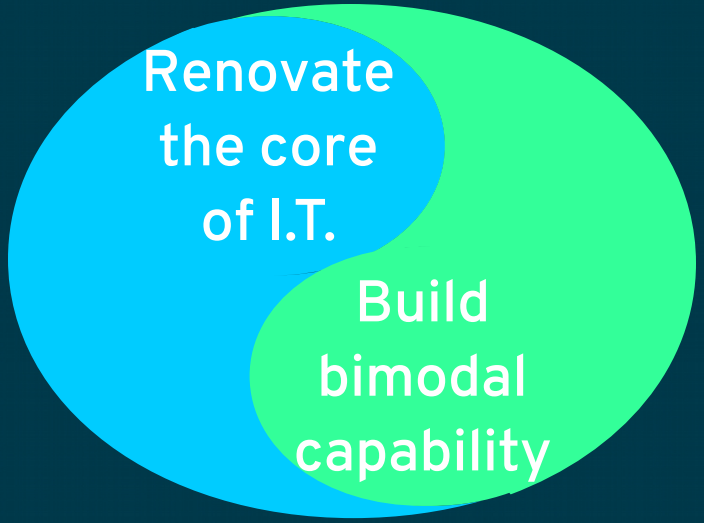
Gartner - Bi-Modal IT

I.T. Industrialisation

Cloud scale infrastructure

Software-defined flexibility

Diverse sourcing



Digitalisation

Dealing with uncertainty

Exploratory iterative style

Multidisciplinary teams

New risk/speed trade-offs

Gartner - Bi-Modal IT

Traditional Mode (1)

- Waterfall development
- Known vendors
- Strong governance
- Minimised risk
- Technology teams

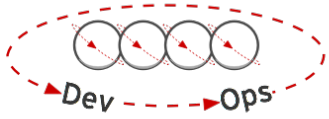
Nonlinear Mode (2)

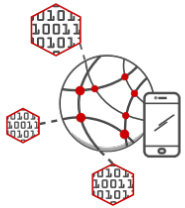
- Iterative development
- Small & innovative partners
- Optimised governance
- Managed risk
- Multidisciplinary teams

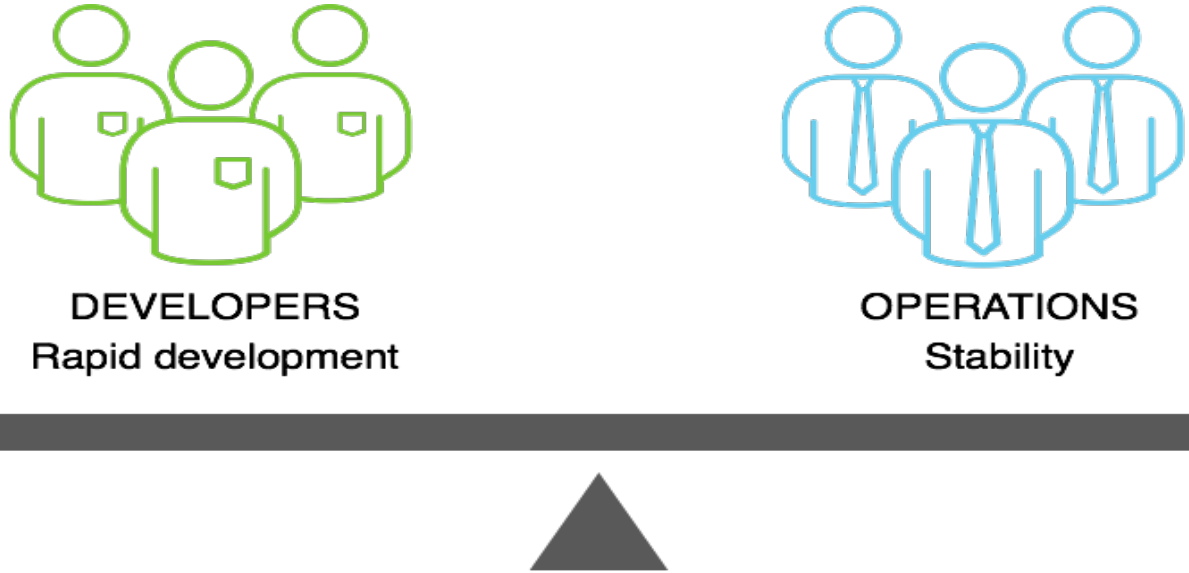
"By 2017, 75% of IT organisations will have a bimodal capability."

IT Must Evolve to Stay Ahead of Demands

Development Process	Application Architecture	Deployment & Packaging	Application Infrastructure
Waterfall	Monolithic	Physical Servers	Datacenter
Agile	N-Tier	Virtual Servers	Hosted
DevOps	**Microservices**	**Containers**	**Cloud**







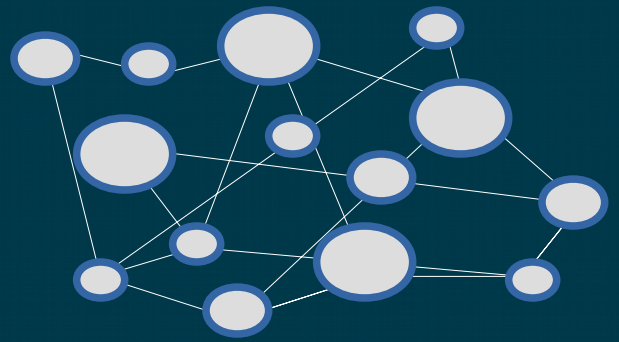
BOTH TEAMS ARE THERE TO ENABLE THE BUSINESS

Microservices

Traditional Layered Monolithic Application Bundles

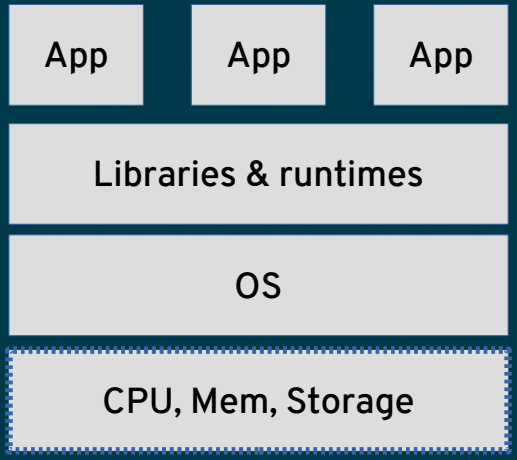
- Complexity contained
- Easier for Ops to deploy
- Inefficient scaling, and creates a single point of failure
- Constrains agility and innovation
- Binds in legacy, and limits technology choices

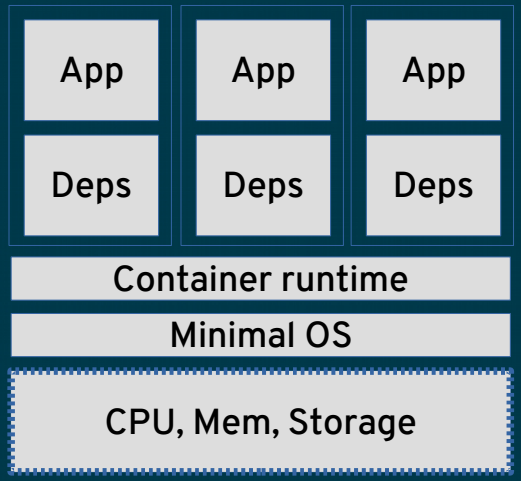
Micro Services



- A more complex deployment model
- Supports increased improvement frequency
- Efficient scaling
- Breaks down innovation bottlenecks
- More resilient
- Best of breed approaches

Containers


App
App
App
Libraries & runtimes
OS
CPU, Mem, Storage


App
App
App
Deps
Deps
Deps
Container runtime
Minimal OS
CPU, Mem, Storage

Containers

Portability

Immutability

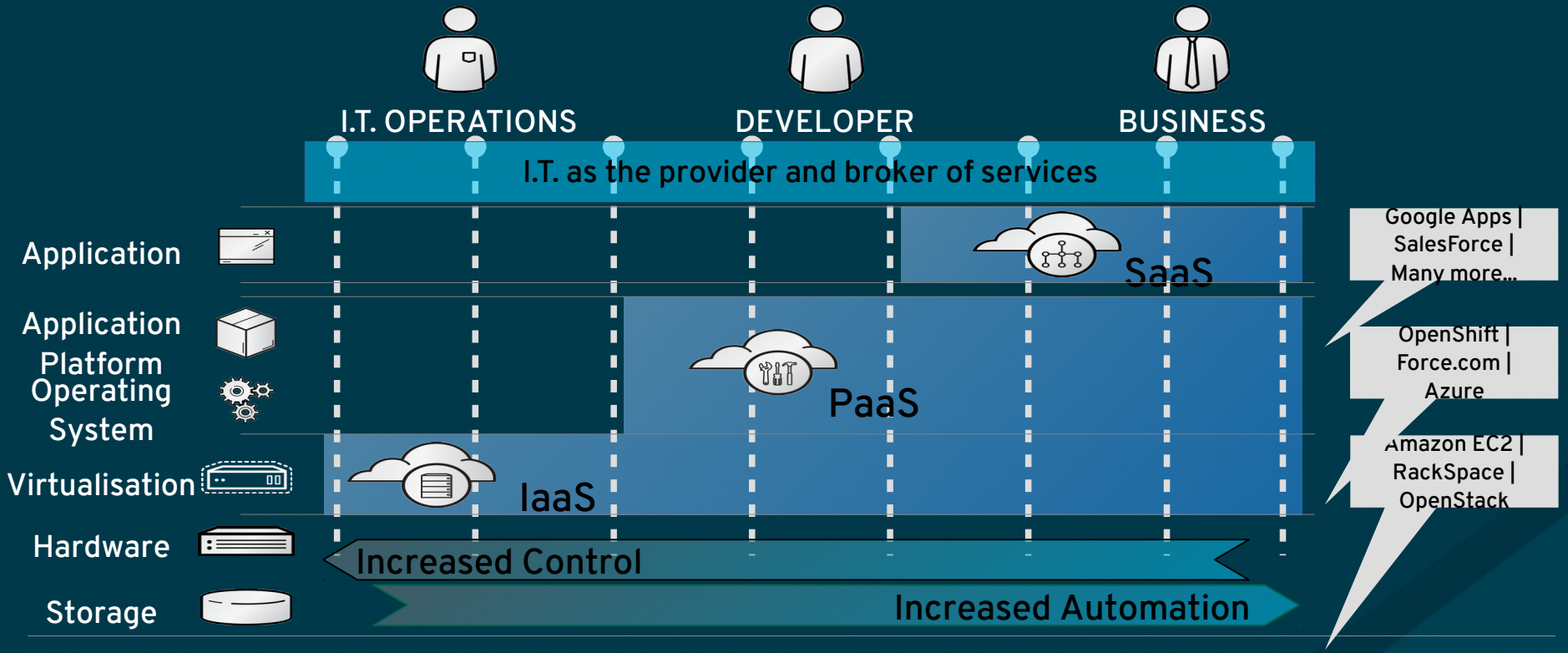
Encapsulation

Enabling

Agility

Innovation

Cloud



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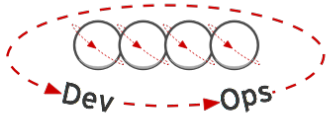
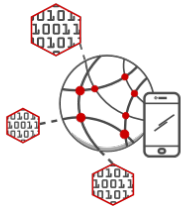
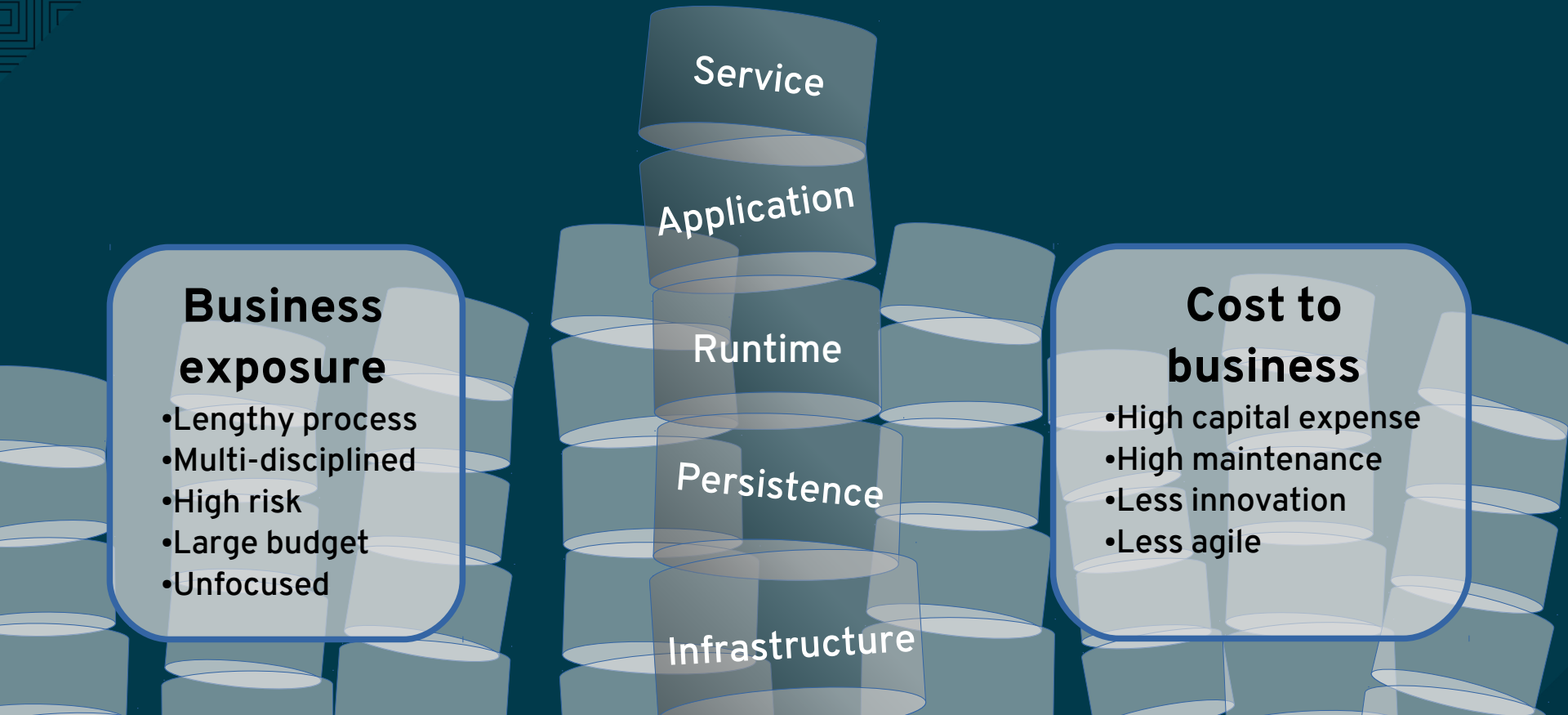




Without Platform as a Service

.. every project is delivered individually, so that even with standard components the result is a complex service landscape.



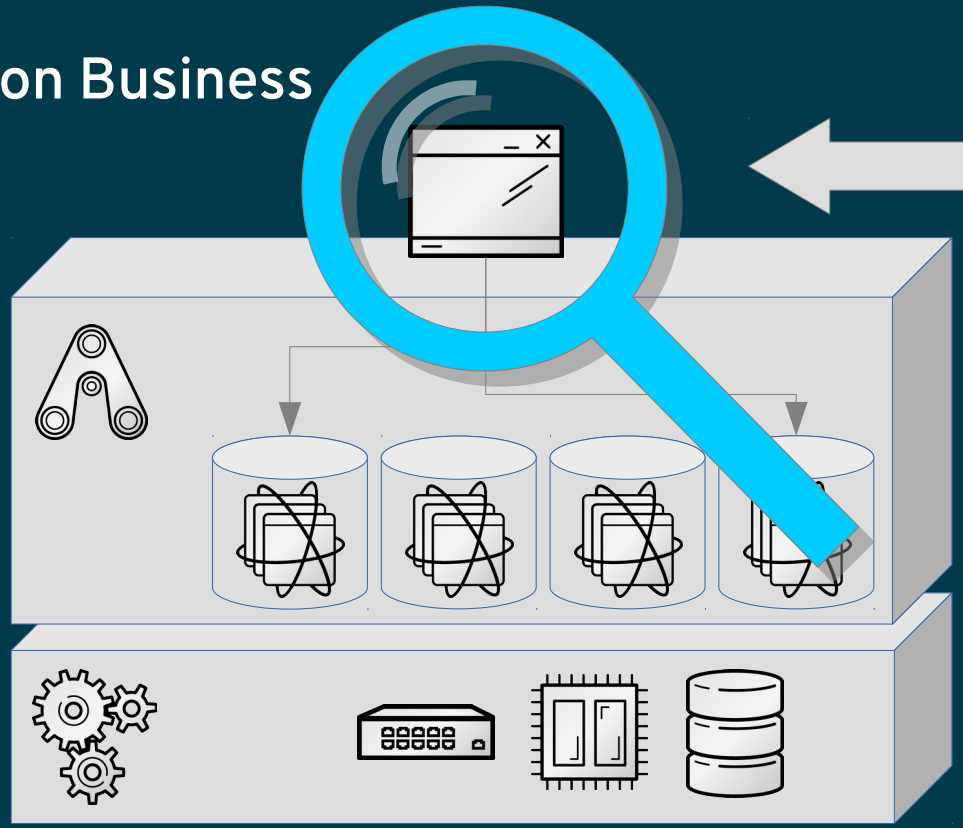
With Platform as a Service

Focused on Business

Applications

Orchestration of dependent services, technology and infrastructure

Infrastructure



Developers access an ecosystem of supporting services and tools

Differing Approaches to PaaS

Technology Ecosystems

- Fewer language choices
- Proprietary API
- Managed platform services
- Google App Engine
- Heroku

Lock-in

Orchestrated Frameworks

- High density run-time environment
- Open technology choices
- Cloud Foundry
- OpenShift v2

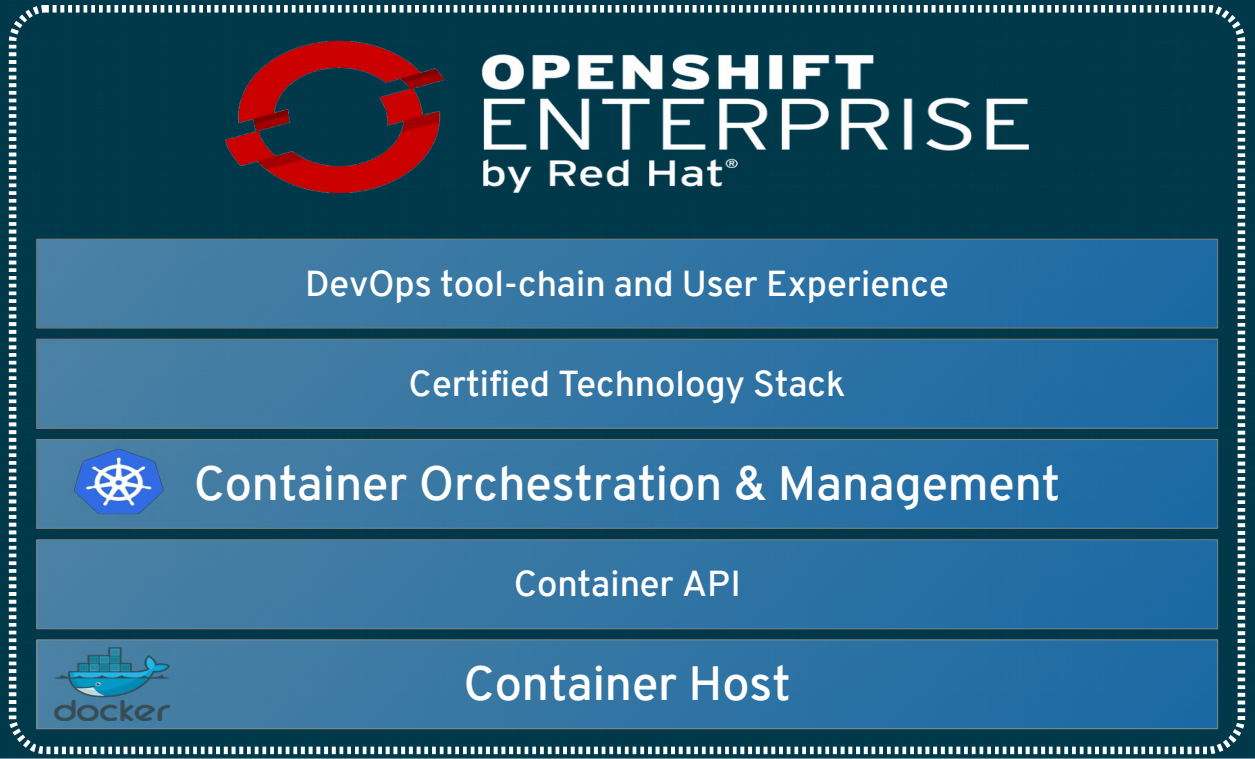
Run-time dependencies

Orchestrated Virtualisation

- Bespoke life-cycle tool chain
- SOE, IaaS+
- Git
- Jenkins, TeamCity
- Puppet, Chef

Support overhead

The Container-based PaaS



Red Hat Brings It All Together