



KubeCon



CloudNativeCon

Europe 2018

Skip the Anxiety Attack

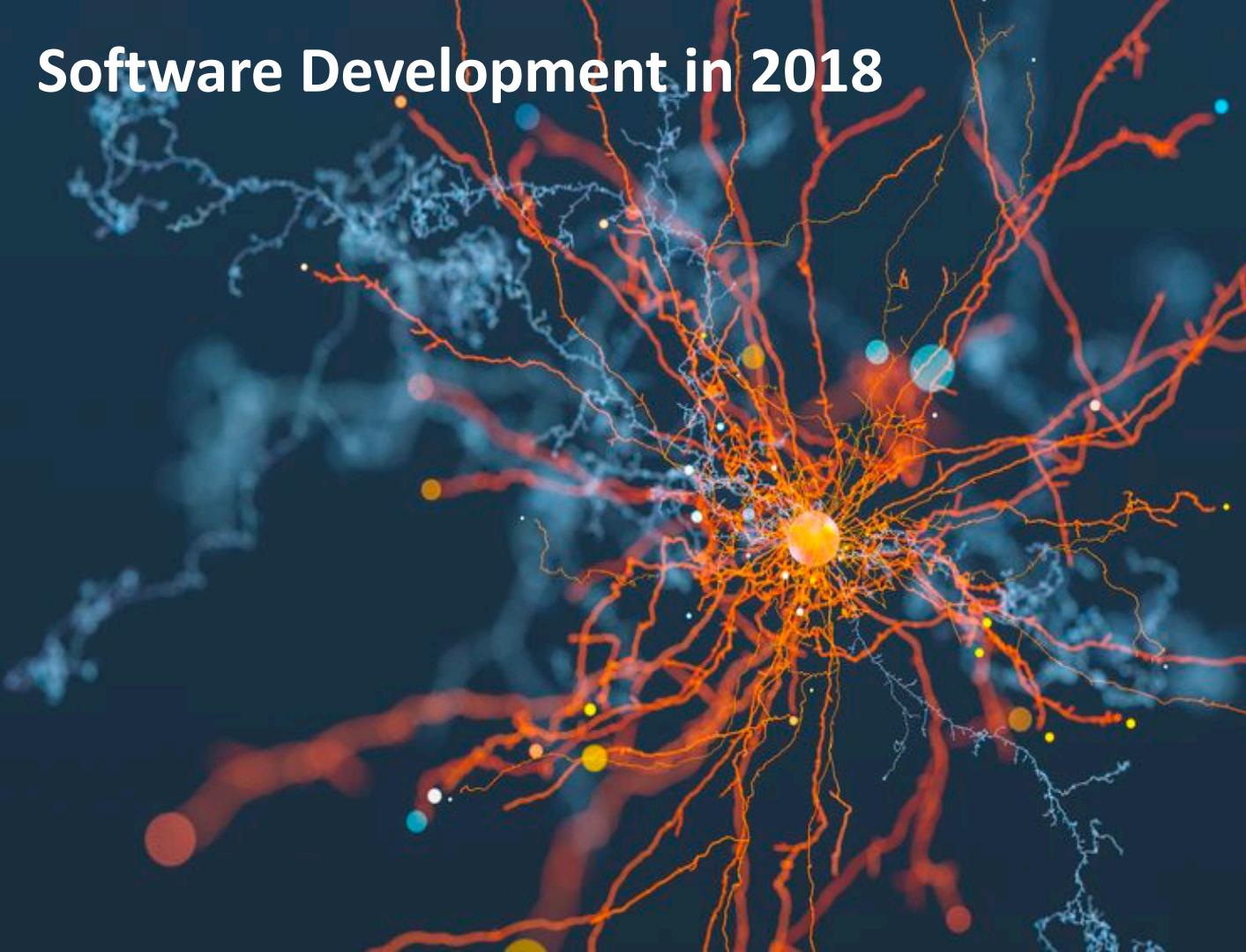
Build Secure Apps with Kubernetes

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Software Development in 2018



More Rapid

More Distributed

More Dynamic



What can I worry about later?

Scalability

Stability

Security

How do you stay Focused?



Keys to Developer Productivity

Native CI/CD

Flexible infrastructure

Security built-in

Portability

A blurred background image of a computer screen displaying a large amount of PHP code. The code is written in a dark-themed code editor, showing various PHP functions, conditional statements, and variable assignments. The text is mostly illegible due to the blur, but some recognizable words like 'wp_head()', 'wp_title()', 'viewport', 'profile', 'pingback', 'favicon', 'script', 'src', 'echo', and 'if' are visible.



Kubernetes for Developers

- Intelligent scheduling
- Self-healing
- Horizontal scaling
- Service discovery & load balancing
- Automated rollouts & rollbacks
- Secret & configuration management



Kubernetes as a Service

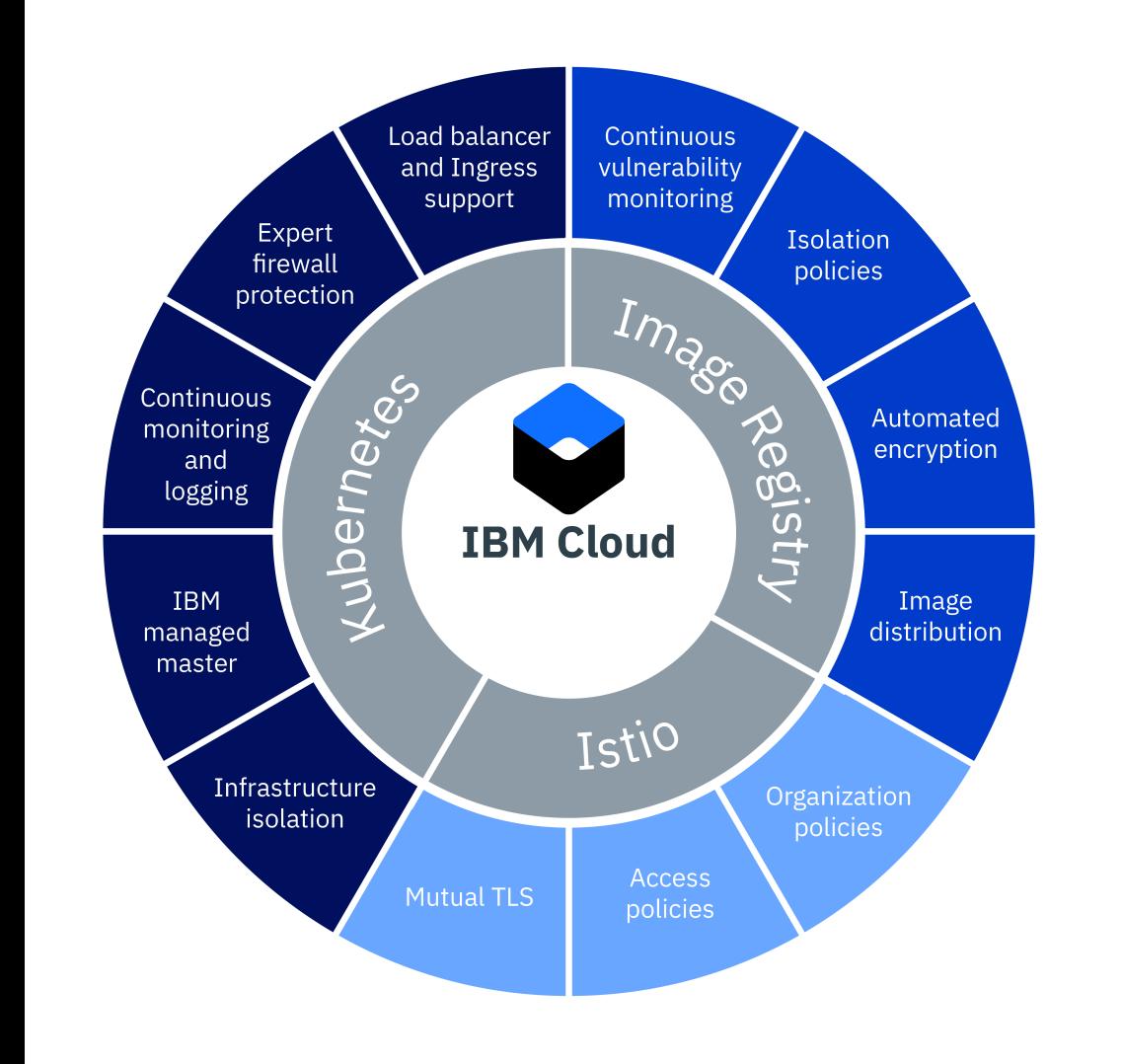


IBM Cloud
Container Service

IBM Cloud manages
Kubernetes for
enterprises:

- K8s master
- IaaS
- Health monitoring
- Node recovery
- Operational components
- Global Deployment

Secure to the core



Track vulnerabilities



Compute

Images with vulnerabilities

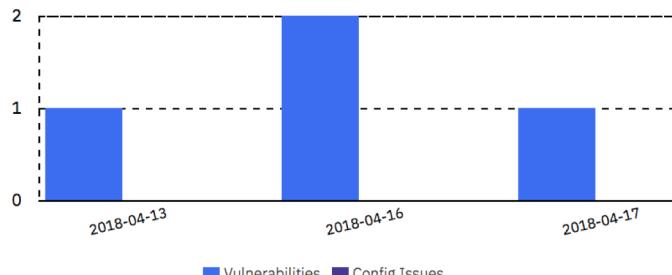
4

Images with vulnerabilities

5

Images with config issues

Images with Vulnerabilities and Config Issues in the last 7 days



Control what gets deployed

Registry: Private Repositories / old_mysql / Security report for old_mysql:latest

Security report for old_mysql:latest

 Overview

 **Do Not Deploy**

 **62 Vulnerabilities**

 **5 Configuration Issues**

Vulnerabilities

Vulnerability Advisor checks your images for known vulnerabilities based on official community maintained lists.

 Search

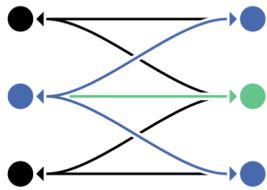
Vulnerability ID	Policy Status	Affected Packages	How to Resolve
> CVE-2016-2834	● Active	nss-util, nss-sysinit, and 2 more...	Upgrade 4 packages
> CVE-2016-8635	● Active	nss-util, nss-sysinit, and 2 more...	Upgrade 4 packages
> CVE-2016-5285	● Active	nss-util, nss-sysinit, and 2 more...	Upgrade 4 packages
> CVE-2017-5461	● Active	nss-util, nss-sysinit, and 2 more...	Upgrade 4 packages
> CVE-2016-1762	● Active	libxml2, libxml2-python	Upgrade 2 packages
> CVE-2016-1833	● Active	libxml2, libxml2-python	Upgrade 2 packages



Trust that hosts aren't tampered with using Intel TXT/TPM

▼	<input type="checkbox"/> kube-wdc07-crf030479c185644b2 bf6e6e6f24b75c77-w6	● Ready	10.190.116.66	169.61.98.34	1.9.3_1502	
	Machine Type mb1c.16x64.encrypted - 16 CPUs, 64 GB RAM	Public VLAN 2207447	Private VLAN 2207449	Hardware isolation Dedicated	Trusted True	
▼	<input type="checkbox"/> kube-wdc07-crf030479c185644b2 bf6e6e6f24b75c77-w7	● Ready	10.190.116.85	169.61.98.35	1.9.3_1502	
	Machine Type mb1c.16x64.encrypted - 16 CPUs, 64 GB RAM	Public VLAN 2207447	Private VLAN 2207449	Hardware isolation Dedicated	Trusted True	

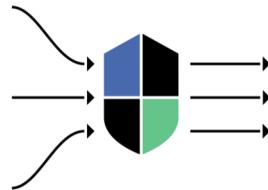
Istio.io



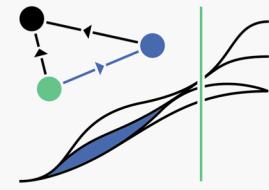
Intelligent
routing
& load
balancing



Resilience
across
languages
& platforms



Fleet-
wide policy
enforcement



In-depth
telemetry
& reporting



Istio founding members



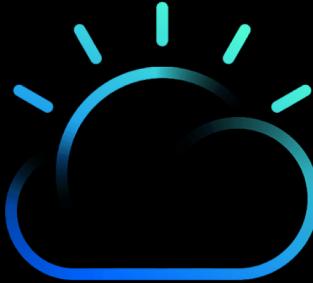
Istio community partners



Pivotal



Microsoft



IBM Cloud

Public Cloud



IBM Cloud
Container Service

Private Cloud



IBM Cloud Private

Get coding.

We'll manage
the rest.



IBM Cloud

ibm.biz/ModCloud

Thank you

Jason McGee
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