Red Hat

HOW CONTAINERS DRIVE
APPLICATION MODERNIZATION IN THE PUBLIC SECTOR

▶ PUBLIC SECTOR IT MODERNIZATION: CURRENT STATE

With over $7B+ technical debt, public sector organizations are being driven to modernize their IT by:

LEGISLATION

GOVERNMENT OFFICIALS

CITIZENS

who are demanding:

RESPONSIVENESS
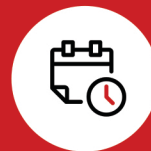
QUALITY OF SERVICES

TRANSPARENCY

The public sector uses virtual machines widely, but suffers from:
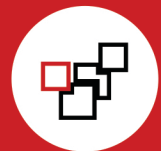
wasted spending

out-of-control development timelines

costly, inefficient use of IT resources

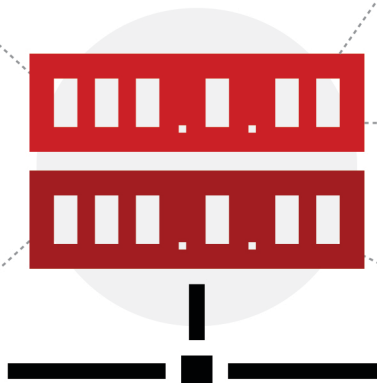security issues from fragmented systems

HOW CONTAINERS HELP

Container environments offer the public sector:

easy development and movement of applications across environments

right-sized, efficient use of IT resources

the ability to run many applications on the same host at once

ability to move workloads anywhere to suit their needs

built-in security and assurance across the cluster

#1

CONTAINER ADOPTION RANKED #1 AMONG 44% IT PUBLIC SECTOR LEADERS (16% INCREASE FROM 2017)
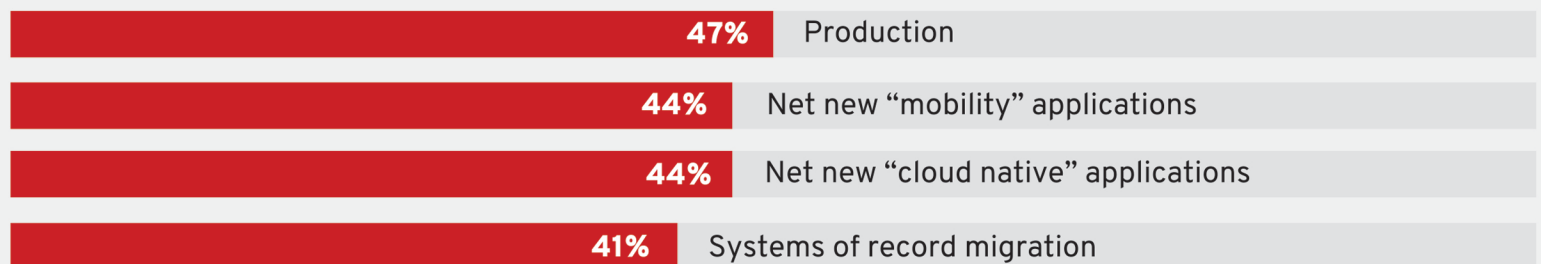
2X-3X

A SINGLE CONTAINERIZED SERVER CAN HAVE 2X - 3X THE NUMBER OF APPLICATIONS THAN A NORMAL VM

SOME U.S. STATES (LIKE NC) HAVE CREATED INNOVATION CENTERS FOCUSED ON ELEVATING PUBLIC IT (LIKE WITH CONTAINER PLATFORMS)

For which of the following do IT decision makers use containers today?

47%	Production
44%	Net new "mobility" applications
44%	Net new "cloud native" applications
41%	Systems of record migration

HOW ARE CONTAINERS FUELING TRANSFORMATION IN THE PUBLIC SECTOR?

Legacy environments are **transformed faster**, and **future-proofed**

Faster innovation and app design

Organizations are able to be **more responsive**, while **lowering cost**

Agency development and operations teams are **more in sync** and **more productive**

Containers achieve government application development agility, scalability and quality*

5-YEAR BENEFIT (AVG/ORG)

1. Increases IT productivity — **$3.7M**
2. Increases business productivity — **$1.3M**
3. Decreases IT infrastructure costs — **$0.8M**
4. Decreases risk mitigation (Fewer Outages) — **$40K**

531%
ROI (AVG, 5YR)

66%
FASTER DEVELOPMENT

$7.42M
HIGHER REVENUE PER ORG

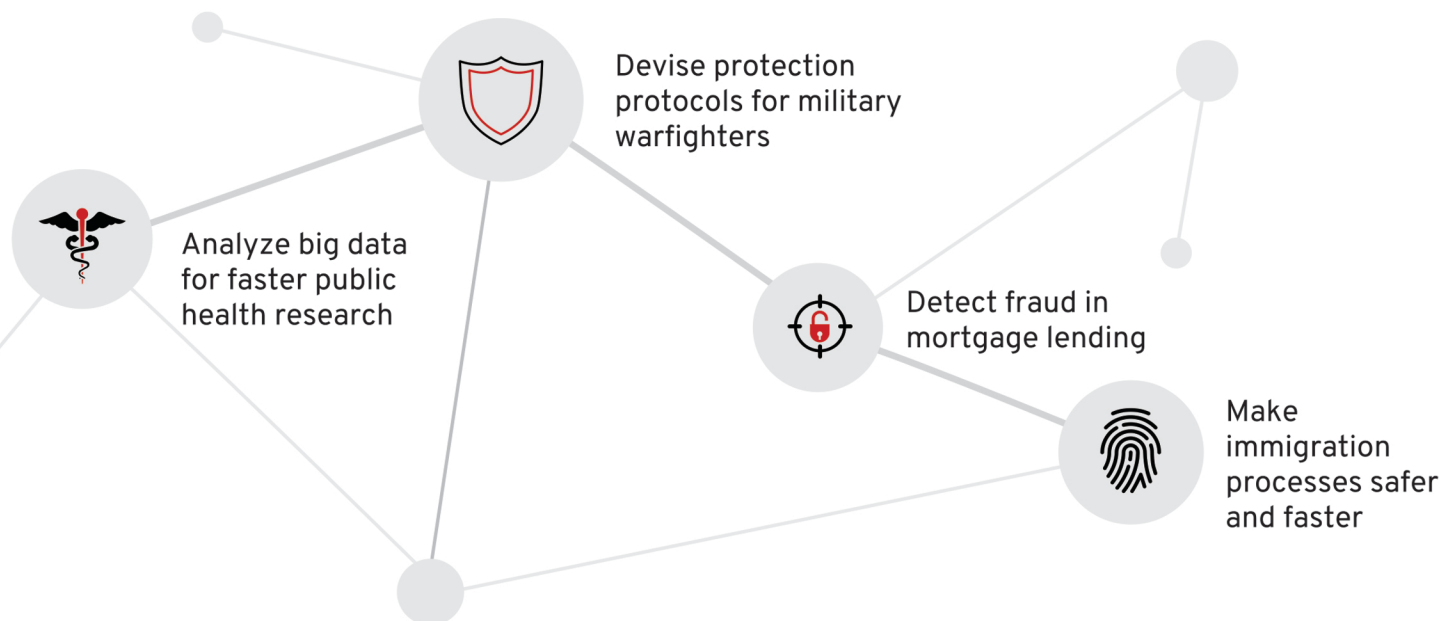**35%**
LESS IT STAFF

38%
LOWER IT INFRASTRUCTURE AND PLATFORM COSTS PER APP

THE GOVERNMENT OF BRITISH COLUMBIA, CANADA, REDUCED SECURE APPLICATION DEPLOYMENT FROM MONTHS DOWN TO HOURS USING RED HAT OPENSHIFT

PUBLIC SECTOR USES OF CONTAINER PLATFORMS TODAY

Devise protection protocols for military warfighters

Analyze big data for faster public health research

Detect fraud in mortgage lending

Make immigration processes safer and faster

RAPID FEDERAL AGENCY CONTAINER ENVIRONMENT USAGE PROMPTED NIST TO CREATE A CONTAINER SECURITY GUIDE (SPECIAL PUBLICATION 800-190) TO ESTABLISH COMMON BEST PRACTICES

SOME UNIVERSITIES HAVE CONSOLIDATED OVER 100 VMS DOWN TO AS FEW AS 5 SERVERS, SIMPLIFYING AND SHORTENING APPLICATION RELEASE CYCLES

WHY RED HAT OPENSHIFT FOR PUBLIC SECTOR?

Container environments are easier, better supported, and more secure

Second largest contributor to the Docker and Kubernetes codebases

Smooths the path to container environment adoption

Supports the widest array of environments and mixed clusters

Alignment and partnership with Microsoft solutions and development

Defining critical government enterprise use of Kubernetes and Docker

INTEGRATION

SCALABILITY

MANAGEMENT

SECURITY

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CERTIFICATION
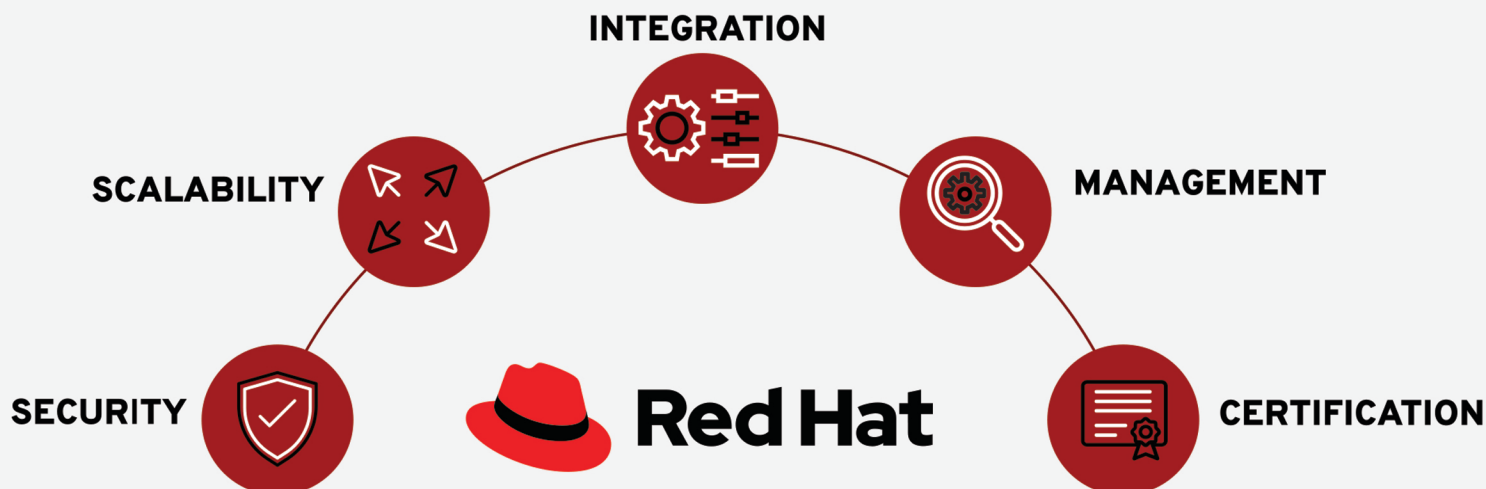
OpenShift-friendly container code frameworks and workload solutions include:

3Scale APICast · Java · Jenkins · mongoDB · node JS · python · Ruby · Red Hat JBoss A-MQ
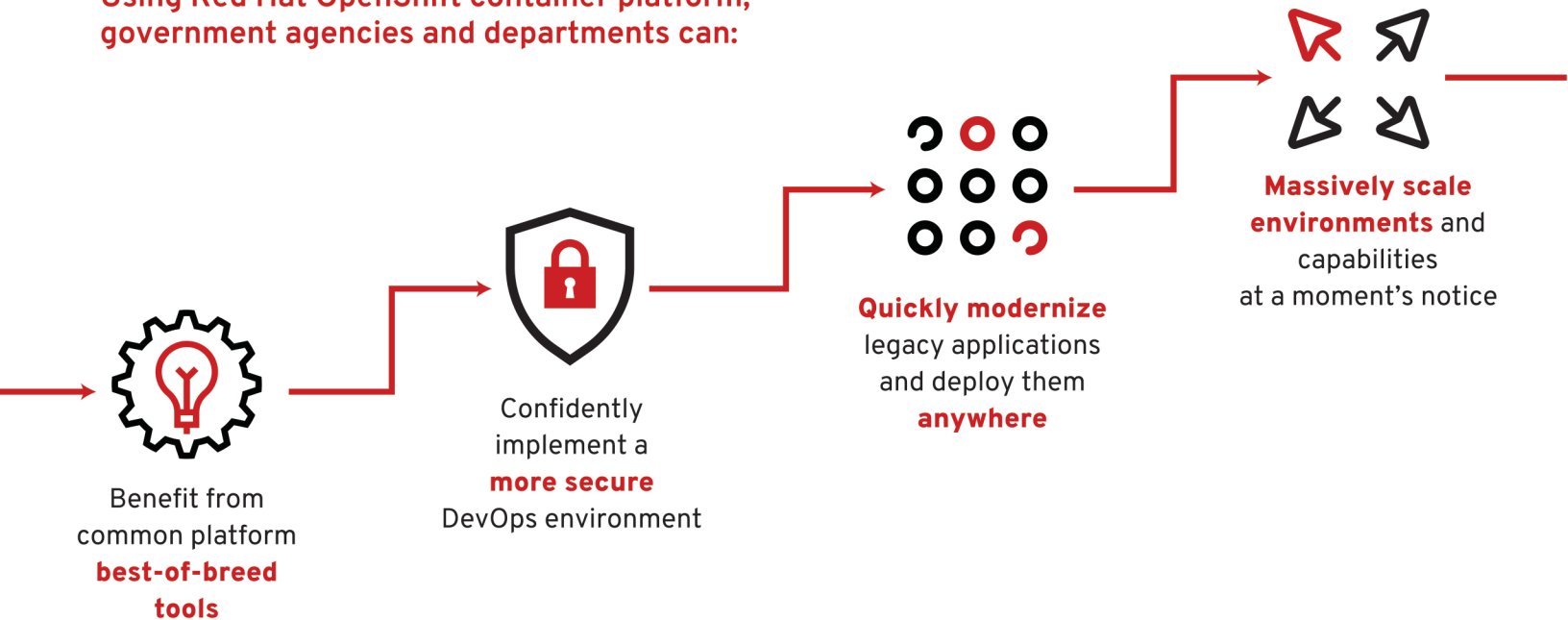
Kubernetes					
6fusion	AviNetworks	Cisco	Click2Cloud	EnterpriseDB	Confluent
CloudBees	Cloudmunch	CoScale	Fujitsu Limited	MongoDB	Databricks
GitLab	Dynatrace	F5	Juniper Networks	Atlassian	Sysdig
Navops by Univa	Hitachi, Ltd.	Iron.io	Nuage Networks from Nokia	Sonatype	Roambee/T-Systems
Pachyderm	NetApp	NGINX	Tremolo Security, Inc.	Elastic	NVIDIA

Kubernetes   **Docker**

Using Red Hat OpenShift container platform, government agencies and departments can:

Benefit from common platform **best-of-breed tools**

Confidently implement a **more secure** DevOps environment

Quickly modernize legacy applications and deploy them **anywhere**

Massively scale environments and capabilities at a moment's notice