

We're listed on StartEngine- Invest in NanoVMs!

Docker / Kubernetes vs Unikernels

Some people think that Unikernels are just containers 2.0 but the reality is that they are incredibly different technologies

[Learn More](#)

DOCKER / KUBERNETES

shell



runs linux



users



30M LOC

many processes

decreases performance

less safe than linux

higher complexity

UNIKERNELS

NO shell



NO linux



NO users



30k LOC

single process

increases performance

safer than linux

simplicity

Unikernels are Faster

01

Kubernetes and Docker are way slower than Linux because they duplicate both the storage and networking layers.

02

NanoVMs [Nanos](#) relies on the underlying infrastructures existing network primitives so it isn't just faster than containers - it's faster than Linux itself.



03

Unikernels can run 2X as fast as Linux on GCP and 3X as fast on AWS. [We're listed on StartEngine- Invest in NanoVMs!](#)

Get Started

Unikernels are Safer

01

Containers complicate the software supply chain.

03

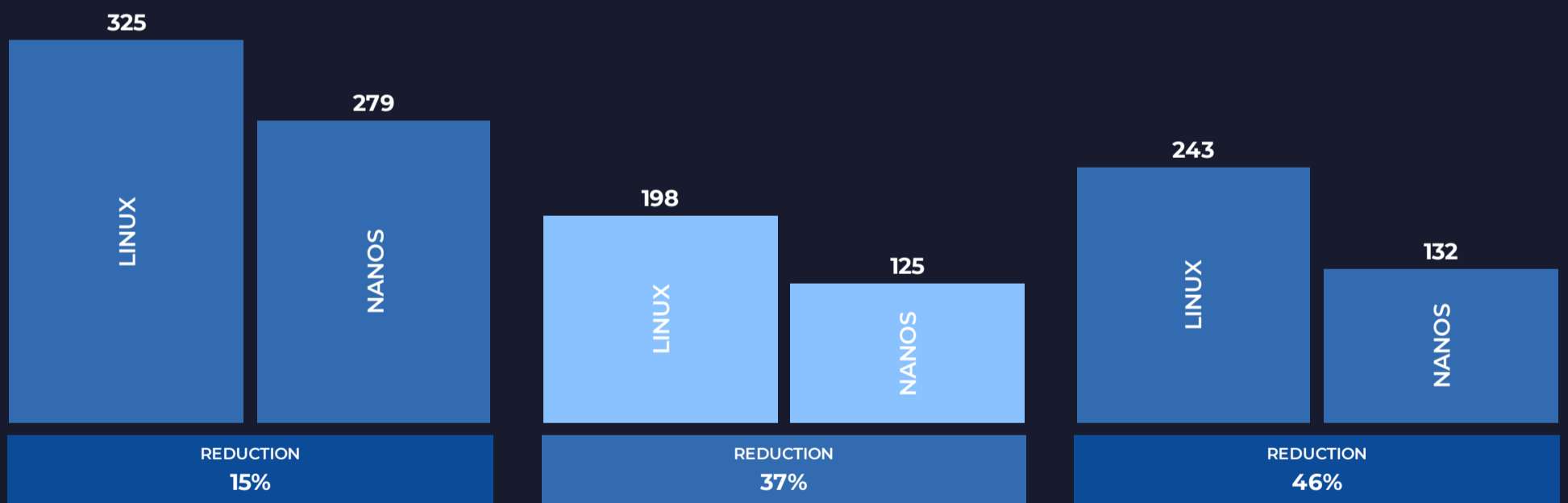
Unikernels Reduce Attack Surface.

02

Containers break well-known Unix/VM security boundaries.

04

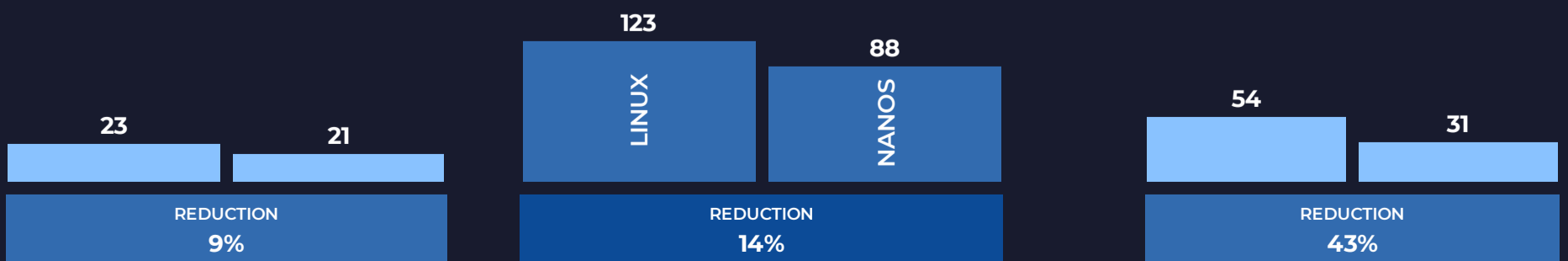
Unikernels Make Compliance Much Easier.

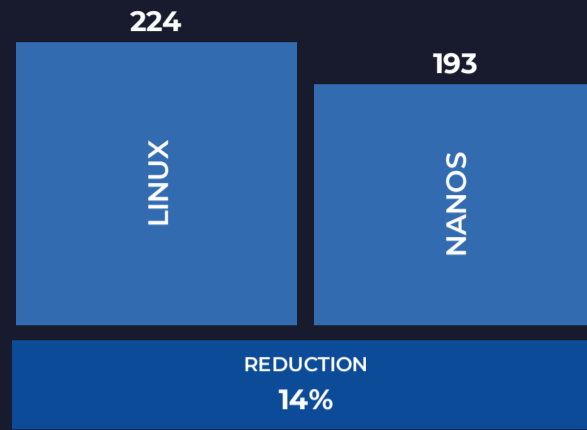


OPERATION SYSTEM SECURITY REQUIREMENT GUIDE

GENERAL PURPOSE OPERATING SYSTEM SRG

RED HAT ENTERPRISE LINUX 7





NIST SP 800-44

Get Started

Unikernels are Simple

01 Unikernels remove layers of abstractions while containers add them.

02 Unikernels use the cloud as the orchestration platform and don't require an external one like K8S.

03 Unikernels are way easier to debug than containers.

Get Started

DOCKER

APPLICATION

UNIKERNEL

DOCKER

OPERATING SYSTEM

HYPERVISOR

HARDWARE

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APPLICATION

HYPERVISOR

HARDWARE

```

$ curl https://ops.city/get.sh -sSfL | sh
Installing ops!
Downloading latest release... ✓
Adding to bash profile... ✓
Successfully installed ops Ops version: 0.1.12
Version: 0.0! Please open another terminal where
the ops command will now be available.

$ ops load node_v12.13.0 -p 8083 -a hj.js

[node hi.js]
booting /Users/root/.ops/images/node.img...
assigned: 10.0.2.15
Server running at http://127.0.0.1:8083/

```

Quick Start

It doesn't matter if you using Mac, Linux or WSL - you can boot your first unikernel right now in just a minute.

We've made it super easy for you to try it out and it's all free and open source.

Get Started



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Docker vs Unikernels

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CONTACT

(833) NANO-VMS

(833) 626-6867

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