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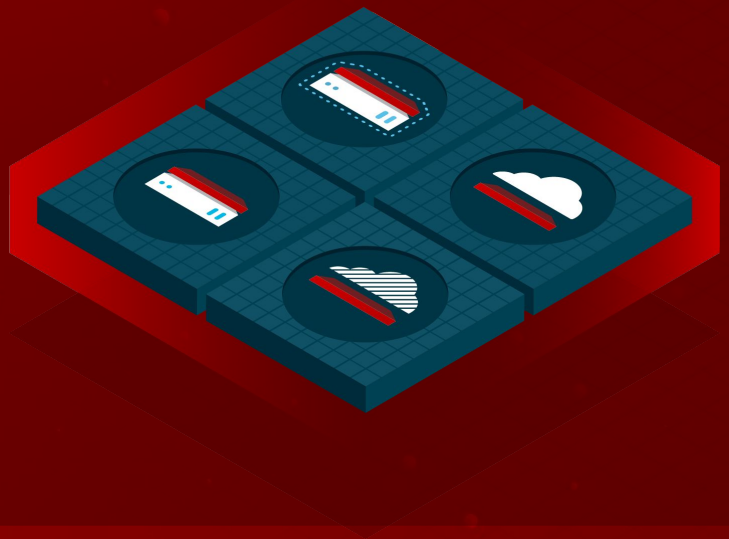
RED HAT ENTERPRISE LINUX CAN DO THAT?

PLATFORM FOR TRADITIONAL AND NEXT GENERATION WORKLOADS

Adrian Keward

RED HAT ENTERPRISE LINUX



ANY APP,
ON ANY FOOTPRINT,
ANYWHERE.

CONTROL

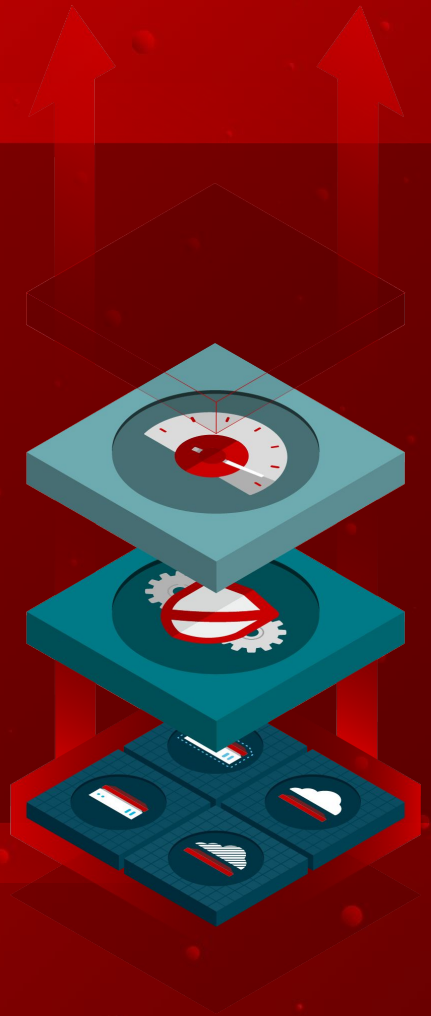
Security and compliance

Platform manageability

Security automation

Native controls

Management at scale



CONFIDENCE

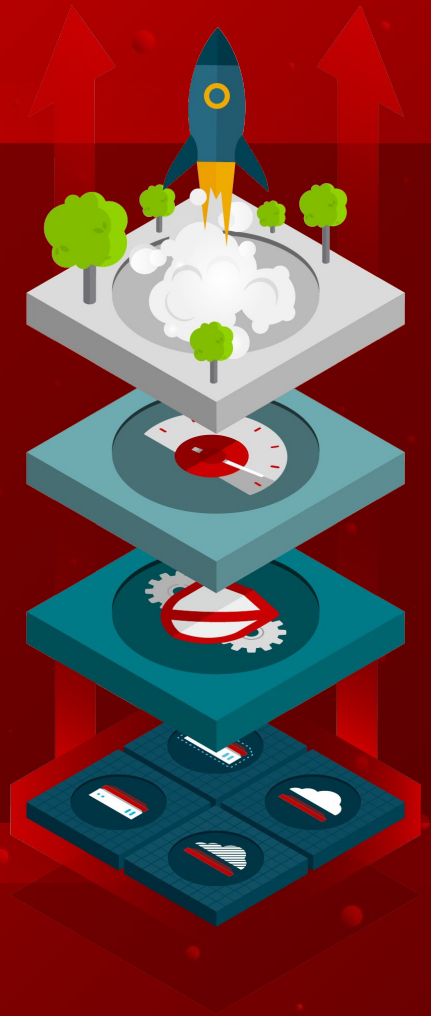
Stability and reliability

Performance and efficiency

High availability

10+ year life cycle

Benchmark-breaking performance



FREEDOM

- Application experience
- Multi-platform support
- Ecosystem

Cloud/hardware independent

Thousands of certified solutions

Containers and development tools

TRADITIONAL WORKLOADS

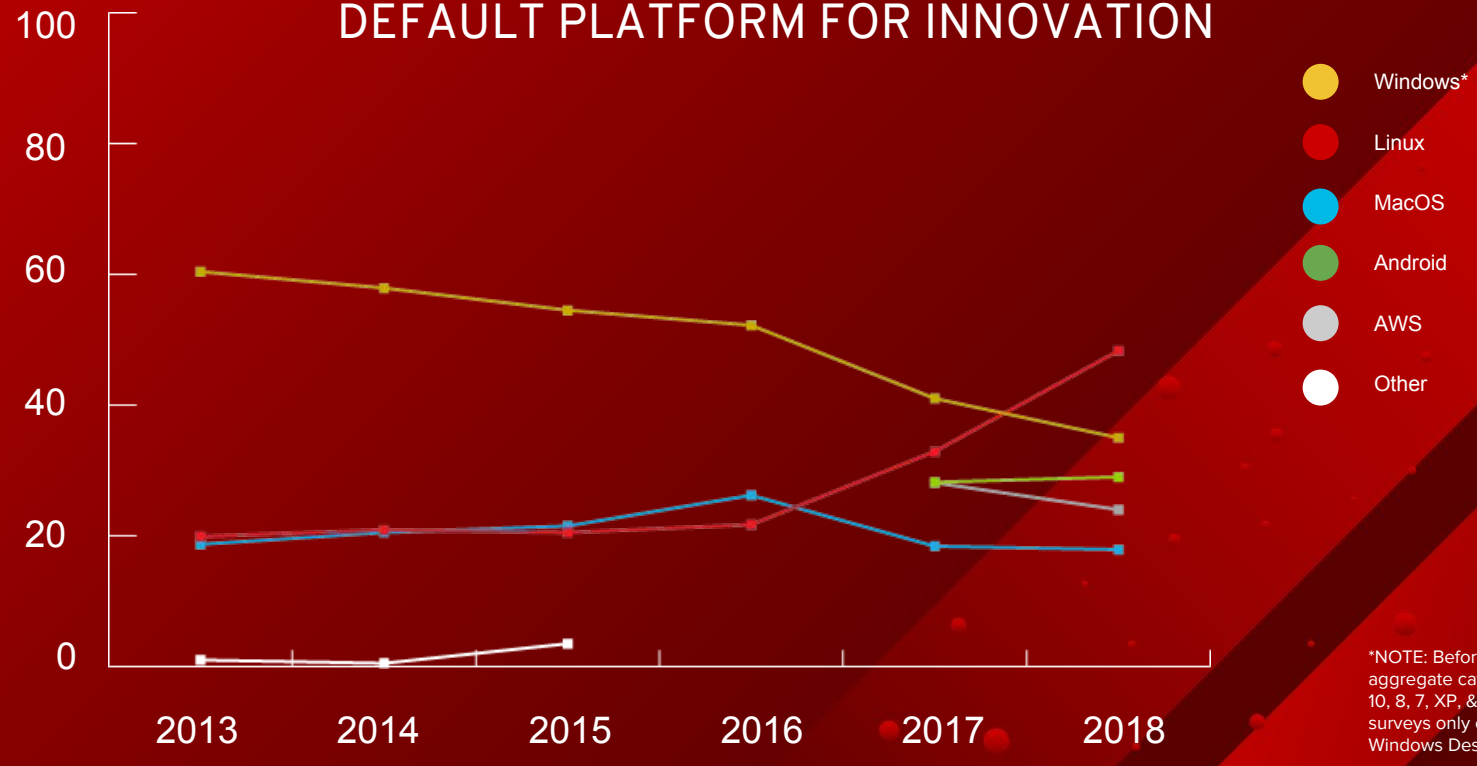
Most enterprise software companies have versions of their software for Red Hat® Enterprise Linux®

Application delivery
Backup & recovery
Business intelligence
Business process management
Capacity management
Collaboration/groupware/messaging
Content management/authoring
Customer relationship management
Database & data management
Dev tools
Enterprise resource planning
Management
Migration
Monitoring
Network management
Networking
Performance & availability
Policy enforcement
Scheduling
Search
Security
Storage
VNF
Virtualization

NEXT GENERATION INFRASTRUCTURE

LINUX IS THE MOST-USED PLATFORM

DEFAULT PLATFORM FOR INNOVATION



*NOTE: Before 2017, "Windows" is an aggregate category that includes Windows 10, 8, 7, XP, & Vista responses. 2017 & 2018 surveys only offered the single option: Windows Desktop or Server.

Sources: Most popular technology platforms, Stack Overflow, *Developer Survey Results 2018* & *Developer Survey Results 2017*.
Most popular desktop OS, Stack Overflow, *Developer Survey Results 2013-2016*.

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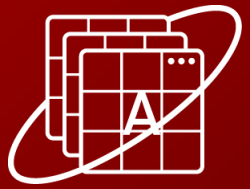
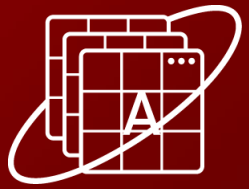
THE OS STILL MATTERS

LINUX IS THE FOUNDATION FOR MODERN IoT, CONTAINERS, SERVICES, & MORE

Everything-as-a-Service



Modern apps



Containers & microservices

ISV

PHYSICAL

VIRTUAL

PRIVATE CLOUD

PUBLIC CLOUD

RED HAT ENTERPRISE LINUX

NEXT GENERATION WORKLOADS

DATA INSIGHTS

ARTIFICIAL INTELLIGENCE

CLOUD-NATIVE APPLICATIONS

INTERNET OF THINGS

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COMPLEXITY

We used to manage servers, now I have to worry about light bulbs sending info to the internet

CONTROL WITH PLATFORM MANAGEABILITY

Red Hat® Enterprise Linux®

42%

time savings
for IT staff

74%

less unplanned downtime
compared to non-paid Linux infrastructure

SPEED
image building, deployment, and patch management.

AUTOMATE
Deployment, upgrades and management of your infrastructure

SCALE
With multi-tenant overlay tunneling and multi-homed SCTP

CONTROL
costs associated with IT infrastructure changes.

RELAX
With simple management of infrastructure and networking services

ENABLE
Efficient cloud multi-tenancy

Focus on **EASE OF MANAGEMENT AT SCALE**

* First distribution with Linux Containers Framework Support to be Common Criteria-certified, NIST-certified scanner includes National Checklist content for PCI-DSS, DISA STIG, etc.

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CONTROL WITH SECURITY AND COMPLIANCE

Red Hat® Enterprise Linux®

Common Criteria & FIPS 140-2*

AUTOMATE
regulatory compliance and security configuration remediation.

GAIN
peace of mind with the Red Hat open source secure supply chain and SSO.

RECEIVE
continuous vulnerability security updates.

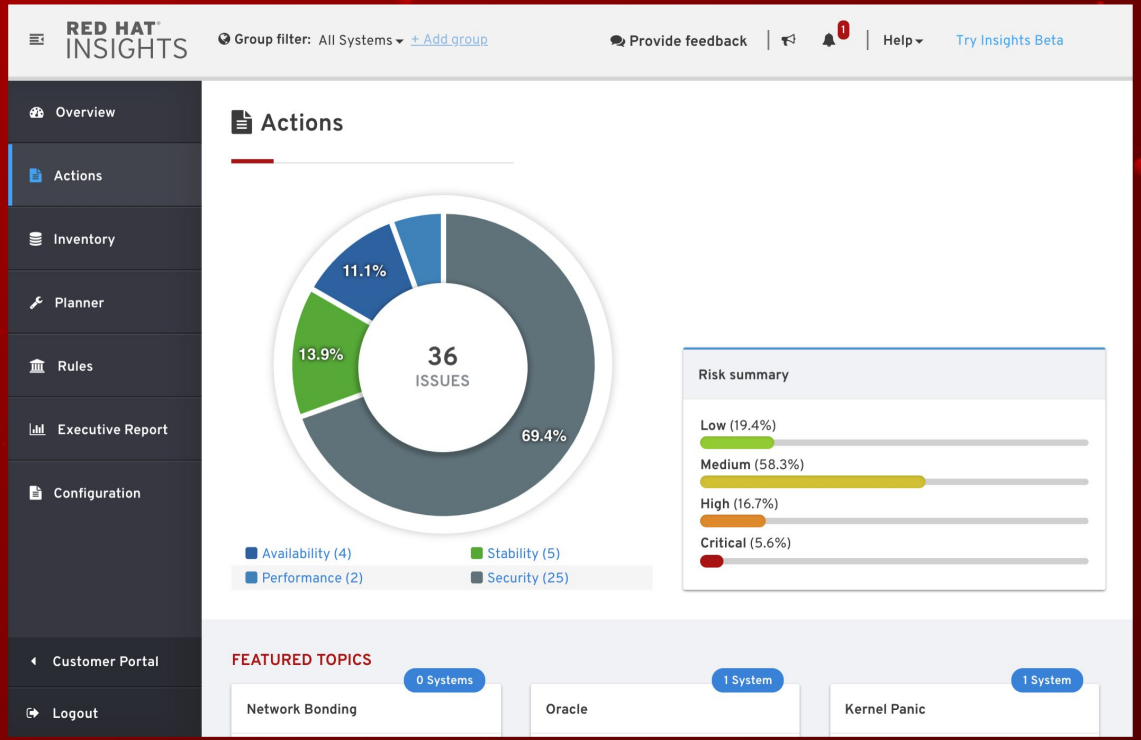
ENABLE
Hybrid cloud deployments, working in a heterogeneous environment

NIST Security Configuration CHECKLISTS http://checklists.nist.gov CSD

Focus on **FORTIFYING CUSTOMER DEPLOYMENTS**

RED HAT INSIGHTS

Proactively identify threats to security, performance, and stability



WHY RED HAT INSIGHTS?

Identify, prioritize, and resolve issues before business operations are affected.

ACTIONABLE INTELLIGENCE POWERED BY RED HAT

Confidently scale complex environments with no added infrastructure cost.

CONTINUOUS VULNERABILITY ALERTS

Maximize uptime and avoid fire-fighting so businesses can focus on strategic initiatives.

INCREASED VISIBILITY TO SECURITY RISKS

Get ahead of security risks and fix them before businesses are impacted.

AUTOMATED REMEDIATION

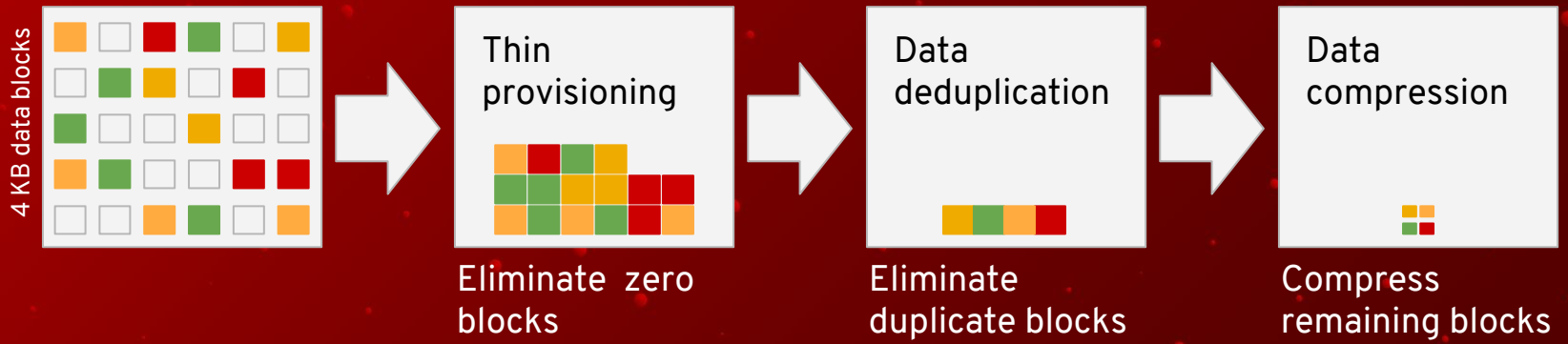
Minimize human error, do more with less, and fix things faster.

BIG DATA

Extremely large data sets that may be analysed computationally to reveal patterns, trends, and associations, especially relating to human behaviour and interactions.

OPTIMIZED FOR BIG DATA

VDO data reduction processing



INTERNET OF THINGS

SOFTWARE-DEFINED NETWORKING

Network namespaces

Bridging

Firewalling

Virtual private networking

VLAN capabilities

CLOUD NATIVE APPLICATIONS

Centralized, scale-up IT with cloud-based scale-out consumer-facing services

Centralized Data Processing

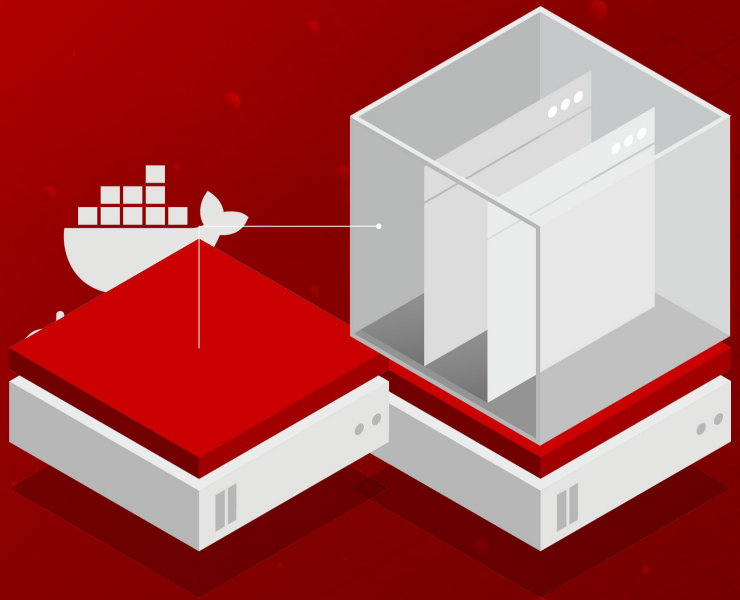
- Partner Hardware — Raw Processing Power
- HW/SW Cert — Ecosystem support
- open SCAP — Security
- Satellite, Ansible — Monitoring & Updates

Modern Web Services

- Cloud Services and Platforms — OpenShift, CCSP
- Updated Languages — Software Collections
- DevOps & Microservices — Containers

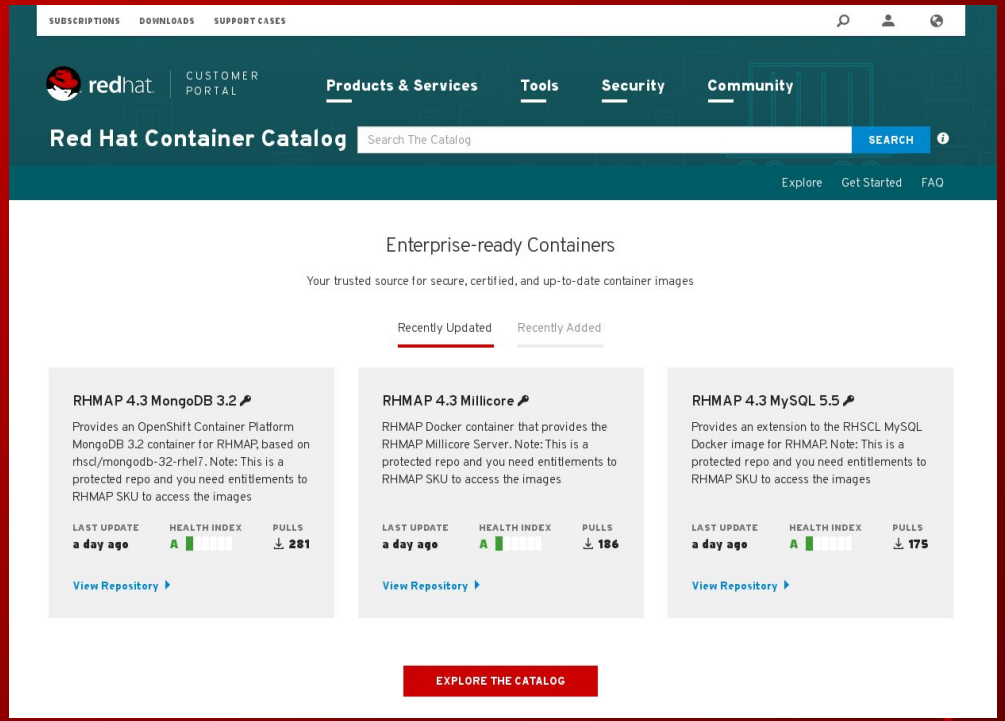
Deployment Footprints

CONTAINERIZATION



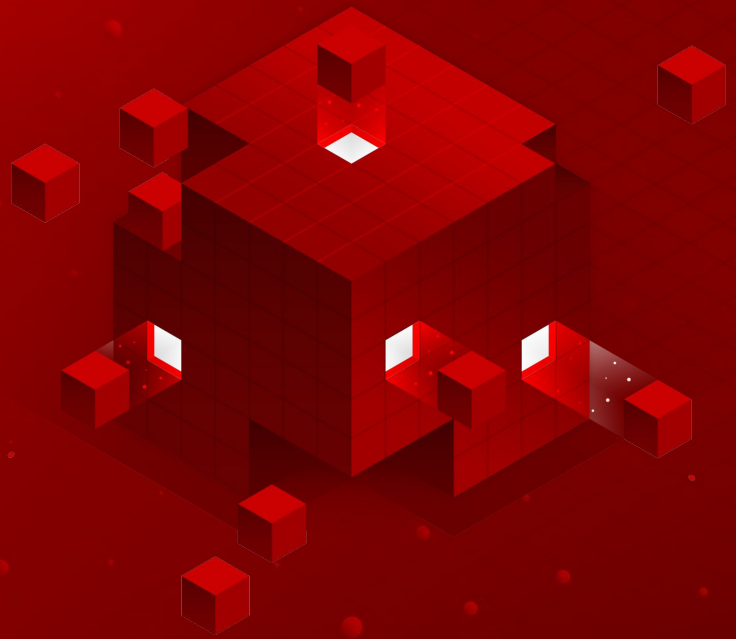
- Kernel control groups
- SELinux
- Kernel namespaces
- CRI-O
- Kubernetes

THE CONTAINER HEALTH INDEX



- Trusted Container Images with trusted content
- Container Health Index
  - Quickly assess the content and potential CVEs.
- Red Hat security expertise
- All images are signed and cryptographically verifiable.

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



ARTIFICIAL INTELLIGENCE

The ability for software to accept input and make decisions based on that input to complete a goal.

ARTIFICIAL INTELLIGENCE

Predicting the next fidget spinner with a real-time in-memory application

Runtime and Deps

- In-memory db
- CUDA

Next-gen Scalability

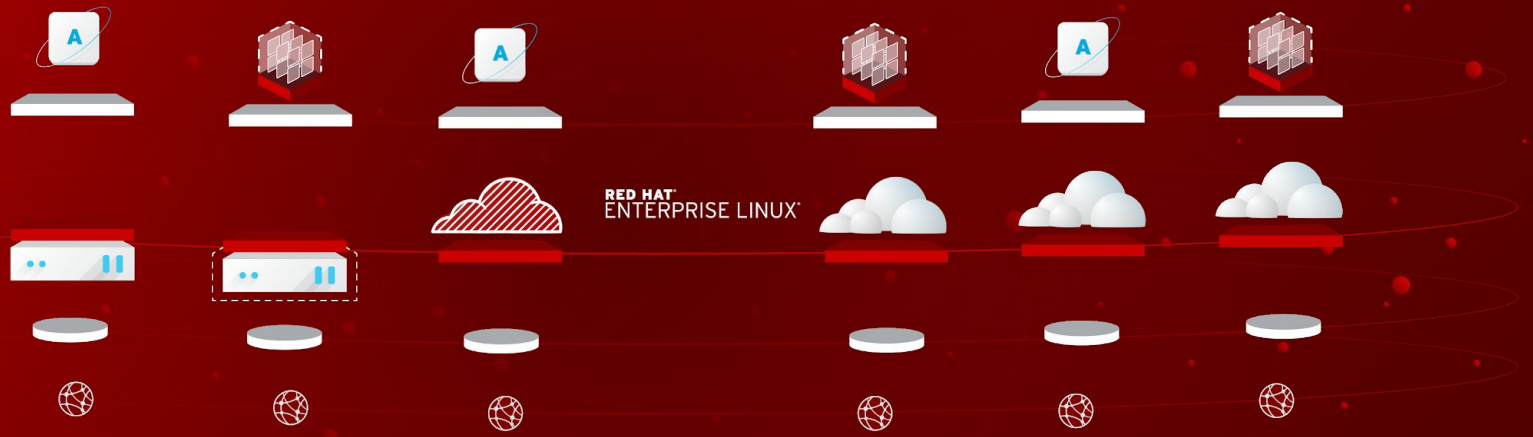
- Five-level Paging
- Persistent Memory
- GPU Virtualization

Efficiency

- HMM
- Guest Level Optimization
- GPU Drivers
- Host level Optimizations

Deployment Footprints

THE **CONSISTENT** FOUNDATION FOR THE ENTERPRISE HYBRID CLOUD



Power the applications that **DRIVE YOUR BUSINESS**

The future is not far away .....

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linkedin.com/company/red-hat

twitter.com/RedHat

youtube.com/user/RedHatVideos