



**UNLOCK AND SPEED UP YOUR BUSINESS WITH
AUTOMATION**

WHY ENTERPRISE-WIDE IT AUTOMATION IS ELUSIVE TODAY

1

PEOPLE PROBLEMS

Skills gaps & org charts
get in the way

2

POINT TOOLS

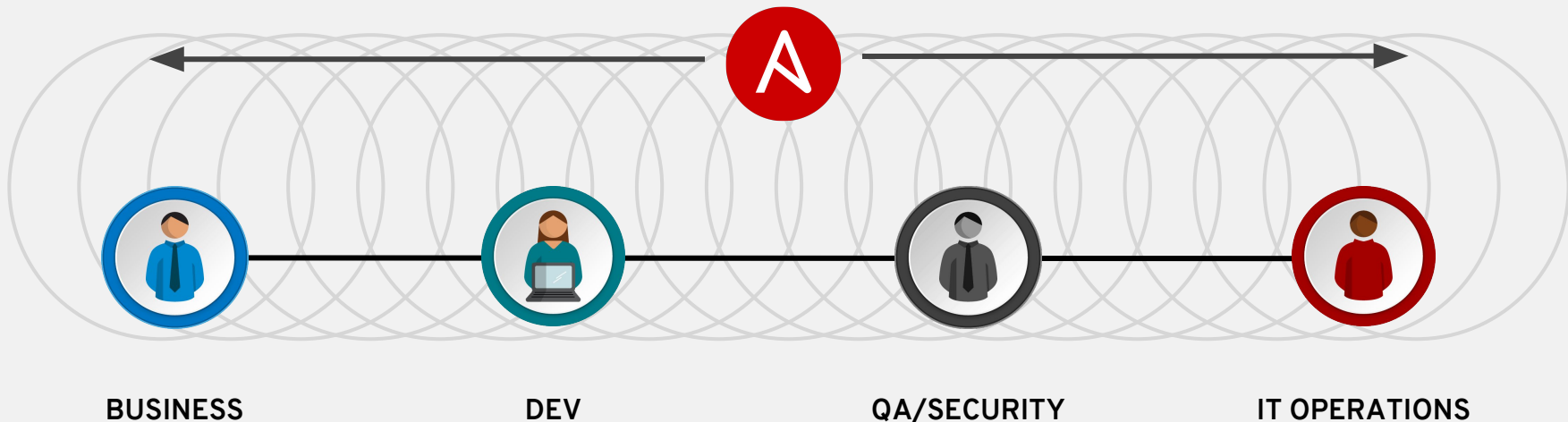
Proliferation of point solutions
and vendor-specific tools

3

PACE OF INNOVATION

Automation requires integration
across domains

ANSIBLE IS THE UNIVERSAL LANGUAGE



Ansible is the first **automation language** that can be read and written across IT.

Ansible is the only **automation engine** that can automate the entire application lifecycle and continuous delivery pipeline.

v1 - Set config file to use on boot

1. Write multiple configuration files
 - For each environment/region
2. Inspect metadata on boot and use the matching config file



v1 - Set config file to use on boot

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27,000+
Stars on GitHub

1250+
Ansible modules

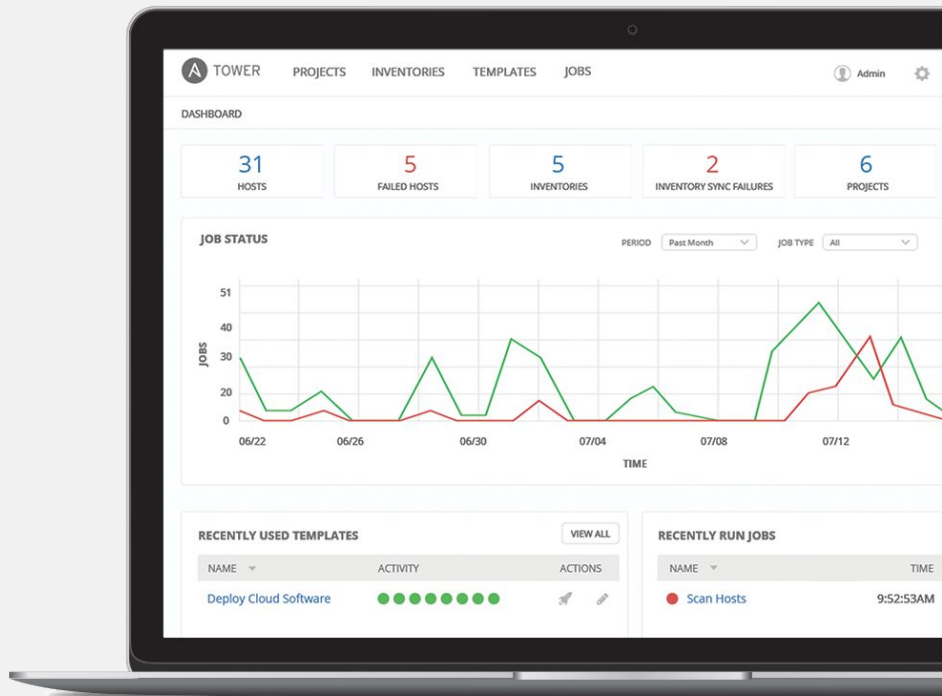
500,000+
Downloads a month

WHAT IS ANSIBLE AUTOMATION?

The Ansible project is an open source community sponsored by Red Hat. It's also a **simple automation language** that perfectly describes IT application environments in **Ansible Playbooks**.

Ansible Engine is a **supported product** built from the Ansible community project.

Ansible Tower is an **enterprise framework** for controlling, securing, managing and extending your Ansible automation (community or engine) with a UI and RESTful API.



WHY ANSIBLE?



SIMPLE

Human readable automation
No special coding skills needed
Tasks executed in order
Usable by every team
Get productive quickly



POWERFUL

App deployment
Configuration management
Workflow orchestration
Network automation
Orchestrate the app lifecycle



AGENTLESS

Agentless architecture
Uses OpenSSH & WinRM
No agents to exploit or update
Get started immediately
More efficient & more secure

WHAT CAN I DO WITH ANSIBLE?

Automate the deployment and management of your entire IT footprint.

Do this...



On these...





10,000 ROLES AT YOUR DISPOSAL

Re-usable Roles and Container Apps that allow you to do more, faster

Built into the Ansible CLI and Tower

galaxy.ansible.com



RED HAT[®]
ANSIBLE[®]
Automation

RED HAT ANSIBLE TOWER

Scale + operationalize your automation

CONTROL

KNOWLEDGE

DELEGATION

RED HAT ANSIBLE ENGINE

Support for your Ansible automation

SIMPLE

POWERFUL

AGENTLESS

FUELED BY AN INNOVATIVE **OPEN SOURCE** COMMUNITY

ANSIBLE TOWER 3.2 WHAT'S NEW

ISOLATED NODES

Move execution to remote and/or partially-disconnected networks

INSTANCE GROUPS

Guarantee automation capacity for user organizations

IMPROVED UX

Tower is Automation for Teams, and we've made it even easier to understand and use

SMART INVENTORY GROUPS

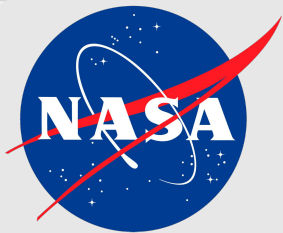
Create inventory-spanning host groups from any number of cached system or custom facts

Groups are automatically updated to include current host that match rules

DEEPER RED HAT INSIGHTS INTEGRATION

Directly run Playbooks provided by Insights

View, select, and apply specific Insights findings to desired hosts/inventories



“*Ansible Tower has allowed us to provide better operations and security to our clients. It has also increased our efficiency as a team.*”

CUSTOMER USE CASE

SOLUTION



CHALLENGE

NASA needed to **move roughly 65 applications** from a traditional hardware based data center to a **cloud-based environment** for better agility and cost savings. The rapid timeline resulted in many applications **being migrated 'as-is'** to a cloud environment.

This created an environment spanning multiple virtual private clouds (VPCs) and AWS accounts that could not be easily managed.

SUCCESS

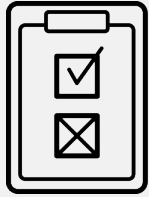
Ansible Tower allowed NASA to **provide better operations and security to its clients**. It has also **increased efficiency** as a team.

- Updating nasa.gov went from over 1 hour to under 5 minutes
- Patching updates went from a multi-day process to 45 minutes
- Provisioning OS Accounts across entire environment in under 10 minutes
- Baselining standard AMIs went from 1 hour of manual configuration to becoming an invisible and seamless background process
- Application stack set up from 1-2 hours to under 10 minutes per stack



SCALE YOUR INFRASTRUCTURE WITH RED HAT OPENSTACK CLOUD

BENEFITS OF A CLOUD INFRASTRUCTURE



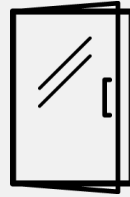
Control

Benefits of IaaS+ services in your datacenter



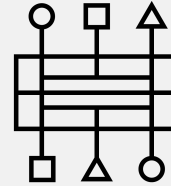
Cost

Reduce infrastructure and operations costs over time



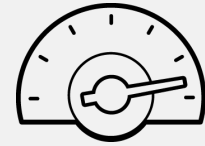
Multitenancy

Create isolated contexts with limited admin rights



API

Open de-facto standard APIs
Avoid vendor Lock In

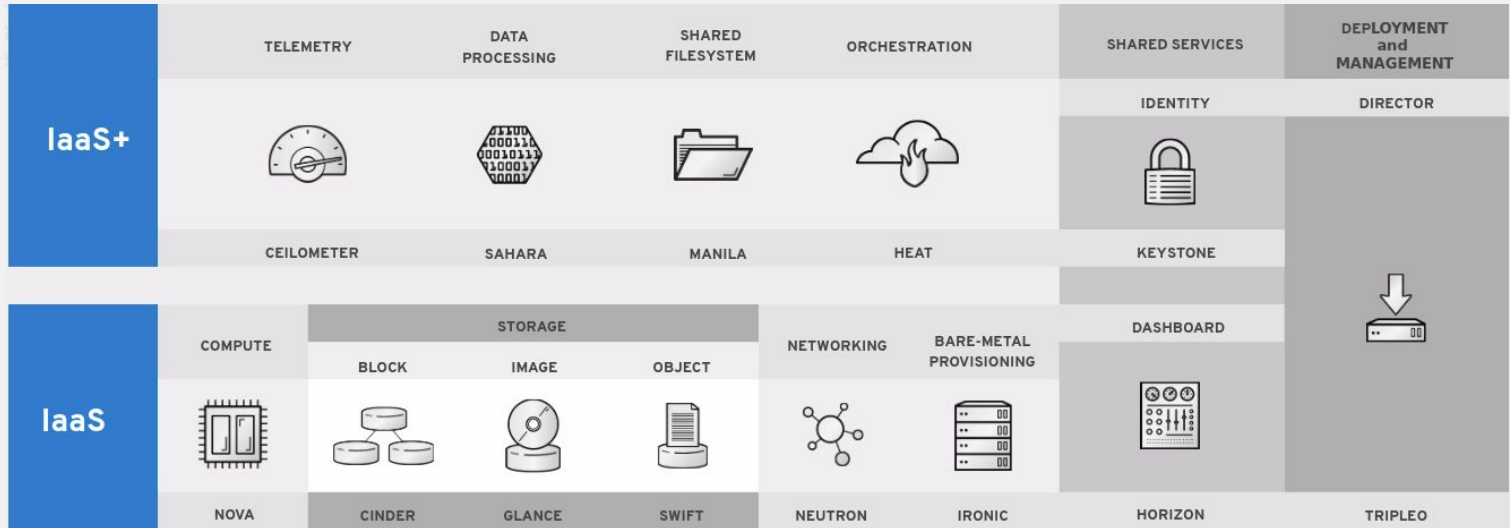


Metering

Chargeback
Quota enforcement

RED HAT OPENSTACK CLOUD INFRASTRUCTURE

PROVEN, OPEN SOURCE CLOUD SOFTWARE



RED HAT OPENSTACK PLATFORM DIRECTOR



PLANNING

- Network topology
- Service parameters
- Resource capacity

DEPLOYMENT

- Deployment orchestration
- Service configuration
- Sanity checks

OPERATIONS

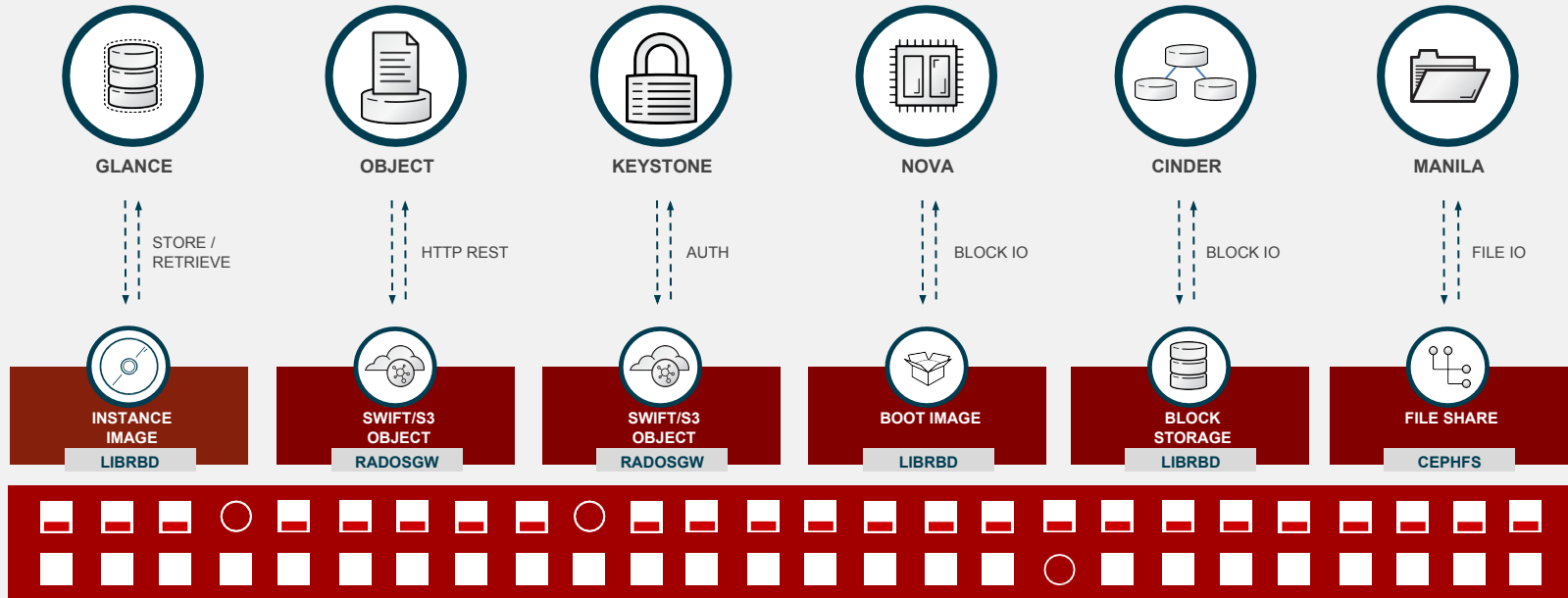
- **Updates and upgrades**
- Scaling up and down
- Change management

THE BENEFITS OF RED HAT OPENSTACK PLATFORM



- **Enterprise hardened**, production-ready code
- **Co-engineered** with Red Hat Enterprise Linux
- **First contributor** in most of the latest releases
- **Full Stack certification** from bare metal to Guest OS
- **World's largest** OpenStack partner ecosystem
- **Integrated** with a trusted and proven solution stack

RED HAT CEPH STORAGE AND OPENSTACK



RED HAT OPENSTACK PLATFORM 12 WHAT'S NEW

- Based on the OpenStack “Pike” release
- Containerized control plane - OpenStack services running in containers
- Hyperconverged Infrastructure (HCI) Nodes with Ceph Storage
- Increased use of Red Hat Ansible in Red Hat OpenStack Director
- NFV and Security Enhancements





“With Red Hat OpenStack Platform and our other new solutions, we have built a flexible infrastructure that helps our developers add features quicker. The infrastructure is no longer the bottleneck in deploying new features.”

Orhan Biyiklioglu

Senior Systems Administrator, 2017 Red Hat Certified Professional of the Year

CUSTOMER USE CASE

SOLUTION

RED HAT
OPENSTACK
PLATFORM

RED HAT
CONSULTING

SUCCESS

Increased scalability & agility to meet massive predicted growth & deploy new features faster.

Improved reliability & stability with simplified management & longer life cycle
Reduced total cost of ownership (TCO) by eliminating vendor lock-in & lowering licensing fees.

Gained expert guidance & support from Red Hat consulting.



redhat.

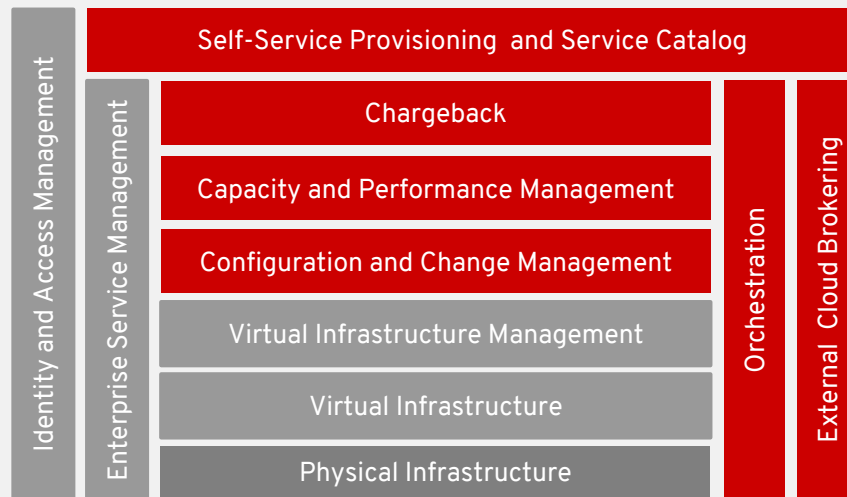


MANAGE A HYBRID ENVIRONMENT WITH AUTOMATION

A CLOUD MANAGEMENT PLATFORM DEFINITION

Gartner defined a Cloud Management Platform as “integrated products that provide for the management of public, private and hybrid cloud environments. The minimum requirements to be included in this category are products that incorporate self-service interfaces, provision system images, enable metering and billing, and provide for some degree of workload optimization through established policies.”

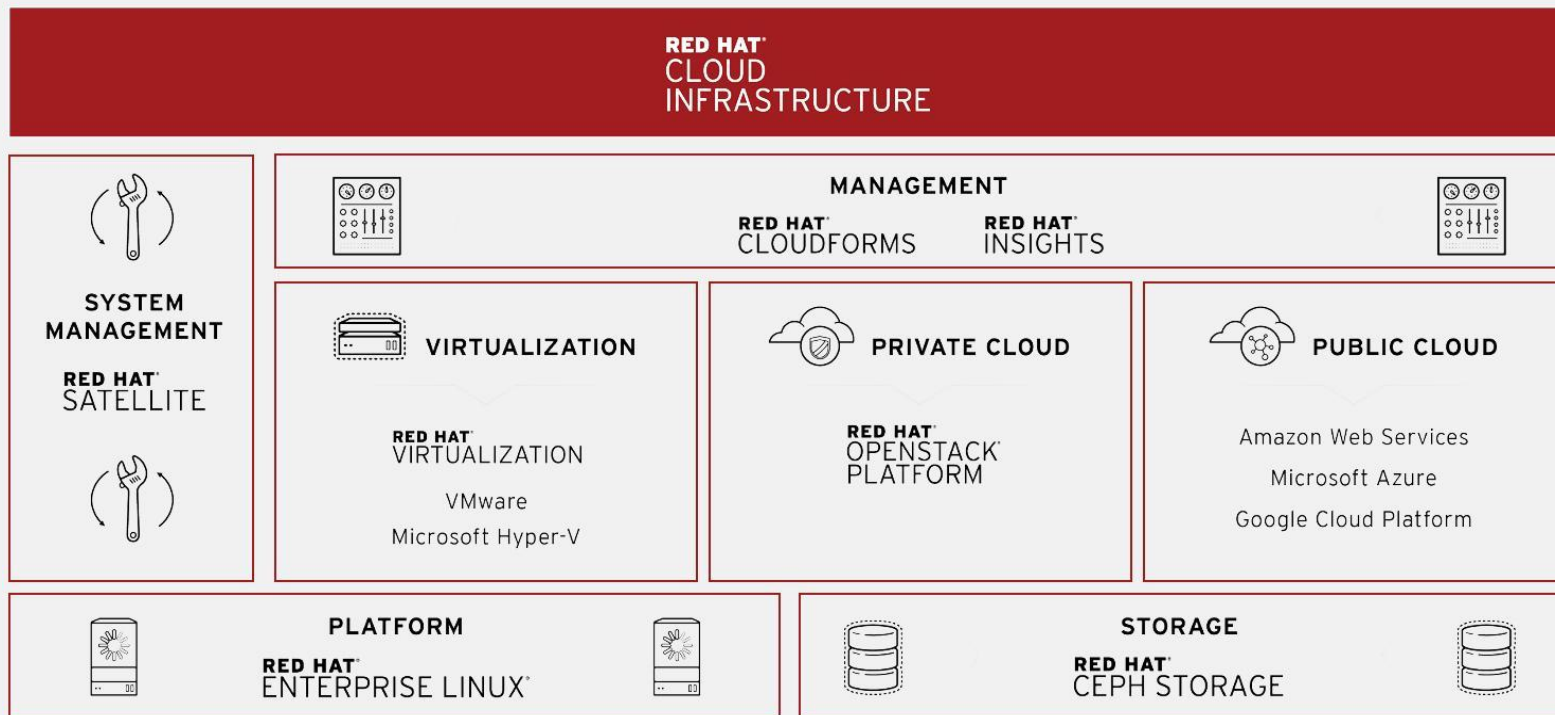
<http://www.gartner.com/it-glossary/cloud-management-platforms/>



Cloud Management Platform Layers

RED HAT CLOUD INFRASTRUCTURE

OPEN SOURCE SOLUTIONS AT EVERY LEVEL



RED HAT CLOUDFORMS



**UNIFIED MANAGEMENT
AND OPERATIONS**



**COMPLETE LIFE-CYCLE
MANAGEMENT**



**VISIBILITY AND
ANALYTICS**



**COMPLIANCE
AND GOVERNANCE**



**INTEGRATION AND
COMPOSABILITY**

CLOUDFORMS IN A NUTSHELL

AGENTLESS



EASY DEPLOYMENT

ANSIBLE AUTOMATION



ANSIBLE

SIMPLE, POWERFUL, AGENTLESS

MULTI-TENANCY AND RBAC



SEGMENT USER ACCESS,
FINE GRAINED ACCESS CONTROL

CONTINUOUS DISCOVERY



BROWN-FIELD MANAGEMENT,
INTEROPERATES WITH OTHER MGMT

VIRTUAL APPLIANCE



EASY INSTALL, EASY MAINTENANCE

FEDERATED GLOBAL DEPLOYMENTS



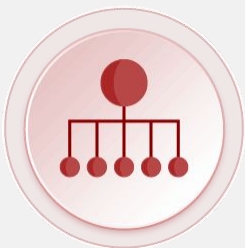
HIGHLY SCALABLE, HIGHLY AVAILABLE
MULTI-REGION DEPLOYMENTS



OPERATIONAL VISIBILITY AND ANALYTICS



**CONTINUOUS
DISCOVERY**



**RELATIONSHIP
VIEW**



**MONITORING
AND TRACKING**



**IN-DEPTH
ITEM ANALYSIS
(SMART STATE)**



ANALYTICS



COMPLIANCE AND GOVERNANCE



**POLICY
ENFORCEMENT**



**AUTOMATED
REMIEDIATION**



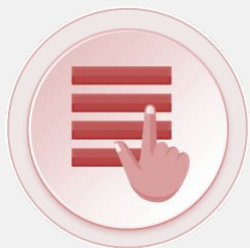
ALERTING



**PERVASIVE
TAGGING**



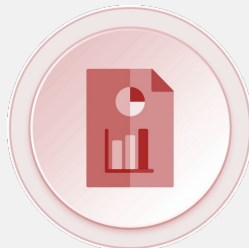
UNIFIED MANAGEMENT AND OPERATIONS



USER INTERFACE



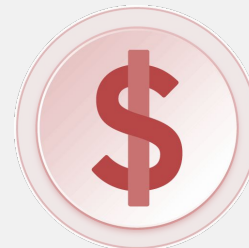
OPERATIONS



REPORTING



PLANNING AND
OPTIMIZATION



SHOWBACK/
CHARGEBACK



SELF-SERVICE WITH COMPLETE LIFECYCLE MANAGEMENT



SELF-SERVICE
PORTAL



PROVISIONING AND
CONFIGURATION



DELEGATED
OPERATIONS

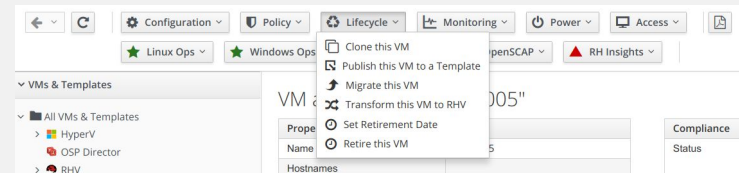
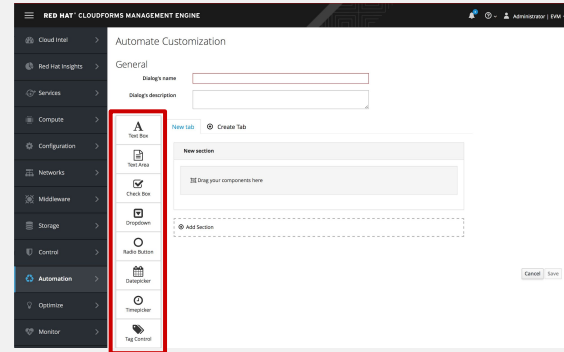


RETIREMENT

OPERATIONAL MANAGEMENT

RED HAT CLOUDFORMS 4.6 WHAT'S NEW

- SmartState Analysis available on AWS and Azure
- Can now be deployed on OpenShift as containers
- New Service Dialog editor
- VM Transform to VMware
- Lots of UI Improvements





“Our goal is to offer customers the highest performance and agility in cloud computing, helping them run and scale their organisations better. Red Hat solutions allowed us to make our infrastructure evolve into a unified and open platform, significantly increasing its efficiency. Now, whenever we have a new service available, we can more rapidly deliver it to our customers. In terms of productivity and time to market, this is a significant benefit for us.”

MARCO PENNAROLA

Head of Go-to-Mkt Convergence Ent&Whs Fastweb

CUSTOMER USE CASE

SOLUTION

RED HAT®
CLOUDFORMS

RED HAT®
OPENSTACK®
PLATFORM

RED HAT®
CEPH STORAGE

CHALLENGE

Fastweb offers many services to enterprise customers and needed to optimise the user experience around accessing and scaling multiple services as well as be able to more quickly roll out new services.

SUCCESS

Fastweb selected and deployed Red Hat CloudForms for its ability to unify management and operations of a hybrid environment as well as for its native integration with Red Hat OpenStack Platform, which minimises the training needed for its IT teams. Now, Fastweb can provision and deliver unified services to its customers on their customers' infrastructure of choice.



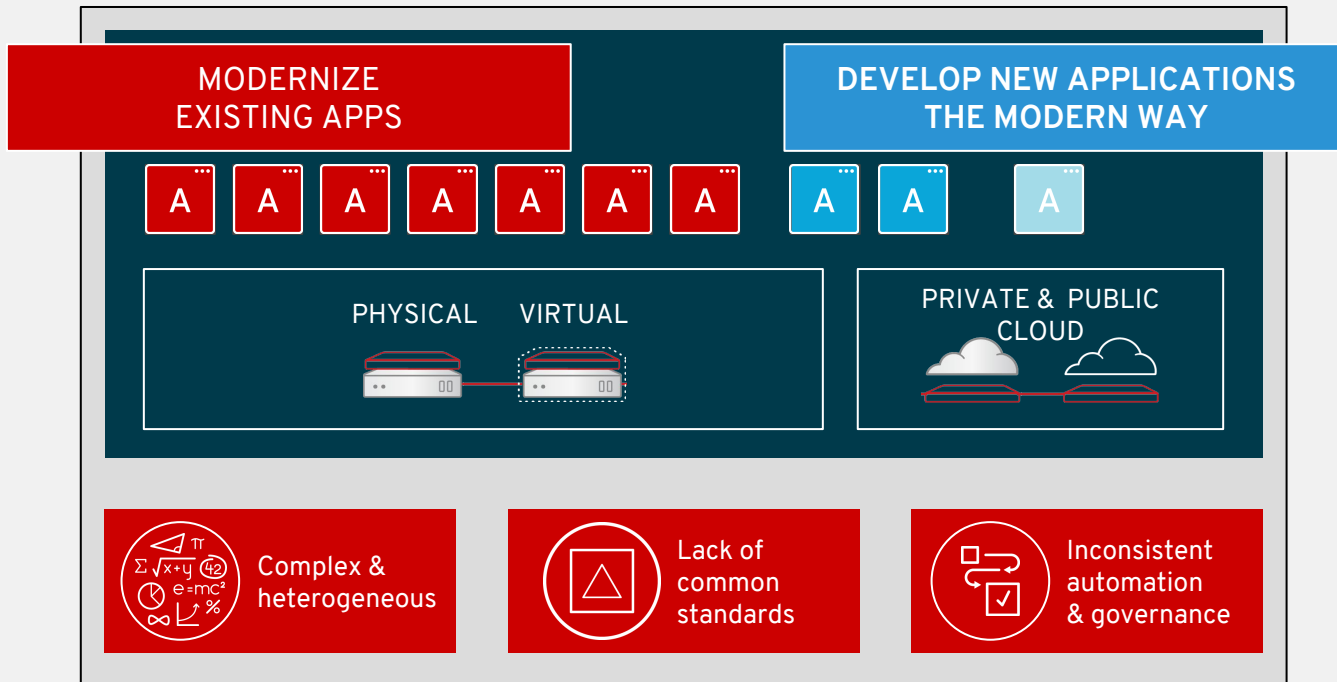
redhat.



**BECOME DISRUPTIVE
WITH A CONTAINER PLATFORM**

YOUR LANDSCAPE

Potential Risk ...



THE PROBLEM

Applications require complicated installation and integration every time they are deployed



WHAT ARE CONTAINERS?



It Depends on Who You Ask

Sys-Admins / Ops

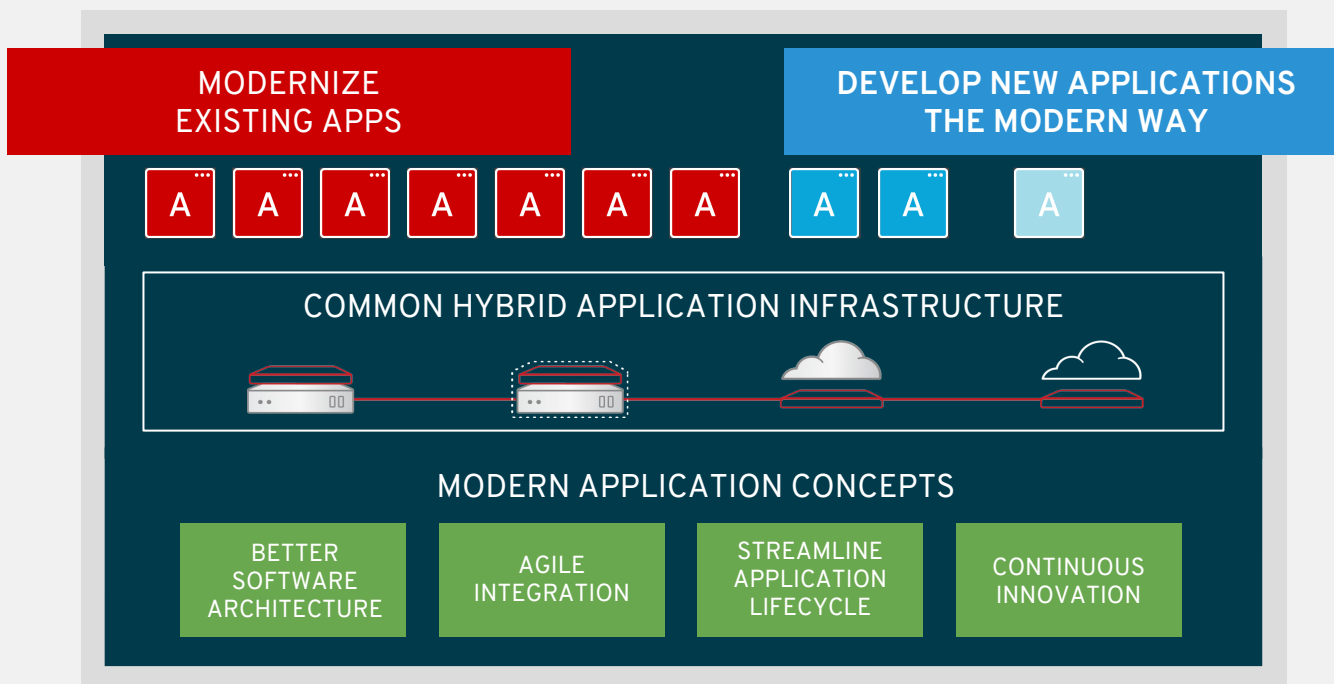
- Sandboxed application processes on a shared Linux OS kernel
- Simpler, lighter, and denser than virtual machines
- Portable across different environments

Developers

- Package my application and all of its dependencies
- Deploy to any environment in seconds and enable CI/CD
- Easily access and share containerized components

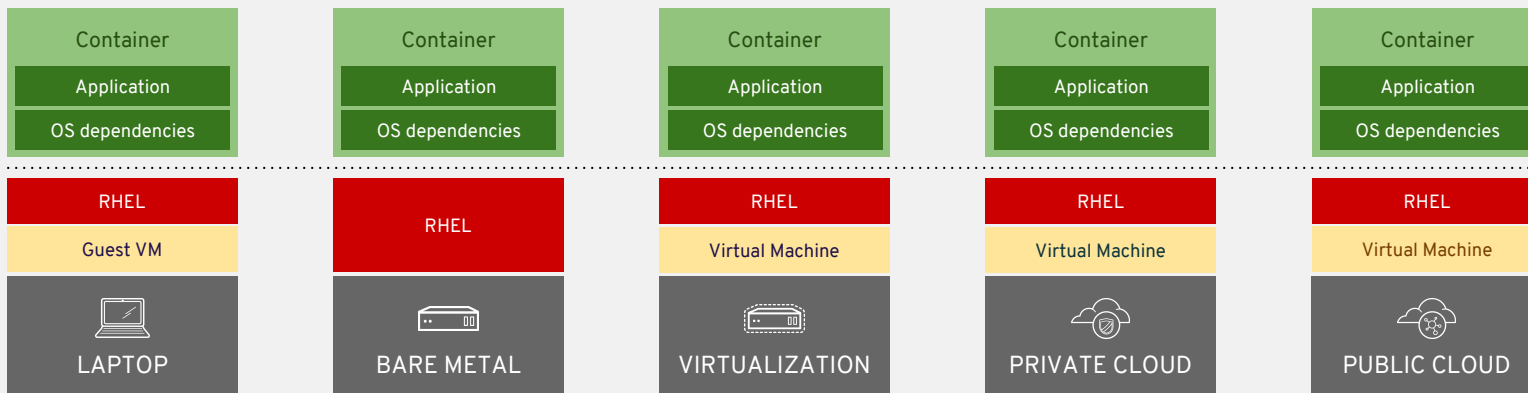
COMMON HYBRID APPLICATION PLATFORM

ANY APPLICATION - ANY ENVIRONMENT - NO LOCK-IN.

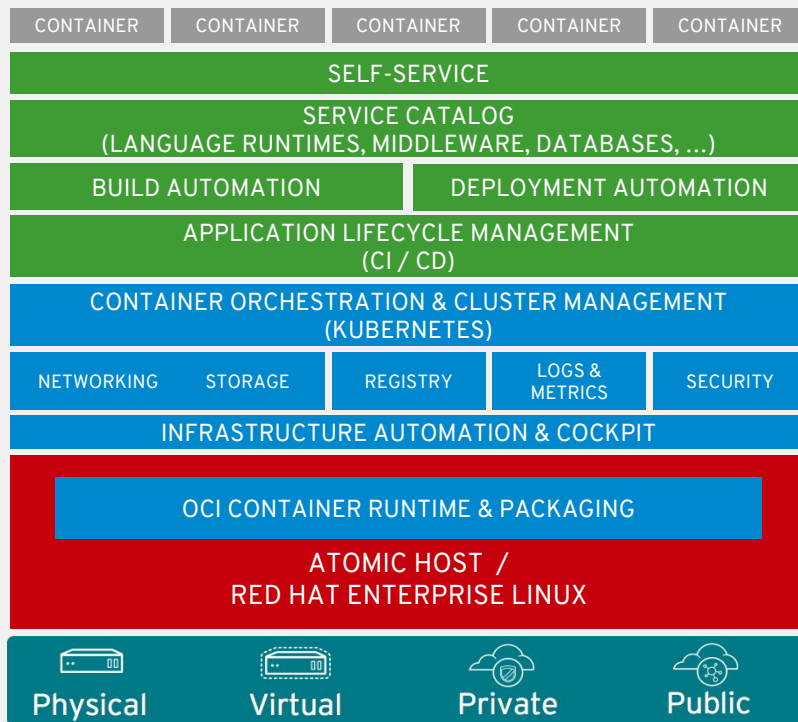


APPLICATION PORTABILITY WITH CONTAINERS

Containers + RHEL Host =
Guaranteed Compatibility
Across Any Infrastructure



RED HAT OPENSIFT CONTAINER PLATFORM



- **Enterprise OS**
- **Deploy everywhere** RHEL runs (avoid lock in)
- **OCI Compliant**
- **Portability/Compatibility** cross environment
- **Networking Isolation** (ovs)
- **Storage Automation** (CNS)
- **Registry**
- **Logging & Metrics** (EFK)
- **Security** (Roles, SCC, SELinux, IPTables, RBAC)
- **CI-CD**
- **Service Catalog + Broker**
- **Self Service**



The BMW Group currently hosts more than **1,000 web-based apps**, showing the growing demand for discoverable, easy-to-use application hubs.

CUSTOMER USE CASE

SOLUTION



RED HAT
ENTERPRISE
LINUX

CHALLENGE

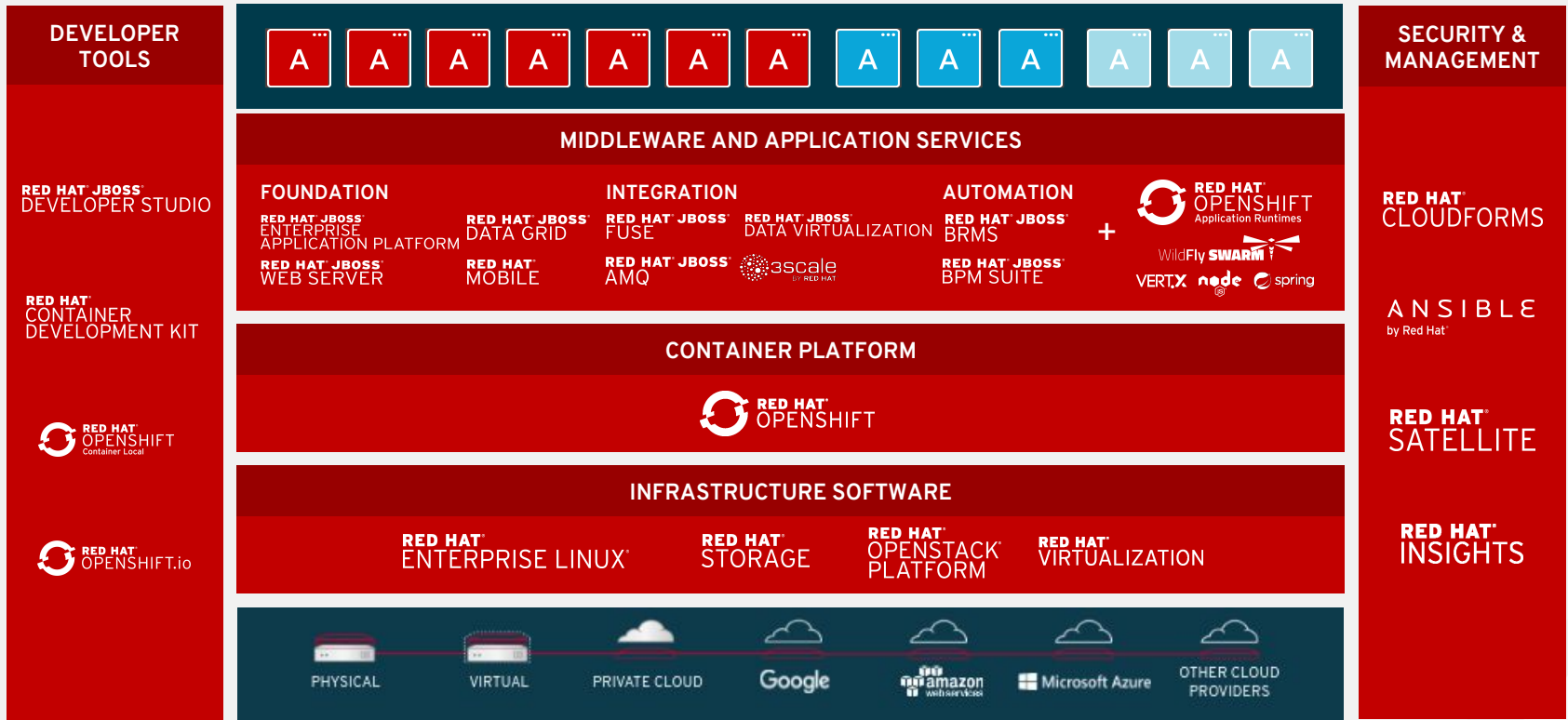
The BMW Group shows just how an organization can embrace agile methodologies and modern container technologies to deliver business value and an enhanced customer experience.

SUCCESS

BMW Group supports delivery of applications and services for **BMW ConnectedDrive** with **OpenShift Container Platform**.

IT'S ALL THERE!

COMPLETE TECHNOLOGY STACK FOR HYBRID CLOUD



COMPREHENSIVE SERVICES



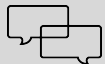
TRAINING AND CERTIFICATION

- 40+ courses
- Hands-on certifications and exams
- Automation with Ansible courses
- Container-based app dev courses
- Red Hat® Learning Subscription



SUPPORT

- Award-winning Customer Portal
- Technical support, available 24x7
- Automated, proactive support tools
- Strategic and technical roadmap planning
- Emerging technology support and guidance



CONSULTING

- Open solutions using Red Hat products
- Architect, consultant, PM expertise
- Both process and IT alignment
- On-site or remote delivery
- Hands-on mentoring



HARDWARE, SOFTWARE, AND CLOUD CERTIFICATION

- Hundreds of public cloud providers
- Thousands of hardware platforms
- Tens of thousands of applications
- Red Hat® Container Certification

AFTERNOON AGENDA

13.00 - 14.00

Lunch

14.00 - 14.50

Demo Automation with Ansible Tower

Michele Naldini - Solution Architect

14.50 - 15.40

Demo Hybrid cloud management with CloudForms

Rinaldo Bergamini - Solution Architect

15.40 - 16.00

Closing & Q&A

AUTOMATION DEMO WITH ANSIBLE TOWER & INSIGHTS

USE CASES

- Application deployment [PROVISIONING]
- Application configuration [CONFIGURATION MANAGEMENT]
- Infrastructure Day 2 Operations [ORCHESTRATION]
- Proactive & Automatic Analysis w/ Insights [SECURITY]
- Security Content/Vulnerability Assessment & Remediation [SECURITY]

DEMO HYBRID CLOUD MANAGEMENT WITH CLOUDFORMS

USE CASES

- Single Pane of Glass Management and Reporting
- Virtual Machine Management
- Public Cloud Provider Management
- OpenShift Operations and Monitoring
- Integration with Ansible Tower and Drift Analysis
- Compliance and Policy enforcement

THANKS FOR ATTENDING.

