RED HAT
FORUM
Europe, Middle East & Africa

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Empower SAP HANA with Red Hat Solutions

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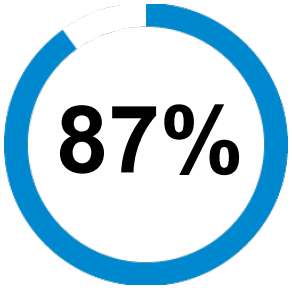
Agenda

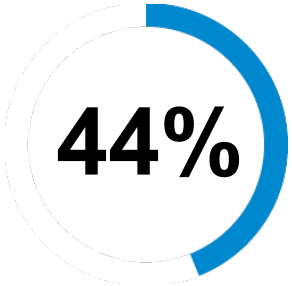
- Digital transformation
- Compelling SAP developments
- Red Hat Solutions for SAP
- Infrastructure & Business continuity
- Support
- Why Red Hat

Digital Transformation – Why change?

IS YOUR ORGANIZATION ALSO SEEING DIGITAL DISRUPTION?



Anticipate that their industries will be disrupted by digital trends to a great or moderate extent.



Say their organizations are adequately preparing for the disruptions to come.

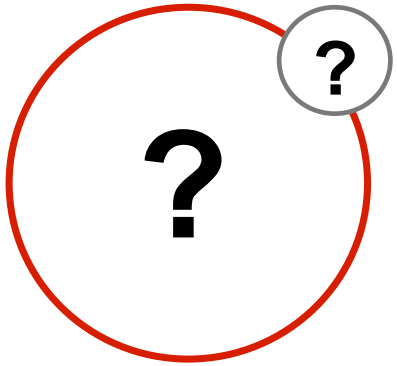
Digital Transformation – Disruptive innovation

Retail

Finance

Media

Transportation



What is next?

How do you enable Digital Transformation?

It requires an evolution in....

Infrastructure
Modernize existing and build new cloud-based infrastructure

Applications
New ways of developing, delivering, and integrating applications

Process
More agile process across both IT and the business

Compelling SAP developments

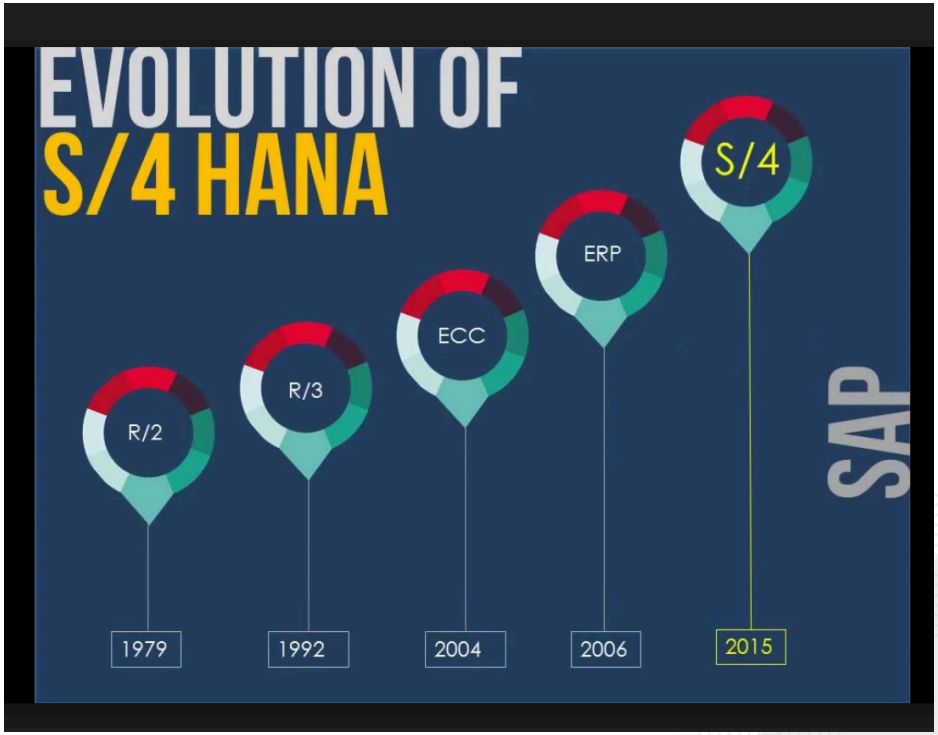
SAP® Applications
SAP HANA®
SAP S/4HANA®

Worldwide SAP facts & figures

- $23.5 B USD revenue in 2016; 3rd largest SW vendor
- 76% of all business transactions
- ~ 345,000 SAP customers worldwide
- 87% of Forbes Global 2000 customers

SAP terms defined

- **SAP® Applications:** Solution stack of ERP software providing end to end solutions for financial, logistical, distribution, inventories, etc. *Runs the business.
- **SAP HANA®:** In-memory database platform for processing high volumes of data in real-time. OLTP & OLAP.
- **SAP S/4HANA®:** Next generation business suite. Combines SAP Applications with SAP HANA.



Compelling development

SAP customers **must** migrate to SAP HANA platform and S/4HANA (Application Suite) by 2025

- This requires migration from Oracle, IBM DB2 and Microsoft SQL Server to SAP HANA

- **Linux is the only certified operating system** for SAP HANA. This requires migration from IBM AIX, Oracle Solaris, HP-UX and Windows to Linux

Red Hat Solutions for SAP

Red Hat Enterprise Linux for SAP Solutions

- Delivering more VALUE while simplifying & enhancing SAP landscapes
- What's included in "Red Hat® Enterprise Linux® for SAP® Solutions":
  - ✓ RHEL for SAP HANA, S/4HANA and Business Apps workloads (One Operating System for all workload)
  - ✓ High Availability solutions for SAP HANA, S/4HANA, and SAP Business Applications (Netweaver)
  - ✓ Smart Management for Lifecycle Management
  - ✓ Red Hat Insights for proactive analysis and optimization
  - ✓ Update Services for SAP Solutions (4 years)

Last Minute

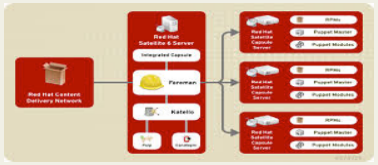
SAP HANA 2.0 certified for IBM Power Little Endian and x86

Red Hat offerings for SAP landscapes

Ansible Tower

Red Hat Satellite

Application and System Life-cycle Management and Automation



Red Hat Enterprise Linux for SAP Solutions

RHEL for HANA, S/4 HANA and NetWeaver workloads

High Availability

Smart Management

Red Hat Insights

4 years Extended Update Support

SAP certified Server Hardware

cisco, FUJITSU, Bull atos technologies, DELL, VCE, Hewlett Packard Enterprise, NEC, HUAWEI, HITACHI, Lenovo

RED HAT VIRTUALIZATION - VMWARE

Certified Cloud Service Providers

CenturyLink, amazon web services, Microsoft Azure, BLACKBIRD

Red Hat Cloudforms

Subscriptions

SLA choices:

- Premium (7X24 production)
- Standard (5X12 non prod)

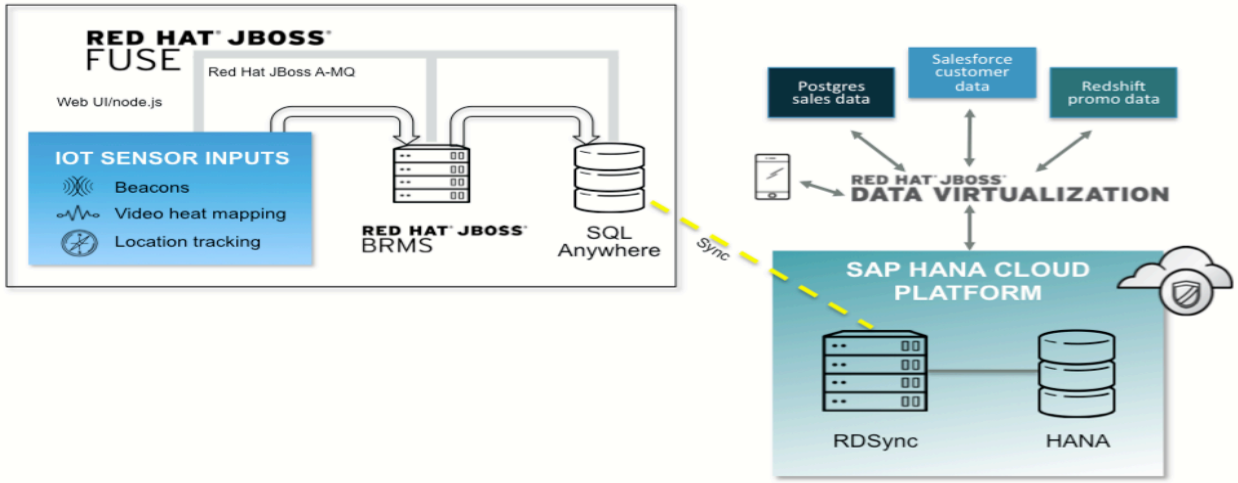
Per "socket pair" stackable models:

- 2 sockets **or** 2 virtual machines

Virtual Datacenter model

- 2 sockets/Hypervisor
- unlimited guests

IoT solution built with SAP



Red Hat JBoss Fuse 6.3

SAP® Certified
Integration with SAP NetWeaver®

Certification Date

3 Nov 2016

Joint SAP and Red Hat Retail use case

- that takes in data from various in-store collection points
- uses it to trigger instant rules-based interactions with digital signage, customer mobile devices, kiosk interactions, or point-of-sale cross-sell or loyalty offers.
- at the same time, that in-store real-time data is being integrated with operational systems for deeper analysis that will drive long-term process improvements.
- JDV exposes data to a native Android app to alert the customer regarding e.g. current promotions

https://www.redhat.com/en/about/videos/iot-and-big-data-red-hat-jboss-middleware-and-sap-hana

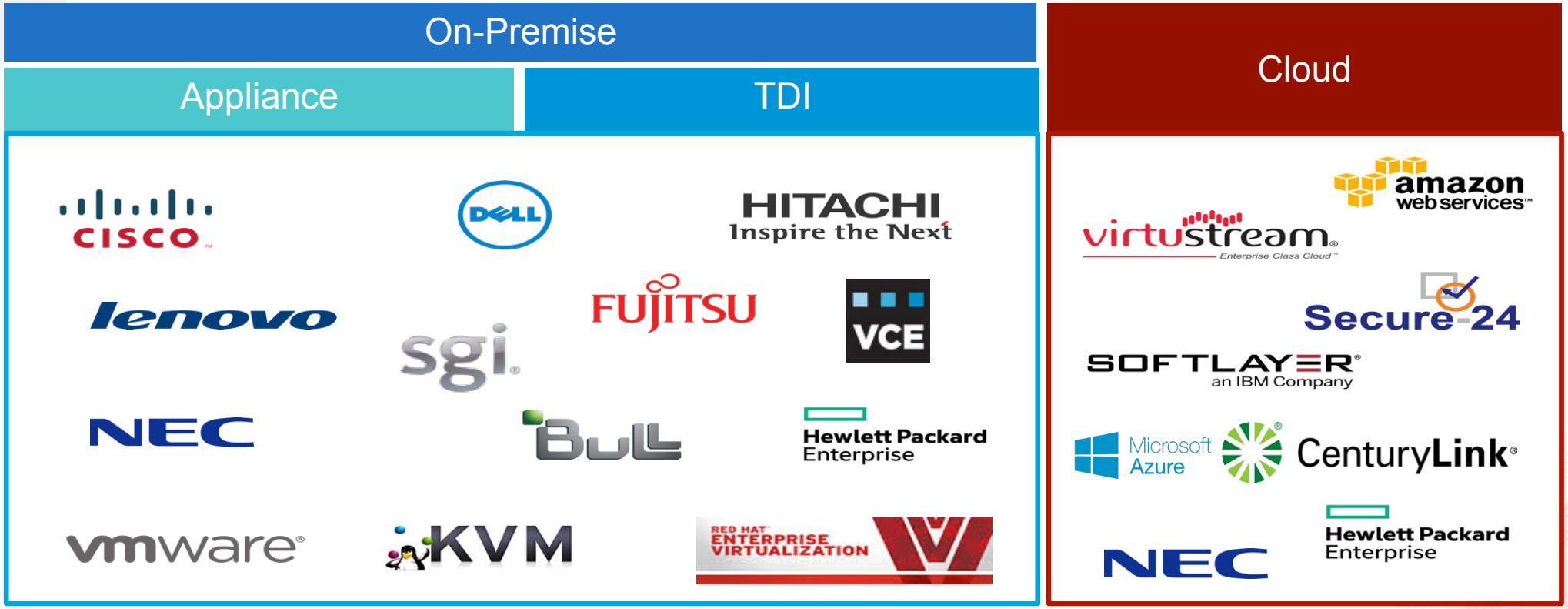
SAP HANA Certified Configurations

- SAP HANA SPS/OS release support matrix (as of Aug. 2017)
  - SAP Note 2235581
- Up-to-date list of certified hardware:
  - http://global.sap.com/community/ebook/2014-09-02-hana-hardware/enEN/index.html

OS/HANA SPS	RHEL 6.5	RHEL 6.6	RHEL 6.7	RHEL 7.2	RHEL 7.3
HANA 1.0 SPS10	Y	Y	X	X	X
HANA 1.0 SPS11	Y	Y	Y	X	X
HANA 1.0 SPS12	X	X	Y	Y	X
HANA 2.0 SPS00				Y	X
HANA 2.0 SPS01				Y	X
HANA 2.0 SPS02				Y	Y

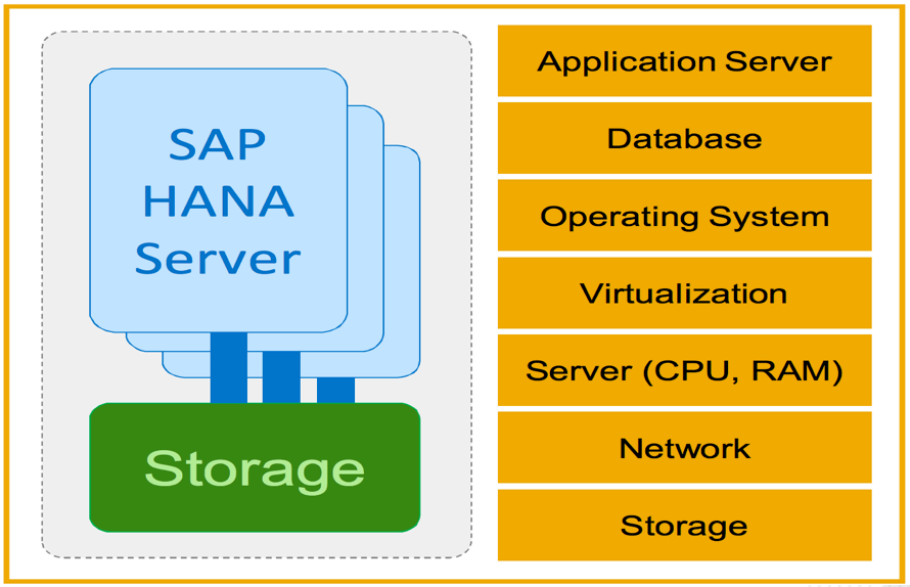
Infrastructure & Business continuity

SAP Deployment Options



On-Premise SAP HANA Appliance

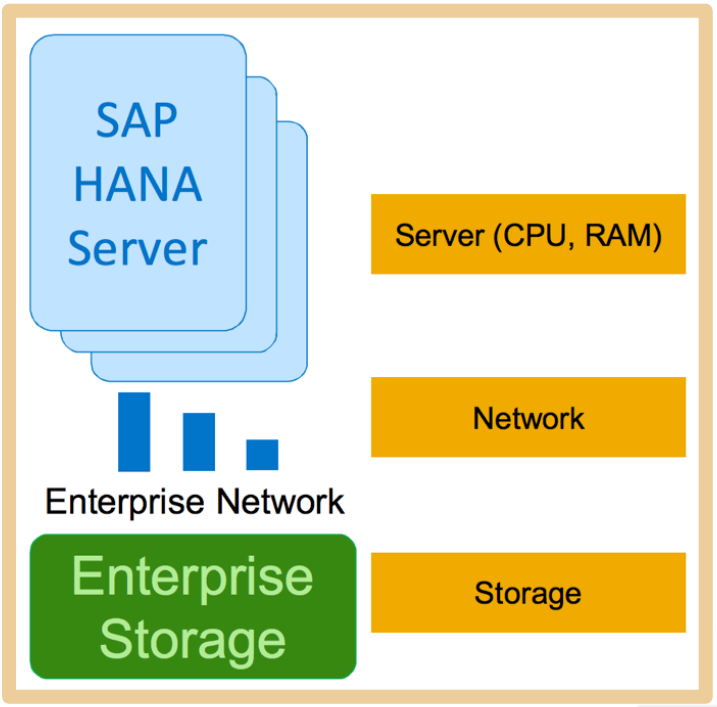
- Dedicated, certified hardware configuration with SAP HANA and Red Hat Enterprise Linux pre-installed
- Best for customers who what
  - Fast time to value
  - Simple deployment model
  - Certified configuration delivered by a hardware partner



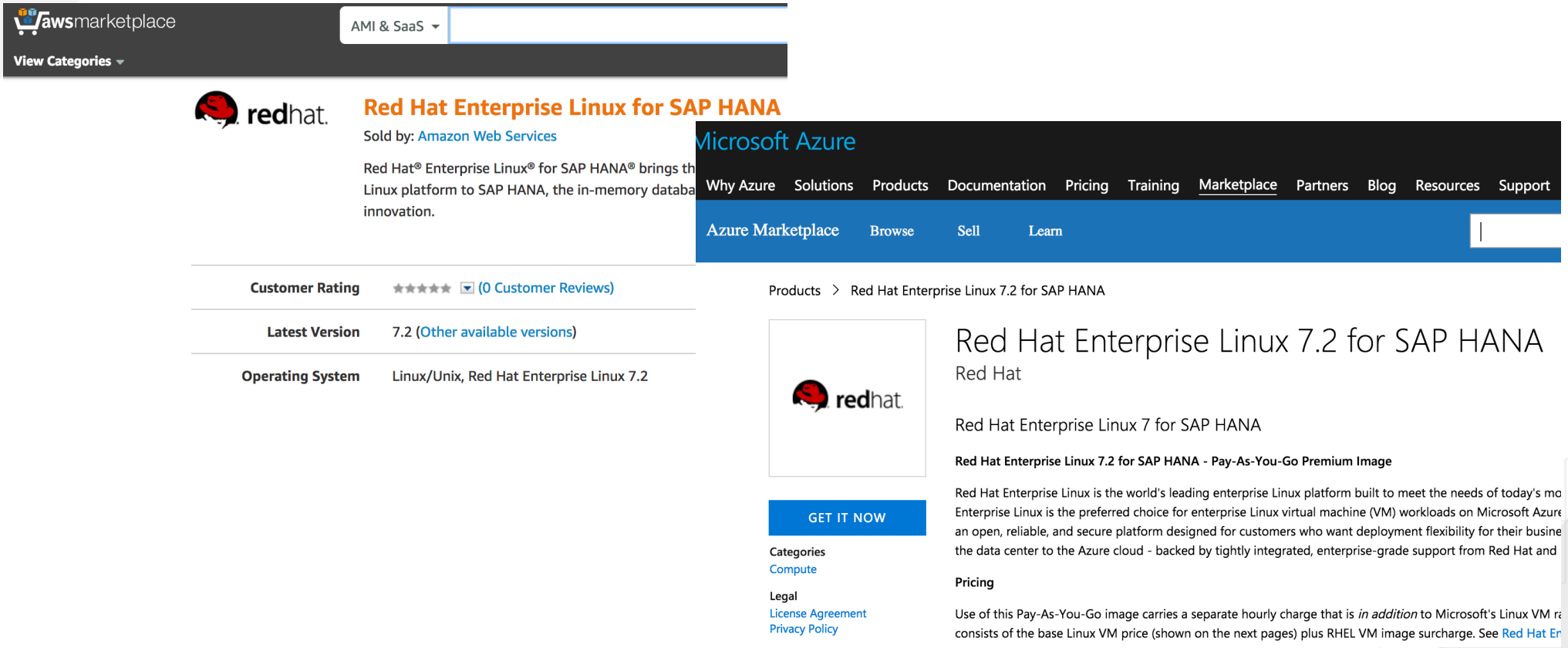
HANA?

On-Premise Tailored Datacenter Integration (TDI)

- Run SAP HANA on customer's hardware
- Choose from certified components
- SAP HANA installed by a certified installer
- Best for customers who want
  - Flexibility for large-scale deployments
  - To leverage existing hardware
  - Architectural control

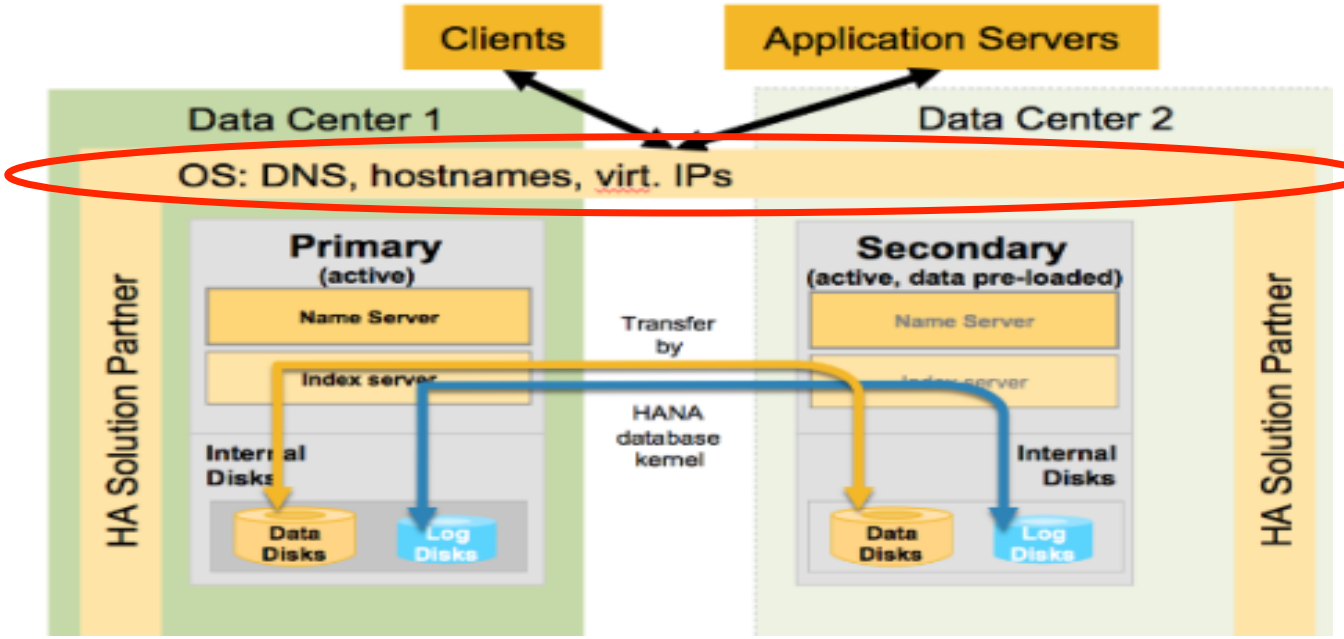


Cloud based SAP implementations



SAP HANA HA & System Replication

- SAP HANA replicates all data to a secondary SAP HANA system
- Data is constantly pre-loaded on the secondary system to minimize recovery time objective (RTO)

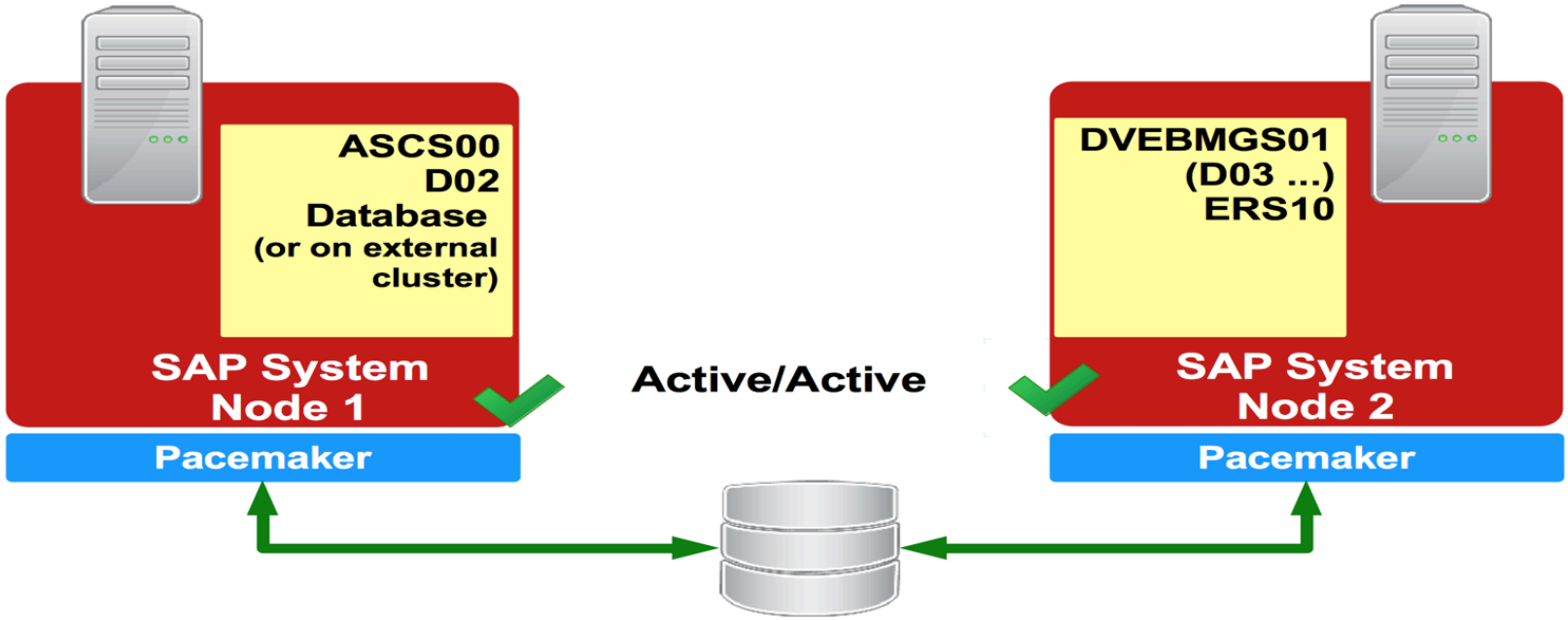


Failover Solution provided by 3rd party partner

High Availability with “RHEL for SAP Solutions” with Pacemaker clustering software

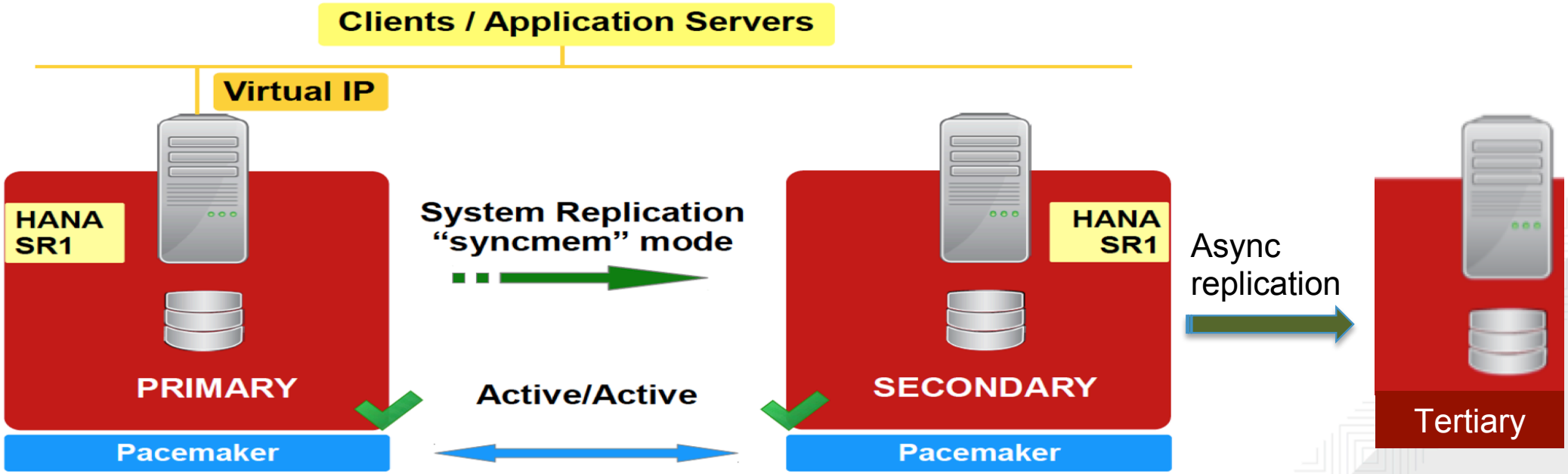
- High Availability solutions for Business Apps

  Active/Active Business Apps including ERS

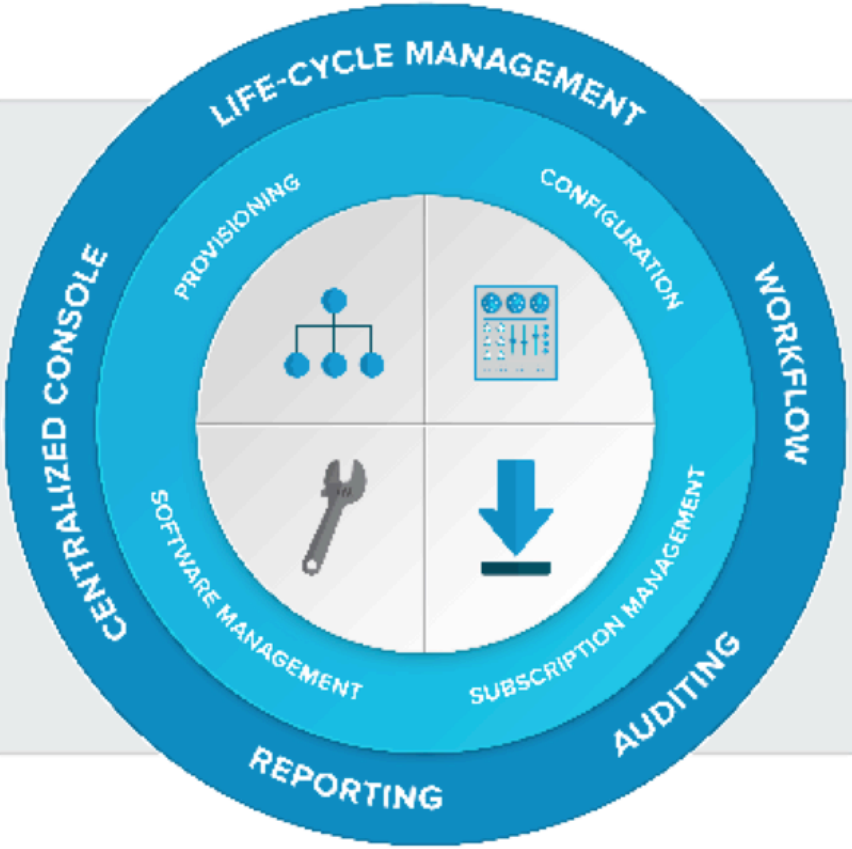


High Availability with “RHEL for SAP Solutions” with Pacemaker clustering software

- High Availability solutions for SAP HANA
  Automated SAP HANA System Replication



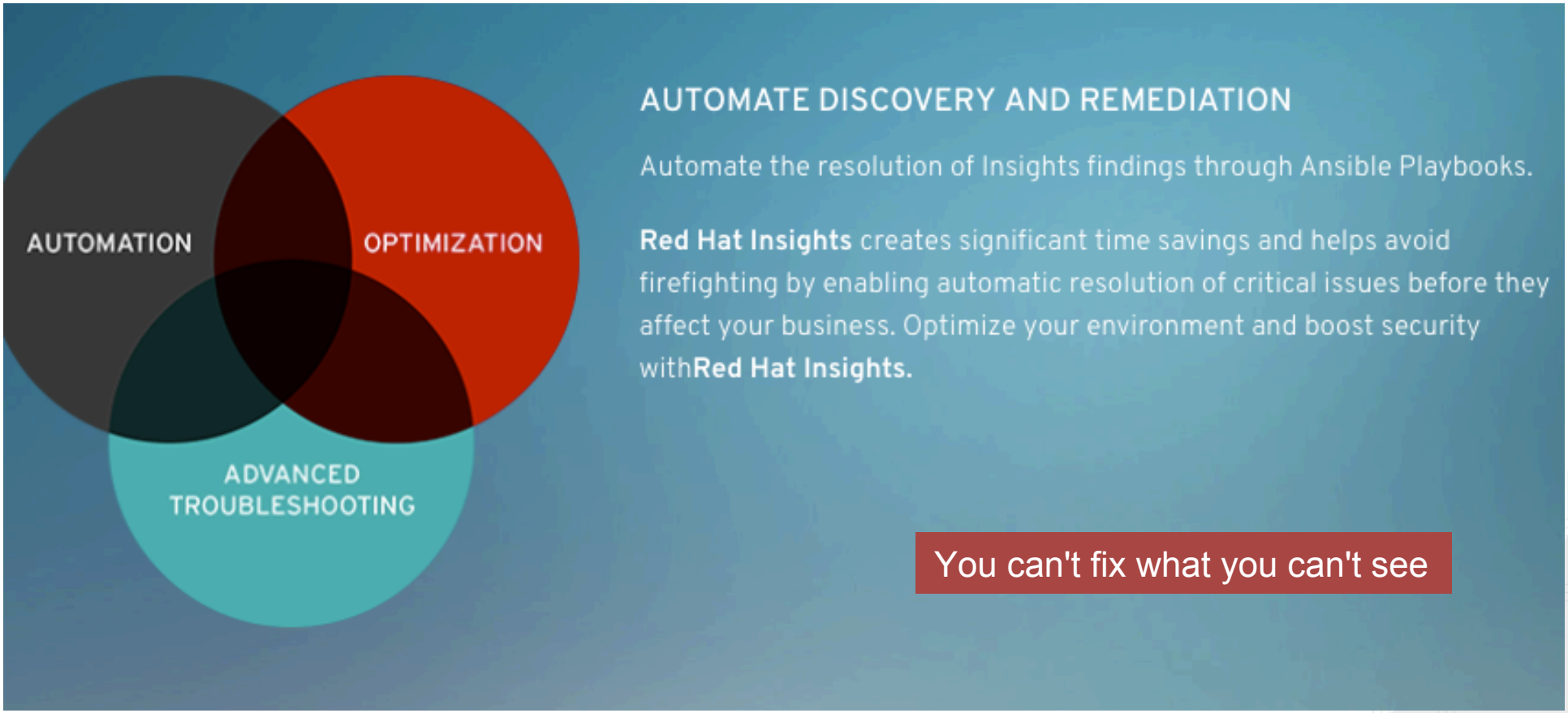
Smart Management with Red Hat Satellite Server



- Provides life-cycle management for Red Hat infrastructure
- Enables provisioning on bare metal, virtualized and cloud-based infrastructures
- Provides centralized configuration and drift management
- Simplifies management of content, including security errata
- Makes it easy to manage and track subscriptions

Red Hat Insights

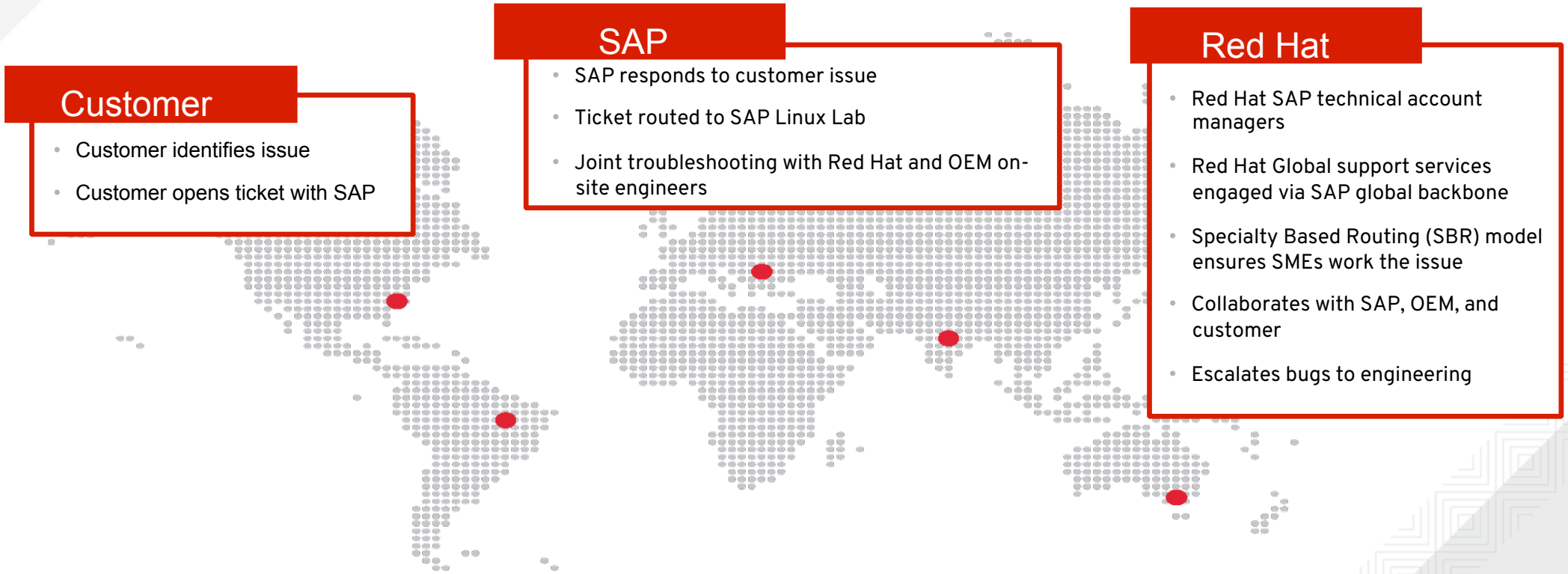
Start proactively finding and fixing infrastructure risks today



Red Hat Support

Collaborative and integrated Support

Integrated ticketing system—Customer has single support interface



Customer

- Customer identifies issue
- Customer opens ticket with SAP

SAP

- SAP responds to customer issue
- Ticket routed to SAP Linux Lab
- Joint troubleshooting with Red Hat and OEM on-site engineers

Red Hat

- Red Hat SAP technical account managers
- Red Hat Global support services engaged via SAP global backbone
- Specialty Based Routing (SBR) model ensures SMEs work the issue
- Collaborates with SAP, OEM, and customer
- Escalates bugs to engineering

Technical Account Manager (TAM) for SAP

Provide the specialized product knowledge and industry expertise needed for your unique technical environment

Currently, Red Hat offers TAM services for the following:

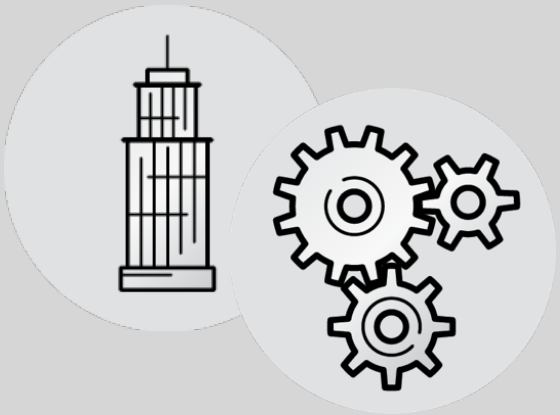
What's coming next?

- SAP Vora on Red Hat OpenShift Container Platform
- SAP HANA on Red Hat Virtualization for production
- Automation, Automation, Automation with Ansible playbooks

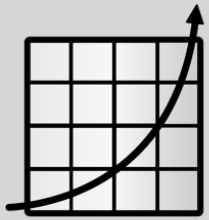
Why Red Hat?

Why Red Hat?

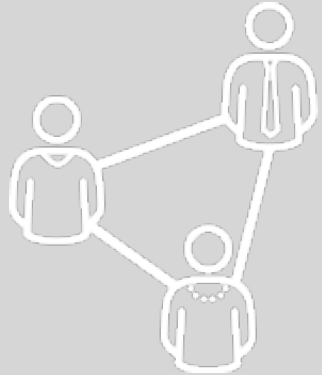
RELIABILITY



PERFORMANCE



SUPPORT



Gartner

Table 1. Linux (Server) Share and Growth by Vendor Revenue, 2015
Source: Gartner (November 2016)

	Revenue ($M) 2015	Share (%) 2015
Red Hat	1,410.3	70.2
SUSE (Micro Focus)	209.4	10.4
Oracle	128.7	6.4
Canonical	62.4	3.1
Others	197.0	9.8
Total	**2,007.8**	**100.0**

Note: Numbers may not add up to totals shown because of rounding.

Published: 29 June 2016

Summary

Industry momentum surrounding SAP Hana is high and continues to build. Gartner's Hana platform landscape model provides CIOs and application leaders considering Hana an assessment of the Hana hardware community by vendor, system size and project maturity.

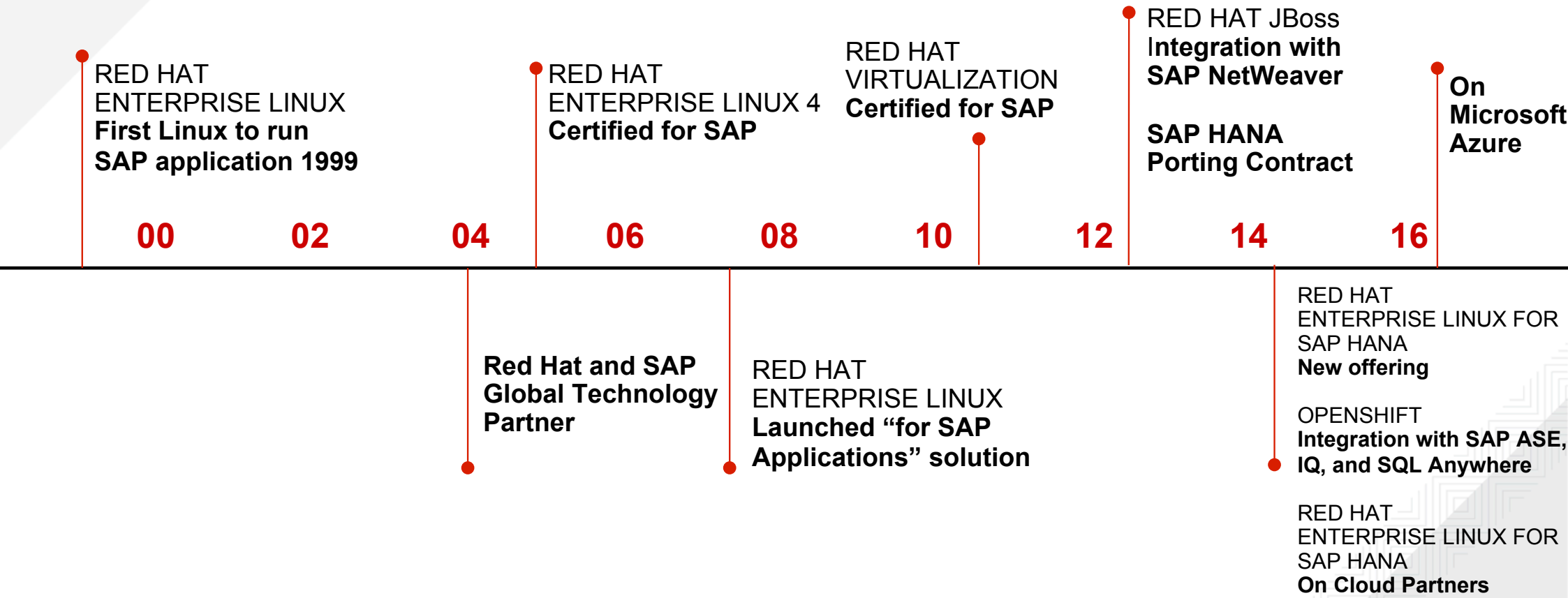
Overview

Key Findings

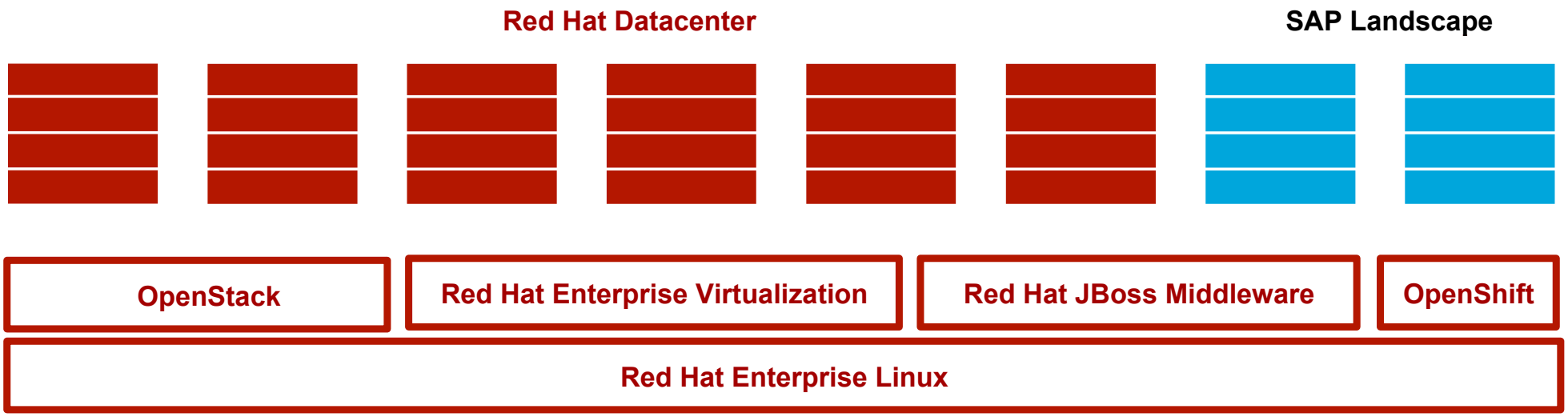
- Hana has evolved to become a general-purpose data management platform for both transactional and analytical applications, creating new market opportunities (and challenges) for hardware, operating system and virtualization vendors.
- The Hana installed base is geared toward SUSE Linux today. We expect the proportion of Red Hat Enterprise Linux (RHEL) projects to grow steadily, and most **organizations that have a strategic policy to deploy RHEL will eventually choose to implement Hana on RHEL by default**.
- Although 12 vendors can sell hardware certified for Hana, three vendors make up most of the installed base. The remaining nine have low single-digit market share.
- Despite Hana's momentum, only a limited number of projects have reached mature production (more than 12 months), and roughly one-fifth of claimed customers have not yet started the development phase.

https://www.gartner.com/doc/reprints?id=1-3B64WPI&ct=160706&st=sb

Red Hat and SAP: A Track Record of Innovation



Red Hat: A Complete Fit for Your Overall Landscape



Use **Open Source** as your de facto **architecture** for **SAP and beyond**

Customer Successes

- **Peavey Electronics**--built a new platform that provides mobile access to real-time information and reduces capital hardware costs by about US$100,000.
- **Mohawk Industries**--cut infrastructure costs while boosting performance and sales with Red Hat Enterprise Linux for SAP HANA and Red Hat Satellite
- **Molecular Health**--implemented a highly reliable and stable environment that runs long-term, computing-intensive workloads for cancer research

Key take aways

- Digital transformation is unavoidable and is taking place
- SAP Roadmap obligate to move to SAP HANA and abandon Oracle, DB2 and Microsoft SQL Server
- SAP Roadmap obligate to move to Linux and abandon IBM AIX, HP-UX and Microsoft Windows

- Red Hat is your partner and has innovative solutions and capabilities for your SAP and Digital Transformation journey.

Resources

- **Red Hat's SAP**
  - https://www.redhat.com/en/about/press-releases/red-hat-delivers-standardized-platform-sap-software-environments-red-hat-enterprise-linux-sap-solutions
  - https://engage.redhat.com/sap-hana-mo-201505231013

- **Red Hat on the SAP Community Network**
  - https://wiki.scn.sap.com/wiki/display/ATopics/SAP+on+Red+Hat
  - http://global.sap.com/community/ebook/2014-09-02-hana-hardware/enEN/index.html
  - https://wiki.scn.sap.com/wiki/x/pDK7Gg

- **Whitepapers**
  - Digital Transformation with SAP and Red Hat
    https://www.redhat.com/en/resources/digital-transformation-sap-and-red-hat

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