



## SAP Breakfast Club

Three global leaders - one joint Open Hybrid Cloud Strategy

**Where:** BlueJeans Prime - Link

**When:** August 4<sup>th</sup> – 6<sup>th</sup> and 11<sup>th</sup> - 13<sup>th</sup>

# Forward-Looking Statements Contained in this Material



*Any statements regarding Red Hat, IBM's or SAP's future direction, intent or product plans are subject to change or withdrawal without notice.*

*Please refer to the trailing slides in this deck for the complete notices and disclaimers.*



# IBM Power Systems, RedHat and SAP HANA



# Your presenter for today



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Americas Systems Sales Leader

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# IBM is unparalleled as a multi-faceted SAP partner

## Partnership with SAP



No other SAP partner has more Global Partner Program Certifications

46

years



36

SAP Pinnacle Awards

> 2020

Partner Managed Cloud Partner

> 2019

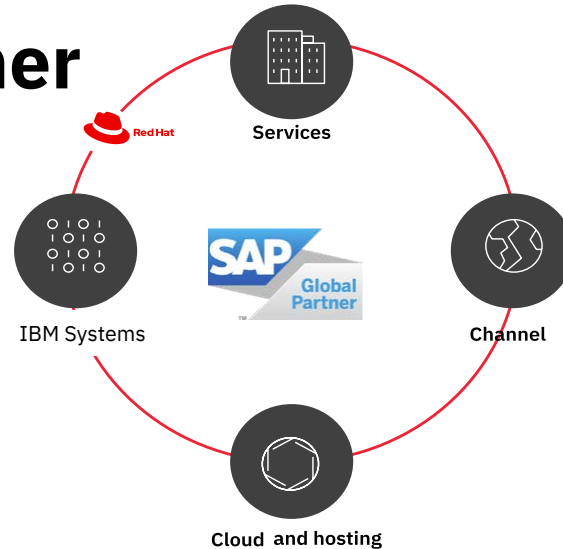
Integrated Delivery Partner of the Year

> 2018

Infrastructure Partner of the year

> 2017

SAP North America Platform Reseller of the Year

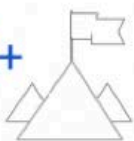


## Depth as a solution integrator



5,500+

successful SAP programs



- > Legacy SAP
- > SAP Suite on HANA
- > SAP S/4HANA

250+

SAP S/4HANA Projects Signed to-date

155+

SAP S/4HANA Go-Lives to-date

110+

S/4HANA Projects in Progress

315+

HANA Impact Assessments Completed

## Training, certifications, and delivery centers

37,000 +

Global SAP consultants

19,000

Consultants trained in SAP S/4HANA

5,200+

Practitioners enabled globally on S/4HANA & IBM Ascend Methods

46

client innovation centers (CICs)



On-site  
Near-shore  
Off-shore

Largest base of SAP Global Solution Delivery Centers

## IBM Systems



### IBM Power Systems

- AIX and Linux
- > 20.000 installations
- > 6.000 companies
- SAP HANA on IBM POWER

### IBM System z

- zOS and zOS Linux
- > 1.300 installations
- > 350 companies

### IBM Power Systems running on IBM i

- > 3.500 installations
- > 1.500 companies
- Coexistence with SAP HANA LPARs

### IBM Systems Storage

- Fully support and certification for SAP HANA TDI
- Best-of-class Flash Systems
- Superior virtualization capabilities

# SAP HANA on POWER

*Simplify and accelerate SAP HANA deployments*

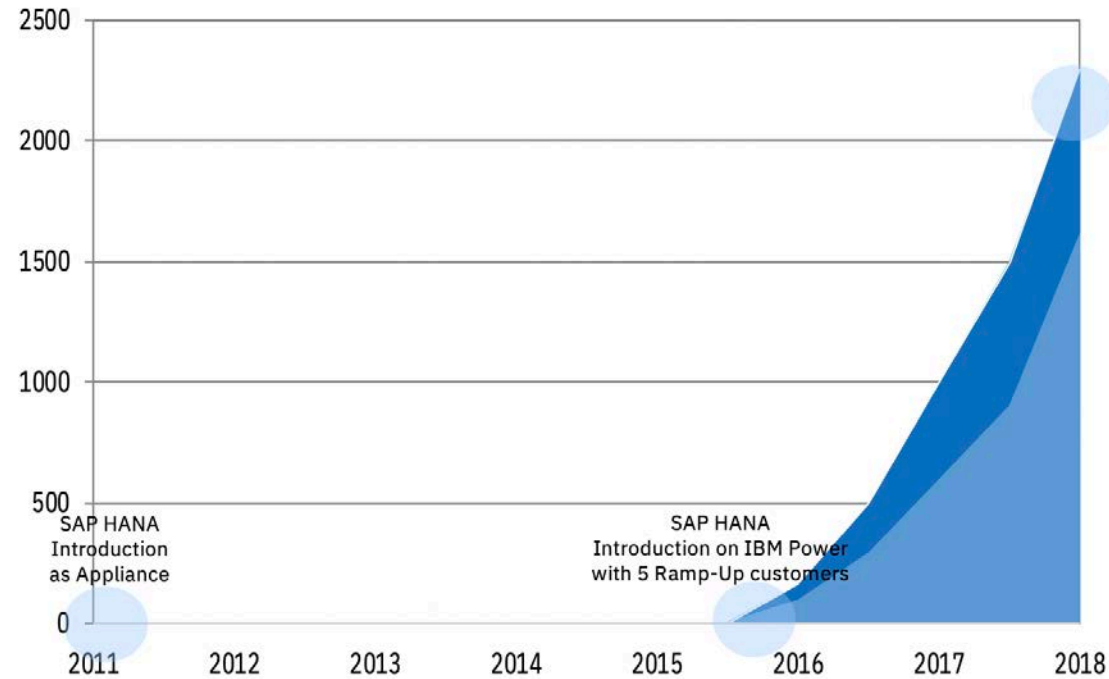


Provision Faster

Scale Affordably

Maximize Uptime

Faster Insights



## Innovation and Leadership with IBM Power Systems

1st to allow multiple production VMs (December 2015)

Largest HANA BWH & S4 Scale Up: 24TB

Advanced System and Memory Resiliency

1st to allow Dynamic CPU resource sharing

# SAP HANA clients are rapidly adopting IBM Power Systems



**2700+** clients in ~ **48 months**



**SAP Pinnacle award Winner**  
IBM Power Systems - Global  
Partner of Year – Infrastructure



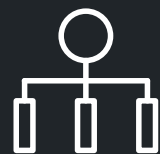
**Ranked # 1** in reliability  
for last 11 years<sup>1</sup>



**'137% ROI and 7 months  
payback'** - Forrester TEI study<sup>2</sup>



**50+ CSP/MSP** using IBM  
POWER Systems for **SAP  
HANA Clouds**



**Largest scale up capacity as VM** for  
S/4 HANA and BWH: 24TB<sup>3</sup>

# Business Challenges addressed by SAP HANA on POWER

## Business Needs

## Benefits of SAP HANA on Power

### Availability of the Environment

- Deliver more than 99.999% uptime
- Redundancy built in for all critical components
- Advanced system and memory RAS features

### Reduce complexity to manage

- Easier and faster to deploy
- Support greater workload density
- Require fewer servers with virtualization

### Controlling costs

- Run more HANA production environments on a single server
- Reduce number of physical systems, energy & floor space
- Deploy HANA using Shared Processor Pools

### Flexibility to meet changing customer demands

- Greater virtualization capability
- Run applications more flexibly and grow capacity as needed
- More flexible granularity and easy to scale

### Ability to Scale large environments

- SAP certified HANA Prod OLTP - 24TB Scale-up
- SAP certified HANA Prod OLAP – 24TB Scale-up
- POWER9 E980 server to scale up to 64TB of Memory

### Time to Market

- Easier and faster to deploy SAP HANA Environments
- Accelerate Go-Live by 60%
- Dynamically change allocation of system resources



# SAP HANA and POWER9 systems portfolio



## S922/S924/L922/ H924/H922



- Up to 24 Cores
- 8, 10, 12 cores processor types
- Up to 4TB of Memory



## E950



- Up to 48 Cores
- 8, 10, 11, 12 cores processor types
- Up to 16TB of Memory



## E980



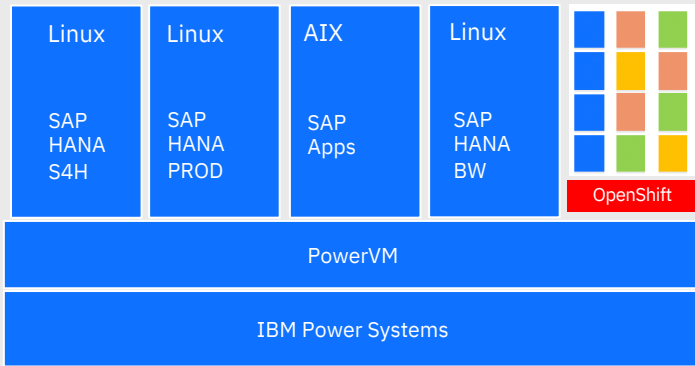
- Up to 192 Cores
- 8, 10, 11, 12 cores processor types
- Up to 64TB of Memory



# Provision faster with SAP HANA on IBM Power Systems



## Provision faster with low overhead firmware based virtualization



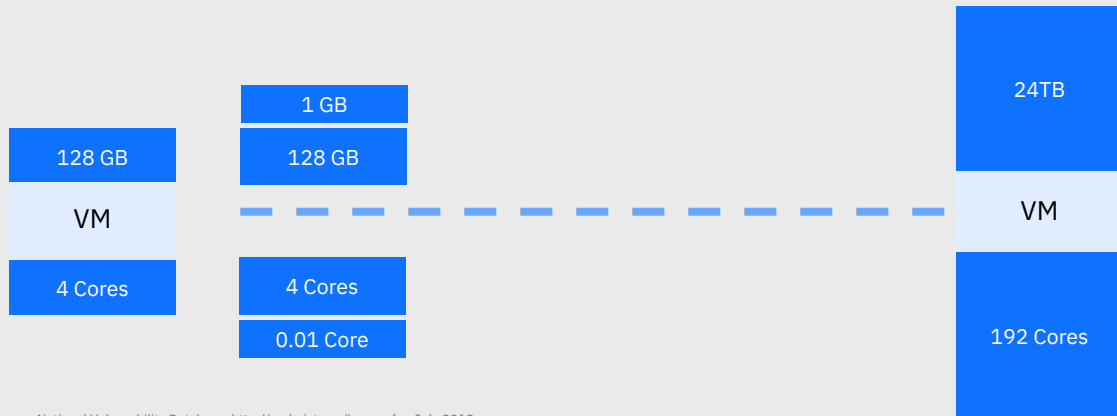
- Easily provision new VMs
- Increase or decrease capacity
- Live partition mobility
- Shared Processor Pools
- Capacity on demand

“ With IBM Power Systems and PowerVM virtualization, we can provision resources much more efficiently

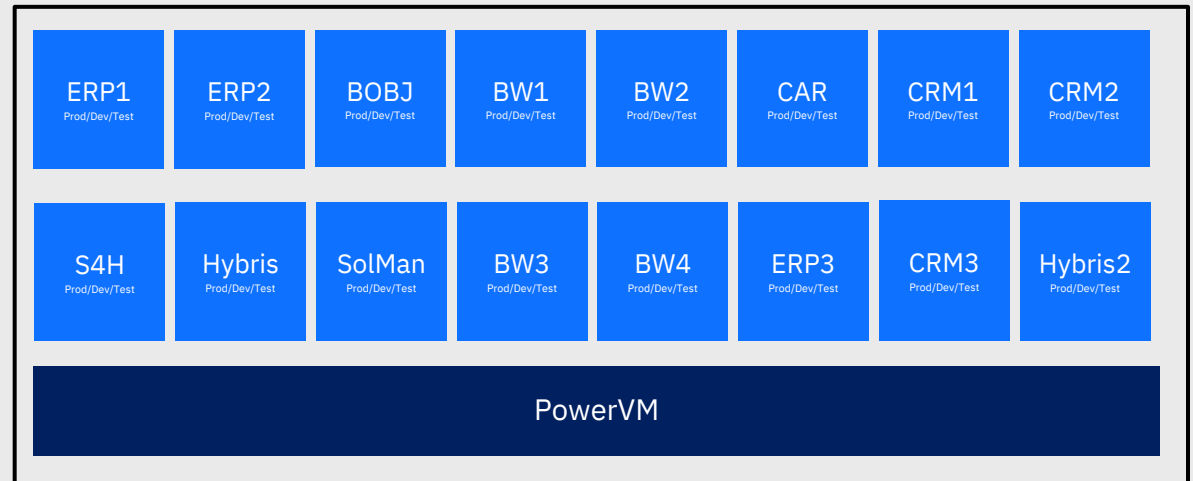
”

– CHRISTOPHER KALT  
Lead IT Architect, Coop Group

## Reduce over sizing with granular capacity allocations



## Simplify management consolidating 16 HANA Production VMs in a single server<sup>2</sup>



1. Source: National Vulnerability Database, <http://nvd.nist.gov/home.cfm>, July 2018  
2. SAP Tech Note # 2188482 and 8 VMs: SAP Tech Note #2230704 (link resides outside ibm.com)

# Cloud scaling and High availability with private cloud on IBM Power Systems

## Cloud scaling with Consumption-based IT

- Navigate demand fluctuations scaling up and down with always turned on pay-per-use capacity
- Manage high availability by optimizing capacity utilization across multiple systems
- Optimize TCA/TCO based on your goals with flexibility to choose the base capacity (as low as 1 core, 256 GB) you need
- Pay only for the precise capacity used with by the minute metering
- No monthly fixed fee, no minimum usage fee and no minimum contract duration

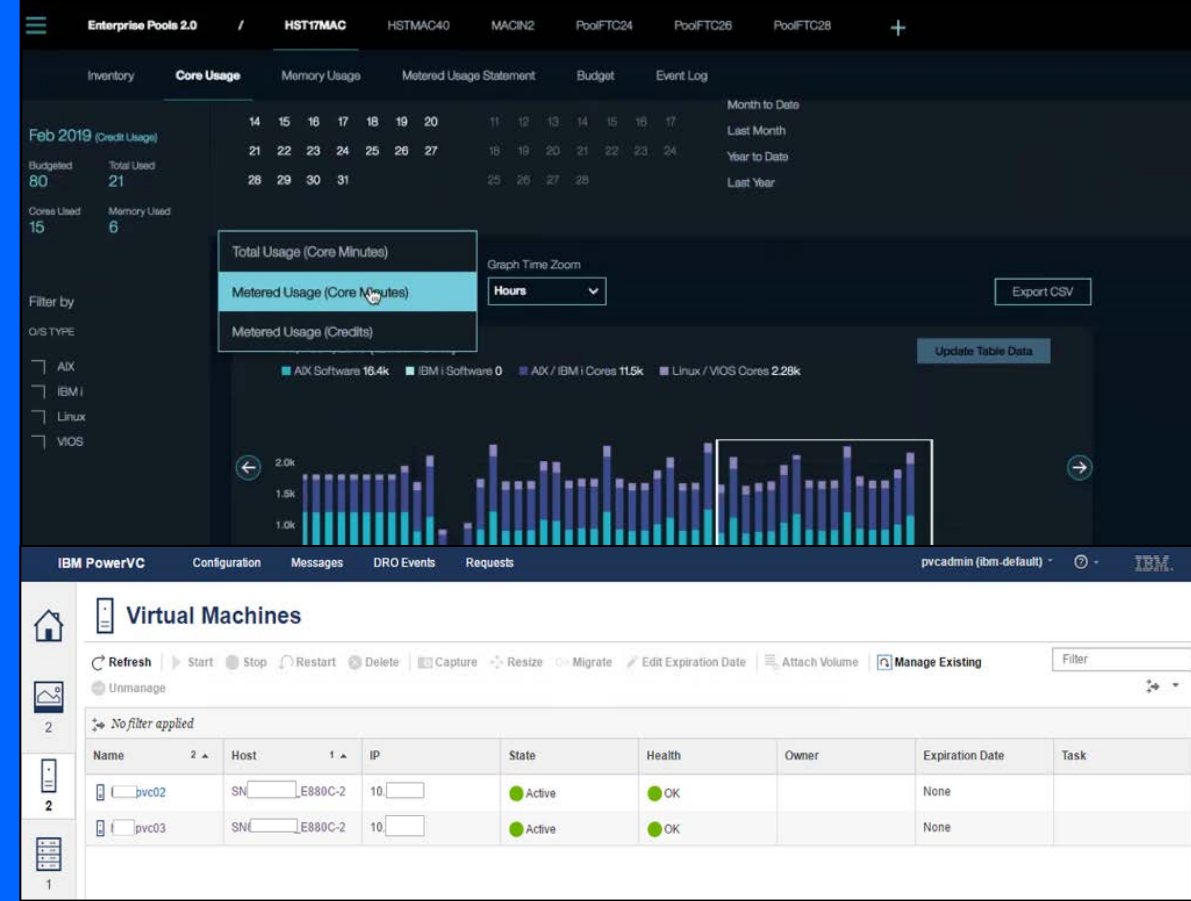
## Rapid IT provisioning with OpenStack based Private Cloud

- Self-service provisioning with OpenStack based PowerVC
- Integrates with IBM Cloud Pak for Multicloud Management and other cloud orchestrators like VMware vRealize

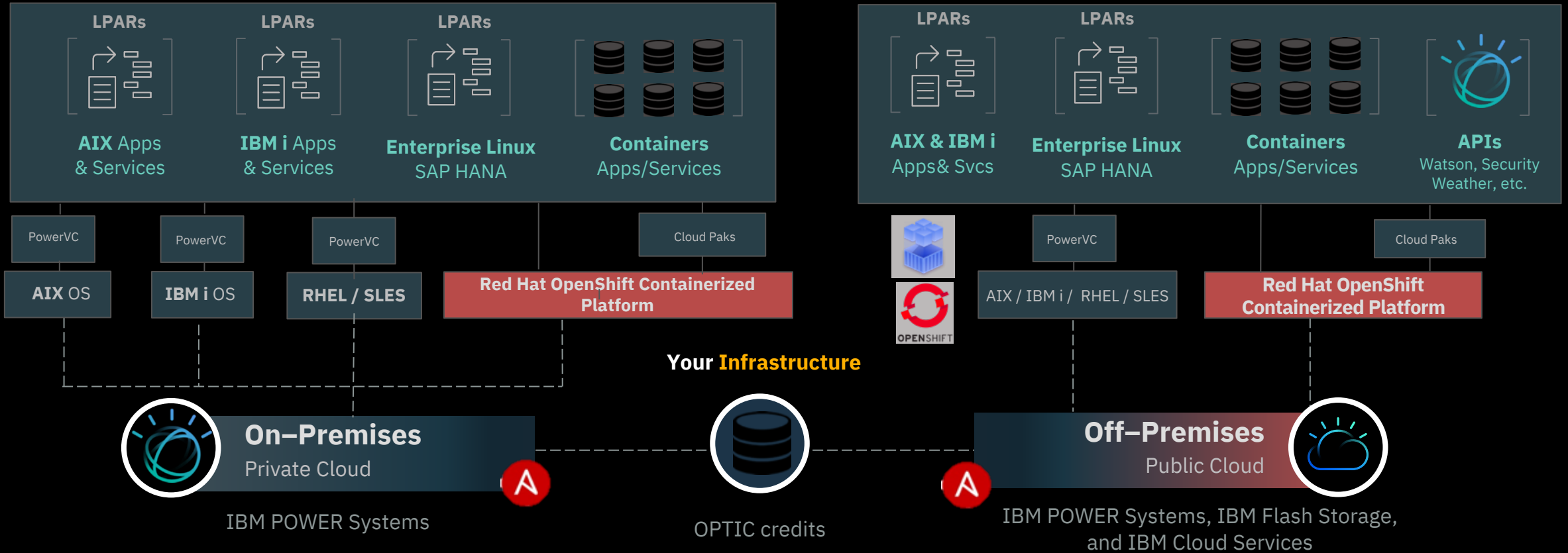
Available Capacity (always turned on)

Dynamic Capacity (Pay-per-use, OPEX)

Permanent Capacity (Static/Base, CAPEX)

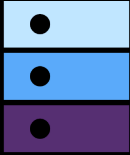
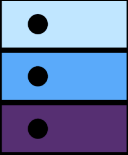


# Right Infrastructure for your SAP and non-SAP Environment



**IBM is the only vendor that can provide a Hybrid Cloud based solution for SAP HANA workloads**

# Hybrid cloud for SAP HANA: Meeting customer's needs like no other



## On Premise – IBM Power Systems

## Off Premise – IBM Power Systems Virtual Server



### IBM Power Systems S922 + S924

### IBM Power Systems E950 + E980

### IBM Power Virtual Server

SAP TDI 5.0 compliant

SAP TDI 5.0 compliant

Buy all or PayGo by the minute

Buy all or PayGo by the minute

Linux, AIX and IBM i

Linux, AIX and IBM i

Low entry price

Enterprise security, maximum performance and stability on IBM POWER9

Pre-priced, pre-optimized bundles available in 512GB, 1TB and 2TB

Designed for Ultra-High performance SAP production environments with ultra-high Memory

Migration images

- PowerVC OVA

+

- Mksysb (AIX)
- SAVSYS (IBM i)
- VIOS (Linux)

Migrate data

- IBM Cloud Object Storage
- Mass Data Migration
- Aspera

Certified for SAP HANA

Monthly PayGo with option for lower costs with 12 & 36 month commitments

Linux, AIX and IBM i

Enterprise security, maximum performance and stability on IBM POWER9

Designed for Ultra-High performance SAP production environments with ultra-high Memory

# ***IBM Power Systems availability in SAP HEC***

***"SAP HANA Enterprise Cloud on IBM Power Systems will help clients unlock the full value of SAP HANA in the cloud, with the possibility of enhancing the scalability and availability of mission critical SAP applications while moving workloads to SAP HANA and lowering TCO,"*** said Christoph Herman, SVP and Head of SAP HANA Enterprise Cloud Delivery

**Press Release** - <https://newsroom.ibm.com/2020-02-19-IBM-Power-Systems-Certified-for-SAP-HANA-R-Enterprise-Cloud-as-a-provider-for-large-SAP-HANA-systems>

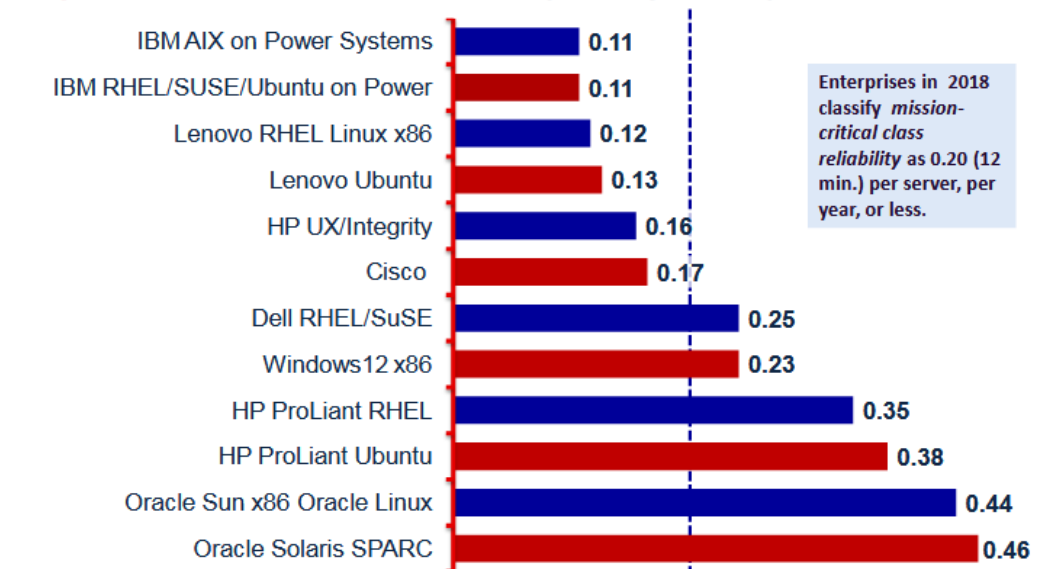
**External Blog** - <https://www.ibm.com/blogs/systems/why-ibm-power-systems-means-business-for-sap/>

**Internal Blog** - [https://w3-connections.ibm.com/blogs/8f30ccef-9794-4c8e-aafd-ccebeec100c2/entry/SAP\\_HEC\\_and\\_IBM\\_POWER9?lang=en\\_us](https://w3-connections.ibm.com/blogs/8f30ccef-9794-4c8e-aafd-ccebeec100c2/entry/SAP_HEC_and_IBM_POWER9?lang=en_us)

# Ranked # 1 in for the last 12 years as the most resilient system



## Unplanned Downtime in 2017 - 2018 (Hours per Year)



“IBM POWER based processor systems provide several key feature/function advantages that advance reliability and enable customers to lower Total Cost of Ownership (TCO) and achieve near-immediate ROI.”

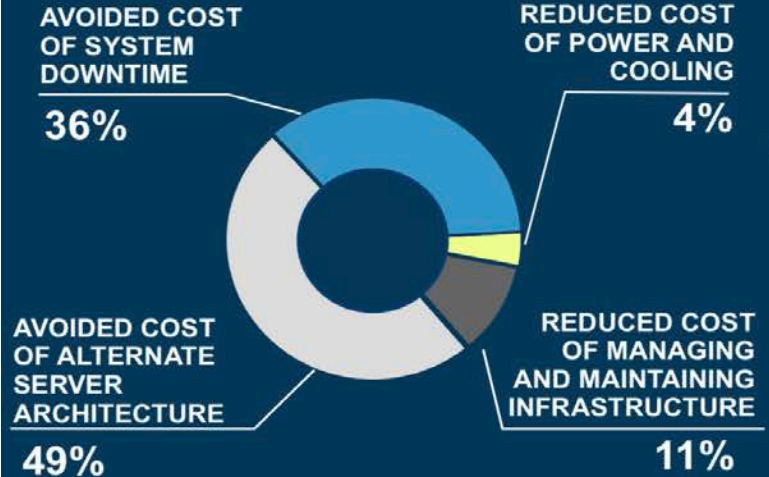
# Forrester's Total Economic Impact Study – SAP HANA deployment in 2019

## The Total Economic Impact™ Of IBM® Power Systems™ for SAP HANA®

FORRESTER®

Through multiple customer interviews and data aggregation, Forrester concluded that IBM Power Systems for SAP HANA had the following three-year financial impact for a composite organization representative of the interviewees.

### SUMMARY OF BENEFITS



Links: [IBM and Forrester Webinar](#) and [Forrester TEI Report](#)



# Introducing: Shared Processor Pool

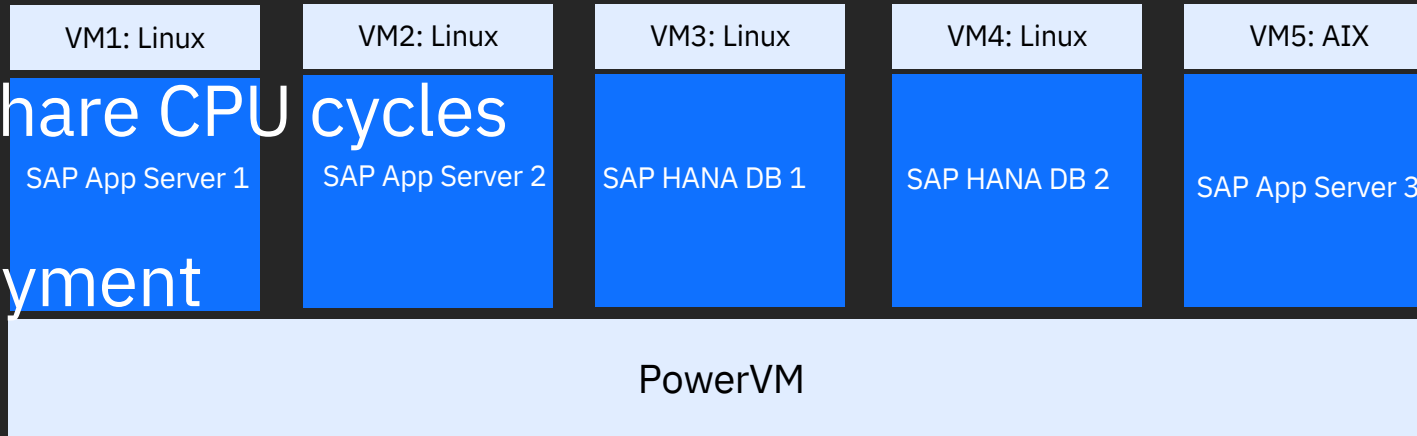
CPUs in Shared Processor Pool



Improved TCO

Autonomously share CPU cycles

Simplified deployment



***‘Using Power Systems the cost for HANA landscape just drops by 50%’***

*Helge Tautorat, Director Global Infrastructure, Richemont*

# Virtual PMEM advantages

**Faster SAP HANA  
restart**

**Improve shutdown  
time**

**Maximize uptime**

**Preserves runtime  
performance**

**NUMA aware PMEM**

**Continue to get faster insights**

**Virtualization enabled**

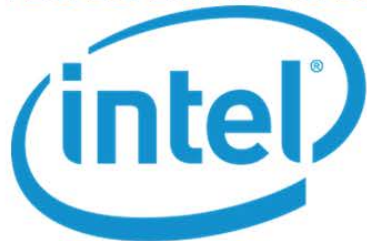
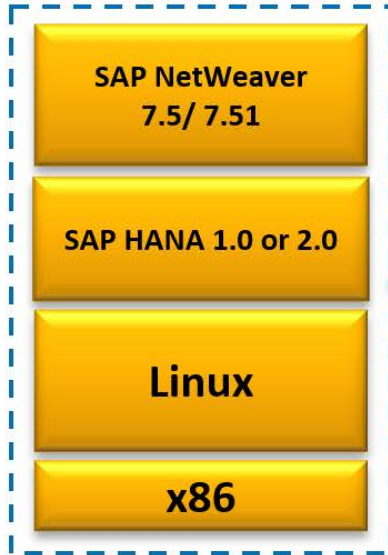
**Change PMEM  
allocation on demand**

**Improved flexibility**

***Available at no additional cost on all existing  
POWER9 based systems!!!***

# Easy Migration from Intel x86 (HANA 1/2) to IBM Power Systems

Existing Installation with  
**SAP HANA 1.0 OR 2.0**

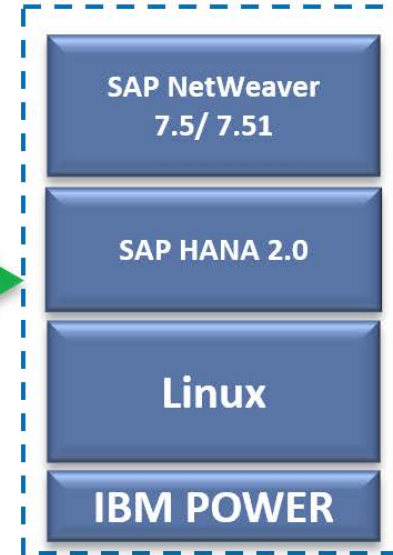


Backup / Restore  
or

SAP HANA System Replication



New Installation with  
**SAP HANA 2.0**



# Red Hat Enterprise Linux for SAP Solutions

All integrated - With all its benefits!

Clearly defined **SAP Solutions roadmap**

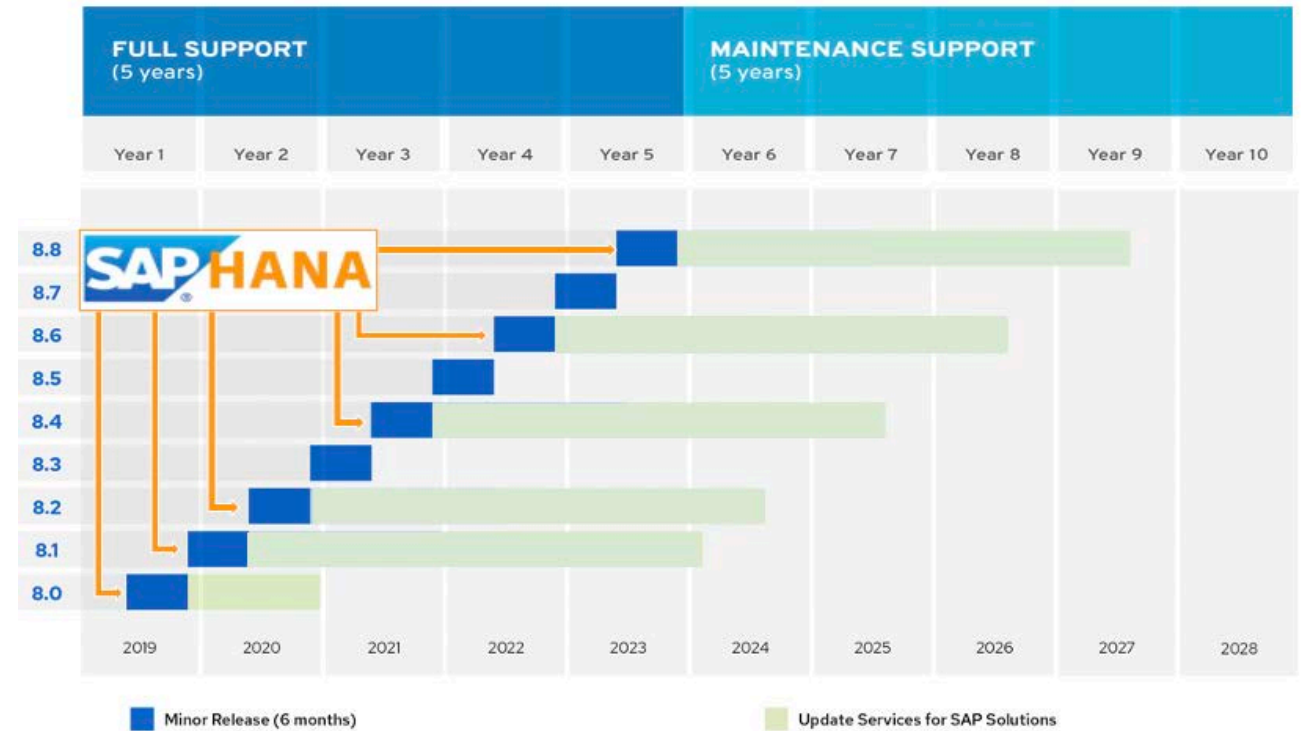
**10-year** product lifecycle

- Full support for 5 years
- Maintenance support for 5 years

Live Kernel Patching included

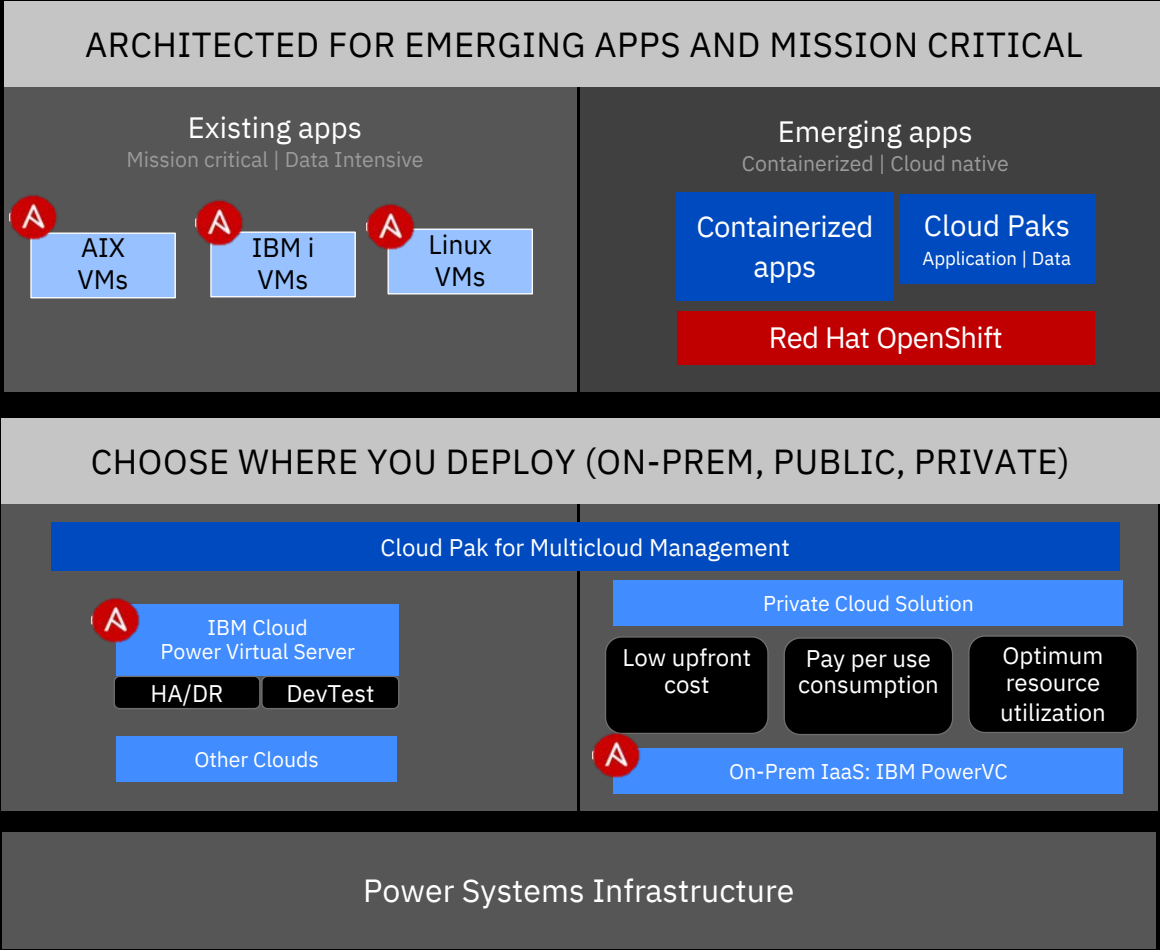
- Replaces portions of the live kernel in memory
- Maintenance on your schedule
- Support for up to one year

Automation and Ease of management with **SAP Ansible**



Source: <https://access.redhat.com/support/policy/updates/errata>

# IBM Power Systems: Enhancements to hybrid multicloud capabilities



### ON-PREM AND PRIVATE CLOUD CAPABILITIES:

- Expanding Power Private Cloud Solution to include Scale Out systems
- New cloud optimized scale-out models

### POWER PUBLIC CLOUD EXPANSION:

- More capacity and more locations for Power in the IBM Cloud
- Introducing SAP HANA on Power in the IBM cloud

### HYBRID CLOUD MANAGEMENT AND AIX/IBM i APPLICATION MODERNIZATION

- Launching Cloud Pak for Data, Cloud Pak for Applications and OpenShift 4 on Power
- Consistent and automated hybrid cloud management with Ansible for IBM Power Systems

# Power Systems for SAP HANA

## LION - in the dazzle of Zebras

### Provide Value:

Simplify and Accelerate SAP HANA Deployments with IBM POWER Systems

- Provision Faster
- Scale Affordably
- Maximize Uptime
- Faster Insights

### Recognition:

Only vendor with Hybrid Cloud Solution for SAP HANA

SAP Pinnacle award for 2018

SAP HEC using POWER

Competition losing market share and creating FUD

### Continued Innovation

Complete portfolio of POWER9 systems from scale out to Enterprise systems available on premise and in the Cloud. Bringing Innovations that Customer need like Virtual PMEM, Shared Processor Pools and memory technologies.

### Momentum and Growing Marketshare

Continue to lead in this space with innovation that helps address the customer business needs, gaining Market share at a rapid pace

Infrastructure deployment workshop

謝謝

DZIĘKUJĘ CI

NGIYABONGA

TEŞEKKÜR EDERİM

DANKIE

TERIMA KASIH

СПАСИБО

GRAZIE

GRÁCIÉS

TAPADH LEIBH

KEA LEBOHA

БАЯРЛАЛАА

MISAOTRA ANAO

WHAKAWHETAI KOE

DANKON TANK TAPADH LEAT

SALAMAT

MATUR NUWUN

ХВАЛА ВАМ

MULȚUMESC

PAKMET CI3GE

고맙습니다

GRAZIE شكرا

HVALA

FAAFETAI

ESKERRIK ASKO

HVALA

GO RAIBH MAITH AGAT

БЛАГОДАРЯ

GRACIAS

THANK YOU

TEŞEKKÜR EDERİM

ТИ БЛАГОДАРАМ

TAK DANKE

DANKJE

ΕΥΧΑΡΙΣΤΩ GRATIAS TIBI

ДЗЯКУЙ

OBRIGADO

AČIŪ

SALAMAT

MAHALO IĀ 'ŌE

TAKK SKALDU HA

MERCI

RAHMAT

MERCI

GRAZZI

ПАККА ПÉR

ありがとうございました

DI OU MÈSI

HATUR NUHUN

PAXMAT CAҒA

SIPAS JI WERE

TERIMA KASIH

ĎAKUJEM

CẢM ƠN BẠN

FALEMINDERIT

UA TSAUG RAU KOJ

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