Virtual Event:
IBM SAP HANA on Power.

GoToWebinar | 28.10.20 | Erich Geiger, Ursula & Jochen Ziegler

Herzlich Willkommen.

Miriam Rickli

TV- & Eventmoderatorin

Erich Geiger

Consultant

Bechtle Schweiz AG

Ursula Ziegler

SAP SOLution ARchitect (SOLAR)

IBM

Jochen Ziegler

Leading SOLAR (SAP SOLution ARchitect

IBM

Agenda

1. Was sind die Entscheidungsfaktoren für den Betrieb von SAP HANA auf IBM Power Systems?

2. Warum entscheiden sich Kunden heute für SAP HANA auf IBM Power Systems? Live-Demo: True Hybrid Cloud

3. Wie kann Sie Bechtle bei der Implementierung unterstützen?

4. Virtuelle Podiumsdisukussion mit Ursula Ziegler, Jochen Ziegler und Erich Geiger

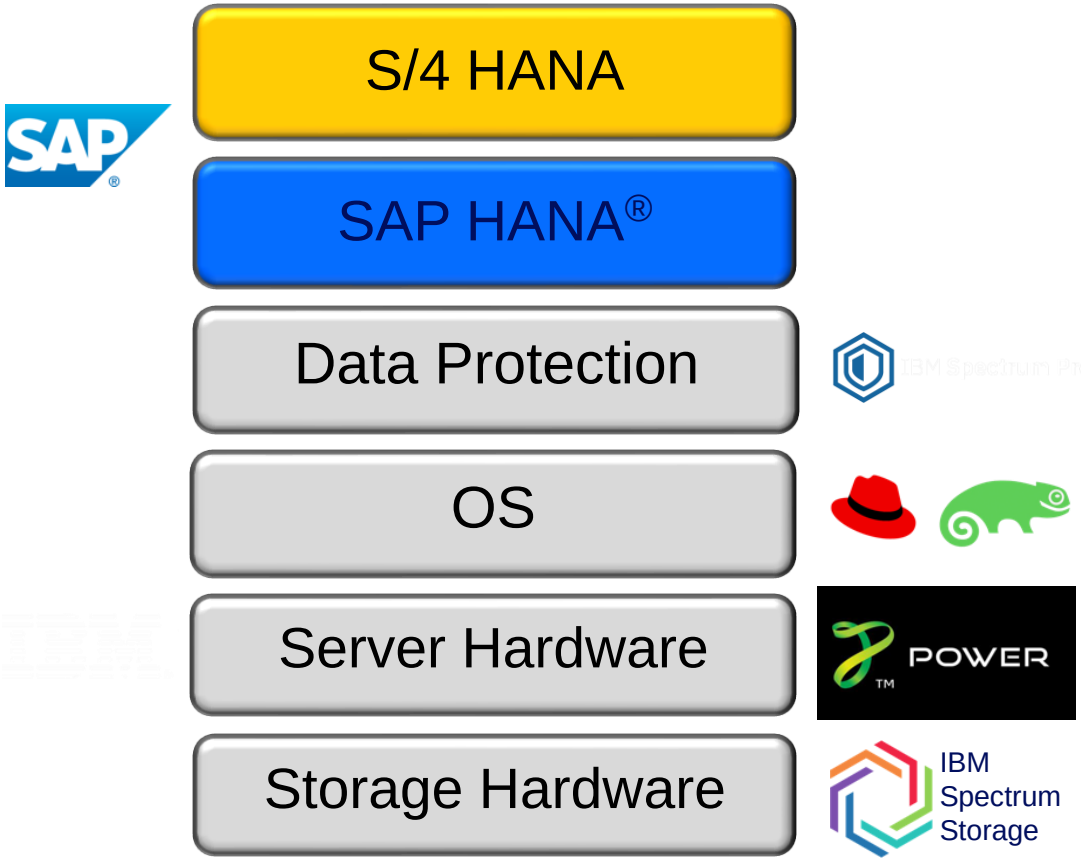
SAP HANA on IBM Power Systems and IBM Storage

- Virtual Event - 28.10.2020

Bechtle Schweiz AG

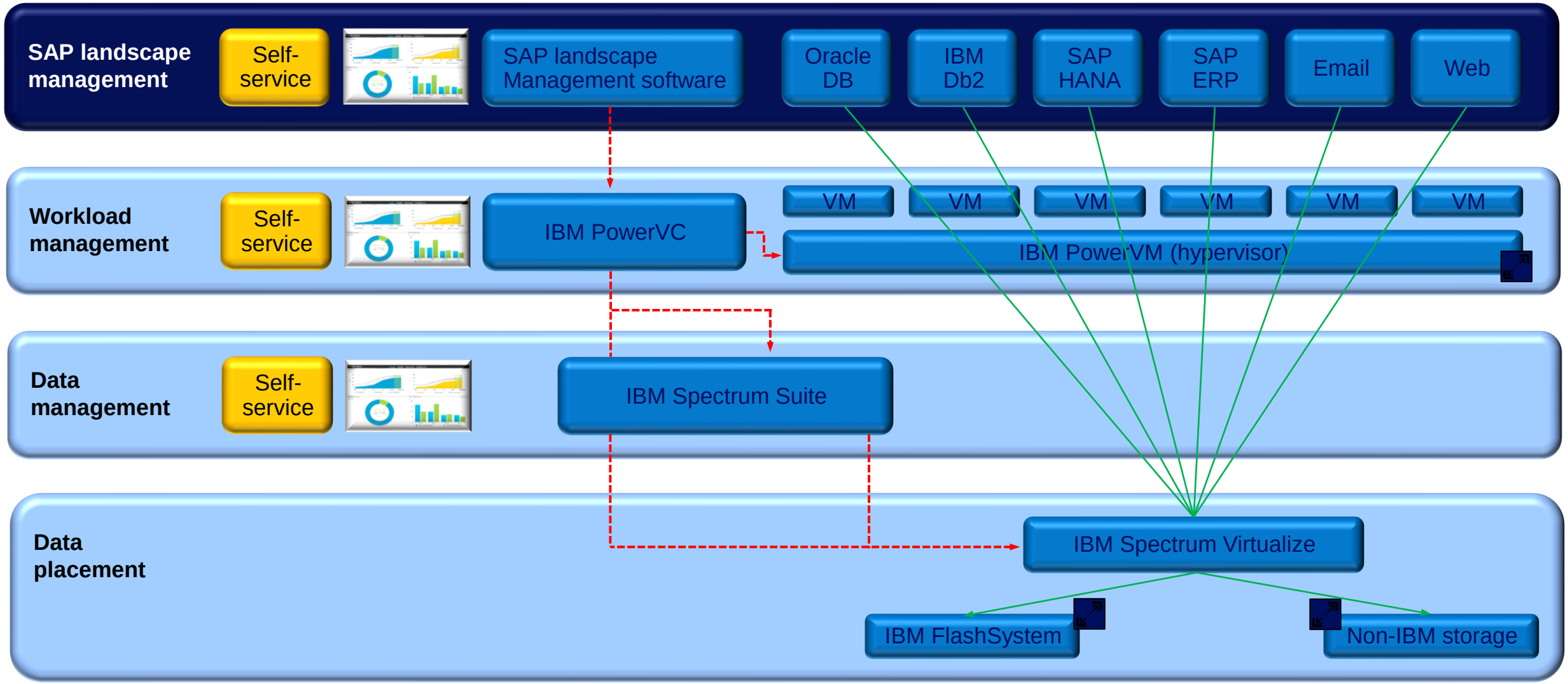
Ursula Ziegler, IBM Deutschland GmbH
SAP Infrastructure SOLution ARchitect

SAP HANA - Hardware and Software Stack

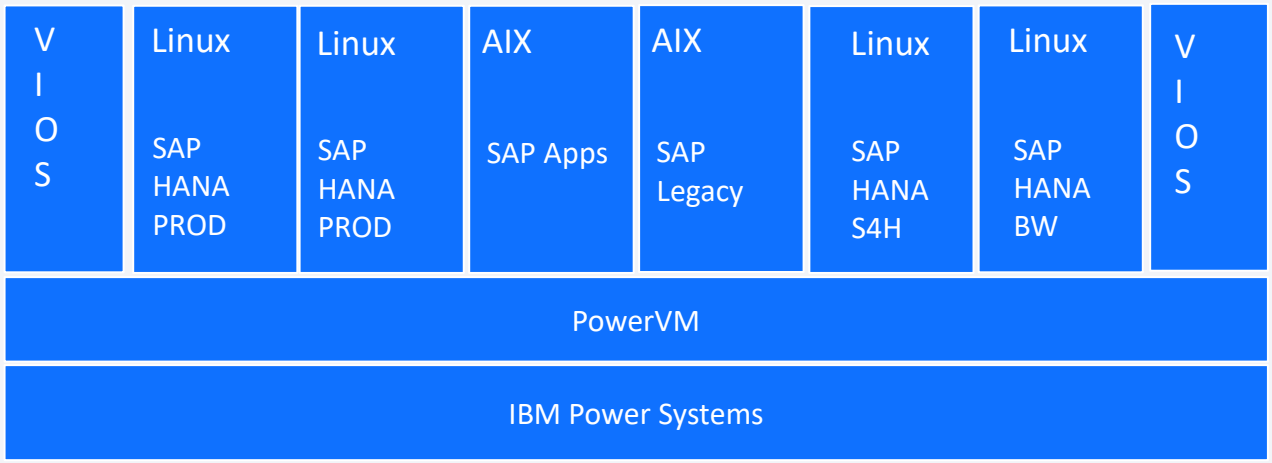


Putting the pieces together for a solution

IBM + SAP HANA Solution Architecture

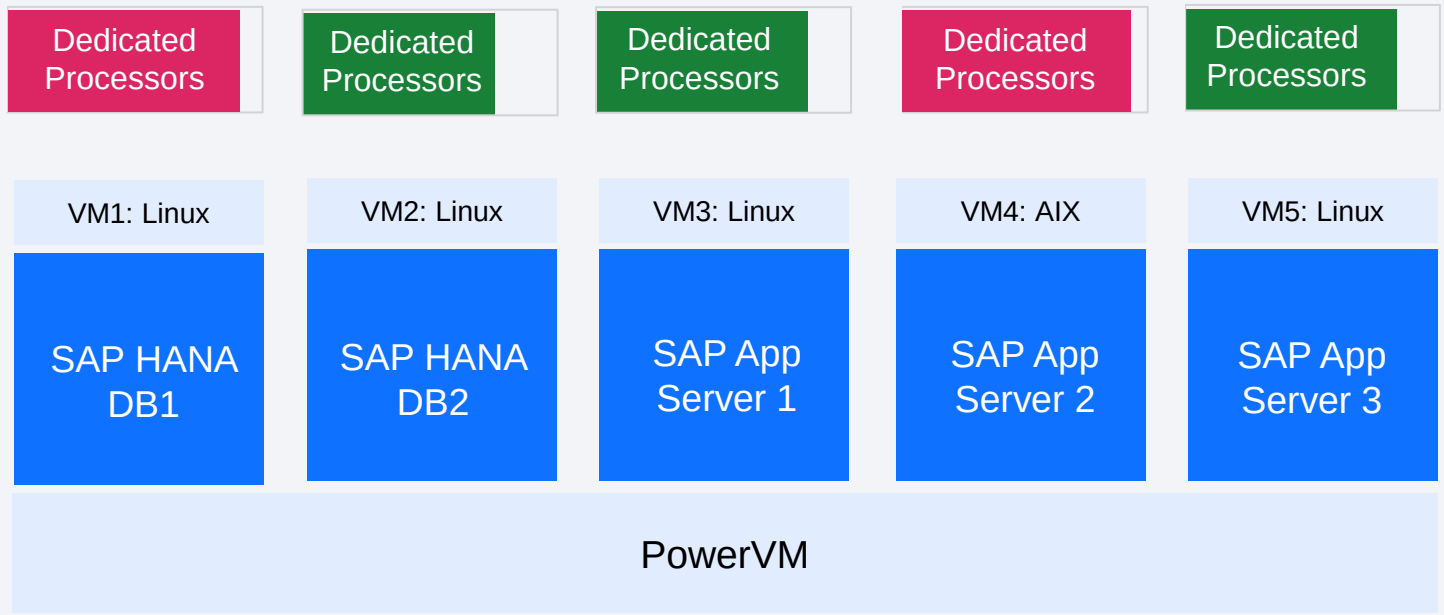


Provision faster with low overhead firmware based virtualization

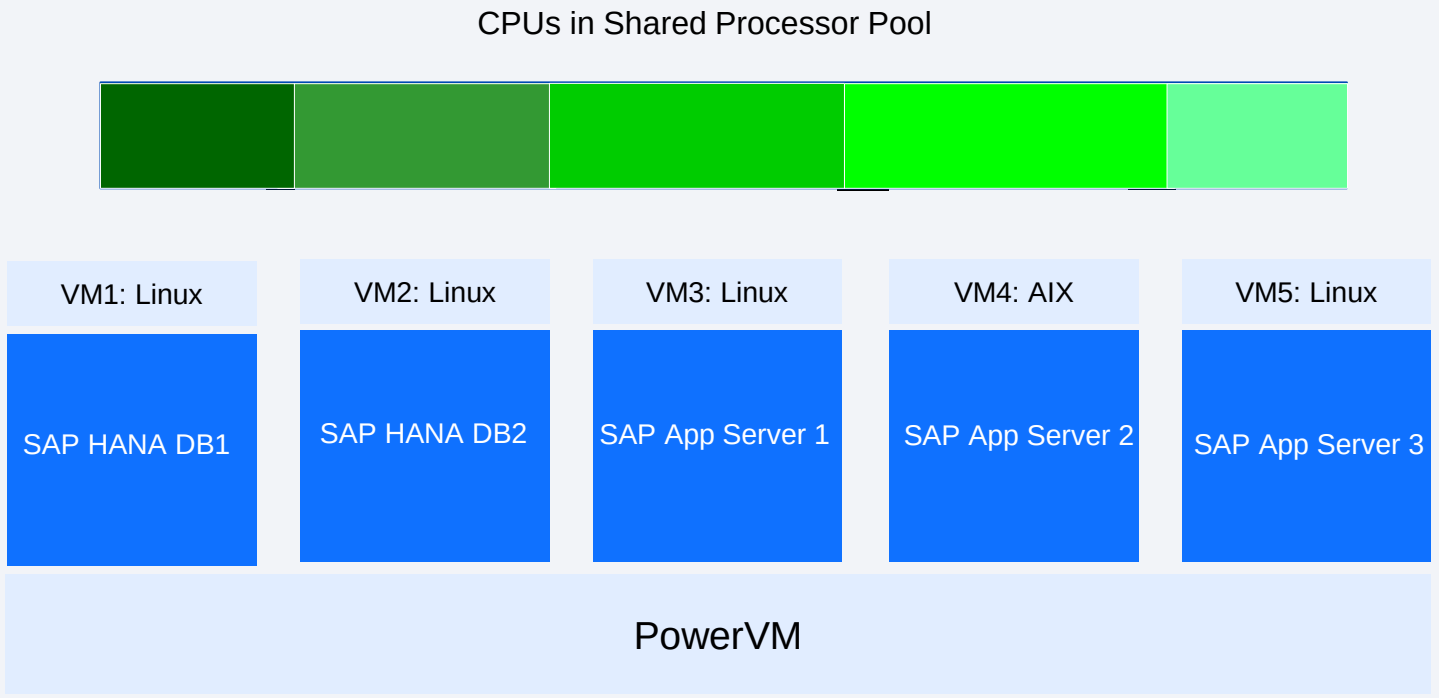


- Easily provision new VMs (LPARs)
- Increase or decrease capacity (MIN: 0.01 cores & 1 GB)
- Live partition mobility
- Shared Processor Pools
- Capacity on demand
- Run mixed workload

How to optimize SAP HANA server utilization?



Introducing: Shared Processor Pool



Improved TCO

Autonomously share CPU cycles

Simplified deployment

IBM Power Systems technology leadership drives business success:

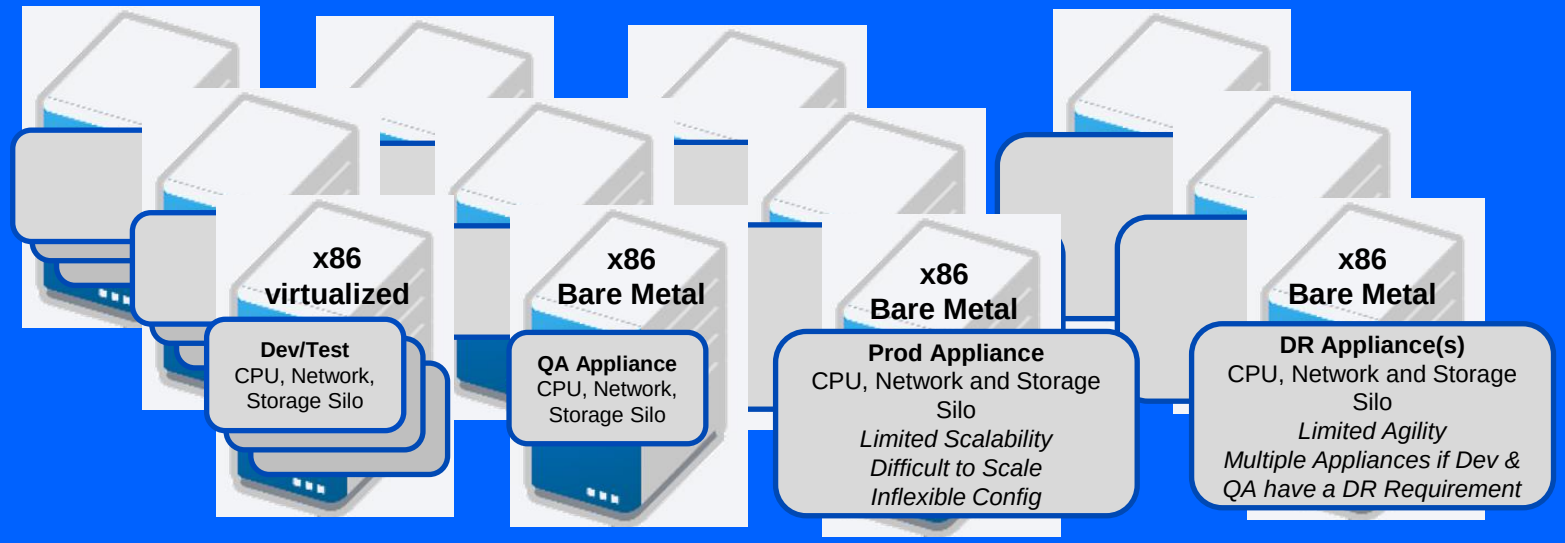
- **Largest – fully virtualized –**
  HANA BW / BW/4HANA ScaleUp: 24 TB
  BW / BW/4HANA ScaleOut up to 16x 24 TB = 384 TB
- **Largest – fully virtualized –**
  HANA BS & S4H ScaleUp: 24 TB
  S/4HANA ScaleOut up to 4x 24 TB = 96 TB
- **Up to *16 Production VMs ded/don***
  or ***Production VMs in shared processor pool***
  limited to 1 NUMA node size (max 4 TB, 6-12 cores/chip)
  on one single server

1. Scale Up Capacity: SAP Note: 2188482: https://launchpad.support.sap.com/#/notes/2188482
2. Scale Out Capacity: SAP Notes 2055470 / 2408419
   https://launchpad.support.sap.com/#/notes/2055470 https://launchpad.support.sap.com/#/notes/2408419

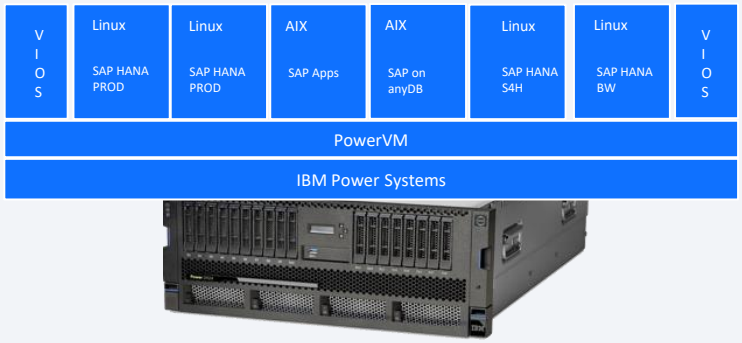
> “Using Power Systems the cost for HANA landscape just drops by 50%”
>
> Helge Tautorat
> Director Global Infrastructure, Richemont

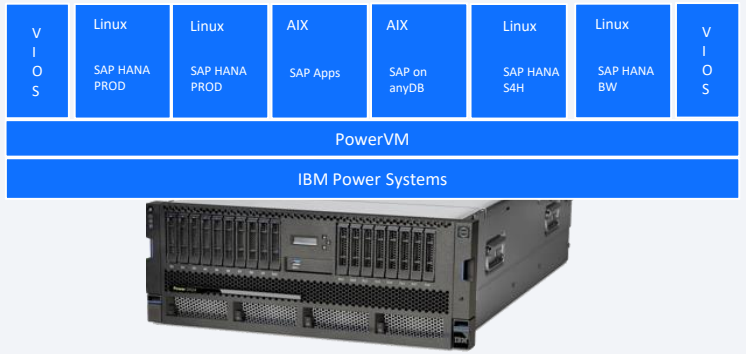
Typical SAP HANA server setup using x86 and IBM Power environment

x86



IBM Power





Maximize Uptime and Security of SAP applications

> 99.999% availability*

Ranked #1 in reliability for 12 years*

Zero impact planned maintenance with live partition mobility

*ITIC 2020 Global Server Hardware, Server OS Reliability Survey The highest uptime of 99.9996% is calculated based on 2.0 minutes/server/annum unplanned downtime of any non-mainframe Linux platforms

POWER9 Systems – usable flexibly for SAP HANA

Entry

S922
L922 (Linux only)
H922*

- 1,2-socket
- 2U
- 4, 8, and 10 cores per socket
- max 4TB memory

Mid

S924
H924
H924*

- 2-socket
- 4U
- 8, 10, and 12 cores per socket
- max 4TB memory

Enterprise

E950

- 2,4-socket
- 4U
- 8, 10, 11, and 12 cores per socket
- max 16TB memory

Enterprise

E980

- 4-16-socket
- 5U CEC + 2U Control Unit
- max 192 cores
- 8, 10, 11, and 12 cores per socket
- max 64TB memory

*H-models: AIX and/or IBM i (if supported) can be chosen as secondary operating systems (besides Linux for SAP HANA usage), with a maximum of 25% of total cores activated across both.

Link to SAP HANA certified IBM Power Virtual Servers in SAP HANA Hardware Directory:
https://www.sap.com/dmc/exp/2014-09-02-hana-hardware/enEN/iaas.html#categories=IBM%20Cl

Extending the value POWER for SAP HANA to hybrid cloud*

SAP certified cloud instances on POWER	Enterprise Security, Performance and Resiliency	Granular cloud instances for Flexible IT

Comprehensive implementation services to architect and deploy SAP HANA based platforms

Flexibility and choice of hybrid cloud options for SAP HANA

- One-stop for all SAP business solutions
- Power in the IBM Cloud provides differentiated, granular and flexible HANA instances
- Up to 40% better for OLTP pay-as-you-go pricing compared to AWS and Azure[1]
- Combines the flexibility, rapid deployment, OPEX and self-service of Public Cloud with performance, ultra-high memory, security and reliability of Enterprise Power Systems
- Single image SAP HANA DB supporting 24TB[2]

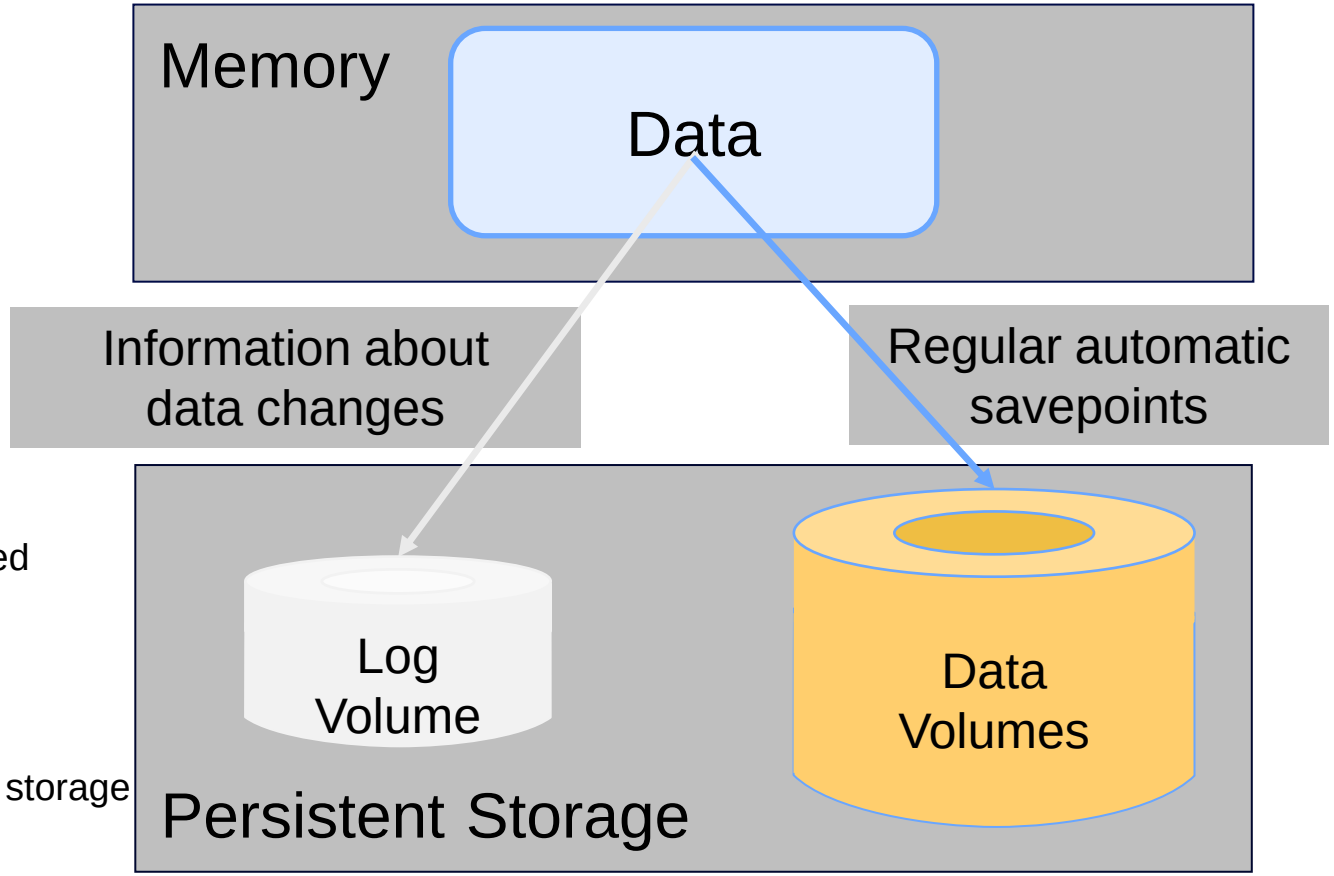
[1] Based on list $/TB pricing calculated as of 6/30/2020 for IBM Cloud at power-systems-virtual-server, AWS at https://www.awsprices.com/ and Azure at https://www.simform.com/compute-pricing-comparison-aws-azure-googlecloud/
[2] https://www.ibm.com/blogs/systems/why-ibm-power-systems-means-business-for-sap

Linux OS choice for SAP HANA on IBM Power Systems

Red Hat Enterprise Linux for SAP Applications and
SUSE Linux Enterprise Servers for SAP Applications,
both are supported for SAP HANA on IBM Power Systems

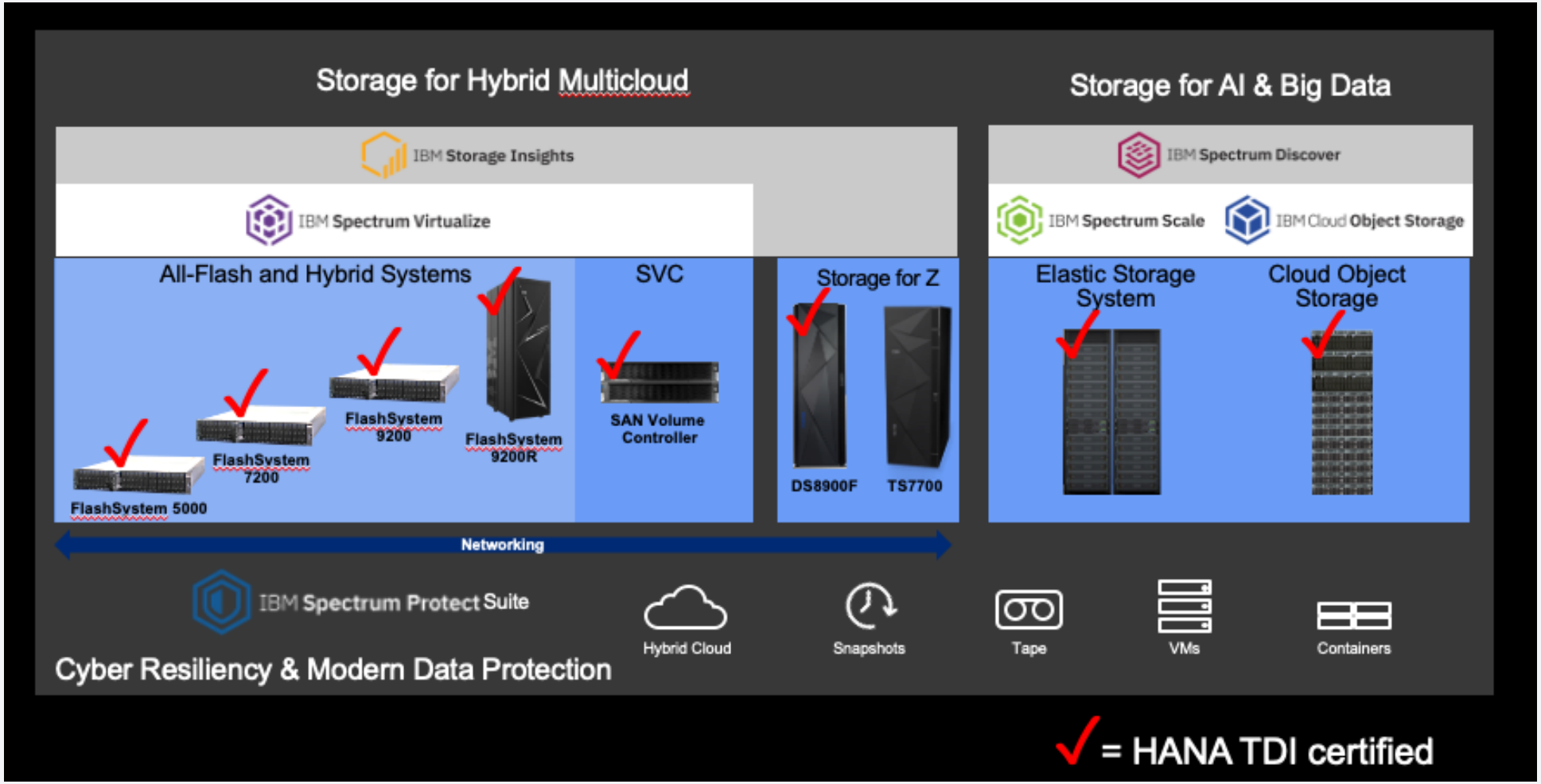
SAP HANA Persistence
In-Memory Data is regularly saved to persistent storage

- Data:
  SQL data and undo log information
  Additional HANA information, such as modeling data
  Kept in-memory to ensure maximum performance
  Write process is asynchronously
- Log:
  Information about data changes (redo log)
  Directly saved to persistent storage when transaction is committed (synchronous)
  Cyclical overwrite (only after backup)
- Savepoint:
  Changed data and undo log is written from memory to persistent storage automatically. At least every 5 minutes (customizable)



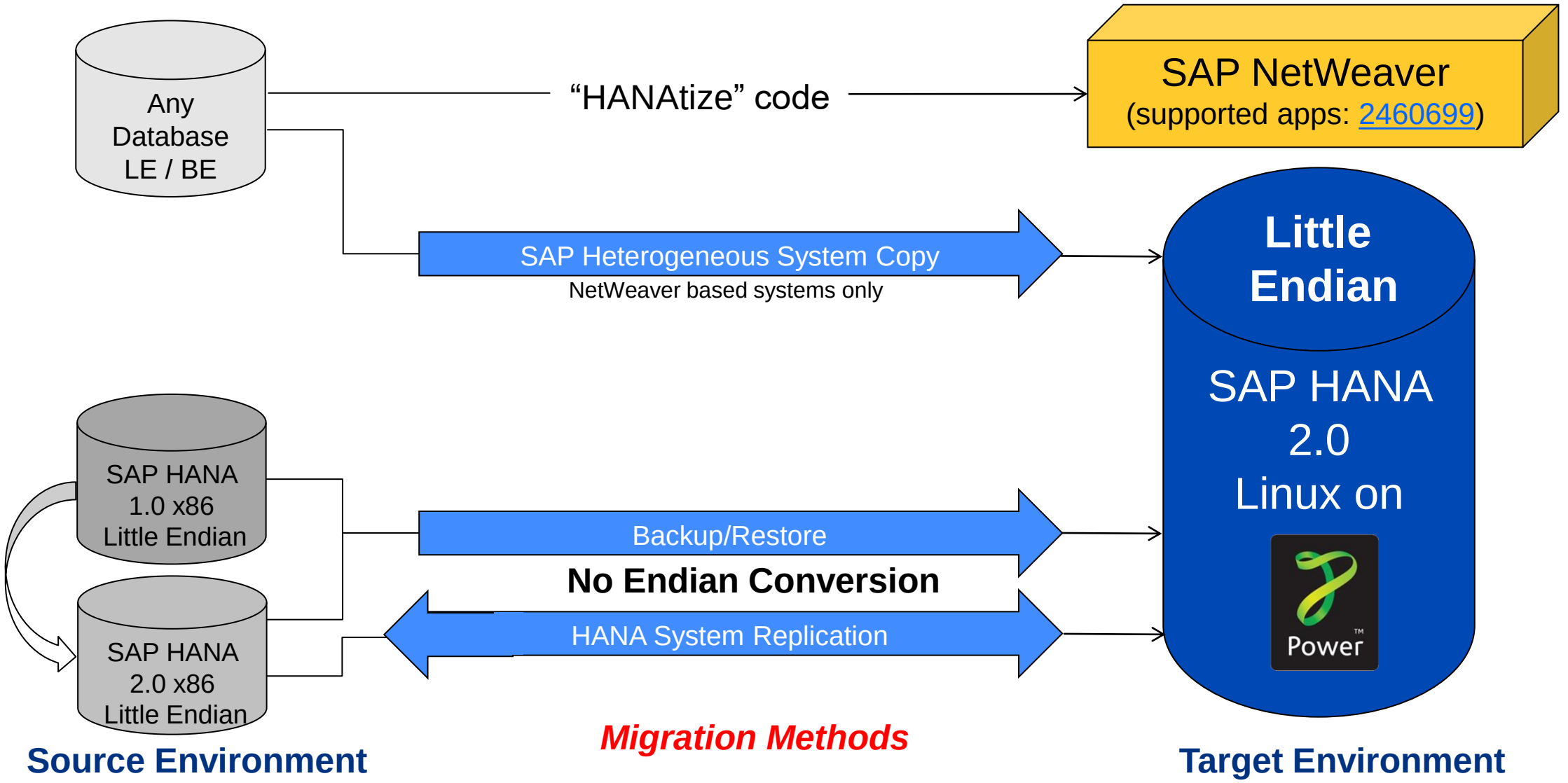
Source: SAP SE

IBM Storage Portfolio –
IBM Storage Systems certified for use with SAP HANA



Link to SAP HANA certified IBM Storage in SAP HANA Hardware Directory:
https://www.sap.com/dmc/exp/2014-09-02-hana-hardware/enEN/enterprise-storage.html#categories=certified%23International%20Business%20Machines%20Corporation

Easy Migration from x86 to IBM Power

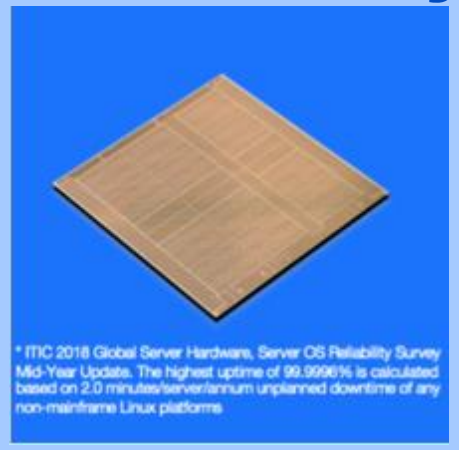


What makes IBM Power Systems the best platform for clients' mission critical SAP HANA deployments

Flexibility

Superior virtualization and management features to afford flexibility and maximum utilization

Resiliency

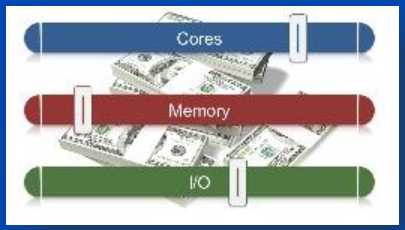


Unsurpassed RAS (reliability, availability, serviceability) characteristics **to support mission critical SAP applications**

Performance

Highest throughput per core and core/memory bandwidth to deliver faster business results, up to 2x Intel-based alternatives

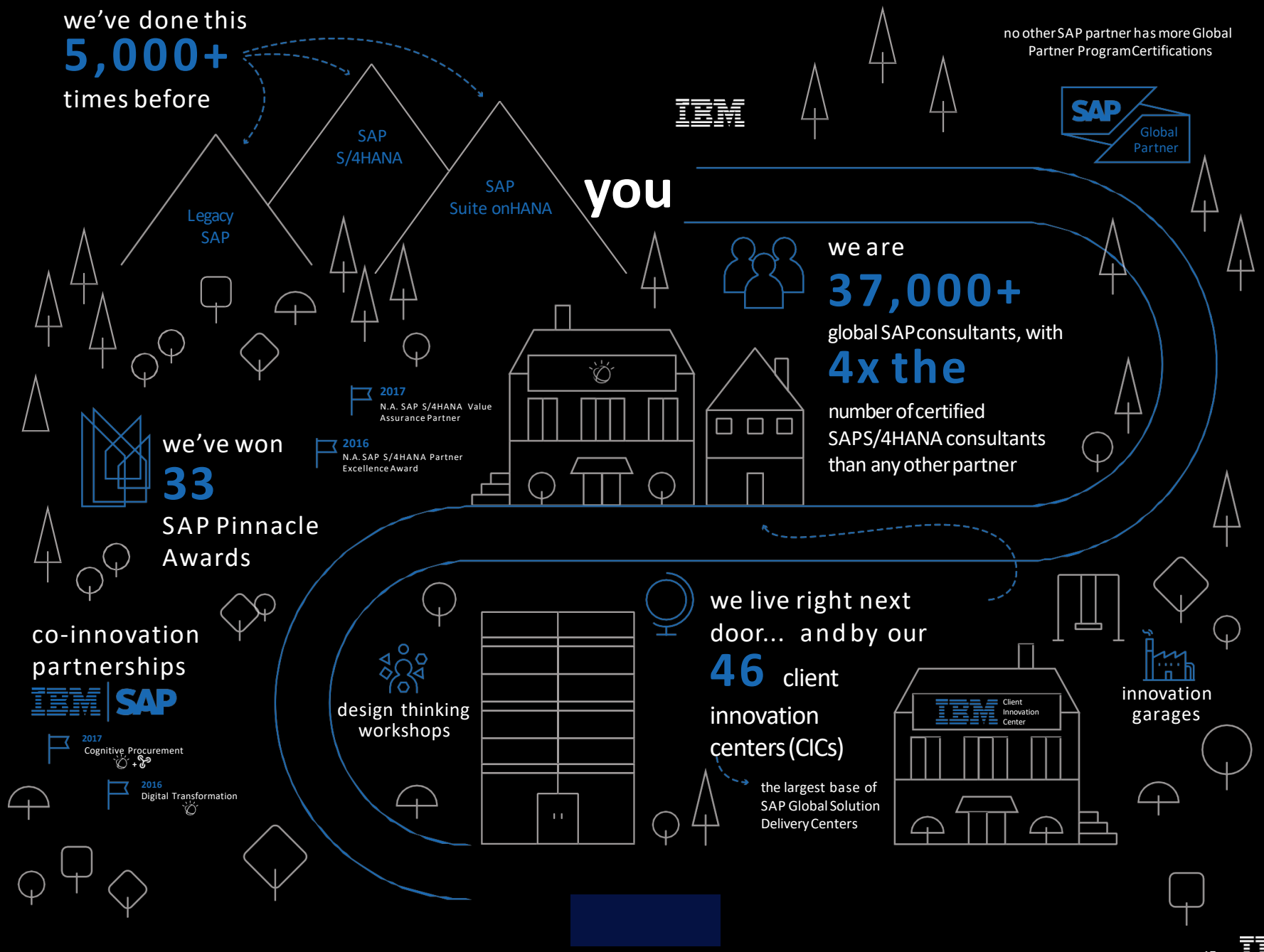
Competitive Cost



TCA: competitive to x86

TCO: better than x86

Q&A



Planning Guides for HANAonPOWER - Whitepaper on IBM Techdocs WP102502

Techdocs Library > White papers >

SAP HANA on IBM Power Systems and IBM System Storage - Guides

Document Author: Katharina Probst
Additional Author(s): walter orb
Document ID: **WP102502**
Doc. Organization: IBM Systems
Document Revised: 23.07.2020
Product(s) covered: POWER8; Power9; PowerVM

Abstract: The attached documents are intended to assist in planning and deploying SAP HANA on Power Servers, IBM Spectrum Storage and ISV products. IBM provides this documentation set as supplemental documentation to SAP's publications.

SAP HANA on IBM Power Planning Guide:

SAP_HANA_on_Power-Planning_4.73.pdf

Update

======Network and Fibre Channel
Configuring your Network for SAP HANA (10 Gb/s speeds):

Network_Configuration_for_HANA_Workloads_on_IBM_Power_Servers_V7.1.pdf

IBM Power Systems Infrastructure I/O for SAP Applications
http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/redp5581.html?Open

Configuring your Network for SAP HANA (>10 Gb/s speeds based on vNIC):
Work in Progress

======Operations and Virtualization
SAP HANA on Power Advanced Operation Guide:

SAP_HANA_on_Power_Advanced_Operation_Guide_V1.1.pdf

SAP HANA on IBM Power Systems Architectural Summary
http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/redp5569.html?Open

SAP HANA Platform Migration
http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/redp5571.html?Open

SAP HANA Data Management and Performance on IBM Power Systems
http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/redp5570.html?Open

SAP Landscape Management 3.0 and IBM Power Servers:
http://www.redbooks.ibm.com/abstracts/redp5568.html?Open

IBM Power Systems Security for SAP Applications
https://www.redbooks.ibm.com/abstracts/redp5578.html?Open

IBM Power Systems Virtualization Operation Management for SAP Applications
https://www.redbooks.ibm.com/redpieces/abstracts/redp5579.html?Open

======SAP HANA Fast-Restart-Solutions
Comparison of available Fast-Restart-Solutions on IBM Power for SAP HANA

Fast-Start-Options-for-SAP-HANA-on-Power_V1.0.pdf

Plan and Configure PowerVM Virtual Persistent Memory for SAP HANA

vPMEM-SAPHANA-Whitepaper-V1.2.pdf

Update

How to configure internal PCIe NVMe cards and expected performance benefit to SAP HANA startup.

Overview on available read acceleration components on Power_V1.0.pdf

Rapid Cold Start Implementation Guide

Rapid-Cold-Start-on-Power-with-NVMe_V1.0.pdf

======Business Resilliency
Using IBM Geographically Dispersed Resiliency (GDR) in SAP HANA Landscapes for Disaster Recovery:
http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/redp5488.html?Open

Implementing High Availability and Disaster Recovery Solutions with SAP HANA on IBM Power Systems:
http://www.redbooks.ibm.com/abstracts/sg248432.html (2019 edition)

Practical Guide: Protecting SAP HANA with IBM Spectrum Protect and IBM Spectrum Copy Data Management:
http://www-03.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/WP102813

SAP HANA on IBM Power Systems: High Availability and Disaster Recovery Implementation Updates
https://www.redbooks.ibm.com/abstracts/sg248432.html?Open

======SAN Storage

IBM Storage Solutions for SAP Applications Version 1.3:
http://www.redbooks.ibm.com/abstracts/redp5541.html?Open

=====Converged Infrastructure Solutions
SAP HANA and ESS: A Winning Combination
https://www.redbooks.ibm.com/abstracts/redp5436.html?Open

SAP HANA on IBM Power Systems and NetApp AFF Systems with NFS
https://www.netapp.com/us/media/tr-4821.pdf

Cover Letter Artikel E-3 Magazin 2020 / 05 –

https://e-3.de/sap-s-4-power/ German language

IBM Power für SAP S/4 Hana: Das zukünftige ERP braucht die bestmögliche Infrastruktur und die besteht aus der Datenbank Hana und den IBM-Power-Servern. Katharina Probst und Andreas Klaus Span, beide von IBM, erklären in der E-3 Coverstory, warum das so ist. Ab Seite 40

PDF Download Link

https://e-3.de/wp-content/uploads/2020/04/2005_Coverstory_E-3_Magazin-Mai.pdf

SAP S/4 Power

Ob S/4, C/4 oder BW/4: Für alle SAP-Softwareangebote wird es in Zukunft nur eine Plattform geben. Hana ist mehr als eine Datenbank. Hana ist die Plattform für das zukünftige SAP-Universum. Damit bekommt die Wahl der passenden Infrastruktur eine besondere Bedeutung, denn Hana ist sehr anspruchsvoll. Ob in der Cloud oder On-premises: Die IBM-Architektur der Power-Server hat sich in zahlreichen Tests und realen Anwendungen als führend erwiesen.

Von Andreas Klaus Span, IBM

SAP hat 2015 den Zehnjahresplan, hinsichtlich der Migration aller Kunden zur Datenbank Hana, verkündet. Die ursprüngliche Deadline 2025 für ERP/ECC 6.0, SAP Business Suite 7 und AnyDB wurde zwischenzeitlich auf 2027/2030 verschoben, aber der Releasewechsel auf Hana ist aktueller denn je. Für SAP-Bestandskunden steht somit die Entscheidung an, auf welcher Infrastruktur die Plattform Hana zukünftig betrieben werden soll. In erster Linie geht es hierbei um eine Architekturentscheidung zugunsten von Hana als Datenbankplattform und weniger um eine Entscheidung hinsichtlich On-prem oder Cloud.

Nach einem anfänglichen Rush verschiedener Marktsegmente, die unter hohem Konkurrenzdruck stehen (oder schon in der Planung fortgeschritten waren), wie etwa Retail, Manufacturing und Automotive, macht sich eine Verzögerung in der Migrationsrate bemerkbar. Nur etwa 20 Prozent der SAP-Bestandskunden haben den operativen Schritt auf die Hana-Plattform schon gewagt. Daneben gibt es in der SAP-Community naturgemäß unzählige PoCs.

Die Gründe dafür sind mannigfaltig: Zum einen sind es langfristige Projekte, die von einem Minimum an sechs Monaten bis zu mehreren Jahren dauern können. Sorgfältige Planung, Integration in den allgemeinen Business-Transformation-Plan, Datenkonsolidierung etc. sind alles Schritte, die wohlüberlegt werden müssen und ihre Zeit brauchen. Zum anderen ist vielen Kunden die Plattform nicht homogen genug. Stimmen dazu wurden in jüngster Vergangenheit in User Groups und Foren immer lauter. Zudem schrecken hohe Kosten und Bindungsängste auch den einen oder anderen ab. Und dann gibt es einfach noch Kunden, die Zeit brauchen, die ihre Migration schon geplant, aber nicht in Angriff genommen haben.

All das hat SAP wohl vernommen und verinnerlicht und, wie auch schon in diesem Magazin thematisiert, die Fristen des Übergangs zur neuen Hana-Welt erheblich verlängert – erstmals bis 2027 und sogar darüber hinaus bis 2030, gegen einen gewissen Servicebeitrag.

Eine weitere bedeutsame Konzession in diesem Zusammenhang ist das Bekenntnis zu der Hana- und S/4-Plattform bis mindestens 2040. All dies, um Kunden eine verlässliche Zukunftsprojektion zu bieten und sie hinsichtlich langwieriger, komplexer Szenarien nicht zu beunruhigen.

Liquidität und Cyberkriminalität

Zu all dem kommt jetzt noch die weltweite Covid-19-Rezession: fast zum Erliegen gekommener globaler Handel und Produktion, Verzweiflung allerorts hinsichtlich Liquidität, neue Herausforderungen und/oder Bedrohungen wie digitale Engpässe oder eskalierende Cyberkriminalität, fehlende Planungssicherheit usw.

Zum Jahresende 2019 beherrschte eigentlich ein optimistischer Ton den Markt. Verschiedenste Analysten und User-Group-Sprecher waren sich, basierend auf diver-

Ursula Ziegler
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(SAP Infrastructure
SOLution ARchitect)

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ursula.ziegler@de.ibm.com

The Open Group Open Certified Architect

IBM Profession Certification – Associate Certified Architect – Level 1 Experienced

SAP HANA on Power Systems - Technical

SAP HANA on Power Systems

Warum entscheiden sich Kunden heute für SAP HANA auf IBM Power Systems?

—

VIRTUAL EVENT, 28.10.2020

Bechtle Schweiz AG

Jochen Ziegler, IBM
Leading **SOLAR** (SAP Infrastructure **SOL**ution **Ar**chitect)

HANAonPOWER – THE Success Story continues …

Successfully running productively @
- Customers – small, medium, large
- Service Providers
- Cloud Providers and Hyperscalers

HANAonPOWER environments
- HANA only – small, medium, large
  or – better –
  including SAP Application Servers
- ScaleUp, ScaleOut, Consolidation, HA/DR and Business Continuity
- Mixed & consolidated environments
  HANA – SAP classic - non-HANA
  (combined with AIX or System i workloads)
- "HANA ready"
  investment protection

IBM Power Systems technology leadership drives business success:

- IBM Power Systems is well established and keeping traction
- Currently (10/2020) approx. 25% market share for current newly sold servers and expected to grow further!

HANAonPOWER: 82 References across 6 GEOs (2020 Q4)

82 External Reference Assets around the World

Anonymised:

- **L.A.I(a) Latin American Insurer**
- **C.M.S(a) – Construction Materials Supplier**
- **E.C(a) – Electricity Company**
- **S.M(a) – Sensor Manufacturer**
- **R.H.A(a) - Regional health agency**
- **L.I.M(a) – Leading industrial Manufacturer**
- **A.P.M(a) – Auto parts manufacturer**

SAP HANA on IBM Power Systems

Industries:

- **Defence**
- **Education**
- **Real Estate**
- **Automotive**
- **Manufacturing**
- **Pharmaceutical**
- **Energy & Utilities**
- **Computer Services**
- **Consumer Products**
- **Retail & Distribution**
- **Fabrication & Assembly**

For latest version click in this **link**

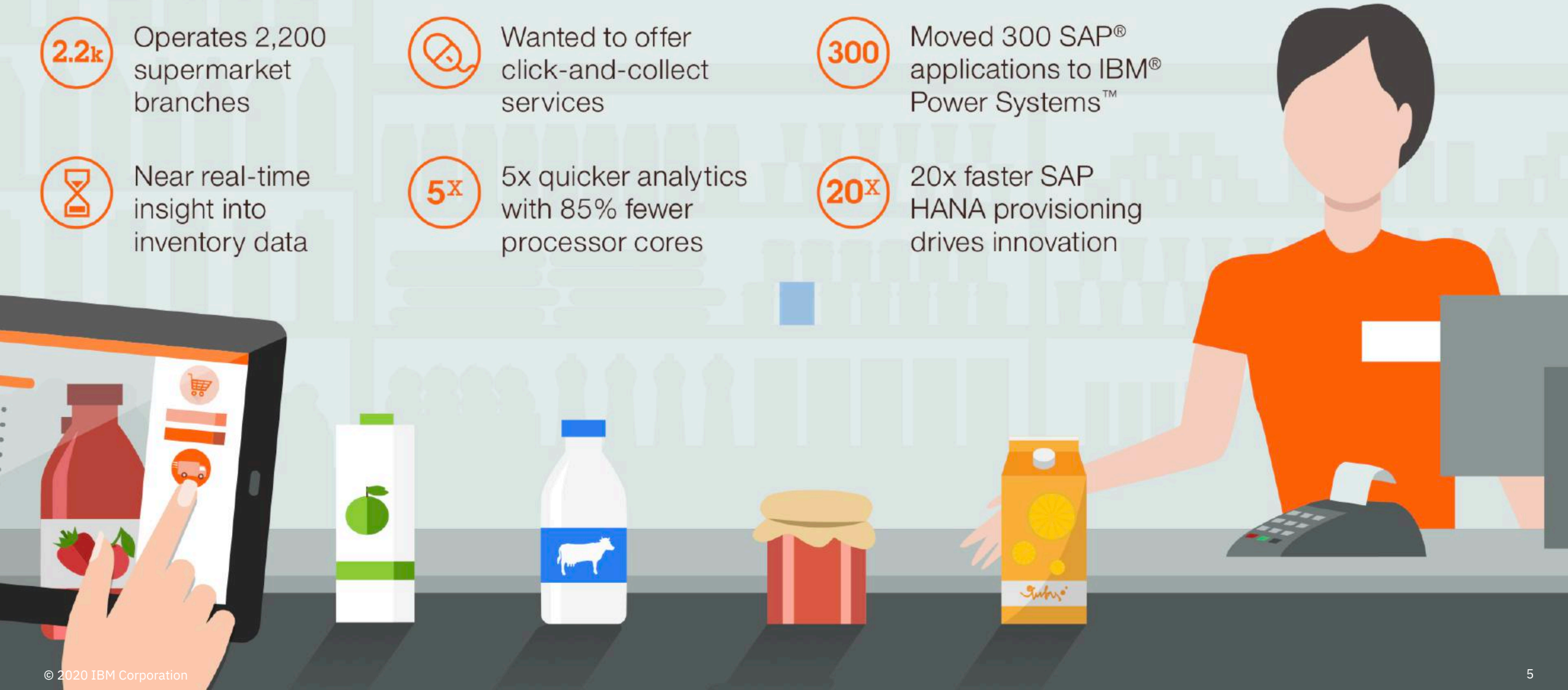
For latest HoP references from SUSE Linux click in this **link**

IBM Power Systems certified for SAP HANA® Enterprise Cloud as a provider of large SAP HANA systems – PRESS RELEASE LINK

Power Systems

Coop Group delivers flexible, convenient shopping experiences that make it customers' first choice

- 2.2k — Operates 2,200 supermarket branches
- Wanted to offer click-and-collect services
- 300 — Moved 300 SAP® applications to IBM® Power Systems™
- Near real-time insight into inventory data
- 5X — 5x quicker analytics with 85% fewer processor cores
- 20X — 20x faster SAP HANA provisioning drives innovation



"The IBM Power Systems platform enables us to offer these ground-breaking SAP education services and remain leaders in our field."
—Dr. Harald Kienegger, Chair of Information Sciences, Technische Universität München

Business challenge

To prepare students for an increasingly digitalized workplace, the SAP University Competence Center (UCC) at TUM wanted to include the SAP® S/4HANA suite in its education-as-a-service cloud offering.

Transformation

SAP UCC at TUM implemented an integrated stack of next-generation IBM infrastructure solutions, gaining a reliable, high-performance platform to support the innovative SAP S/4HANA suite.

Helmut Krcmar,
Professor of Information Systems at TUM
and
Academic Director of the UCC

SAP University Competence Center at TU München

Sharpening students' SAP skills for digital transformation

Business benefits:

Minutes
to deploy virtualized SAP S/4HANA software

99.99%
availability enables TUM to meet global, round-the-clock demand

Mobile
access makes learning more accessible

The SAP University Competence Center (UCC) at Technische Universität München (TUM) constantly seeks new ways to help thousands of students succeed in the new digital world of work. UCC deployed IBM Power Systems to support its cutting-edge SAP S/4HANA and SAP Business Suite solutions offered as cloud services, to enable hands-on learning.

WATCH

https://www.ibm.com/case-studies/technische-universitat-munchen

Solution components:

SAP® Business Suite 7
SAP Business Suite powered by SAP HANA®
S/4HANA with SAP Fiori UX
SAP Business Warehouse
SAP Solution Manager

IBM® Power System E870
IBM Power System S822
IBM PowerVM®
IBM PowerVC

IBM XIV® Storage System

IBM Spectrum Protect™
IBM Tivoli Monitoring

SUSE Linux Enterprise Server

"Thanks to our IBM and SAP solutions, we are achieving the digital transformation that will help us strengthen our competitiveness in a fast-moving marketplace."

— Faizan Mustafa, CIO/Head of IT, Indus Motor Company Ltd

Business challenge

To compete with a surge of foreign entrants to Pakistan's auto market, Indus Motor Company wanted to improve the customer experience by delivering high-quality vehicles rapidly and at the lowest cost.

Transformation

Indus Motor Company is transforming front-to-back operations with SAP S/4HANA® on high-performance IBM® POWER8® servers—empowering its data-driven decision-makers to boost manufacturing efficiency.

TOYOTA

**Faizan Mustafa,
CIO/Head of IT,
Indus Motor Company Ltd**

Business benefits:

95%
faster material requirements planning will reduce risk of supply-chain disruption

10%
improvement in sales order accuracy will enable timely manufacturing to meet demand

20%
reduction in defects per unit will accelerate manufacturing and boost satisfaction

Indus Motor Company shifts quality control into top gear to win sales, nurture loyalty and overtake the competition

Founded in 1989 as a joint venture between the House of Habib, Toyota Motor Corporation and Toyota Tsusho Corporation, Indus Motor Company is a manufacturer, assembler, distributor and importer of Toyota and Daihatsu vehicles, spare parts and accessories in Pakistan. Employing more than 2,300 people, the company operates a dealership network with 45 locations across the country, and generates gross annual revenues exceeding USD1 billion.

Share this

TOYOTA

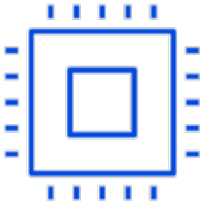
Solution components

- IBM® PowerVM® for IBM PowerLinux™
- IBM Spectrum Protect™
- SUSE Linux Enterprise Server for SAP applications
- IBM Power System S824L
- IBM Storwize® V5000
- IBM TS3200 Tape Library
- IBM Global Business Services®
- SAP Fiori, SAP S/4HANA

Clients from various industries have moved from x86 to IBM Power Systems* or ran already SAP on anyDB on POWER very successfully for years

Coop Group*

Promos



Syntax – aka Freudenberg IT*

Würth Group*

Bosch

"Using SAP HANA on IBM Power Systems enables us to deliver cutting-edge click-and-collect services with up-to-the-second inventory data."

—Thomas Vielhauer, Head of ERP Processes, Coop Group

Business challenge

To meet growing demand for a flexible shopping experience, Coop Group wanted to offer click-and-collect services. How could Coop ensure that the right stock is at the right place at the right time?

Transformation

To support changing shopping styles, Coop Group expanded its business model, using near real-time insight into orders and inventory to increase customer satisfaction.

Business benefits:

Near real-time

insight into inventory data improves planning and distribution processes

5x

quicker analytics with 85% fewer processor cores enables a more effective use of data

20x

faster SAP HANA provisioning increases agility to innovate faster

…moving off x86 (ScaleOut Clusters) to Power Systems for SAP HANA ScaleUp

Coop Group

Improves customer satisfaction through more-flexible and convenient shopping services

Operating more than 2,200 branches and outlets across Switzerland, Coop Group is one of the country's largest supermarket chains. The company manufactures, distributes and wholesales foods, delivering goods to restaurants, hotels and staff cafeterias across Europe. Headquartered in Basel, Coop Group has around 2.5 million cooperative members and employs almost 85,000 people, generating annual sales of CHF28.3 billion (USD28.1 billion).

Solution components

SAP HANA®
SAP® Business Warehouse powered by SAP HANA
SAP Customer Activity Repository (CAR) powered by SAP HANA
SAP Customer Relationship Management
SAP ERP
SAP ERP Human Capital Management
SAP for Retail
SAP Forecasting and Replenishment for Retail
SAP Global® Trade Services
SAP Hybris®
SAP Supplier Relationship Management

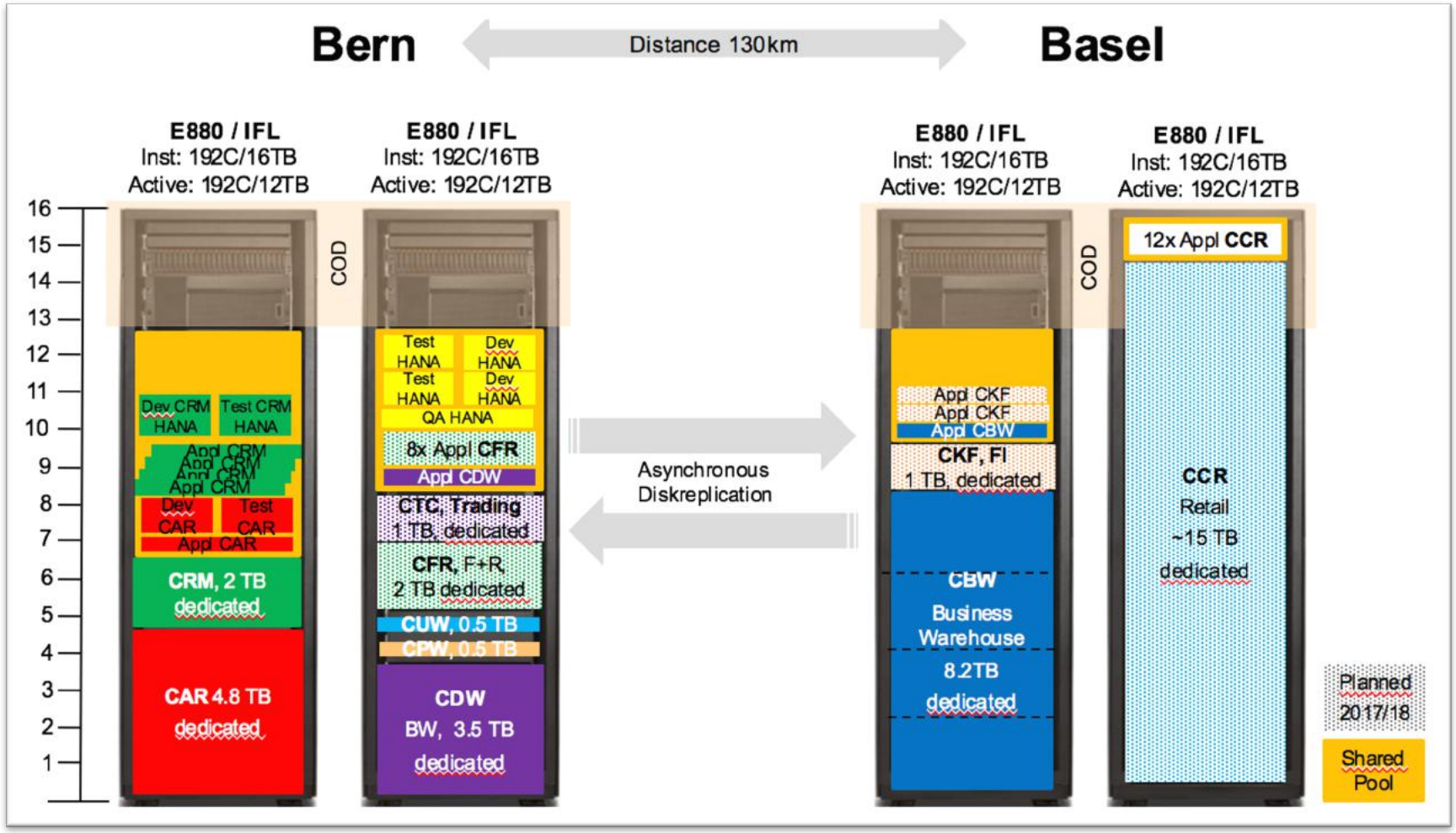
IBM Power® Systems E880
IBM Power® Systems E980

IBM PowerVM®

IBM® AIX®

SUSE Linux Enterprise Server for SAP Applications

SAP HANA on IBM POWER Customers – Example: COOP Switzerland



System Overview: E880 servers with Linux OS and SAP HANA2 - DC concept with manual failover and CoD

Source: SAP HANA on Power @ Coop (Christoph S. Kalt, Coop)

SAP HANA on IBM POWER Customers – Example: COOP Switzerland Sizes and Servers

BW (8,2 TB -> approx 10+ TB)

BW (CDW) (3,5 TB)

CAR (4,8 TB -> 8 TB)

CRM (2-> 4 TB)

Planned for end of 2020: Business Critical SAP Retail on HANA: approx. 12-15 TB ScaleUp

Currently (10/2020) IBM Power Servers installed:
4x E880 – SAP “classic“
4x E880 – SAP HANA based applications (2x BW, CAR, CRM etc.) – async DR
4x E980 – new workload (SAP Retail) with HA and DR (Business Continuity) need

Video: http://ibm.biz/COOPHoPVideo201705

Case Study, 4 pages:
http://ibm.biz/COOPHoPCaseStudy4p201705

Technical Reference Flyer, 16 pages:
http://ibm.biz/COOPHoPTechRef201705

"With SAP HANA and IBM Power Systems we have the right technology to better serve our worldwide customers."

—Harald Holl, Head of Infrastructure, Würth Group

Business challenge

Retailers operate in a dynamic industry, combining high volumes, low margins and intense competition. How could Würth Group streamline operations to trim costs, boost profits and win the retail race?

Transformation

To ensure the highest levels of customer satisfaction and to sharpen its competitive edge, Würth Group improves business efficiency by leveraging the latest technologies from IBM and SAP. The company aims to generate game-changing sales insights, to help drive increased revenues and further enhance customer service.

Business benefits:

Speeds

solution deployment and scalability, enabling rapid response to market conditions

86% cut

to number of SAP HANA servers, streamlining operations and reducing complexity

43% less time

to update solution stack including SAP HANA software and infrastructure

Würth Group

Enhances efficiency and generates new retail insights with SAP HANA on IBM Power Systems

Würth Group, headquartered in Künzelsau in Germany, is a world market leader in assembly and fastening materials. The group operates more than 400 subsidiaries in over 80 countries, and employs more than 71,000 people, managing about 125,000 products. Würth Group achieved total sales of EUR11.8 billion in the 2016 financial year.

Link WATCH https://www.ibm.com/case-studies/wurth-group

WÜRTH

Solution components:

SAP® Business Warehouse powered by SAP HANA®, SAP CRM powered by SAP HANA, SAP ERP, SAP ERP Human Capital Management, SAP Extended Warehouse Management, SAP Fiori®, SAP HANA, SAP Enterprise Portal

IBM® AIX®, IBM Power® System E880, IBM Power System E870, IBM PowerHA® SystemMirror® for AIX, IBM PowerVM®

SUSE Linux Enterprise Server for SAP Applications

IBM Business Partner SVA (System Vertrieb Alexander)

Würth Group moved off x86 (BW ScaleOut Cluster) to Power Systems for one SAP HANA BW ScaleUp instance

Würth replaced a seven node x86 HP SAP HANA BW cluster (Master, 5 worker, 1 standby) with a single LPAR ScaleUp BW on IBM Power Systems via easy backup of HANA 1.0 database on x86 and easy and fast restore on SAP HANA 2.0 on IBM Power with afterwards reducing number of index servers from 6 to 1

Speeds

solution deployment and scalability, enabling rapid response to market conditions

86% cut

of number of SAP HANA servers, streamlining operations and reducing complexity

43% less time

to update solution stack including SAP HANA software and infrastructure

Würth: Replacing SAP HANA on HP x86 with IBM Power Systems

7 Nodes BWoH x86 ScaleOut Cluster to 1 Power BW ScaleUp LPAR

Applications:
SAP® Business Warehouse powered by SAP HANA®, SAP CRM powered by SAP HANA, SAP ERP, SAP ERP Human Capital Management, SAP Extended Warehouse Management, SAP Fiori®, SAP HANA, SAP Enterprise Portal

Software:
IBM® AIX®, IBM PowerHA® SystemMirror® for AIX, IBM PowerVM®, SUSE Linux Enterprise Server for SAP Applications

Hardware:
IBM Power® System E880
IBM Power® System E870

Migration: Backup HANA 1.0 on x86 -> Restore SAP HANA 2.0 on IBM Power

Link to Case Study (PDF): https://public.dhe.ibm.com/common/ssi/ecm/sp/en/spc03641usen/systems-sap-sp-case-study-spc03641usen-20170817.pdf

WATCH

Link to video: https://www.youtube.com/watch?v=1mza951g6to

Würth: Replacing until end of 2020
all IBM Power8 Systems completely with new IBM Power9 Systems

Customer Statements

Jörg Engel, Team Lead IT – SAP Basis, UNIX and Databases at Würth Group, begins: “Traditionally we relied on direct, face-to-face sales, but nowadays business is moving to e-commerce and e-procurement. The ability to move at speed is vital to delivering a seamless retail experience, particularly for customers whose only experience is web-based transactions.”

Stefan Beer, BI Competence Center Lead at Würth Group, continues: “We have a high-volume, low-margin business model, so efficiency is key to staying successful. Facing fierce competition from online shops, we wanted to become faster and more efficient. Intelligent online features, such as cross- and up-selling recommendations, are crucial to actively engage with customers, maximize revenue and support business growth.”

Harald Holl, Head of Infrastructure at Würth Group, adds: “We are a global company, with employees and customers all over the world. As we adjust to new challenges, we cannot compromise on reliability. We need to ensure round-the-clock availability of mission-critical business applications, or risk losing business—both online and in-store.”

Server consolidation including growth

18 POWER8 Servers:
- 2x E880 / 16x E870 -
replaced (Q4 2020) with
19 POWER9 Servers:
- 6x E980 / 10x E950 -
+ DR in CH: 2x E980, 1x S924

Reasons for SAP HANA on IBM Power:

Reliability
Flexibility
Multi purpose cores (AIX, Linux)
Performance
Waste-prevention
Easy Management with fewer servers

PROMOS

How can IT service providers help property management companies thrive?

Read the full story

Faced with new housing policies and economic uncertainty, property managers constantly seek to streamline operations. How could IT service provider PROMOS help?

With IBM Platinum Business Partner PROFI, PROMOS deployed SAP S/4HANA and easysquare mobile on IBM Power Systems and IBM Storage.

Providing super-efficient service to help clients raise profitability, the IBM solutions enable PROMOS to cut its server footprint by 80%, provide 50% faster access to insights and increase application performance by 25%.

Moving to IBM POWER9 processor-based servers results in 50% better database and business analytics performance.

It's great to see how our new IBM Power Systems solution helps improve staff productivity for 3,500 SAP business users in our private cloud

Volker Schulz,
CIO, PROMOS

Solution Components:

SAP ERP®, SAP Fiori®, SAP S/4HANA®, SAP HANA®, PROMOS easysquare mobile, PROMOS easysquare workflow, IBM AIX®, IBM FlashSystem® 5000, IBM Power® System E980, IBM Power System E950, IBM PowerVM®, IBM Spectrum® Virtualize, IBM Spectrum Protect, IBM WebSphere® Application Server, SUSE Linux Enterprise Server for SAP Applications, SAN Volume Controller, IBM Platinum Business Partner PROFI Engineering Systems AG

HANAonPOWER: Reference – IT service provider Promos

“SAP S/4 HANA is not comparable to the old HOWOGE ERP solution. SAP S/4 HANA has in-memory technology and is therefore faster than classical SAP applications. And in combination with the Power components, SAP runs even better internally.
It’s great to see how our new Power9 Systems Solution helps improve staff productivity for our 3.500 business users in our private cloud”

Volker Schulz

Chief Information Officer, PROMOS consult

Server consolidation

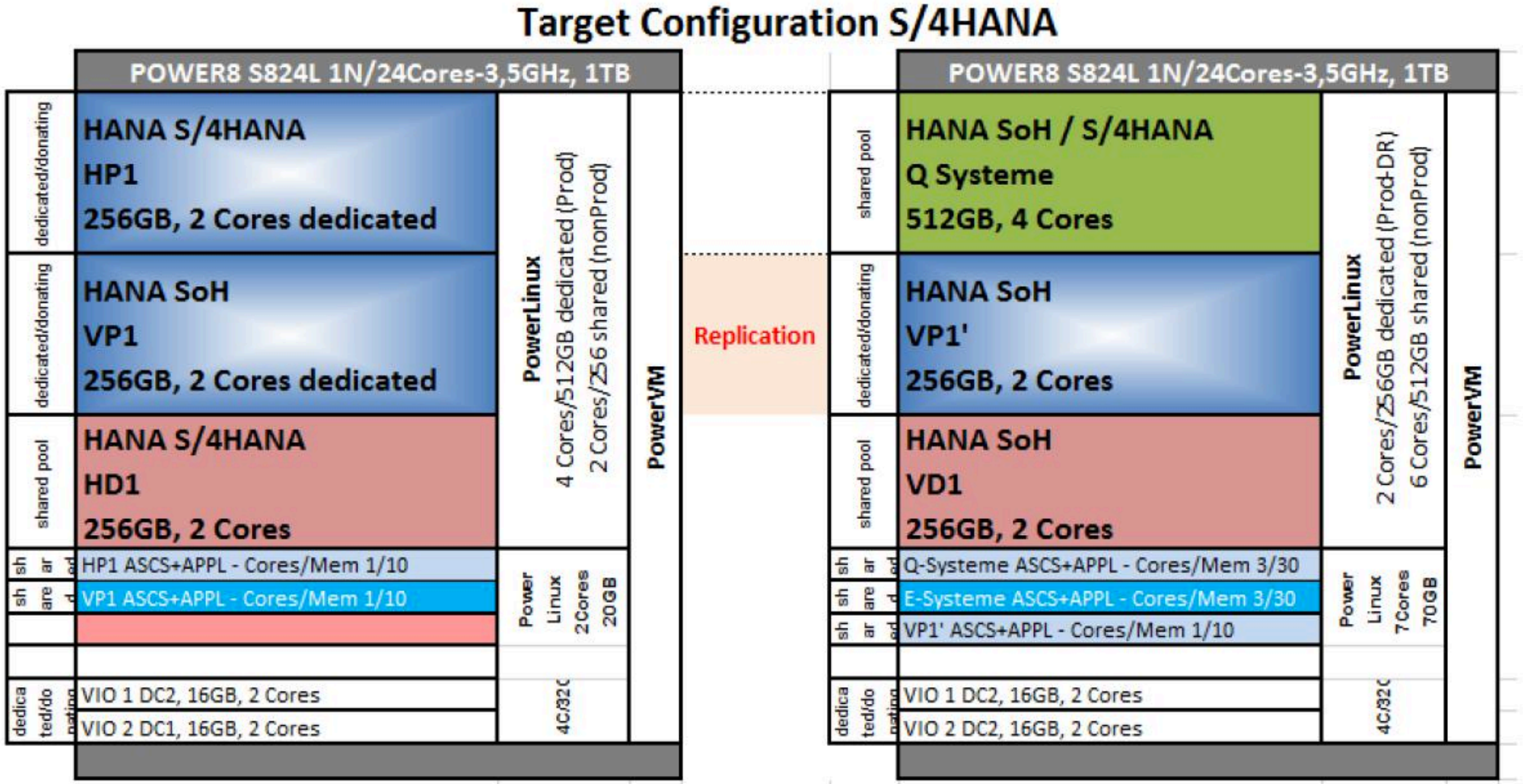
22 POWER8 S82x Servers to
4 POWER9 Servers: 2x E980 + 2x E950

Reasons for SAP HANA on IBM Power:

Reliability
Flexibility
Waste-prevention
Easy Management with fewer servers

Moving to IBM Power9 processor-based servers results in 50% better database and business analytics performance.

SAP HANA on IBM POWER Customers – Example: S/4 HANA “Starter/PoC” @ PROMOS



Source: Customer / Service Provider PROMOS: Power HoP Architecture Target Configuration Picture

Bosch drives innovation through flexibility

"IBM POWER8® Systems for SAP HANA deployment gives us more flexibility than we had before... With POWER8 and the PowerVM virtualization capabilities on top of it, we are able to react very fast on different customer demands regarding sizes and structures of HANA databases, and we are able to do this all online."

– ERIC THORWIRTH

Senior Manager Server Services, Bosch

Super-fast, highly personalized

IT services add functionality on-the-fly

Unlocked substantial time savings

and rapid analytical queries

Quick setup

of systems with minimal support from IT

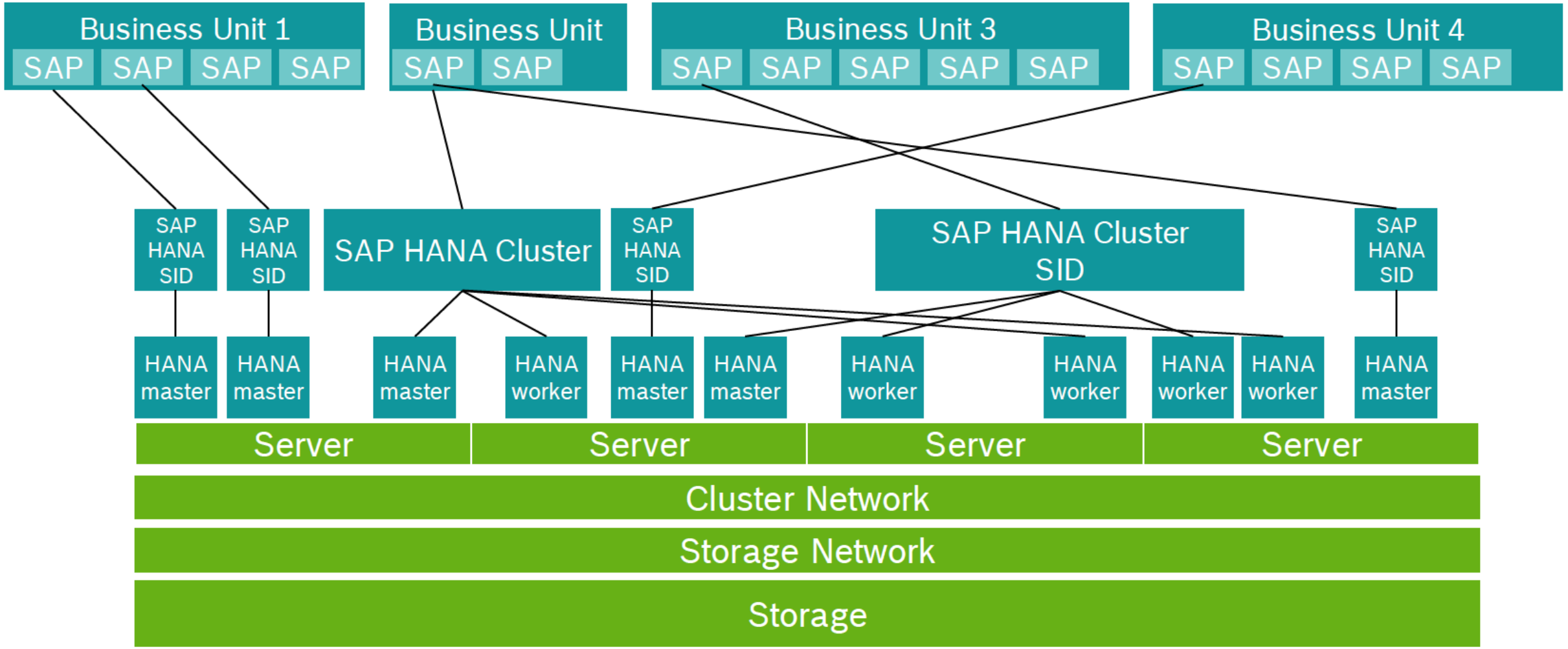
Robert Bosch is a very large global company that relies on IBM Power Systems to provide the scalability & reliability they require to run their SAP HANA deployments. Bosch uses over 900 deployments of SAP HANA, including SAP S/4HANA, SAP Hybris & SAP Business Warehouse, to supports their business-critical workloads and is able to provide the highest 24x7 availability possible. With IBM Cloud Orchestrator and PowerVM virtualization, Bosch has the flexibility to react quickly to changing customer demands with the utmost resiliency.

https://www.ibm.com/case-studies/h956255l37062f80

Link to video: http://ibm.biz/BoschHoPRefVideo

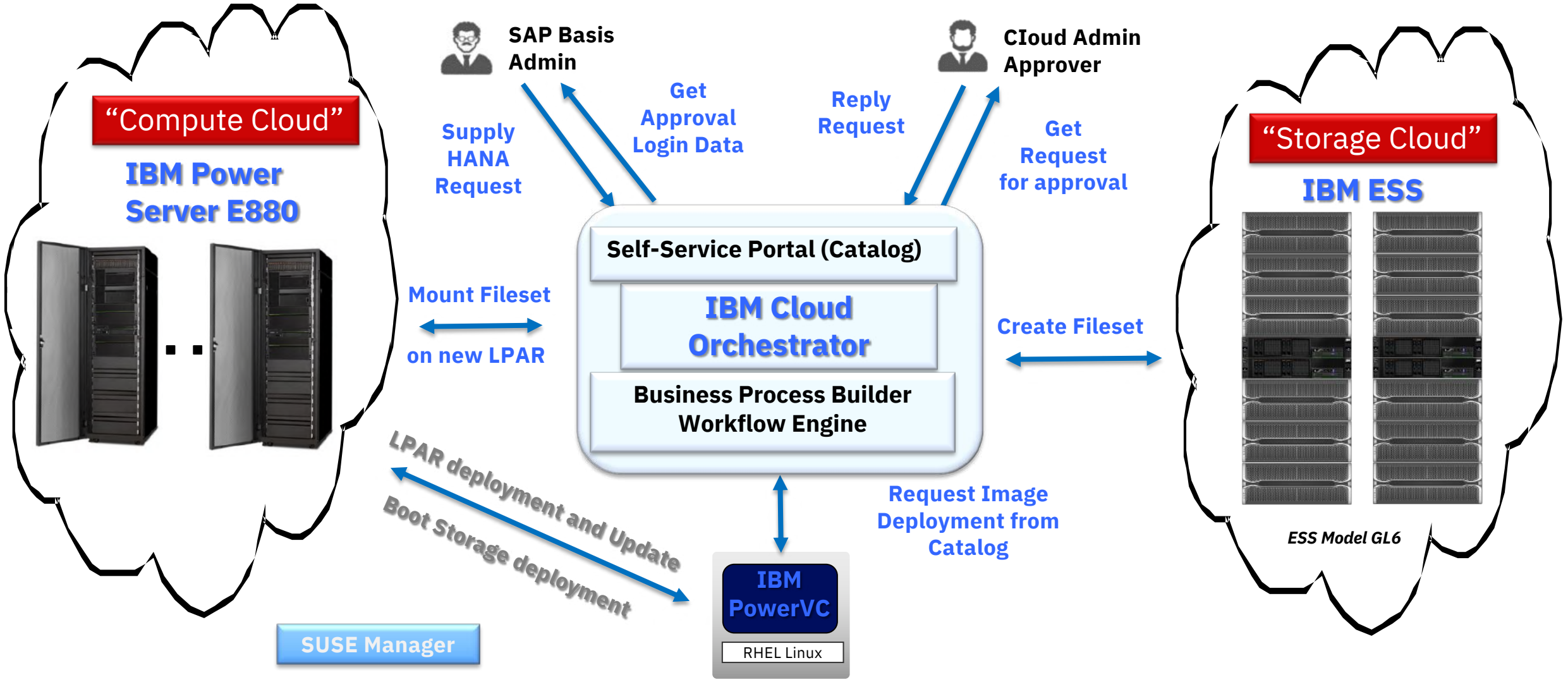
SAP HANA on IBM Power @ BOSCH

HANA System Landscape – How we do it



SAP HANA on IBM Power @ BOSCH

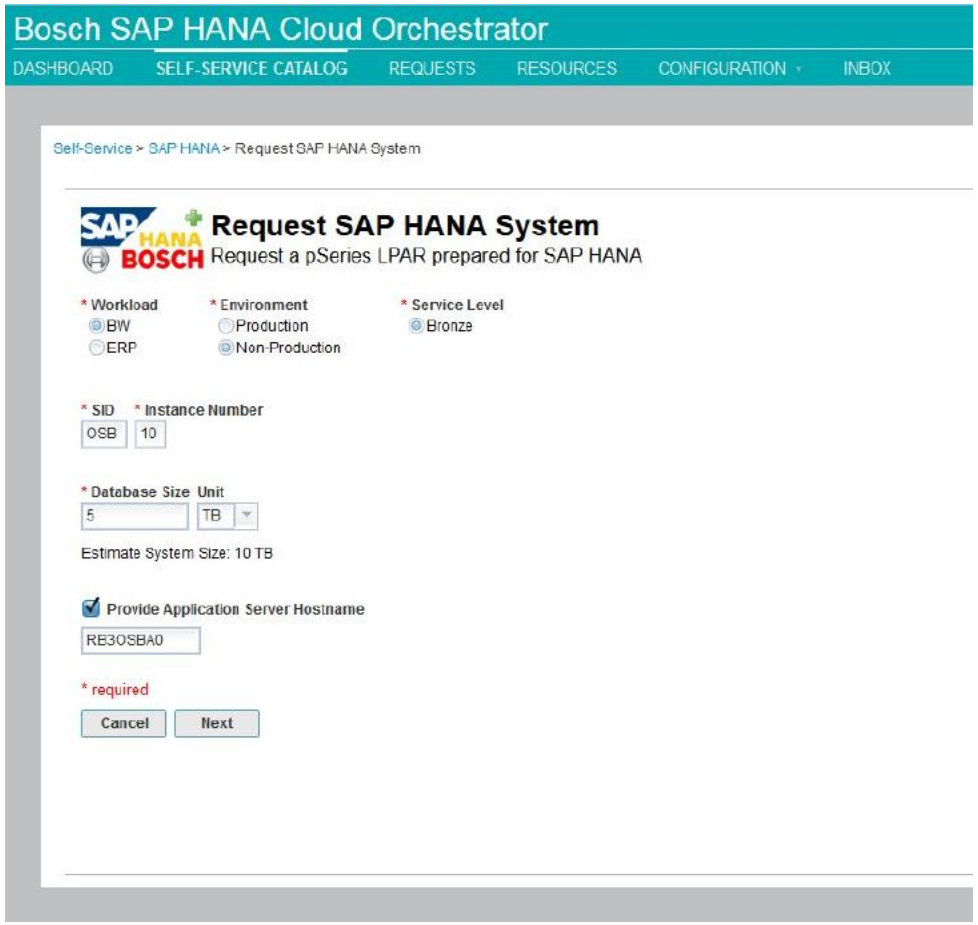
Private Cloud – "Compute Cloud" and "Storage Cloud"



"private" SAP HANA Cloud based on IBM Power Server and IBM ESS Storage

SAP HANA on IBM Power @ BOSCH

Cloud Interface – Request Panel



"We found that IBM Power Systems represented by far the most cost-effective option for running SAP HANA to support multiple client systems."

—Dr. Michael Missbach, Global SAP Architect, ex FIT Germany , now @ Rackspace

Business challenge

To seize market share, Freudenberg IT (FIT) set out to dazzle clients by offering cost-effective hosting services for SAP HANA® backed by tight SLAs around performance and availability.

Transformation

By moving SAP HANA instances from appliances to IBM® Power Systems™, FIT enables secure sharing of physical servers between multiple clients, slashing costs and boosting utilization.

Michael Heuberger
President and CEO
Syntax US

Business benefits:

10 times faster
provisioning of new SAP HANA instances for clients

Reduces
operational costs, enabling FIT to undercut many public cloud providers

86% smaller
physical footprint cuts energy bills and saves space in the data center

Syntax – aka Freudenberg IT (FIT)

Outperforms public cloud providers to capture increased market share

Freudenberg IT GmbH & Co.KG (FIT), a brand of the Freudenberg Group, is a global leader in managed IT Services steeped in SAP expertise, serving hundreds of clients in a broad range of sectors. Founded in the German town of Weinheim, the company has grown to acquire a global presence spanning Europe, America and Asia. The FIT mission is dovetailed on a regional and global level to place a clear focus on transforming complexity into user-friendliness – in other words: "IT Solutions. Simplified." For further information on FIT, please go to www.freudenberg-it.com and to discover more about the Freudenberg Group go to www.freudenberg.de.

Solution components

SAP® Business Warehouse powered by SAP HANA®
SAP Customer Relationship Management
SAP ERP powered by SAP HANA
SAP Extended Warehouse Management
SAP HANA
SAP Hybris®
SAP Manufacturing Execution on SAP HANA
SAP Manufacturing Integration and Intelligence
SAP Master Data Governance on SAP HANA
SAP S/4HANA®
SAP Supplier Relationship Management
SAP Supply Chain Management

IBM® PowerVM®
SUSE Linux Enterprise Server for SAP Applications

IBM Power System E950
IBM Power System E880
IBM Power System E850C
IBM Power System S824L

IBM Business Partner
SVA System Vertrieb Alexander GmbH

Link

HANAonPOWER: Reference

IT service provider Syntax (aka Freudenberg IT - FIT)

“We found that IBM Power Systems represented by far the most cost-effective option for running SAP HANA to support multiple client systems.”

Dr. Michael Missbach,

Global SAP Architect, formerly FIT/Syntax Germany, now employee @ Rackspace

HoP Deployments „non-stop“ and in „short time“

ww over 150 HoP Systems live,
more than 50 POWER8 Servers
and some new Power9 E950 Servers

Reasons for SAP HANA on IBM Power:

Reliability
Flexibility („Memory Tetris“) and waste-prevention
Efficient / saving money (TCA and TCO)

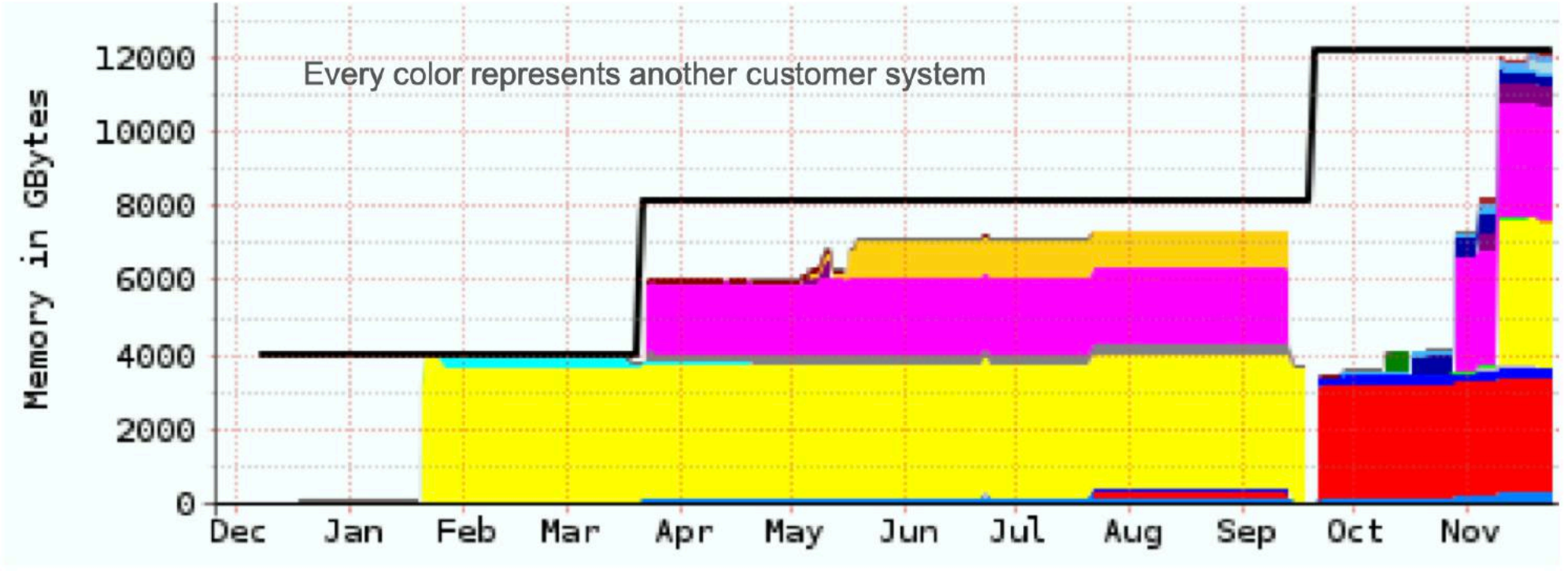
FIT HoP Case Study and Reference Video:
Digital Case Study link: http://ibm.biz/FITHoPCaseStudy
Case Study PDF link: http://ibm.biz/FITHoPCaseStudyPDF
YouTube Video link: http://ibm.biz/FITHoPReferenceVideo

HANAonPOWER: Reference

IT service provider Syntax (aka Freudenberg IT - FIT)

enhanced economics I

Memory "tetris": fill gaps left overs of big systems for smaller ones



a brand of FREUDENBERG

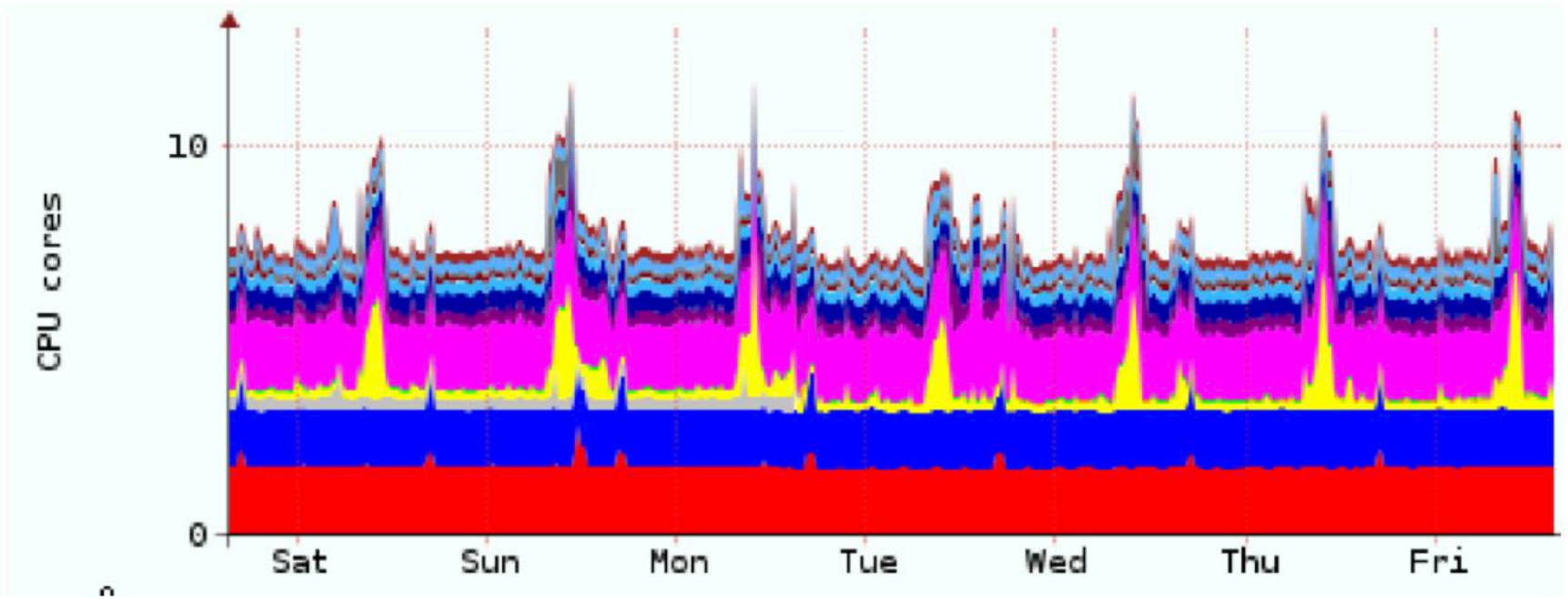
HANAonPOWER: Reference

IT service provider Syntax (aka Freudenberg IT - FIT)

enhanced economics II

CPU pool – fulfill SAP rules whenever you need it

Text hinzufügen



From 120 available cores a maximum of 12.6% have been utilized by 12 systems hosted

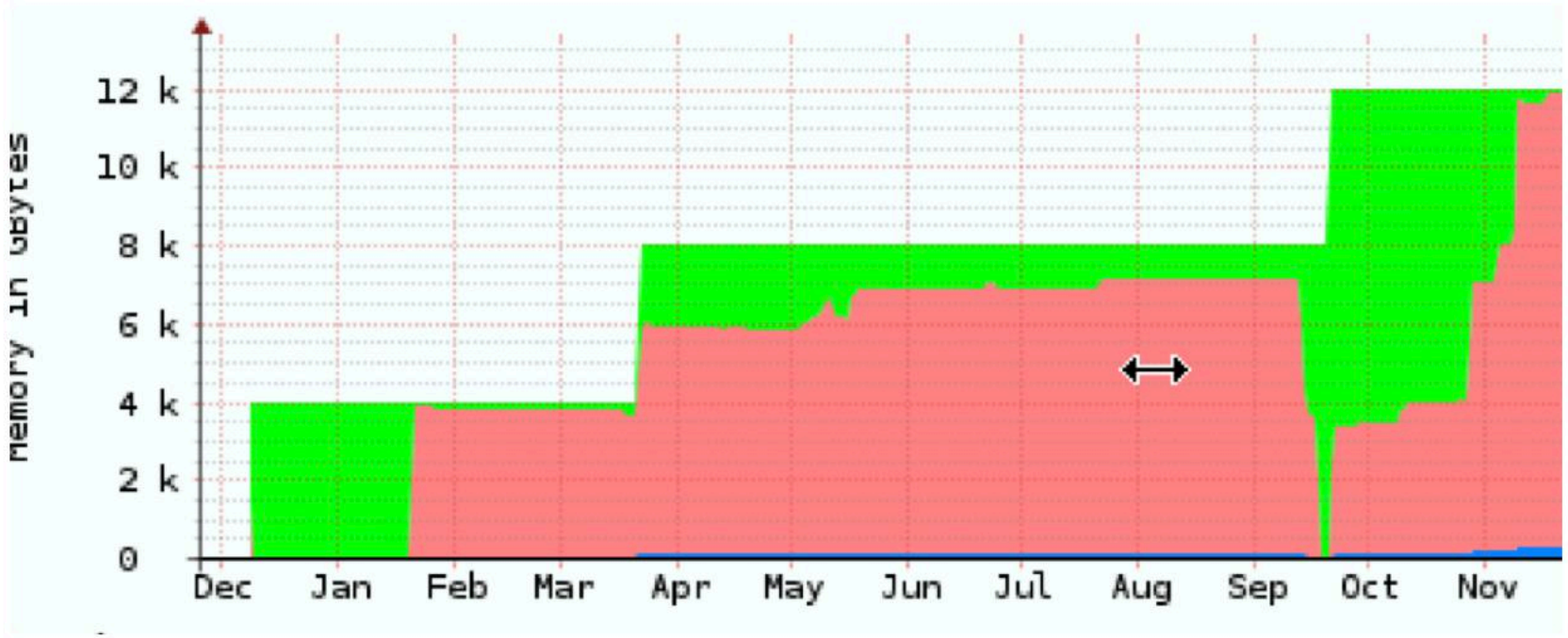
a brand of FREUDENBERG

HANAonPOWER: Reference

IT service provider Syntax (aka Freudenberg IT - FIT)

enhanced scalability

We extended the e880 in 4TB steps with incoming customer demand



If we would know that demand realizes so fast we would have implemented with 12 TB from the beginning

Your smart choice to run SAP HANA on IBM Power Systems

Provision Faster	Scale Affordably	Maximize Uptime
• Provision SAP HANA instances faster with built-in virtualization • Easily make capacity changes • Simplify management consolidating HANA instances	• Minimize infrastructure with scale up environment • Granular capacity allocation • Share and optimize CPU allocation • Capacity on Demand	• Ranked most reliable server for 12 years in a row • Zero impact planned maintenance with LPM • Virtual persistent memory for faster restart and shutdown

Public info sources, customer / usergroups etc.

Social Media Sources

SAP HANA on IBM Power Systems

Twitter:
@HANAonPower

Facebook:
https://www.facebook.com/HANAonPOWER

Customer HoP Usergroup Forum,
by Common and GSE usergroups:
www.hanaonpower.com

Youtube Channel:
http://ibm.biz/YoutubeHANAonPOWER

IBM Websites

SAP HANA on IBM Power Systems

IBM Webseite SAP HANA on IBM Power Systems, german language
https://www.ibm.com/de-de/it-infrastructure/power/sap-hana

IBM Website SAP HANA on IBM Power Systems, english language
https://www.ibm.com/it-infrastructure/power/sap-hana

Usergroup Websites

SAP HANA on IBM Power Systems

DSAG SAP HANA on POWER user group
(D-A-CH, german speaking SAP user group):
www.dsag.de

ASUG (Americas' SAP Users' Group)
www.asug.com

Jochen Ziegler
Leading SOLAR
(SAP Infrastructure
SOLution ARchitect)

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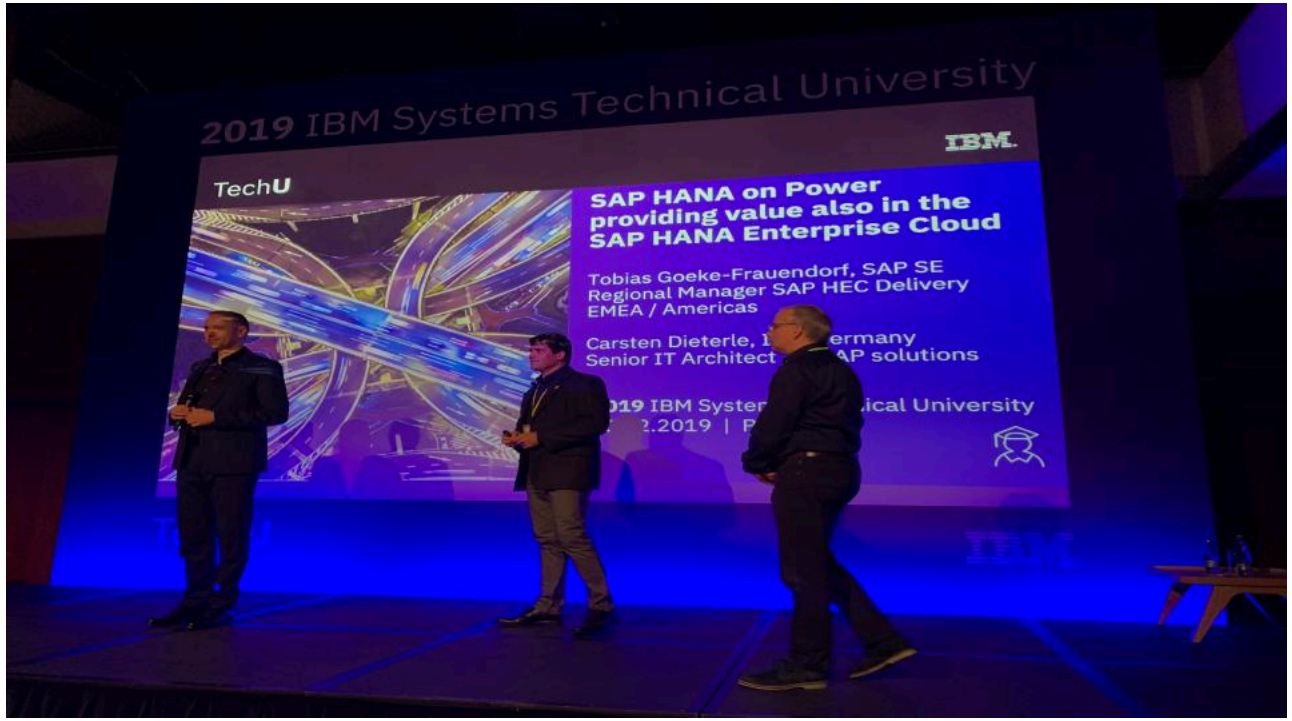
SAP HANA on IBM Power
Technical Sales Lead Architect
Europe & D-A-CH
IBM Technical Expert Council (TEC) member emeritus

http://ibm.biz/AcclaimBadgesOfJochenZiegler

SAP HANA on IBM Power in der SAP HANA Enterprise Cloud (HEC)

Announced via **IBM Press release** from 19.02.2020
https://ibm.co/2SF80ci (english)
https://de.newsroom.ibm.com/announcements?item=122562 (german)



...already presented November 2019 @ IBM TechU Prague

IBM Power Systems Certified for SAP HANA® Enterprise Cloud as a provider for large SAP HANA systems

ARMONK, N.Y., Feb. 19, 2020 /PRNewswire/ -- IBM (NYSE: IBM) today announced that IBM Power Systems has been certified for the SAP HANA® Enterprise Cloud as a critical infrastructure platform provider for large SAP HANA systems, aiming to simplify the IT infrastructure for the managed, private cloud environment. The service will run on IBM POWER9-based IBM Power Systems E980 servers, which have the industry's largest virtualized server scalability of 24TB for the SAP HANA database[i].

Providing the IT infrastructure for a managed, private cloud environment, the SAP HANA Enterprise Cloud is a scalable and secured service that is designed to accelerate a user's evolution on the path to cloud readiness. It provides capabilities that span the software and hardware stack, a comprehensive menu of functional and technical services, and the level of control clients should expect on premises, all in one privately managed environment.

"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. "Combining SAP HANA Enterprise Cloud capabilities with IBM Power Systems can help establish a faster path to cloud readiness for our clients while addressing risk and providing closer alignment to the intelligent enterprise."

SAP HANA Enterprise Cloud users can take advantage of the firmware-based virtualization in the IBM POWER platform that offers the largest SAP HANA scalability in scale-up systems[ii]. This helps enable SAP HANA Enterprise Cloud users to accommodate capacity changes – this is designed for clients to benefit from faster performance of their SAP HANA-based business intelligence applications by running them in a single node while maximizing the availability of SAP applications with the highly resilient infrastructure.

"In June, IBM announced the availability of POWER9 in the IBM Cloud, taking the first step toward our goal of bringing IBM Cognitive Systems technology to our clients, no matter where they are," said Stephen Leonard, General Manager, IBM Cognitive Systems, "With the addition of IBM Power Systems in SAP HANA Enterprise Cloud, we're giving our clients more choices and greater flexibility to run their workloads where they want to across the hybrid cloud and accelerate digital transformation."

IBM Power Systems has been delivering scalability and availability for SAP HANA applications since it was certified for SAP HANA in 2015, and the ongoing collaboration between IBM Power Systems and SAP provides virtualization on-demand via hypervisor-defined features in Power Systems. This enables clients to take advantage of multiple SAP HANA Enterprise Cloud service levels and transform their IT operations by shifting the focus from infrastructure maintenance to innovating with SAP HANA in the cloud.

SAP HANA Enterprise Cloud on IBM Power Systems is another testament to IBM and SAP's long-standing, client-centric relationship. Since forming the Digital Transformation partnership more than three years ago, IBM Services and SAP have worked together to provide services and capabilities that help accelerate how customers around the world modernize their systems and processes on their path to becoming an intelligent enterprise.

For more information about IBM Power Systems, visit https://www.ibm.com/it-infrastructure/power.

Other Source: https://insidesap.com.au/sap-hec-to-run-on-ibm-power-system-e980/

CSPs / MSPs with HANAonPower

- CTAC / Netherlands
- Dedagroup / Italy
- Group D-FI / France
- Itelligence / Poland + Denmark + Malaysia + Germany
- Promos / Germany
- Rku-it / Germany
- SAP (SAP HEC) / Germany / Netherlands + USA
- Seidor / Spain
- Syntax (aka Freudenberg IT) / Germany + USA
- UMB / Switzerland
- Service Provider / Germany North
- Service Provider / France
- Service Provider / Finland
- Service Provider / South Africa

Selected IBM SAP HANA References and examples using IBM Enterprise POWER technology

US Pharma Company
E880

KENNAMETAL
E870

US

Italian US-american Automotive Company
Power Enterprise Server E880

ECOGAS
E870

Argentina

Australian Government Department of Human Services
Australia
Power Server

UB
United Breweries Ltd
S824

India

INDUS MOTOR COMPANY
Pakistan, Automotive<

創美藥業 CH'MEI CHUANGMEI MEDICINE
Chuangmei Medicine,
China, Pharmaceutical

German Automotive Company
E880 / E980 / E950

BOSCH
E880 / E980

Bosch Youtube Video: http://ibm.biz/BoschHoPRefVideo

DIAMOND
PT. Diamond Cold Storage,
Indonesia, Consumer Produc

itambé

coop
E880 / E980
(CAR, BW, CRM)

COOP Youtube Video: http://ibm.biz/COOPHoPVideo201705

GRANULES

SOUTH SHORE furniture
South Shore Furniture, Canada

WINDMÖLLER & HÖLSCHER
E880C

YPE
(Química Amparo)
Brazil

VEKA
E870 (BW)

SIFI

Entegris

CSN Companhia Siderúrgica Nacional
CSN (Companhia Siderurgica Nacional), Brazil

CHR HANSEN
E850

Foodstuffs NZ

ARYZTA Passion for good food

Boydak HOLDING
E870

KAINDL
E850

mondi

BALLUFF
E870

MSPs / IT Service Providers

DEDAGROUP

seidor

FIT IT Solutions. Simplified.
E880C
E850C
S824

PROMOS
S824

http://ibm.biz/FITHoPReferenceVideo

KNAUF
E880

D.FI GROUPE D.FI Intégrateur de technologies
E850C

itelligence NTT DATA Business Solutions
Poland, Denmark, Malaysia

Danish Defence
E880C

WÜRTH
E880 and E870

http://ibm.biz/WuerthHoPRefVideo

Technische Universität München

S822 for HANA

TUM Youtube Video:
http://ibm.biz/TUMHoPRefVideo

In case of interest to contact mentioned on other Power HANA customers, contacts to be provided by IBM sales team per request.

82 External Reference Assets for SAP HANA on IBM Power across 6 GEOs

→ Link to selected Reference Customers - IBM Systems Power Marketing

→ Link to all Reference Customers

#		Customer	Industry	Published	GEO
1	Video	Ctac, Netherlands	Computer Services	Mar-16	EU
2	Video	Kennametal, USA	Industrial Products	May-16	NA
3	Video	Ecogas, Argentina	Energy & Utilities	May-16	LA
4	Video	PT. Diamond Cold Storage, Indonesia	Consumer Products	Jul-16	AP
5		Dedagroup, Italy	Computer Services	Aug-16	EU
6	Video	SEIDOR, Spain	Computer Services	Aug-16	EU
7		VEKA AG, Germany	Industrial Products	Sep-16	EU
8	Video	Indus Motor Company, Pakistan	Automotive	Oct-16	MEA
9	Video	United Breweries, India	Consumer Products	Oct-16	AP
10	Video	SAP University Competence Center at Technical University of Munich, D	Education	Nov-16	EU
11	Video	South Shore Furniture, Canada	Retail & Manufact.	Dec-16	NA
12	Video	Bosch Group, Germany	Electronics	Dec-16	EU
13		Mondi Group, Austria	Industrial Products	Jan-17	EU
14		Happynarae, Korea	Professional Services	Apr-17	AP
15	Video	Coop Group, Switzerland	Retail	Apr-17	EU
16		Vishal Mega Mart, India	Retail	Apr-17	AP
17	Video	Charmacy, China	Pharmaceutical	May-17	GCG

82 External Reference Assets for SAP HANA on IBM Power across 6 GEOs

→ Link to selected Reference Customers - IBM Systems Power Marketing

→ Link to all Reference Customers

#		Customer	Industry	Published	GEO
18		D.FI, France	Computer Services	Jun-17	EU
19		Boydak Holding, Turkey	Industrial Products	Jul-17	MEA
20		Química Amparo, Brazil	Consumer Products	Aug-17	LA
21	Video	Wuerth Group, Germany	Retail	Aug-17	EU
22	Video	Danish Defence, Denmark	Defence	Nov-17	EU
23		CenturyLink, USA	Computer Services	Dec-17	NA
24		International Textile Limited, Pakistan	Fabrication & Assembly	Jan-18	MEA
25	Video	Freudenberg IT FIT, now Syntax, USA & Germany	Computer Services	Feb-18	NA
26	Video	Centria, Peru	Computer Services	Apr-18	LA
27		Construction Materials Supplier (anonym), France	Industrial Products	Apr-18	EU
28		UOL Group, Singapore	Real Estate	Feb-18	AP
29		I-D Foods, Canada	Consumer Products	May-18	NA
30		WMF Group, Germany	Retail	Mar-18	EU
31		Itambé, Brazil	Consumer Products	Mar-18	LA
32		Granules, India	Pharmaceuticals	Apr-18	AP
33		Latin American Insurer (anonym), Brazil	Insurance	Jun-18	LA
34		Itelligence, Poland	Computer Services	Jun-18	CEE

82 External Reference Assets for SAP HANA on IBM Power across 6 GEOs

→ Link to selected Reference Customers - IBM Systems Power Marketing

→ Link to all Reference Customers

#		Customer	Industry	Published	GEO
35		TUM Proteomics Project, Germany	Education, Research	Jun-18	EU
36		CTAC & AG Real Estate, Netherlands	Computer Services	July-18	EU
37	Logo	Promos, Germany	Real Estate, Computer Services	July-18	EU
38		Asahi Kasei Group, Japan	Chemicals and Petroleum,	July-18	AP
39		Hayleys PLC, Sri Lanka	Industrial Products	September-18	AP
40		Colgate Palmolive Pakistan, Pakistan	Consumer Products	September-18	AP
41		Aryzta, US	Consumer Products	October-18	US
42		Itelligence Denmark, Denmark	Computer Products	November-18	EU
43		Itelligence Malaysia, Malaysia	Computer Products	November-18	EU
44		Groupe Bastide, France	Healthcare	December-18	EU
45	Video	Danish Defence, Denmark	Defence	December-18	EU
46		BRF, Brazil	Consumer Products	January-19	LA
47	Video	Vivo Energy, United Kingdom	Chemicals & Petroleum	February-19	EU
48		Aceros Arequipa, Peru	Industrial Products	March-19	LA
49		Electricity Company, Brazil	Energy & Utilities	March-19	LA
50		Ryerson, United States	Wholesale Distribution & Services	April-19	NA

82 External Reference Assets for SAP HANA on IBM Power across 6 GEOs

→ Link to selected Reference Customers - IBM Systems Power Marketing

→ Link to all Reference Customers

#		Customer	Industry	Published	GEO
51		Sensor Manufacturer, Germany	Industrial Products	April-19	EU
52	Video	Itelligence Nordic Video, Denmark	Computer Services	April-19	EU
53	Video	Itelligence Nordic Reference Video, Denmark	Computer Services	April-19	EU
54		Sona BLW, India	Automotive	May-19	AP
55		Porrúa, Mexico	Retail	June-19	LA
56		Tapal Tea, Pakistan	Consumer Products	June-19	AP
		SAP Innovation Award Winners			
57	Video	Coop Group, Switzerland	Retail	July-19	EU
58	Video	Toyota Indus Motors, Pakistan	Automotive	July-19	AP
59	Video	Technical University of Munich, Germany	Education	July-19	EU
60	Video	Quan Dat, Vietnam	Construction	July-19	AP
61	Video	Vivo Energy, United Kingdom	Chemicals & Petroleum	August-19	EU
62		CVale, Brazil	Consumer Products	Sept-19	LA
63		Pharmaoverseas, Egypt	Wholesale Distribution & Services	Sept-19	MEA
64		India Glycols, India	Chemicals & Petroleum	Nov-19	AP
65		Hellenic Glass Industry, Greece	Industrial Products	Nov-19	EU
66	Logo	Foodstuffs South Island, New Zealand	Retail	Nov-19	AP

82 External Reference Assets for SAP HANA on IBM Power across 6 GEOs

→ Link to selected Reference Customers - IBM Systems Power Marketing

→ Link to all Reference Customers

#		Customer	Industry	Published	GEO
67		Hyundai Nishat Motors, Pakistan	Automotive	Dec-19	AP
68		UMB, Switzerland	Computer Services	January-20	EU
69		Bulutistan, Turkey	Computer Services	January-20	EU
70		Familiprix, Canada	Retail	February-20	NA
71		Certification for SAP HANA Enterprise Cloud, Press Release	Computer Services	February-20	EU
72		System Design Analysis, Canada	Computer Services	February-20	NA
73		Grupo Zapata, Mexico	Industrial Products	March-20	LA
74		Hoffmann Neopac, Switzerland	Industrial Products	March-20	EP
75		Bestway Cement, Pakistan	Construction	March-20	AP
76		ABM Investama, Indonesia	Energy & Utilities	April-20	AP
77		Salling Group, Denmark	Retail	May-20	Ep
78		Regional health agency (anonym), Norway	Healthcare	July-20	EP
79		Kuantum Papers, India	Industrial Products	July-20	AP
80		PROMOS, Germany	Computer Services	August-20	EP
81		Leading industrial manufacturer (anon), India	Industrial Products	August-20	AP
82		Auto parts manufacturer (anon), India	Automotive	August-20	AP

Vorstellung Professional Services Team Business Solutions

Erich Geiger, Team Business Solutions
erich.geiger@bechtle.com

Bechtle Gruppe

Die Bechtle Steffen Schweiz AG ist ein Unternehmen der Bechtle Gruppe. Der Konzern ist mit rund 75 IT-Systemhäusern in Deutschland, Österreich und der Schweiz aktiv und zählt darüber hinaus mit E-Commerce-Gesellschaften in 24 Ländern zu den führenden Value-Added Resellern in Europa.

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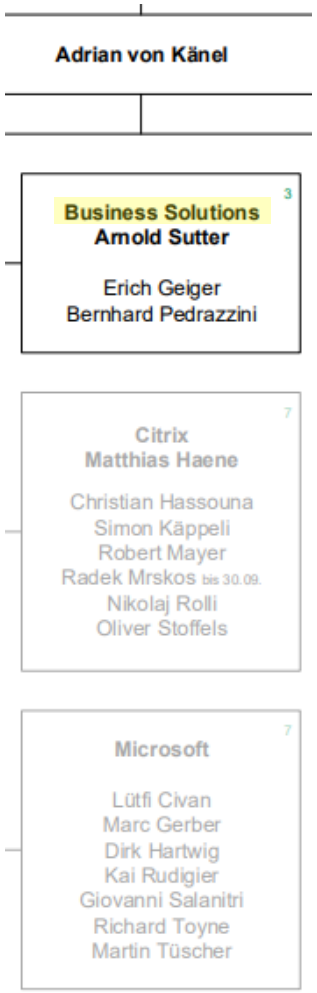
Mitarbeiter Team Business Solutions



Arnold Sutter, Consultant, Teamleiter

- ✓ Pre- and Postsales consulting SAP HANA & Linux platforms
- ✓ HPE Partner Ambassador
- ✓ SUSE Linux certified
- ✓ SAP HANA certified

Erich Geiger, Consultant

- ✓ Pre- and Postsales consulting SAP HANA & Linux platforms
- ✓ IBM Power- & Storage Plattform certified
- ✓ Red Hat Linux certified
- ✓ SAP HANA certified
- ✓ RedCap consultant

Bernhard Pedrazzini, Consultant

- ✓ Pre- and Postsales consulting SAP HANA & Linux platforms
- ✓ HPC technologist
- ✓ SAP BWA specialist

Skills & Technologien

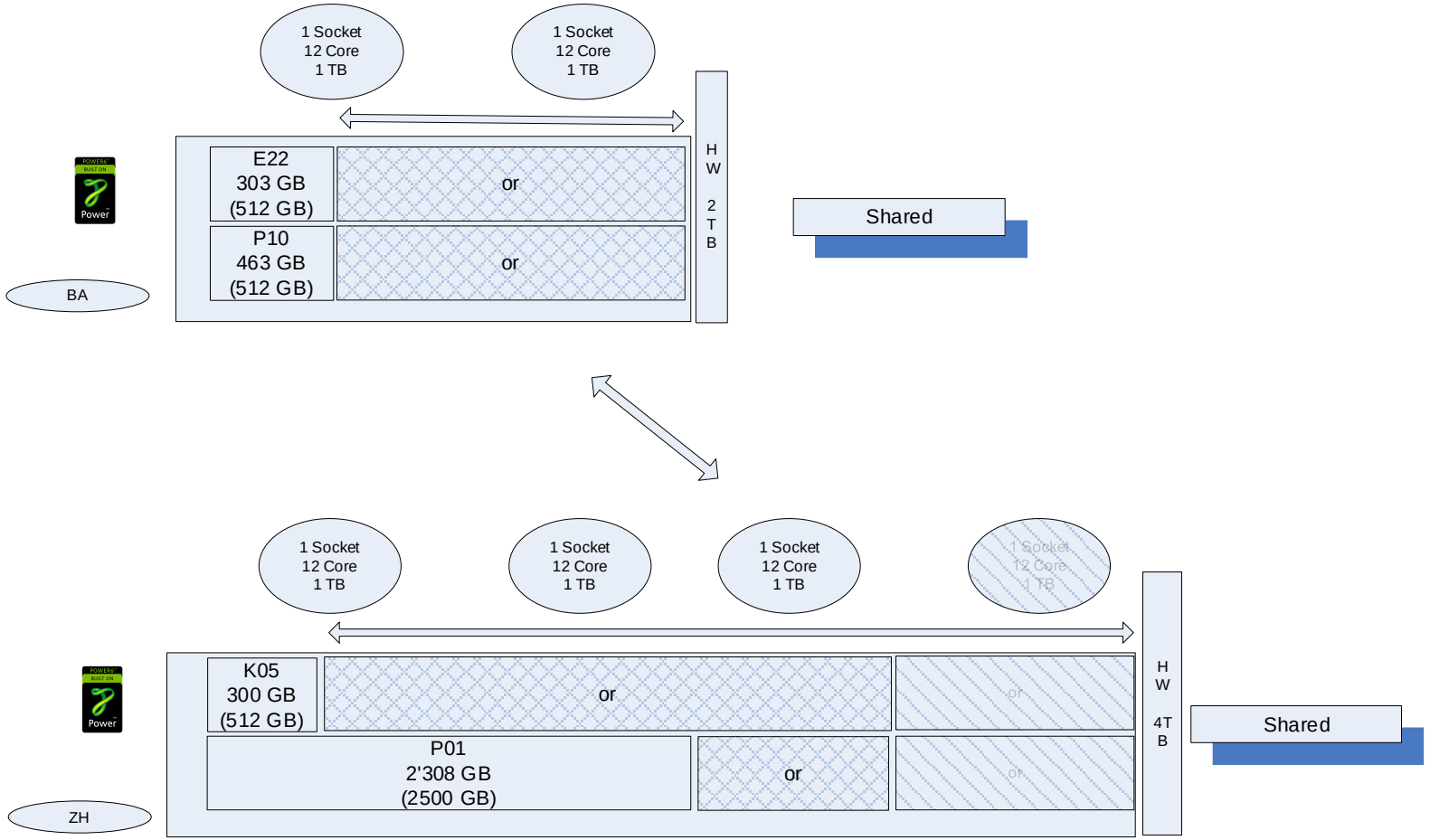
Linux Basistechnologien

- Konzeption, Installation und Administration von Linux Plattformen (SUSE & Red Hat) auf Basis von Intel x86 und IBM Power Systemen
- hohe OpenSource Affinität (CentOS, openSUSE, Ubuntu, aber auch Apache WEB-Server, Postgres, MariaDB, OSS Administrations- und Monitoring Lösungen)

SAP HANA & BWA

- Architektur, Konzeption, Installation und Administration von SAP HANA / SAP Infrastrukturlösungen
- SAP zertifiziert für SAP HANA TDI Installationen
- SAP HANA Multi-Tier Architekturen, HA-/DR-Lösungen, Backup & Recovery Integrationen, ganzheitliche Business Continuity Lösungen

IBM Power


1 Socket
12 Core
1 TB
1 Socket
12 Core
1 TB
E22
303 GB
(512 GB)
or
P10
463 GB
(512 GB)
or
HW 2TB
Shared
BA
1 Socket
12 Core
1 TB
1 Socket
12 Core
1 TB
1 Socket
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1 TB
1 Socket
12 Core
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K05
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(512 GB)
or
or
P01
2'308 GB
(2500 GB)
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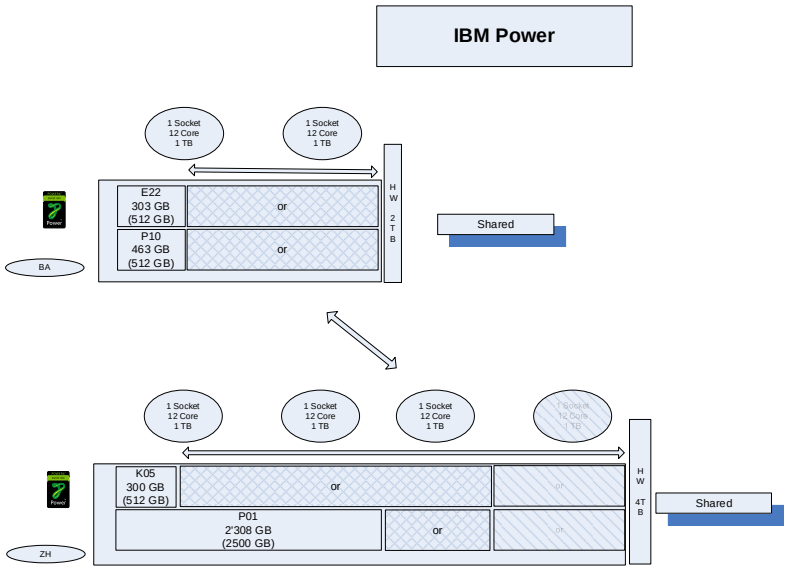
or
HW 4TB
Shared
ZH



How is POWER8 optimized for big workloads?

POWER8 compared to the latest Broadwell EP and EX

4X
Threads

POWER8 SMT8 | x86 SMT2

Broadwell EP or EX

4X
Memory Bandwidth

Data flow

POWER8 pipe | x86 pipe

Broadwell EX

3X
Cache per socket

POWER8 | x86

Broadwell EX

1.3 – 1.5X
Clock Frequency

POWER8 | x86

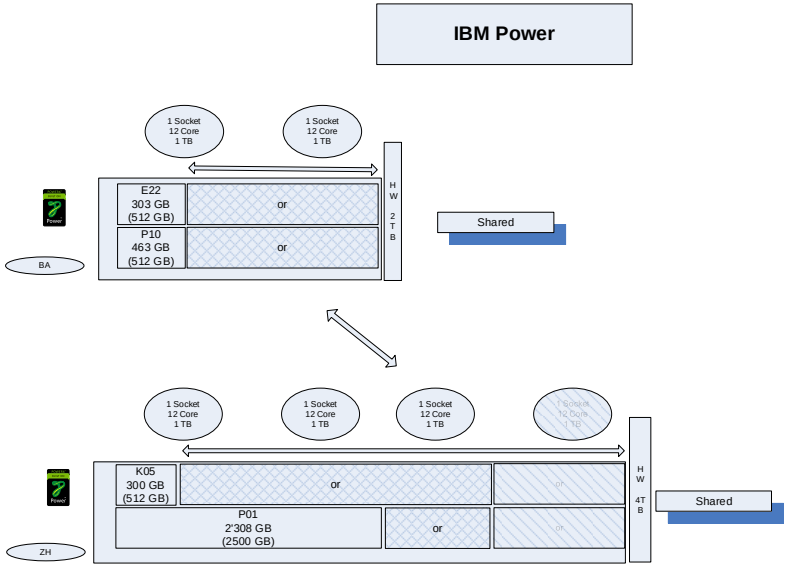
Broadwell EX

These design decisions result in best performance for all types of workloads such as:
Analytics, Big Data, Java, OLTP, Cognitive, HPC

SMT=Simultaneous Multi-Threading
OLTP = On-Line Transaction Processing
HPC=High Performance Computing

Sources:
Broadwell EX: http://ark.intel.com/products/family/93797/Intel-Xeon-Processor-E7-v4-Family#@Server
Broadwell EP: http://ark.intel.com/products/family/91287/Intel-Xeon-Processor-E5-v4-Family#@Server
POWER8: http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=BR&infotype=PM&appname=STGE_PO_PO_USEN&htmlfid=POB03046USEN

Competitive Project Office



HANA on POWER8 LPAR supports much larger workload size than vSphere on x86

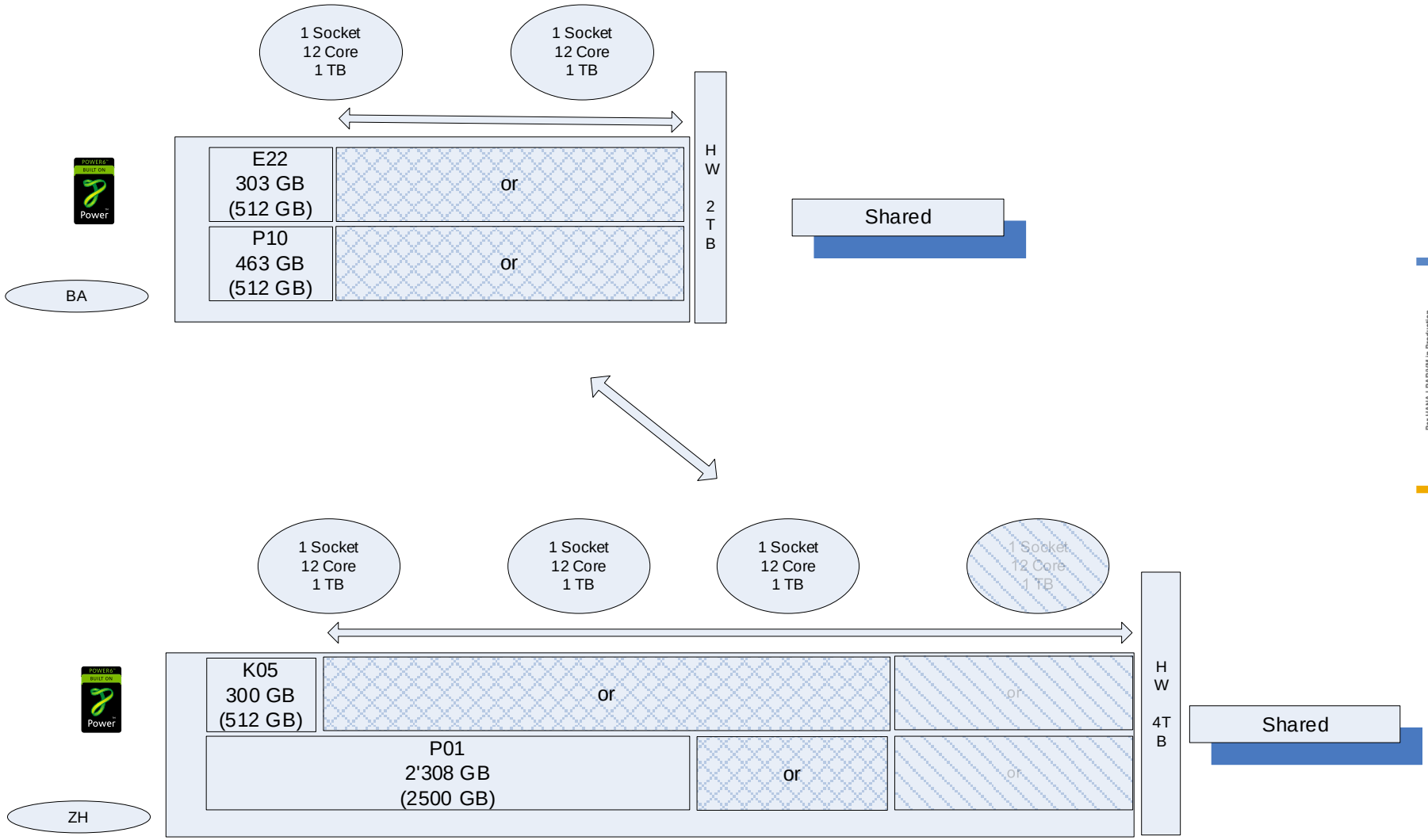
.... and much more dynamic and flexible

Per HANA LPAR/VM in Production

PowerVM	96 Cores (x SMT8)	
vSphere 6.0	128 vCPUs (HT on)	~1,5 x more
vSphere 5.5	64 vCPUs	~3 x more throughput
PowerVM	4,8 TB Memory BWoH / 9 TB Memory SoH	
vSphere 6.0	4 TB Memory	~1,2 - 2,3 x more
vSphere 5.5	1 TB Memory	~5-9 x more memory

Power Systems

IBM Power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P10
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(512 GB)
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2TB
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BA
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1 TB
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12 Core
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K05
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(512 GB)
or
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P01
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(2500 GB)
or
or
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4TB
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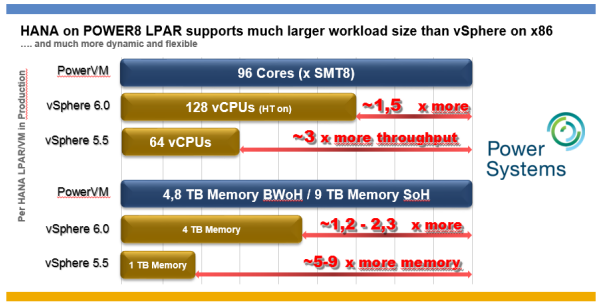
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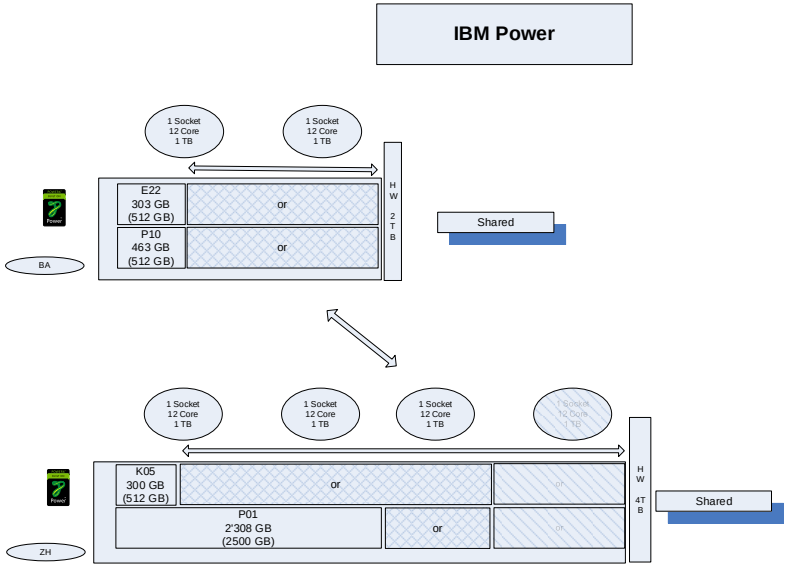


IBM Open by Design

Chef

JuJu Charms

Puppet

HEAT

Docker

vmware vRealize Automation

Cloud Orchestrator

OpenStack Services

Urban Code Deploy

IBM Cloud Manager with OpenStack

open source

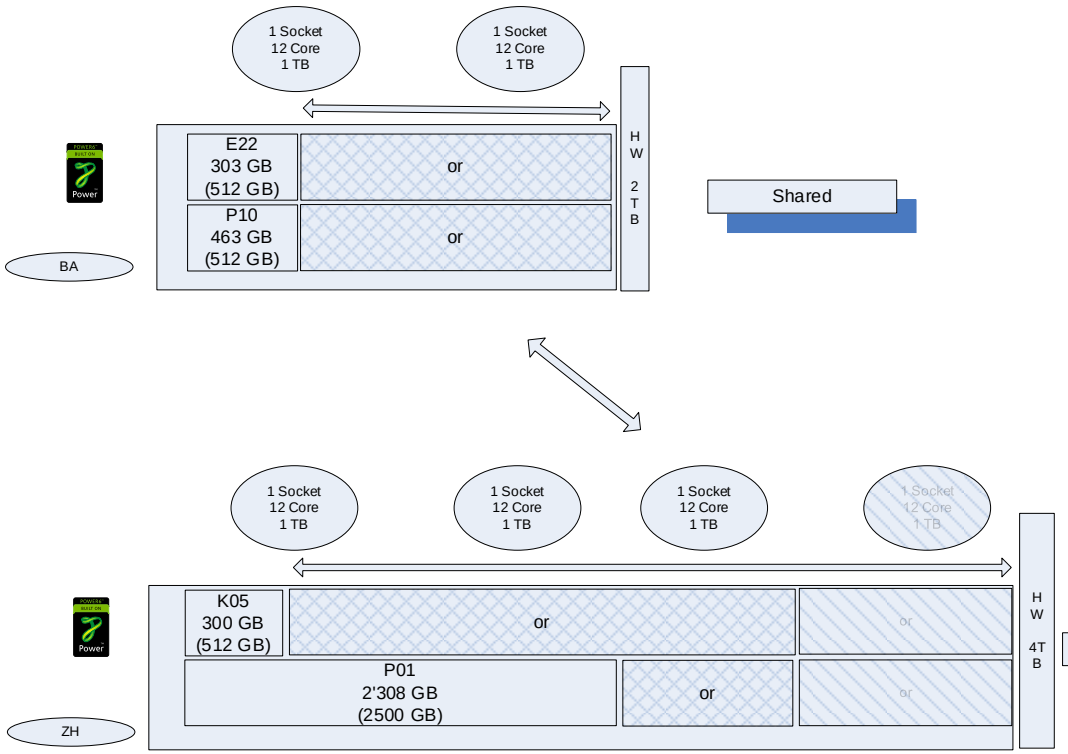
PowerVC

openstack

openstack

x86 | PowerKVM | PowerVM | z/VM

IBM Power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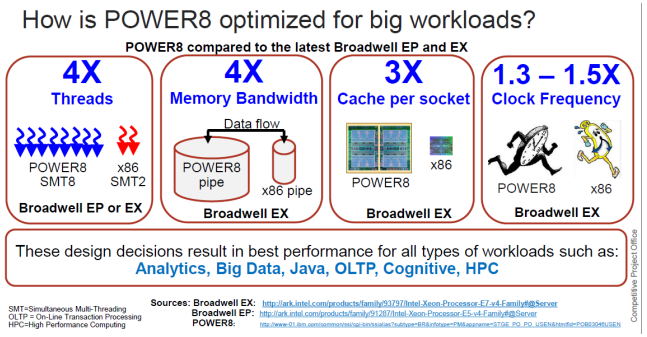
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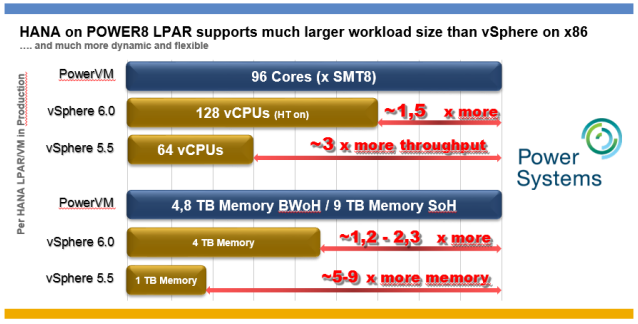
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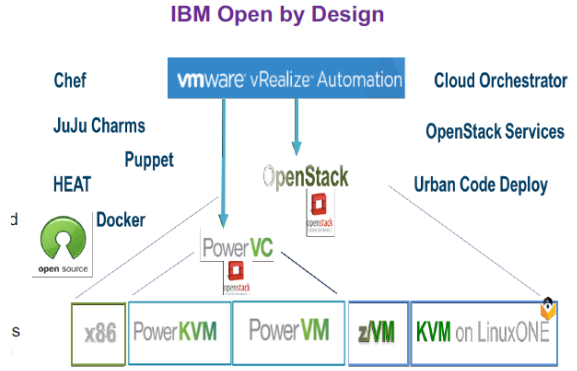
IBM Open by Design
Chef
vmware vRealize Automation
Cloud Orchestrator
JuJu Charms
OpenStack Services
Puppet
HEAT
OpenStack
Urban Code Deploy
Docker
open source
PowerVC
x86
PowerKVM
PowerVM
z/VM
KVM on LinuxONE

Besten Dank! Stellen Sie uns Ihre Fragen.

Vorschau.

29.10.2020	Webinar: Adobe Acrobat & Sign - Document Cloud Funktionen in Microsoft Office 365
04.11.2020	Webinar: VMworld 2020 Highlights - Wrap Up
24.11.2020	Webinar: Swiss Cube - smarter Weg in die Cloud

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Consultant, Bechtle Schweiz AG
erich.geiger@bechtle.com