#pw2025

Power Week 2025

18 - 19 - 20 novembre 2025

IBM Innovation Studio Paris

S105 – IBM Power11 for Database Consolidation

20 novembre 9:45 - 12:15

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IBM

common FRANCE

Oracle's decision to deliver 26ai on-premises is a business choice, not a technical decision

Power is/ built for Oracle workloads

Platform	26ai * Long Term Support Release	21c Innovation Release	19c Long Term Support Release	18c	12.2.0.1	12.1.0.2	12.1.0.1	11.2.0.4
On-Premises Server Releases (includes client) (Download here)								
Linux x86	*Not Planned*	*Not Planned*	*Not planned*	*Not planned*	*Not planned*	*Not planned*	*Not planned*	28-Aug-2013
Linux x86-64	*TBA* (Instant Client and Full Client are available today)	13-Aug-2021	25-Apr-2019	23-Jul-2018	1-Mar-2017	22-Jul-2014	25-Jun-2013	27-Aug-2013
Linux on Arm	*TBA*	*Not Planned*	28-June-2023 Client: May-2021 download	*Not Planned*	*Not Planned*	*Not Planned*	*Not Planned*	*Not Planned*
Oracle Solaris SPARC (64-bit)	*TBA*	*See DOC ID 2853097.1*	26-Apr-2019	30-Jul-2018	1-Mar-2017	22-Jul-2014	25-Jun-2013	29-Aug-2013
Oracle Solaris x86-64 (64-bit)	Platform de-supported	Platform de-supported	07-Nov-2019 Terminal Release	6-Aug-2018	1-Mar-2017	22-Jul-2014	25-Jun-2013	29-Aug-2013
Microsoft Windows x64 (64-bit)	*TBA* (Instant Client is available today)	08-Oct-2021	08-Jun-2019	21-Aug-2018	16-Mar-2017	25-Sep-2014	9-Jul-2013	25-Oct-2013
OpenVMS Itanium	*Platform de-supported*	*Platform de-supported*	Platform de-supported	*Platform de-supported*	*Platform de-supported*	*Platform de-supported*	*Platform de-supported*	*Terminal Release*
HP-UX Itanium (See Doc ID 3080621.1)	*TBA*	28-Sept-2021	28-May-2019	20-Nov-2018	13-Apr-2017	14-Nov-2014	9-Jan-2014	10-Oct-2013
HP-UX PA-RISC (64-bit)	*Platform de-supported*	*Platform de-supported*	*Platform de-supported*	*Platform de-supported*	*Platform de-supported*	*Platform de-supported*	*Platform de-supported*	2-Jan-2014
IBM AIX on POWER Systems	*TBA*	*See DOC ID 2766930.1*	28-May-2019	20-Nov-2018	13-Apr-2017	14-Nov-2014	9-Jan-2014	10-Oct-2013
IBM Linux on System z	*TBA*	*See DOC ID 2766930.1*	06-June-2019	20-Nov-2018	6-Jun-2017	14-Nov-2014	9-Jan-2014	9-Jan-2014
Microsoft Windows (32-bit)	*Not Planned*	*Client Only - Oct 2021*	*Client only - June 2019*	*Client Only*	*Client Only*	*Client Only*	*Not planned*	25-Oct-2013

Power *is*/ Committed by Oracle Support Statement

Power is/ built for Oracle workloads

- **Oracle has released this support statement. Customers need to demand that Oracle deliver on it.**

Announcement: Support Statement for Oracle Database running on IBM Systems (Doc ID 2766930.1)

Last updated on OCTOBER 30, 2025

APPLIES TO:

Oracle Database - Standard Edition - Version 11.2.0.4 and later
Oracle Database - Enterprise Edition - Version 11.2.0.4 and later
Oracle Database Cloud Exadata Service
Oracle Cloud Infrastructure - Exadata Cloud Service
Gen 1 Exadata Cloud at Customer (Oracle Exadata Database Cloud Machine)
Linux on IBM Z
IBM AIX on POWER Systems (64-bit)
Announcement: Support Statement for Oracle Database running on IBM Systems

DETAILS

Support Statement for Oracle Database running on IBM Systems

IBM and Oracle have over 30 years history of collaboration in certifying IBM Systems technology, virtualization, and operating systems with the Oracle Database. Both companies continue their investments to develop, test and deliver Oracle Database on IBM servers including current and future releases of those products.

In order to bring more clarity to Oracle's support windows, and to give customers better predictability on upgrade timing, Oracle identifies Oracle Database releases as Innovation Releases or Long Term Releases. In response, IBM and Oracle now plan to focus our joint Oracle Database development activities on the next Long Term Release. Oracle will deliver the new features and enhancements from the latest Innovation Release, Oracle Database 21c, as well as planned additions to the next Long Term Release, Oracle Database 23ai, to our joint customers on IBM Z and Power Systems via Oracle Database 23ai.

IBM and Oracle continue to invest in our development relationship to deliver production worthy hardened products through continuous testing to meet the stringent requirements of our 80,000 joint customers.

ACTIONS

Oracle recommends IBM Systems customers upgrade to the latest Long Term Release, Oracle Database 19c, as well as put plans in place for their deployment of the next Long Term Release, Oracle Database 23ai. Early adoption testing access will be considered on a per customer basis. Oracle will provide comprehensive maintenance and software upgrades for your Oracle Database consistent with the Oracle Lifetime Support Policy. See KM Doc 742060.1 for Database release dates.

Questions about this communication may be addressed via email to the IBM Oracle International Competency Center at ibmoracle@us.ibm.com.

Power *is/* 4 decades of strongly committed customers

Power is/ built for Oracle workloads

- **39 Years**
  - Continuous Technology collaboration
- **80,000**
  - Mutual customers using IBM systems, consulting, software and services
- **11**
  - Generations Power Collaboration on technology development to deliver Oracle software

- *Relationship built on a mutual commitment of support for our customers*

Power *is/* 4 decades of strongly committed customers

Power is/ built for Oracle workloads

- Customers have had a continuous certification and delivery roadmap for Oracle Database releases on AIX for nearly 4 decades
- Oracle leverages and supports unique Power, AIX and PowerVM capabilities
  - Resource Groups – Improves performance of virtualized environments
  - SMT- 2, 4, 8
  - Shared Processor Pools (SPP)
  - Live Kernel Update (LKU)
  - Live Partition Mobility (LPM)[1]
  - Active Memory Expansion (AME)
  - Dynamic LPAR (DLPAR) → Oracle Hard Partitioning

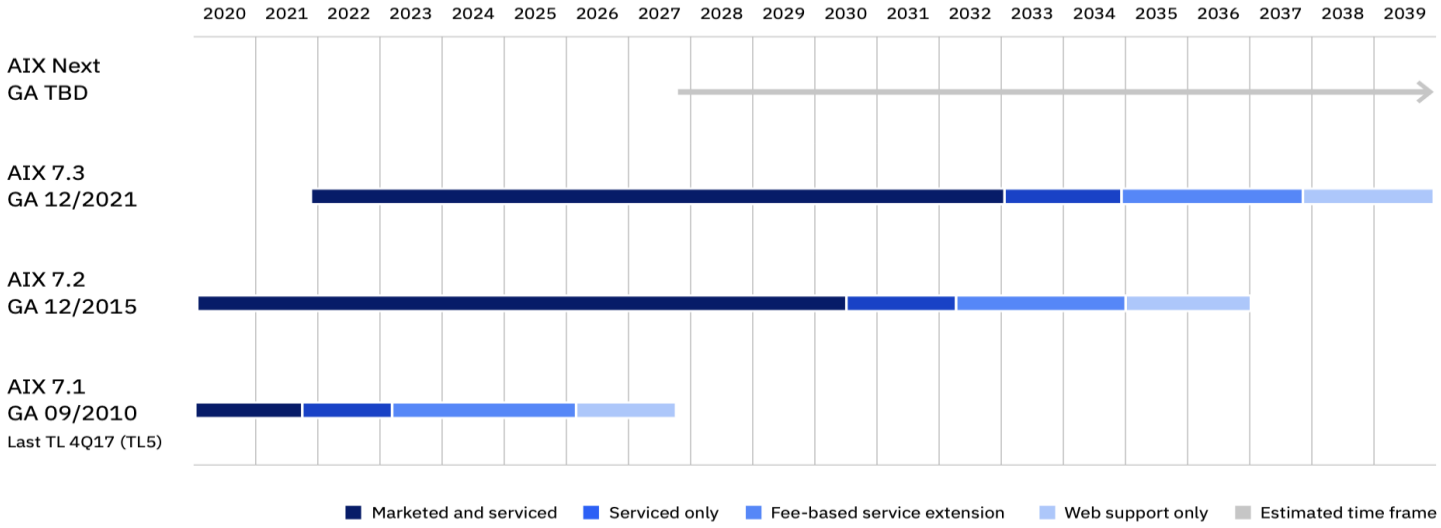


Figure 1: AIX roadmap. Timeline and release lifecycle service transitions are subject to change.

https://www.ibm.com/downloads/documents/us-en/107a02e95ac8f5cc

[1] Use of LPM may affect Oracle licensing. Clients should consult their Oracle contract.

IBM and Oracle engineering teams are collaborating on 26ai

Oracle Workloads on Power11, Update on DB 23ai

Executive Collaboration between IBM and Oracle

- **Power GM, Multiple CTOs, VPs, Partnership Executives from the Alliance Organization**
- **Review status and plans, increase and prioritize investments and ensure engineers have what they need to deliver 26ai on AIX**
- **Define a process for customers to express interest in 23ai/26ai availability on AIX**

Engineering Collaboration

- **Increased investment (more engineers) by both companies – continual interaction**
- **Collaboration on topics like OpenSSL and the community version to be used (enables use of Power's in-chip encryption capability)**
- **Increased engineers around IBM compiler technology**
- **Deliver new Power equipment to Oracle for enablement and testing**
- **Performance tuning, functional testing, compiler/code optimization**
- **When 26ai ships on AIX it will be the most tested Oracle DB version on Power ever!**

Other areas of IBM investment

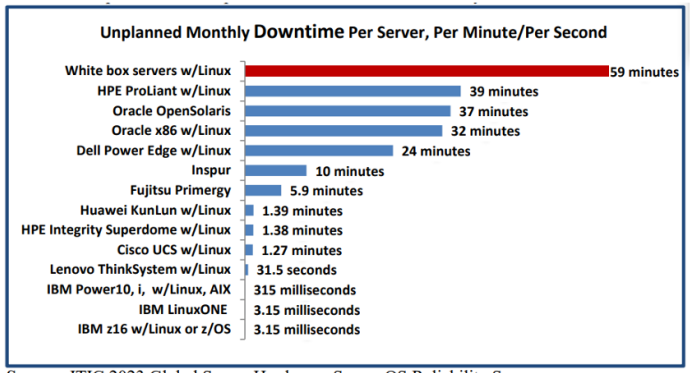
- **Automation – Delivery of 3 types of Ansible playbooks – Deployment of Oracle DB, Deployment of RAC, Management of Oracle DB**
- **AI Demonstrations**
- **Collateral/webinars – Migrating to Power Virtual Server using Data Guard, Oracle on Power11 webinar, upcoming webinar on Oracle and Resource Groups**

Unmatched business continuity

IBM Power11 provides 6 9's of availability, 99.9999%. Read "IBM Power RAS"

ITIC data confirms that 88% of Power10 users achieved 8 9's of availability, 99.999999%! Read it here. And with Power10 being so strong, Power11 new capabilities enhance what's already best in the industry.

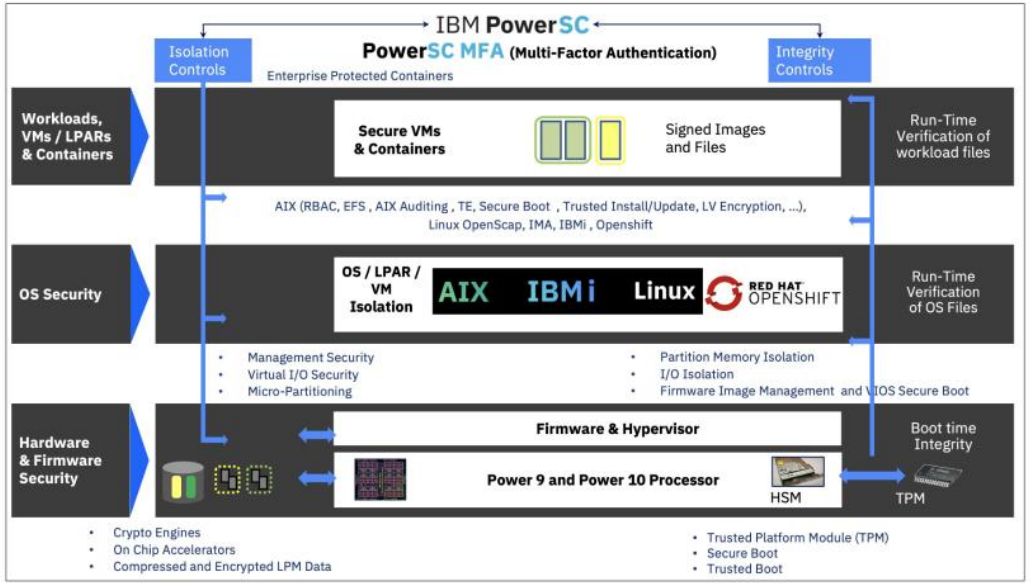
IBM Power ranked number #1 in every major reliability category by ITIC for the 14th straight year

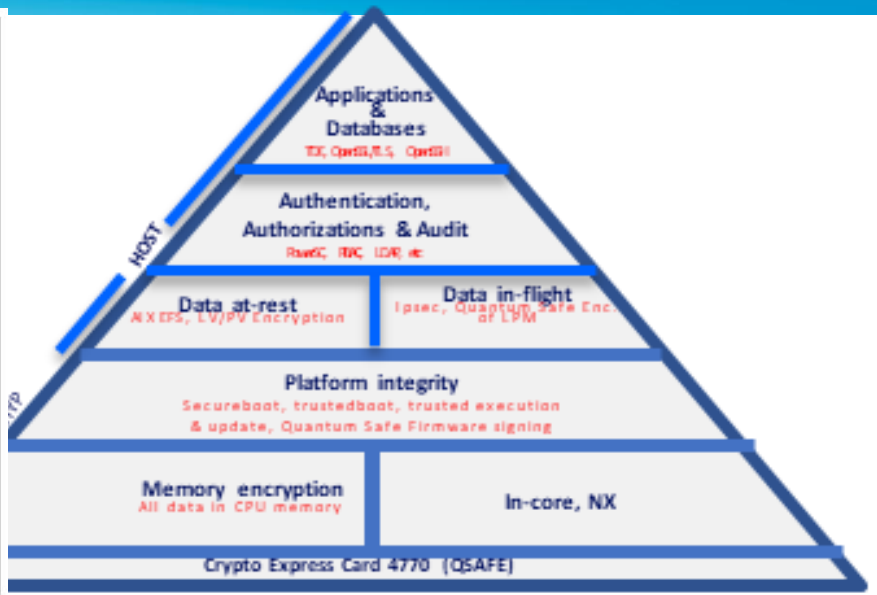


Source: ITIC 2023 Global Server Hardware, Server OS Reliability Survey

- Unplanned outages bring IBM clients' applications down and generate a lot of distress among the IT staff, impacting productivity significantly
- In addition to unplanned outages and security exposures, clients must consider planned outages
- There are many more planned outages needed on x86 servers to apply patches and replace the HW components that are about to fail or have failed already
- This means more risks, admin work, and availability challenges for clients

POWER11 Security





IBM FlashSystem
Immutable/Safeguarded Copies / Volume Encryption

Quantum Safe

- Built Built-In Quantum security at Hardware level.
- One click Quantum Safety Analysis

Future proof your IT against “Harvest Now, Decrypt Later” risk

Much of today’s cryptography relies on hard mathematical problems.

The most powerful classical computer today **would take millions of years to find the solution.**

However, Quantum Computers will break this problem within hours.

https://www.ictjournal.ch/articles/2024-10-24/des-chercheurs-ont-casse-un-chiffrement-a-laide-dun-ordinateur-quantique
50 bits ….

- Any system that uses current algorithms is at risk of exposing (customer) data
- According to various reports this will take place around 2030.
  - See NIST report and IBM Quantum Safe Cryptography for details

Ransomware Protection & Recovery with Cyber Vault

1 IDENTIFY

2 PROTECT

3 DETECT

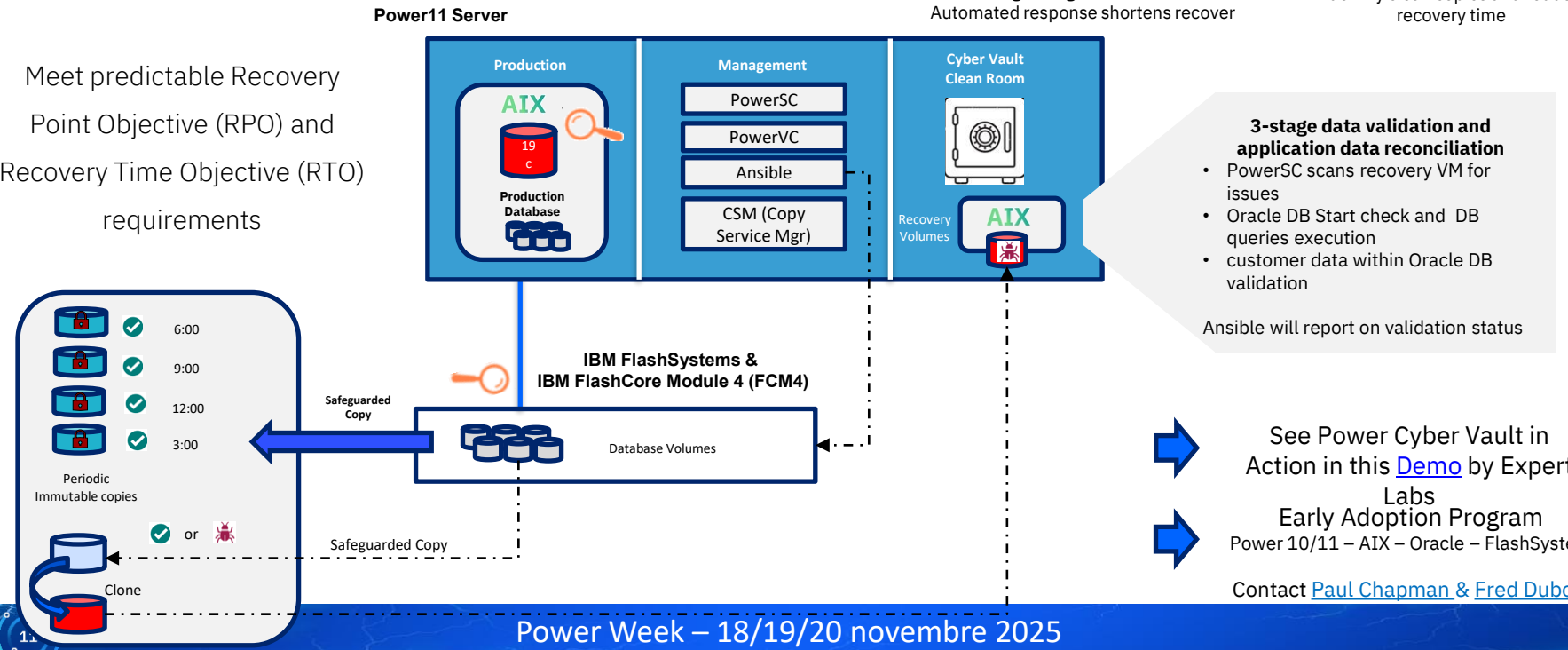
4 RESPONSE

Configure logical clean room
Automated response shortens recover

5 RECOVER

Identify clean copies and reduce recovery time

Meet predictable Recovery Point Objective (RPO) and Recovery Time Objective (RTO) requirements



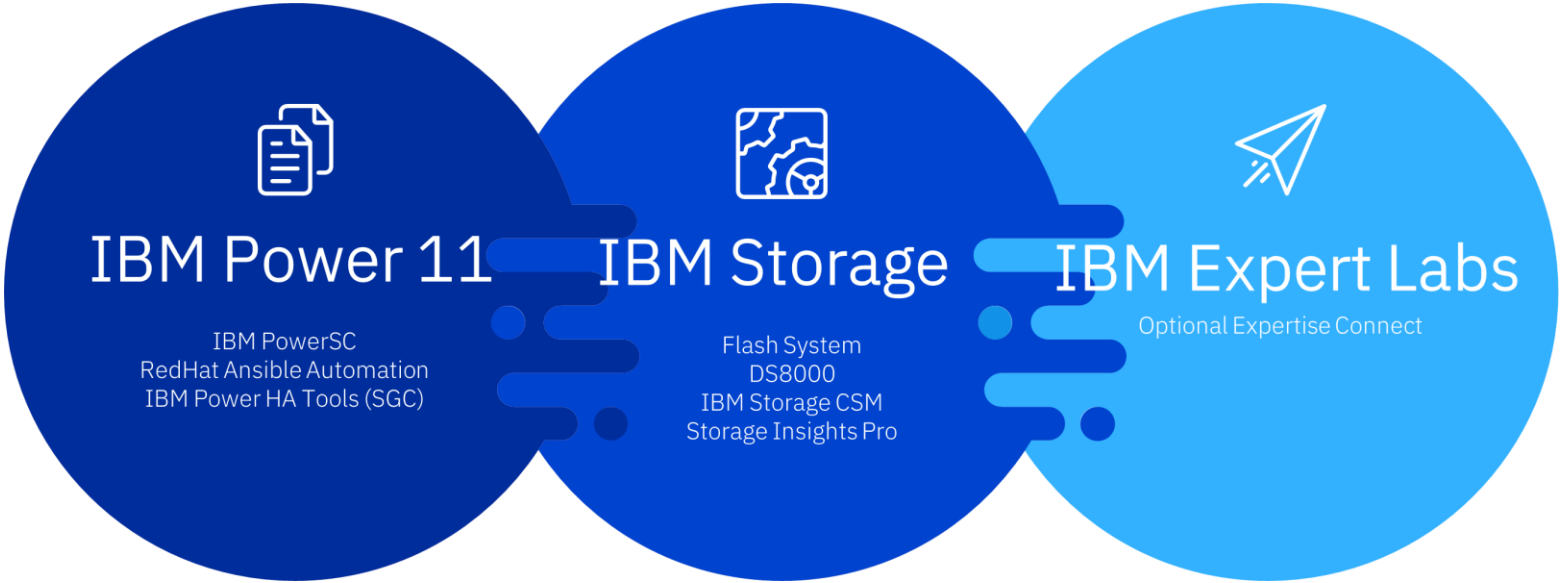
See Power Cyber Vault in Action in this Demo by Expert Labs

Early Adoption Program
Power 10/11 – AIX – Oracle – FlashSystem

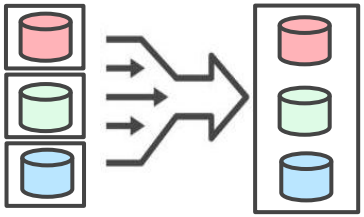
Contact Paul Chapman & Fred Dubois

IBM Power Cyber Vault

A fully integrated cyber resilience solution with in-line threat detection and automated response and quick recovery designed to maximize business continuity and minimize risk and complexity



Database consolidation increases business value



Save Complexity and Risk

Security and Management

Eliminate platform Silos

Agility for Different HA/DR SLAs

Optimize and Maximize Resource Usage

Minimize exposure & risks by protecting data with accelerated encryption

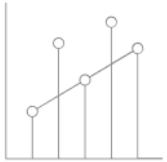
Lower Costs

Reduce #systems to administrate

Energy Efficiency / Data center space & Cooling / Network Equipment

Optimize SW Licensing

Automate Management Tasks



Innovate

Drive faster insights

Leverage AI-optimized hardware & software

Combine enterprise & open-source AI software on an open platform

Power11 drives better Oracle TCO

IBM Power optimizes Oracle Licenses Requirements

- reduce licensing and SWMA cost
- grow with no additional licenses purchase

License Core Factor

Power11 =1
All Other Multicore chips

Same since Power6

Core Performance

2x perf per core x86

%CPU Utilization

Enhanced
Sustained utilization Guarantee

Consolidation Virtualization Efficiency

Efficient, Robust & Secure

Hard-Partitioning

Increased Throughput
Up to 45% more capacity
With higher core counts

CPU Sharing vs CPU Mapping

Full Stack Innovation

Resource Group

Zero Planned Downtime

Single Thread Perf Improvement

Energy Efficient Mode

Unmatched Uptime and Security

Hybrid Cloud with PowerVS

IBM Power PROTECTS & MAXIMIZES Oracle License Investments
Capacity Based Licensing for both on-Prem & Off-Prem

Public Cloud implies VM based Licensing and/or Lock-In
X86 does not meet same consolidation capabilities

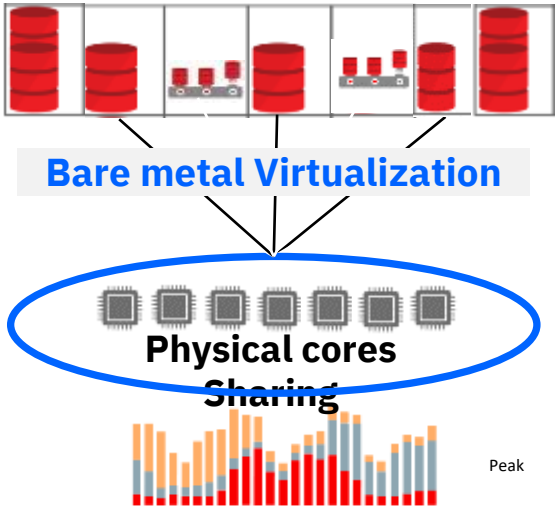
* From proven official industry standard benchmarks including database workloads

Oracle consolidation:

PowerVM Hardware virtualization vs. x86 Software virtualization

Sharing CPU

VM's idle CPU is **used**



Peak $\sum_{(VMs)}$ < $\sum_{Peak(VMs)}$

PowerVM Virtualization is integrated by design

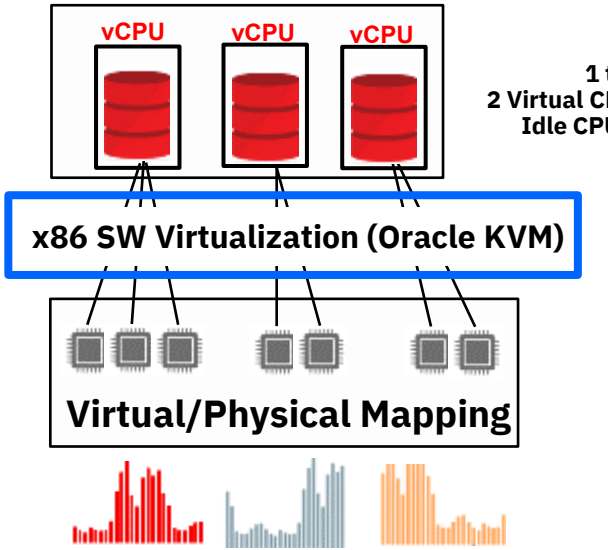
No CPU over-provisioning → better CPU utilization (EC,VP, capped/uncapped)

Higher sustained Utilization

Better Resource control and management

Mapping VCPU

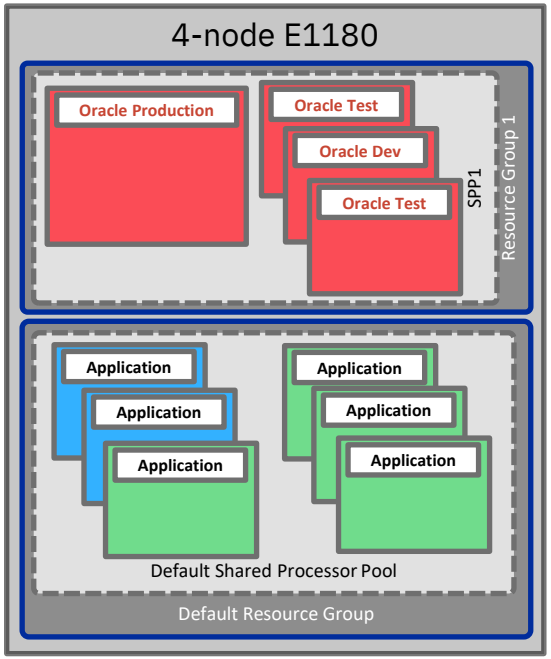
VM's idle CPU is **wasted**



1 to 1 Mapping
2 Virtual CPUs : 1 Physical Core,
Idle CPU in VMs is wasted

" CPU over-provisioning is possible, but workload performance conflicts can arise if all guests become fully active " https://www.oracle.com/a/tech/docs/exadata-kvm-overview.pdf#page=13

Power11 Resource Groups



Power11 Resource Groups
Simplified configuration illustration

Resource Groups (RG)

- Provides isolation for assigned cores
- Can contain dedicated and shared processor partitions
- Can be used in conjunction with Shared Processor Pools
- Can show significant performance and isolation improvements

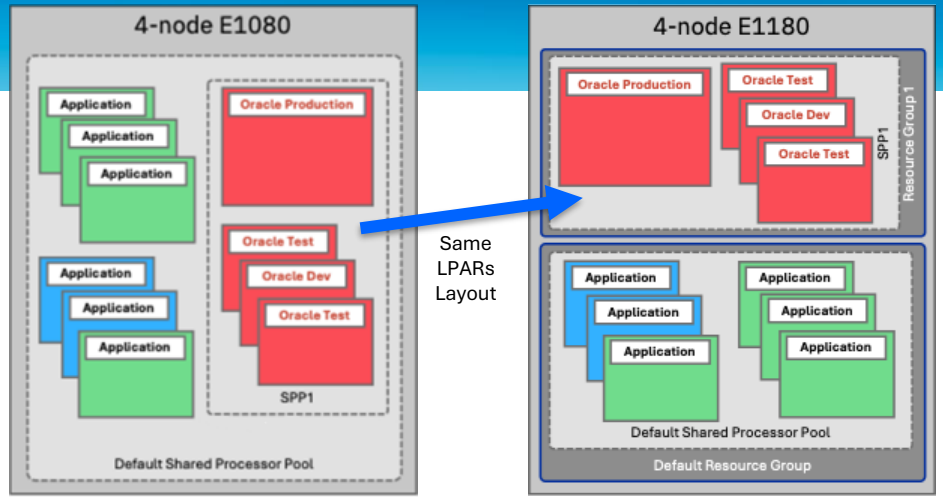
Performance Improvements

- Reduce/eliminate noisy neighbor impact
- Improve efficiency through per Resource Group shared processor dispatching
- Can prevent off-node dispatches of virtual processors

Use cases

- Consolidation across multiple lines of business
- Isolation of production workloads from test/dev workloads
- Improved application performance by grouping workload tiers into resource groups
- System-level isolation in multi-server consolidation scenarios
- Improved performance by mapping Shared Processor Pools into Resource Groups

Resource Groups Optimize Shared Processor Pools



Power10
Simplified configuration illustration

Power11 Resource Groups
Simplified configuration illustration

Improved Virtual Processor Dispatching & Workload isolation/Affinization

Up to 25% improved performance

Better Oracle TCO

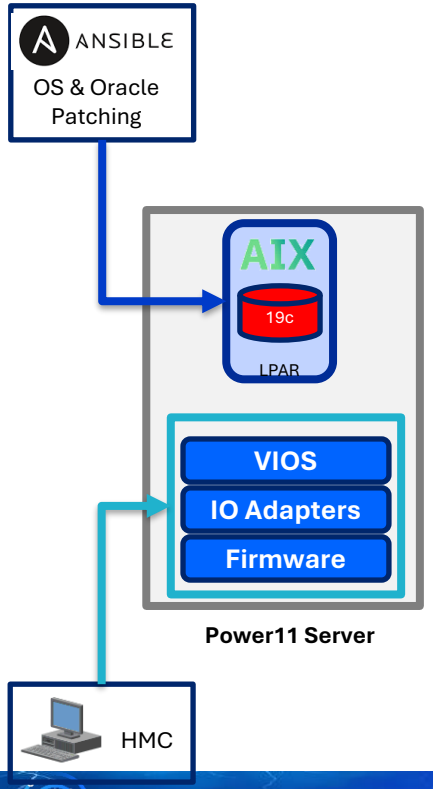
LPARs are Hard-Partitioning Technology (*)

The capacities of all LPARs in an SPP defines the cores contained in the hard partition
Placing the SPP in a Resource Group does not alter the capacity

Department A LPAR Department B LPAR Oracle DB LPAR *(*) Use of Live Partition Mobility (LPM) requires to license all cores from both source and target*

Power11 Automated Platform Update and Oracle

Automation and simplification for IT admins with zero interruption to business applications



Ability to update System FW , VIOS and IO adapter from a single update flow

Support both concurrent and disruptive updates

- Live Partition Mobility (LPM) is involved primarily <u>when update is disruptive</u>
  - Ability to automatically migrate partitions and return as part of the update process
    - Option to choose to return to the source or leave in the target system
    - Option to evacuate all lpars / choose a subset of lpars and order of lpars
- User can choose to NOT do LPM as well

⚠ Usage of LPM requires Oracle Licenses for both source and target systems, unless written agreement with Oracle. https://www.oracle.com/a/ocom/docs/it-infrastructure/partitioning-070609.pdf

No Impact when servers already fully licensed to Oracle

Ability to update SW Stack and automate management using Ansible

- AIX Live Kernel Update (LKU) can be used to update AIX Kernel without a reboot or disrupting business
  - Supported with Oracle Database Standalone
  - Applicable on LPARs with LPM disabled – No Oracle Licensing Impact

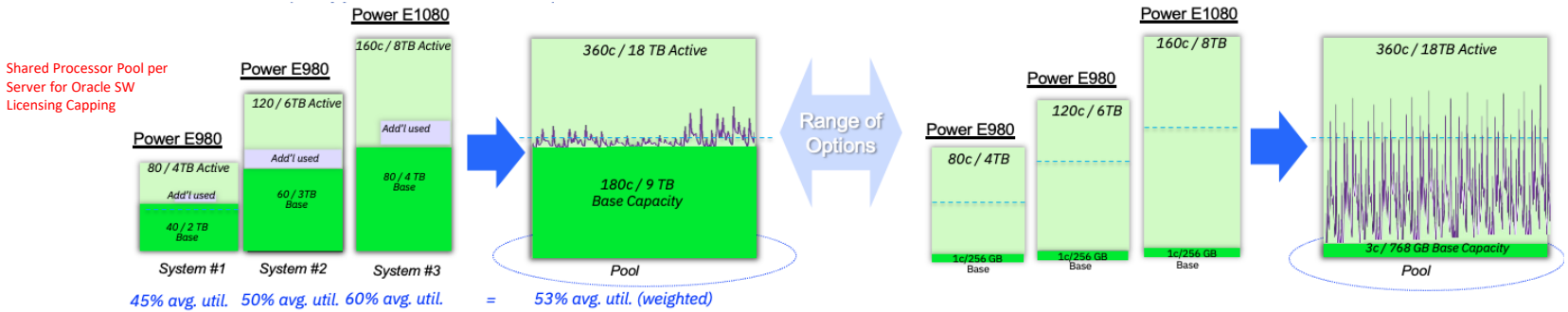
Deploy a private cloud infrastructure on-premises across a pool of Power11 systems : Flexibility and Costs Advantages

- Optimize resource utilization to reduce compute capacity costs by 20-30% with seamless, multi-system resource sharing

- Lower initial system price by over 50% and access fully-active standby resource as pay-per-use capacity, by the minute

- Leverage Real time & historical usage monitoring and analysis via the Cloud Management Console

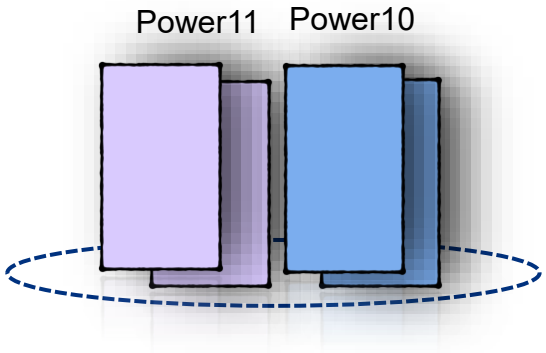
No impact on Oracle licensing as long as hard-partitioning rules applied



IBM Power
Per minute **REAL CPU Usage** Metering
Pre-paid capacity credits/ monthly billing
NO LPAR Reconfiguration
→ No Oracle Licensing Impact

Exadata Cloud at Customer
Pay for #ECPUs/OCPUs assigned to VMs
Oracle doesn't stop billing when a VM or VM Cluster is stopped.
Manual VM settings change / Dynamic Scaling Tool for cost optimization
→ **Lack of control for Oracle SW BYOL Compliance**

Power11 systems are *primed for Power Enterprise Pools*



Power11 offers a **simplified Processor and Memory Activation structure** to streamline configuration, deployment and use

- One Processor Activation price per model
- One Memory Activation price per model
- Reduced prices per-core & per-GB on Power11 vs. Base/Mobile Activations on Power10

A new Power Enterprise Pools Subscription is now used to enable Mobile Capacity or Shared Utility Capacity on a Power11 system

- 1-5 Year Power Enterprise Pools Subscription PIDs are priced per-socket by model, required when #EB35 (Mobile enablement) or #EP20 (Pools 2.0 enablement) added to a system or MES order
- No premium per-core or per-GB activation charges required to convert to Power Enterprise Pools

Up to 96 Power systems and up to 4,000 VMs may be supported in a single Power Enterprise Pool

Power11 systems may co-exist and share Mobile or Base Capacity resources with Power10 systems in the same Power Enterprise Pool

Power E1080 and E1050 systems may upgrade to Power11 processor technology via a Model Upgrade (same serial number), during which their Mobile or Base Capacity remain available as pool resources

Why IBM Power11 for Oracle Workloads

Openness

Open Ecosystem (AIX, Linux, IBMi) for Database, Applications and AI

80,000 joint clients / large and mission critical workloads

Oracle's commitment to support and release their SW on IBM Power

Performance

Proven IBM Power benchmarks

2x perf per core

Consolidation

Multiple OS / Workloads (not restricted to Oracle DB)

Sharing CPU vs CPU Mapping

Higher Sustained Utilization

Resource Group

Economics

Fewer cores needed

constant perf per core improvement

Pay only for what you use (hard-Partitioning)

One core license granularity

Independent compute and storage resource growth

No fees for storage licensing

Protect and Optimize Oracle Licensing Investments

Security / Resiliency High-Availability

99.9999% availability

Lower vulnerabilities (CVEs) Less Patching

Zero Planned Downtime

Power Cyber Vault

AIX Live Kernel updates / LPM

Workload isolation

Storage

Open, Flexible and easy integration

Extended SAN Features (snapshots, hyperswap, encryption, compression, safeguarded copies

High Useable Capacity

Use of standard SAN & backup procedures

Flexibility

Architecture HA/DR Options

Multi Storage Vendors support

Advanced Storage Features

Co-Host Database Alternatives and Applications

Homogeneous Hybrid Cloud

consistent Hybrid Cloud model between on-premises and the cloud

Power11 day one availability in PowerVS

Power Enterprise Pools 2.0 base capacity and metering for variable usage across a pool of servers

IBM Power for any Oracle Costs Reduction Options

It's all about :

1 + 2 + 3 + 4

TECHNOLOGY

Power drives Oracle cost savings
- Performance per core
- Higher sustained utilization
- Hard-partitioning Virtualization
- Consolidation

CONTRACTS

Control over Oracle Contracts
Specialized compagnies in Oracle Licensing :
- Audit defense
- Oracle ULA Renewal / exit
- Contract Negociation

PALISADE COMPLIANCE

SUPPORT

Cut Oracle Support Costs
None supported Oracle Version
IBM TLS Support for Oracle

IBM Technology Lifecycle Services

ALTERNATIVES

Migrate
Co-Host

MongoDB
PostgreSQL
EDB
Fujitsu Enterprise Postgres

IBM Power : OPEN to any database Workloads

Standardized & Optimized Database Infrastructure

Mission critical Applications

VM AIX | VM IBM i | VM Linux

Modern Applications & AI

Cloud Native Apps

OPENSHIFT by Red Hat

- ANY KIND OF DATA
- OPEN & MODULAR
- HYBRID

Platform Leadership

- Availability / Resiliency 99.9999% uptime
- End to End security
- Sustainability
- Performance & Efficient Scaling

Power On-Premises | **PowerVS Private** | **PowerVS**

Open-Source : Welcome to the Enterprise !

Companies are rapidly adopting open-source for :

Innovation/Modernization - Flexibility/Agility - no vendor lock-In - cost efficiency

Postgres is the Database of Choice

#1 Fastest growing database platform #1 Most loved database by developers #1 Largest developer community

Postgres is the #1 open-source relational database and 4th overall

MongoDB is the #1 open-source document model NoSQL database

Cassandra is #1 for open-source wide column NoSQL database

Customers Value Postgres Database for

- **Cost savings**
- **Operational Tooling & Ecosystem**
- **Open Community of Innovators**

424 systems in ranking, June 2025

Rank Jun 2025	Rank May 2025	Rank Jun 2024	DBMS	Database Model	Score Jun 2025	Score May 2025	Score Jun 2024
1.	1.	1.	Oracle	Relational, Multi-model	1230.38	+3.82	-13.70
2.	2.	2.	MySQL	Relational, Multi-model	953.57	-11.41	-107.77
3.	3.	3.	Microsoft SQL Server	Relational, Multi-model	776.75	+1.86	-44.81
4.	4.	4.	PostgreSQL	Relational, Multi-model	680.65	+6.34	+44.41
5.	5.	5.	MongoDB	Document, Multi-model	402.85	+0.33	-18.23
6.	6.	↑ 8.	Snowflake	Relational	174.49	+2.48	+44.13
7.	7.	↓ 6.	Redis	Key-value, Multi-model	151.72	-0.47	-4.22
8.	8.	↑ 9.	IBM Db2	Relational, Multi-model	125.13	-1.27	-0.77
9.	9.	↓ 7.	Elasticsearch	Multi-model	121.28	-2.53	-11.55
10.	10.	10.	SQLite	Relational	117.03	-0.74	+5.63
11.	11.	↑ 12.	Apache Cassandra	Wide column, Multi-model	108.27	+0.22	+9.44
12.	12.	↑ 15.	Databricks	Multi-model	104.67	+2.02	+23.59
13.	↑ 14.	13.	MariaDB	Relational, Multi-model	94.54	+0.93	+3.50
14.	↓ 13.	↓ 11.	Microsoft Access	Relational	88.28	-7.63	-12.88
15.	15.	↑ 17.	Amazon DynamoDB	Multi-model	83.34	+4.04	+8.90
16.	16.	↑ 18.	Apache Hive	Relational	76.68	+0.91	+16.92
17.	17.	↓ 16.	Microsoft Azure SQL Database	Relational, Multi-model	75.31	-0.14	-1.47
18.	18.	↓ 14.	Splunk	Search engine	69.61	-1.78	-19.49
19.	19.	19.	Google BigQuery	Relational	64.54	+1.66	+6.44
20.	20.	↑ 21.	Neo4j	Graph	51.33	+3.42	+6.44

https://db-engines.com/en/ranking as of June 2025

EDB on IBM Power – Compatibility and Support

SAME EDB on Linux on Power Experience as EBD on Linux x86
Same Versions, Same Features

	EDB Postgres Advanced Server EDB Postgres Extended Server 17.X - 13.X	PostGreSQL 17.X - 13.X	EDB CloudNativePG Cluster 1.25.X – 1.22.X	CloudNativePG 1.25.X – 1.23.X	EDB CloudNativePG Global Cluster 1.X
Linux x86-64	X	X	X	X	X
Linux on Power	X	X	X	No	No

	Postgres Enterprise Manager 10.X – 9.X	Backup and Recovery (Barman) 3.X	EDB Postgres Distributed 5.X – 4.X	Failover Manager 5.0 – 4.10	Patroni (Tool for Replication & Failover) 4.X – 3.X
Linux x86-64	X	X	X	X	X
Linux on Power	X	X	X	X	X

	Migration Toolkit 55.X	Replication Server 7.X	LiveCompare 3.X – 2.X	Trusted Postgres Architect
Linux x86-64	X	X	X	X
Linux on Power	X	X	X	X

Red Hat 9/8 and SLES 15 SP16/SP15 versions are mostly used for EDB on Linux on Power -> Check EDB & OS Compatibility Matrix
https://www.enterprisedb.com/resources/platform-compatibility

X86 may support additional Linux distribution than RHEL & SLES

EDB Postgres on IBM Power – Performance

Details about EDB Postgres on IBM Power vs x86 - link

Performance tests of EDB Postgres in a containerized environment (RedHat OpenShift) on IBM Power and x86

- Comparison of EDB Postgres on Power10 VM or x86 VM, with application in containerized mode in another RedHat OpenShift cluster VM.
- Solution adapted to Hybrid Cloud or bare metal mode

Same pgbench workload across x86 and Power

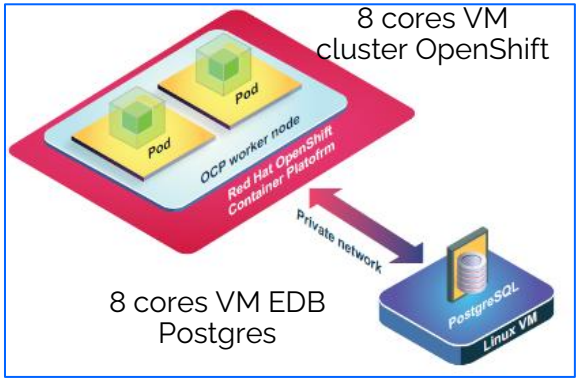
Same software stack on Power10 and x86

- RedHat Enterprise Linux 8.6. EDB Postgres 4.18.0, FileSystem Ext4, OCP 4.11.25, Pgbench 14.4.0 (16GB DB, TPC-B: mix of read, write, and update)

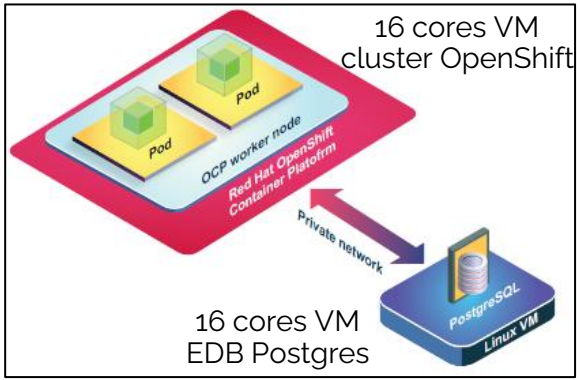
System	Core Database	Connections Database	TPS	Perf	% CPU
x86	16	112	**47 678**		92
Power10	8	112	**60 642**	**+ 27%**	70
x86	16	224	**45 570**		94
Power10	8	224	**61 964**	**+36%**	79

2,5 - 2,7 x transactions per core with 15 à 25% less CPU consumption

IDC QPI ratio : 2x per core Advantage with S1022-32c versus Intel Xeon Platinum 8380



Power10 S1022, 16 cores, 2 VMs



Intel Xeon Platinum 8380, 32 cores, 2 VMs

Power11 Performance – Temenos Transact Core Banking Solution

Improved Operational Efficiency

for Temenos Transact with Red Hat OpenShift

4X performance/core running Temenos Transact on E1180 versus compared x86

Red Hat OpenShift

Based on IBM internal testing for Temenos Transact core banking workload (transactions per second) accessing Linux EDB databases each running Based on IBM internal testing for Temenos Transact core banking workload (transactions per second) accessing Linux EDB databases each running 2,560,256 transactions using JMeter V5.6.3, the error ratio was kept under 1%, Results valid as of June 25, 2025 and conducted under laboratory conditions, individual results can vary based on workload size, use of storage subsystems and other conditions. Comparison is based on an IBM Power E1180 (16x16 core) with 32 worker cores versus Intel Xeon x86 (4x60 core) with 128 worker cores. Tests were run with Red Hat Enterprise Linux 9.6 on the OpenShift Container Platform Helper, Red Hat OpenShift 4.18.13 and EDB 17.5.0 on both servers.

IBM Power Advantages for EDB Postgres

Increase Performance
- **4x** more threads per core & large single server footprint meets scale up requirements for Postgres
- ~2x performance per core vs x86

Increase Flexibility
- Consolidate multiple databases or applications while maintaining isolation with IBM PowerVM
- dynamically allocate and share hardware resources to meet application demands and optimize overall HW resources utilization

Increase Availability
- PostgreSQL is an RDBMS that scales up and exploits Power scalability advantages vs. x86
- Highly available, resilient Power technology manages on-premises and off-premises (PowerVS) data, minimizes disruption

Increase Security
- Fewer CVEs (vulnerabilities) than x86, In-core Encryption accelerator

Unique Features
- Live Partition Mobility, Advanced Memory Expansion, PEP 2.0, Shared Processor Pool
- Hardware based virtualization without additional costs

Reduce TCO
- 50% less cores vs x86 – same EDB Licensing Model as x86

IBM **Power Systems**

Why IBM & EDB ?

Better Together

EDB + IBM

EDB : leading provider of Postgres based capabilities

- A great open-source based alternative to Oracle
- A complete database management solution with technology designed to improve that open-source do not provide

Single Unified experience

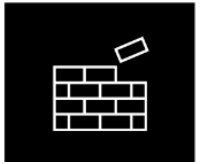
- one-stop shopping & support
- A single source for purchasing, deployment, and support of EDB Postgres Enterprise
- End-to-end guidance for both infrastructure and database issues

Consolidated and global support

- Engaging IBM support for all issues provides triage to the right team (systems, software, OEM, training, Engineering)

Skills & Expertise

- Leverage IBM's expertise and global footprint
- IBM ExpertLabs Offerings and Packages



IBM Power Infrastructure

- Rock solid infrastructure for mission-critical workloads
- Performance, security, RAS, Availability, unique features
- Consolidation & Open to any workloads

TietoEvery : Providing one unified, modern, and standardized platform

- 4.2x more performant than Intel
- significant EDB license and capacity cost savings vs Oracle
- 50% decrease in EDB licenses compared to a virtual x86 solution.
- a 92.5% decrease in licenses compared to a physical x86 server
- Shared Processor Pool to manage CPU resources
- Higher Flexibility

Tietoevery Connect (ibm.com)

Unlock the value of enterprise data with watsonx.data on IBM Power11

During Power11 launch on 8th Jul 2025 IBM announced availability of watsonx.data *on Power by the end of 2025.*

Data sources

- Oracle
- DB2 (Unix and iBM i)
- Other DBs (MongoDB, EDB)
- SAP

watsonx.data

Easily manage growing data volume and variety while optimizing costs of storing data

- Offload cold data to watsonx.data to optimize storage costs while maintaining access for compliance or data retention requirements

Simplify data connectivity and optimize query performance

- Easily connect and ingest data from multiple sources
- Deliver data to multiple data consumers from a single, centralized location

Build generative AI applications with your data

- Manage the entire unstructured (& structured) data for AI lifecycle through a single user experience

Data consumers

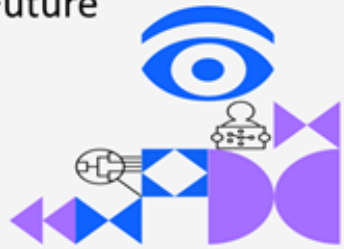
- Reporting
- Business Intelligence
- Data Analysis
- Traditional & GenerativeAI

IBM **Power11**

✓ Seamless AI Scalability ✓ Unmatched Reliability
✓ Enterprise-grade Performance ✓ platform's built-in resilience and security

IBM TechXchange : Power11 - Shaping the Future of Hybrid Cloud and AI

IBM Montpellier, France
Wednesday 3rd December
Thursday 4th December



JOIN US, for 2 days of INNOVATION, December 3rd and 4th, **in Montpellier** (South of France), to discover how **New IBM Power11** can help you swiftly adopt future of Hybrid Cloud and AI.

Our technical experts will present the New Power11 features and provide best practices to take benefits from IBM solutions based on Power systems and AI Accelerator Cards (Spyre).

Over demonstrations and **HANDS-ON**, you will learn how to build a Hybrid Cloud Environment based on Power Virtual Server (PVS)

You will create a GenAI test case based on typical AI use cases (Q&A, Summarization, Entity Extraction).

Meet our experts to share your business cases, IT projects, security constraints to shape the Future with IBM Power11.

Audience: CIO, CTO, Chief Data Officer, Data Scientist, AI & Data engineer, Architect, DBAs, SMEs and Partners.

IBM Client Engineering

Date:
Wednesday 3rd December 12pm – 6pm
Thursday 4th December 9am – 2pm

Location:
IBM Montpellier
P.I.T La Pompignane,
rue de la Vieille Poste
34006 Montpellier, France

Language: English

Audience:
Clients & Business Partners

Event is free of charge
Travel and lodging to be covered by participants.
Limited Seating

Registration Link and QR Code:
https://www.ibm.com/events/reg/flow/ibm/HK514CMB/landing/page/landing

Agenda:

Day1 : Presentations and Demos

- Introduction and Power11 Overview
- AI on Power: Presentation , Best Practices and demonstration (including Spyre cards)
- Empowering Power11 with Open Databases and watsonx.data.
- IBM P11 security, Quantum Safe, Power with Cyber Vault bundle

Day2 : Hands-On workshop

- Configuring a Power Virtual Server Environment
- Build an AI environment on Power
- Heterogeneous Databases Integration to watsonx.data

For further information, please contact Jerome_Calves@fr.ibm.com


MERCI