



# AI Meets Power 11

## The New Era of Modernization

**HASNAL FAHMY**

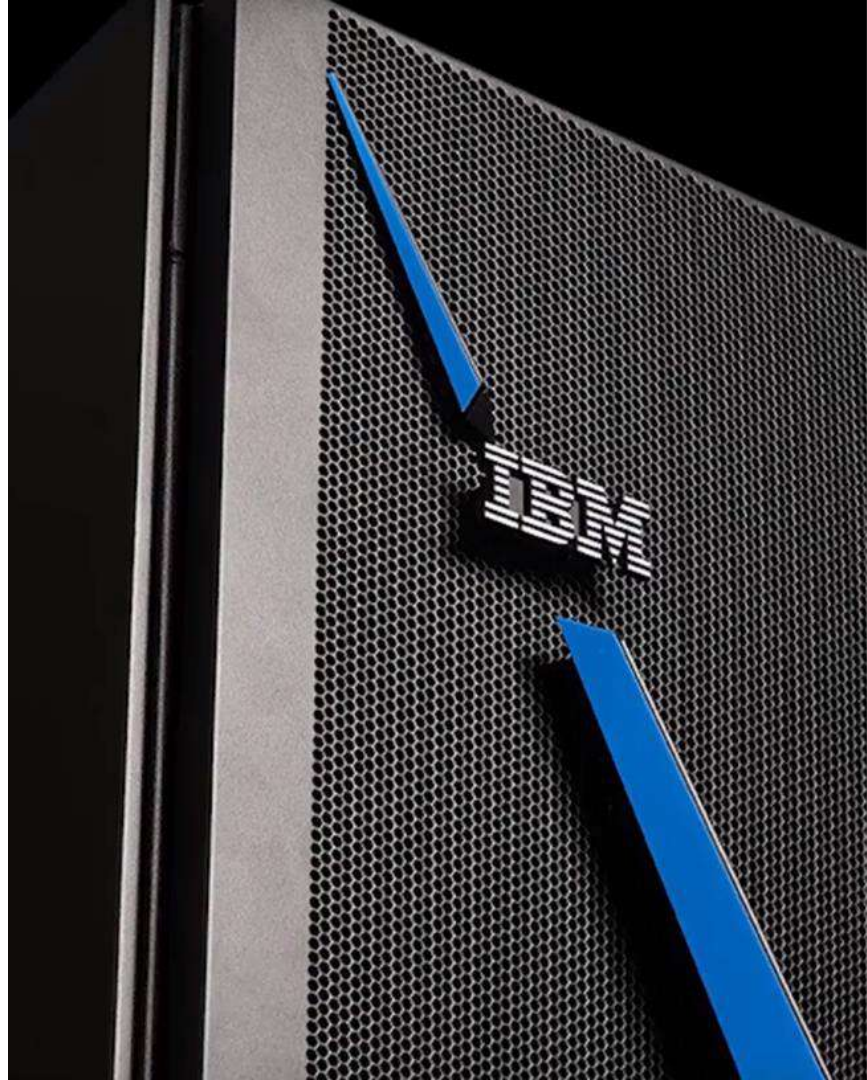
IT Specialist

IBM Power at IBM Malaysia



# AI meets IBM Power11

The new era of  
modernization



# IBM Power11: Full stack innovation and optimization

## AI Acceleration



MMA  
IBM Spyre Accelerator  
Optimized for Inference

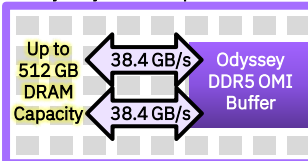
## Platform Capabilities



Uptime, Energy Management,  
Quantum-safe security

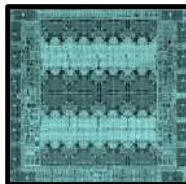
## Memory Architecture Energy / Thermal Infrastructure

Odyssey DDR5 2-port D-DIMM



Agnostic, 3x Pipes, 2x Capacity  
Advanced Cooling Technology

## Processor Architecture Socket-level Packaging Semiconductor Technology



Improved Thread, Core, Capacity  
  
2.5D Stacking: Energy  
Optimization  
Samsung Foundries Enhanced  
7nm

# IBM Power11

Engineered to accelerate enterprises into the AI era

Hybrid Cloud Platform

Operating Systems & Firmware

Computing Hardware

Silicon Technology



planned downtime with end-to-end automation<sup>1</sup>

<1min

guaranteed ransomware detection with automated response and recovery within minutes<sup>2</sup>

5X

increase in business process rate with AI integration into existing enterprise workflows<sup>3</sup>

... Built on a foundation of performance, availability, and security

1. Based upon IBM internal testing of system upgrade scenarios, many (i.e. VIOS, hot plug adapters, I/O adapter FW, and concurrent system firmware updates) can be done in place while some (i.e. non-concurrent system FW and HW maintenance) may require Live Partition Mobility (LPM) support.  
2. This guarantee covers only the dispatching of an alert in less than one minute. Remediation is in the form of drive replacement up to the cost of the Covered Product. Terms and conditions apply, full details can be found here: (Coming to IBM in Q4 2025, Roadmap for PowerVS)  
3. Data provided by: Steve Thompson, head of IT department, Gelo Group. \*\*Measured in staging system.

# Automated Platform Maintenance - Eliminate Business Disruptions with Zero Planned Downtime





Protect your  
business with  
IBM Power  
Cyber Vault

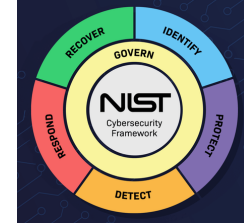
# Ensure business continuity with cyber resilience that stops ransomware fast, protects critical data, and gets you back up and running quickly

- Proactive protection with immutable copies
- Guaranteed Detection of ransomware within <1 min
- Automated Response
- Rapid Recovery to meet predictable Recovery Point Objective (RPO) and Recovery Time Objective (RTO) requirements



# IBM Power Cyber Vault solves for that

CyberVault provides the full scope of resiliency aligned to the recognized NIST Cyber Resiliency Guidance Framework



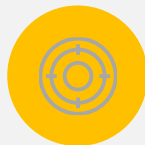
## Identify risks

Know your assets and risks – gathering intelligence is the first step with a personalized workshop



## Protection

Schedule and store immutable copies to protect workloads against cyber corruption and encryption



## Detection

Use integrated, AI-enhanced, multi-layer malware and ransomware detection technologies to spot attacks faster and more accurately and to limit damage



## Response

Every Minute Counts: Use cyber vault clean room automated technology for testing and recovery to meet return to operations requirements

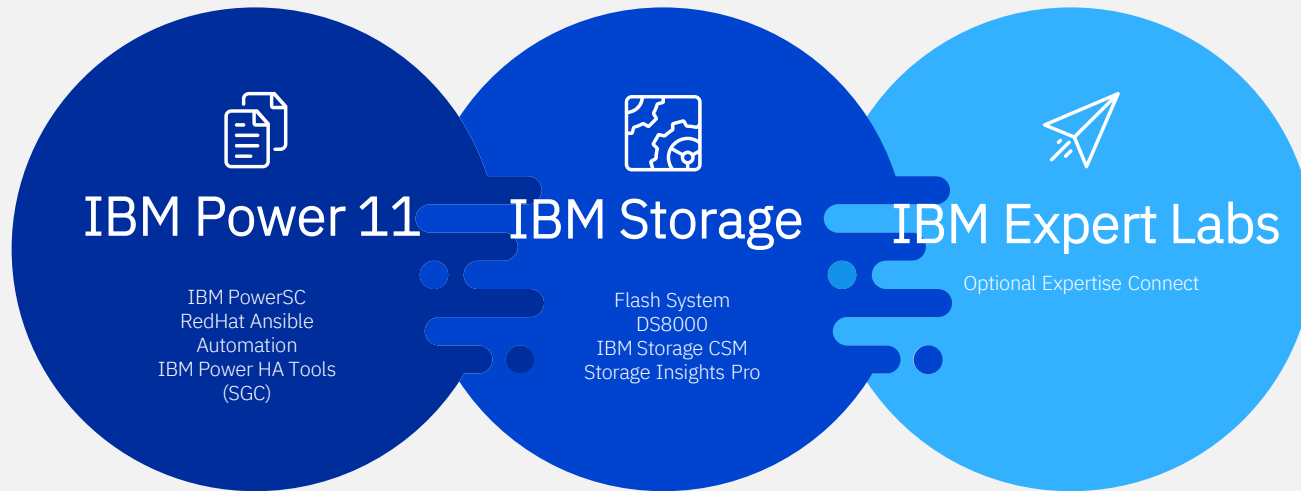


## Recovery



# IBM Power Cyber Vault solves for that

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



New on Power11

# IBM Spyre™ for Power

Transform enterprise processes.  
Boost productivity.



IBM Power11 unlocks purpose-built Gen AI use cases – secure & easy-to-integrate.



Order  
processing  
(quote requests, ...)



Document  
tagging  
(PII, meta data, ...)



Knowledge  
assistants  
(documents, ...)



Product  
assistants

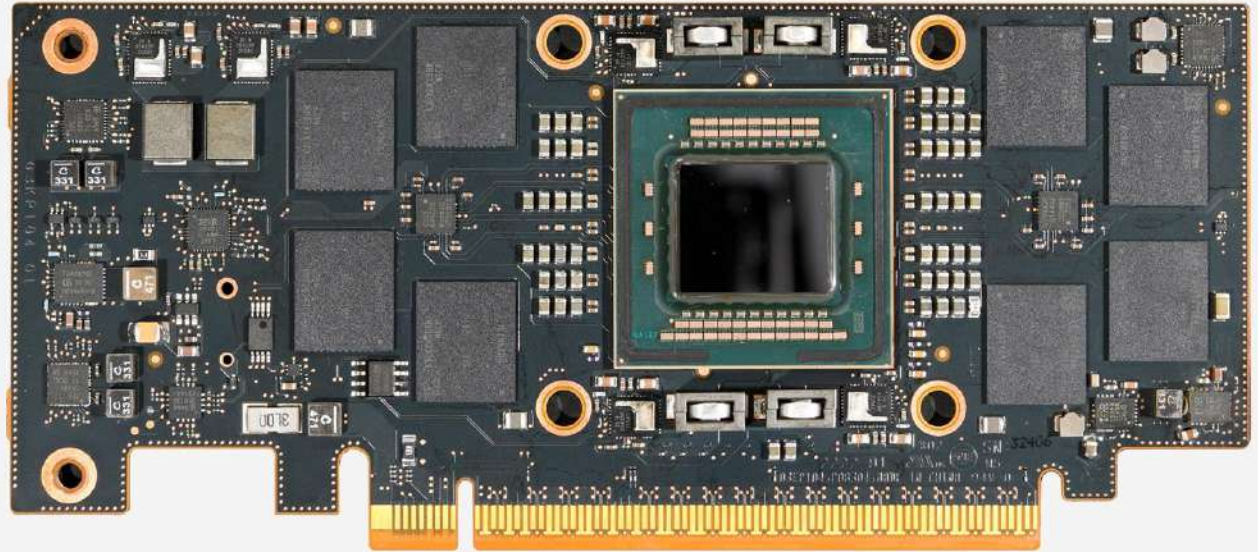


Service desk  
assistants

...and more.

# IBM Spyre™ Accelerator PCIe attached card

- 300+ TOPS
- 75W PCIe gen5 x16 adapter
- 128GB of LPDDR5 memory



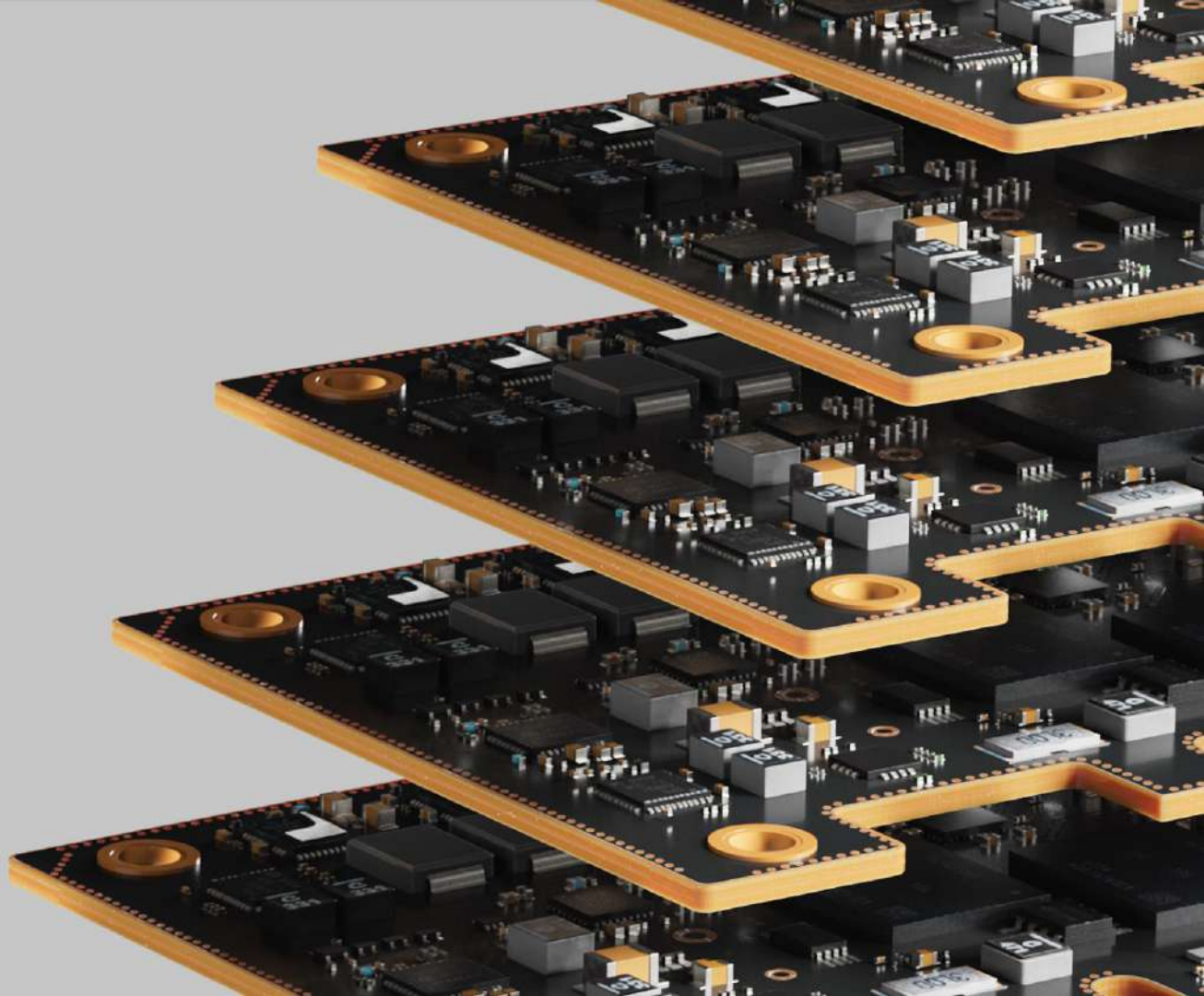
All projections are based on preview hardware.

Designed to handle  
generative AI use cases

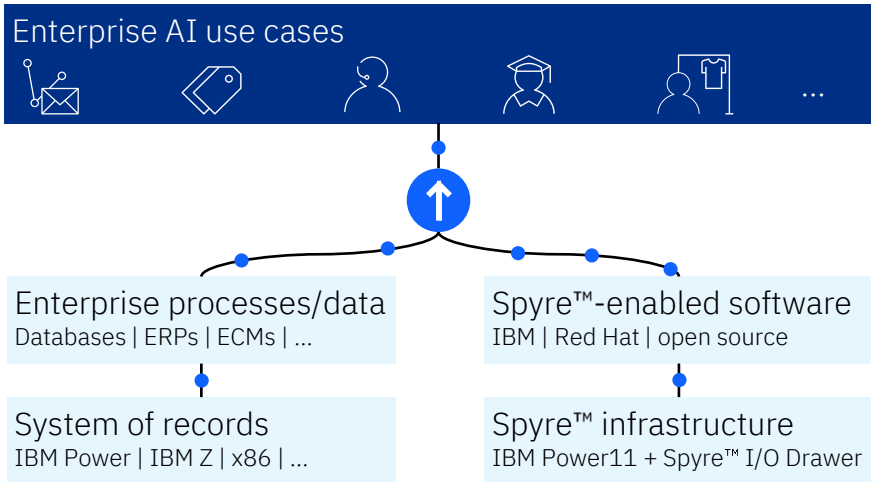
8 cards in I/O drawer  
form a logical cluster

1TB of memory

1.6TB per second  
aggregate memory  
bandwidth



# Seamless integration of Gen AI capabilities, delivered as optimized full-stack solution.



## Business values

Drive [business growth](#) & [enhanced productivity](#) through deep integration of Gen AI capabilities into mission-critical enterprise processes.

Data privacy

## Data & AI sovereignty

Ensure [data privacy](#) by keeping data where it resides. Protect [personally identifiable information](#) and meet [regulations](#) through integrated capabilities for privacy compliance.

Skills

## Off-the-shelf capabilities

Leverage Gen AI capabilities such as [entity extraction](#) & [RAG-based digital assistants](#), hardened & optimized for the enterprise. Unlock [custom Gen AI capabilities](#) with a catalog for optimized, production-ready models.

Complexity

## Simplicity by design

[Integrate & manage AI easily](#) with integration toolkits for IBM i and AIX, standardized APIs, optimized AI runtimes, and automated deployments & updates. Scale with significant [accuracy](#) & [performance](#) gains versus on-chip acceleration.



Real-life example:  
Extract ordering  
details in the order  
process automatically

Hans Geis, a logistics provider  
running their core ERP system  
on IBM i, integrates AI to...

→ improve the customer  
acquisition process by  
speeding-up order  
processing by 5x.

→ enhance employee  
productivity by lowering  
processing time 80%.

Proof-points measured in staging system of Hans Geis.





# Power11 Portfolio and Innovation

## An Edge to Cloud platform with core innovation by design

New Energy Efficient operating mode that optimizes power consumption without compromising SLAs

New 2.5D Integrated Stacked Capacitor and innovative thermal technologies to optimize power consumption

Improved performance through workload isolation with Resource Groups

Next-generation memory with 3X DDR bandwidth delivers performance to larger, memory-intensive applications

New off-chip AI acceleration based on IBM Spyre planned for 4Q25

Edge

Core

Cloud



P111-socket  
coming



S1122 & L1122



S1124 & L1124



E1150



E1180



PowerVS

Power11 availability on Day-1<sup>1</sup>

<sup>1</sup> Day 1 availability is planned for the United States and Spain only.

# Power11 Performance Utilization Guarantee

## – Scale-Out Systems

### System Performance Utilization

IBM has designed these Power11 systems to operate at industry-leading levels of efficiency, **guaranteeing the system will perform as warranted while at a sustained 70% utilization** – a rate higher than common competitive platform utilization levels

### System Performance Utilization Guarantee

When a Client acquires a Power11 Scale Out Server S11xx and the Client runs eligible workloads, IBM guarantees the system will perform as warranted with a System Utilization Rate of up to 70%. Should the Client not be able to achieve 70% system utilization rate, assuming there is sufficient work to drive the machine to 70% utilization, IBM will assist with the attainment of 70% system utilization rate, at no additional cost.

The IBM Power11 server (the “Power11 Server”) must be purchased from IBM or an authorized IBM Business Partner prior to December 31, 2026, provided that the combined transaction price (not including taxes and fees) of the Power11 Server purchased with other IBM hardware, IBM software, IBM maintenance, and IBM services must be US \$150,000 or greater. Eligible workloads are AIX, Linux, or IBM i workloads, or any combination of the three, on PowerVM. This guarantee is subject to Client’s implementation of the Power11 Performance Utilization Guarantee Requirements specified in signed “Guarantee document”. To participate in this Program, Client merely needs to notify IBM or Client’s sales representative within one year from the date of purchase of the Eligible Machine. Client must sign the performance utilization guarantee terms and conditions and implements each of the requirements set forth in the “Power Performance Utilization Guarantee Requirements”. See [www.ibm.com/terms/internal/?id=Z126-6301&cc=us](http://www.ibm.com/terms/internal/?id=Z126-6301&cc=us) for full details.

# Power11 Performance Utilization Guarantee

## – Enterprise Systems

### System Performance Utilization

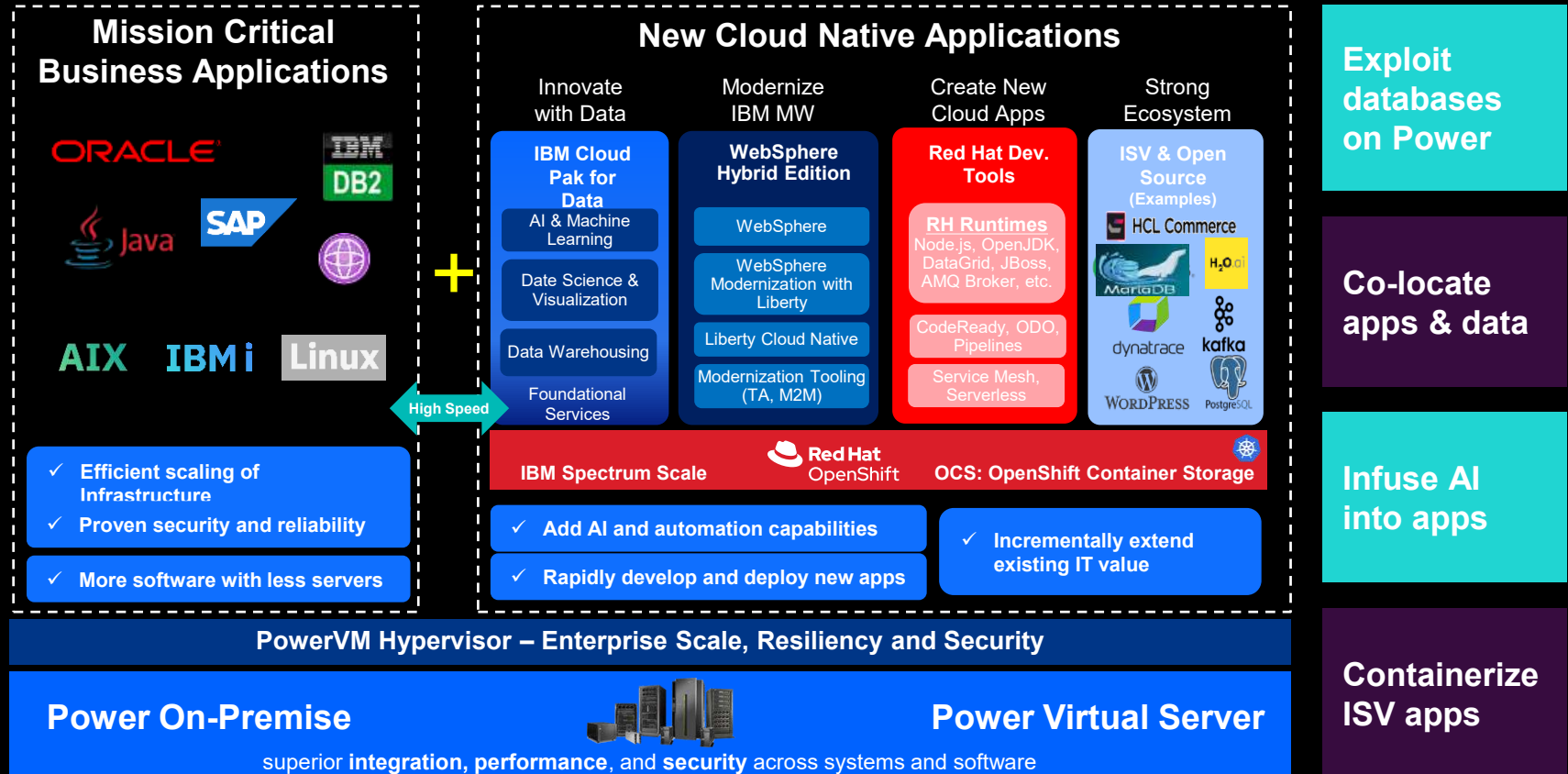
IBM has designed these Power11 systems to operate at industry-leading levels of efficiency, **guaranteeing the system will perform as warranted while at a sustained 80% utilization for E1180 and at a sustained 75% utilization for E1150** – rates higher than common competitive platform utilization levels

### System Performance Utilization Guarantee

When a Client acquires a Power E1180 or E1150 Enterprise Server and the Client runs eligible workloads, IBM guarantees the system will perform as warranted with a System Utilization Rate of up to 80% (E1180) and 75% (E1150). Should the Client not be able to achieve this system utilization rate, assuming there is sufficient work to drive the machine to said utilization, IBM will assist with the attainment of this system utilization rate, at no additional cost.

The IBM Power11 server (the “Power11 Server”) must be purchased from IBM or an authorized IBM Business Partner prior to December 31, 2026, provided that the combined transaction price (not including taxes and fees) of the Power11 Server purchased with other IBM hardware, IBM software, IBM maintenance, and IBM services must be US \$150,000 or greater. Eligible workloads are AIX, Linux, or IBM i workloads, or any combination of the three, on PowerVM. This guarantee is subject to Client’s implementation of the Power11 Performance Utilization Guarantee Requirements specified in signed “Guarantee document”. To participate in this Program, Client merely needs to notify IBM or Client’s sales representative within one year from the date of purchase of the Eligible Machine. Client must sign the performance utilization guarantee terms and conditions and implements each of the requirements set forth in the “Power Performance Utilization Guarantee Requirements”. See [www.ibm.com/terms/internal/?id=Z126-6301&cc=us](http://www.ibm.com/terms/internal/?id=Z126-6301&cc=us) for full details.

# One Platform for Digital Transformation



# ISV Document Management – Performance comparison

Sl. No.	Test	Description	Performance on Power	Performance On Intel	% Change	Remarks
1	User Creation	Create 10K Users	510 secs (20 secs per user)	800 secs (13 users per sec)	160% better	
2	Create Structure	Create Sites, Users and Folders (100 sites and add users)	140 secs	155 secs	111% better	Created 100 sites and added users
3	Interaction Test	List number of folders, create files and search	195 secs	200 secs	103% better	Get the list of all the folders created previously, Create random number of files in those folders. Search those files to check the search performance
4	Batch process	Upload 5 million files of different types	104 mins	152 mins	~147% better	2M PDF, 1M Word, 1M Excel, 1M text

Average Perf improvement with Power

Number of Physical cores on Power (20 vCPUs)

Number of Physical cores on Intel (20 vCPUs)

Average Perf Improvement per core with Power

130%

5

20

520%

# Thank You





# IBM Power Cyber Vault: Protect and Detect Flow

Protect

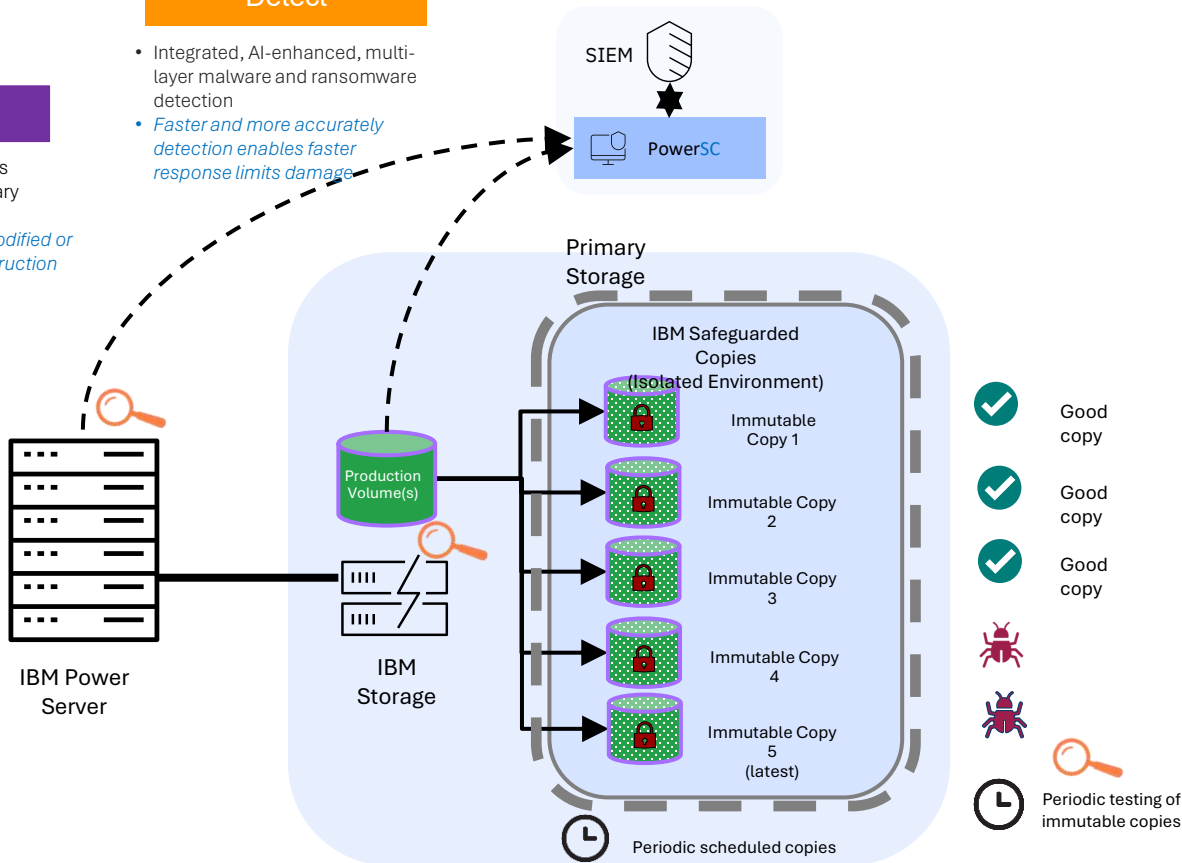
Detect

## Protect

- Periodic, immutable copies (snapshots) saved in primary storage
- *Protect data from being modified or deleted due to errors, destruction or ransomware*

## Detect

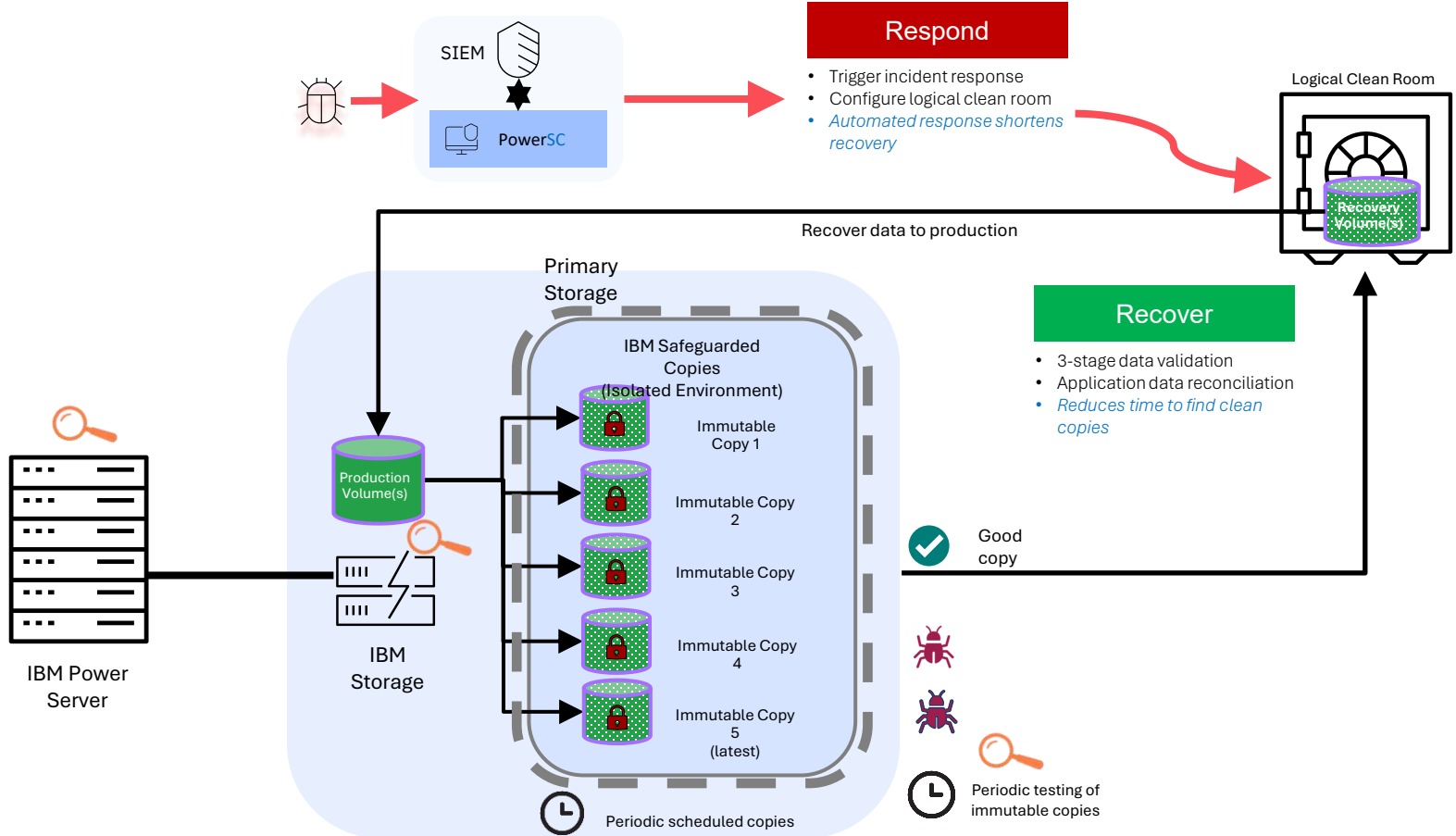
- Integrated, AI-enhanced, multi-layer malware and ransomware detection
- *Faster and more accurately detection enables faster response limits damage*



# IBM Power Cyber Vault: Respond and Recover flow

Respond

Recover



## PUBLIC SECTOR TECH DAY

GenAI and Cybersecurity Trends for Operational Efficiency



# THANK YOU FOR ATTENDING!

## SCAN TO REQUEST FOR INFORMATION



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