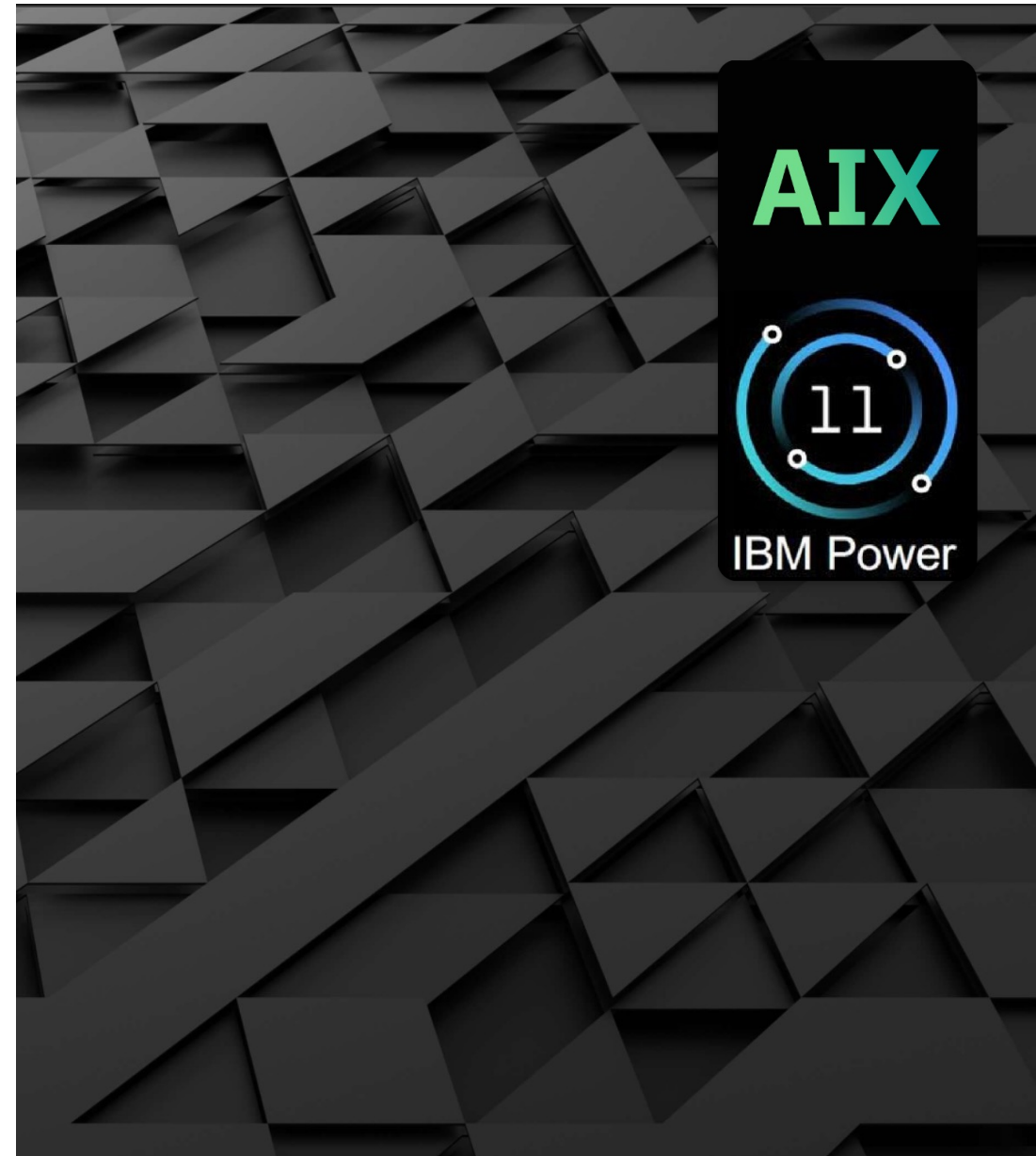


# IBM AIX

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# AIX Solution – 40 Years of Enterprise Value

*AIX and Power –  
mature and Battle tested  
platform*

**AIX**

## AIX-Power Deep Integration

- I/O Extended Error Handling
- HW memory protection keys
- Dynamic processor sparing
- Processor instruction retry
- 824 NX accelerator for AME
- NX encryption accelerator
- Dynamic LPAR
- Power10 MMA
- In-core crypto
- Live Partition Mobility (LPM)
- Transactional memory
- P9 NX gzip accelerator
- Processor Compatibility Mode Support
- FW assisted dump
- 4K, 64K, 1 GB, and 16 GB page support
- Processor folding & intelligent threads
- Deep system topology awareness for cpu and memory affinity management

## Key Markets and Industries:

- Banking and Finance
- Healthcare
- Insurance
- Manufacturing & distribution
- Government/Federal Sector
- Telecom
- Retail

## AIX and Power Value Prop.:

- High Availability
- Secure
- Scalable performance
  - 0.05 to 240 cores and 1920 HW threads
- Enterprise virtualization with live migration
- Long release lifecycles & binary compatibility

## ISVs and IBM SW Examples

- Cerner
- Intersystems
- Murex
- Dassault Systems
- Temenos
- Fiastra
- SWIFT
- FIS Fidelity
- Finicle
- Edgeverve
- Guidewire
- Freeman
- Pagasystems
- Cohesity
- JDA
- Progress DB
- Jack Henry
- Infor
- IBM WAS
- Storage Scale
- Storage Protect
- Cognos
- Aspera
- SPSS
- Maximo
- Sterling
- Oracle RPAS
- Oracle EBS

## Install Base

- 22 Industries
- 117 Countries
- 60+ Languages
- Diverse deployments
- IBM i PASE is AIX based

## Strategic Directions:

- Zero Planned Downtime
- Zero Tune Performance
- Zero Trust Security
- Zero Touch Automation
- Modernization

# IBM AIX

Industry leading **Innovations, Performance, Reliability, and Security** – battle tested by world’s leading enterprise class workloads and applications. We strive to achieve...

**Zero**   
Planned Downtime

Maximize Business  
Continuity & Cost Efficiency

- Minimal/No Operational Disruption
- Reduce IT Downtime
- Lower TCO

**Zero**   
Tune Performance

Workload Optimization with  
Out of the Box Performance

- Effortless Optimization
- Business Value unleashed Instantly
- Efficiency from Day One

**Zero**   
Trust Security

Guarding future of Enterprises  
with total protection

- Integrated & Advanced Security Capabilities
- Layered Security for Trust, Compliance, and Continuity
- Future-Ready Protection

**Zero**   
Touch Automation

Extreme automation for  
Administrative Efficiency

- Simplified Operations
- Lower Human Error, Smarter Resource Use
- Boost Productivity

# Modernization



## OPEN SOURCE

Community > Knowledge > Skills

- ✓ 500+ Open-Source Packages
  - Regular Package Updates
  - Security Updates
  - New Package Editions
  - Signed RPM Packages
- ✓ Automation
  - Package Building Automation
  - Security Patching Automation
- ✓ Community
  - Patch Contribution
  - CI Environments
  - OSU Labs for Access to AIX
- ✓ Forum
  - Response to queries within 24H

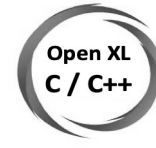
24H

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## Platform for AI/ML

- ✓ AI/ML Frameworks
  - PyTorch
  - ONNXRuntime
  - Scikit-learn
  - XGBoost
  - LightGBM
- ✓ Data Analysis/Visualization
  - NumPy
  - SciPy
  - Pandas
  - Matplotlib
  - Pillow
- ✓ Gen-AI Frameworks
  - Llama.cpp
  - ONNXRuntime-GenAI



## Compilers: C/C++ | RUST | Fortran

### IBM COMPILERS

- ✓ High Performance through
  - Optimization for Power 11
  - Advanced optimization techniques
  - Auto Vectorization
  - Profile Guided Optimization (PGO)
  - Link Time Optimization (LTO)
- ✓ IBM Open SDK for Rust on AIX
  - Cutting-edge support for Rust
  - Memory safety and concurrency on AIX
- ✓ IBM Open XL C/C++ for AIX
  - Supports modern C++ standards
  - Capable of building and optimizing widely used MMA-accelerated AI libraries - ONNX Runtime, FAISS, and OpenBLAS.
- ✓ IBM Open XL Fortran for AIX
  - Designed as a drop-in replacement for XL Fortran for AIX



## AIX Ansible Collection

Available in Ansible Galaxy and RedHat Automation Hub

- Module Categories (71)
  - Fix Management and NIM
  - Filesystem Management
  - Security
  - Inventory
  - Miscellaneous Management
- Roles (8)
- Example Playbooks (81)

# Why AIX

- [AIX in the Era of Scale](#)

- AIX isn't just maintaining pace. It is actively shaping how enterprises handle unprecedented data scale, core banking architectures, and massive transactional workloads.

- [Virtualization, Security, and Zero-Downtime Architecture](#)

- Virtualization Without Compromise: Maximizing hardware utilization through advanced PowerVM features and dynamic resource allocation without sacrificing performance lines.
- Hardened Security: Layered defence mechanisms, trusted execution, and strict compliance frameworks built right into the OS layer.
- Continuous Availability: Minimizing both planned and unplanned downtime through live kernel patching and robust infrastructure design.

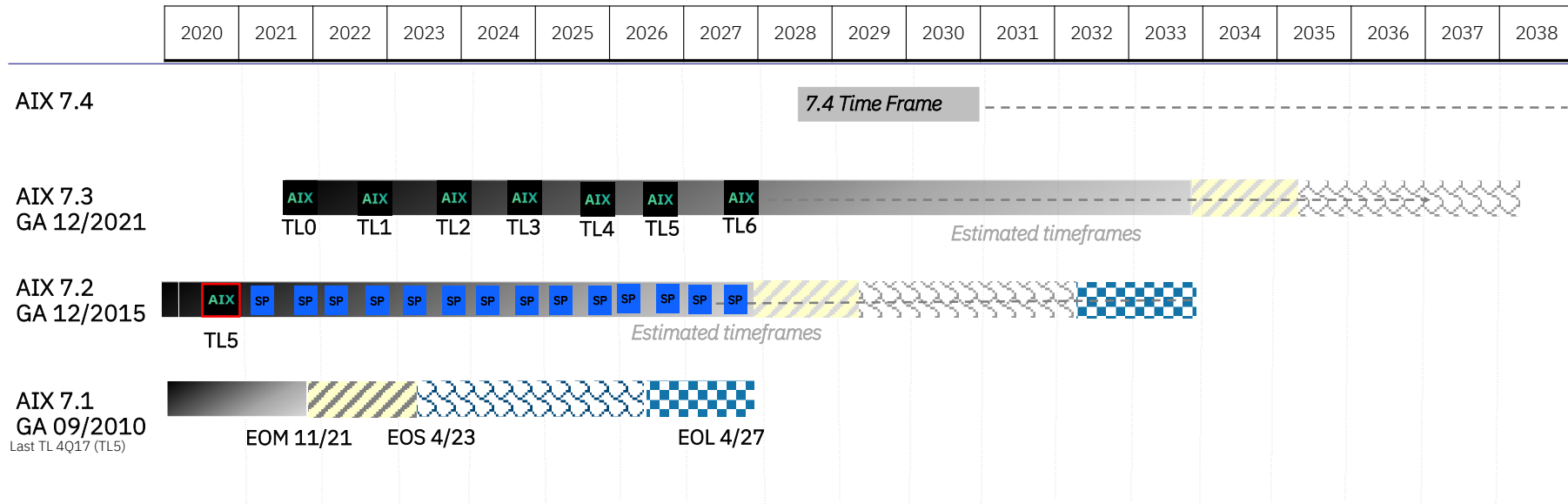
- [Extracting Every Cycle from Power Hardware](#)

- Cache and Memory Optimization: Designing software layers that respect hardware topology, minimizing cache-line contention, and mastering massive memory footprints.
- Scalability: Seamlessly handling massive thread counts and explosive I/O throughput required by modern enterprise databases.
- Hardware-Assisted Acceleration: Utilizing on-chip compression and cryptographic engines directly from the OS.







- [Embracing Hybrid Cloud and Next-Gen Ecosystems](#)

- Hybrid Cloud Integration: Same experience in PowerVS, On-prem cloud-like agility, automated provisioning with PowerVC.
- Open Source Coexistence: Ensuring robust compatibility with open-source tools, modern libraries, and development frameworks.
- Long-Term Support Commitments: Unmatched binary compatibility. Providing enterprises with a clear, predictable, and heavily backed multi-year strategy.

# AIX Release Streams



- All AIX releases run on Power10
- AIX 7.2 and 7.3 will support Power11
- Standard support for AIX Technology Levels is three years with the possibility of a special bid support extension
- See the IBM Support document for [Best Practices with AIX Maintenance](#)

 Marketed and serviced	 Technology Level (TL)	EOM = End of Market Availability
 Served only	 Last TL for a release	EOS = End of Standard Service
 Fee-based service extension	 Service Pack	EOL = End of Life

All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice and represent goals and objectives only.

**IBM**